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Atomic and Ionic Emission Lines Below 2000 Angstroms

Hydrogen Through Krypton

RAYMOND L. KELLY

Professor of Physics
Naval Postgraduate School
Monterey, California

with

LOUIS J. PALUMBO

Optical Sciences Division
Naval Research Laboratory
Washington, D.C.

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ABSTRACT

A critical tabulation of observed spectral lines below 2000 Angstroms has been prepared from the published literature up to May 1972. It is intended principally as an aid to those physicists and astronomers who deal with the spectra of highly stripped atoms. This report includes the first 36 elements, from hydrogen (including deuterium) through krypton. The tabulation is divided into two main sections: the emission lines by spectrum, and a finding list. The entries for each element give the ionization species, ground state term, and ionization potential, as well as the best values of vacuum wavelength, intensity, and classification. A list of the pertinent references is appended at the end.

Problem Status

This is a final report on one phase of the problem.

Authorization

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ATOMIC AND IONIC EMISSION LINES BELOW 2000 ANGSTROMS

Hydrogen Through Krypton

INTRODUCTION

This report is a critical tabulation of 34,700 spectral lines below 2000 angstroms prepared primarily from information in the literature published up to May 1972, and from a few publications after that date. It is intended as an aid to those researchers who deal with the spectra of highly stripped atoms. This report includes spectra of atoms and ions for the first 36 elements, from hydrogen (including deuterium) through krypton. It adds to, revises, and supersedes a previous report* which covered only the first 18 elements.

In most cases, only those lines which have been observed are listed in the tables. Notable exceptions are the lines of the hydrogenic atoms, for which few observations have been reported for elements beyond oxygen. Further, even in the case of some observed lines, the wavelengths given are those predicted from a comprehensive analysis of the spectrum rather than the measured values (Ar II is an example). Additional lines have been predicted by one of us (RLK) from unpublished extrapolations along isoelectronic sequences. Some unobserved weak lines in multiplets have also been included for completeness. Such predicted values of wavelength are marked by the symbol P following the wavelength.

ARRANGEMENT OF THE TABLES

The tabulation is divided into two main sections. Section I lists the lines by spectrum, and Section II is the finding list of all the lines listed in Section I, plus the K_α x-ray lines of the elements from carbon through krypton.

The entries in Section I are arranged by element (ordered by atomic number), with subdivision into the first spectrum, second spectrum, etc. Within each spectrum, the lines are arranged in order of increasing wavelength. This means that in a multiplet with several lines, those lines may not be listed consecutively.

Ground State and Ionization Potential

The ground configuration and ground-state term description are given for each stage of ionization, whether spectra below 2000 angstroms have been observed or not. The ionization potentials are listed in electron volts (eV) and in reciprocal centimeter (cm^{-1}) and have been obtained from Moore's* critical survey or from the comprehensive compilation by Kelly and Harrison.† The values which are based on extrapolation rather than observation are enclosed in square brackets. The conversion factor between eV and cm^{-1} is 0.000123981 eV = 1 cm^{-1}.

Wavelengths

The vacuum wavelengths are given as they are reported in the reference listed first for each line. Where more than one publication reports the wavelength of the same line, the decision as to which to retain was based primarily on the senior author's judgement of the best value. This judgement was based on consideration of the date of publication, on probable accuracy from the type of instrumentation used and the wavelength standards employed, on the spectroscopic source used, and on the comparison of the observations with the wavelengths predicted from the best known values of energy levels.

The accuracy of the wavelength varies with the date of observation (because of the wavelength standards) and also with the wavelength range covered, the type of source, etc. As a general guide, lines measured since 1960 and with wavelengths reported

*R. L. Kelly, "Atomic Emission Lines Below 2000 Angstroms: Hydrogen Through Argon," NRL Report 6648, Feb. 1968.

*C. E. Moore, Report NSRDS-NBS34. Nat. Bureau of Standards, Washington, D.C. 20234 (Sept. 1970).

†R. L. Kelly and D. E. Harrison, Atomic Data 3, 177-93 (1971).

to a tenth of a milliangstrom have an uncertainty less than 2 milliangstroms; all other lines reported since 1940 have uncertainties of two or three in the last figure given.

Wavelength standards recommended in 1962 by Commission 14 of the International Astronomical Union (reference H4) are indicated with the symbol ST following the wavelength. Those proposed by Minnhagen (Ref. M16) and Persson (Ref. P14), as well as others proposed in Si, Ge, and Ti, are marked st. The letter P following a wavelength means that that wavelength has been predicted. The vacuum wavenumber has been omitted since it can be obtained by a simple inversion of the vacuum wavelength.

Intensity

Only a single intensity is given for each line, selected where possible from the source in which the particular spectrum was reported as most prominent. The listed intensities have been normalized (by the senior author) to a maximum of 1000 for convenience in comparing the different references. The normalization procedure was usually a linear transformation of the intensities reported by the original authors, but logarithmic transformations have also been used. There continues to be a need for a single, consistently used intensity scale. The normalization to 1000 in this report was adopted as a compromise between the long-standing scale extending from 00 to 10 and some later publications with maximum intensities of 100,000, or even more.

As always, the comparison of intensities presents a most vexing problem, particularly when one reference overlaps another. In most publications, the intensities are visual estimates of emulsion blackening. These intensities are significant only over a limited range of wavelengths for a particular source operated in some particular way. For various reasons, intensities given by different observers are seldom compatible. The intensity figures, which must always be regarded as rather imprecise, have the following meaning: when two lines in a narrow wavelength region are reported with different intensities by the same observer, the one with the larger number is generally the more intense.

A few descriptive symbols are used, most of them being listed with the intensity value. The symbols have the following connotations:

- A Autoionizing; upper state above the ionization limit.
- b Blend of two or more lines
- d Diffuse
- f Forbidden by electric dipole selection rules
- *g* Ground term
- h Hazy
- P (following λ) Predicted wavelength
- r Reversed
- ST Standard Line (recommended)
- st Standard Line (proposed)
- w Wide

Multiplet Numbers

The multiplet numbers assigned by C. E. Moore (Refs. M18-M23) are given following the wavelength. Some lines missing from the multiplet tables are added, but overlapping lines with the same wavelength in a multiplet have not been listed twice.

Classification

The classifications of the transitions are given in the usual form, with the lower state listed first. They are divided into columns showing configuration, term, and J-value.

Configuration—The configurations are given in enough detail to be self-explanatory. In general, those parts of the configuration which are given represent electrons outside the next lower closed shell.

Term—The symbol *g* is used to denote the ground term. Otherwise, the term designation is given in a notation which follows that of Cowan and Andrew,* presented below in symbolic form for the two-electron case.

Type of Coupling	*Description*	*Notation*
LS	$[(\ell_1\ell_2)L,(s_1s_2)S]J$	$^{2S+1}L_J$
LK	$[\{(\ell_1\ell_2)L,s_1\}K,s_2]J$	$L[K]_J$
jK	$[\{(\ell_1s_1)j_1,\ell_2\}K,s_2]J$	$j_1[K]_J$
jj	$[(\ell_1s_1)j_1,(\ell_2s_2)j_2]J$	$(j_1,j_2)_J$

J-Value—The J-values are given in separate columns to avoid the use of subscripts.

Additionally, the various terms in complex spectra are frequently indicated by the use of lower case letters a,b,c..(for low-lying terms of even parity) or

*R. D. Cowan and K. L. Andrew, *J. Opt. Soc. Am.* **55**, 502-516 (1965).

z,y,x,...(for low-lying terms of odd parity). These symbols have been retained even though they have not been used consistently by the various authors, and they have significance only when referred to the complete set of energy levels given in the original reference.

In general, the primary references for notation and classification of the observed spectra are the fine publications of C. E. Moore (Refs. M18-M23), although much of "Atomic Energy Levels" (M22) is now out of date. In all cases, the wavelength of the transition was compared with that predicted from the known energy levels to verify the classification.* Questionable classifications are indicated by a question mark following the term description.

We have departed from older notation in not using primes, double primes, etc., to indicate those configurations which have, as parent terms, excited states of the next higher ion. Instead, the parent terms are given where they are known and where they are not immediately obvious.

References

References (appearing at the end of this report) are given with each spectral line to allow the reader to refer to the original publication. Where three references are given, the first reference is the one from which the wavelength was taken, the second relates to the intensity, while the third relates to the classification. Fewer than three references indicates either that the intensity or the classification is unknown or that the same reference was used for two or three of the above items (since reference numbers are not repeated in the reference column). In every case, the first reference refers to the wavelength.

The references are listed with a letter and a number, rather than the three-digit numbers used in the previous report. With this change, we hoped to make it easier for the user to locate a specific publication by knowing its author.

PREPARATION OF THE TABLES

The data were assembled from the literature and punched onto cards. Duplications were removed and disagreements were resolved by comparing the observed spectra with the spectra predicted from the atomic energy levels. The use of punched cards at this stage offers the advantages that an error on a card can be corrected without introducing new errors and that the cards can be read onto magnetic tape for convenience in handling and listing.

The information was set in print at the Government Printing Office on the Linotron, an automatic photocomposition machine which produces, directly from magnetic tapes, photographic negatives for making printing plates. The large number of page formats required to keep this volume fairly compact made it necessary to write a complex edit code which produced a tape to drive the Linotron directly as described by Scott.* The punched card information was copied onto magnetic tape from which, after sorting, it was run through a special computer editing code which wrote another tape (containing the original data plus editing information) which then served as the input for the Linotron. The writing and running of the edit code constituted the chief contribution to this report by the junior author.

*These lengthy calculations were all carried out at the Naval Postgraduate School. The "best" classification was determined by the agreement, in the judgement of the senior author, between observed and predicted wavelengths.

ACKNOWLEDGMENTS

Many spectroscopists have contributed preprints of their work for inclusion in these tables. It is a pleasure to thank L. Cohen, A. M. Crooker, A. K. Dupree, B. Edlén, B. C. Fawcett, V. Kaufman, A. G. Shenstone, R. Velasco, and M. D. Williams for their numerous contributions. It is a special privilege to acknowledge the continued support and encouragement of both Dr. R. C. Elton of the Naval Research Laboratory and Dr. G. Oertel of the National Aeronautics and Space Administration. This extended data compilation could not have been completed had it not been for the careful programming of Miss Sarah Jaite.

The senior author would also like to point out that the handsome appearance of this volume is the result of the very fine capability and thoroughness demonstrated by the junior author, Dr. Palumbo. The programming for the edit code was nontrivial, requiring continued cross checking and searches for internal consistency. Many minor errors were detected in these searches. If additional errors are found, particularly errors in judgement, they are the responsibility of the senior author and should be reported to him.

This report resulted from a joint undertaking of the Naval Postgraduate School and the Naval Research Laboratory, with supplementary financial support from the National Aeronautics and Space Administration.

*D. K. Scott, Circular No. 121, U.S. Naval Observatory, Washington, D.C. (1968).

IONIZATION POTENTIALS (eV), BOTH THEORETICAL AND EXPERIMENTAL, FOR Z = 1 TO Z = 36

SPECTRUM NUMBER

Element	Z	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
H	1	13.598												
He	2	24.587	54.416											
Li	3	5.392	75.638	122.451										
Be	4	9.322	18.211	153.893	217.713									
B	5	8.298	25.154	37.930	259.368	340.217								
C	6	11.260	24.383	47.887	64.492	392.077	489.983							
N	7	14.534	29.601	47.448	77.742	97.888	552.057	667.029						
O	8	13.618	35.116	54.934	77.412	113.896	138.116	739.315	871.390					
F	9	17.422	34.970	62.707	87.138	114.24	157.161	185.182	953.886	1103.09				
Ne	10	21.564	40.962	63.45	97.11	126.21	157.93	207.27	239.09	1195.797	1362.16			
Na	11	5.139	47.286	71.64	98.91	138.39	172.15	208.47	264.18	299.87	1465.091	1648.66		
Mg	12	7.646	15.035	80.143	109.24	141.26	186.50	224.94	265.90	327.95	367.53	1761.802	1962.61	
Aℓ	13	5.986	18.828	28.447	119.99	153.71	190.47	241.43	284.59	330.21	398.57	442.07	2085.983	2304.08
Si	14	8.151	16.345	33.492	45.141	166.77	205.05	246.52	303.17	351.10	401.43	476.06	523.50	2437.676
P	15	10.486	19.725	30.18	51.37	65.023	220.43	263.22	309.41	371.73	424.50	479.57	560.41	611.85
S	16	10.360	23.33	34.83	47.304	(72.74)	88.049	280.93	328.23	379.10	447.09	504.78	564.65	651.63
Cℓ	17	12.967	23.81	39.61	53.46	67.8	(96.98)	114.193	348.28	400.05	455.62	529.26	591.97	656.69
Ar	18	15.759	27.629	40.74	59.81	75.02	91.007	124.319	143.406	422.44	478.68	538.95	618.24	686.09
K	19	4.341	31.625	45.72	60.91	(82.66)	(99.89)	117.56	154.86	175.814	503.44	564.13	629.09	714.02
Ca	20	6.113	11.871	50.908	67.10	84.41	(108.78)	127.7	147.24	188.54	211.270	591.25	656.39	726.03
Sc	21	6.54	12.80	24.76	73.47	91.66	111.1	(137)	158.7	180.02	225.32	249.832	685.89	755.47
Ti	22	6.82	13.58	27.491	43.266	99.20	119.36	140.8	168.5	(193)	215.91	265.23	291.497	787.33
V	23	6.74	14.65	29.310	46.707	(65.23)	128.12	150.17	173.7	(204)	(230)	255.04	308.25	336.267
Cr	24	6.766	16.50	30.96	(49.1)	(71)	90.56	161.1	(184.2)	209.8	(242)	(270)	(297)	(354)
Mn	25	7.435	15.640	33.667	(53)	(73)	(97)	119.27	(196.2)	(221.4)	(248.5)	(283)	(313)	(342)
Fe	26	7.870	16.18	30.651	(56)	(77)	(101)	(126)	151.06	235.04	262.1	290.4	(328)	(360)
Co	27	7.86	17.06	33.50	(58)	(81)	(105)	(133)	(159)	186.13	276.7	305	(335)	(375)
Ni	28	7.635	18.168	36.17	(59)	(82)	(110)	(136)	(165)	(195)	224.5	321.2	(352)	(384)
Cu	29	7.726	20.292	36.83	55.18	(85)	(111)	(141)	(170)	(201)	(234)	266	(370)	(401)
Zn	30	9.394	17.964	39.722	(63)	(87)	(114)	(144)	(176)	(207)	(241)	(276)	(311)	(421)
Ga	31	5.999	20.51	30.71	64.2	(90)	(117)	(147)	(179)	(214)	(248)	(284)	(321)	(358)
Ge	32	7.899	15.934	34.22	45.71	93.5	(120)	(151)	(183)	(217)	(255)	(291)	(330)	(369)
As	33	9.81	18.633	28.351	50.13	62.63	127.6	(154)	(187)	(222)	(259)	(300)	(338)	(379)
Se	34	9.752	21.19	30.820	42.944	(68.3)	81.70	155.4	(191)	(227)	(264)	(304)	(347)	(388)
Br	35	11.814	21.8	35.9	(48)	(59.7)	(88.6)	(101)	192.8	(232)	(270)	(310)	(352)	(398)
Kr	36	13.999	24.359	36.95	(53)	(65)	(78.5)	(111.0)	(123)	230.9	(275)	(316)	(358)	(403)

RAYMOND L. KELLY AND DON E. HARRISON, ATOMIC DATA 3, 177-93 (1971)

Element	Z	XXVII	XXVIII	XXIX	XXX	XXXI	XXXII	XXXIII	XXXIV	XXXV	XXXVI
Co	27	[10011]									
Ni	28	[10288]	[10775]								
Cu	29	[2585]	[11062]	[11566]							
Zn	30	(2647)	[2780]	[11864]	[12387]						
Ga	31	(2668)	(2840)	[2982]	[12695]	[13238]					
Ge	32	(2723)	(2863)	(3041)	[3192]	[13556]	[14117]				
As	33	(2768)	(2920)	(3065)	(3248)	[3409]	[14445]	[15026]			
Se	34	(2798)	(2965)	(3123)	(3274)	(3463)	[3633]	[15365]	[15964]		
Br	35	(2855)	(2997)	(3170)	(3334)	(3490)	(3684)	[3865]	[16313]	[16933]	
Kr	36	[2953]	(3056)	(3203)	(3381)	(3551)	(3712)	(3912)	[4105]	[17292]	[17931]

Element	Z	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI
Si	14	2673.11												
P	15	2816.943	3069.76											
S	16	707.14	3323.836	3494.10										
Cℓ	17	749.74	809.39	3658.425	3946.19									
Ar	18	755.73	854.75	[918]	4120.788	4426.11								
K	19	787.13	861.77	(966)	[1034]	4610.955	4933.93							
Ca	20	816.61	895.12	(974)	(1085)	[1157]	5129.045	5469.74						
Sc	21	829.79	926.00	(1009)	(1094)	(1210)	[1288]	[5675]	[6033.6]					
Ti	22	861.33	940.36	(1042)	(1131)	(1220)	(1342)	[1425]	[6249]	[6625.6]				
V	23	895.58	974.02	(1058)	(1165)	(1259)	(1353)	(1482)	[1569]	[6851]	[7245.9]			
Cr	24	384.30	1010.64	(1093)	(1182)	(1295)	(1394)	(1493)	(1627)	[1720]	[7482]	[7984.5]		
Mn	25	(404)	435.3	1136.2	(1220)	(1313)	(1431)	(1536)	(1640)	(1780)	[1879]	[8141]	[8571.5]	
Fe	26	(391)	(456)	489.5	1266.1	(1353)	(1451)	(1575)	(1685)	(1794)	(1940)	[2045]	[8828]	[9277.2]
Co	27	(409)	(442)	(512)	546.8	1403.0	(1493)	(1596)	(1725)	(1841)	(1955)	(2106)	[2218]	[9544]
Ni	28	(426)	(461)	(496)	(570)	607.2	1546.9	(1639)	(1747)	(1882)	(2003)	(2123)	(2279)	[2398]
Cu	29	(435)	(479)	(517)	(554)	(632)	(671)	1697.9	(1793)	(1905)	(2045)	(2173)	(2298)	(2460)
Zn	30	(454)	(489)	(536)	(575)	(614)	(697)	[737.8]	1855.9	(1953)	(2070)	(2216)	(2350)	(2479)
Ga	31	(475)	(510)	(546)	(596)	(637)	(677)	(765)	[808]	[2020]	(2120)	(2242)	(2393)	(2533)
Ge	32	(409)	(533)	(568)	(607)	(658)	(701)	(744)	(836)	[881]	[2192]	(2294)	(2421)	(2577)
As	33	(421)	(462)	(594)	(630)	(670)	(724)	(769)	(813)	(910)	[953]	[2372]	(2474)	(2606)
Se	34	(431)	(475)	(519)	(657)	(695)	(736)	(793)	(839)	(886)	(987)	[1037]	[2558]	(2261)
Br	35	(441)	(486)	(533)	(579)	(724)	(762)	(806)	(864)	(913)	(961)	(1068)	[1120]	[2752]
Kr	36	(451)	(497)	(545)	(593)	(642)	(794)	(833)	(878)	(939)	(989)	(1039)	(1151)	[1206]

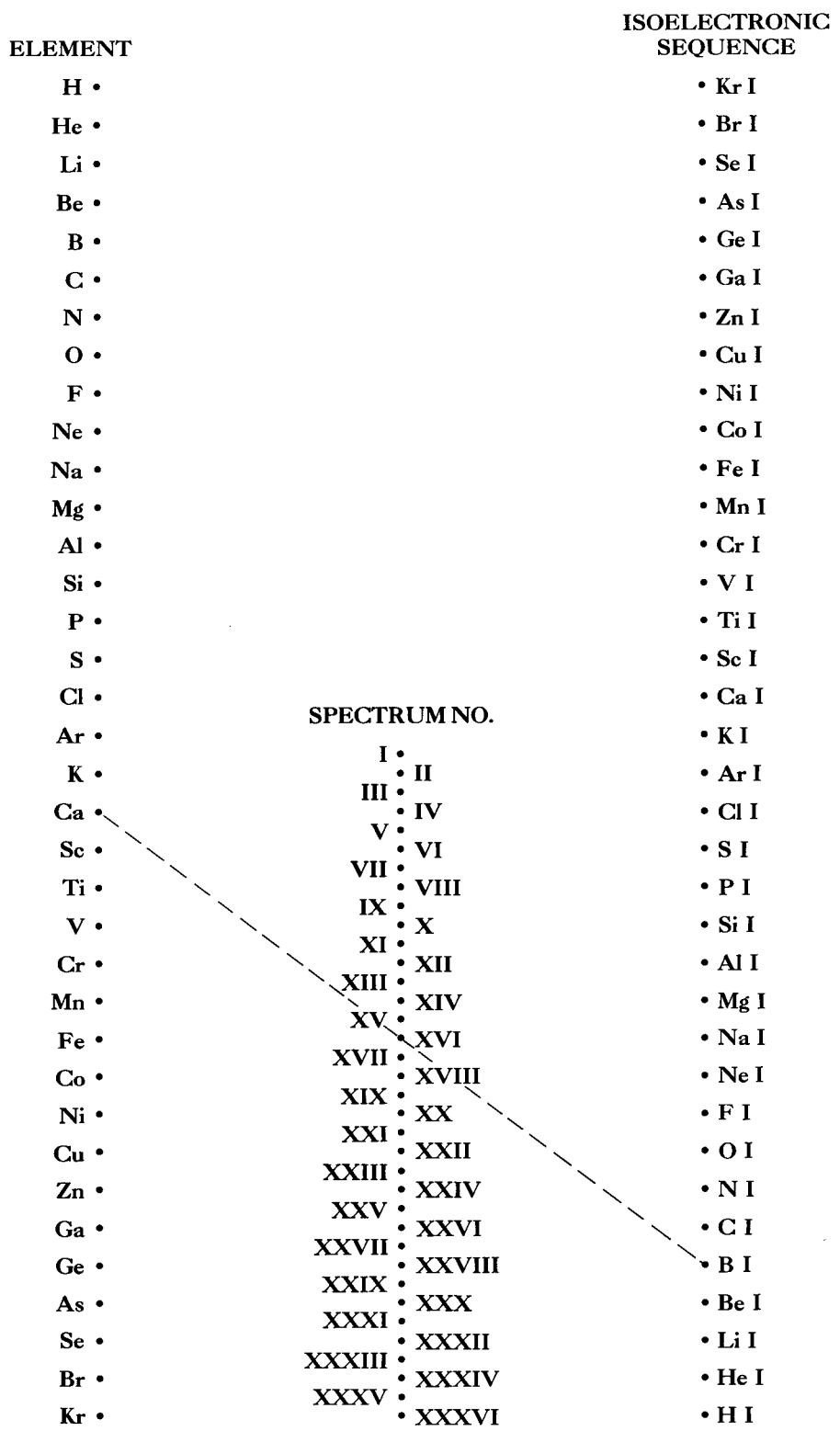
13.598 – OBSERVED
(13.598) – EXTRAPOLATION BASED ON HARTEE-FOCK CALCULATIONS
[13.598] – EXTRAPOLATION INCLUDING RELATIVISTIC CORRECTION

PERIODIC CHART OF THE ELEMENTS

I A	II A	III B	IV B	V B	VI B	VII B	VIII			I B	II B	III B	IV A	V A	VI A	VII A	INERT GASES
H 1																	He 2
Li 3	Be 4											B 5	C 6	N 7	O 8	F 9	Ne 10
Na 11	Mg 12											Al 13	Si 14	P 15	S 16	Cl 17	Ar 18
K 19	Ca 20	Sc 21	Ti 22	V 23	Cr 24	Mn 25	Fe 26	Co 27	Ni 28	Cu 29	Zn 30	Ga 31	Ge 32	As 33	Se 34	Br 35	Kr 36
Rb 37	Sr 38	Y 39	Zr 40	Nb 41	Mo 42	Tc 43	Ru 44	Rh 45	Pd 46	Ag 47	Cd 48	In 49	Sn 50	Sb 51	Te 52	I 53	Xe 54
Cs 55	Ba 56	La 57	Hf 72	Ta 73	W 74	Re 75	Os 76	Ir 77	Pt 78	Au 79	Hg 80	Tl 81	Pb 82	Bi 83	Po 84	At 85	Rn 86
Fr 87	Ra 88	Ac 89															

Lanthanum Series	Ce 58	Pr 59	Nd 60	Pm 61	Sm 62	Eu 63	Gd 64	Tb 65	Dy 66	Ho 67	Er 68	Tm 69	Yb 70	Lu 71

Actinium Series	Th 90	Pa 91	U 92	Np 93	Pu 94	Am 95	Cm 96	Bk 97	Cf 98



Nomograph for determining spectrum number in an isoelectronic sequence. The example indicated by the dashed line shows that Ca XVI is isoelectronic with B I.

SECTION I

Emission Lines by Spectrum

HYDROGEN I (H^{0+}), Z = 1

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 109 678.764 cm^{-1}; 13.598 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
H I	914.576	P	2	17	1s - 18p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	914.919	P	2	16	1s - 17p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	915.329	P	2	15	1s - 16p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	915.824	P	3	14	1s - 15p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	916.429	P	3	13	1s - 14p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	917.181	P	4	12	1s - 13p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	918.129	P	5	11	1s - 12p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	919.351	P	7	10	1s - 11p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	920.963	P	9	9	1s - 10p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	923.150	P	10	8	1s - 9p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	926.226	P	20	7	1s - 8p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	930.748	P	30	6	1s - 7p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	937.803	P	40	5	1s - 6p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	949.743	P	70	4	1s - 5p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	972.537	P	130	3	1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	1025.722	P	300	2	1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	1215.668	P	670	1	1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,M23
H I	1215.674	P	330	1	1s - 2p	g^2S - $^2P°$	½ - ½	G2,M23

DEUTERIUM I (D^{0+}), Z = 1

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 109 708.608 cm^{-1}; 13.602 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
D I	925.974 P		7	1s - 8p	g^2S - $^2P°$	½ - 3/2	G2
D I	930.495 P		6	1s - 7p	g^2S - $^2P°$	½ - 3/2	G2
D I	937.548 P	40	5	1s - 6p	g^2S - $^2P°$	½ - 3/2	G2,K8
D I	949.485 P	70	4	1s - 5p	g^2S - $^2P°$	½ - 3/2	G2,K8
D I	972.272 P	140	3	1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
D I	1025.443 P	320	2	1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
D I	1215.339 P	1000	1	1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8

HELIUM I (He^{0+}), Z = 2

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 198 310.76 cm^{-1}; 24.587 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
He I	320.392	20 -A		$1s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	M4
He I	505.5001	4		$1s^2 - 1s15p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	505.6840	6		$1s^2 - 1s14p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	505.9122	8		$1s^2 - 1s13p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	506.2000	10		$1s^2 - 1s12p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	506.5702	15		$1s^2 - 1s11p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	507.0576	20	10	$1s^2 - 1s10p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	507.7178	30	9	$1s^2 - 1s9p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	508.6431	40	8	$1s^2 - 1s8p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	509.9979	50	7	$1s^2 - 1s7p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	510.2586	f		$1s^2 - 1s7s$	$g^1S - ^1S$	0 - 0	M4
He I	512.0982	70	6	$1s^2 - 1s6p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	512.5183	f		$1s^2 - 1s6s$	$g^1S - ^1S$	0 - 0	M4
He I	515.6165	100	5	$1s^2 - 1s5p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	516.3592	f		$1s^2 - 1s5s$	$g^1S - ^1S$	0 - 0	M4
He I	522.2128	160	4	$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	523.7238	f		$1s^2 - 1s4s$	$g^1S - ^1S$	0 - 0	M4
He I	537.0296	400	3	$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	537.3309	f		$1s^2 - 1s3d$	$g^1S - ^1D$	0 - 2	M4
He I	538.8956			$1s^2 - 1s3p$	$g^1S - ^3P^\circ$	0 - 1	M4
He I	540.9354	f		$1s^2 - 1s3s$	$g^1S - ^1S$	0 - 0	M4
He I	584.3340	1000	2	$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	M4
He I	591.4117	40	1	$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	M4
He I	601.4041	f		$1s^2 - 1s2s$	$g^1S - ^1S$	0 - 0	M4
He I	625.6	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8

HELIUM II (He^{1+}), Z = 2

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 438 908.854 cm^{-1}; 54.416 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
He II	229.431 P	5	11	1s - 12p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	229.736 P	6	10	1s - 11p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	230.139 P	9	9	1s - 10p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	230.686 P	12	8	1s - 9p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	231.454 P	17	7	1s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	232.584 P	24	6	1s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	234.347 P	40	5	1s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	237.331 P	70	4	1s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	243.027 P	130	3	1s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	256.317 P	320	2	1s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	303.781	665	1	1s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	G2,M23
He II	303.786	335	1	1s - 2p	$g^2S - ^2P^\circ$	½ - ½	G2,M23
He II	949.301 P	9	19	2p - 10d	$^2P^\circ - ^2D$	½ - 3/2	G2,M23
He II	949.354 P	17	19	2p - 10d	$^2P^\circ - ^2D$	3/2 - 5/2	G2,M23
He II	958.670 P	13	18	2p - 9d	$^2P^\circ - ^2D$	½ - 3/2	G2,M23
He II	958.724 P	22	18	2p - 9d	$^2P^\circ - ^2D$	3/2 - 5/2	G2,M23
He II	972.083 P	18	17	2p - 8d	$^2P^\circ - ^2D$	½ - 3/2	G2,M23
He II	972.138 P	32	17	2p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	G2,M23
He II	992.334 P	27	16	2p - 7d	$^2P^\circ - ^2D$	½ - 3/2	G2,M23
He II	992.391 P	48	16	2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	G2,M23

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
He II	1025.241 P	42	15	2p - 6d	$^2P^\circ$ - ^2D	1/2 - 3/2	G2,M23
He II	1025.302 P	77	15	2p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	G2,M23
He II	1084.908 P	73	14	2p - 5d	$^2P^\circ$ - ^2D	1/2 - 3/2	G2,M23
He II	1084.975 P	132	14	2p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	G2,M23
He II	1215.088 P	143	13	2p - 4d	$^2P^\circ$ - ^2D	1/2 - 3/2	G2,M23
He II	1215.171 P	260	13	2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	G2,M23
He II	1215.175 P	30	13	2p - 4d	$^2P^\circ$ - ^2D	3/2 - 3/2	G2,M23
He II	1640.332 P	333	12	2p - 3d	$^2P^\circ$ - ^2D	1/2 - 3/2	G2,M23
He II	1640.474 P	600	12	2p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	G2,M23
He II	1640.490 P	70	12	2p - 3d	$^2P^\circ$ - ^2D	3/2 - 3/2	G2,M23

LITHIUM I (Li^{0+}), Z = 3

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 43 487.150 cm^{-1}; 5.392 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Li I	1425.11	-A		1s2s2p - 1s2p5p	$^4P^\circ$ - ^4P		K8
Li I	1491.87	-A		1s2s2p - 1s2p4p	$^4P^\circ$ - ^4P		K8
Li I	1674.76	-A		1s2s2p - 1s2p3p	$^4P^\circ$ - ^4P		K8
Li I	1901.50	-A		1s2s2p - 1s2s6s	$^4P^\circ$ - ^4S		K8
Li I	1980.59	-A		1s2s2p - 1s2s5s	$^4P^\circ$ - ^4S		K8

LITHIUM II (Li^{1+}), Z = 3

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 610 079.0 cm^{-1}; 75.638 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Li II	171.582	100	3	$1s^2$ - 1s4p	g^1S - $^1P^\circ$	0 - 1	E3,M23
Li II	178.015	100	2	$1s^2$ - 1s3p	g^1S - $^1P^\circ$	0 - 1	E3,M23
Li II	199.282	300	1	$1s^2$ - 1s2p	g^1S - $^1P^\circ$	0 - 1	E3,M23
Li II	210.1	f		$1s^2$ - 1s2s	g^1S - ^3S	0 - 1	K8
Li II	944.73	5		1s2s - 1s4p	^3S - $^3P^\circ$	1 - 2	P5
Li II	1017.88	5		1s2p - 1s5d	$^3P^\circ$ - ^3D	2 - 3	P5
Li II	1131.884	15		1s2p - 1s4d	$^3P^\circ$ - ^3D	2 - 3	P5
Li II	1166.63	5		1s2p - 1s4s	$^3P^\circ$ - ^3S	2 - 1	P5
Li II	1198.082	700		1s2s - 1s3p	^3S - $^3P^\circ$	1 - 2	P5
Li II	1237.287	10		1s2p - 1s4d	$^1P^\circ$ - ^1D	1 - 2	P5
Li II	1253.324	5		1s2p - 1s4s	$^1P^\circ$ - ^1S	1 - 0	P5
Li II	1420.891	60		1s2s - 1s3p	^1S - $^1P^\circ$	0 - 1	P5
Li II	1492.931	60		1s2p - 1s3d	$^3P^\circ$ - ^3D	1 - 2	H5
Li II	1492.973	100		1s2p - 1s3d	$^3P^\circ$ - ^3D	2 - 3	H5
Li II	1493.036	20		1s2p - 1s3d	$^3P^\circ$ - ^3D	0 - 1	H5
Li II	1653.076	60		1s2p - 1s3s	$^3P^\circ$ - ^3S	1 - 1	H5
Li II	1653.132	100		1s2p - 1s3s	$^3P^\circ$ - ^3S	2 - 1	H5
Li II	1653.212	20		1s2p - 1s3s	$^3P^\circ$ - ^3S	0 - 1	H5
Li II	1681.667	400		1s2p - 1s3d	$^1P^\circ$ - ^1D	1 - 2	P5
Li II	1755.331	100		1s2p - 1s3s	$^1P^\circ$ - ^1S	1 - 0	H5,W2

LITHIUM III (Li^{2+}), Z = 3

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 987 660.945 cm^{-1}; 122.451 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Li III	102.856 P			1s - 8p	g^2S - $^2P^\circ$	½ - 3/2	G2
Li III	103.359 P			1s - 7p	g^2S - $^2P^\circ$	½ - 3/2	G2
Li III	104.142 P			1s - 6p	g^2S - $^2P^\circ$	½ - 3/2	G2
Li III	105.468 P			1s - 5p	g^2S - $^2P^\circ$	½ - 3/2	G2
Li III	107.999 P	10		1s - 4p	g^2S - $^2P^\circ$	½ - 3/2	G2,K8

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Li III	113.905	P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
Li III	134.998	P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
Li III	441.00	P			2 - 7			G2
Li III	455.63	P			2 - 6			G2
Li III	482.14	P			2 - 5			G2
Li III	540.00	P			2 - 4			G2
Li III	728.98	P			2 - 3			G2
Li III	1060.41	P			3 - 8			G2
Li III	1116.33	P			3 - 7			G2
Li III	1215.05	P			3 - 6			G2
Li III	1423.88	P			3 - 5			G2

BERYLLIUM I (Be^{0+}), Z = 4

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 75 192.07 cm^{-1}; 9.322 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Be I	1426.117	125		$2s^2$ - 2s5p	g^1S - $^1P°$	0 - 1	J3
Be I	1491.765	250		$2s^2$ - 2s4p	g^1S - $^1P°$	0 - 1	J3
Be I	1661.478	1000		$2s^2$ - 2s3p	g^1S - $^1P°$	0 - 1	J3
Be I	1907.16	100		2s2p - 2s12d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1912.53	100		2s2p - 2s11d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1919.80	200		2s2p - 2s10d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1929.71	300		2s2p - 2s9d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1943.72	500		2s2p - 2s8d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1956.67	100		2s2p - 2s8s	$^3P°$ - ^3S	2 - 1	J3,P7
Be I	1964.63	900		2s2p - 2s7d	$^3P°$ - ^3D	2 - 3	J3,P7
Be I	1985.17	300		2s2p - 2s7s	$^3P°$ - ^3S	2 - 1	J3,P7
Be I	1997.95	100		2s2p - 2s6d	$^3P°$ - ^3D	0 - 1	J3,P7
Be I	1997.98	300		2s2p - 2s6d	$^3P°$ - ^3D	1 - 2	J3,P7
Be I	1998.07	600		2s2p - 2s6d	$^3P°$ - ^3D	2 - 3	J3,P7

BERYLLIUM II (Be^{1+}), Z = 4

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 146 882.86 cm^{-1}; 18.211 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Be II	725.71	100		2s - 7p	g^2S - $^2P°$	½ - 3/2	P7
Be II	743.58	300		2s - 6p	g^2S - $^2P°$	½ - 3/2	P7
Be II	775.362	400		2s - 5p	g^2S - $^2P°$	½ - 3/2	J2,P7
Be II	842.025	500	2	2s - 4p	g^2S - $^2P°$	½ - 3/2	J2,P7
Be II	842.031	250	2	2s - 4p	g^2S - $^2P°$	½ - ½	J2,P7
Be II	925.20	100		2p - 8d	$^2P°$ - ^2D	3/2 - 5/2	P7
Be II	943.481	30		2p - 7d	$^2P°$ - ^2D	½ - 3/2	J2,P7
Be II	943.540	70		2p - 7d	$^2P°$ - ^2D	3/2 - 5/2	J2,P7
Be II	949.75	100		2p - 7s	$^2P°$ - ^2S	3/2 - ½	P7
Be II	973.213	150		2p - 6d	$^2P°$ - ^2D	½ - 3/2	J2,P7
Be II	973.276	350		2p - 6d	$^2P°$ - ^2D	3/2 - 5/2	J2,P7
Be II	983.984	50		2p - 6s	$^2P°$ - ^2S	½ - ½	J2,P7
Be II	984.048	150		2p - 6s	$^2P°$ - ^2S	3/2 - ½	J2,P7
Be II	1026.890	200		2p - 5d	$^2P°$ - ^2D	½ - 3/2	J2,P7
Be II	1026.959	400		2p - 5d	$^2P°$ - ^2D	3/2 - 5/2	J2,P7
Be II	1036.299	550	1	2s - 3p	g^2S - $^2P°$	½ - 3/2	J2,P7
Be II	1036.319	250	1	2s - 3p	g^2S - $^2P°$	½ - ½	J2,P7
Be II	1048.147	200		2p - 5s	$^2P°$ - ^2S	½ - ½	J2,P7
Be II	1048.220	400		2p - 5s	$^2P°$ - ^2S	3/2 - ½	J2,P7
Be II	1142.956	250		2p - 4d	$^2P°$ - ^2D	½ - 3/2	J2,P7
Be II	1143.039	500		2p - 4d	$^2P°$ - ^2D	3/2 - 5/2	J2,P7
Be II	1197.094	330	5	2p - 4s	$^2P°$ - ^2S	½ - ½	J2,P7
Be II	1197.188	670	5	2p - 4s	$^2P°$ - ^2S	3/2 - ½	J2,P7
Be II	1512.269	555	4	2p - 3d	$^2P°$ - ^2D	½ - 3/2	J2,P7
Be II	1512.407	1000	4	2p - 3d	$^2P°$ - ^2D	3/2 - 5/2	J2,P7
Be II	1512.419	110	4	2p - 3d	$^2P°$ - ^2D	3/2 - 3/2	J2,P7
Be II	1776.100	500	3	2p - 3s	$^2P°$ - ^2S	½ - ½	J2,P7
Be II	1776.307	1000	3	2p - 3s	$^2P°$ - ^2S	3/2 - ½	J2,P7

BERYLLIUM III (Be^{2+}), Z = 4

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 1 241 259.4 cm^{-1}; 153.893 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Be III	81.89			$1s^2 - 1s7p$	$g\,^1S - ^1P^\circ$	0 - 1	R18
Be III	82.38			$1s^2 - 1s6p$	$g\,^1S - ^1P^\circ$	0 - 1	R18
Be III	83.20			$1s^2 - 1s5p$	$g\,^1S - ^1P^\circ$	0 - 1	R18
Be III	84.758	100		$1s^2 - 1s4p$	$g\,^1S - ^1P^\circ$	0 - 1	E6,R18
Be III	88.314	330		$1s^2 - 1s3p$	$g\,^1S - ^1P^\circ$	0 - 1	E6,R18
Be III	100.2552	1000		$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	S26,E6,R18
Be III	101.7 P			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Be III	104.5	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

BERYLLIUM IV (Be^{3+}), Z = 4

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 1 756 018.68 cm^{-1}; 217.713 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Be IV	58.574 P			1s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Be IV	59.320 P			1s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Be IV	60.743 P	10		1s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,T13
Be IV	64.065 P	30		1s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,T13
Be IV	75.928 P	100		1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,T13
Be IV	248.04 P			2 - 7			G2
Be IV	256.27 P			2 - 6			G2
Be IV	271.18 P			2 - 5			G2
Be IV	303.72 P			2 - 4			G2
Be IV	410.01 P			2 - 3			G2
Be IV	596.44 P			3 - 8			G2
Be IV	627.90 P			3 - 7			G2
Be IV	683.42 P			3 - 6			G2
Be IV	800.88 P			3 - 5			G2
Be IV	1171.56 P			3 - 4			G2

BORON I (B^{0+}), Z = 5

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 66 928.10 cm^{-1}; 8.298 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B I	1378.646	10 -A		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2P$	½ - 3/2	G20
B I	1378.868	20 -A		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2P$	½ - ½	G20
B I	1378.932	40 -A		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	G20
B I	1379.157	10 -A		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2P$	3/2 - ½	G20
B I	1465.548	30 -A		$2s 2p^2 - 2p^3$	$^4P - ^4S^\circ$	½ - 3/2	G20
B I	1465.709	40 -A		$2s 2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	G20
B I	1465.837	20 -A		$2s 2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	G20
B I	1525.48	1		2p - 9s	$g\,^2P^\circ - ^2S$	½ - ½	C6
B I	1525.84	1		2p - 9s	$g\,^2P^\circ - ^2S$	3/2 - ½	C6
B I	1533.86	1d		2p - 8d	$g\,^2P^\circ - ^2D$	½ - 3/2	C6
B I	1534.22	1d		2p - 8d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C6
B I	1546.550	20		2p - 7d	$g\,^2P^\circ - ^2D$	½ - 3/2	G20
B I	1546.800	30		2p - 7d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G20
B I	1558.70	5		2p - 7s	$g\,^2P^\circ - ^2S$	½ - ½	C6
B I	1559.07	10		2p - 7s	$g\,^2P^\circ - ^2S$	3/2 - ½	C6
B I	1566.292	10		2p - 6d	$g\,^2P^\circ - ^2D$	½ - 3/2	G20
B I	1566.675	20		2p - 6d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G20
B I	1573.301	30		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2S$	½ - ½	G20
B I	1573.678	50		$2s^2 2p - 2s 2p^2$	$g\,^2P^\circ - ^2S$	3/2 - ½	G20
B I	1600.455	70		2p - 5d	$g\,^2P^\circ - ^2D$	½ - 3/2	G20
B I	1600.727	120		2p - 5d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G20
B I	1610.36	1		2p - 6s	$g\,^2P^\circ - ^2S$	½ - ½	C6
B I	1610.75	1		2p - 6s	$g\,^2P^\circ - ^2S$	3/2 - ½	C6
B I	1662.605	50		2p - 5s	$g\,^2P^\circ - ^2S$	½ - ½	G20
B I	1663.035	100		2p - 5s	$g\,^2P^\circ - ^2S$	3/2 - ½	G20
B I	1666.869	150		2p - 4d	$g\,^2P^\circ - ^2D$	½ - 3/2	G20
B I	1667.291	200		2p - 4d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G20
B I	1817.858	150		2p - 4s	$g\,^2P^\circ - ^2S$	½ - ½	G20
B I	1818.373	200		2p - 4s	$g\,^2P^\circ - ^2S$	3/2 - ½	G20
B I	1825.911	300		2p - 3d	$g\,^2P^\circ - ^2D$	½ - 3/2	G20
B I	1826.413	300		2p - 3d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G20

BORON II (B^{1+}), Z = 5

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 202 887.4 cm^{-1}; 25.154 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B II	631.8			2s 2p - 2p 3p	$^3P^\circ - ^3P$	2 - 2	O2
B II	641.5			2s 2p - 2p 3p	$^3P^\circ - ^3S$	2 - 1	O2
B II	652.0			2s 2p - 2p 3p	$^3P^\circ - ^3D$	2 - 3	O2
B II	693.947	200	2	$2s^2 - 2s 3p$	$g\,^1S - ^1P^\circ$	0 - 1	O2
B II	731.357	100		2s 2p - 2s 4d	$^3P^\circ - ^3D$	1 - 2	E3
B II	731.442	100		2s 2p - 2s 4d	$^3P^\circ - ^3D$	2 - 3	E3
B II	770.8	-A		2s 2p - 2p 3p	$^1P^\circ - ^1S$	1 - 0	O2
B II	808.7			2s 2p - 2p 3p	$^1P^\circ - ^1D$	1 - 2	O2
B II	864.08	10		2s 2p - 2p 3p	$^1P^\circ - ^1P$	1 - 1	E3
B II	882.543	300		2s 2p - 2s 3d	$^3P^\circ - ^3D$	1 - 2	O2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B II	882.681	300		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	O2
B II	978.938	10		2s2p - 2s4d	$^1P^\circ - ^1D$	1 - 2	O2
B II	984.673	100		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	O2
B II	1048.70	1		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	O2
B II	1081.875	300		2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	O2
B II	1082.073	300		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	O2
B II	1208.36	1		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 2	O2
B II	1208.546	40		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	O2
B II	1208.825	10		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 1	O2
B II	1230.160	300		2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	O2
B II	1362.461	600	1	$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	O2
B II	1378.18	1		$2p^2$ - 2s4f	$^1D - ^1F^\circ$	2 - 3	O2
B II	1607.76	10		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	O2
B II	1623.582	450	3	2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	O2
B II	1623.771	300	3	2s2p - $2p^2$	$^3P^\circ - ^3P$	0 - 1	O2
B II	1624.018	600	3	2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 2	O2
B II	1624.16	400	3	2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 0	E3
B II	1624.340	450	3	2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 1	O2
B II	1842.811	300		2s2p - $2p^2$	$^1P^\circ - ^1S$	1 - 0	O2
B II	1926.65	10		2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 2	O2
B II	1927.45	1		2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 1	O2
B II	1927.78	1		2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 0	O2
B II	1937.2			2s3p - 2p3p	$^3P^\circ - ^3P$	2 - 2	O2

BORON III (B^{2+}), Z = 5

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 305 931.1 cm^{-1}; 37.930 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B III	376.330	100		2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	O1
B III	411.804	300		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	O1
B III	434.561			2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	O1
B III	434.625	100		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	O1
B III	458.646			2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	O1
B III	458.716	100		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	O1
B III	510.768	200		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	O1
B III	510.854	300		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	O1
B III	518.238	450		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	O1
B III	518.265	250		2s - 3p	$g^2S - ^2P^\circ$	½ - ½	O1
B III	528.245	10		2p - 4s	$^2P^\circ - ^2S$	3/2 - ½	O1
B III	677.000	500		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	O1
B III	677.143	600		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	O1
B III	758.476	100		2p - 3s	$^2P^\circ - ^2S$	½ - ½	O1
B III	758.668	200		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	O1
B III	1421.41	1		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	O1
B III	1596.66	1		3s - 4p	$^2S - ^2P^\circ$	½ - 3/2	O1
B III	1953.495	10		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	O1
B III	1953.827	40		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	O1

BORON IV (B^{3+}), Z = 5

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 2 092 001.4 cm^{-1}; 259.368 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B IV	48.939			$1s^2$ - 1s6p	g^1S - $^1P°$	0 - 1	T12
B IV	49.4549			$1s^2$ - 1s5p	g^1S - $^1P°$	0 - 1	S26,T12
B IV	50.4347	100		$1s^2$ - 1s4p	g^1S - $^1P°$	0 - 1	S26,E6,T12
B IV	52.6853	330		$1s^2$ - 1s3p	g^1S - $^1P°$	0 - 1	S26,E6,T12
B IV	60.3144	1000		$1s^2$ - 1s2p	g^1S - $^1P°$	0 - 1	S26,E6,T12
B IV	61.088			$1s^2$ - 1s2p	g^1S - $^3P°$	0 - 1	T12
B IV	62.44	f		$1s^2$ - 1s2s	g^1S - ^3S	0 - 1	K8

BORON V (B^{4+}), Z = 5

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 2 744 107.7 cm^{-1}; 340.217 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
B V	37.483 P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
B V	37.960 P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
B V	38.871 P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
B V	40.996 P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
B V	48.587 P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
B V	158.73 P			2 - 7			G2
B V	163.99 P			2 - 6			G2
B V	173.54 P			2 - 5			G2
B V	194.36 P			2 - 4			G2
B V	262.37 P			2 - 3			G2
B V	381.70 P			3 - 8			G2
B V	401.83 P			3 - 7			G2
B V	437.36 P			3 - 6			G2
B V	512.53 P			3 - 5			G2
B V	726.73 P			4 - 9			G2
B V	749.74 P			3 - 4			G2
B V	777.57 P			4 - 8			G2
B V	865.93 P			4 - 7			G2
B V	1049.72 P			4 - 6			G2
B V	1214.99 P			5 - 10			G2
B V	1318.05 P			5 - 9			G2
B V	1495.38 P			5 - 8			G2
B V	1619.92 P			4 - 5			G2
B V	1860.56 P			5 - 7			G2

CARBON I (C^{0+}), Z = 6

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 90 820.42 cm^{-1}; 11.260 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C I	945.191	20 -A	31	$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S°$	0 - 1	J4,E3
C I	945.338	50 -A	31	$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S°$	1 - 1	J4,E3
C I	945.579	75 -A	31	$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S°$	2 - 1	J4,E3
C I	1112.058	10	30.01	$2p^2 - 2p 11d$	$g^3P - {}^3D°$	2 - 3	J4,E3
C I	1114.457	50	30	$2p^2 - 2p 10d$	$g^3P - {}^3D°$	2 - 3	J4,E3
C I	1117.581	20		$2p^2 - 2p 9d$	$g^3P - {}^3P°$	2 - 2	J4,J6
C I	1117.724	50	29	$2p^2 - 2p 9d$	$g^3P - {}^3D°$	2 - 3	J4,J6
C I	1118.180	50		$2p^2 - 2p 9d$	$g^3P - {}^3F°$	1 - 2	J4,E3
C I	1122.098	20	28	$2p^2 - 2p 8d$	$g^3P - {}^3P°$	2 - 2	J4,E3
C I	1122.260	50	27.01	$2p^2 - 2p 9s$	$g^3P - {}^1P°$	2 - 1	J4,J6
C I	1122.328	100	27	$2p^2 - 2p 8d$	$g^3P - {}^3D°$	2 - 3	J4,J6
C I	1122.447	20	27	$2p^2 - 2p 8d$	$g^3P - {}^3D°$	0 - 1	J4,J6
C I	1122.725	50	26.03	$2p^2 - 2p 9s$	$g^3P - {}^3P°$	1 - 1	J4,J6
C I	1122.794	20		$2p^2 - 2p 8d$	$g^3P - {}^3F°$	1 - 2	J4,E3
C I	1123.107	20		$2p^2 - 2p 8d$	$g^3P - {}^3F°$	2 - 3	J4,J6
C I	1128.252	50	26	$2p^2 - 2p 7d$	$g^3P - {}^3P°$	1 - 0	J4,J6
C I	1128.686	20	25.01	$2p^2 - 2p 8s$	$g^3P - {}^1P°$	1 - 1	J4,J6
C I	1128.752	100	26	$2p^2 - 2p 7d$	$g^3P - {}^3P°$	2 - 2	J4,J6
C I	1128.817 P		25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	1 - 2	J4
C I	1128.903	20	25.02	$2p^2 - 2p 7d$	$g^3P - {}^1F°$	2 - 3	J4,J6
C I	1129.030	100	25.01	$2p^2 - 2p 8s$	$g^3P - {}^1P°$	2 - 1	J4,J6
C I	1129.135	200	25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	2 - 3	J4,J6
C I	1129.161 P		25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	2 - 2	J4
C I	1129.196 P		25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	0 - 1	J4
C I	1129.405	20	25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	1 - 1	J4,J6
C I	1129.624	50	24	$2p^2 - 2p 7d$	$g^3P - {}^3F°$	1 - 2	J4,J6
C I	1129.749	20	25	$2p^2 - 2p 7d$	$g^3P - {}^3D°$	2 - 1	J4,J6
C I	1129.924	50	24	$2p^2 - 2p 7d$	$g^3P - {}^3F°$	2 - 3	J4,J6
C I	1130.171	20	23.01	$2p^2 - 2p 7d$	$g^3P - {}^1D°$	1 - 2	J4,J6
C I	1138.383	20	23	$2p^2 - 2p 6d$	$g^3P - {}^3P°$	0 - 1	J4,J6
C I	1138.557	30	23	$2p^2 - 2p 6d$	$g^3P - {}^3P°$	1 - 0	J4,J6
C I	1138.595	20	23	$2p^2 - 2p 6d$	$g^3P - {}^3P°$	1 - 1	J4,J6
C I	1138.946	50	23	$2p^2 - 2p 6d$	$g^3P - {}^3P°$	2 - 1	J4,J6
C I	1139.093	100	23	$2p^2 - 2p 6d$	$g^3P - {}^3P°$	2 - 2	J4,J6
C I	1139.300	20	22.01	$2p^2 - 2p 7s$	$g^3P - {}^1P°$	1 - 1	J4,J6
C I	1139.426	50	22.02	$2p^2 - 2p 6d$	$g^3P - {}^1F°$	2 - 3	J4,J6
C I	1139.514	20	22	$2p^2 - 2p 6d$	$g^3P - {}^3D°$	1 - 2	J4,J6
C I	1139.650	20	22.01	$2p^2 - 2p 7s$	$g^3P - {}^1P°$	2 - 1	J4,J6
C I	1139.766	70	21.01	$2p^2 - 2p 7s$	$g^3P - {}^3P°$	1 - 2	J4,J6
C I	1139.792	70	22	$2p^2 - 2p 6d$	$g^3P - {}^3D°$	0 - 1	J4,J6
C I	1139.812	150	22	$2p^2 - 2p 6d$	$g^3P - {}^3D°$	2 - 3	J4,J6
C I	1139.865	50	22	$2p^2 - 2p 6d$	$g^3P - {}^3D°$	2 - 2	J4,J6
C I	1140.005	50	22	$2p^2 - 2p 6d$	$g^3P - {}^3D°$	1 - 1	J4,J6
C I	1140.223	20	21.01	$2p^2 - 2p 7s$	$g^3P - {}^3P°$	1 - 1	J4,J6
C I	1140.357	100	21	$2p^2 - 2p 6d$	$g^3P - {}^3F°$	1 - 2	J4,J6
C I	1140.574	20	21.01	$2p^2 - 2p 7s$	$g^3P - {}^3P°$	2 - 1	J4,J6
C I	1140.641	150	21	$2p^2 - 2p 6d$	$g^3P - {}^3F°$	2 - 3	J4,J6
C I	1141.327	20	20	$2p^2 - 2p 6d$	$g^3P - {}^1D°$	1 - 2	J4,J6
C I	1141.678	20	20	$2p^2 - 2p 6d$	$g^3P - {}^1D°$	2 - 2	J4,J6
C I	1155.809	50	19	$2p^2 - 2p 5d$	$g^3P - {}^3P°$	0 - 1	J4,J6
C I	1156.028	150	19	$2p^2 - 2p 5d$	$g^3P - {}^3P°$	1 - 1	J4,J6
C I	1156.199	20	19	$2p^2 - 2p 5d$	$g^3P - {}^3P°$	1 - 2	J4,J6
C I	1156.389	100	19	$2p^2 - 2p 5d$	$g^3P - {}^3P°$	2 - 1	J4,J6
C I	1156.560	200	19	$2p^2 - 2p 5d$	$g^3P - {}^3P°$	2 - 2	J4,J6
C I	1156.765	20	18.01	$2p^2 - 2p 5d$	$g^3P - {}^1P°$	2 - 1	J4,J6
C I	1157.186	20	17	$2p^2 - 2p 6s$	$g^3P - {}^1P°$	0 - 1	J4,J6
C I	1157.330	50	18	$2p^2 - 2p 5d$	$g^3P - {}^1F°$	2 - 3	J4,J6
C I	1157.405	150	17	$2p^2 - 2p 6s$	$g^3P - {}^1P°$	1 - 1	J4,J6
C I	1157.770	350	16	$2p^2 - 2p 5d$	$g^3P - {}^3D°$	1 - 2	J4,J6
C I	1157.910	730	16	$2p^2 - 2p 5d$	$g^3P - {}^3D°$	0 - 1	J4,J6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C I	1158.019	750	16	$2p^2 - 2p5d$	$g^3P - {}^3D^\circ$	2 - 3	J4,J6
C I	1158.132	400	16	$2p^2 - 2p5d$	$g^3P - {}^3D^\circ$	2 - 2	J4,J6
C I	1158.324	100	15.01	$2p^2 - 2p6s$	$g^3P - {}^3P^\circ$	0 - 1	J4,J6
C I	1158.397	100	15.01	$2p^2 - 2p6s$	$g^3P - {}^3P^\circ$	2 - 2	J4,J6
C I	1158.492	20	16	$2p^2 - 2p5d$	$g^3P - {}^3D^\circ$	2 - 1	J4,J6
C I	1158.674	100	15.01	$2p^2 - 2p6s$	$g^3P - {}^3P^\circ$	1 - 0	J4,J6
C I	1158.732	100	15	$2p^2 - 2p5d$	$g^3P - {}^3F^\circ$	1 - 2	J4,J6
C I	1158.907	50	15.01	$2p^2 - 2p6s$	$g^3P - {}^3P^\circ$	2 - 1	J4,J6
C I	1158.967	200	15	$2p^2 - 2p5d$	$g^3P - {}^3F^\circ$	2 - 3	J4,J6
C I	1188.833	200	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	0 - 1	J4,J6
C I	1188.992	500	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	1 - 0	J4,J6
C I	1189.065	200	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	1 - 1	J4,J6
C I	1189.249	250	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	1 - 2	J4,J6
C I	1189.447	500	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	2 - 1	J4,J6
C I	1189.631	700	14	$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	2 - 2	J4,J6
C I	1190.021	35	13.01	$2p^2 - 2p4d$	$g^3P - {}^1P^\circ$	0 - 1	J4,J6
C I	1190.253	35	13.01	$2p^2 - 2p4d$	$g^3P - {}^1P^\circ$	1 - 1	J4,J6
C I	1191.838	120	13	$2p^2 - 2p4d$	$g^3P - {}^1F^\circ$	2 - 3	J4,J6
C I	1192.218	70	12	$2p^2 - 2p5s$	$g^3P - {}^1P^\circ$	0 - 1	J4,J6
C I	1192.451	120	12	$2p^2 - 2p5s$	$g^3P - {}^1P^\circ$	1 - 1	J4,J6
C I	1193.009	700	11	$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	1 - 2	J4,J6
C I	1193.031	300	11	$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	0 - 1	J4,J6
C I	1193.240	850	11	$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 3	J4,J6
C I	1193.264	150	11	$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	1 - 1	J4,J6
C I	1193.393	350	11	$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 2	J4,J6
C I	1193.679	500	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	1 - 2	J4,J6
C I	1193.996	120	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	0 - 1	J4,J6
C I	1194.064	350	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	2 - 2	J4,J6
C I	1194.229	120	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	1 - 1	J4,J6
C I	1194.301	120	10	$2p^2 - 2p4d$	$g^3P - {}^3F^\circ$	1 - 2	J4,J6
C I	1194.406	200	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	1 - 0	J4,J6
C I	1194.488	350	10	$2p^2 - 2p4d$	$g^3P - {}^3F^\circ$	2 - 3	J4,J6
C I	1194.615	250	9.02	$2p^2 - 2p5s$	$g^3P - {}^3P^\circ$	2 - 1	J4,J6
C I	1253.467	50		$2p^2 - 2p11d$	${}^1D - {}^1F^\circ$	2 - 3	J4,E3
C I	1253.541	100		$2p^2 - 2p11d$	${}^1D - {}^3D^\circ$	2 - 2	J4,E3
C I	1256.498	200		$2p^2 - 2p10d$	${}^1D - {}^1F^\circ$	2 - 3	J4,E3
C I	1260.613	200	59	$2p^2 - 2p9d$	${}^1D - {}^1F^\circ$	2 - 3	J4,E3
C I	1260.736	250	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	0 - 1	J4,J6
C I	1260.927	200	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 0	J4,J6
C I	1260.996	150	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 1	J4,J6
C I	1261.122	250	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 2	J4,J6
C I	1261.426	250	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 1	J4,J6
C I	1261.552	500	9	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	J4,J6
C I	1266.270	20	58.01	$2p^2 - 2p8d$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1266.419	100	58	$2p^2 - 2p8d$	${}^1D - {}^1F^\circ$	2 - 3	J4,J6
C I	1267.596	50	57	$2p^2 - 2p8d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1274.109	50	8	$2p^2 - 2p3d$	$g^3P - {}^1F^\circ$	2 - 3	J4,J6
C I	1274.756	20	56	$2p^2 - 2p7d$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1274.984	150	55	$2p^2 - 2p7d$	${}^1D - {}^1F^\circ$	2 - 3	J4,J6
C I	1276.287	50		$2p^2 - 2p7d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1276.483	100		$2p^2 - 2p4s$	$g^3P - {}^1P^\circ$	0 - 1	J4,J6
C I	1276.750	200		$2p^2 - 2p4s$	$g^3P - {}^1P^\circ$	1 - 1	J4,J6
C I	1277.245	300	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	0 - 1	J4,J6
C I	1277.282	700	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 2	J4,J6
C I	1277.513	100	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 1	J4,J6
C I	1277.550	1000	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	J4,J6
C I	1277.723	250	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 2	J4,J6
C I	1277.954	70	7	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 1	J4,J6
C I	1279.056	100	6	$2p^2 - 2p3d$	$g^3P - {}^3F^\circ$	1 - 2	J4,J6
C I	1279.229	150	6	$2p^2 - 2p3d$	$g^3P - {}^3F^\circ$	2 - 3	J4,J6
C I	1279.498	70	6	$2p^2 - 2p3d$	$g^3P - {}^3F^\circ$	2 - 2	J4,J6
C I	1279.890	250	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 2	J4,J6
C I	1280.135	200	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	0 - 1	J4,J6
C I	1280.333	700	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	2 - 2	J4,J6
C I	1280.404	75	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 1	J4,J6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C I	1280.597	200	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 0	J4,J6
C I	1280.847	250	5	$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	2 - 1	J4,J6
C I	1288.037	200	54	$2p^2 - 2p6d$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1288.422	500	53	$2p^2 - 2p6d$	${}^1D - {}^1F^\circ$	2 - 3	J4,J6
C I	1288.710	100	52	$2p^2 - 2p7s$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1288.917	100	51.02	$2p^2 - 2p6d$	${}^1D - {}^3D^\circ$	2 - 3	J4,J6
C I	1289.891	50	51.01	$2p^2 - 2p7s$	${}^1D - {}^3P^\circ$	2 - 1	J4,J6
C I	1289.977	300	51	$2p^2 - 2p6d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1291.304	100	50	$2p^2 - 2p6d$	${}^1D - {}^1D^\circ$	2 - 2	J4,J6
C I	1310.637	200	49	$2p^2 - 2p5d$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1311.363	1000	48	$2p^2 - 2p5d$	${}^1D - {}^1F^\circ$	2 - 3	J4,J6
C I	1311.924	200	47	$2p^2 - 2p6s$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1312.247	100	46	$2p^2 - 2p5d$	${}^1D - {}^3D^\circ$	2 - 3	J4,J6
C I	1313.387	100	45.01	$2p^2 - 2p6s$	${}^1D - {}^3P^\circ$	2 - 1	J4,J6
C I	1313.464	300	45	$2p^2 - 2p5d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1315.918	200	44	$2p^2 - 2p5d$	${}^1D - {}^1D^\circ$	2 - 2	J4,J6
C I	1328.8332 ST	150	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	H4,J6,J4
C I	1329.0863 ST	150	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 0	H4,E3,J4
C I	1329.1001 ST	200	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	H4,J6,J4
C I	1329.1230 ST	110	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 1	H4,J6,J4
C I	1329.5775 ST	600	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	H4,J6,J4
C I	1329.6005 ST	200	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	H4,J6,J4
C I	1354.288	500	43	$2p^2 - 2p4d$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1355.844	750	42	$2p^2 - 2p4d$	${}^1D - {}^1F^\circ$	2 - 3	J4,J6
C I	1357.134	300	41	$2p^2 - 2p5s$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1357.659	100	40.01	$2p^2 - 2p4d$	${}^1D - {}^3D^\circ$	2 - 3	J4,J6
C I	1359.275	200	40	$2p^2 - 2p4d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1359.438	50	39.01	$2p^2 - 2p5s$	${}^1D - {}^3P^\circ$	2 - 1	J4,J6
C I	1364.164	600	39	$2p^2 - 2p4d$	${}^1D - {}^1D^\circ$	2 - 2	J4,J6
C I	1431.597	100 -A	65	$2s2p^3 - 2s2p^2({}^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	J4,J6
C I	1432.105	75 -A	65	$2s2p^3 - 2s2p^2({}^4P)3s$	${}^5S^\circ - {}^5P$	2 - 2	J4,S13
C I	1432.530	50 -A	65	$2s2p^3 - 2s2p^2({}^4P)3s$	${}^5S^\circ - {}^5P$	2 - 1	J4,S13
C I	1459.0317 st	300	38	$2p^2 - 2p3d$	${}^1D - {}^1P^\circ$	2 - 1	K7,J6,J4
C I	1463.3360 st	600	37	$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	K7,J6,J4
C I	1467.402	350	36	$2p^2 - 2p4s$	${}^1D - {}^1P^\circ$	2 - 1	J4,J6
C I	1467.877	30	35.01	$2p^2 - 2p3d$	${}^1D - {}^3D^\circ$	2 - 3	J4,J6
C I	1468.410	100	35.01	$2p^2 - 2p3d$	${}^1D - {}^3D^\circ$	2 - 1	J4,J6
C I	1470.094	100	35	$2p^2 - 2p3d$	${}^1D - {}^3F^\circ$	2 - 3	J4,J6
C I	1472.231	60	34.01	$2p^2 - 2p4s$	${}^1D - {}^3P^\circ$	2 - 1	J4,J6
C I	1481.7635 st	450	34	$2p^2 - 2p3d$	${}^1D - {}^1D^\circ$	2 - 2	K7,J6,J4
C I	1492.738	60	64.08	$2p^2 - 2p7d$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1493.273	10	64.07	$2p^2 - 2p8s$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1494.532	25		$2p^2 - 2p7d$	${}^1S - {}^3D^\circ$	0 - 1	J4,J6
C I	1510.668	25	64.05	$2p^2 - 2p6d$	${}^1S - {}^3P^\circ$	0 - 1	J4,J6
C I	1510.981	100	64.04	$2p^2 - 2p6d$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1511.907	25	64.03	$2p^2 - 2p7s$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1513.150	50	64.02	$2p^2 - 2p6d$	${}^1S - {}^3D^\circ$	0 - 1	J4,J6
C I	1541.510	40	64.01	$2p^2 - 2p5d$	${}^1S - {}^3P^\circ$	0 - 1	J4,J6
C I	1542.1766 st	160	64	$2p^2 - 2p5d$	${}^1S - {}^1P^\circ$	0 - 1	K7,J6,J4
C I	1543.960	60	63.04	$2p^2 - 2p6s$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1545.249	40	63.03	$2p^2 - 2p5d$	${}^1S - {}^3D^\circ$	0 - 1	J4,J6
C I	1560.3095 st	250	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	0 - 1	K7,J6,J4
C I	1560.6832 st	500	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	K7,J6,J4
C I	1560.7079 st	200	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 1	K7,J6,J4
C I	1561.3407 st	200	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 2	K7,J6,J4
C I	1561.367 P		3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 1	J4
C I	1561.4382 st	1000	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	K7,J6,J4
C I	1602.9715 st	200	63	$2p^2 - 2p4d$	${}^1S - {}^1P^\circ$	0 - 1	K7,J6,J4
C I	1606.960	50	62.04	$2p^2 - 2p5s$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1608.438	70	62.03	$2p^2 - 2p4d$	${}^1S - {}^3D^\circ$	0 - 1	J4,J6
C I	1656.2665 st	350	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	K7,J6,J4
C I	1656.9282 st	300	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	K7,J6,J4
C I	1657.0078 st	1000	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	K7,J6,J4
C I	1657.3797 st	300	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 1	K7,J6,J4
C I	1657.9070 st	300	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 0	K7,J6,J4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C I	1658.1222 st	350	2	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	K7,J6,J4
C I	1751.8277 st	800	62	$2p^2 - 2p3d$	${}^1S - {}^1P^\circ$	0 - 1	K7,J6,J4
C I	1763.909	120	61.06	$2p^2 - 2p4s$	${}^1S - {}^1P^\circ$	0 - 1	J4,J6
C I	1765.366	50	61.05	$2p^2 - 2p3d$	${}^1S - {}^3D^\circ$	0 - 1	J4,J6
C I	1930.9054 st	1000	33	$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	K7,J6,J4
C I	1993.620	50	32	$2p^2 - 2p3s$	${}^1D - {}^3P^\circ$	2 - 1	J4,J6

CARBON II (C^{1+}), Z = 6

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 196 664.7 cm^{-1}; 24.383 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C II?	425.326	10					E3
C II?	437.102	100d					E3
C II	438.824 P	-A	6.09	$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	½ - ½	G10
C II	438.897 P	100 -A	6.09	$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	G10,E3
C II	461.120	100d -A	6.08	$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	G10,E3
C II	466.352 P	10 -A	6.07	$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	½ - 3/2	G10,E3
C II	466.407 P	100 -A	6.07	$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	½ - ½	G10,E3
C II	466.491 P	200 -A	6.07	$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	G10,E3
C II	466.547 P	10 -A	6.07	$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	3/2 - ½	G10,E3
C II	516.652	10d -A	9.09	$2s2p^2 - 2s2p(^3P^\circ)6d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	E3
C II	517.07	100d -A	9.08	$2s2p^2 - 2s2p(^3P^\circ)6d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	E3
C II	530.274 P	300	6.06	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	½ - 3/2	G10,E3
C II	530.359 P	400	6.06	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	G10,E3
C II	530.454 P		6.06	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 3/2	G10
C II	531.721 P	5 -A	9.07	$2s2p^2 - 2s2p(^3P^\circ)5d$	${}^4P - {}^4P^\circ$	½ - 3/2	G10,E3
C II	531.742 P	5 -A	9.07	$2s2p^2 - 2s2p(^3P^\circ)5d$	${}^4P - {}^4P^\circ$	3/2 - ½	G10,E3
C II	531.917	100d -A	9.07	$2s2p^2 - 2s2p(^3P^\circ)5d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	G10,E3
C II	532.659 P	100 -A	9.06	$2s2p^2 - 2s2p(^3P^\circ)5d$	${}^4P - {}^4D^\circ$	3/2 - 5/2	G10,E3
C II	532.705 P	200 -A	9.06	$2s2p^2 - 2s2p(^3P^\circ)5d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	G10,E3
C II?	533.935	100d					E3
C II	543.257	200d	6.05	$2p - 6d$	$g^2P^\circ - {}^2D$	½ - 3/2	G10,E3
C II	543.444	300d	6.05	$2p - 6d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	G10,E3
C II	547.140 P	-A	9.05	$2s2p^2 - 2s2p(^3P^\circ)5s$	${}^4P - {}^4P^\circ$	½ - 3/2	G10,E3
C II	547.153	10 -A	9.05	$2s2p^2 - 2s2p(^3P^\circ)5s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	G10,E3
C II	547.277	5 -A	9.05	$2s2p^2 - 2s2p(^3P^\circ)5s$	${}^4P - {}^4P^\circ$	3/2 - ½	G10,E3
C II	547.291	5 -A	9.05	$2s2p^2 - 2s2p(^3P^\circ)5s$	${}^4P - {}^4P^\circ$	5/2 - 3/2	G10,E3
C II	549.3195 ST	300	6.04	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	½ - 3/2	H4,E3,G10
C II	549.3785 ST	400	6.04	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	½ - ½	H4,E3,G10
C II	549.5110 ST	500	6.04	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	H4,E3,G10
C II	549.5700 ST	300	6.04	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - ½	H4,E3,G10
C II	551.874	10	6.03	$2p - 6s$	$g^2P^\circ - {}^2S$	3/2 - ½	G10,E3
C II	560.2394 ST	400	6.02	$2p - 5d$	$g^2P^\circ - {}^2D$	½ - 3/2	H4,E3,G10
C II	560.4367 ST	500	6.02	$2p - 5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	H4,E3,G10
C II	560.4386 ST	40	6.02	$2p - 5d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	H4,E3,G10
C II	562.338	150 -A	9.04	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	½ - 3/2	G10,E3
C II	562.367	150 -A	9.04	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	3/2 - ½	G10,E3
C II	562.473	150 -A	9.04	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	3/2 - 5/2	G10,E3
C II	562.497	150 -A	9.04	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	5/2 - 3/2	G10,E3
C II	562.562	300 -A	9.04	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	G10,E3
C II	564.565	40 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	${}^4P - {}^4D^\circ$	½ - 3/2	G10,E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C II	564.582	40 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	½ - ½	G10,E3
C II	564.608	100 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	G10,E3
C II	564.635	50 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 3/2	G10,E3
C II	564.663	200 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	G10,E3
C II	564.698	40 -A	9.03	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 5/2	G10,E3
C II	576.8748	100	6.01	2p - 5s	$g^2P^\circ - ^2S$	½ - ½	H3,E3,G10
C II	577.0859	200	6.01	2p - 5s	$g^2P^\circ - ^2S$	3/2 - ½	H3,E3,G10
C II	594.8000 ST	600	6	2p - 4d	$g^2P^\circ - ^2D$	½ - 3/2	H4,E3,G10
C II	595.0219 ST	700	6	2p - 4d	$g^2P^\circ - ^2D$	3/2 - 5/2	H4,E3,G10
C II	595.0245 ST	70	6	2p - 4d	$g^2P^\circ - ^2D$	3/2 - 3/2	H4,E3,G10
C II	600.251	100 -A	9.02	$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	G10,E3
C II	600.337 P	100 -A	9.02	$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	½ - 3/2	G10,E3
C II	600.353	300 -A	9.02	$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	G10,E3
C II	600.503	100 -A	9.02	$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - ½	G10,E3
C II	600.518	100 -A	9.02	$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	G10,E3
C II	635.9945 ST	300	5.01	2p - 4s	$g^2P^\circ - ^2S$	½ - ½	H4,E3,G10
C II	636.2511 ST	400	5.01	2p - 4s	$g^2P^\circ - ^2S$	3/2 - ½	H4,E3,G10
C II	641.593	250 -A	9.01	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	½ - 3/2	G10,E3
C II	641.627	250 -A	9.01	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - ½	G10,E3
C II	641.771	300 -A	9.01	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	G10,E3
C II	641.800	300 -A	9.01	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	G10,E3
C II	641.888	650 -A	9.01	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	G10,E3
C II	651.211	150	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	½ - 3/2	G10,E3
C II	651.234	150	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	½ - ½	G10,E3
C II	651.269	400	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	G10,E3
C II	651.304 P	300	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	G10,E3
C II	651.345	800	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	G10,E3
C II	651.389 P	150	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	G10,E3
C II	686.416	120 -A	12.08	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	G10,E3
C II	686.488	80 -A	12.08	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2D^\circ$	3/2 - 3/2	G10,E3
C II	687.0526 ST	800	5	2p - 3d	$g^2P^\circ - ^2D$	½ - 3/2	H4,E3,G10
C II	687.3453 ST	1000	5	2p - 3d	$g^2P^\circ - ^2D$	3/2 - 5/2	H4,E3,G10
C II	687.3521 ST	110	5	2p - 3d	$g^2P^\circ - ^2D$	3/2 - 3/2	H4,E3,G10
C II	794.964	10 -A	13.05	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - ^2P^\circ$	½ - ½	E3
C II	795.134	100 -A	13.05	$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - ^2P^\circ$	½ - 3/2	E3
C II	799.660	500 -A	12.06	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	G10,E3
C II	799.928 P	25 -A	12.06	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 5/2	G10,E3
C II	799.944	350 -A	12.06	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	G10,E3
C II	806.384	500	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	G10,E3
C II	806.533	200	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	½ - 3/2	G10,E3
C II	806.568	500	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	G10,E3
C II	806.676	250	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 3/2	G10,E3
C II	806.686	150	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	½ - ½	G10,E3
C II	806.830	300	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - ½	G10,E3
C II	806.860	300	8	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	G10,E3
C II	809.677	400 -A	12.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	G10,E3
C II	809.693 P	30 -A	12.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 5/2	G10,E3
C II	809.747 P	30 -A	12.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 3/2	G10,E3
C II	809.764	300 -A	12.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	G10,E3
C II	858.0918 ST	500	4	2p - 3s	$g^2P^\circ - ^2S$	½ - ½	H4,E3,G10
C II	858.5590 ST	900	4	2p - 3s	$g^2P^\circ - ^2S$	3/2 - ½	H4,E3,G10
C II	903.6235 ST	600	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	½ - 3/2	H4,E3,G10
C II	903.9616 ST	800	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	½ - ½	H4,E3,G10
C II	904.1416 ST	1000	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	H4,E3,G10
C II	904.4801 ST	600	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - ½	H4,E3,G10
C II	945.977	100 -A	13.04	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	½ - ½	G10,E3
C II	946.198	200 -A	13.04	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	½ - 3/2	G10,E3
C II	1009.858	400	7	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	½ - 3/2	G10,E3
C II	1010.083	600	7	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	G10,E3
C II	1010.371	1000	7	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	G10,E3
C II	1036.3367 ST	800	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	½ - ½	H4,E3,G10
C II	1037.0182 ST	1000	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - ½	H4,E3,G10
C II	1063.285	5	12.01	$2s2p^2 - 2s^24f$	$^2D - ^2F^\circ$	5/2 - 7/2	G10,E3
C II	1063.313	5	12.01	$2s2p^2 - 2s^24f$	$^2D - ^2F^\circ$	3/2 - 5/2	G10,E3
C II	1065.8913 ST	700	12	$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	H4,E3,G10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C II	1065.9199 ST	100	12	$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 3/2	H4,E3,G10
C II	1066.1332 ST	500	12	$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	H4,E3,G10
C II	1091.937	100 -A	14.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	G10,E3
C II	1092.232	10 -A	14.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 3/2	G10,E3
C II	1092.431	10 -A	14.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 1/2	G10,E3
C II	1092.726	200 -A	14.05	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	G10,E3
C II	1138.9358 ST	200 -A	14.04	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	H4,E3,G10
C II	1139.3317 ST	300 -A	14.04	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	H4,E3,G10
C II	1139.4730 ST	10 -A	14.04	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 3/2	H4,E3,G10
C II	1141.6246 ST	300	11.01	$2s2p^2 - 2s^24p$	$^2D - ^2P^\circ$	5/2 - 3/2	H4,E3,G10
C II	1141.6574 ST	30	11.01	$2s2p^2 - 2s^24p$	$^2D - ^2P^\circ$	3/2 - 3/2	H4,E3,G10
C II	1141.7445 ST	200	11.01	$2s2p^2 - 2s^24p$	$^2D - ^2P^\circ$	3/2 - 1/2	H4,E3,G10
C II	1323.8617 ST	30	11	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 3/2	H4,E3,G10
C II	1323.9059 ST	300	11	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	H4,E3,G10
C II	1323.9513 ST	450	11	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	H4,E3,G10
C II	1323.9955 ST	30	11	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 5/2	H4,E3,G10
C II	1334.5323 ST	800	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	H4,E3,G10
C II	1335.6627 ST	100	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	H4,E3,G10
C II	1335.7077 ST	1000	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	H4,E3,G10
C II	1720.456	10	14.02	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	G10,E3
C II	1721.012	100	14.02	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	G10,E3
C II	1721.682	200	14.02	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	G10,E3
C II	1722.238	10	14.02	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	G10,E3
C II	1760.3954 ST	450	10	$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	5/2 - 3/2	H4,E3,G10
C II	1760.4735 ST	100	10	$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	3/2 - 3/2	H4,E3,G10
C II	1760.8191 ST	300	10	$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	3/2 - 1/2	H4,E3,G10
C II	1927.02	5	14.01	$2s2p^2 - 2s^24p$	$^2P - ^2P^\circ$	1/2 - 1/2	J6,K8
C II	1928.30	10	14.01	$2s2p^2 - 2s^24p$	$^2P - ^2P^\circ$	3/2 - 3/2	J6,K8
C II	1987.33	40	19	$2s^23p - 2s2p(^3P^\circ)3p$	$^2P^\circ - ^2P$	1/2 - 3/2	G10
C II	1987.76	120	19	$2s^23p - 2s2p(^3P^\circ)3p$	$^2P^\circ - ^2P$	3/2 - 3/2	G10
C II	1988.09	80	19	$2s^23p - 2s2p(^3P^\circ)3p$	$^2P^\circ - ^2P$	1/2 - 1/2	G10
C II	1988.51	40	19	$2s^23p - 2s2p(^3P^\circ)3p$	$^2P^\circ - ^2P$	3/2 - 1/2	G10

CARBON III (C^{2+}), Z = 6

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 386 241.0 cm^{-1}; 47.887 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C III	265.029	10d -A	7.27	$2s2p - 2p(^2P^\circ)7p$	$^3P^\circ - ^3P$	2 - 2	E3
C III	265.287	10d -A	7.26	$2s2p - 2p(^2P^\circ)7p$	$^3P^\circ - ^3D$	2 - 3	E3
C III	270.324	10d	3.09	$2s^2 - 2s8p$	$g^1S - ^1P^\circ$	0 - 1	E3
C III	270.583	100d -A	7.25	$2s2p - 2p(^2P^\circ)6p$	$^3P^\circ - ^3P$	2 - 2	E3
C III	271.014	100d -A	7.24	$2s2p - 2p(^2P^\circ)6p$	$^3P^\circ - ^3D$	2 - 3	E3
C III	274.051	200d	3.08	$2s^2 - 2s7p$	$g^1S - ^1P^\circ$	0 - 1	E3
C III	280.043	300	3.07	$2s^2 - 2s6p$	$g^1S - ^1P^\circ$	0 - 1	E3
C III	280.522	200d -A	7.23	$2s2p - 2p(^2P^\circ)5p$	$^3P^\circ - ^3P$	2 - 2	E3
C III	281.390	200 -A	7.22	$2s2p - 2p(^2P^\circ)5p$	$^3P^\circ - ^3D$	2 - 3	E3
C III	288.423	10	3.05	$2s^2 - 2p3d$	$g^1S - ^1P^\circ$	0 - 1	M20
C III	291.3261	500	3.03	$2s^2 - 2s5p$	$g^1S - ^1P^\circ$	0 - 1	E6,E3
C III	301.206	200	7.21	$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	0 - 1	E3
C III	301.243	300	7.21	$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 2	E3
C III	301.279	100	7.21	$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 1	E3
C III	303.432	400d	7.20	$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 3	E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C III	303.468	100	7.20	2s2p - 2p(^{2}P°)4p	^{3}P° - ^{3}D	2 - 2	E3
C III	310.1697	700	3	2s^2 - 2s4p	g^1S - ^{1}P°	0 - 1	E6,E3
C III	311.157	10d	7.19	2s2p - 2s9d	^{3}P° - ^{3}D	2 - 3	E3
C III	314.41	100d	7.18	2s2p - 2s8d	^{3}P° - ^{3}D	2 - 3	E3
C III	319.29	300d	7.16	2s2p - 2s7d	^{3}P° - ^{3}D	2 - 3	E3
C III	321.372	10d	7.15	2s2p - 2s7s	^{3}P° - ^{3}S	2 - 1	E3
C III	322.5741	800	2.03	2s^2 - 2p(^{2}P°)3s	g^1S - ^{1}P°	0 - 1	E6,E3
C III	325.570	100d -A	11.13	2s2p - 2p5p	^{1}P° - ^{1}D	1 - 2	E3
C III	327.112	400d	7.13	2s2p - 2s6d	^{3}P° - ^{3}D	1 - 2	E3
C III	327.176	400d	7.13	2s2p - 2s6d	^{3}P° - ^{3}D	2 - 3	E3
C III	327.784	100 -A	11.12	2s2p - 2p(^{2}P°)5p	^{1}P° - ^{1}P	1 - 1	E3
C III	330.617	100	7.12	2s2p - 2s6s	^{3}P° - ^{3}S	1 - 1	E3
C III	330.687	100	7.12	2s2p - 2s6s	^{3}P° - ^{3}S	2 - 1	E3
C III	341.143	500	7.10	2s2p - 2s5d	^{3}P° - ^{3}D	0 - 1	E3
C III	341.179	600	7.10	2s2p - 2s5d	^{3}P° - ^{3}D	1 - 2	E3
C III	341.242	700	7.10	2s2p - 2s5d	^{3}P° - ^{3}D	2 - 3	E3
C III	347.777	300	7.08	2s2p - 2s5s	^{3}P° - ^{3}S	1 - 1	E3
C III	347.854	300	7.08	2s2p - 2s5s	^{3}P° - ^{3}S	2 - 1	E3
C III	350.132	10d -A	11.27	2p^2 - 2p(^{2}P°)6d	^{3}P - ^{3}P°	2 - 2	E3
C III	350.35	200d -A	11.26	2p^2 - 2p(^{2}P°)6d	^{3}P - ^{3}D°	2 - 3	E3
C III	353.000	300d	11.11	2s2p - 2p(^{2}P°)4p	^{1}P° - ^{1}D	1 - 2	E3
C III	358.740	400	11.10	2s2p - 2p(^{2}P°)4p	^{1}P° - ^{1}P	1 - 1	E3
C III	360.557	600	7.05	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}P	1 - 2	E3
C III	360.623	700	7.05	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}P	2 - 2	E3
C III	360.675	500	7.05	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}P	2 - 1	E3
C III	363.7538	400	7.04	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}S	0 - 1	B8,E3
C III	363.7852	500	7.04	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}S	1 - 1	B8,E3
C III	363.8598	600	7.04	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}S	2 - 1	B8,E3
C III	365.778	100d -A	11.25	2p^2 - 2p(^{2}P°)5d	^{3}P - ^{3}P°	2 - 2	E3
C III	366.19	400d -A	11.24	2p^2 - 2p(^{2}P°)5d	^{3}P - ^{3}D°	2 - 3	E3
C III	369.415	500	7.02	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}D	2 - 3	E3
C III	369.472	200	7.02	2s2p - 2p(^{2}P°)3p	^{3}P° - ^{3}D	2 - 2	E3
C III	371.694	1000	7	2s2p - 2s4d	^{3}P° - ^{3}D	1 - 2	E3
C III	371.747	1000	7	2s2p - 2s4d	^{3}P° - ^{3}D	2 - 3	E3
C III	371.784	800	7	2s2p - 2s4d	^{3}P° - ^{3}D	2 - 2	E3
C III	379.065	100 -A	11.43	2p^2 - 2p(^{2}P°)5d	^{1}D - ^{1}D°	2 - 2	E3
C III	379.254	10d	11.09	2s2p - 2s7d	^{1}P° - ^{1}D	1 - 2	E3
C III	385.043 P		2.01	2s^2 - 2s3p	g^1S - ^{3}P°	0 - 1	M20
C III	386.2028	850	2	2s^2 - 2s3p	g^1S - ^{1}P°	0 - 1	E6,E3
C III	388.9687	500	6.02	2s2p - 2s4s	^{3}P° - ^{3}S	0 - 1	E6,E3
C III	389.0045	600	6.02	2s2p - 2s4s	^{3}P° - ^{3}S	1 - 1	E6,E3
C III	389.0898	700	6.02	2s2p - 2s4s	^{3}P° - ^{3}S	2 - 1	E6,E3
C III	390.055	300	11.08	2s2p - 2s6d	^{1}P° - ^{1}D	1 - 2	E3
C III	398.42	200d -A	11.23	2p^2 - 2p4d	^{3}P - ^{3}P°	2 - 2	E3
C III	399.612	600d -A	11.22	2p^2 - 2p(^{2}P°)4d	^{3}P - ^{3}D°	1 - 2	E3
C III	399.688	600d -A	11.22	2p^2 - 2p(^{2}P°)4d	^{3}P - ^{3}D°	2 - 3	E3
C III	409.325	600	11.07	2s2p - 2s5d	^{1}P° - ^{1}D	1 - 2	E3
C III	411.697	10 -A	11.42	2p^2 - 2p(^{2}P°)4d	^{1}D - ^{1}F°	2 - 3	E3
C III	411.9577	300	11.06	2s2p - 2p(^{2}P°)3p	^{1}P° - ^{1}S	1 - 0	B8,E3
C III	416.769	500	11.41	2p^2 - 2p(^{2}P°)4d	^{1}D - ^{1}D°	2 - 2	E3
C III	418.609	200d	11.21	2p^2 - 2p4s	^{3}P - ^{3}P°	2 - 2	M20
C III	423.438 P		11.05	2s2p - 2s5s	^{1}P° - ^{1}S	1 - 0	M20
C III	433.3391	800	11.04	2s2p - 2p(^{2}P°)3p	^{1}P° - ^{1}D	1 - 2	E6,E3
C III	450.7338	800	11.03	2s2p - 2s4d	^{1}P° - ^{1}D	1 - 2	E6,E3
C III	459.462	900	6	2s2p - 2s3d	^{3}P° - ^{3}D	0 - 1	E6,E3
C III	459.521	950	6	2s2p - 2s3d	^{3}P° - ^{3}D	1 - 2	E6,E3
C III	459.633	1000	6	2s2p - 2s3d	^{3}P° - ^{3}D	2 - 3	E6,E3
C III	460.0487	800	11.02	2s2p - 2p(^{2}P°)3p	^{1}P° - ^{1}P	1 - 1	E6,E3
C III	468.94	10	11.38	2p^2 - 2s6f	^{1}D - ^{1}F°	2 - 3	E3
C III	473.410 P		11.37	2p^2 - 2s6p	^{1}D - ^{1}P°	2 - 1	M20
C III	477.6246	300	11.01	2s2p - 2s4s	^{1}P° - ^{1}S	1 - 0	B8,E3
C III	483.567	300	11.19	2p^2 - 2s5p	^{3}P - ^{3}P°	1 - 0	E3
C III	483.618	400	11.19	2p^2 - 2s5p	^{3}P - ^{3}P°	1 - 2	E3
C III	483.733	500	11.19	2p^2 - 2s5p	^{3}P - ^{3}P°	2 - 2	E3
C III	492.6500	700	11.36	2p^2 - 2s5f	^{1}D - ^{1}F°	2 - 3	E6,E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C III	493.341	500	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	0 - 1	E3
C III	493.364	500	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 0	E3
C III	493.396	500	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 1	E3
C III	493.464	500	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 2	E3
C III	493.519	500	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 1	E3
C III	493.587	700	11.18	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 2	E3
C III	497.910	100	11.35	$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	E3
C III	499.425	700	11.17	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	0 - 1	E3
C III	499.462	800	11.17	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	1 - 2	E3
C III	499.530	900	11.17	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 3	E3
C III	499.583	700	11.17	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 2	E3
C III	506.63	10	11.34	$2p^2 - 2s5p$	$^1D - ^1P^\circ$	2 - 1	E3
C III	511.5225	1000	11.33	$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	E6,E3
C III	535.2885	850	11.32	$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	E6,E3
C III	538.0801	900	5	$2s2p - 2s3s$	$^3P^\circ - ^3S$	0 - 1	E6,E3
C III	538.1487	950	5	$2s2p - 2s3s$	$^3P^\circ - ^3S$	1 - 1	E6,E3
C III	538.3120	1000	5	$2s2p - 2s3s$	$^3P^\circ - ^3S$	2 - 1	E6,E3
C III	554.63	200	11.16	$2p^2 - 2s4p$	$^3P - ^3P^\circ$	2 - 2	E3
C III	565.5280	700	11.31	$2p^2 - 2s4f$	$^1D - ^1F^\circ$	2 - 3	E6,E3
C III	566.48	400	11.30	$2p^2 - 2s4p$	$^1D - ^1P^\circ$	2 - 1	E3
C III	574.2809	1000	11	$2s2p - 2s3d$	$^1P^\circ - ^1D$	1 - 2	E6,E3
C III	585.261	600	11.15	$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 2	E3
C III	585.417	800	11.15	$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	2 - 2	E3
C III	585.496	500	11.15	$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 1	E3
C III	585.608	600	11.15	$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 0	E3
C III	585.666	600	11.15	$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	2 - 1	E3
C III	609.04	400	11.48	$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	E3
C III	609.275	600	11.29	$2p^2 - 2p(^2P^\circ)3s$	$^1D - ^1P^\circ$	2 - 1	E3
C III	622.13	200	11.47	$2p^2 - 2s5p$	$^1S - ^1P^\circ$	0 - 1	E3
C III	690.526	700	10	$2s2p - 2s3s$	$^1P^\circ - ^1S$	1 - 0	E3
C III	714.879	100	11.46	$2p^2 - 2s4p$	$^1S - ^1P^\circ$	0 - 1	E3
C III	784.393	300	11.45	$2p^2 - 2p(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	E3
C III	817.950 P		11.14	$2p^2 - 2s3p$	$^3P - ^3P^\circ$	1 - 1	M20
C III	818.181 P		11.14	$2p^2 - 2s3p$	$^3P - ^3P^\circ$	2 - 2	M20
C III	884.516	800	11.28	$2p^2 - 2s3p$	$^1D - ^1P^\circ$	2 - 1	E3
C III	943.218 P		11.56	$2s3s - 2s5p$	$^3S - ^3P^\circ$	1 - 2	M20
C III	977.020	1000	1	$2s^2 - 2s2p$	$g^1S - ^1P^\circ$	0 - 1	E6,E3
C III	1040.715 P		11.60	$2s3s - 2s5p$	$^1S - ^1P^\circ$	0 - 1	M20
C III	1165.698 P	10	11.76	$2s3p - 2s5d$	$^3P^\circ - ^3D$	1 - 2	E3
C III	1165.870 P	100	11.76	$2s3p - 2s5d$	$^3P^\circ - ^3D$	2 - 3	E3
C III	1174.933	800	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 2	E6,E3
C III	1175.263	700	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	0 - 1	E6,E3
C III	1175.590	600	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	E6,E3
C III	1175.711	1000	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	E6,E3
C III	1175.987	700	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	E6,E3
C III	1176.370	800	4	$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	E6,E3
C III	1247.383	600	9	$2s2p - 2p^2$	$^1P^\circ - ^1S$	1 - 0	E6,E3
C III	1256.47	100d	11.53	$2s3s - 2s4p$	$^3S - ^3P^\circ$	1 - 2	E3
C III	1296.33	200d	12.07	$2s3d - 2s5f$	$^3D - ^3F^\circ$	3 - 4	E3
C III	1308.70	200	11.44	$2p^2 - 2s3p$	$^1S - ^1P^\circ$	0 - 1	E3
C III	1329.187 P		11.59	$2s3s - 2s4p$	$^1S - ^1P^\circ$	0 - 1	M20
C III	1426.22	10	12.05	$2s3d - 2p3d$	$^3D - ^3P^\circ$	2 - 1	E3
C III	1426.45	400	11.52	$2s3s - 2p(^2P^\circ)3s$	$^3S - ^3P^\circ$	1 - 2	E3
C III	1426.80	100	12.05	$2s3d - 2p(^2P^\circ)3d$	$^3D - ^3P^\circ$	3 - 2	E3
C III	1427.85	300	11.52	$2s3s - 2p(^2P^\circ)3s$	$^3S - ^3P^\circ$	1 - 1	E3
C III	1428.17	200	11.75	$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 2	E3
C III	1428.50	200	11.52	$2s3s - 2p(^2P^\circ)3s$	$^3S - ^3P^\circ$	1 - 0	E3
C III	1428.66	10	11.75	$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 1	E3
C III	1428.95	100	11.75	$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 1	E3
C III	1429.10	10	11.75	$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 0	E3
C III	1477.68	300	12.04	$2s3d - 2p3d$	$^3D - ^3D^\circ$	3 - 3	E3
C III	1478.05	200	12.04	$2s3d - 2p3d$	$^3D - ^3D^\circ$	2 - 2	E3
C III	1478.30	100	12.04	$2s3d - 2p3d$	$^3D - ^3D^\circ$	1 - 1	E3
C III	1531.83	200	11.65	$2s3p - 2s4d$	$^1P^\circ - ^1D$	1 - 2	E3
C III	1541.115 P		17	$2s3d - 2p3d$	$^1D - ^1F^\circ$	2 - 3	M20

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C III	1576.48	300	12.03	2s3d - 2p3d	$^3D - ^3F^\circ$	3 - 4	E3
C III	1577.30	200	12.03	2s3d - 2p3d	$^3D - ^3F^\circ$	2 - 3	E3
C III	1577.89	200	12.03	2s3d - 2p3d	$^3D - ^3F^\circ$	1 - 2	E3
C III	1591.44	200	11.58	2s3s - 2p($^2P^\circ$)3s	$^1S - ^1P^\circ$	0 - 1	E3
C III	1620.07	300	11.72	2s3p - 2s4d	$^3P^\circ - ^3D$	2 - 3	E3
C III	1620.33	200	11.72	2s3p - 2s4d	$^3P^\circ - ^3D$	1 - 2	E3
C III	1620.59	10	11.72	2s3p - 2s4d	$^3P^\circ - ^3D$	0 - 1	E3
C III	1620.68	100	11.72	2s3p - 2s4d	$^3P^\circ - ^3D$	2 - 2	E3
C III	1645.03	100	11.64	2s3p - 2p($^2P^\circ$)3p	$^1P^\circ - ^1P$	1 - 1	E3
C III	1779.09	10	16	2s3d - 2p($^2P^\circ$)3d	$^1D - ^1D^\circ$	2 - 2	E3
C III	1894.29	200	11.63	2s3p - 2s4s	$^1P^\circ - ^1S$	1 - 0	E3
C III	1908.734 P	70	0.01	$2s^2$ - 2s2p	$g^1S - ^3P^\circ$	0 - 1	M20,B34
C III	1922.96	300	12.02	2s3d - 2s4f	$^3D - ^3F^\circ$	3 - 4	E3
C III	1923.16	200	12.02	2s3d - 2s4f	$^3D - ^3F^\circ$	2 - 3	E3
C III	1923.34	200	12.02	2s3d - 2s4f	$^3D - ^3F^\circ$	1 - 2	E3
C III	1979.16	100 -A	41	2p($^2P^\circ$)3d - 2p($^2P^\circ$)4f	$^3D^\circ - ^3F$	3 - 4	B8
C III	1979.62	50 -A	41	2p($^2P^\circ$)3d - 2p4f	$^3D^\circ - ^3F$	2 - 3	B8

CARBON IV (C^{3+}), Z = 6

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 520 178.4 cm^{-1}; 64.492 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C IV	196.27	2	5.07	2s - 13p	$g^2S - ^2P^\circ$	½ - 3/2	P12
C IV	196.96	2	5.06	2s - 12p	$g^2S - ^2P^\circ$	½ - 3/2	P12
C IV	197.82	5	5.05	2s - 11p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	199.04	10	5.04	2s - 10p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	200.68	25d	5.03	2s - 9p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	203.057	50d	5.02	2s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	206.641	150d	5.01	2s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	212.421	250	5	2s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	222.791	350	4	2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	223.9	2	11.11	2p - 14d	$^2P^\circ - ^2D$	3/2 - 5/2	P12
C IV	224.5	2	11.10	2p - 13d	$^2P^\circ - ^2D$	3/2 - 5/2	P12
C IV	225.49	4	11.09	2p - 12d	$^2P^\circ - ^2D$	3/2 - 5/2	P12
C IV	226.72	6	11.08	2p - 11d	$^2P^\circ - ^2D$	3/2 - 5/2	P12
C IV	228.27	25d	11.07	2p - 10d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	230.43	25d	11.06	2p - 9d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	230.9	2	11.05	2p - 9s	$^2P^\circ - ^2S$	3/2 - ½	P12
C IV	233.53	100d	11.04	2p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	234.19	4	11.03	2p - 8s	$^2P^\circ - ^2S$	3/2 - ½	P12
C IV	238.200	100d	11.02	2p - 7d	$^2P^\circ - ^2D$	½ - 3/2	E3
C IV	238.250	150d	11.02	2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	239.196	25	11.01	2p - 7s	$^2P^\circ - ^2S$	3/2 - ½	E3
C IV	244.907	500	3	2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	E3
C IV	245.775	200d	11	2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	E3
C IV	245.830	250d	11	2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	247.357	25	10.01	2p - 6s	$^2P^\circ - ^2S$	½ - ½	E3
C IV	247.415	50	10.01	2p - 6s	$^2P^\circ - ^2S$	3/2 - ½	E3
C IV	259.471	300	10	2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	E3
C IV	259.542	350	10	2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	262.550	150	9.01	2p - 5s	$^2P^\circ - ^2S$	½ - ½	E3
C IV	262.624	200	9.01	2p - 5s	$^2P^\circ - ^2S$	3/2 - ½	E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C IV	289.143	450	9	2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	E3
C IV	289.230	500	9	2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	296.857	300	8	2p - 4s	$^2P^\circ - ^2S$	½ - ½	E3
C IV	296.951	350	8	2p - 4s	$^2P^\circ - ^2S$	3/2 - ½	E3
C IV	307.806	50f	2.01	2s - 3d	$^2S - ^2D$	½ - 3/2	E3
C IV	312.422	750	2	2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	E6,E3
C IV	312.453	700	2	2s - 3p	$g^2S - ^2P^\circ$	½ - ½	E6,E3
C IV	384.032	800	7	2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	E6,E3
C IV	384.178	850	7	2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	E6,E3
C IV	419.525	650	6	2p - 3s	$^2P^\circ - ^2S$	½ - ½	E6,E3
C IV	419.714	700	6	2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	E6,E3
C IV	770.379	25d	11.17	3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	948.098	50	11.12	3s - 4p	$^2S - ^2P^\circ$	½ - 3/2	E3
C IV	948.214	25	11.12	3s - 4p	$^2S - ^2P^\circ$	½ - ½	E3
C IV	1107.600	50	11.15	3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	E3
C IV	1107.933	100	11.15	3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	E3
C IV	1168.873	150	11.19	3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	E3
C IV	1168.990	200	11.19	3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	E3
C IV	1198.58	50d	11.18	3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	E3
C IV	1230.046	100	11.14	3p - 4s	$^2P^\circ - ^2S$	½ - ½	E3
C IV	1230.511	150	11.14	3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	E3
C IV	1548.185	1000	1	2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	M20
C IV	1550.774	950	1	2s - 2p	$g^2S - ^2P^\circ$	½ - ½	M20

CARBON V (C^{4+}), Z = 6

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 3 162 395 cm^{-1}; 392.077 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C V	32.064		11	$1s^2 - 1s8p$	$g^1S - ^1P^\circ$	0 - 1	M20
C V	32.188		10	$1s^2 - 1s7p$	$g^1S - ^1P^\circ$	0 - 1	M20
C V	32.3998	4	9	$1s^2 - 1s6p$	$g^1S - ^1P^\circ$	0 - 1	E21
C V	32.7542	10	8	$1s^2 - 1s5p$	$g^1S - ^1P^\circ$	0 - 1	E21
C V	32.773		7	$1s^2 - 1s5p$	$g^1S - ^3P^\circ$	0 - 1	M20
C V	33.4257	30	6	$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	E21
C V	33.463		5	$1s^2 - 1s4p$	$g^1S - ^3P^\circ$	0 - 1	M20
C V	33.925	3		1s3s - 2p3s	$^3S - ^3P^\circ$	1 - 2	F26
C V	34.022	1		1s3s - 2p3s	$^1S - ^1P^\circ$	0 - 1	F26
C V	34.283	1		1s2s - 2s2p	$^1S - ^1P^\circ$	0 - 1	F26
C V	34.520	2		1s2s - 2s2p	$^3S - ^3P^\circ$	1 - 2	F26
C V	34.598	1		$1s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	F26
C V	34.699	2		$1s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	F26
C V	34.9728	100	4	$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	E21
C V	35.070		3	$1s^2 - 1s3p$	$g^1S - ^3P^\circ$	0 - 1	M20
C V	40.2680	500	2	$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	E21
C V	40.7306	30	1	$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	E21
C V	41.47	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8,A8
C V	138.2 P			1s2s - 1s10p	$^3S - ^3P^\circ$	1 - 2	F20
C V	139.5 P			1s2s - 1s9p	$^3S - ^3P^\circ$	1 - 2	F20
C V	141.27 P			1s2s - 1s8p	$^3S - ^3P^\circ$	1 - 2	F20
C V	143.94			1s2s - 1s7p	$^3S - ^3P^\circ$	1 - 2	F20
C V	147.1 P			1s2p - 1s10d	$^3P^\circ - ^3D$	2 - 3	F20
C V	148.35			1s2s - 1s6p	$^3S - ^3P^\circ$	1 - 2	F20
C V	148.5 P			1s2p - 1s9d	$^3P^\circ - ^3D$	2 - 3	F20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C V	150.51 P			1s2p - 1s8d	$^3P^\circ - ^3D$	2 - 3	F20
C V	153.53			1s2p - 1s7d	$^3P^\circ - ^3D$	2 - 3	F20
C V	156.233	4	15	1s2s - 1s5p	$^3S - ^3P^\circ$	1 - 2	E21
C V	157.2 P			1s2p - 1s8d	$^1P^\circ - ^1D$	1 - 2	F20
C V	158.374		20	1s2s - 1s6p	$^1S - ^1P^\circ$	0 - 1	M20
C V	158.47			1s2p - 1s6d	$^3P^\circ - ^3D$	2 - 3	F20
C V	160.53 P			1s2p - 1s7d	$^1P^\circ - ^1D$	1 - 2	F20
C V	165.91 P			1s2p - 1s6d	$^1P^\circ - ^1D$	1 - 2	F20
C V	167.218		19	1s2s - 1s5p	$^1S - ^1P^\circ$	0 - 1	M20
C V	167.402	4	24	1s2p - 1s5d	$^3P^\circ - ^3D$	2 - 3	E21
C V	173.281	10	14	1s2s - 1s4p	$^3S - ^3P^\circ$	1 - 2	E21
C V	175.67			1s2p - 1s5d	$^1P^\circ - ^1D$	1 - 2	F20
C V	186.329		18	1s2s - 1s4p	$^1S - ^1P^\circ$	0 - 1	M20
C V	186.697	30	23	1s2p - 1s4d	$^3P^\circ - ^3D$	1 - 2	E21
C V	186.745	30	23	1s2p - 1s4d	$^3P^\circ - ^3D$	2 - 3	E21
C V	197.024	4	26	1s2p - 1s4d	$^1P^\circ - ^1D$	1 - 2	E21
C V	227.192	100	13	1s2s - 1s3p	$^3S - ^3P^\circ$	1 - 2	E21
C V	247.31		17	1s2s - 1s3p	$^1S - ^1P^\circ$	0 - 1	E21
C V	248.661	200	22	1s2p - 1s3d	$^3P^\circ - ^3D$	1 - 2	E21
C V	248.668	10	22	1s2p - 1s3d	$^3P^\circ - ^3D$	0 - 1	E3
C V	248.738	200	22	1s2p - 1s3d	$^3P^\circ - ^3D$	2 - 3	E21
C V	248.744	20	22	1s2p - 1s3d	$^3P^\circ - ^3D$	2 - 2	E3
C V	260.136	4	21	1s2p - 1s3s	$^3P^\circ - ^3S$	1 - 1	E21
C V	260.229	4	21	1s2p - 1s3s	$^3P^\circ - ^3S$	2 - 1	E21
C V	267.267	30	25	1s2p - 1s3d	$^1P^\circ - ^1D$	1 - 2	E21
C V	472.21		29	1s3s - 1s5p	$^3S - ^3P^\circ$	1 - 2	M20
C V	497.09		33	1s3p - 1s5d	$^3P^\circ - ^3D$	2 - 3	M20
C V	506.31		32	1s3p - 1s5s	$^3P^\circ - ^3S$	2 - 1	M20
C V	672.06		28	1s3s - 1s4p	$^3S - ^3P^\circ$	1 - 2	M20
C V	717.58		31	1s3p - 1s4d	$^3P^\circ - ^3D$	2 - 3	M20
C V	748.43		35	1s3d - 1s4f	$^3D - ^3F^\circ$	3 - 4	M20
C V	749.66		36	1s3d - 1s4f	$^1D - ^1F^\circ$	2 - 3	M20
C V	756.87		30	1s3p - 1s4s	$^3P^\circ - ^3S$	2 - 1	M20
C V	760.18		37	1s3p - 1s4d	$^1P^\circ - ^1D$	1 - 2	M20
C V	763.07		34	1s3d - 1s4p	$^3D - ^3P^\circ$	3 - 2	M20
C V	1619.80		38	1s4f - 1s5g	$^3F^\circ - ^3G$	4 - 5	M20

CARBON VI (C^{5+}), Z = 6

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 3 952 061.3 cm^{-1}; 489.983 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
C VI	26.026 P		5	1s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	G2
C VI	26.357 P		4	1s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	G2
C VI	26.990 P	10	3	1s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	G2,T13
C VI	28.466 P	30	2	1s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	G2,T13
C VI	33.736 P	100	1	1s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	G2,T13
C VI	110.22 P			2 - 7			G2
C VI	113.87 P			2 - 6			G2
C VI	120.50 P			2 - 5			G2
C VI	134.95 P			2 - 4			G2
C VI	182.17 P			2 - 3			G2

C VI

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
C VI	265.05	P			3 - 8			G2
C VI	279.02	P			3 - 7			G2
C VI	303.70	P			3 - 6			G2
C VI	355.89	P			3 - 5			G2
C VI	504.65	P			4 - 9			G2
C VI	520.6	P			3 - 4			G2
C VI	539.95	P			4 - 8			G2
C VI	601.31	P			4 - 7			G2
C VI	728.93	P			4 - 6			G2
C VI	843.72	P			5 - 10			G2
C VI	915.30	P			5 - 9			G2
C VI	1038.42	P			5 - 8			G2
C VI	1124.9	P			4 - 5			G2
C VI	1291.9	P			5 - 7			G2

NITROGEN I (N^{0+}), Z = 7

Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 117 225.4 cm^{-1}; 14.534 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N I	857.77	2		$2p^3 - 2p^2(^3P)12d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	858.80	2		$2p^3 - 2p^2(^3P)11d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	859.35	3		$2p^3 - 2p^2(^3P)11d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	859.76	2		$2p^3 - 2p^2(^3P)12s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	860.15	4		$2p^3 - 2p^2(^3P)10d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	860.85	4		$2p^3 - 2p^2(^3P)10d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	861.15	1		$2p^3 - 2p^2(^3P)11s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	862.14	5		$2p^3 - 2p^2(^3P)9d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	862.91	5		$2p^3 - 2p^2(^3P)9d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	863.15	3		$2p^3 - 2p^2(^3P)10s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	864.92	5		$2p^3 - 2p^2(^3P)8d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	865.62	5		$2p^3 - 2p^2(^3P)8d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	865.93	3		$2p^3 - 2p^2(^3P)9s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	868.78	5		$2p^3 - 2p^2(^3P)7d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	869.66	5		$2p^3 - 2p^2(^3P)7d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	870.00	3		$2p^3 - 2p^2(^3P)8s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	870.40	3		$2p^3 - 2p^2(^3P)8s$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	K1
N I	871.01	1		$2p^3 - 2p^2(^3P)8s$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	K1
N I	875.092	5		$2p^3 - 2p^2(^3P)6d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	W8,K1
N I	875.20	5		$2p^3 - 2p^2(^3P)6d$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	K1
N I	875.79	5		$2p^3 - 2p^2(^3P)6d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	K1
N I	876.07	4		$2p^3 - 2p^2(^3P)7s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K1
N I	876.64	2		$2p^3 - 2p^2(^3P)7s$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	K1
N I	876.99	2		$2p^3 - 2p^2(^3P)7s$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	K1
N I	885.387	5		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^2D$	3/2 - 5/2	E36
N I	885.682	15		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^4D$	3/2 - 3/2	E36
N I	885.973	6		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	E36
N I	886.226	9		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	E36
N I	886.332	8		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	E36
N I	886.428	8		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^2F$	3/2 - 5/2	E36
N I	886.829	6		$2p^3 - 2p^2(^3P)5d$	$g\,^4S^\circ - ^4F$	3/2 - 5/2	E36
N I	887.016	4		$2p^3 - 2p^2(^3P)6s$	$g\,^4S^\circ - ^2P$	3/2 - 3/2	E36
N I	887.457	11		$2p^3 - 2p^2(^3P)6s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	E36
N I	888.022	10		$2p^3 - 2p^2(^3P)6s$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	E36
N I	888.372	8		$2p^3 - 2p^2(^3P)6s$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	E36
N I	905.223	6		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^2D$	3/2 - 5/2	E36
N I	905.40	2		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^2D$	3/2 - 3/2	K1
N I	905.787	11		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	E36
N I	905.839	12		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4D$	3/2 - 3/2	E36
N I	905.916	11		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4D$	3/2 - 1/2	E36
N I	906.206	11		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	E36
N I	906.433	13		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	E36
N I	906.617	12		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	E36
N I	906.730	12		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^2F$	3/2 - 5/2	E36
N I	907.07	4		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^2P$	3/2 - 1/2	K1
N I	907.28	4		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^2P$	3/2 - 3/2	K1
N I	907.337	7		$2p^3 - 2p^2(^3P)4d$	$g\,^4S^\circ - ^4F$	3/2 - 5/2	E36
N I	908.2332	3		$2p^3 - 2p^2(^3P)5s$	$g\,^4S^\circ - ^2P$	3/2 - 3/2	K6
N I	908.7958	1		$2p^3 - 2p^2(^3P)5s$	$g\,^4S^\circ - ^2P$	3/2 - 1/2	K6
N I	909.6976 ST	9		$2p^3 - 2p^2(^3P)5s$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	H3,K6
N I	910.2785 ST	6		$2p^3 - 2p^2(^3P)5s$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	H3,K6
N I	910.6456 ST	5		$2p^3 - 2p^2(^3P)5s$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	H3,K6
N I	951.0791	5		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^2D$	3/2 - 5/2	K6
N I	951.2947	3		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^2D$	3/2 - 3/2	K6
N I	952.3037 ST	18		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4D$	3/2 - 5/2	H3,K6
N I	952.4151 ST	14		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4D$	3/2 - 3/2	H3,K6
N I	952.5231 ST	10		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4D$	3/2 - 1/2	H3,K6
N I	953.4150	25		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	K6
N I	953.6548	27		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	K6
N I	953.9698	30		$2p^3 - 2p^2(^3P)3d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	K6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N I	954.1040	30		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^2F$	3/2 - 5/2	K6
N I	955.2647 ST	4		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4F$	3/2 - 5/2	H3,K1
N I	955.4376 ST	4		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4F$	3/2 - 3/2	H3,K1
N I	955.5292	3		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^2P$	3/2 - 1/2	K6
N I	955.8814	5		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^2P$	3/2 - 3/2	K6
N I	959.4936	5		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^2P$	3/2 - 3/2	K6
N I	960.2017 P			$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^2P$	3/2 - 1/2	E6,K8
N I	963.9904 ST	25	3	$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	H4,K6
N I	964.6258 ST	23	3	$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	H4,K6
N I	965.0415 ST	23	3	$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	H4,K6
N I	1028.68	2		$2p^3 - 2p^2(^3P)11d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1029.51	1		$2p^3 - 2p^2(^3P)11d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1030.76	2		$2p^3 - 2p^2(^3P)10d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1031.62	2		$2p^3 - 2p^2(^3P)10d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1032.18	1		$2p^3 - 2p^2(^3P)11s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K1
N I	1033.42	3		$2p^3 - 2p^2(^3P)9d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1033.70	0		$2p^3 - 2p^2(^3P)9d$	$^2D^\circ - {}^2D$	3/2 - 3/2	K1
N I	1034.37	2		$2p^3 - 2p^2(^3P)9d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1034.60	0		$2p^3 - 2p^2(^3P)9d$	$^2D^\circ - {}^2P$	3/2 - 1/2	K1
N I	1035.00	1		$2p^3 - 2p^2(^3P)10s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K1
N I	1037.37	4		$2p^3 - 2p^2(^3P)8d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1037.73	1		$2p^3 - 2p^2(^3P)8d$	$^2D^\circ - {}^2D$	3/2 - 3/2	K1
N I	1038.31	3		$2p^3 - 2p^2(^3P)8d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1038.90	1		$2p^3 - 2p^2(^3P)9s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K1
N I	1043.02	5		$2p^3 - 2p^2(^3P)7d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1043.58	2		$2p^3 - 2p^2(^3P)7d$	$^2D^\circ - {}^2D$	3/2 - 3/2	K1
N I	1044.06	5		$2p^3 - 2p^2(^3P)7d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1044.65	4		$2p^3 - 2p^2(^3P)8s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K1
N I	1051.90	2		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K1
N I	1052.07	3		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K1
N I	1052.18	3		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^4P$?	3/2 - 5/2	K1
N I	1052.64	2		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^2D$	3/2 - 3/2	K1
N I	1053.04	3		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^2F$	3/2 - 5/2	K1
N I	1053.35	5		$2p^3 - 2p^2(^3P)6d$	$^2D^\circ - {}^4F$	5/2 - 7/2	K1
N I	1053.78	3		$2p^3 - 2p^2(^3P)7s$	$^2D^\circ - {}^2P$	3/2 - 1/2	K1
N I	1066.992	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E36
N I	1067.308	8		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E36
N I	1067.386	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^4D$	5/2 - 7/2	E36
N I	1067.616	15		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E36
N I	1068.477	13		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^4P$	3/2 - 5/2	E36
N I	1068.627	12		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^2F$	3/2 - 5/2	E36
N I	1068.670	11		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^4F$	5/2 - 7/2	E36
N I	1069.110	8		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^4F$	5/2 - 5/2	E36
N I	1069.206	9		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^4F$	3/2 - 5/2	E36
N I	1069.374	7		$2p^3 - 2p^2(^3P)6s$	$^2D^\circ - {}^2P$	5/2 - 3/2	E36
N I	1069.468	6		$2p^3 - 2p^2(^3P)6s$	$^2D^\circ - {}^2P$	3/2 - 3/2	E36
N I	1069.990	11		$2p^3 - 2p^2(^3P)6s$	$^2D^\circ - {}^2P$	3/2 - 1/2	E36
N I	1095.942	13		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E36
N I	1096.325	11		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E36
N I	1096.749	13		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4D$	5/2 - 7/2	E36
N I	1097.237	21		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E36
N I	1097.995	8		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4P$	5/2 - 5/2	E36
N I	1098.097	17		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4P$	3/2 - 5/2	E36
N I	1098.261	17		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	3/2 - 5/2	E36
N I	1098.625	12		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4F$	5/2 - 7/2	E36
N I	1098.759	6		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2P$	3/2 - 1/2	E36
N I	1098.952	9		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2P$	5/2 - 3/2	E36
N I	1099.042	8		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4F$	5/2 - 5/2	E36
N I	1099.150	13		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4F$	3/2 - 5/2	E36
N I	1099.263	8		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^4F$	5/2 - 3/2	E36
N I	1100.3593	50		$2p^3 - 2p^2(^3P)5s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K6
N I	1100.4649	15		$2p^3 - 2p^2(^3P)5s$	$^2D^\circ - {}^2P$	3/2 - 3/2	K6
N I	1101.2910	45		$2p^3 - 2p^2(^3P)5s$	$^2D^\circ - {}^2P$	3/2 - 1/2	K6
N I	1134.1651	560	2	$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	K6
N I	1134.4147	550	2	$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	K6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N I	1134.9801	780	2	$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	K6
N I	1139.14	1		$2p^3 - 2p^2(^3P)12d$	$^2P^\circ - {}^2D$	3/2 - 5/2	K1
N I	1140.74	2		$2p^3 - 2p^2(^3P)12d$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1141.19	1		$2p^3 - 2p^2(^3P)13s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1141.60	2		$2p^3 - 2p^2(^3P)11d$	$^2P^\circ - {}^2D$	3/2 - 5/2	K1
N I	1142.70	2		$2p^3 - 2p^2(^3P)11d$	$^2P^\circ - {}^2D$	3/2 - 3/2	K1
N I	1143.31	1		$2p^3 - 2p^2(^3P)12s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1143.6458	15		$2p^3 - 2p^2 3s$	$^2P^\circ - {}^2S$	1/2 - 1/2	K6
N I	1143.6508	30		$2p^3 - 2p^2 3s$	$^2P^\circ - {}^2S$	3/2 - 1/2	K6
N I	1144.16	2		$2p^3 - 2p^2(^3P)10d$	$^2P^\circ - {}^2D$	3/2 - 5/2	K1
N I	1145.27	2		$2p^3 - 2p^2(^3P)10d$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1145.90	1		$2p^3 - 2p^2(^3P)11s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1147.66	4		$2p^3 - 2p^2(^3P)9d$	$^2P^\circ - {}^2D$	1/2 - 3/2	K1
N I	1148.77	4		$2p^3 - 2p^2(^3P)9d$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1149.39	2		$2p^3 - 2p^2(^3P)10s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1152.30	4		$2p^3 - 2p^2(^3P)8d$	$^2P^\circ - {}^2D$	3/2 - 5/2	K1
N I	1152.63	1		$2p^3 - 2p^2(^3P)8d$	$^2P^\circ - {}^2D$	1/2 - 3/2	K1
N I	1153.53	4		$2p^3 - 2p^2(^3P)8d$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1154.19	3		$2p^3 - 2p^2(^3P)9s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1159.28	4		$2p^3 - 2p^2(^3P)7d$	$^2P^\circ - {}^2D$	3/2 - 5/2	K1
N I	1159.8172 P			$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^2P$	3/2 - 3/2	E6,K8
N I	1159.84	2		$2p^3 - 2p^2(^3P)7d$	$^2P^\circ - {}^2D$	1/2 - 3/2	K1
N I	1160.39	3		$2p^3 - 2p^2(^3P)7d$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1160.9370 P			$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^2P$	3/2 - 1/2	E6,K8
N I	1161.30	2		$2p^3 - 2p^2(^3P)8s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1163.8835	150	7	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	K6
N I	1164.0016	30	7	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 5/2	K6
N I	1164.2064	60	7	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 3/2	K6
N I	1164.3246	95	7	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	K6
N I	1165.5943	40		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4D$	5/2 - 7/2	K6
N I	1165.8358	15		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4D$	3/2 - 5/2	K6
N I	1167.4484	350	6	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	K6
N I	1168.2154	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4P$	5/2 - 5/2	K6
N I	1168.3344	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4P$	3/2 - 5/2	K6
N I	1168.4167	60	6	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 5/2	K6
N I	1168.5358	300	6	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	K6
N I	1169.6933	80		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4F$	5/2 - 7/2	K6
N I	1170.1572	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4F$	5/2 - 5/2	K6
N I	1170.2766	80		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4F$	3/2 - 5/2	K6
N I	1170.4165	5		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4F$	5/2 - 3/2	K6
N I	1170.6743	20		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	K6
N I	1171.0834	60		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	K6
N I	1171.37	2		$2p^3 - 2p^2(^3P)6d$	$^2P^\circ - {}^2P$	1/2 - 1/2	K1
N I	1171.60	2		$2p^3 - 2p^2(^3P)6d$	$^2P^\circ - {}^2D$	3/2 - 3/2	K1
N I	1172.01	2		$2p^3 - 2p^2(^3P)7s$	$^2P^\circ - {}^2P$	3/2 - 3/2	K1
N I	1172.46	3		$2p^3 - 2p^2(^3P)7s$	$^2P^\circ - {}^2P$	1/2 - 1/2	K1
N I	1176.5097	350		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - {}^2P$	5/2 - 3/2	K6
N I	1176.6304	180		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - {}^2P$	3/2 - 3/2	K6
N I	1177.6948	320		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - {}^2P$	3/2 - 1/2	K6
N I	1188.971	14		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^2D$	3/2 - 5/2	E36
N I	1189.249	14		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^2D$	1/2 - 3/2	E36
N I	1190.031	5		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^4P$	1/2 - 1/2	E36
N I	1190.494	6		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^4P$	3/2 - 3/2	E36
N I	1190.688	2		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^4P$	3/2 - 5/2	E36
N I	1190.855	6		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^2F$	3/2 - 5/2	E36
N I	1190.923	8		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^2P$	1/2 - 1/2	E36
N I	1191.019	12		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^2P$	3/2 - 3/2	E36
N I	1191.603	2		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - {}^4F$	3/2 - 3/2	E36
N I	1191.925	8		$2p^3 - 2p^2(^3P)6s$	$^2P^\circ - {}^2P$	3/2 - 3/2	E36
N I	1192.563	4		$2p^3 - 2p^2(^3P)6s$	$^2P^\circ - {}^2P$	1/2 - 1/2	E36
N I	1199.5490 ST	1000	1	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	H4,K6
N I	1200.2238 ST	950	1	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	H4,K6
N I	1200.7113 ST	700	1	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	H4,K6
N I	1225.027	21		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - {}^2D$	3/2 - 5/2	E36
N I	1225.374	20		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - {}^2D$	1/2 - 3/2	E36

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N I	1227.241	7		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^4P$	3/2 - 3/2	E36
N I	1227.793	8		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2F$	3/2 - 5/2	E36
N I	1228.414	18		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	3/2 - 1/2	E36
N I	1228.790	20		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	3/2 - 3/2	E36
N I	1229.174	14		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^4F$	3/2 - 3/2	E36
N I	1230.535	7		$2p^3 - 2p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 3/2	E36
N I	1231.578	12		$2p^3 - 2p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 1/2	E36
N I	1233.24	2		$2p^3 - 2p^2(^3P)5s$	$^2P^\circ - ^4P$	3/2 - 5/2	K1
N I	1243.1796	550	5	$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	K6
N I	1243.3066	400	5	$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	3/2 - 3/2	K6
N I	1310.5401	200	13	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	K6
N I	1310.9429	150	13	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	K6
N I	1310.9495	25	13	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	K6
N I	1312.87	3		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4D$	3/2 - 5/2	K1
N I	1313.08	3		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4D$	3/2 - 3/2	K1
N I	1315.44	3		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4P$	3/2 - 3/2	E28
N I	1316.2906	2		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2F$	3/2 - 5/2	K6
N I	1318.8224	5		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4F$	1/2 - 3/2	K6
N I	1318.9981	150	12	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	K6
N I	1319.0048	80	12	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	K6
N I	1319.6693	50	12	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	K6
N I	1319.6760	250	12	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	K6
N I	1326.5639	10	11	$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	K6
N I	1326.5707	50	11	$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	K6
N I	1327.9170	25	11	$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	K6
N I	1327.9238	15	11	$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	K6
N I	1411.9318	150	10	$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	1/2 - 3/2	K6
N I	1411.939	30	10	$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 3/2	K6
N I	1411.9494	300	10	$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	K6
N I	1492.6254	620	4	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	K6
N I	1492.8195	100	4	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 3/2	K6
N I	1494.6751	400	4	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	K6
N I	1592.66	20		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)5p$	$^4P^\circ - ^4P$	5/2 - 5/2	E28
N I	1742.7189	50	9	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 3/2	K6
N I	1742.7306	350	9	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	K6
N I	1745.2482	150	9	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 1/2	K6
N I	1745.2600	50	9	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 1/2	K6
N I	1836.712	4	8	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^4P$	1/2 - 1/2	W10,K1

NITROGEN II (N^{1+}), Z = 7

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 238 750.5 cm^{-1}; 29.601 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N II	453.257	20		$2p^2 - 2p5d$	$g^3P - ^3D^\circ$	1 - 2	E3,E33
N II	453.340	100		$2p^2 - 2p5d$	$g^3P - ^3D^\circ$	2 - 3	E3,E33
N II	474.493 P	10		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	0 - 1	E33,E3
N II	474.546 P	10		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	1 - 0	E33,E3
N II	474.602 P	10		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	1 - 1	E33,E3
N II	474.706 P	20		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	1 - 2	E33,E3
N II	474.787 P	20		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	2 - 1	E33,E3
N II	474.891 P	200		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	2 - 2	E33,E3
N II	475.647 P	100		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	0 - 1	E33,E3
N II	475.698 P	200		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	1 - 2	E33,E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N II	475.757 P			$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	1 - 1	E33
N II	475.803 P	250		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 3	E33,E3
N II	475.884 P	100		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 2	E33,E3
N II	485.849 P	10		$2p^2 - 2p5d$	${}^1D - {}^1F^\circ$	2 - 3	E33,E3
N II	505.986 P	100 -A		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	E33,E3
N II	506.054 P	200 -A		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	E33,E3
N II	506.153 P	300 -A		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	E33,E3
N II	508.484 P	10		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 2	E33,E3
N II	508.668 P			$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	0 - 1	E33
N II	508.697 P	150		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	2 - 2	E33,E3
N II	508.928 P	10		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 0	E33,E3
N II	509.006 P	15		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	2 - 1	E33,E3
N II	510.758 P	250		$2p^2 - 2p4d$	${}^1D - {}^1F^\circ$	2 - 3	E33,E3
N II	513.849 P			$2p^2 - 2p4d$	${}^1D - {}^1D^\circ$	2 - 2	E33,E3
N II	529.355	250	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	0 - 1	E6,E3,E33
N II	529.413	250	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 0	E6,E3,E33
N II	529.491	250	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 1	E6,E3,E33
N II	529.637	250	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 2	E6,E3,E33
N II	529.722	250	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 1	E6,E3,E33
N II	529.867	400	6	$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	E6,E3,E33
N II	533.511	350	5	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	0 - 1	E6,E3,E33
N II	533.581	400	5	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 2	E6,E3,E33
N II	533.650	350	5	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 1	E6,E3,E33
N II	533.729	500	5	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	E6,E3,E33
N II	533.815	350	5	$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 2	E6,E3,E33
N II	547.818 P	10		$2p^2 - 2p4s$	${}^1D - {}^1P^\circ$	2 - 1	E33,E3
N II	559.762 P	10		$2p^2 - 2p4d$	${}^1S - {}^1P^\circ$	0 - 1	E33,E3
N II	572.069 P			$2p^2 - 2p3d$	${}^1D - {}^1P^\circ$	2 - 1	E33
N II	574.650	500	11	$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	E6,E3,E33
N II	582.156	400	10	$2p^2 - 2p3d$	${}^1D - {}^1D^\circ$	2 - 2	E6,E3,E33
N II	629.167 P	300		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	E33,E3
N II	629.447 P	200		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 2	E33,E3
N II	629.670 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 1	E33
N II	635.197	400	13	$2p^2 - 2p3d$	${}^1S - {}^1P^\circ$	0 - 1	E6,E3,E33
N II	644.634	650	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	0 - 1	E6,E3,E33
N II	644.837	750	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	1 - 1	E6,E3,E33
N II	645.178	850	4	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	E6,E3,E33
N II	660.286	750	9	$2s^22p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	E6,E3,E33
N II	670.296 P	220		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$	0 - 1	E33,E3
N II	670.515 P	120		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$	1 - 1	E33,E3
N II	670.884 P	100		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$	2 - 1	E33,E3
N II	671.016	500	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	E6,E3,E33
N II	671.386	500	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	E6,E3,E33
N II	671.411	650	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	E6,E3,E33
N II	671.630	500	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 1	E6,E3,E33
N II	671.773	500	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 0	E6,E3,E33
N II	672.001	500	3	$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	E6,E3,E33
N II	745.841	500	12	$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	E6,E3,E33
N II	746.984	650	8	$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	E6,E3,E33
N II	748.369 P			$2p^2 - 2p3s$	${}^1D - {}^3P^\circ$	2 - 1	E6,E33
N II	775.965	1000	7	$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	E6,E3,E33
N II	836.187 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	3 - 2	E33
N II	836.279 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	2 - 2	E33
N II	836.289 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	1 - 2	E33
N II	836.616 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	2 - 1	E33
N II	836.627 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	1 - 1	E33
N II	836.837 P			$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^3P$	1 - 0	E33
N II	858.376 P	100		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$	0 - 1	E33,E3
N II	860.205 P			$2p^2 - 2p3s$	${}^1S - {}^3P^\circ$	0 - 1	E33
N II	915.612	700	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	E6,E3,E33
N II	915.962	700	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 0	E6,E3,E33
N II	916.012	800	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	E6,E3,E33
N II	916.020	600	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 1	E6,E3,E33
N II	916.701	1000	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	E6,E3,E33
N II	916.710	800	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	E6,E3,E33

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
N II	1083.990		400	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	0 - 1	E6,E3,E33
N II	1084.562		150	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 1	E6,E3,E33
N II	1084.580		750	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	E6,E3,E33
N II	1085.529	P		1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 1	E6,E33
N II	1085.546		400	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 2	E6,E3,E33
N II	1085.701		1000	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	E6,E3,E33
N II	1275.038	P	300		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	3 - 2	E33,E3
N II	1275.251	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	2 - 2	E33
N II	1275.275	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	1 - 2	E33
N II	1276.201	P	200		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	2 - 1	E33,E3
N II	1276.225	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	1 - 1	E33
N II	1276.800	P	100		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3P$	1 - 0	E33,E3
N II	1343.338	P	200		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	3 - 3	E33,E3
N II	1343.574	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	2 - 3	E33
N II	1345.076	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	3 - 2	E33
N II	1345.313	P	100		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	2 - 2	E33,E3
N II	1345.340	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	1 - 2	E33
N II	1346.413	P			$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	2 - 1	E33
N II	1346.441	P	10		$2s2p^3 - 2s^22p3p$	${}^3D^\circ - {}^3D$	1 - 1	E33,E3
N II	1627.349	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	1 - 2	E33
N II	1627.376	P	100		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	2 - 2	E33,E3
N II	1628.896	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	1 - 1	E33
N II	1628.922	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	2 - 1	E33
N II	1629.079	P	100		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	0 - 1	E33,E3
N II	1629.832	P	10		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3P$	1 - 0	E33,E3
N II	1675.726	P	150		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3S$	1 - 1	E33
N II	1675.755	P	300		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3S$	2 - 1	E33
N II	1675.920	P	100		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3S$	0 - 1	E33
N II	1725.028	P			$2p3s - 2p4p$	${}^3P^\circ - {}^1S$	1 - 0	E33
N II	1732.428	P			$2p3s - 2p4p$	${}^1P^\circ - {}^1S$	1 - 0	E33
N II	1740.310	P	400		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	2 - 3	E33,E3
N II	1743.197	P	200		$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	1 - 2	E33,E3
N II	1743.228	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	2 - 2	E33
N II	1745.046	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	1 - 1	E33
N II	1745.076	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	2 - 1	E33
N II	1745.256	P			$2s2p^3 - 2s^22p3p$	${}^3P^\circ - {}^3D$	0 - 1	E33
N II	1763.639	P	100		$2s2p^3 - 2s2p^2({}^4P)3s$	${}^3S^\circ - {}^3P$	1 - 2	E33,F37
N II	1765.140	P	50		$2s2p^3 - 2s2p^2({}^4P)3s$	${}^3S^\circ - {}^3P$	1 - 1	E33,F37
N II	1766.079	P	100		$2s2p^3 - 2s2p^2({}^4P)3s$	${}^3S^\circ - {}^3P$	1 - 0	E33,F37
N II	1772.735	P			$2p3s - 2p4p$	${}^3P^\circ - {}^1D$	1 - 2	E33
N II	1780.551	P			$2p3s - 2p4p$	${}^1P^\circ - {}^1D$	1 - 2	E33
N II	1830.527	P	1		$2p3s - 2p4p$	${}^3P^\circ - {}^3S$	0 - 1	E33,F37
N II	1831.586	P	10		$2p3s - 2p4p$	${}^3P^\circ - {}^3S$	1 - 1	E33,F37
N II	1836.172	P	100		$2p3s - 2p4p$	${}^3P^\circ - {}^3S$	2 - 1	E33,F37
N II	1839.931	P			$2p3s - 2p4p$	${}^1P^\circ - {}^3S$	1 - 1	E33
N II	1840.983	P	100		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	1 - 2	E33,F39
N II	1842.284	P	10		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	0 - 1	E33,F39
N II	1843.357	P	10		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	1 - 1	E33,F39
N II	1844.259	P	10		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	1 - 0	E33,F39
N II	1845.616	P	100		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	2 - 2	E33,F39
N II	1848.002	P	10		$2p3s - 2p4p$	${}^3P^\circ - {}^3P$	2 - 1	E33,F39
N II	1849.414	P	100		$2p3s - 2p4p$	${}^1P^\circ - {}^3P$	1 - 2	E33,E3
N II	1851.810	P			$2p3s - 2p4p$	${}^1P^\circ - {}^3P$	1 - 1	E33
N II	1852.721	P			$2p3s - 2p4p$	${}^1P^\circ - {}^3P$	1 - 0	E33
N II	1857.870	P	300		$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	1 - 2	E33,F37
N II	1858.545	P	200		$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	0 - 1	E33,F37
N II	1859.260	P	500		$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	2 - 3	E33,F37
N II	1859.636	P			$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	1 - 1	E33
N II	1862.588	P	200		$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	2 - 2	E33,F37
N II	1864.364	P			$2p3s - 2p4p$	${}^3P^\circ - {}^3D$	2 - 1	E33
N II	1866.457	P			$2p3s - 2p4p$	${}^1P^\circ - {}^3D$	1 - 2	E33
N II	1868.240	P	10		$2p3s - 2p4p$	${}^1P^\circ - {}^3D$	1 - 1	E33,E3
N II	1878.624	P	200		$2p3s - 2p4p$	${}^3P^\circ - {}^1P$	1 - 1	E33,E3
N II	1887.404	P	350	14	$2p3s - 2p4p$	${}^1P^\circ - {}^1P$	1 - 1	E33,E3
N II	1991.301	P	10		$2p3p - 2p5s$	${}^1P - {}^1P^\circ$	1 - 1	E33,E3

NITROGEN III (N^{2+}), Z = 7

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 382 704 cm^{-1}; 47.448 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N III	208.510	30d -A		$2s2p^2 - 2p^2(^3P)7p$	$^4P - ^4S^\circ$	5/2 - 3/2	M11
N III	208.670	50d -A		$2s2p^2 - 2p^2(^3P)7p$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	208.730	50 -A		$2s2p^2 - 2p^2(^3P)7p$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	212.019	20d -A		$2s2p^2 - 2p^2(^3P)6p$	$^4P - ^4S^\circ$	1/2 - 3/2	M11
N III	212.049	50 -A		$2s2p^2 - 2p^2(^3P)6p$	$^4P - ^4S^\circ$	3/2 - 3/2	M11
N III	212.087	80 -A		$2s2p^2 - 2p^2(^3P)6p$	$^4P - ^4S^\circ$	5/2 - 3/2	M11
N III	212.359	50d -A		$2s2p^2 - 2p^2(^3P)6p$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	212.465	100 -A		$2s2p^2 - 2p^2(^3P)6p$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	213.086	100d -A		$2s^22p - 2s2p(^1P^\circ)5p$	$g^2P^\circ - ^2P$	1/2 - 1/2	M11
N III	213.164	200d -A		$2s^22p - 2s2p(^1P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M11
N III	213.364	50d -A		$2s^22p - 2s2p(^1P^\circ)5p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	213.447	100d -A		$2s^22p - 2s2p(^1P^\circ)5p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	218.349	50 -A		$2s2p^2 - 2p^2(^3P)5p$	$^4P - ^4S^\circ$	1/2 - 3/2	M11
N III	218.378	70 -A		$2s2p^2 - 2p^2(^3P)5p$	$^4P - ^4S^\circ$	3/2 - 3/2	M11
N III	218.416	100 -A		$2s2p^2 - 2p^2(^3P)5p$	$^4P - ^4S^\circ$	5/2 - 3/2	M11
N III	218.949	100d -A		$2s2p^2 - 2p^2(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	219.168	250 -A		$2s2p^2 - 2p^2(^3P)5p$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	224.873	50d -A		$2s^22p - 2s2p(^3P^\circ)14p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	225.302	70d -A		$2s^22p - 2s2p(^3P^\circ)13p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	225.837	300d -A		$2s^22p - 2s2p(^3P^\circ)12p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	226.030	300 -A		$2s^22p - 2s2p(^1P^\circ)4p$	$g^2P^\circ - ^2P$	1/2 - 1/2	M11
N III	226.122	300 -A		$2s^22p - 2s2p(^1P^\circ)4p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M11
N III	226.520	50d -A		$2s^22p - 2s2p(^3P^\circ)11p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	226.832	350 -A		$2s^22p - 2s2p(^1P^\circ)4p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	226.910	400 -A		$2s^22p - 2s2p(^1P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	227.479	250b -A		$2s^22p - 2s2p(^3P^\circ)10p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	227.515	250b -A		$2s^22p - 2s2p(^3P^\circ)10p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	228.762	250b -A		$2s^22p - 2s2p(^3P^\circ)9p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	228.790	250b -A		$2s^22p - 2s2p(^3P^\circ)9p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	228.844	250b -A		$2s^22p - 2s2p(^3P^\circ)9p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	230.591	300b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	230.626	300b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	230.681	300b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	230.765	250b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2P$	1/2 - 3/2	M11
N III	230.789	250b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2P$	1/2 - 1/2	M11
N III	230.861	250b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M11
N III	230.879	250b -A		$2s^22p - 2s2p(^3P^\circ)8p$	$g^2P^\circ - ^2P$	3/2 - 1/2	M11
N III	231.465	150 -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4S^\circ$	1/2 - 3/2	M11
N III	231.497	150 -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4S^\circ$	3/2 - 3/2	M11
N III	231.540	200 -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4S^\circ$	5/2 - 3/2	M11
N III	232.854	300d -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	233.332	400b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	233.368	400b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	233.393	350b -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	233.424	400b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	233.459	350b -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 5/2	M11
N III	233.498	350b -A		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 3/2	M11
N III	233.599	300b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2P$	1/2 - 3/2	M11
N III	233.620	300b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2P$	1/2 - 1/2	M11
N III	233.696	300b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M11
N III	233.716	300b -A		$2s^22p - 2s2p(^3P^\circ)7p$	$g^2P^\circ - ^2P$	3/2 - 1/2	M11
N III	237.532	450b -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	237.565	450b -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	237.624	450b -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	238.034	350 -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2P$	1/2 - 1/2	M11
N III	238.093	350 -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M11
N III	238.134	300 -A		$2s^22p - 2s2p(^3P^\circ)6p$	$g^2P^\circ - ^2P$	3/2 - 1/2	M11
N III	245.021	400d -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	245.115	400d -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	246.206	650b -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N III	246.249	650b -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	246.311	650b -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M11
N III	248.320	350 -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M11
N III	248.371	350 -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M11
N III	248.428	350 -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M11
N III	248.478	350 -A		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M11
N III	257.502	300d -A		$2s2p^2 - 2s2p(^3P^\circ)15d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	257.953	500d -A		$2s2p^2 - 2s2p(^3P^\circ)14d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	258.499	650d -A		$2s2p^2 - 2s2p(^3P^\circ)13d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	259.189	700d -A		$2s2p^2 - 2s2p(^3P^\circ)12d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	260.090	800d -A		$2s2p^2 - 2s2p(^3P^\circ)11d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	261.282	800d -A		$2s2p^2 - 2s2p(^3P^\circ)10d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	262.184	800b		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	262.233	800b		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	262.289	800b		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M11
N III	262.867	400d -A		$2s2p^2 - 2s2p(^3P^\circ)9d$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	262.914	500d -A		$2s2p^2 - 2s2p(^3P^\circ)9d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	264.822	400b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M11
N III	264.846	400b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M11
N III	264.945	400b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M11
N III	264.966	400b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M11
N III	265.232	500d -A		$2s2p^2 - 2s2p(^3P^\circ)8d$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	265.271	500d -A		$2s2p^2 - 2s2p(^3P^\circ)8d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	265.339	200b		2p - 14s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	265.852	200b		2p - 13s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	265.978	200b		2p - 13s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	266.255	500d		2p - 12d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	266.613	200b		2p - 12s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	266.737	250b		2p - 12s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	266.805	350		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M11
N III	266.847	400		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M11
N III	266.930	400		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M11
N III	266.974	350		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M11
N III	267.199	500d		2p - 11d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	267.661	250		2p - 11s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	267.787	300b		2p - 11s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	267.848	500		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	267.952	500b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	267.966	500b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M11
N III	268.212	300 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4S^\circ$	1/2 - 3/2	M11
N III	268.255	300 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4S^\circ$	3/2 - 3/2	M11
N III	268.314	400 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4S^\circ$	5/2 - 3/2	M11
N III	268.347	600d		2p - 10d	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	268.473	600d		2p - 10d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	268.703	500 -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	268.756	400 -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	269.072	250		2p - 10s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	269.199	300		2p - 10s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	270.004	400b		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	270.073	650d		2p - 9d	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	270.201	650d		2p - 9d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	270.554	50 -A		$2s2p^2 - 2s2p(^3P^\circ)7s$	$^4P - {}^4P^\circ$	3/2 - 5/2	M11
N III	270.613	150 -A		$2s2p^2 - 2s2p(^3P^\circ)7s$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	270.685	50 -A		$2s2p^2 - 2s2p(^3P^\circ)7s$	$^4P - {}^4P^\circ$	5/2 - 3/2	M11
N III	271.077	300		2p - 9s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	271.209	350		2p - 9s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	272.523	650d		2p - 8d	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	272.654	650d		2p - 8d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	273.462	400 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 5/2	M11
N III	273.503	100 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 3/2	M11
N III	273.524	450 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	273.562	300 -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 3/2	M11
N III	273.977	400		2p - 8s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	274.108	400		2p - 8s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	274.258	400b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - {}^4P^\circ$	3/2 - 1/2	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N III	274.276	400b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	274.316	400b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4D^\circ$	3/2 - 5/2	M11
N III	274.374	400b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	275.829	400b -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	275.852	400b -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	1/2 - 1/2	M11
N III	275.871	400b -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	3/2 - 3/2	M11
N III	275.883	400b -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 5/2	M11
N III	275.931	400b -A		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 3/2	M11
N III	276.193	700		$2p - 7d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	276.326	700		$2p - 7d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	277.813	300 -A		$2s2p^2 - 2s2p(^3P^\circ)6s$	$^4P - ^4P^\circ$	3/2 - 5/2	M11
N III	277.873	300b -A		$2s2p^2 - 2s2p(^3P^\circ)6s$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	277.901	300b -A		$2s2p^2 - 2s2p(^3P^\circ)6s$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	277.961	300 -A		$2s2p^2 - 2s2p(^3P^\circ)6s$	$^4P - ^4P^\circ$	5/2 - 3/2	M11
N III	278.436	400		$2p - 7s$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	278.572	400		$2p - 7s$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	282.070	700		$2p - 6d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	282.209	700		$2p - 6d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	283.863	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	1/2 - 1/2	M11
N III	283.898	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 1/2	M11
N III	283.937	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	283.977	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 5/2	M11
N III	283.996	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 3/2	M11
N III	284.040	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	284.277	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	1/2 - 3/2	M11
N III	284.308	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	3/2 - 5/2	M11
N III	284.336	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	284.365	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 5/2	M11
N III	285.855	450		$2p - 6s$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	286.000	450		$2p - 6s$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	287.56	300d -A		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	M11
N III	290.865	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	3/2 - 5/2	M11
N III	290.916	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	1/2 - 3/2	M11
N III	290.930	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	290.965	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	291.023	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	3/2 - 1/2	M11
N III	291.031	400b -A		$2s2p^2 - 2s2p(^3P^\circ)5s$	$^4P - ^4P^\circ$	5/2 - 3/2	M11
N III	292.447	750		$2p - 5d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	292.595	750		$2p - 5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	299.661	550		$2p - 5s$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	299.818	550		$2p - 5s$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	299.903	200b -A		$2s2p^2 - 2s2p(^3P^\circ)8d$	$^2D - ^2F^\circ$	3/2 - 5/2	M11
N III	303.825	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	1/2 - 1/2	M11
N III	303.856	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	1/2 - 3/2	M11
N III	303.880	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 1/2	M11
N III	303.910	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	303.960	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 5/2	M11
N III	303.985	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 3/2	M11
N III	304.035	450b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	304.103	300b -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^2D - ^2F^\circ$	5/2 - 7/2	M11
N III	304.203	300d -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^2D - ^2F^\circ$	3/2 - 5/2	M11
N III	304.786	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	1/2 - 3/2	M11
N III	304.812	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	M11
N III	304.877	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	M11
N III	304.921	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 3/2	M11
N III	305.761	500		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	305.920	500		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	310.746	50b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2D - ^2P^\circ$	3/2 - 1/2	M11
N III	310.803	100b -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2D - ^2P^\circ$	5/2 - 3/2	M11
N III	311.007	350d -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2D - ^2F^\circ$	5/2 - 7/2	M11
N III	311.113	350d -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2D - ^2F^\circ$	3/2 - 5/2	M11
N III	311.550	500		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11
N III	311.636	500		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M11
N III	311.721	400		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 3/2	M11
N III	314.715	800	7	$2p - 4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N III	314.850	800b	7	2p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	314.877	800b	7	2p - 4d	$g^2P^\circ - {}^2D$	3/2 - 3/2	M11
N III	321.079	500b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 5/2	M11
N III	321.135	500b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	1/2 - 3/2	M11
N III	321.162	500b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	321.198	500b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 3/2	M11
N III	321.278	500b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 3/2	M11
N III	323.263	600d -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - {}^2F^\circ$	3/2 - 5/2	M11
N III	323.436	500	6	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M11
N III	323.493	500	6	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M11
N III	323.620	500	6	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M11
N III	323.675	500	6	$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M11
N III	325.788	20d -A		$2s2p^2 - 2s2p(^3P^\circ)9d$	$^2S - {}^2P^\circ$	1/2 - 1/2	M11
N III	325.841	50d -A		$2s2p^2 - 2s2p(^3P^\circ)9d$	$^2S - {}^2P^\circ$	1/2 - 3/2	M11
N III	329.242	50d -A		$2s2p^2 - 2s2p(^3P^\circ)8d$	$^2S - {}^2P^\circ$	1/2 - 1/2	M11
N III	329.307	100d -A		$2s2p^2 - 2s2p(^3P^\circ)8d$	$^2S - {}^2P^\circ$	1/2 - 3/2	M11
N III	330.26	300d -A		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2P - {}^2D^\circ$	3/2 - 5/2	M11
N III	332.140	650		2p - 4s	$g^2P^\circ - {}^2S$	1/2 - 1/2	M11
N III	332.333	650		2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	M11
N III	334.407	200 -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^2S - {}^2P^\circ$	1/2 - 1/2	M11
N III	334.476	250 -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^2S - {}^2P^\circ$	1/2 - 3/2	M11
N III	338.349	500 -A		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2D^\circ$	5/2 - 5/2	M11
N III	338.808	250d -A		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^2S^\circ$	1/2 - 1/2	M11
N III	338.937	300d -A		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^2S^\circ$	3/2 - 1/2	M11
N III	340.20	500d -A		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2F^\circ$	5/2 - 7/2	M11
N III	342.665	250 -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2S - {}^2P^\circ$	1/2 - 1/2	M11
N III	342.741	300 -A		$2s2p^2 - 2s2p(^3P^\circ)9d$	$^2P - {}^4P^\circ$	3/2 - 3/2	M11
N III	347.072	100 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2P^\circ$	3/2 - 1/2	M11
N III	347.148	200 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2P^\circ$	5/2 - 3/2	M11
N III	348.683	800b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2F^\circ$	5/2 - 7/2	M11
N III	348.816	800b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2F^\circ$	3/2 - 5/2	M11
N III	351.979	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2D^\circ$	5/2 - 5/2	M11
N III	352.114	20 -A		$2s2p^2 - 2s2p(^3P^\circ)7d$	$^2P - {}^2P^\circ$	3/2 - 3/2	M11
N III	357.238	400 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2S - {}^2P^\circ$	1/2 - 1/2	M11
N III	357.324	450 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2S - {}^2P^\circ$	1/2 - 3/2	M11
N III	358.278	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	1/2 - 1/2	M11
N III	358.327	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	1/2 - 3/2	M11
N III	358.356	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 1/2	M11
N III	358.401	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 3/2	M11
N III	358.469	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 5/2	M11
N III	358.509	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 3/2	M11
N III	358.578	600b	11	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 5/2	M11
N III	361.061	100 -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2P - {}^2P^\circ$	1/2 - 1/2	M11
N III	361.143	50 -A		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^4P^\circ$	3/2 - 3/2	M11
N III	361.205	50 -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2P - {}^2P^\circ$	3/2 - 1/2	M11
N III	361.288	200 -A		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2P - {}^2P^\circ$	3/2 - 3/2	M11
N III	362.831	700b	10	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	M11
N III	362.876	700b	10	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	M11
N III	362.902	700b	10	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 3/2	M11
N III	362.949	700b	10	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	M11
N III	362.982	700b	10	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 5/2	M11
N III	363.004	700b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 3/2	M11
N III	370.640	300 -A		$2s2p^2 - 2p^2(^2D)3p$	$^2P - {}^2D^\circ$	1/2 - 3/2	M11
N III	370.794	350 -A		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^2D^\circ$	3/2 - 5/2	M11
N III	374.204	900	5	2p - 3d	$g^2P^\circ - {}^2D$	1/2 - 3/2	M11
N III	374.441	900	5	2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	M11
N III	377.286	100 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2P - {}^2P^\circ$	1/2 - 1/2	M11
N III	377.380	100 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2P - {}^2P^\circ$	1/2 - 3/2	M11
N III	377.444	100 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2P - {}^2P^\circ$	3/2 - 1/2	M11
N III	377.540	250 -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2P - {}^2P^\circ$	3/2 - 3/2	M11
N III	387.483	500b -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - {}^2P^\circ$	1/2 - 3/2	M11
N III	396.186	450		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - {}^2P^\circ$	5/2 - 3/2	M11
N III	398.885	500 -A		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$	1/2 - 3/2	M11
N III	399.045	600b -A		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$	3/2 - 5/2	M11
N III	399.06	600b -A		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$	3/2 - 3/2	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N III	411.056	350 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2P^\circ$	1/2 - 1/2	M11
N III	411.173	200 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2P^\circ$	1/2 - 3/2	M11
N III	411.243	200 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2P^\circ$	3/2 - 1/2	M11
N III	411.361	400 -A		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2P^\circ$	3/2 - 3/2	M11
N III	413.681	450		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2P^\circ$	3/2 - 1/2	M11
N III	413.797	450		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	M11
N III	418.712	650	16	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	M11
N III	418.919	650	16	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	M11
N III	428.180	600b	15	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	M11
N III	428.244	600b	15	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	M11
N III	433.911	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	M11
N III	434.014	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	M11
N III	434.066	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	M11
N III	434.129	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 3/2	M11
N III	434.246	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 1/2	M11
N III	434.280	650b	9	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	M11
N III	448.285	350 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 1/2	M11
N III	448.384	450 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	M11
N III	448.549	450 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	M11
N III	449.559	450		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	M11
N III	451.869	900	4	$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	M11
N III	452.226	900	4	$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	M11
N III	456.077	600		$2s2p^2 - 2s^24f$	$^2D - ^2F^\circ$	5/2 - 7/2	M11
N III	467.432	500 -A		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	M11
N III	467.649	450 -A		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	M11
N III	467.795	350 -A		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 1/2	M11
N III	472.239	550	18	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	M11
N III	472.399	550	18	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	M11
N III	481.778	500		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 1/2	M11
N III	482.030	500		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	M11
N III	509.586	400	14	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	E3
N III	509.897	350	14	$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	E3
N III	530.037	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	E3
N III	530.268	250		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	E3
N III	601.468	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
N III	601.878	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	E3
N III	684.996	700	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	E6,E3
N III	685.513	750	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	E6,E3
N III	685.816	800	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	E6,E3
N III	686.335	700	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	E6,E3
N III	691.187	100		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	5/2 - 3/2	E3
N III	691.388	50		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	3/2 - 1/2	E3
N III	763.340	700	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	E6,E3
N III	764.357	750	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	E6,E3
N III	771.544	500	8	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	E6,E3
N III	771.901	550	8	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	E6,E3
N III	772.385	600	8	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	E6,E3
N III	772.891	450	13	$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	E3
N III	772.975	400	13	$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	E3
N III	871.850	10		$2s2p^2 - 2s^23p$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
N III	979.842	400	12	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	E3
N III	979.919	450	12	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	E3
N III	989.790	800	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	E6,E3
N III	991.514	600	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	E6,E3
N III	991.579	900	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	E6,E3
N III	1006.015	300	17	$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
N III	1183.030	350	20	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	E3
N III	1184.544	400	20	$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	E3
N III	1324.40	150		$3d - 5f$	$^2D - ^2F^\circ$	5/2 - 7/2	F38
N III	1345.81 P	200 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4D - ^4F^\circ$	5/2 - 7/2	F38
N III	1346.22 P	200 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4D - ^4F^\circ$	7/2 - 9/2	F38
N III	1347.56	10 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4D - ^4F^\circ$	7/2 - 7/2	F38
N III	1387.31	200		$3p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
N III	1470.68	10 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	1/2 - 3/2	F38
N III	1471.02	50 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	F38

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
N III	1471.69		100 -A		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	F38
N III	1694.72	P	10		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	3/2 - 5/2	F38
N III	1696.54		150		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	5/2 - 5/2	F38
N III	1697.06	P	10		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	1/2 - 3/2	F38
N III	1698.08	P	100		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	3/2 - 3/2	F38
N III	1698.87	P	100		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	1/2 - 1/2	F38
N III	1699.32		250		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	7/2 - 5/2	F38
N III	1699.88	P	200		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4D - ^4P^\circ$	5/2 - 3/2	F38
N III	1730.04		400 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4F^\circ - ^4G$	9/2 - 11/2	E3
N III	1746.82	P			$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	1/2 - 3/2	E5
N III	1747.86		450	19	$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	E3
N III	1748.61		3		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	1/2 - 1/2	E5
N III	1749.674		3		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 5/2	E5
N III	1751.24		300	19	$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 3/2	E3
N III	1751.75		500	19	$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	E3
N III	1752.16	P			$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 3/2	E5
N III	1753.986		1		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 1/2	E5
N III	1804.3		300	22	3p - 4s	$^2P^\circ - ^2S$	1/2 - 1/2	E3
N III	1805.5		350	22	3p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	E3
N III	1835.51	P	150		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4S - ^4P^\circ$	3/2 - 5/2	F38
N III	1839.44	P	100		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4S - ^4P^\circ$	3/2 - 3/2	F38
N III	1841.57	P	50		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4S - ^4P^\circ$	3/2 - 1/2	F38
N III	1845.64		250 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	7/2 - 9/2	E3
N III	1845.80		200 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	5/2 - 7/2	E3
N III	1885.25		500	24	3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	E3
N III	1906.22		100 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^4F$	3/2 - 5/2	E15
N III	1906.89		100 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^4F$	5/2 - 7/2	E15
N III	1907.28		400 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^4F$	5/2 - 5/2	E15
N III	1907.99	P	300 -A	27	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	3/2 - 5/2	E15
N III	1908.21	P	400 -A	27	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 7/2	E15
N III	1908.96		100 -A	27	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 5/2	E15
N III	1918.69		10 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 1/2	E15
N III	1919.06		10 -A		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^2D$	3/2 - 5/2	E15
N III	1919.44		50 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	5/2 - 5/2	E15
N III	1919.71		100 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 3/2	E15
N III	1919.99		100 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	1/2 - 1/2	E15
N III	1920.86		400 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	5/2 - 7/2	E15
N III	1921.49		200 -A	29	$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 5/2	E15
N III	1946.99		250		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	F38
N III	1949.22		300		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	F38
N III	1949.76	P	200		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 3/2	F38
N III	1951.43		100		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 3/2	F38
N III	1952.14	P	50		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 1/2	F38
N III	1953.66		150		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	F38
N III	1953.80		150		$2s2p(^3P^\circ)3p - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 1/2	F38

NITROGEN IV (N^{3+}), Z = 7

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 624 866 cm^{-1}; 77.742 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	159.366	1d -A	6.38	2s2p - 2p13p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	159.833	1d -A	6.37	2s2p - 2p12p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	160.451	1d -A	6.36	2s2p - 2p11p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	161.256	2d -A	6.35	2s2p - 2p10p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	161.286	2d -A	6.34	2s2p - 2p10p	$^3P^\circ - ^3D$	2 - 3	M11

525-206 O - 73 - 4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	162.374	2 -A	6.33	2s2p - 2p9p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	162.423	10 -A	6.32	2s2p - 2p9p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	162.816	1d	2.16	$2s^2$ - 2s13p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	163.311	1d	2.15	$2s^2$ - 2s12p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	163.949	10d	2.14	$2s^2$ - 2s11p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	163.972	2 -A	6.31	2s2p - 2p8p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	164.048	50 -A	6.30	2s2p - 2p8p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	164.794	30	2.13	$2s^2$ - 2s10p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	165.945	50	2.12	$2s^2$ - 2s9p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	166.337	10 -A	6.29	2s2p - 2p7p	$^3P^\circ - ^3P$	1 - 2	M11
N IV	166.377	20 -A	6.29	2s2p - 2p7p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	166.496	20 -A	6.28	2s2p - 2p7p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	166.540	75 -A	6.28	2s2p - 2p7p	$^3P^\circ - ^3D$	2 - 2	M11
N IV	167.709	150	2.10	$2s^2$ - 2s8p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	170.074	200	2.09	$2s^2$ - 2s7p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	170.208	50 -A	6.27	2s2p - 2p6p	$^3P^\circ - ^3P$	1 - 2	M11
N IV	170.249	100 -A	6.27	2s2p - 2p6p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	170.463	50 -A	6.26	2s2p - 2p6p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	170.505	100 -A	6.26	2s2p - 2p6p	$^3P^\circ - ^3D$	2 - 2	M11
N IV	174.602	200	2.07	$2s^2$ - 2s6p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	177.119	100b -A	6.25	2s2p - 2p5p	$^3P^\circ - ^3P$	1 - 2	M11
N IV	177.142	100b -A	6.25	2s2p - 2p5p	$^3P^\circ - ^3P$	1 - 1	M11
N IV	177.163	200 -A	6.25	2s2p - 2p5p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	177.182	100b -A	6.25	2s2p - 2p5p	$^3P^\circ - ^3P$	2 - 1	M11
N IV	177.602	100b -A	6.24	2s2p - 2p5p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	177.621	100b -A	6.24	2s2p - 2p5p	$^3P^\circ - ^3D$	1 - 1	M11
N IV	177.646	250 -A	6.24	2s2p - 2p5p	$^3P^\circ - ^3D$	2 - 2	M11
N IV	178.547	1 -A	12.29	2s2p - 2p11p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	179.554	2 -A	12.28	2s2p - 2p10p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	180.928	5 -A	12.27	2s2p - 2p9p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	181.746	400	2.06	$2s^2$ - 2s5p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	181.943	10d	6.23	2s2p - 2s15d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	182.323	20d	6.22	2s2p - 2s14d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	182.827	30d	6.21	2s2p - 2s13d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	182.894	10 -A	12.26	2s2p - 2p8p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	183.146	5d -A	12.25	2s2p - 2p8p	$^1P^\circ - ^1P$	1 - 1	M11
N IV	183.402	50d	6.20	2s2p - 2s12d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	183.450	50d	6.20	2s2p - 2s12d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	184.200	75d	6.19	2s2p - 2s11d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	184.247	75d	6.19	2s2p - 2s11d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	184.437	1	6.18	2s2p - 2s11s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	184.485	2	6.18	2s2p - 2s11s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	185.237	150d	6.17	2s2p - 2s10d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	185.257	150d	6.17	2s2p - 2s10d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	185.306	200d	6.17	2s2p - 2s10d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	185.568	3	6.16	2s2p - 2s10s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	185.623	5	6.16	2s2p - 2s10s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	185.853	75 -A	12.24	2s2p - 2p7p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	186.218	50 -A	12.23	2s2p - 2p7p	$^1P^\circ - ^1P$	1 - 1	M11
N IV	186.690	250d	6.15	2s2p - 2s9d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	186.709	250d	6.15	2s2p - 2s9d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	186.759	300d	6.15	2s2p - 2s9d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	187.123	10	6.14	2s2p - 2s9s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	187.142	10	6.14	2s2p - 2s9s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	187.194	20	6.14	2s2p - 2s9s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	188.583	200b	6.13	2s2p - 2s8s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	188.606	200b	6.13	2s2p - 2s8s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	188.656	250	6.13	2s2p - 2s8s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	188.743	300b	6.12	2s2p - 2s8d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	188.762	300b	6.12	2s2p - 2s8d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	188.818	300	6.12	2s2p - 2s8d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	189.365	1	6.11	2s2p - 2p4p	$^3P^\circ - ^3S$	0 - 1	M11
N IV	189.386	5	6.11	2s2p - 2p4p	$^3P^\circ - ^3S$	1 - 1	M11
N IV	189.437	10	6.11	2s2p - 2p4p	$^3P^\circ - ^3S$	2 - 1	M11
N IV	190.625	200 -A	12.22	2s2p - 2p6p	$^1P^\circ - ^1D$	1 - 2	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	191.228	100 -A	12.21	2s2p - 2p6p	$^1P^\circ - ^1P$	1 - 1	M11
N IV	191.651	400b	6.10	2s2p - 2p4p	$^3P^\circ - ^3P$	1 - 2	M11
N IV	191.676	400b	6.10	2s2p - 2p4p	$^3P^\circ - ^3P$	1 - 1	M11
N IV	191.702	400b	6.10	2s2p - 2p4p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	191.727	400b	6.10	2s2p - 2p4p	$^3P^\circ - ^3P$	2 - 1	M11
N IV	191.748	400b	6.10	2s2p - 2p4p	$^3P^\circ - ^3P$	1 - 0	M11
N IV	191.868	350b	6.09	2s2p - 2s7d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	191.898	350b	6.09	2s2p - 2s7d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	191.951	350	6.09	2s2p - 2s7d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	192.533	10d -A	15.23	$2p^2$ - 2p13d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	192.859	400b	6.08	2s2p - 2p4p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	192.888	400b	6.08	2s2p - 2p4p	$^3P^\circ - ^3D$	1 - 1	M11
N IV	192.908	400b	6.08	2s2p - 2p4p	$^3P^\circ - ^3D$	2 - 2	M11
N IV	192.941	400b	6.08	2s2p - 2p4p	$^3P^\circ - ^3D$	2 - 1	M11
N IV	193.139	300b	6.07	2s2p - 2s7s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	193.160	300b	6.07	2s2p - 2s7s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	193.214	350	6.07	2s2p - 2s7s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	194.083	75d -A	15.22	$2p^2$ - 2p11d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	195.202	20d -A	15.21	$2p^2$ - 2p10d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	195.258	100d -A	15.20	$2p^2$ - 2p10d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	195.610	1 -A	15.19	$2p^2$ - 2p10s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	196.802	100d -A	15.18	$2p^2$ - 2p9d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	196.866	500b -A	15.17	$2p^2$ - 2p9d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	196.921	400b	6.06	2s2p - 2s6d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	196.944	400b	6.06	2s2p - 2s6d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	197.000	400	6.06	2s2p - 2s6d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	197.230	500	2.04	$2s^2$ - 2s4p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	197.343	2 -A	15.16	$2p^2$ - 2p9s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	198.740	250b	6.05	2s2p - 2s6s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	198.764	250b	6.05	2s2p - 2s6s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	198.821	300	6.05	2s2p - 2s6s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	199.087	200d -A	15.15	$2p^2$ - 2p8d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	199.159	450b -A	15.14	$2p^2$ - 2p8d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	199.806	20 -A	15.13	$2p^2$ - 2p8s	$^3P - ^3P^\circ$	1 - 2	M11
N IV	199.857	50 -A	15.13	$2p^2$ - 2p8s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	200.340	300 -A	12.20	2s2p - 2p5p	$^1P^\circ - ^1P$	1 - 1	M11
N IV	201.988	100d -A	18.22	$2p^2$ - 2p9d	$^1D - ^1P^\circ$	2 - 1	M11
N IV	202.485	300d -A	15.12	$2p^2$ - 2p7d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	202.595	500b -A	15.11	$2p^2$ - 2p7d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	203.642	50b -A	15.10	$2p^2$ - 2p7s	$^3P - ^3P^\circ$	1 - 2	M11
N IV	203.694	50b -A	15.10	$2p^2$ - 2p7s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	203.780	50 -A	15.10	$2p^2$ - 2p7s	$^3P - ^3P^\circ$	2 - 1	M11
N IV	204.302	150d -A	18.21	$2p^2$ - 2p8d	$^1D - ^1P^\circ$	2 - 1	M21
N IV	205.940	500b	6.04	2s2p - 2s5d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	205.968	500b	6.04	2s2p - 2s5d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	206.028	500	6.04	2s2p - 2s5d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	206.707	10d	12.19	2s2p - 2s13d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	207.500	20d	12.18	2s2p - 2s12d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	207.812	200d -A	18.20	$2p^2$ - 2p7d	$^1D - ^1P^\circ$	2 - 1	M21
N IV	208.066	400d -A	15.09	$2p^2$ - 2p6d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	208.113	400b -A	15.08	$2p^2$ - 2p6d	$^3P - ^3D^\circ$	0 - 1	M11
N IV	208.131	400b -A	15.08	$2p^2$ - 2p6d	$^3P - ^3D^\circ$	1 - 2	M11
N IV	208.150	400b -A	15.08	$2p^2$ - 2p6d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	208.510	100d	12.17	2s2p - 2s11d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	209.378	400b	6.03	2s2p - 2s5s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	209.407	400b	6.03	2s2p - 2s5s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	209.471	400b	6.03	2s2p - 2s5s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	209.842	150b	12.16	2s2p - 2s10d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	209.976	100b -A	15.07	$2p^2$ - 2p6s	$^3P - ^3P^\circ$	1 - 2	M11
N IV	210.028	200 -A	15.07	$2p^2$ - 2p6s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	210.092	100b -A	15.07	$2p^2$ - 2p6s	$^3P - ^3P^\circ$	1 - 0	M11
N IV	210.111	100b -A	15.07	$2p^2$ - 2p6s	$^3P - ^3P^\circ$	2 - 1	M11
N IV	211.405	400	2.03	$2s^2$ - 2p3s	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	211.679	250d	12.15	2s2p - 2s9d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	213.443	300d -A	18.19	$2p^2$ - 2p6d	$^1D - ^1P^\circ$	2 - 1	M21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	214.291	250	12.14	2s2p - 2s8d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	214.414	50d -A	18.17	$2p^2$ - 2p6d	$^1D - ^1F^\circ$	2 - 3	M11
N IV	214.843	10	12.13	2s2p - 2s8s	$^1P^\circ - ^1S$	1 - 0	M11
N IV	215.755	75	12.12	2s2p - 2p4p	$^1P^\circ - ^1S$	1 - 0	M11
N IV	217.218	500	13.11	2s2p - 2p4p	$^1P^\circ - ^1D$	1 - 2	M11
N IV	217.895	500d -A	15.06	$2p^2$ - 2p5d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	218.044	400b -A	15.05	$2p^2$ - 2p5d	$^3P - ^3D^\circ$	0 - 1	M11
N IV	218.067	400b -A	15.05	$2p^2$ - 2p5d	$^3P - ^3D^\circ$	1 - 2	M11
N IV	218.088	400b -A	15.05	$2p^2$ - 2p5d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	218.116	400b -A	15.05	$2p^2$ - 2p5d	$^3P - ^3D^\circ$	2 - 2	M11
N IV	218.250	400	12.10	2s2p - 2s7d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	220.124	50	12.09	2s2p - 2s7s	$^1P^\circ - ^1S$	1 - 0	M11
N IV	220.280	400	12.08	2s2p - 2p4p	$^1P^\circ - ^1P$	1 - 1	M11
N IV	220.885	2d -A	18.42	$2p^2$ - 2p10d	$^1S - ^1P^\circ$	0 - 1	M11
N IV	221.729	300b -A	15.04	$2p^2$ - 2p5s	$^3P - ^3P^\circ$	1 - 2	M11
N IV	221.789	450 -A	15.04	$2p^2$ - 2p5s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	221.854	300b	15.04	$2p^2$ - 2p5s	$^3P - ^3P^\circ$	1 - 0	M11
N IV	221.871	300b -A	15.04	$2p^2$ - 2p5s	$^3P - ^3P^\circ$	2 - 1	M11
N IV	222.893	30d -A	18.41	$2p^2$ - 2p9d	$^1S - ^1P^\circ$	0 - 1	M11
N IV	223.421	500d -A	18.16	$2p^2$ - 2p5d	$^1D - ^1P^\circ$	2 - 1	M21
N IV	224.629	450b	12.07	2s2p - 2s6d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	225.110	800b	6	2s2p - 2s4d	$^3P^\circ - ^3D$	0 - 1	M11
N IV	225.142	800b	6	2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 2	M11
N IV	225.212	800	6	2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	M11
N IV	225.741	50d -A	18.40	$2p^2$ - 2p8d	$^1S - ^1P^\circ$	0 - 1	M11
N IV	227.026	100	12.06	2s2p - 2s6s	$^1P^\circ - ^1S$	1 - 0	M11
N IV	230.035	100d -A	18.39	$2p^2$ - 2p7d	$^1S - ^1P^\circ$	0 - 1	M11
N IV	232.112	100	5.07	2s2p - 2p3p	$^3P^\circ - ^3S$	0 - 1	M11
N IV	232.145	150	5.07	2s2p - 2p3p	$^3P^\circ - ^3S$	1 - 1	M11
N IV	232.223	200	5.07	2s2p - 2p3p	$^3P^\circ - ^3S$	2 - 1	M11
N IV	234.124	600b	5.05	2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 2	M11
N IV	234.195	600b	5.05	2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 2	M11
N IV	234.249	600b	5.05	2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 1	M11
N IV	236.068	550	12.05	2s2p - 2s5d	$^1P^\circ - ^1D$	1 - 2	M11
N IV	236.954	150d -A	18.38	$2p^2$ - 2p6d	$^1S - ^1P^\circ$	0 - 1	M11
N IV	237.873	400b	5.04	2s2p - 2s4s	$^3P^\circ - ^3S$	0 - 1	M11
N IV	237.908	400b	5.04	2s2p - 2s4s	$^3P^\circ - ^3S$	1 - 1	M11
N IV	237.991	500	5.04	2s2p - 2s4s	$^3P^\circ - ^3S$	2 - 1	M11
N IV	238.657	500b	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	0 - 1	M11
N IV	238.683	500b	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	1 - 0	M11
N IV	238.694	500b	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	1 - 1	M11
N IV	238.731	500b	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	1 - 2	M11
N IV	238.769	500b	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	2 - 1	M11
N IV	238.802	600	15.03	$2p^2$ - 2p4d	$^3P - ^3P^\circ$	2 - 2	M11
N IV	239.146	450b	15.02	$2p^2$ - 2p4d	$^3P - ^3D^\circ$	0 - 1	M11
N IV	239.174	450b	15.02	$2p^2$ - 2p4d	$^3P - ^3D^\circ$	1 - 2	M11
N IV	239.212	450b	15.02	$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 3	M11
N IV	239.243	450b	5.03	$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 2	M11
N IV	239.616	500b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	M11
N IV	239.632	400b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 2	M11
N IV	239.659	400b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	0 - 1	M11
N IV	239.679	400b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 1	M11
N IV	239.708	400b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 2	M11
N IV	239.763	400b	5.03	2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 1	M11
N IV	240.363	200	12.04	2s2p - 2s5s	$^1P^\circ - ^1S$	1 - 0	M11
N IV	244.100	300b	18.14	$2p^2$ - 2p4d	$^1D - ^1P^\circ$	2 - 1	M11
N IV	247.205	900	2	$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	M11
N IV	248.383	500	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	1 - 2	M11
N IV	248.433	500b	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	0 - 1	M11
N IV	248.461	500b	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	2 - 2	M11
N IV	248.484	500b	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	1 - 1	M11
N IV	248.540	500	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	1 - 0	M11
N IV	248.563	500	15.01	$2p^2$ - 2p4s	$^3P - ^3P^\circ$	2 - 1	M11
N IV	248.654	450	18.13	$2p^2$ - 2p4d	$^1D - ^1F^\circ$	2 - 3	M11
N IV	249.316	300d -A	18.37	$2p^2$ - 2p5d	$^1S - ^1P^\circ$	0 - 1	M11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	250.121	300	18.12	$2p^2$ - 2p4d	^1D - $^1D°$	2 - 2	M11
N IV	254.338	100 -A	18.36	$2p^2$ - 2p5s	^1S - $^1P°$	0 - 1	M11
N IV	255.148	380	18.10	$2p^2$ - 2p4s	^1D - $^1P°$	2 - 1	M11
N IV	258.320	150	18.09	$2p^2$ - 2s6f	^1D - $^1F°$	2 - 3	M11
N IV	259.824	450	12.03	2s2p - 2p3p	$^1P°$ - ^1S	1 - 0	M11
N IV	260.447	600	12.02	2s2p - 2s4d	$^1P°$ - ^1D	1 - 2	M11
N IV	270.994	650	12	2s2p - 2p3p	$^1P°$ - ^1D	1 - 2	M11
N IV	273.140	300	18.07	$2p^2$ - 2s5f	^1D - $^1F°$	2 - 3	M11
N IV	274.451	250	11.04	2s2p - 2s4s	$^1P°$ - ^1S	1 - 0	M11
N IV	275.354	450	18.35	$2p^2$ - 2p4d	^1S - $^1P°$	0 - 1	M11
N IV	276.741	10	18.06	$2p^2$ - 2s5p	^1D - $^1P°$	2 - 1	M11
N IV	283.419	900b	5	2s2p - 2s3d	$^3P°$ - ^3D	0 - 1	M11
N IV	283.476	900b	5	2s2p - 2s3d	$^3P°$ - ^3D	1 - 2	M11
N IV	283.583	900	5	2s2p - 2s3d	$^3P°$ - ^3D	2 - 3	M11
N IV	285.561	600	11	2s2p - 2p3p	$^1P°$ - ^1P	1 - 1	M11
N IV	289.479	300	18.33	$2p^2$ - 2p4s	^1S - $^1P°$	0 - 1	M11
N IV	297.595	600b	15	$2p^2$ - 2p3d	^3P - $^3P°$	0 - 1	M11
N IV	297.634	600b	15	$2p^2$ - 2p3d	^3P - $^3P°$	1 - 0	M11
N IV	297.657	600b	15	$2p^2$ - 2p3d	^3P - $^3P°$	1 - 1	M11
N IV	297.704	600b	15	$2p^2$ - 2p3d	^3P - $^3P°$	1 - 2	M11
N IV	297.770	600b	15	$2p^2$ - 2p3d	^3P - $^3P°$	2 - 1	M11
N IV	297.816	700	15	$2p^2$ - 2p3d	^3P - $^3P°$	2 - 2	M11
N IV	300.318	650	18.05	$2p^2$ - 2s4f	^1D - $^1F°$	2 - 3	M11
N IV	303.006	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	0 - 1	M11
N IV	303.048	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	1 - 2	M11
N IV	303.078	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	1 - 1	M11
N IV	303.124	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	2 - 3	M11
N IV	303.162	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	2 - 2	M11
N IV	303.191	500b	14	$2p^2$ - 2p3d	^3P - $^3D°$	2 - 1	M11
N IV	303.280	500	18.04	$2p^2$ - 2p3d	^1D - $^1P°$	2 - 1	M11
N IV	314.324	20	18.01	$2p^2$ - 2s4p	^1D - $^1P°$	2 - 1	M11
N IV	315.060	600	18	$2p^2$ - 2p3d	^1D - $^1F°$	2 - 3	M11
N IV	317.596	200	18.31	$2p^2$ - 2s5p	^1S - $^1P°$	0 - 1	M11
N IV	322.506	700	4	2s2p - 2s3s	$^3P°$ - ^3S	0 - 1	M11
N IV	322.572	700	4	2s2p - 2s3s	$^3P°$ - ^3S	1 - 1	M11
N IV	322.722	700	4	2s2p - 2s3s	$^3P°$ - ^3S	2 - 1	M11
N IV	323.178	600b	17	$2p^2$ - 2p3d	^1D - $^1D°$	2 - 2	M11
N IV	335.052	850	10	2s2p - 2s3d	$^1P°$ - ^1D	1 - 2	M11
N IV	344.916	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	1 - 2	M11
N IV	345.025	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	0 - 1	M11
N IV	345.062	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	2 - 2	M11
N IV	345.111	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	1 - 1	M11
N IV	345.207	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	1 - 0	M11
N IV	345.261	600b	13	$2p^2$ - 2p3s	^3P - $^3P°$	2 - 1	M11
N IV	351.931	500b	16	$2p^2$ - 2p3s	^1D - $^1P°$	2 - 1	M11
N IV	353.056	700	18.30	$2p^2$ - 2p3d	^1S - $^1P°$	0 - 1	M11
N IV	368.108	450	18.29	$2p^2$ - 2s4p	^1S - $^1P°$	0 - 1	M11
N IV	387.353	500	9	2s2p - 2s3s	$^1P°$ - ^1S	1 - 0	M11
N IV	420.769	500	18.27	$2p^2$ - 2p3s	^1S - $^1P°$	0 - 1	M11
N IV	463.740	650	15.24	$2p^2$ - 2s3p	^1D - $^1P°$	2 - 1	M11
N IV	765.148	850	1	$2s^2$ - 2s2p	g^1S - $^1P°$	0 - 1	H2
N IV	823.273	100	3.01	2s2p - $2p^2$	$^3P°$ - ^1D	2 - 2	H2
N IV	921.992	850	3	2s2p - $2p^2$	$^3P°$ - ^3P	1 - 2	H2
N IV	922.519	800	3	2s2p - $2p^2$	$^3P°$ - ^3P	0 - 1	H2
N IV	923.057	700	3	2s2p - $2p^2$	$^3P°$ - ^3P	1 - 1	H2
N IV	923.220	1000	3	2s2p - $2p^2$	$^3P°$ - ^3P	2 - 2	H2
N IV	923.675	800	3	2s2p - $2p^2$	$^3P°$ - ^3P	1 - 0	H2
N IV	924.283	850	3	2s2p - $2p^2$	$^3P°$ - ^3P	2 - 1	H2
N IV	948.155	100	18.79	2s3p - 2s4d	$^3P°$ - ^3D	0 - 1	H2
N IV	948.244	200	18.79	2s3p - 2s4d	$^3P°$ - ^3D	1 - 2	H2
N IV	948.540	250	18.79	2s3p - 2s4d	$^3P°$ - ^3D	2 - 3	H2
N IV	955.335	1000	8	2s2p - $2p^2$	$^1P°$ - ^1S	1 - 0	H2
N IV	1036.16	400w	18.84	2s3d - 2s4f	^3D - $^3F°$	2 - 3	H2
N IV	1078.708	300	18.88	2s3d - 2s4f	^1D - $^1F°$	2 - 3	H2
N IV	1086.084	b	18.78	2s3p - 2s4s	$^3P°$ - ^3S	0 - 1	H2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N IV	1086.269	50	18.78	2s3p - 2s4s	$^3P^\circ - ^3S$	1 - 1	H2
N IV	1086.691	100	18.78	2s3p - 2s4s	$^3P^\circ - ^3S$	2 - 1	H2
N IV	1133.117	200	18.43	2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 2	H2
N IV	1135.244	150	18.43	2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 1	H2
N IV	1136.241	100	18.43	2s3s - 2p3s	$^3S - ^3P^\circ$	1 - 0	H2
N IV	1168.599	150	18.83	2s3d - 2p3d	$^3D - ^3D^\circ$	3 - 3	H2
N IV	1169.063	100	18.83	2s3d - 2p3d	$^3D - ^3D^\circ$	2 - 2	H2
N IV	1169.478	50	18.83	2s3d - 2p3d	$^3D - ^3D^\circ$	1 - 1	H2
N IV	1188.006	300	18.49	2s3s - 2p3s	$^1S - ^1P^\circ$	0 - 1	H2
N IV	1224.960	50	18.76	2s3p - 2p3p	$^3P^\circ - ^3S$	0 - 1	H2
N IV	1225.192	150	18.76	2s3p - 2p3p	$^3P^\circ - ^3S$	1 - 1	H2
N IV	1225.719	200	18.76	2s3p - 2p3p	$^3P^\circ - ^3S$	2 - 1	H2
N IV	1243.73	b	18.92	2p3d - 2s6g	$^3F^\circ - ^3G$	2 - 3	H2
N IV	1244.92	50	18.92	2p3d - 2s6g	$^3F^\circ - ^3G$	3 - 4	H2
N IV	1246.51	100	18.92	2p3d - 2s6g	$^3F^\circ - ^3G$	4 - 5	H2
N IV	1270.280	250	18.75	2s3p - 2p3p	$^3P^\circ - ^3D$	2 - 3	H2
N IV	1272.160	200	18.75	2s3p - 2p3p	$^3P^\circ - ^3D$	1 - 2	H2
N IV	1272.74	100	18.75	2s3p - 2p3p	$^3P^\circ - ^3D$	2 - 2	H2
N IV	1273.47	150	18.75	2s3p - 2p3p	$^3P^\circ - ^3D$	0 - 1	H2
N IV	1273.716	100	18.75	2s3p - 2p3p	$^3P^\circ - ^3D$	1 - 1	H2
N IV	1284.218	150	18.87	2s3d - 2s4p	$^1D - ^1P^\circ$	2 - 1	H2
N IV	1296.600	250	18.86	2s3d - 2p3d	$^1D - ^1F^\circ$	2 - 3	H2
N IV	1309.557	200	18.55	2s3p - 2p3p	$^1P^\circ - ^1P$	1 - 1	H2
N IV	1323.98	100b	18.81	2s3d - 2p3d	$^3D - ^3F^\circ$	3 - 4	H2
N IV	1325.685	50	18.81	2s3d - 2p3d	$^3D - ^3F^\circ$	2 - 3	H2
N IV	1326.964	20	18.81	2s3d - 2p3d	$^3D - ^3F^\circ$	1 - 2	H2
N IV	1438.37	150	18.96	2p3d - 2s6g	$^1F^\circ - ^1G$	3 - 4	H2
N IV	1446.114	250	18.85	2s3d - 2p3d	$^1D - ^1D^\circ$	2 - 2	H2
N IV	1486.496	100	0.01	$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	H2
N IV	1687.60	50	20	2s4f - 2s6g	$^3F^\circ - ^3G$	2 - 3	H2
N IV	1687.82	100	20	2s4f - 2s6g	$^3F^\circ - ^3G$	3 - 4	H2
N IV	1688.11	150	20	2s4f - 2s6g	$^3F^\circ - ^3G$	4 - 5	H2
N IV	1696.86	150	18.91	2p3d - 2s5g	$^3F^\circ - ^3G$	2 - 3	H2
N IV	1699.03	200	18.91	2p3d - 2s5g	$^3F^\circ - ^3G$	3 - 4	H2
N IV	1702.006	250	18.91	2p3d - 2s5g	$^3F^\circ - ^3G$	4 - 5	H2
N IV	1718.551	1000	7	$2s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	H2

NITROGEN V (N^{4+}), Z = 7

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 789 537.2 cm^{-1}; 97.888 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N V	128.229	1 -A	3.13	2s - 17p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	128.430	1 -A	3.12	2s - 16p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	128.662	10 -A	3.11	2s - 15p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	128.954	10 -A	3.10	2s - 14p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	129.337	20 -A	3.09	2s - 13p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	129.811	30 -A	3.08	2s - 12p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	130.431	40 -A	3.07	2s - 11p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	131.254	50 -A	3.06	2s - 10p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	132.383	60 -A	3.05	2s - 9p	$g^2S - ^2P^\circ$	½ - 3/2	T2
N V	133.994	70	3.04	2s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	T2

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
N V	136.429		80	3.03	2s - 7p	g^2S - $^2P°$	½ - 3/2	T2
N V	140.356	P	160	3.02	2s - 6p	g^2S - $^2P°$	½ - 3/2	H1,T2
N V	142.797		1 -A	26	2p - 18d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	142.981		1 -A	25	2p - 17d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	143.241		10 -A	24	2p - 16d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	143.520		10 -A	23	2p - 15d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	143.914		20 -A	22	2p - 14d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	144.392		30 -A	21	2p - 13d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	144.978		40 -A	20	2p - 12d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	145.742		50 -A	19	2p - 11d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	146.716		30 -A	18	2p - 10d	$^2P°$ - ^2D	½ - 3/2	T2
N V	146.767		60 -A	18	2p - 10d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	146.921		30 -A	3.01	2p - 10s	$^2P°$ - ^2S	3/2 - ½	T2
N V	147.424	P	240	3.01	2s - 5p	g^2S - $^2P°$	½ - 3/2	H1,T2
N V	148.116		40 -A	16	2p - 9d	$^2P°$ - ^2D	½ - 3/2	T2
N V	148.168		70 -A	16	2p - 9d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	148.328		10 -A	15	2p - 9s	$^2P°$ - ^2S	½ - ½	T2
N V	148.387		40 -A	15	2p - 9s	$^2P°$ - ^2S	3/2 - ½	T2
N V	150.116		70 -A	14	2p - 8d	$^2P°$ - ^2D	½ - 3/2	T2
N V	150.171		140 -A	14	2p - 8d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	150.429		20 -A	13	2p - 8s	$^2P°$ - ^2S	½ - ½	T2
N V	150.488		50 -A	13	2p - 8s	$^2P°$ - ^2S	3/2 - ½	T2
N V	153.136		180	12	2p - 7d	$^2P°$ - ^2D	½ - 3/2	T2
N V	153.192		280	12	2p - 7d	$^2P°$ - ^2D	3/2 - 5/2	T2
N V	153.624		30	11	2p - 7s	$^2P°$ - ^2S	½ - ½	T2
N V	153.683		60	11	2p - 7s	$^2P°$ - ^2S	3/2 - ½	T2
N V	158.024	P	240	10	2p - 6d	$^2P°$ - ^2D	½ - 3/2	H1,T2
N V	158.088	P	360	10	2p - 6d	$^2P°$ - ^2D	3/2 - 5/2	H1,T2
N V	158.862	P	40	9	2p - 6s	$^2P°$ - ^2S	½ - ½	H1,T2
N V	158.928	P	70	9	2p - 6s	$^2P°$ - ^2S	3/2 - ½	H1,T2
N V	162.556	P	480	3	2s - 4p	g^2S - $^2P°$	½ - 3/2	H1,T2
N V	166.875	P	440	8	2p - 5d	$^2P°$ - ^2D	½ - 3/2	H1,T2
N V	166.946	P	520	8	2p - 5d	$^2P°$ - ^2D	3/2 - 5/2	H1,T2
N V	168.514	P	50	7	2p - 5s	$^2P°$ - ^2S	½ - ½	H1,T2
N V	168.587	P	120	7	2p - 5s	$^2P°$ - ^2S	3/2 - ½	H1,T2
N V	186.063	P	520	6	2p - 4d	$^2P°$ - ^2D	½ - 3/2	H1,T2
N V	186.149	P	620	6	2p - 4d	$^2P°$ - ^2D	3/2 - 5/2	H1,T2
N V	190.155	P	200	5.01	2p - 4s	$^2P°$ - ^2S	½ - ½	H1,T2
N V	190.249	P	320	5.01	2p - 4s	$^2P°$ - ^2S	3/2 - ½	H1,T2
N V	209.274	P	800	2	2s - 3p	g^2S - $^2P°$	½ - 3/2	H1,T2
N V	209.308	P	800	2	2s - 3p	g^2S - $^2P°$	½ - ½	H1,T2
N V	247.561		85	5	2p - 3d	$^2P°$ - ^2D	½ - 3/2	H1
N V	247.706		100	5	2p - 3d	$^2P°$ - ^2D	3/2 - 5/2	H1
N V	266.196		120	4	2p - 3s	$^2P°$ - ^2S	½ - ½	H1
N V	266.379		150	4	2p - 3s	$^2P°$ - ^2S	3/2 - ½	H1
N V	424.61		35	35	3p - 6d	$^2P°$ - ^2D	½ - 3/2	H1
N V	424.75		40	35	3p - 6d	$^2P°$ - ^2D	3/2 - 5/2	H1
N V	436.85		60	42	3d - 6f	^2D - $^2F°$	5/2 - 7/2	H1
N V	450.08		50	28	3s - 5p	^2S - $^2P°$	½ - 3/2	H1
N V	511.86		70	41	3d - 5f	^2D - $^2F°$	5/2 - 7/2	H1
N V	628.744		70	27	3s - 4p	^2S - $^2P°$	½ - 3/2	H1
N V	628.874		50	27	3s - 4p	^2S - $^2P°$	½ - ½	H1
N V	713.518		85	30	3p - 4d	$^2P°$ - ^2D	½ - 3/2	H1
N V	713.860		120	30	3p - 4d	$^2P°$ - ^2D	3/2 - 5/2	H1
N V	748.195		120	39	3d - 4f	^2D - $^2F°$	3/2 - 5/2	H1
N V	748.291		150	39	3d - 4f	^2D - $^2F°$	5/2 - 7/2	H1
N V	777.712		35	30	3p - 4s	$^2P°$ - ^2S	½ - ½	H1
N V	778.172		40	30	3p - 4s	$^2P°$ - ^2S	3/2 - ½	H1
N V	1048.20		40w	51	4d - 6f	^2D - $^2F°$	5/2 - 7/2	H1
N V	1049.65		50w	54	4f - 6g	$^2F°$ - ^2G	7/2 - 9/2	H1
N V	1238.821		1000	1	2s - 2p	g^2S - $^2P°$	½ - 3/2	H1
N V	1242.804		800	1	2s - 2p	g^2S - $^2P°$	½ - ½	H1
N V	1389.514		50	43	4s - 5p	^2S - $^2P°$	½ - 3/2	H1
N V	1389.822		40	43	4s - 5p	^2S - $^2P°$	½ - ½	H1
N V	1495.5		40w-A	63	5g - 8f	^2G - $^2F°$	9/2 - 7/2	H1

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
N V	1548.67	P		46	4p - 5d	$^2P^\circ - ^2D$	½ - 3/2	H1
N V	1549.30		85	46	4p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	H1
N V	1616.3		150w	50	4d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	H1
N V	1619.7		250w	53	4f - 5g	$^2F^\circ - ^2G$	7/2 - 9/2	H1
N V	1621.92		35	52	4f - 5d	$^2F^\circ - ^2D$	7/2 - 5/2	H1
N V	1655.88		40	49	4d - 5p	$^2D - ^2P^\circ$	5/2 - 3/2	H1
N V	1702.30	P	50	45	4p - 5s	$^2P^\circ - ^2S$	½ - ½	H1
N V	1703.218		60	45	4p - 5s	$^2P^\circ - ^2S$	3/2 - ½	H1
N V	1811.08		30	58	5p - 7d	$^2P^\circ - ^2D$	½ - 3/2	H1
N V	1811.62		35	58	5p - 7d	$^2P^\circ - ^2D$	3/2 - 3/2	H1
N V	1857.60		50	60	5d - 7f	$^2D - ^2F^\circ$	3/2 - 5/2	H1
N V	1857.78		50	60	5d - 7f	$^2D - ^2F^\circ$	5/2 - 7/2	H1
N V	1860.24		85	62	5f - 7g	$^2F^\circ - ^2G$	7/2 - 9/2	H1
N V	1882.36		30	57	5p - 7s	$^2P^\circ - ^2S$	½ - ½	H1
N V	1882.92		35	57	5p - 7s	$^2P^\circ - ^2S$	3/2 - ½	H1

NITROGEN VI (N^{5+}), Z = 7

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 4 452 758 cm^{-1}; 552.057 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
N VI	23.771		10	4	$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	E6,T12
N VI	24.898		30	3	$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	E6,T12
N VI	28.787		100	2	$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	E6,T12
N VI	29.084			1	$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	T12
N VI	29.53		f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8
N VI	97.4	P			1s2s - 1s10p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	98.3	P			1s2s - 1s9p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	99.5	P			1s2s - 1s8p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	101.46	P			1s2s - 1s7p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	102.6	P			1s2p - 1s10d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	103.6	P			1s2p - 1s9d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	104.58	P			1s2s - 1s6p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	105.0	P			1s2p - 1s8d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	107.15	P			1s2p - 1s7d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	110.23			8	1s2s - 1s5p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	110.59	P			1s2p - 1s6d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	116.81			11	1s2p - 1s5d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	122.44			7	1s2s - 1s4p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	130.32			10	1s2p - 1s4d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	161.22			6	1s2s - 1s3p	$^3S - ^3P^\circ$	1 - 2	F20
N VI	173.92			9	1s2p - 1s3d	$^3P^\circ - ^3D$	2 - 3	F20
N VI	1896.82		300	5	1s2s - 1s2p	$^3S - ^3P^\circ$	1 - 2	B10
N VI	1907.34		200	5	1s2s - 1s2p	$^3S - ^3P^\circ$	1 - 1	B10
N VI	1907.67		200	5	1s2s - 1s2p	$^3S - ^3P^\circ$	1 - 0	B10

NITROGEN VII (N^{6+}), Z = 7

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 5 380 089 cm^{-1}; 667.029 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
N VII	18.670 P		14	1s - 15p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.682 P		13	1s - 14p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.698 P		12	1s - 13p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.717 P		11	1s - 12p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.742 P		10	1s - 11p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.774 P		9	1s - 10p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.819 P		8	1s - 9p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.882 P		7	1s - 8p	g^2S - $^2P°$	½ - 3/2	G2
N VII	18.974 P		6	1s - 7p	g^2S - $^2P°$	½ - 3/2	G2
N VII	19.118 P		5	1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
N VII	19.361 P		4	1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
N VII	19.826 P	10	3	1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
N VII	20.910 P	30	2	1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
N VII	24.781 P	100	1	1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,T12
N VII	80.96 P			2 - 7			G2
N VII	83.65 P			2 - 6			G2
N VII	88.51 P			2 - 5			G2
N VII	99.13 P			2 - 4			G2
N VII	133.82 P			2 - 3			G2
N VII	194.71 P			3 - 8			G2
N VII	204.98 P			3 - 7			G2
N VII	223.12 P			3 - 6			G2
N VII	261.45 P			3 - 5			G2
N VII	370.74 P			4 - 9			G2
N VII	382.45 P			3 - 4			G2
N VII	396.68 P			4 - 8			G2
N VII	441.75 P			4 - 7			G2
N VII	535.51 P			4 - 6			G2
N VII	619.84 P			5 - 10			G2
N VII	672.42 P			5 - 9			G2
N VII	762.88 P			5 - 8			G2
N VII	826.4 P			4 - 5			G2
N VII	949.1 P			5 - 7			G2
N VII	952.99 P			6 - 11			G2
N VII	1046.02 P			6 - 10			G2
N VII	1205.0 P			6 - 9			G2
N VII	1521.4 P			5 - 6			G2
N VII	1530.2 P			6 - 8			G2

OXYGEN I (O^{0+}), Z = 8

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 109 837.02 cm^{-1}; 13.618 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O I	748.4	-A		$2p^4 - 2p^3(^2D^\circ)6d$	$g^3P - ^3P^\circ$	2 - 2	E7
O I	749.3	-A		$2p^4 - 2p^3(^2D^\circ)6d$	$g^3P - ^3P^\circ$	1 - 2	E7
O I	755.8	-A		$2p^4 - 2p^3(^2D^\circ)5d$	$g^3P - ^3P^\circ$	2 - 2	E7
O I	756.7	-A		$2p^4 - 2p^3(^2D^\circ)5d$	$g^3P - ^3P^\circ$	1 - 2	E7
O I	769.3528	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	2 - 1	E35
O I	769.4083	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	2 - 2	E35,E7
O I	770.2600	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	1 - 0	E35
O I	770.2907	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	1 - 1	E35
O I	770.3464	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	1 - 2	E35
O I	770.6986	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	0 - 1	E35
O I	791.5136	80 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	E35,E6
O I	791.9732	200 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	E35,E6
O I	792.2330	60 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	E35,E6
O I	792.5063	40 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	E35,E6
O I	792.9381	60 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	E35,E6
O I	792.9671	80 -A		$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	E35,E6
O I	810.6650	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	E35
O I	811.0512	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	E35
O I	811.4968	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	E35
O I	811.7064	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	E35
O I	812.0936	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	E35
O I	812.1594	-A		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	E35
O I	850.74 P	-A		$2p^4 - 2p^3(^2D^\circ)7s$	$^1D - ^1D^\circ$	2 - 2	E7
O I	861.63 P	-A		$2p^4 - 2p^3(^2D^\circ)6s$	$^1D - ^1D^\circ$	2 - 2	E7
O I	877.7983	80 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	2 - 1	E35,E6
O I	877.8787	200 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	2 - 2	E35,E6
O I	878.2007 P	-A		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	E35
O I	878.9720	60 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	1 - 0	E35,E6
O I	879.0194	40 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	1 - 1	E35,E6
O I	879.1001	80 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	1 - 2	E35,E6
O I	879.5507	60 -A		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	0 - 1	E35,E6
O I	882.8895 P	-A		$2p^4 - 2p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	E35
O I	922.0081 P	-A	8	$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	E35
O I	922.0727 P			$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	E35
O I	929.5168 P			$2p^4 - 2p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	2 - 3	E35
O I	930.2566 P			$2p^4 - 2p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	2 - 1	E35
O I	930.8862 P			$2p^4 - 2p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	1 - 2	E35
O I	931.4820 P			$2p^4 - 2p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	0 - 1	E35
O I	931.6282 P			$2p^4 - 2p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	1 - 1	E35
O I	932.2249 P			$2p^4 - 2p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	0 - 1	E35
O I	935.1930 P	-A		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	E35
O I	936.6295 P			$2p^4 - 2p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	2 - 3	E35
O I	937.8405 P			$2p^4 - 2p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	2 - 1	E35
O I	938.0200 P			$2p^4 - 2p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	1 - 2	E35
O I	938.6249 P			$2p^4 - 2p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	0 - 1	E35
O I	939.2346 P			$2p^4 - 2p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	1 - 1	E35
O I	939.8412 P			$2p^4 - 2p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	0 - 1	E35
O I	948.6855	200		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 3	E35,E6
O I	950.1121	120		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	1 - 2	E35,E6
O I	950.7327	40		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	0 - 1	E35,E6
O I	950.8846	100		$2p^4 - 2p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	2 - 1	E35,E6
O I	952.3178	60		$2p^4 - 2p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	1 - 1	E35,E6
O I	952.9413	20		$2p^4 - 2p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	0 - 1	E35,E6
O I	971.7381	300		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	E35,E6
O I	973.2342	180		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	E35,E6
O I	973.8852	60		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	E35,E6
O I	976.4481	200		$2p^4 - 2p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	E35,E6
O I	977.9594	120		$2p^4 - 2p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	E35,E6
O I	978.6170	40		$2p^4 - 2p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	0 - 1	E35,E6
O I	988.5778		5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	2 - 1	E35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O I	988.6549	80	5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 2	E35,E6
O I	988.7734	400	5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	E35,E6
O I	990.1269	80	5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 1	E35,E6
O I	990.2043	200	5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	E35,E6
O I	990.8010	100	5	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	E35,E6
O I	999.4974	40 -A	7	$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - {}^1P^\circ$	2 - 1	E35,M23
O I	1025.7618	500	4	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	E35,E6
O I	1027.4307	300	4	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	E35,E6
O I	1028.1571	100	4	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	E35,E6
O I	1039.2304	400	3	$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	E35,E6
O I	1040.9425	240	3	$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	E35,E6
O I	1041.6876	80	3	$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	E35,E6
O I	1152.1512	200	6	$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	E35,E6
O I	1217.6477	40 -A	9	$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	E35,M23
O I	1302.1686 ST	1000	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	H4,E6,E35
O I	1304.8575 ST	600	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	H4,E6,E35
O I	1306.0286 ST	200	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	H4,E6,E35
O I	1355.5977	100	1	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^5S^\circ$	2 - 2	E35,E6
O I	1358.5123	60	1	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^5S^\circ$	1 - 2	E35,E6

OXYGEN II (O^{1+}), Z = 8

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 283 240 cm^{-1}; 35.116 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O II	376.693	10		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E3
O II	376.745	10		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E3
O II	377.045	10		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	E3
O II	391.912	50		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E3
O II	391.943	100		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E3
O II	392.002	150		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E3
O II	392.322	150		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	E3
O II	403.035	10		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E3
O II	403.087	10		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E3
O II	403.273	10		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E3
O II	403.372	10		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2F$	3/2 - 5/2	E3
O II	418.598	50		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E3
O II	418.812	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E3
O II	424.577	10		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - {}^2S$	3/2 - 1/2	E3
O II	425.273	10		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - {}^2P$	3/2 - 3/2	E3
O II	426.526	50d		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - {}^2D$	3/2 - 5/2	E3
O II	429.557	100		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^2F$	3/2 - 5/2	E3
O II	429.647	250		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	E3
O II	429.716	200		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 1/2	E3
O II	429.918	250	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E3
O II	430.041	300	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E3
O II	430.177	300	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E3
O II	436.510	50		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E3
O II	436.649	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E3
O II	437.332	150		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E3
O II	437.683	150		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	3/2 - 5/2	E3
O II	440.552	150		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	E3
O II	440.598	100		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	E3
O II	442.001	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E3
O II	442.048	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O II	443.681	10		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	445.601	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E3
O II	445.638	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E3
O II	456.997	50		$2p^3 - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	458.422	10		$2p^3 - 2p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	464.194	100		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	464.310	50		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	E3
O II	464.785	150		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	E3
O II	465.529	50		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	1/2 - 1/2	E3
O II	465.760	100		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	467.926	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O II	468.766	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	470.408	200		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	481.587	200b	10	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E3
O II	481.635	10	10	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	E3
O II	481.704	50	10	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	E3
O II	481.755	150	10	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	E3
O II	483.752	200	9	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	E3
O II	483.976	250	9	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O II	484.025	100	9	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	E3
O II	485.086	300	8	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E3
O II	485.465	10	8	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	E3
O II	485.515	250	8	$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E3
O II	485.572	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 5/2	E3
O II	485.631	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^4D$	3/2 - 5/2	E3
O II	499.871	100		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	500.343	50		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	E3
O II	515.498	250	17	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	515.640	200	17	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E3
O II	517.937	200	16	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	E3
O II	518.242	250	16	$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	537.830	450	7	$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	E3
O II	538.256	500	7	$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O II	538.318	350	7	$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	E3
O II	539.086	400	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	E3
O II	539.547	400	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	E3
O II	539.853	350	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 1/2	E3
O II	555.056	250	6	$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	E3
O II	555.121	250	6	$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	3/2 - 3/2	E3
O II	580.400	300	15	$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	E3
O II	580.967	350	15	$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	600.585	300	14	$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O II	616.291	350	5	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O II	616.363	200	5	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 3/2	E3
O II	617.051	300	5	$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	E3
O II	644.148	600	13	$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	E6,E3
O II	672.948	400	12	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	E3
O II	673.768	350	12	$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 1/2	E3
O II	718.484	850	4	$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	E6,E3
O II	718.562	800	4	$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	E6,E3
O II	739.949	100		$2s 2p^4 - 2s 2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	E13
O II	740.838	10		$2s 2p^4 - 2s 2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	E13
O II	741.293	1		$2s 2p^4 - 2s 2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	1/2 - 3/2	E13
O II	796.661	500	11	$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	E6,E3
O II	832.762	700	1	$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	E6,E3
O II	833.332	750	1	$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	E6,E3
O II	834.462	750	1	$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	E6,E3
O II	1957.49	10		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	5/2 - 5/2	B16
O II	1960.34	100		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	3/2 - 3/2	B16
O II	1962.27	300		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	7/2 - 5/2	B16
O II	1963.86	200		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	5/2 - 3/2	B16
O II	1964.35	10		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	3/2 - 1/2	B16

OXYGEN III (O^{2+}), Z = 8

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 443 086 cm^{-1}; 54.934 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O III	226.038	50d		$2s^2 2p^2 - 2s 2p^2(^4P)4p$	$g^3P - ^3D°$	2 - 3	E3
O III	228.893	10		$2s^2 2p^2 - 2s 2p^2(^4P)4p$	$g^3P - ^3S°$	1 - 1	E3
O III	228.988	10		$2s^2 2p^2 - 2s 2p^2(^4P)4p$	$g^3P - ^3S°$	2 - 1	E3
O III	236.710	50d		$2s^2 2p^2 - 2s 2p^2(^4P)4p$	$^1D - ^3D°$	2 - 3	E3,K8
O III	240.979	100d		$2p^2 - 2p6d$	$g^3P - ^3D°$	1 - 2	E3
O III	241.037	100d		$2p^2 - 2p6d$	$g^3P - ^3D°$	2 - 3	E3
O III	241.819	50		$2s 2p^3 - 2s 2p^2(^4P)5d$	$^5S° - ^5P$	2 - 2	E3
O III	241.875	50		$2s 2p^3 - 2s 2p^2(^4P)5d$	$^5S° - ^5P$	2 - 3	E3
O III	244.049	100d		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	$^1D - ^1P°$	2 - 1	E3
O III	246.265	150		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	$^1D - ^1D°$	2 - 2	E3
O III	247.080	50		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	$^1D - ^1F°$	2 - 3	E3
O III	248.320	50d		$2p^2 - 2p7d$	$^1D - ^1F°$	2 - 3	E3
O III	248.538	50		$2p^2 - 2p5d$	$g^3P - ^3D°$	0 - 1	E3
O III	248.574	60		$2p^2 - 2p5d$	$g^3P - ^3D°$	1 - 2	E3
O III	248.618	100		$2p^2 - 2p5d$	$g^3P - ^3D°$	2 - 3	E3
O III	253.548	10		$2p^2 - 2p6d$	$^1D - ^1D°$	2 - 2	E3
O III	255.044	10		$2p^2 - 2p5s$	$g^3P - ^3P°$	1 - 2	E3
O III	255.158	50		$2p^2 - 2p5s$	$g^3P - ^3P°$	2 - 2	E3
O III	255.302	10		$2p^2 - 2p5s$	$g^3P - ^3P°$	2 - 1	E3
O III	256.425	100 -A		$2s 2p^3 - 2s 2p^2(^4P)4d$	$^5S° - ^5P$	2 - 1	E3
O III	256.460	150 -A		$2s 2p^3 - 2s 2p^2(^4P)4d$	$^5S° - ^5P$	2 - 2	E3
O III	256.506	150 -A		$2s 2p^3 - 2s 2p^2(^4P)4d$	$^5S° - ^5P$	2 - 3	E3
O III	261.027	200d		$2p^2 - 2p5d$	$^1D - ^1F°$	2 - 3	E3
O III	262.113	100		$2p^2 - 2p5d$	$^1D - ^1D°$	2 - 2	E3
O III	262.289	10		$2p^2 - 2p5d$	$^1D - ^3F°$	2 - 2	E3
O III	262.729	10		$2p^2 - 2p4d$	$g^3P - ^3P°$	1 - 2	E3
O III	262.882	50		$2p^2 - 2p4d$	$g^3P - ^3P°$	2 - 2	E3
O III	263.692	150		$2p^2 - 2p4d$	$g^3P - ^3D°$	0 - 1	E3
O III	263.728	200		$2p^2 - 2p4d$	$g^3P - ^3D°$	1 - 2	E3
O III	263.768	150		$2p^2 - 2p4d$	$g^3P - ^3D°$	1 - 1	E3
O III	263.818	250		$2p^2 - 2p4d$	$g^3P - ^3D°$	2 - 3	E3
O III	263.861	150		$2p^2 - 2p4d$	$g^3P - ^3D°$	2 - 2	E3
O III	263.903	10		$2p^2 - 2p4d$	$g^3P - ^3D°$	2 - 1	E3
O III	264.257	200		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3P°$	0 - 1	E3
O III	264.338	250d		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3P°$	1 - 2	E3
O III	264.480	300		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3P°$	2 - 2	E3
O III	266.967	250b		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3D°$	0 - 1	E3
O III	266.985	350		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3D°$	1 - 2	E3
O III	267.030	350		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3D°$	2 - 3	E3
O III	267.050	150		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3D°$	1 - 1	E3
O III	267.121	200		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3D°$	2 - 2	E3
O III	268.451	50d		$2p^2 - 2p5s$	$^1D - ^1P°$	2 - 1	E3
O III	271.403	50		$2s 2p^3 - 2s 2p^2(^4P)4s$	$^5S° - ^5P$	2 - 3	E3
O III	271.523	50		$2s 2p^3 - 2s 2p^2(^4P)4s$	$^5S° - ^5P$	2 - 2	E3
O III	271.611	10		$2s 2p^3 - 2s 2p^2(^4P)4s$	$^5S° - ^5P$	2 - 1	E3
O III	275.281	100		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3S°$	0 - 1	E3
O III	275.366	150		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3S°$	1 - 1	E3
O III	275.513	200		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - ^3S°$	2 - 1	E3
O III	277.385	350	12	$2p^2 - 2p4d$	$^1D - ^1F°$	2 - 3	E3
O III	277.514	50		$2p^2 - 2p5d$	$^1S - ^1P°$	0 - 1	E3
O III	279.787	150		$2p^2 - 2p4d$	$^1D - ^1D°$	2 - 2	E3
O III	280.030	100		$2p^2 - 2p4d$	$^1D - ^3F°$	2 - 2	E3
O III	280.116	50		$2p^2 - 2p4s$	$g^3P - ^3P°$	1 - 2	E3
O III	280.234	50		$2p^2 - 2p4s$	$g^3P - ^3P°$	0 - 1	E3
O III	280.265	150		$2p^2 - 2p4s$	$g^3P - ^3P°$	2 - 2	E3
O III	280.328	50		$2p^2 - 2p4s$	$g^3P - ^3P°$	1 - 1	E3
O III	280.412	50		$2p^2 - 2p4s$	$g^3P - ^3P°$	1 - 0	E3
O III	280.483	50		$2p^2 - 2p4s$	$g^3P - ^3P°$	2 - 1	E3
O III	286.038	10		$2p^2 - 2p5s$	$^1S - ^1P°$	0 - 1	E3
O III	295.511	150		$2p^2 - 2p4s$	$^1D - ^1P°$	2 - 1	E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O III	295.619	250		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 1	E3
O III	295.657	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 2	E3
O III	295.716	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 3	E3
O III	295.944	150		$2p^2 - 2p4d$	$^1S - ^1P^\circ$	0 - 1	E3
O III	296.012	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5D$	2 - 3	E3
O III	296.22	50d -A		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3P$	3 - 2	E3
O III	299.275	100d -A		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3D$	3 - 3	E3
O III	300.455	150d -A		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3F$	3 - 4	E3
O III	303.411	350	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	0 - 1	E3
O III	303.460	350	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 0	E3
O III	303.515	350	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 1	E3
O III	303.621	350	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 2	E3
O III	303.693	350	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 1	E3
O III	303.799	450	6	$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 2	E3
O III	305.596	400	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	0 - 1	E3
O III	305.656	450	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 2	E3
O III	305.703	400	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 1	E3
O III	305.769	500	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	E3
O III	305.836	400	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 2	E3
O III	305.879	200	5	$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 1	E3
O III	308.051	50		$2p^2 - 2p3d$	$g^3P - ^1D^\circ$	1 - 2	E3
O III	308.306	100		$2p^2 - 2p3d$	$g^3P - ^3F^\circ$	2 - 3	E3
O III	316.967	150		$2p^2 - 2p4s$	$^1S - ^1P^\circ$	0 - 1	E3
O III	317.24	50d -A		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3P$	2 - 2	E3
O III	319.996	150		$2p^2 - 2p3d$	$^1D - ^1P^\circ$	2 - 1	E3
O III	320.720	100d -A		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	E3
O III	320.979	600	11	$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	E6,E3
O III	328.448	500	10	$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	E3
O III	328.742	450		$2p^2 - 2p3d$	$^1D - ^3F^\circ$	2 - 2	E3
O III	345.309	500	15	$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	E3
O III	349.825	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	3 - 3	E3
O III	349.918	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	2 - 2	E3
O III	349.961	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	1 - 1	E3
O III	355.137	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 4	E3
O III	355.293	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 3	E3
O III	355.333	250		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	2 - 3	E3
O III	355.469	250		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	1 - 2	E3
O III	356.558	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	1 - 0	E3
O III	356.625	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	1 - 1	E3
O III	356.725	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	3 - 2	E3
O III	356.768	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	1 - 2	E3
O III	359.016	400		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 3	E3
O III	359.223	400		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 2	E3
O III	359.384	350		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 1	E3
O III	364.739	150		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	3 - 3	E3
O III	364.867	100		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	2 - 2	E3
O III	364.940	50		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	1 - 1	E3
O III	373.805	400	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 2	E3
O III	374.005	400	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	0 - 1	E3
O III	374.075	500	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	E3
O III	374.165	400	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 1	E3
O III	374.331	400	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 0	E3
O III	374.436	400	4	$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 1	E3
O III	379.505	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	E3
O III	379.575	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 2	E3
O III	379.631	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	E3
O III	382.214	50d		$2s2p^3 - 2s^2 2p4f$	$^3D^\circ - D[3/2]$	3 - 2	E3,K8
O III	382.903	50d		$2s2p^3 - 2s^2 2p4f$	$^3D^\circ - G[7/2]$	3 - 3	E3,K8
O III	387.398	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	1 - 0	E3
O III	387.482	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	0 - 1	E3
O III	387.639	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	2 - 2	E3
O III	395.558	600	9	$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	E6,E3
O III	397.120	100		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	E3
O III	397.231	50		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	1 - 2	E3
O III	397.310	10		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	0 - 1	E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O III	434.256	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	3 - 2	E3
O III	434.646	150		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 1	E3
O III	434.840	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	1 - 0	E3
O III	434.975	500	14	$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	E3
O III	480.955	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	E3
O III	481.354	150		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	E3
O III	481.381	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	0 - 1	E3
O III	481.587	200b		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	1 - 0	E3
O III	491.714	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 1	E3
O III	491.980	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 2	E3
O III	507.391	800	3	$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	E6,E3
O III	507.683	850	3	$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	E6,E3
O III	508.182	900	3	$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	E6,E3
O III	525.795	900	8	$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	E6,E3
O III	554.275	10		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	3 - 2	E13
O III	574.065	1		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3D$	3 - 3	E13
O III	597.818	750	13	$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	E6,E3
O III	599.598	900	7	$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	E6,E3
O III	609.705	300	16	$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	1 - 0	E3
O III	610.043	350	16	$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	E3
O III	610.746	400	16	$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	E3
O III	610.850	300	16	$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 2	E3
O III	658.578	50		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3D$	2 - 3	E13
O III	659.538	10		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3D$	1 - 2	E13
O III	702.332	800	2	$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	E6,E3
O III	702.822	800	2	$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 0	E6,E3
O III	702.899	850	2	$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	E6,E3
O III	703.850	900	2	$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	E6,E3
O III	705.762	100		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 0	E3
O III	706.224	150		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	E3
O III	706.298	100		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	0 - 1	E3
O III	707.315	200		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	E3
O III	752.762	200		$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	E3
O III	832.927	700	1	$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	E6,E3
O III	833.742	800	1	$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	E6,E3
O III	835.096	700	1	$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	E6,E3
O III	835.292	800	1	$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	E6,E3
O III	898.957	400	17	$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	E3
O III	1138.545	100		$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	E3
O III	1149.603	50		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	E3
O III	1150.882	100		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	E3
O III	1153.773	150		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	E3
O III	1476.89	600		$2p3p - 2p4s$	$^1P - ^1P^\circ$	1 - 1	B10
O III	1584.45	400		$2p3p - 2p4s$	$^3D - ^3P^\circ$	2 - 2	B10
O III	1587.87	400		$2p3p - 2p4s$	$^3D - ^3P^\circ$	1 - 1	B10
O III	1590.01	800		$2p3p - 2p4s$	$^3D - ^3P^\circ$	3 - 2	B10
O III	1590.61	400		$2p3p - 2p4s$	$^3D - ^3P^\circ$	1 - 0	B10
O III	1591.33	600		$2p3p - 2p4s$	$^3D - ^3P^\circ$	2 - 1	B10
O III	1660.803	20		$2s^22p^2 - 2s2p^3$	$g^3P - ^5S^\circ$	1 - 2	E5
O III	1666.153	250		$2s^22p^2 - 2s2p^3$	$g^3P - ^5S^\circ$	2 - 2	E5
O III	1679.06	400		$2p3p - 2p4s$	$^3S - ^3P^\circ$	1 - 2	B10
O III	1760.12	700		$2p3d - 2p4f$	$^3F^\circ - G[9/2]$	3 - 4	B10
O III	1760.42	500		$2p3p - 2p4s$	$^3P - ^3P^\circ$	1 - 2	B10
O III	1763.22	700		$2p3d - 2p4f$	$^3F^\circ - G[7/2]$	2 - 3	B10
O III	1764.48	700		$2p3p - 2p4s$	$^3P - ^3P^\circ$	2 - 2	B10
O III	1766.34	400		$2p3p - 2p4s$	$^3P - ^3P^\circ$	0 - 1	B10
O III	1767.78	1000		$2p3d - 2p4f$	$^3F^\circ - G[9/2]$	4 - 5	B10
O III	1768.24	900		$2p3d - 2p4f$	$^3F^\circ - G[7/2]$	3 - 4	B10
O III	1769.32	400		$2p3d - 2p4f$	$^3F^\circ - G[7/2]$	3 - 3	B10
O III	1771.67	900		$2p3d - 2p4f$	$^1D^\circ - G[7/2]$	2 - 3	B10
O III	1772.31	400		$2p3p - 2p4s$	$^3P - ^3P^\circ$	1 - 0	B10
O III	1773.00	500		$2p3p - 2p4s$	$^3P - ^3P^\circ$	2 - 1	B10
O III	1773.85	500		$2p3d - 2p4f$	$^3F^\circ - G[7/2]$	4 - 4	B10
O III	1779.16	700		$2p3d - 2p4f$	$^3F^\circ - F[7/2]$	2 - 3	B10
O III	1781.03	600		$2p3d - 2p4f$	$^3F^\circ - F[5/2]$	2 - 3	B10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O III	1784.85	600		2p3d - 2p4f	$^3F^\circ$ - F[7/2]	3 - 4	B10
O III	1789.66	700		2p3d - 2p4f	$^1D^\circ$ - F[5/2]	2 - 3	B10
O III	1848.26	500		2p3d - 2p4f	$^3D^\circ$ - D[5/2]	3 - 3	B10
O III	1856.62	500		2p3d - 2p4f	$^3D^\circ$ - G[7/2]	3 - 4	B10
O III	1872.78	800		2p3d - 2p4f	$^3D^\circ$ - F[7/2]	2 - 3	B10
O III	1872.87	800		2p3d - 2p4f	$^3D^\circ$ - F[5/2]	1 - 2	B10
O III	1874.94	800		2p3d - 2p4f	$^3D^\circ$ - F[5/2]	2 - 3	B10
O III	1920.04	600		2p3p - 2p4s	^1D - $^1P^\circ$	2 - 1	B10
O III	1920.75	500		2p3d - 2p4f	$^3P^\circ$ - D[3/2]	1 - 2	B10
O III	1921.52	500		2p3d - 2p4f	$^3P^\circ$ - D[3/2]	1 - 1	B10
O III	1923.49	700		2p3d - 2p4f	$^3P^\circ$ - D[5/2]	2 - 3	B10
O III	1923.82	500		2p3d - 2p4f	$^3P^\circ$ - D[3/2]	0 - 1	B10
O III	1926.94	500		2p3d - 2p4f	$^3P^\circ$ - D[5/2]	1 - 2	B10

OXYGEN IV (O^{3+}), Z = 8

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 624 383.8 cm^{-1}; 77.412 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O IV	152.264	1 -A		$2s^22p$ - $2s2p(^1P^\circ)4p$	g^2P° - ^2D	1/2 - 3/2	E3
O IV	152.355	1 -A		$2s^22p$ - $2s2p(^1P^\circ)4p$	g^2P° - ^2D	3/2 - 5/2	E3
O IV	153.162	1 -A		$2s^22p$ - $2p^2(^1D)3d$	g^2P° - ^2P	3/2 - 3/2	E8,K8
O IV	158.553	1 -A		$2s^22p$ - $2s2p(^3P^\circ)5p$	g^2P° - ^2D	1/2 - 3/2	E3
O IV	158.606	2 -A		$2s^22p$ - $2s2p(^3P^\circ)5p$	g^2P° - ^2D	3/2 - 5/2	E3
O IV	167.145	1d -A		$2s2p^2$ - $2s2p(^3P^\circ)7d$	^4P - $^4D^\circ$	5/2 - 7/2	E3
O IV	169.47	0		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2S	1/2 - 1/2	K8
O IV	169.58	1		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2S	3/2 - 1/2	K8
O IV	170.940	1 -A		$2s2p^2$ - $2s2p(^3P^\circ)6d$	^4P - $^4D^\circ$	3/2 - 5/2	E3
O IV	170.988	1 -A		$2s2p^2$ - $2s2p(^3P^\circ)6d$	^4P - $^4D^\circ$	5/2 - 7/2	E3
O IV	171.071	5		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2D	1/2 - 3/2	E3
O IV	171.121	5		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2D	3/2 - 5/2	E3
O IV	171.191	1		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2D	3/2 - 3/2	E3
O IV	173.803	1		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2P	1/2 - 3/2	E3
O IV	173.851	2		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2P	1/2 - 1/2	E3
O IV	173.917	5		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2P	3/2 - 3/2	E3
O IV	173.968	1		$2s^22p$ - $2s2p(^3P^\circ)4p$	g^2P° - ^2P	3/2 - 1/2	E3
O IV	174.105	5		2p - 6d	g^2P° - ^2D	1/2 - 3/2	E3
O IV	174.220	10		2p - 6d	g^2P° - ^2D	3/2 - 5/2	E3
O IV	177.598	1 -A		$2s2p^2$ - $2s2p(^3P^\circ)5d$	^4P - $^4P^\circ$	3/2 - 1/2	E3
O IV	177.659	1 -A		$2s2p^2$ - $2s2p(^3P^\circ)5d$	^4P - $^4P^\circ$	5/2 - 3/2	E3
O IV	177.698	2 -A		$2s2p^2$ - $2s2p(^3P^\circ)5d$	^4P - $^4P^\circ$	5/2 - 5/2	E3
O IV	177.761	5 -A		$2s2p^2$ - $2s2p(^3P^\circ)5d$	^4P - $^4D^\circ$	3/2 - 5/2	E3
O IV	177.808	6 -A		$2s2p^2$ - $2s2p(^3P^\circ)5d$	^4P - $^4D^\circ$	5/2 - 7/2	E3
O IV	180.351	2		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2S	1/2 - 1/2	E3
O IV	180.481	5		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2S	3/2 - 1/2	E3
O IV	181.150	15		2p - 5d	g^2P° - ^2D	1/2 - 3/2	E3
O IV	181.275	25		2p - 5d	g^2P° - ^2D	3/2 - 5/2	E3
O IV	181.876	10		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2P	1/2 - 1/2	E3
O IV	181.995	15		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2P	3/2 - 3/2	E3
O IV	182.711	10		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2D	1/2 - 3/2	E3
O IV	182.832	15		$2s^22p$ - $2s2p(^1P^\circ)3p$	g^2P° - ^2D	3/2 - 5/2	E3
O IV	183.353	1		$2s2p^2$ - $2p^2(^3P)3p$	^4P - $^4S^\circ$	1/2 - 3/2	E3
O IV	183.395	2		$2s2p^2$ - $2p^2(^3P)3p$	^4P - $^4S^\circ$	3/2 - 3/2	E3
O IV	183.454	3		$2s2p^2$ - $2p^2(^3P)3p$	^4P - $^4S^\circ$	5/2 - 3/2	E3

O IV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O IV	185.384	1		2p - 5s	$g^2P^\circ - {}^2S$	1/2 - 1/2	E3
O IV	185.544	2		2p - 5s	$g^2P^\circ - {}^2S$?	3/2 - 1/2	E3
O IV	186.872	2		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 5/2	E3
O IV	186.936	5		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 5/2	E3
O IV	186.982	1		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 3/2	E3
O IV	188.152	5		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4D^\circ$	5/2 - 7/2	E3
O IV	188.190	1		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4D^\circ$	5/2 - 5/2	E3
O IV	191.609	5d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4P^\circ$	3/2 - 1/2	E3
O IV	191.640	1		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4P^\circ$	3/2 - 3/2	E3
O IV	191.695	5		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4P^\circ$	5/2 - 3/2	E3
O IV	191.752	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4P^\circ$	5/2 - 5/2	E3
O IV	192.139	15		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4D^\circ$	1/2 - 3/2	E3
O IV	192.169	20		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4D^\circ$	3/2 - 5/2	E3
O IV	192.206	25		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4D^\circ$	5/2 - 7/2	E3
O IV	192.244	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4D^\circ$	5/2 - 5/2	E3
O IV	195.863	60		2p - 4d	$g^2P^\circ - {}^2D$	1/2 - 3/2	E3
O IV	196.009	90		2p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E3
O IV	196.348	1d -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - {}^2F^\circ$	5/2 - 7/2	E3
O IV	196.435	1d -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - {}^2F^\circ$	3/2 - 5/2	E3
O IV	200.827	2 -A		$2s2p^2 - 2p^2(^1D)3p$	$^2D - {}^2F^\circ$	5/2 - 7/2	E13
O IV	200.915	2		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 5/2	E3
O IV	200.966	2		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	1/2 - 3/2	E3
O IV	200.995	5		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 5/2	E3
O IV	201.022	1		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	1/2 - 1/2	E3
O IV	201.073	2		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 1/2	E3
O IV	201.098	2		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 3/2	E3
O IV	202.885	15		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2S$	1/2 - 1/2	B33
O IV	203.044	25		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2S$	3/2 - 1/2	B33
O IV	204.708	1d		$2s2p^2 - 2p^2(^3P)3p$	$^2D - {}^2D^\circ$	5/2 - 5/2	E3
O IV	204.905	1 -A		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2P - {}^2D^\circ$	1/2 - 3/2	E3
O IV	204.996	1 -A		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2P - {}^2D^\circ$	3/2 - 5/2	E3
O IV	205.842	1		2p - 4s	$g^2P^\circ - {}^2S$	1/2 - 1/2	E3
O IV	206.002	2		2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	E3
O IV	207.183	40		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	1/2 - 3/2	B33
O IV	207.239	60		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	B33
O IV	207.348	15		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 3/2	B33
O IV	211.808	1d -A		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2S - {}^2P^\circ$?	1/2 - 3/2	E3
O IV	212.578	5d		$2s2p^2 - 2p^2(^3P)3p$	$^2D - {}^2S^\circ$?	3/2 - 1/2	E3,K8
O IV	212.974	10d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2F^\circ$	5/2 - 7/2	E3
O IV	213.061	10d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2F^\circ$	3/2 - 5/2	E3
O IV	213.975	15		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 3/2	B33
O IV	214.028	25		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	B33
O IV	214.152	40		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	B33
O IV	214.205	15		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 1/2	B33
O IV	214.249	2		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2D^\circ$	3/2 - 5/2	E3
O IV	214.290	2		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2D^\circ$	3/2 - 3/2	E3
O IV	216.960	1		$2s2p^2 - 2s^27f$	$^2D - {}^2F^\circ$	5/2 - 7/2	E3
O IV	221.648	15		$2s2p^2 - 2p^2(^3P)3p$	$^2S - {}^2D^\circ$?	1/2 - 3/2	E3,K8
O IV	222.763	25		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2D^\circ$	5/2 - 5/2	E3
O IV	222.777	15		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2D^\circ$	3/2 - 3/2	E3
O IV	223.728	1		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^2D - {}^2P^\circ$	5/2 - 3/2	E3
O IV	223.841	1		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^2D - {}^2P^\circ$	3/2 - 1/2	E3
O IV	225.299	25		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2F^\circ$	5/2 - 7/2	E3
O IV	229.896	1		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^2D^\circ$	1/2 - 3/2	E3
O IV	230.040	1		$2s2p^2 - 2p^2(^3P)3p$	$^2P - {}^2D^\circ$	3/2 - 5/2	E3
O IV	230.682	2		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - {}^2P^\circ$	1/2 - 1/2	E3
O IV	230.755	5		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - {}^2P^\circ$	1/2 - 3/2	E3
O IV	231.031	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	1/2 - 1/2	B33
O IV	231.070	60b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	1/2 - 3/2	E3
O IV	231.101	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 1/2	B33
O IV	231.140	15		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 3/2	B33
O IV	231.200	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 5/2	B33
O IV	231.239	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 3/2	B33
O IV	231.299	60		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 5/2	B33
O IV	233.457	60	7	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	E3

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O IV	233.496	60	7	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	B33
O IV	233.521	40	7	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	E3
O IV	233.561	90	7	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	E3
O IV	233.596	40	7	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	E3
O IV	234.988	10		$2s2p^2 - 2s^25f$	$^2D - ^2F^\circ$	5/2 - 7/2	E3
O IV	236.071	2d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4F^\circ$	5/2 - 7/2	E3
O IV	238.360	400		$2p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	238.571	500		$2p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	239.592	10		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
O IV	239.935	1		$2s2p^2 - 2p^2(^3P)3p$	$^2P - ^2S^\circ$	1/2 - 1/2	E3
O IV	240.079	2		$2s2p^2 - 2p^2(^3P)3p$	$^2P - ^2S^\circ$	3/2 - 1/2	E3
O IV	242.045	5		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	1/2 - 3/2	E3
O IV	242.140	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	E3
O IV	242.183	1		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 3/2	E3
O IV	245.7	2d		$2s2p^2 - 2s^27f$	$^2P - ^2F^\circ$?	3/2 - 5/2	E3,K8
O IV	246.465	5 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 1/2	E3
O IV	246.503	10 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	E3
O IV	246.563	15 -A		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	E3
O IV	249.223	10		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	E3
O IV	249.365	15		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	E3
O IV	251.114	2 -A		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	E13
O IV	251.148	2 -A		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E13
O IV	252.564	40d -A		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E3
O IV	252.948	40		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	E3
O IV	253.082	60		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	E3
O IV	255.252	25		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	E3
O IV	255.302	1 -A		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E13
O IV	258.116	5		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2P^\circ$	3/2 - 1/2	E3
O IV	258.207	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	E3
O IV	260.389	150	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	B33
O IV	260.555	120	9	$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	B33
O IV	265.062	1 -A		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E3
O IV	266.690	1 -A		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E3
O IV	266.729	1 -A		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$?	3/2 - 5/2	E3
O IV	266.932	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	E3
O IV	266.967	25b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	E3
O IV	269.559	1d -A		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	E3,E13
O IV	271.990	40		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	B33
O IV	272.076	40		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	B33
O IV	272.127	60		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	B33
O IV	272.174	25		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 3/2	E3
O IV	272.273	40		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 1/2	B33
O IV	272.310	40		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	B33
O IV	279.456	5 -A		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E13
O IV	279.631	150	4	$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	B33
O IV	279.933	200	4	$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	B33
O IV	282.213	2		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
O IV	285.710	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	B33
O IV	285.834	60		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	B33
O IV	289.292	10		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	E3
O IV	289.469	5		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	E3
O IV	289.590	2		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 1/2	E3
O IV	289.898	5		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	E3
O IV	289.933	2		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	3/2 - 3/2	E3
O IV	291.054	2 -A		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E3
O IV	291.203	3 -A		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O IV	295.051	2		$2p^3 - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 7/2	E3
O IV	295.140	2		$2p^3 - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	3/2 - 5/2	E3
O IV	295.874	5		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	E3
O IV	299.499	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	B33
O IV	299.620	5		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 3/2	E3
O IV	299.710	5		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 1/2	E3
O IV	299.853	15		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	B33
O IV	306.623	90		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	B33
O IV	306.884	60		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	B33

O IV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O IV	311.499	25		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	B33
O IV	311.682	40		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	B33
O IV	311.726	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 3/2	E3
O IV	321.457	2		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	E3
O IV	339.330	2		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O IV	339.436	1		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2P$	3/2 - 1/2	E3
O IV	346.372	15		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
O IV	346.374	15		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	B33
O IV	346.692	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	B33
O IV	367.192	5		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	E3
O IV	379.780	15		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	5/2 - 3/2	B33
O IV	379.923	10		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	3/2 - 1/2	B33
O IV	442.705	2		$2s2p^2 - 2s^23p$	$^2S - ^2P^\circ$	1/2 - 3/2	E3
O IV	442.873	1		$2s2p^2 - 2s^23p$	$^2S - ^2P^\circ$	1/2 - 1/2	E3
O IV	471.273	2		$2p^3 - 2s2p(^3P^\circ)3p$	$^2D^\circ - ^2P$	5/2 - 3/2	E3
O IV	471.603	1		$2p^3 - 2s2p(^3P^\circ)3p$	$^2D^\circ - ^2P$	3/2 - 1/2	E3
O IV	542.859	2		$3p - 6d$	$^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	543.118	5		$3p - 6d$	$^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	553.330	900	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	B33
O IV	554.075	950	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	B33
O IV	554.514	1000	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	B33
O IV	555.261	900	3	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	B33
O IV	608.398	800	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	B33
O IV	609.829	850	2	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	B33
O IV	616.952	350		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	B33
O IV	617.005	150		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 3/2	B33
O IV	617.036	275		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	B33
O IV	617.786	10		$3p - 5d$	$^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	618.107	15		$3p - 5d$	$^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	624.617	750	6	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	B33
O IV	625.130	800	6	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	B33
O IV	625.852	850	6	$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	B33
O IV	752.150	5		$3d - 5f$	$^2D - ^2F^\circ$	5/2 - 7/2	B33
O IV	779.734	200	8	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 3/2	B33
O IV	779.821	400	8	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	B33
O IV	779.912	500	8	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	B33
O IV	779.997	200	8	$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 5/2	B33
O IV	787.711	850	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	790.109	750	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	B33
O IV	790.199	900	1	$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	802.200	200		$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	B33
O IV	802.255	150		$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	B33
O IV	830.506	10		$3p - 4d$	$^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	831.070	15		$3p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	921.296	120		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	B33
O IV	921.366	150		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	B33
O IV	923.367	200		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	B33
O IV	923.433	120		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	B33
O IV	988.523	25		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4F^\circ - ^4G$	3/2 - 5/2	B33
O IV	988.571	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4F^\circ - ^4G$	5/2 - 7/2	B33
O IV	988.628	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4F^\circ - ^4G$	7/2 - 9/2	B33
O IV	988.713	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4F^\circ - ^4G$	9/2 - 11/2	B33
O IV	1045.384	15		$3p - 4s$	$^2P^\circ - ^2S$	1/2 - 1/2	B33
O IV	1046.316	25		$3p - 4s$	$^2P^\circ - ^2S$	3/2 - 1/2	B33
O IV	1061.780	25		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	1/2 - 3/2	B33
O IV	1061.952	25		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	3/2 - 5/2	B33
O IV	1062.133	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	5/2 - 7/2	B33
O IV	1062.271	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	7/2 - 9/2	B33
O IV	1062.434	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	5/2 - 5/2	B33
O IV	1062.840	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4D^\circ - ^4F$	7/2 - 7/2	B33
O IV	1067.810	120		$3d - 4f$	$^2D - ^2F^\circ$	5/2 - 7/2	B33
O IV	1080.965	60		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 7/2	B33
O IV	1081.645	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 5/2	B33
O IV	1083.382	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 3/2	B33
O IV	1083.613	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	1/2 - 1/2	B33

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O IV	1084.189	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	5/2 - 7/2	B33
O IV	1164.320	25		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2F^\circ - ^2G$	5/2 - 7/2	B33
O IV	1164.545	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2F^\circ - ^2G$	7/2 - 9/2	B33
O IV	1167.532	10		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2F^\circ - ^4G$	5/2 - 7/2	B33
O IV	1169.160	2		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2F^\circ - ^4G$	7/2 - 9/2	B33
O IV	1211.043	5		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2P^\circ - ^2D$	3/2 - 3/2	B33
O IV	1213.035	60		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2P^\circ - ^2D$	3/2 - 5/2	B33
O IV	1213.196	40		$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2P^\circ - ^2D$	1/2 - 3/2	B33
O IV	1338.612	200		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	B33
O IV	1342.992	120		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 3/2	B33
O IV	1343.512	275		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	B33
O IV	1397.20	10		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	1/2 - 3/2	B33
O IV	1399.774	25		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	1/2 - 1/2	B33
O IV	1401.156	60		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 5/2	B33
O IV	1404.812	15		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 3/2	B33
O IV	1407.386	25		$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 1/2	B33
O IV	1604.620	5		4f - 6g	$^2F^\circ - ^2G$	5/2 - 7/2	B33
O IV	1604.901	10		4f - 6g	$^2F^\circ - ^2G$	7/2 - 9/2	B33
O IV	1639.430	15		4s - 5p	$^2S - ^2P^\circ$	1/2 - 3/2	B33
O IV	1639.842	10		4s - 5p	$^2S - ^2P^\circ$	1/2 - 1/2	B33

OXYGEN V (O^{4+}), Z = 8

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 918 657 cm^{-1}; 113.896 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O V	122.128	10		$2s2p - 2p(^2P^\circ)5p$	$^3P^\circ - ^3P$	2 - 2	E3
O V	122.372	10		$2s2p - 2p(^2P^\circ)5p$	$^3P^\circ - ^3D$	2 - 3	E3
O V	124.6159	200		$2s^2 - 2s5p$	$g^1S - ^1P^\circ$	0 - 1	B11,E3
O V	128.235	10		$2s2p - 2s7d$	$^3P^\circ - ^3D$	1 - 2	E3
O V	128.297	20		$2s2p - 2s7d$	$^3P^\circ - ^3D$	2 - 3	E3
O V	131.750	100		$2s2p - 2s6d$	$^3P^\circ - ^3D$	1 - 2	E3
O V	131.807	100		$2s2p - 2s6d$	$^3P^\circ - ^3D$	2 - 3	E3
O V	132.800	100		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	0 - 1	E3
O V	132.851	150		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 2	E3
O V	132.885	10		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 1	E3
O V	133.328	10		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3S$	1 - 1	E3
O V	133.395	20		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3S$	2 - 1	E3
O V	133.521	200		$2s2p - 2p(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 3	E3
O V	135.5232	300		$2s^2 - 2s4p$	$g^1S - ^1P^\circ$	0 - 1	B11,E3
O V	138.0255	150		$2s2p - 2s5d$	$^3P^\circ - ^3D$	0 - 1	B11,E3
O V	138.0510	200		$2s2p - 2s5d$	$^3P^\circ - ^3D$	1 - 2	B11,E3
O V	138.0514 P	70		$2s2p - 2s5d$	$^3P^\circ - ^3D$	1 - 1	B11,K8
O V	138.1089	250		$2s2p - 2s5d$	$^3P^\circ - ^3D$	2 - 3	B11,E3
O V	138.1095 P	70		$2s2p - 2s5d$	$^3P^\circ - ^3D$	2 - 2	B11,K8
O V	139.0289	300		$2s^2 - 2p(^2P^\circ)3d$	$g^1S - ^1P^\circ$	0 - 1	B11,E3
O V	140.045	10		$2s2p - 2s5s$	$^3P^\circ - ^3S$	1 - 1	E3
O V	140.109	20		$2s2p - 2s5s$	$^3P^\circ - ^3S$	2 - 1	E3
O V	142.12	10		$2s2p - 2s7d$	$^1P^\circ - ^1D$	1 - 2	C2,K8
O V	144.802	100		$2p^2 - 2p5d$	$^3P - ^3D^\circ$	1 - 2	E3
O V	144.837	100		$2p^2 - 2p(^2P^\circ)5d$	$^3P - ^3D^\circ$	2 - 3	E3
O V	146.345	100		$2s2p - 2s6d$	$^1P^\circ - ^1D$	1 - 2	E3
O V	147.261	200		$2s2p - 2p(^2P^\circ)4p$	$^1P^\circ - ^1D$	1 - 2	E3
O V	149.034	10		$2p^2 - 2p(^2P^\circ)5d$	$^1D - ^1D^\circ$	2 - 2	E3
O V	149.078	150		$2s2p - 2p(^2P^\circ)4p$	$^1P^\circ - ^1P$	1 - 1	E3
O V	151.4470	250		$2s2p - 2s4d$	$^3P^\circ - ^3D$	0 - 1	B11,E3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O V	151.4772	300		2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 2	B11,E3
O V	151.4782 P	100		2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 1	B11,K8
O V	151.5465	330		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	B11,E3
O V	151.5476 P	100		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 2	B11,K8
O V	153.9516	200		2s2p - 2s5d	$^1P^\circ - ^1D$	1 - 2	B11,E3
O V	156.1189	100		2s2p - 2s4s	$^3P^\circ - ^3S$	0 - 1	B11,E3
O V	156.1521	150		2s2p - 2s4s	$^3P^\circ - ^3S$	1 - 1	B11,E3
O V	156.2269	200		2s2p - 2s4s	$^3P^\circ - ^3S$	2 - 1	B11,E3
O V	158.813	100d		$2p^2 - 2p(^2P^\circ)4d$	$^3P - ^3P^\circ$	1 - 0	E3
O V	158.926	150		$2p^2 - 2p(^2P^\circ)4d$	$^3P - ^3P^\circ$	2 - 2	E3
O V	159.343	250		$2p^2 - 2p(^2P^\circ)4d$	$^3P - ^3D^\circ$	1 - 2	E3
O V	159.380	250		$2p^2 - 2p(^2P^\circ)4d$	$^3P - ^3D^\circ$	2 - 3	E3
O V	160.141	10		$2p^2 - 2s6p$	$^3P - ^3P^\circ$	2 - 2	E3
O V	162.494	250		$2p^2 - 2p(^2P^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	E3
O V	164.1766	150		$2p^2 - 2s6f$	$^1D - ^1F^\circ$	2 - 3	B11,E3
O V	164.5739	300		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 2	B11
O V	164.5887	250		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	0 - 1	B11
O V	164.6256	200		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 1	B11
O V	164.6570	330		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 2	B11
O V	164.7087	300		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 1	B11
O V	164.986	150		$2p^2 - 2p(^2P^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	E3
O V	166.1128	200		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3S$	0 - 1	B11,E3
O V	166.1504	250		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3S$	1 - 1	B11,E3
O V	166.2351	300		$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3S$	2 - 1	B11,E3
O V	167.9883	400	6	$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	2 - 3	B11
O V	167.9910	300	6	$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	1 - 2	B11
O V	168.0084	250	6	$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	0 - 1	B11
O V	168.0469	200	6	$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	1 - 1	B11
O V	168.0776	200	6	$2s2p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	2 - 2	B11
O V	170.2194	330		2s2p - 2s4d	$^1P^\circ - ^1D$	1 - 2	B11,E3
O V	172.169	700	2	$2s^2 - 2s3p$	$g^1S - ^1P^\circ$	0 - 1	B11
O V	174.560	150		2s2p - 2s4s	$^1P^\circ - ^1S$	1 - 0	B11
O V	178.713	150		$2p^2 - 2p(^2P^\circ)4d$	$^1S - ^1P^\circ$	0 - 1	E3
O V	182.205	150		$2s2p - 2p(^2P^\circ)3p$	$^1P^\circ - ^1S$	1 - 0	B11
O V	185.745	500	12	$2s2p - 2p(^2P^\circ)3p$	$^1P^\circ - ^1D$	1 - 2	B11
O V	191.397	10		$2p^2 - 2s4p$	$^3P - ^3P^\circ$	0 - 1	E3
O V	191.458	100		$2p^2 - 2s4p$	$^3P - ^3P^\circ$	1 - 2	E3
O V	191.556	150		$2p^2 - 2s4p$	$^3P - ^3P^\circ$	2 - 2	E3
O V	192.751	600	5	2s2p - 2s3d	$^3P^\circ - ^3D$	0 - 1	B11
O V	192.799	700	5	2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	B11
O V	192.906	800	5	2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	B11
O V	193.003	300		$2p^2 - 2s4f$	$^1D - ^1F^\circ$	2 - 3	B11
O V	194.593	420	11	$2s2p - 2p(^2P^\circ)3p$	$^1P^\circ - ^1P$	1 - 1	B11
O V?	198.031	150					E3
O V	202.161	300	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	0 - 1	B11,E3
O V	202.191	300	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 0	E3
O V	202.224	300	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 1	B11,E3
O V	202.283	300	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 2	B11,E3
O V	202.334	300	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 1	B11,E3
O V	202.393	380	14	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 2	B11,E3
O V	203.783	330	13	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	0 - 1	E3
O V	203.821	380	13	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	1 - 2	E3
O V	203.851	330	13	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	1 - 1	E3
O V	203.890	420	13	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 3	E3
O V	203.935	330	13	$2p^2 - 2p(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 2	E3
O V	205.105	150		$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	B11
O V	207.794	550	16	$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	B11
O V	215.040	380	4	2s2p - 2s3s	$^3P^\circ - ^3S$	0 - 1	B11
O V	215.103	420	4	2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	B11
O V	215.245	500	4	2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	B11
O V	216.018	500	15	$2p^2 - 2p(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	B11
O V	220.352	800	10	2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	B11
O V	222.235	200		$2p^2 - 2s4p$	$^1S - ^1P^\circ$	0 - 1	B11
O V	227.372	300		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 2	B11
O V	227.469	300		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	0 - 1	B11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O V	227.511	380		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	2 - 2	B11
O V	227.549	300		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 1	B11
O V	227.634	300		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	1 - 0	B11
O V	227.689	300		$2p^2 - 2p(^2P^\circ)3s$	$^3P - ^3P^\circ$	2 - 1	B11
O V	231.070	380b		$2p^2 - 2p(^2P^\circ)3s$	$^1D - ^1P^\circ$	2 - 1	E3
O V	231.823	380		$2p^2 - 2p(^2P^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	B11
O V	248.459	330	9	$2s2p - 2s3s$	$^1P^\circ - ^1S$	1 - 0	B11
O V	265.550	250		$2p^2 - 2p(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	E3
O V	270.982	10		$2p^2 - 2s3p$	$^3P - ^3P^\circ$	2 - 2	E3
O V	286.448	330		$2p^2 - 2s3p$	$^1D - ^1P^\circ$	2 - 1	B11
O V	341.391	10		$2p^2 - 2s3p$	$^1S - ^1P^\circ$	0 - 1	E3
O V	343.168	40		$2s3s - 2s6p$	$^3S - ^3P^\circ$	1 - 2	B11
O V	382.757	20		$2s3p - 2s6d$	$^1P^\circ - ^1D$	1 - 2	B11
O V	390.755	120		$2s3s - 2s5p$	$^3S - ^3P^\circ$	1 - 2	B11
O V	413.30	160		$2s3d - 2s6f$	$^3D - ^3F^\circ$	3 - 4	B11
O V	414.612	40		$2s3s - 2s5p$	$^1S - ^1P^\circ$	0 - 1	B11
O V	438.197	20		$2s3d - 2s6f$	$^1D - ^1F^\circ$	2 - 3	B11
O V	439.517	120		$2s3p - 2s5d$	$^1P^\circ - ^1D$	1 - 2	B11
O V	447.226	120h		$2s3p - 2s5d$	$^3P^\circ - ^3D$	1 - 2	B11
O V	447.356	160		$2s3p - 2s5d$	$^3P^\circ - ^3D$	2 - 3	B11
O V	469.150	40		$2s3p - 2s5s$	$^3P^\circ - ^3S$	2 - 1	B11
O V	481.14	240		$2s3d - 2s5f$	$^3D - ^3F^\circ$	3 - 4	B11
O V	509.415	120		$2s3d - 2s5f$	$^1D - ^1F^\circ$	2 - 3	B11
O V	529.20	240w		$2s3s - 2s4p$	$^3S - ^3P^\circ$	1 - 2	B11
O V	561.959	80		$2p(^2P^\circ)3s - 2p(^2P^\circ)4p$	$^3P^\circ - ^3D$	1 - 2	B11
O V	562.080	120		$2p(^2P^\circ)3s - 2p(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 3	B11
O V	566.232	80		$2s3s - 2s4p$	$^1S - ^1P^\circ$	0 - 1	B11
O V	604.416	280		$2s3p - 2s4d$	$^1P^\circ - ^1D$	1 - 2	B11
O V	627.225	80		$2s3p - 2s4d$	$^3P^\circ - ^3D$	0 - 1	B11
O V	627.351	160		$2s3p - 2s4d$	$^3P^\circ - ^3D$	1 - 2	B11
O V	627.636	200		$2s3p - 2s4d$	$^3P^\circ - ^3D$	2 - 3	B11
O V	629.730	1000	1	$2s^2 - 2s2p$	$g^1S - ^1P^\circ$	0 - 1	B11
O V	654.207	80		$2p(^2P^\circ)3d - 2p(^2P^\circ)4f$	$^3F^\circ - ^3G$	2 - 3	B11
O V	654.712	120b		$2p(^2P^\circ)3d - 2p(^2P^\circ)4f$	$^3F^\circ - ^3G$	3 - 4	B11
O V	655.039	200		$2p(^2P^\circ)3d - 2p(^2P^\circ)4f$	$^3F^\circ - ^3G$	4 - 5	B11
O V	662.928	40h		$2s3p - 2s4s$	$^1P^\circ - ^1S$	1 - 0	B11
O V	668.225	40		$2s2p - 2p^2$	$^3P^\circ - ^1D$	1 - 2	B11
O V	669.628	200		$2s2p - 2p^2$	$^3P^\circ - ^1D$	2 - 2	B11
O V	677.968	80		$2p(^2P^\circ)3d - 2s6g$	$^3F^\circ - ^3G$	2 - 3	B11
O V	678.612	120		$2p(^2P^\circ)3d - 2s6g$	$^3F^\circ - ^3G$	3 - 4	B11
O V	679.136	160		$2p(^2P^\circ)3d - 2s6g$	$^3F^\circ - ^3G$	4 - 5	B11
O V	681.27	480		$2s3d - 2s4f$	$^3D - ^3F^\circ$	3 - 4	B11
O V	715.955	120b		$2s3p - 2s4s$	$^3P^\circ - ^3S$	0 - 1	B11
O V	716.137	120		$2s3p - 2s4s$	$^3P^\circ - ^3S$	1 - 1	B11
O V	716.553	200		$2s3p - 2s4s$	$^3P^\circ - ^3S$	2 - 1	B11
O V	728.733	320		$2s3d - 2s4f$	$^1D - ^1F^\circ$	2 - 3	B11
O V	739.84	40h		$2s3d - 2s4p$	$^3D - ^3P^\circ$	3 - 2	B11
O V	752.019	40b		$2p(^2P^\circ)3d - 2p(^2P^\circ)4f$	$^1F^\circ - ^1G$	3 - 4	B11
O V	758.678	840	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 2	B11
O V	759.441	800	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	0 - 1	B11
O V	760.228	760	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	B11
O V	760.445	880	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	B11
O V	761.128	800	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	B11
O V	762.003	840	3	$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	B11
O V	774.518	720	8	$2s2p - 2p^2$	$^1P^\circ - ^1S$	1 - 0	B11
O V	784.795	80		$2p(^2P^\circ)3d - 2s6g$	$^1F^\circ - ^1G$	3 - 4	B11
O V	788.577	40h		$2s3p - 2p(^2P^\circ)3p$	$^1P^\circ - ^1S$	1 - 0	B11
O V	1055.451	200		$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	2 - 3	B11
O V	1058.149	120		$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	1 - 2	B11
O V	1058.998	80		$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	2 - 2	B11
O V	1059.930	80		$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	0 - 1	B11
O V	1060.380	80		$2s3p - 2p(^2P^\circ)3p$	$^3P^\circ - ^3D$	1 - 1	B11
O V	1218.406	40		$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	B11
O V	1243.801	40		$2s4s - 2s5p$	$^3S - ^3P^\circ$	1 - 2	B11
O V	1371.292	800	7	$2s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	B11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O V	1417.653	40		2s4p - 2s5d	$^3P^\circ$ - ^3D	0 - 1	B11
O V	1417.908	80		2s4p - 2s5d	$^3P^\circ$ - ^3D	1 - 2	B11
O V	1418.393	120		2s4p - 2s5d	$^3P^\circ$ - ^3D	2 - 3	B11
O V	1419.009	80		2s4p - 2s5d	$^1P^\circ$ - ^1D	1 - 2	B11
O V	1506.72	400w		2s4d - 2s5f	^3D - $^3F^\circ$	3 - 4	B11
O V	1596.375	280		2s4d - 2s5f	^1D - $^1F^\circ$	2 - 3	B11
O V	1643.68	560w		2s4f - 2s5g	$^3F^\circ$ - ^3G	4 - 5	B11
O V	1707.996	400		2s4f - 2s5g	$^1F^\circ$ - ^1G	3 - 4	B11
O V	1844.4	80w		2s5g - 2s7h	^3G - $^3H^\circ$	5 - 6	B11
O V	1845.63	40w		2s5f - 2s7g	$^3F^\circ$ - ^3G	4 - 5	B11

OXYGEN VI (O^{5+}), Z = 8

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 1 114 008 cm^{-1}; 138.116 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O VI	93.03	100		2s - 10p	g^2S - $^2P^\circ$	½ - 3/2	P9
O VI	93.84	150		2s - 9p	g^2S - $^2P^\circ$	½ - 3/2	P9
O VI	95.02	200		2s - 8p	g^2S - $^2P^\circ$	½ - 3/2	P9
O VI	96.78	250		2s - 7p	g^2S - $^2P^\circ$	½ - 3/2	P9
O VI	99.68	250		2s - 6p	g^2S - $^2P^\circ$	½ - 3/2	P9
O VI	101.57	100		2p - 11d	$^2P^\circ$ - ^2D	3/2 - 5/2	P9
O VI	102.30	150		2p - 10d	$^2P^\circ$ - ^2D	3/2 - 5/2	P9
O VI	103.26	200		2p - 9d	$^2P^\circ$ - ^2D	3/2 - 5/2	P9
O VI	104.67	250		2p - 8d	$^2P^\circ$ - ^2D	3/2 - 5/2	P9
O VI	104.811	350		2s - 5p	g^2S - $^2P^\circ$	½ - 3/2	E3,P9
O VI	106.79	300		2p - 7d	$^2P^\circ$ - ^2D	3/2 - 5/2	P9
O VI	110.148	120		2p - 6d	$^2P^\circ$ - ^2D	½ - 3/2	E3,P9
O VI	110.220	250		2p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	E3,P9
O VI	110.69	150		2p - 6s	$^2P^\circ$ - ^2S	3/2 - ½	P9
O VI	115.824	350		2s - 4p	g^2S - $^2P^\circ$	½ - 3/2	E3,P9
O VI	116.347	120		2p - 5d	$^2P^\circ$ - ^2D	½ - 3/2	E3,P9
O VI	116.419	250		2p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	E3,P9
O VI	117.40	300		2p - 5s	$^2P^\circ$ - ^2S	3/2 - ½	P9
O VI	129.786	150	5	2p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	E3,P9
O VI	129.872	250	5	2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	E3,P9
O VI	132.219	100		2p - 4s	$^2P^\circ$ - ^2S	½ - ½	E3,P9
O VI	132.312	200		2p - 4s	$^2P^\circ$ - ^2S	3/2 - ½	E3,P9
O VI	150.089	500	2	2s - 3p	g^2S - $^2P^\circ$	½ - 3/2	E6,P9,E3
O VI	150.124	250	2	2s - 3p	g^2S - $^2P^\circ$	½ - ½	E6,P9,E3
O VI	172.935	950	4	2p - 3d	$^2P^\circ$ - ^2D	½ - 3/2	E6,E3
O VI	173.082	1000	4	2p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	E6,E3
O VI	183.937	650	3	2p - 3s	$^2P^\circ$ - ^2S	½ - ½	E6,E3
O VI	184.117	850	3	2p - 3s	$^2P^\circ$ - ^2S	3/2 - ½	E6,E3
O VI	447.712	10		3s - 4p	^2S - $^2P^\circ$	½ - 3/2	E3
O VI	447.840	10		3s - 4p	^2S - $^2P^\circ$	½ - ½	E3
O VI	498.090	10d		3p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	E3
O VI	498.431	100d		3p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	E3
O VI	519.610	200d		3d - 4f	^2D - $^2F^\circ$	3/2 - 5/2	E3
O VI	519.723	200d		3d - 4f	^2D - $^2F^\circ$	5/2 - 7/2	E3
O VI	1031.912	850	1	2s - 2p	g^2S - $^2P^\circ$	½ - 3/2	E3
O VI	1037.613	750	1	2s - 2p	g^2S - $^2P^\circ$	½ - ½	E3

OXYGEN VII (O^{6+}), Z = 8

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 5 963 135 cm^{-1}; 739.315 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O VII	17.200	50		$1s^2$ - 1s6p	$g\,^1S$ - $^1P^\circ$	0 - 1	T12
O VII	17.396	100		$1s^2$ - 1s5p	$g\,^1S$ - $^1P^\circ$	0 - 1	T12
O VII	17.768	200		$1s^2$ - 1s4p	$g\,^1S$ - $^1P^\circ$	0 - 1	E6,T12
O VII	18.627	500		$1s^2$ - 1s3p	$g\,^1S$ - $^1P^\circ$	0 - 1	E6,T12
O VII	21.6020	1000		$1s^2$ - 1s2p	$g\,^1S$ - $^1P^\circ$	0 - 1	S26,T12
O VII	21.804	300		$1s^2$ - 1s2p	$g\,^1S$ - $^3P^\circ$	0 - 1	T12
O VII	22.10	f		$1s^2$ - 1s2s	$g\,^1S$ - ^3S	0 - 1	K8,J5
O VII	72.3 P			1s2s - 1s10p	^3S - $^3P^\circ$	1 - 2	F20
O VII	73.0 P			1s2s - 1s9p	^3S - $^3P^\circ$	1 - 2	F20
O VII	73.9 P			1s2s - 1s8p	^3S - $^3P^\circ$	1 - 2	F20
O VII	75.35 P			1s2s - 1s7p	^3S - $^3P^\circ$	1 - 2	F20
O VII	75.5 P			1s2p - 1s10d	$^3P^\circ$ - ^3D	2 - 3	F20
O VII	76.3 P			1s2p - 1s9d	$^3P^\circ$ - ^3D	2 - 3	F20
O VII	77.31 P			1s2p - 1s8d	$^3P^\circ$ - ^3D	2 - 3	F20
O VII	77.68 P			1s2s - 1s6p	^3S - $^3P^\circ$	1 - 2	F20
O VII	78.94	50		1s2p - 1s7d	$^3P^\circ$ - ^3D	2 - 3	P9
O VII	81.50	100		1s2p - 1s6d	$^3P^\circ$ - ^3D	2 - 3	P9
O VII	81.89	150		1s2s - 1s5p	^3S - $^3P^\circ$	1 - 2	P9
O VII	86.07	200		1s2p - 1s5d	$^3P^\circ$ - ^3D	2 - 3	P9
O VII	91.02	250		1s2s - 1s4p	^3S - $^3P^\circ$	1 - 2	P9
O VII	96.12	300		1s2p - 1s4d	$^3P^\circ$ - ^3D	2 - 3	P9
O VII	120.331	350		1s2s - 1s3p	^3S - $^3P^\circ$	1 - 2	E1,P9
O VII	128.412	150		1s2p - 1s3d	$^3P^\circ$ - ^3D	1 - 2	E1,P9
O VII	128.500	200		1s2p - 1s3d	$^3P^\circ$ - ^3D	2 - 3	E1,P9
O VII	133.31	250		1s2p - 1s3s	$^3P^\circ$ - ^3S	2 - 1	P9
O VII	1623.29			1s2s - 1s2p	^3S - $^3P^\circ$	1 - 2	E30
O VII	1637.96			1s2s - 1s2p	^3S - $^3P^\circ$	1 - 1	E30
O VII	1639.58			1s2s - 1s2p	^3S - $^3P^\circ$	1 - 0	E30

OXYGEN VIII (O^{7+}), Z = 8

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 7 028 394 cm^{-1}; 871.390 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O VIII	14.453			1s - 8p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2
O VIII	14.524			1s - 7p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2
O VIII	14.634			1s - 6p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2
O VIII	14.821			1s - 5p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2
O VIII	15.176 P	10		1s - 4p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2,K8
O VIII	16.006 P	30		1s - 3p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2,K8
O VIII	18.969 P	100		1s - 2p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	G2,K8
O VIII	61.977 P			2 - 7			G2
O VIII	64.03 P			2 - 6			G2
O VIII	67.76 P			2 - 5			G2
O VIII	75.89 P			2 - 4			G2
O VIII	102.43 P			2 - 3			G2
O VIII	149.06 P			3 - 8			G2
O VIII	156.92 P			3 - 7			G2
O VIII	170.80 P			3 - 6			G2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
O VIII	200.15 P			3 - 5			G2
O VIII	283.83 P			4 - 9			G2
O VIII	292.8 P			3 - 4			G2
O VIII	303.69 P			4 - 8			G2
O VIII	338.19 P			4 - 7			G2
O VIII	409.97 P			4 - 6			G2
O VIII	474.54 P			5 - 10			G2
O VIII	514.80 P			5 - 9			G2
O VIII	584.05 P			5 - 8			G2
O VIII	632.7 P			4 - 5			G2
O VIII	726.6 P			5 - 7			G2
O VIII	729.61 P			6 - 11			G2
O VIII	800.8 P			6 - 10			G2
O VIII	922.6 P			6 - 9			G2
O VIII	1164.8 P			5 - 6			G2
O VIII	1171.5 P			6 - 8			G2
O VIII	1931.8 P			6 - 7			G2

FLUORINE I (F^{0+}), Z = 9

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 140 524.5 cm^{-1}; 17.422 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F I	588.84 P	-A		$2s^2 2p^5 - 2s 2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
F I	590.25 P	-A		$2s^2 2p^5 - 2s 2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
F I	680.698	2 -A		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P3,L8
F I	682.577	2 -A		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	P3,L8
F I	732.960	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	734.642	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	L8
F I	734.795	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	L8
F I	735.154	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	L8
F I	735.469	1		$2p^5 - 2p^4(^3P)6s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	736.987	2		$2p^5 - 2p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	745.767	2		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	746.400	1		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	L8
F I	746.627	3		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	L8
F I	747.999	2		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	L8
F I	748.134	1		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	L8
F I	748.338	2		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	L8
F I	748.580	4		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	L8
F I	748.709	2		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	L8
F I	748.946	3		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	L8
F I	750.418	1		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	L8
F I	750.610	3		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	L8
F I	750.885	1		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	L8
F I	751.861	4		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	752.884	4		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	L8
F I	753.303	4		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	754.148	2		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	L8
F I	755.603	2		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	L8
F I	776.926	4		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	777.010	5		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	L8
F I	777.531	4		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	L8
F I	778.059	6		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	779.192	2		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	L8
F I	779.365	6		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	L8
F I	779.910	5		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	L8
F I	779.972	2		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	L8
F I	780.134	1		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	L8
F I	780.390	15		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	L8
F I	780.519	10		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	L8
F I	780.713	5		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	L8
F I	781.654	3		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	L8
F I	782.378	10		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	L8
F I	782.575	2		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	L8
F I	782.976	5		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	L8
F I	790.006	7		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	L8
F I	791.875	12		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	792.536	10		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	L8
F I	793.237	1		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	L8
F I	794.417	10		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	795.774	2		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	L8
F I	796.982	3		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	L8
F I	806.970	150	2	$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P3,L8
F I	809.607	125	2	$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P3,L8
F I	951.871	500	1	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	L8
F I	954.825	1000	1	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L8
F I	955.545	750	1	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	L8
F I	958.524	500	1	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	L8
F I	972.401	20		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	L8
F I	973.895	350		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	L8
F I	976.217	100		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	L8
F I	976.505	40		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	L8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F I	977.745	100		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	½ - 3/2	L8
F I	1096.8 P	-A		$2s2p^6 - 2s2p^5 3s$	$^2S - {}^2P^\circ$	½ - 3/2	K8

FLUORINE II (F^{1+}), Z = 9

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 282 058.6 cm^{-1}; 34.970 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F II	348.795	1 -A		$2p^4 - 2p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	P2
F II	353.423	2 -A		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	P2
F II	375.237	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	P2
F II	375.303	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	P2
F II	375.432	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	P2
F II	375.702	40		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	P2
F II	375.784	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	P2
F II	375.927	40		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	P2
F II	376.684	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	P2
F II	377.133	1		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	P2
F II	379.719	1		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1P^\circ$	2 - 1	P2
F II	380.896	100		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	P2
F II	381.824	1		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	P2
F II	393.680	40		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	P2
F II	394.207	10		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	P2
F II	394.438	1		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	P2
F II	400.582	10		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - {}^1D^\circ$	2 - 2	P2
F II	405.638	100		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1P^\circ$	2 - 1	P2
F II	407.041	200		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	P2
F II	407.503	100		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	P2
F II	417.872	10		$2p^4 - 2p^3(^2P^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	P2
F II	422.013	40		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	P2
F II	422.623	10		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	P2
F II	422.884	1		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	P2
F II	430.914	300		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	P2
F II	431.552	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	P2
F II	431.832	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	P2
F II	435.636	200		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	P2
F II	436.281	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 2	P2
F II	436.565	40		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	0 - 1	P2
F II	457.179	600		$2s^2 2p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	P2
F II	471.921	10	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 1	P2
F II	471.952	200	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 2	P2
F II	471.999	450	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	P2
F II	472.681	100		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 1	P2
F II	472.711	300		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	P2
F II	473.015	200		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	P2
F II	484.601	850		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - {}^1P^\circ$	2 - 1	P2
F II	513.644	300		$2s^2 2p^4 - 2s2p^5$	$^1S - {}^1P^\circ$	0 - 1	P2
F II	514.944	600		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	P2
F II	546.852	600	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	P2
F II	547.874	450	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	P2
F II	548.322	300	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	P2
F II	548.516	200		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	P2
F II	605.670	850	1	$2s^2 2p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	P2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F II	606.286	700	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	P2
F II	606.804	1000	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	P2
F II	606.922	600	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	P2
F II	607.472	700	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	P2
F II	608.063	850	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	P2
F II	694.801	10		$2s^22p^4 - 2s2p^5$	${}^1D - {}^3P^\circ$	2 - 2	P2
F II	832.035	10		$2s^22p^4 - 2s2p^5$	${}^1S - {}^3P^\circ$	0 - 1	P2
F II	1112.110	10		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3D$	2 - 2	P2
F II	1112.302	100		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3D$	2 - 3	P2
F II	1115.946	40		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3D$	1 - 2	P2
F II	1118.017	10		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3D$	0 - 1	P2
F II	1129.758	200		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3S$	2 - 1	P2
F II	1133.714	100		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3S$	1 - 1	P2
F II	1135.938	10		$2s2p^5 - 2s^22p^3(^2P^\circ)3p$	${}^3P^\circ - {}^3S$	0 - 1	P2
F II	1209.345	40		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)5p$	${}^5S^\circ - {}^5P$	2 - 3	P2
F II	1221.235	100		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	2 - 2	P2
F II	1221.536	40		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	2 - 1	P2
F II	1225.854	40		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	1 - 2	P2
F II	1226.161	10		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	1 - 1	P2
F II	1226.267	40		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	1 - 0	P2
F II	1228.763	40		$2s2p^5 - 2s^22p^3(^4S^\circ)4p$	${}^3P^\circ - {}^3P$	0 - 1	P2
F II	1321.515	10		$2p^3(^4S^\circ)3p - 2p^3(^2P^\circ)3d$	${}^3P - {}^3D^\circ$	2 - 3	P2
F II	1327.058	200		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3P$	2 - 1	P2
F II	1328.108	300		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3P$	2 - 2	P2
F II	1332.042	100		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3P$	1 - 0	P2
F II	1332.512	100		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3P$	1 - 1	P2
F II	1333.588	200		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3P$	1 - 2	P2
F II	1343.603	300		$2p^3(^4S^\circ)3s - 2p^3(^2P^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 2	P2
F II	1344.037	200		$2p^3(^4S^\circ)3s - 2p^3(^2P^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 1	P2
F II	1344.295	100		$2p^3(^4S^\circ)3s - 2p^3(^2P^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 0	P2
F II	1375.319	100		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3F$	2 - 3	P2
F II	1400.611	300		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3D$	2 - 3	P2
F II	1407.135	200		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3D$	1 - 2	P2
F II	1410.618	100		$2s2p^5 - 2s^22p^3(^2D^\circ)3p$	${}^3P^\circ - {}^3D$	0 - 1	P2
F II	1419.485	10		$2p^3(^4S^\circ)3s - 2p^3(^2P^\circ)3p$	${}^3S^\circ - {}^3S$	1 - 1	P2
F II	1424.737	1		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)3p$	${}^5S^\circ - {}^3P$	2 - 2	P2
F II	1462.842	1	-A	$2p^3(^2P^\circ)3s - 2p^3(^2P^\circ)4p$	${}^1P^\circ - {}^1P$	1 - 1	P2
F II	1493.091	450		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^5S^\circ - {}^5P$	2 - 3	P2
F II	1493.235	300		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^5S^\circ - {}^5P$	2 - 2	P2
F II	1493.311	200		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^5S^\circ - {}^5P$	2 - 1	P2
F II	1514.789	100		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^3D^\circ - {}^3F$	3 - 4	P2
F II	1515.034	40		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^3D^\circ - {}^3F$	2 - 3	P2
F II	1521.590	10	-A	$2p^3(^2P^\circ)3s - 2p^3(^2P^\circ)4p$	${}^3P^\circ - {}^3D$	2 - 3	P2
F II	1523.197	100		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^3D^\circ - {}^3D$	3 - 3	P2
F II	1523.583	40		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^3D^\circ - {}^3D$	2 - 2	P2
F II	1523.925	10		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^3D^\circ - {}^3D$	1 - 1	P2
F II	1566.961	100		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^3S^\circ - {}^3P$	1 - 2	P2
F II	1567.435	40		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^3S^\circ - {}^3P$	1 - 1	P2
F II	1585.056	40		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^1D^\circ - {}^1F$	2 - 3	P2
F II	1609.798	10		$2p^3(^2D^\circ)3s - 2p^3(^2D^\circ)4p$	${}^1D^\circ - {}^1P$	2 - 1	P2
F II	1650.200	1		$2p^3(^4S^\circ)3s - 2p^3(^4S^\circ)4p$	${}^3S^\circ - {}^5P$	1 - 2	P2
F II	1700.185	10		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	1 - 0	P2
F II	1700.691	10		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	1 - 1	P2
F II	1700.767	10		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	0 - 1	P2
F II	1700.831	40		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	2 - 1	P2
F II	1701.993	40		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	1 - 2	P2
F II	1702.130	200		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3P^\circ$	2 - 2	P2
F II	1704.696	10		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3S^\circ$	1 - 1	P2
F II	1704.834	40		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3S^\circ$	2 - 1	P2
F II	1729.669	1		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3D^\circ$	0 - 1	P2
F II	1730.119	10		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3D^\circ$	1 - 2	P2
F II	1731.047	40		$2p^3(^4S^\circ)3p - 2p^3(^2D^\circ)3d$	${}^3P - {}^3D^\circ$	2 - 3	P2
F II	1734.494	10		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)6s$	${}^3P - {}^3S^\circ$	2 - 1	P2
F II	1744.745	200		$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 0	P2
F II	1745.550	300		$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 1	P2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F II	1747.389	450		$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	$^3S^\circ - ^3P$	1 - 2	P2
F II	1885.047	10		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)5s$	$^5P - ^5S^\circ$	1 - 2	P2
F II	1885.442	40		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)5s$	$^5P - ^5S^\circ$	2 - 2	P2
F II	1886.147	100		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)5s$	$^5P - ^5S^\circ$	3 - 2	P2
F II	1929.791	10 -A		$2p^3(^2D^\circ)3p - 2p^3(^2D^\circ)5s$	$^1F - ^1D^\circ$	3 - 2	P2
F II	1959.758	1		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)4d$	$^5P - ^5D^\circ$	1 - 2	P2
F II	1960.255	10		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)4d$	$^5P - ^5D^\circ$	2 - 3	P2
F II	1960.984	40		$2p^3(^4S^\circ)3p - 2p^3(^4S^\circ)4d$	$^5P - ^5D^\circ$	3 - 4	P2

FLUORINE III (F^{2+}), Z = 9

Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 505 777 cm^{-1}; 62.707 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	214.804	3		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	214.862	3		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	219.277	1		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	219.588	0		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	226.055	6		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	226.094	10		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	226.169	20		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	230.117	35		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	230.553	1		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	230.603	1		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	231.011	6		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	231.381	1		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	240.231	3		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	240.264	1		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	240.546	3		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	240.720	6		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	240.735	1		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	240.857	1		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	241.135	1		$2p^3 - 2p^2(^3P)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	243.357	3		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	243.407	1		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	244.701	6		$2p^3 - 2p^2(^1S)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	244.769	20		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	245.005	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	P4
F III	245.866	3		$2p^3 - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	254.165	20		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	254.197	10		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	255.632	3		$2p^3 - 2p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	255.667	1		$2p^3 - 2p^2(^1S)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	255.723	35		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	255.770	60		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	255.863	100		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	256.358	35		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 5/2	P4
F III	256.526	3		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^4D$	3/2 - 3/2	P4
F III	256.675	3		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	256.723	1		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^2P$	3/2 - 3/2	P4
F III	256.894	6		$2p^3 - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	260.307	20		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	260.372	10		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	260.496	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	260.782	3		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	261.713	100		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	261.749	60		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	263.808	150		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	270.677	20		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	P4
F III	272.712	20		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	272.756	10		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	272.919	10		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	273.206	6		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	274.260	60		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	276.780	35		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	276.897	20		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	279.689	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	280.007	60		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	P4
F III	280.802	1		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 7/2	P4
F III	280.905	3		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 3/2	P4
F III	281.204	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	281.343	20		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	290.846	60		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	290.945	35		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	295.369	6		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4D$	1/2 - 1/2	P4
F III	295.404	3		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4D$	1/2 - 3/2	P4
F III	295.703	35		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	P4
F III	295.889	60		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	311.413	20		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - ^2S$	3/2 - 1/2	P4
F III	315.219	150		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	315.536	100		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	315.747	60		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	316.484	20		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	316.822	10		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	P4
F III	316.995	6		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	P4
F III	317.791	3		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	318.126	1		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	3/2 - 5/2	P4
F III	322.647	20		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	322.675	10		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	341.921	10		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	343.893	35		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	343.934	3		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 3/2	P4
F III	344.385	20		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	365.876	60		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	366.391	35		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 1/2	P4
F III	378.580	10		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^2D - ^2D^\circ$	5/2 - 5/2	P4
F III	395.443	6		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	P4
F III	395.972	3		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	P4
F III	396.244	1		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	1/2 - 3/2	P4
F III	429.512	250		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	430.152	300		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	430.222	150		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	P4
F III	464.288	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	465.113	250		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	486.430	10		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	P4
F III	487.223	6		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	P4
F III	487.643	3		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4S^\circ$	1/2 - 3/2	P4
F III	500.953	10		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 5/2	P4
F III	501.425	6		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 3/2	P4
F III	501.804	6		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	3/2 - 5/2	P4
F III	502.280	3		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	3/2 - 3/2	P4
F III	502.511	6		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	3/2 - 1/2	P4
F III	502.713	6		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4P^\circ$	1/2 - 3/2	P4
F III	506.674	3		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	508.386	400		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	P4
F III	508.506	6		$2s2p^4 - 2s^22p^2(^1S)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	522.285	10		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	3/2 - 1/2	P4
F III	523.662	60		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	567.636	150		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	567.686	400		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	567.752	300		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	567.801	150		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	3/2 - 5/2	P4
F III	573.886	20		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	573.935	1		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2P^\circ$	3/2 - 3/2	P4
F III	574.384	10		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2P^\circ$	3/2 - 1/2	P4
F III	588.060	3		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2D^\circ$	3/2 - 3/2	P4
F III	588.208	6		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	P4
F III	600.104	10		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2F^\circ$	5/2 - 7/2	P4
F III	600.390	6		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2D - ^2F^\circ$	3/2 - 5/2	P4
F III	630.137	150		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	630.198	200		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	630.327	2		$2s 2p^4 - 2s^2 2p^2(^1S)3p$	$^2S - ^2P^\circ$	1/2 - 3/2	P4
F III	630.346	1		$2s 2p^4 - 2s^2 2p^2(^1S)3p$	$^2S - ^2P^\circ$	1/2 - 1/2	P4
F III	651.622	3		$2s 2p^4 - 2p^5$	$^2S - ^2P^\circ$	1/2 - 1/2	P4
F III	653.833	6		$2s 2p^4 - 2p^5$	$^2S - ^2P^\circ$	1/2 - 3/2	P4
F III	656.121	400		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	656.869	500		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	658.329	600		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	665.809	10		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	666.258	6		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2D - ^2P^\circ$	3/2 - 1/2	P4
F III	668.195	6		$2s^2 2p^2(^3P)3s - 2s 2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	3/2 - 5/2	P4
F III	669.648	10		$2s^2 2p^2(^3P)3s - 2s 2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	712.524	1		$2s 2p^4 - 2s^2 2p^2(^1S)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	734.047	6		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2S - ^2P^\circ$	1/2 - 3/2	P4
F III	734.767	3		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2S - ^2P^\circ$	1/2 - 1/2	P4
F III	739.851	20		$2s 2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 1/2	P4
F III	741.955	35		$2s 2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 1/2	P4
F III	742.699	60		$2s 2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	744.818	20		$2s 2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 3/2	P4
F III	847.962	10		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	848.915	3		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	P4
F III	850.707	3		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	P4
F III	851.700	6		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	P4
F III	879.59	6		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	P4
F III	882.136	3		$2s 2p^4 - 2s^2 2p^2(^1D)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	P4
F III	902.239	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	1/2 - 3/2	P4
F III	902.425	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 5/2	P4
F III	903.96	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 3/2	P4
F III	904.657	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 1/2	P4
F III	905.048	6		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 5/2	P4
F III	906.577	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 3/2	P4
F III	910.334	6		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	1/2 - 3/2	P4
F III	910.645	6		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	3/2 - 5/2	P4
F III	911.164	20		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	912.090	6		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	3/2 - 3/2	P4
F III	913.303	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 5/2	P4
F III	914.836	3		$2p^2(^3P)3p - 2p^2(^3P)5g$	$^4S^\circ - 2[2]$	3/2 - 5/2	P4
F III	924.716	6		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^2S^\circ - ^4P$	1/2 - 1/2	P4
F III	938.538	1		$2p^2(^3P)3p - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	962.580	6		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	7/2 - 5/2	P4
F III	963.322	3		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4D^\circ - ^4P$	5/2 - 3/2	P4
F III	983.927	1		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4P^\circ - ^4P$	5/2 - 5/2	P4
F III	991.102	3		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^2P - ^2S^\circ$	1/2 - 1/2	P4
F III	993.281	6		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^4P$	3/2 - 3/2	P4
F III	994.899	6		$2p^2(^3P)3s - 2p^2(^3P)4p$	$^2P - ^2S^\circ$	3/2 - 1/2	P4
F III	996.616	3		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^4P$	3/2 - 5/2	P4
F III	1023.270	3		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	1033.898	1		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2S^\circ - ^2P$	1/2 - 3/2	P4
F III	1045.236	3		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	1048.898	3		$2p^2(^3P)3p - 2p^2(^3P)5s$	$^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	1065.268	60		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	1066.251	6		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	P4
F III	1069.636	6		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	P4
F III	1070.623	20		$2s 2p^4 - 2s^2 2p^2(^3P)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	1085.297	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4D^\circ - ^4D$	7/2 - 7/2	P4
F III	1094.277	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4D^\circ - ^4F$	3/2 - 5/2	P4
F III	1094.660	6		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4D^\circ - ^4F$	5/2 - 7/2	P4
F III	1095.095	10		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4D^\circ - ^4F$	7/2 - 9/2	P4
F III	1109.262	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4P^\circ - ^4D$	1/2 - 3/2	P4
F III	1111.782	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4P^\circ - ^4D$	3/2 - 5/2	P4
F III	1112.507	6		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4P^\circ - ^4D$	5/2 - 7/2	P4
F III	1113.244	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4P^\circ - ^2P$	3/2 - 3/2	P4
F III	1113.463	20		$2s2p^4 - 2s^22p^2(^3P)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	P4
F III	1118.320	10		$2s2p^4 - 2s^22p^2(^3P)3p$	$^2P - ^2D^\circ$	3/2 - 3/2	P4
F III	1118.854	3		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2F^\circ - ^2G$	5/2 - 7/2	P4
F III	1119.673	6		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2F^\circ - ^2G$	7/2 - 9/2	P4
F III	1123.126	20		$2s2p^4 - 2s^22p^2(^3P)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	P4
F III	1138.182	6		$2s^22p^2(^3P)3s - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	P4
F III	1141.857	3		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	1142.332	10		$2s^22p^2(^3P)3s - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	P4
F III	1143.354	1		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	1158.073	6		$2p^2(^1D)3s - 2p^2(^3P)4p$	$^2D - ^2D^\circ$	5/2 - 5/2	P4
F III	1158.781	10		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	P4
F III	1159.227	20		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	1165.961	10		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4D^\circ - ^4P$	3/2 - 1/2	P4
F III	1177.988	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	1178.642	3		$2p^2(^3P)3p - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	1179.035	6		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	1181.061	10		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	1181.909	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1182.427	3		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	1184.039	3		$2p^2(^3P)3p - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	1201.358	3		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4P^\circ - ^4P$	3/2 - 3/2	P4
F III	1204.380	6		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4P^\circ - ^4P$	5/2 - 5/2	P4
F III	1210.349	3		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1211.585	6		$2p^2(^1D)3s - 2p^2(^3P)4p$	$^2D - ^4D^\circ$	5/2 - 3/2	P4
F III	1212.255	6		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	1212.321	1		$2p^2(^1D)3p - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 3/2	P4
F III	1213.353	20		$2p^2(^3P)3s - 2p^2(^1S)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	P4
F III	1214.368	3		$2p^2(^3P)3p - 2p^2(^1S)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1214.864	0		$2p^2(^3P)3p - 2p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	1219.032	150		$2p^2(^3P)3s - 2p^2(^1S)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	1235.316	10		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2P^\circ - ^4D$	3/2 - 3/2	P4
F III	1237.308	6		$2p^2(^3P)3p - 2p^2(^3P)4d$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	1242.585	3		$2p^2(^3P)3p - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1243.888	6		$2p^2(^3P)3p - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	1261.859	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 2[3]^\circ$	7/2 - 7/2	P4
F III	1263.987	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 2[5]^\circ$	7/2 - 9/2	P4
F III	1264.870	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 2[4]^\circ$	9/2 - 9/2	P4
F III	1266.867	150		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 1[4]^\circ$	5/2 - 7/2	P4
F III	1267.711	200		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 2[5]^\circ$	9/2 - 11/2	P4
F III	1268.27	3		$2s^22p^2(^3P)3d - 2s2p^3(^3D^\circ)3s$	$^4F - ^4D^\circ$	9/2 - 7/2	P4
F III	1268.573	35		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 1[3]^\circ$	5/2 - 7/2	P4
F III	1269.368	20		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 1[4]^\circ$	7/2 - 7/2	P4
F III	1269.559	60		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 1[4]^\circ$	7/2 - 9/2	P4
F III	1271.075	10		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4F - 0[3]^\circ$	5/2 - 7/2	P4
F III	1272.463	3		$2p^2(^3P)3d - 2p^2(^1D)4f$	$^4P - 2[1]^\circ$	3/2 - 3/2	P4
F III	1272.795	6		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^2D^\circ - ^4P$	3/2 - 5/2	P4
F III	1276.352	3		$2s^22p^2(^3P)3d - 2s2p^3(^5S^\circ)3d$	$^2P - ^4D^\circ$	3/2 - 3/2	P4
F III	1278.810	60		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^2D^\circ - ^4P$	5/2 - 3/2	P4
F III	1282.240	10		$2p^2(^1D)3d - 2p^2(^1D)5f$	$^2F - 2[4]^\circ$	7/2 - 9/2	P4
F III	1283.098	6		$2p^2(^1D)3d - 2p^2(^1D)5f$	$^2F - 2[4]^\circ$	5/2 - 7/2	P4
F III	1284.105	3		$2s2p^4 - 2s^22p^2(^3P)3p$	$^2P - ^2S^\circ$	3/2 - 1/2	P4
F III	1291.565	1		$2p^2(^3P)3d - 2p^2(^1D)4f$	$^2F - 2[3]^\circ$	5/2 - 5/2	P4
F III	1294.279	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2P - 2[3]^\circ$	3/2 - 5/2	P4
F III	1294.83	1		$2s^22p^2(^3P)3s - 2p^5$	$^2P - ^2P^\circ$	1/2 - 1/2	P4
F III	1296.940	20		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	1297.188	60		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	1297.537	100		$2s^22p^2(^3P)3p - 2s2p^3(^5S^\circ)3p$	$^4S^\circ - ^4P$	3/2 - 5/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	1297.757	1		$2p^2(^3P)3d - 2p^2(^1D)4f$	$^2F - 2[3]^\circ$	7/2 - 5/2	P4
F III	1298.072	6		$2s^22p^2(^3P)3d - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	P4
F III	1299.055	3		$2p^2(^3P)3d - 2p^2(^1D)4f$	$^2F - 2[4]^\circ$	7/2 - 7/2	P4
F III	1300.466	3		$2s^22p^2(^3P)3d - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	P4
F III	1302.599	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2P - 1[2]^\circ$	3/2 - 3/2	P4
F III	1303.624	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[3]^\circ$	3/2 - 5/2	P4
F III	1303.871	35		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[3]^\circ$	5/2 - 7/2	P4
F III	1304.368	20		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2P - 1[3]^\circ$	3/2 - 5/2	P4
F III	1304.705	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[2]^\circ$	5/2 - 5/2	P4
F III	1305.008	0		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[2]^\circ$	3/2 - 3/2	P4
F III	1305.697	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[2]^\circ$	1/2 - 3/2	P4
F III	1305.870	35		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[4]^\circ$	7/2 - 9/2	P4
F III	1306.04	60		$2p^2(^1D)3d - 2p^2(^1D)5f$	$^2G - 2[5]^\circ$	9/2 - 11/2	P4
F III	1306.122	20		$2p^2(^1D)3d - 2p^2(^1D)5f$	$^2G - 2[5]^\circ$	7/2 - 9/2	P4
F III	1306.991	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 2[2]^\circ$	7/2 - 5/2	P4
F III	1310.117	3		$2s^22p^2(^3P)3s - 2p^5$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	1311.963	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 1[2]^\circ$	3/2 - 5/2	P4
F III	1312.763	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 1[2]^\circ$	1/2 - 3/2	P4
F III	1316.401	35		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 0[3]^\circ$	5/2 - 7/2	P4
F III	1316.531	35		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4D - 0[3]^\circ$	3/2 - 5/2	P4
F III	1317.744	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 2[2]^\circ$	5/2 - 5/2	P4
F III	1317.975	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 2[2]^\circ$	5/2 - 3/2	P4
F III	1320.203	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 2[2]^\circ$	3/2 - 5/2	P4
F III	1320.451	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 2[2]^\circ$	3/2 - 3/2	P4
F III	1323.311	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 2[1]^\circ$	3/2 - 3/2	P4
F III	1325.214	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 1[2]^\circ$	5/2 - 3/2	P4
F III	1326.926	20		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 1[3]^\circ$	5/2 - 7/2	P4
F III	1329.704	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^4P - 0[3]^\circ$	5/2 - 5/2	P4
F III	1329.892	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2F - 2[4]^\circ$	7/2 - 7/2	P4
F III	1330.490	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2F - 2[4]^\circ$	7/2 - 9/2	P4
F III	1333.139	60		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2F - 2[5]^\circ$	7/2 - 9/2	P4
F III	1334.292	3		$2p^2(^1D)3d - 2p^2(^1D)5f$	$^2D - 2[4]^\circ$	5/2 - 7/2	P4
F III	1337.196	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2F - 0[3]^\circ$	5/2 - 7/2	P4
F III	1339.337	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2F - 1[4]^\circ$	7/2 - 9/2	P4
F III	1359.921	100		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2S^\circ - ^2P$	1/2 - 3/2	P4
F III	1364.291	10		$2p^2(^3P)3d - 2p^2(^1D)4f$	$^2D - 2[3]^\circ$	5/2 - 7/2	P4
F III	1367.083	60		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2S^\circ - ^2P$	1/2 - 1/2	P4
F III	1398.190	10		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 2[3]^\circ$	3/2 - 5/2	P4
F III	1399.491	6		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 2[2]^\circ$	3/2 - 5/2	P4
F III	1399.839	60		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 2[4]^\circ$	5/2 - 7/2	P4
F III	1401.794	3		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 2[2]^\circ$	5/2 - 5/2	P4
F III	1403.153	1		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 2[1]^\circ$	3/2 - 1/2	P4
F III	1410.039	20		$2p^2(^3P)3d - 2p^2(^3P)5f$	$^2D - 1[3]^\circ$	3/2 - 5/2	P4
F III	1419.740	1		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4F - ^4D^\circ$	7/2 - 7/2	P4
F III	1423.831	10		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4F - ^4D^\circ$	9/2 - 7/2	P4
F III	1424.64	3		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4F - ^4D^\circ$	7/2 - 5/2	P4
F III	1424.74	1		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4F - ^4D^\circ$	5/2 - 3/2	P4
F III	1436.687			$2p^2(^1D)3p - 2p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	1442.192	3		$2p^2(^1D)3p - 2p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	1457.145	3		$2p^2(^1D)3d - 2p^2(^1D)5p$	$^2G - ^2F^\circ$	9/2 - 7/2	P4
F III	1457.441	1		$2p^2(^1D)3d - 2p^2(^1D)5p$	$^2G - ^2F^\circ$	7/2 - 5/2	P4
F III	1458.802	6		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^2F - ^2D^\circ$	5/2 - 3/2	P4
F III	1459.503	10		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4D - ^4P^\circ$	5/2 - 5/2	P4
F III	1460.750	1		$2p^2(^1D)3p - 2p^2(^3P)5s$	$^2P^\circ - ^4P$	1/2 - 3/2	P4
F III	1462.313	6		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4D - ^4P^\circ$	7/2 - 5/2	P4
F III	1463.808	3		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4D - ^4P^\circ$	5/2 - 3/2	P4
F III	1473.820	3		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^2P - ^2S^\circ$	3/2 - 1/2	P4
F III	1475.787	3		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 5/2	P4
F III	1476.043	1		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4D - ^4D^\circ$	7/2 - 7/2	P4
F III	1478.224	3		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^4P - ^2P^\circ$	1/2 - 1/2	P4
F III	1478.879	1		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^4P - ^4P^\circ$	3/2 - 5/2	P4
F III	1486.913	3		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^4P - ^2P^\circ$	5/2 - 3/2	P4
F III	1494.680	100		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	3/2 - 5/2	P4
F III	1498.933	300		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	5/2 - 5/2	P4
F III	1499.425	150		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	1/2 - 3/2	P4

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	1502.014	400		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	3/2 - 3/2	P4
F III	1504.177	300		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	1/2 - 1/2	P4
F III	1504.785	600		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	7/2 - 5/2	P4
F III	1506.300	500		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	5/2 - 3/2	P4
F III	1506.767	300		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4D^\circ - ^4P$	3/2 - 1/2	P4
F III	1518.137	3		$2p^2(^1D)3p - 2p^2(^1S)3d$	$^2F^\circ - ^2D$	7/2 - 5/2	P4
F III	1520.716	3		$2p^2(^1D)3p - 2p^2(^3P)4d$	$^2F^\circ - ^2F$	7/2 - 7/2	P4
F III	1527.524	1		$2p^2(^1D)3p - 2p^2(^3P)4d$	$^2F^\circ - ^2F$	5/2 - 5/2	P4
F III	1534.754	60		$2s2p^3(^5S^\circ)3p - 2s2p^3(^5S^\circ)4s$	$^6P - ^6S^\circ$	3/2 - 5/2	P4
F III	1535.269	100		$2s2p^3(^5S^\circ)3p - 2s2p^3(^5S^\circ)4s$	$^6P - ^6S^\circ$	5/2 - 5/2	P4
F III	1536.113	150		$2s2p^3(^5S^\circ)3p - 2s2p^3(^5S^\circ)4s$	$^6P - ^6S^\circ$	7/2 - 5/2	P4
F III	1544.276	3		$2p^2(^1D)3p - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	1549.492	3		$2p^2(^3P)3d - 2p^2(^3P)5p$	$^2D - ^2D^\circ$	3/2 - 3/2	P4
F III	1553.023	250		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 5/2	P4
F III	1557.592	300		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	5/2 - 5/2	P4
F III	1558.641	200		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	1/2 - 3/2	P4
F III	1560.939	60		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 3/2	P4
F III	1562.234	100		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2F^\circ - ^2D$	5/2 - 3/2	P4
F III	1563.726	250		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2F^\circ - ^2D$	7/2 - 5/2	P4
F III	1565.539	250		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	5/2 - 3/2	P4
F III	1566.070	200		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 1/2	P4
F III	1577.652	1		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^4P - ^2D^\circ$	3/2 - 3/2	P4
F III	1585.593	3		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^4P - ^2D^\circ$	5/2 - 3/2	P4
F III	1590.180	10		$2p^2(^1D)3s - 2p^2(^1S)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	1599.926	10		$2p^2(^1S)3p - 2p^2(^1S)4s$	$^2P^\circ - ^2S$	1/2 - 1/2	P4
F III	1600.041	25		$2p^2(^1S)3p - 2p^2(^1S)4s$	$^2P^\circ - ^2S$	3/2 - 1/2	P4
F III	1613.186	60		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 3/2	P4
F III	1623.294	150		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	P4
F III	1623.402	250		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	P4
F III	1648.608	6		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	1/2 - 1/2	P4
F III	1650.764	250		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	1650.974	20		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	P4
F III	1652.288	3		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 5/2	P4
F III	1652.416	60		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	1661.025	1		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	P4
F III	1661.505			$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	P4
F III	1666.652	150		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	P4
F III	1670.388	500		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	P4
F III	1671.870	35		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	P4
F III	1672.341	3		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	P4
F III	1677.397	600		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P4
F III	1681.182	150		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	P4
F III	1681.478	10		$2s^22p^2(^1D)3d - 2s2p^3(^3D^\circ)3s$	$^2G - ^2D^\circ$	7/2 - 5/2	P4
F III	1683.991	6		$2p^2(^1S)3s - 2p^2(^3P)4p$	$^2S - ^2P^\circ$	1/2 - 3/2	P4
F III	1716.990	250		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 5/2	P4
F III	1726.665	200		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 3/2	P4
F III	1732.945	100		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 1/2	P4
F III	1733.200	6		$2s^22p^2(^1D)3s - 2p^5$	$^2D - ^2P^\circ$	3/2 - 1/2	P4
F III	1735.417	35		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	P4
F III	1738.041	200		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	P4
F III	1746.545	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[4]^\circ$	5/2 - 7/2	P4
F III	1747.114	150		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	P4
F III	1747.881	10		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	P4
F III	1748.023	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[3]^\circ$	5/2 - 5/2	P4
F III	1748.806	3		$2s^22p^2(^1D)3s - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	P4
F III	1749.766	35		$2p^2(^3P)3p - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	P4
F III	1750.640	10		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[2]^\circ$	5/2 - 5/2	P4
F III	1751.276	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[2]^\circ$	5/2 - 3/2	P4
F III	1752.694	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[4]^\circ$	7/2 - 9/2	P4
F III	1753.518	60		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[3]^\circ$	7/2 - 7/2	P4
F III	1758.956	150		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[4]^\circ$	9/2 - 9/2	P4
F III	1759.792	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[3]^\circ$	9/2 - 7/2	P4
F III	1761.444	6		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	P4
F III	1763.206	150		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[5]^\circ$	7/2 - 9/2	P4
F III	1768.038	200		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[4]^\circ$	5/2 - 7/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	1769.529	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[5]^\circ$	9/2 - 9/2	P4
F III	1770.092	400		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[3]^\circ$	3/2 - 5/2	P4
F III	1770.668	700		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 2[5]^\circ$	9/2 - 11/2	P4
F III	1770.963	10		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1772.925	300		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[4]^\circ$	7/2 - 7/2	P4
F III	1773.363	600		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[4]^\circ$	7/2 - 9/2	P4
F III	1773.496	35		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[3]^\circ$	5/2 - 5/2	P4
F III	1774.104	150		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 0[3]^\circ$	3/2 - 5/2	P4
F III	1775.079	60		$2p^2(^1D)3p - 2p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	P4
F III	1777.358	60		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 0[3]^\circ$	5/2 - 7/2	P4
F III	1777.846	35		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[3]^\circ$	7/2 - 7/2	P4
F III	1779.778	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4F - 1[4]^\circ$	9/2 - 9/2	P4
F III	1786.436	1		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[2]^\circ$	7/2 - 5/2	P4
F III	1788.110	1		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[2]^\circ$	5/2 - 3/2	P4
F III	1791.445	3		$2p^2(^3P)3p - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	P4
F III	1791.648	800		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	P4
F III	1800.505	100		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[3]^\circ$	7/2 - 7/2	P4
F III	1802.181	60		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[3]^\circ$	5/2 - 7/2	P4
F III	1803.027	300		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[4]^\circ$	7/2 - 9/2	P4
F III	1804.073	200		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2D^\circ$	3/2 - 3/2	P4
F III	1804.698	250		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2F - 2[4]^\circ$	5/2 - 7/2	P4
F III	1805.896	900		$2p^2(^3P)3s - 2p^2(^1D)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	P4
F III	1830.567	3		$2p^2(^1S)3d - 2p^2(^1S)4f$	$^2D - 0[3]^\circ$	3/2 - 5/2	P4
F III	1832.361	6		$2p^2(^1S)3d - 2p^2(^1S)4f$	$^2D - 0[3]^\circ$	5/2 - 7/2	P4
F III	1833.322	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[4]^\circ$	5/2 - 7/2	P4
F III	1833.791	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2P - 2[1]^\circ$	3/2 - 3/2	P4
F III	1834.997	100		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[3]^\circ$	3/2 - 5/2	P4
F III	1835.712	200		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[3]^\circ$	5/2 - 7/2	P4
F III	1837.815	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[4]^\circ$	7/2 - 7/2	P4
F III	1837.880	100		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[2]^\circ$	3/2 - 5/2	P4
F III	1838.568	20		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[2]^\circ$	3/2 - 3/2	P4
F III	1839.301	300		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[4]^\circ$	7/2 - 9/2	P4
F III	1839.968	400		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2G - 2[5]^\circ$	9/2 - 11/2	P4
F III	1840.140	300		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2G - 2[5]^\circ$	7/2 - 9/2	P4
F III	1840.930	10		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2P - 2[1]^\circ$	1/2 - 3/2	P4
F III	1842.326	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[2]^\circ$	7/2 - 5/2	P4
F III	1844.077	100		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2P - 1[3]^\circ$	3/2 - 5/2	P4
F III	1847.462	150		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2P - 1[2]^\circ$	1/2 - 3/2	P4
F III	1848.431	200		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2P - 0[3]^\circ$	3/2 - 5/2	P4
F III	1850.889	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[5]^\circ$	7/2 - 9/2	P4
F III	1852.539	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[1]^\circ$	5/2 - 3/2	P4
F III	1852.683	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[1]^\circ$	3/2 - 1/2	P4
F III	1854.028	35		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 2[1]^\circ$	1/2 - 3/2	P4
F III	1857.034	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 1[4]^\circ$	5/2 - 7/2	P4
F III	1859.143	60		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 1[2]^\circ$	5/2 - 3/2	P4
F III	1861.584	60		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[3]^\circ$	5/2 - 7/2	P4
F III	1861.814	35		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2G - 2[4]^\circ$	9/2 - 7/2	P4
F III	1861.912	3		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2G - 2[4]^\circ$	7/2 - 7/2	P4
F III	1862.094	35		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 1[4]^\circ$	7/2 - 9/2	P4
F III	1863.758	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[2]^\circ$	5/2 - 5/2	P4
F III	1865.701	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[3]^\circ$	3/2 - 5/2	P4
F III	1867.050	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 1[3]^\circ$	7/2 - 7/2	P4
F III	1867.310	100		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 0[3]^\circ$	5/2 - 7/2	P4
F III	1867.598	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 0[3]^\circ$	3/2 - 5/2	P4
F III	1868.690	10		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[2]^\circ$	3/2 - 5/2	P4
F III	1869.380	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[2]^\circ$	3/2 - 3/2	P4
F III	1871.923	10		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4D - 0[3]^\circ$	7/2 - 7/2	P4
F III	1876.348	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 2[3]^\circ$	5/2 - 7/2	P4
F III	1878.580	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 2[2]^\circ$	5/2 - 5/2	P4
F III	1878.910	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[1]^\circ$	5/2 - 3/2	P4
F III	1883.925	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[1]^\circ$	3/2 - 3/2	P4
F III	1885.587	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 1[2]^\circ$	5/2 - 5/2	P4
F III	1886.464	6		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 2[1]^\circ$	1/2 - 1/2	P4
F III	1886.950	3		$2p^2(^1D)3d - 2p^2(^3P)5f$	$^2F - 1[3]^\circ$	5/2 - 5/2	P4
F III	1888.530	10		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2D - 2[2]^\circ$	3/2 - 3/2	P4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F III	1889.076	20		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 1[3]^\circ$	5/2 - 7/2	P4
F III	1889.711	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 1[3]^\circ$	5/2 - 5/2	P4
F III	1893.273	3		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 1[2]^\circ$	1/2 - 3/2	P4
F III	1894.082	60		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 0[3]^\circ$	5/2 - 7/2	P4
F III	1894.779	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 1[3]^\circ$	3/2 - 5/2	P4
F III	1898.631	100		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 1[4]^\circ$	5/2 - 7/2	P4
F III	1899.373	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^4P - 0[3]^\circ$	3/2 - 5/2	P4
F III	1900.760	150		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 1[2]^\circ$	5/2 - 5/2	P4
F III	1904.247	60		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2D - 2[3]^\circ$	3/2 - 5/2	P4
F III	1904.834	35		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2D - 2[3]^\circ$	5/2 - 7/2	P4
F III	1909.375	1		$2p^5 - 2s^22p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 3/2	P4
F III	1912.543	10		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 1[4]^\circ$	7/2 - 9/2	P4
F III	1917.766	1		$2p^2(^3P)3d - 2p^2(^3P)4f$	$^2F - 1[3]^\circ$	7/2 - 7/2	P4
F III	1948.731	10		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2P - 2[1]^\circ$	3/2 - 3/2	P4
F III	1963.439	20		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2P - 2[2]^\circ$	1/2 - 3/2	P4
F III	1965.726	35		$2p^2(^1D)3d - 2p^2(^1D)4f$	$^2P - 2[2]^\circ$	3/2 - 5/2	P4

FLUORINE IV (F^{3+}), Z = 9

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 702 830 cm^{-1}; 87.138 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IV	140.781	1 -A		$2s^22p^2 - 2s2p^2(^4P)5p$	$g^3P - ^3D^\circ$	1 - 2	E11
F IV	140.816	1 -A		$2s^22p^2 - 2s2p^2(^4P)5p$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	150.335	10		$2s^22p^2 - 2s2p^2(^4P)4p$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	150.422	10		$2s^22p^2 - 2s2p^2(^4P)4p$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	150.977	100		$2s^22p^2 - 2s2p^2(^4P)4p$	$g^3P - ^3D^\circ$	0 - 1	E11
F IV	151.005	100		$2s^22p^2 - 2s2p^2(^4P)4p$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	151.079	1		$2s^22p^2 - 2s2p^2(^4P)4p$	$g^3P - ^3D^\circ$	2 - 2	E11
F IV	152.997	1		$2p^2 - 2p6d$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	153.102	10		$2p^2 - 2p6d$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	153.141	10		$2p^2 - 2p6d$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	155.624	10 -A		$2s2p^3 - 2s2p^2(^4P)5d$	$^5S^\circ - ^5P$	2 - 2	E11
F IV	155.673	10 -A		$2s2p^3 - 2s2p^2(^4P)5d$	$^5S^\circ - ^5P$	2 - 3	E11
F IV	158.398	10		$2p^2 - 2p5d$	$g^3P - ^3P^\circ$	1 - 0	E11
F IV	158.537	400b		$2p^2 - 2p5d$	$g^3P - ^3P^\circ$	2 - 2	E14,E11
F IV	158.601	100		$2p^2 - 2p5d$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	158.925	100		$2p^2 - 2p6d$	$^1D - ^1F^\circ$	2 - 3	E11
F IV	164.612	200		$2p^2 - 2p5d$	$^1D - ^1F^\circ$	2 - 3	E11
F IV	165.350	10		$2p^2 - 2p5d$	$^1D - ^1D^\circ$	2 - 2	E11
F IV	165.479	1		$2p^2 - 2p5d$	$^1D - ^3F^\circ$	2 - 2	E11
F IV	166.444	200		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 2	E11
F IV	166.499	200		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 3	E11
F IV	168.450	200		$2s^22p^2 - 2s2p^2(^2D)3p$	$^1D - ^1P^\circ$	2 - 1	E11
F IV	169.166	200 -A		$2s2p^3 - 2s2p^2(^2D)4d$	$^3D^\circ - ^3F$	3 - 4	E11
F IV	169.481	100		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	1 - 0	E11
F IV	169.502	100		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	1 - 1	E11
F IV	169.610	100		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	2 - 1	E11
F IV	169.661	200		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	169.748	200		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	0 - 1	E11
F IV	169.790	300		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	1 - 2	E11
F IV	169.839	300		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	2 - 3	E11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IV	170.187	200		$2s^22p^2 - 2s2p^2(^2D)3p$	$^1D - ^1D^\circ$	2 - 2	E11
F IV	171.066	300		$2s^22p^2 - 2s2p^2(^2D)3p$	$^1D - ^1F^\circ$	2 - 3	E11
F IV	172.653	10		$2p^2 - 2p5d$	$^1S - ^1P^\circ$	0 - 1	E11
F IV	175.033	10		$2s2p^3 - 2s2p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 3	E11
F IV	175.132	1		$2s2p^3 - 2s2p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 2	E11
F IV	176.367	400		$2p^2 - 2p4d$	$^1D - ^1F^\circ$	2 - 3	E11
F IV	177.971	200		$2p^2 - 2p4d$	$^1D - ^1D^\circ$	2 - 2	E11
F IV	178.126	100		$2p^2 - 2p4d$	$^1D - ^3F^\circ$	2 - 2	E11
F IV	178.540	100		$2p^2 - 2p4s$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	178.670	300		$2p^2 - 2p4s$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	178.724	100		$2p^2 - 2p4s$	$g^3P - ^3P^\circ$	1 - 0	E11
F IV	178.805	100		$2p^2 - 2p4s$	$g^3P - ^3P^\circ$	2 - 1	E11
F IV	179.827	100		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	179.907	1		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3P^\circ$	1 - 1	E11
F IV	179.943	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	180.029	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3P^\circ$	2 - 1	E11
F IV	181.521	400		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	1 - 2	E11
F IV	181.571	400		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	181.655	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	2 - 2	E11
F IV	185.484	300		$2p^2 - 2p4d$	$^1S - ^1P^\circ$	0 - 1	E11
F IV	186.558	100		$2p^2 - 2p4s$	$^1D - ^1P^\circ$	2 - 1	E11
F IV	187.105	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3S^\circ$	1 - 1	E11
F IV	187.240	300		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3S^\circ$	2 - 1	E11
F IV	187.916	100		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3D$	3 - 3	E11
F IV	188.004	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3D$	2 - 2	E11
F IV	188.656	200		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3F$	3 - 4	E11
F IV	188.758	100		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3F$	2 - 3	E11
F IV	188.834	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3F$	1 - 2	E11
F IV	196.351	400		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 1	E11
F IV	196.390	500		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 2	E11
F IV	196.448	600		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 3	E11
F IV	196.968	100		$2p^2 - 2p4s$	$^1S - ^1P^\circ$	0 - 1	E11
F IV	197.108	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5D$	2 - 3	E11
F IV	197.298	100d		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3S$?	2 - 1	E14,K8
F IV	199.004	300		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3D$	3 - 3	E11
F IV	199.086	300		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3D$	2 - 2	E11
F IV	199.607	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3P$	3 - 2	E11
F IV	199.761	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	0 - 1	E11
F IV	199.804	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 0	E11
F IV	199.849	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 1	E11
F IV	199.934	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	200.001	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 1	E11
F IV	200.089	700		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	201.011	600		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	0 - 1	E11
F IV	201.063	700		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 2	E11
F IV	201.101	600		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 1	E11
F IV	201.160	800		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	E11
F IV	201.222	600		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 2	E11
F IV	201.465	400		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3F$	3 - 4	E11
F IV	202.989	10		$2p^2 - 2p3d$	$g^3P - ^1D^\circ$	1 - 2	E11
F IV	203.152	100		$2p^2 - 2p3d$	$g^3P - ^3F^\circ$	2 - 3	E11
F IV	208.254	900		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	E11
F IV	208.549	200		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3S$	2 - 1	E11
F IV	210.480	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	E11
F IV	210.545	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	1 - 2	E11
F IV	211.152	10		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3P$	2 - 2	E11
F IV	213.848	700		$2p^2 - 2p3d$	$^1D - ^3F^\circ$	2 - 3	E11
F IV	214.062	700		$2p^2 - 2p3d$	$^1D - ^3F^\circ$	2 - 2	E11
F IV	220.765	700		$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	E11
F IV	223.394	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	3 - 3	E11
F IV	223.456	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	2 - 2	E11
F IV	223.497	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	1 - 1	E11
F IV	226.944	600		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 4	E11
F IV	227.079	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 3	E11
F IV	227.101	500		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	2 - 3	E11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IV	227.211	400		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	1 - 2	E11
F IV	228.496	1		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	1 - 0	E11
F IV	228.552	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	2 - 1	E11
F IV	228.645	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	3 - 2	E11
F IV	233.159	200		$2s2p^3 - 2s2p^2(^2D)3d$	$^1D^\circ - ^1D$	2 - 2	E11
F IV	233.222	600		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 3	E11
F IV	233.297	200		$2s2p^3 - 2s2p^2(^2D)3d$	$^1D^\circ - ^1F$	2 - 3	E11
F IV	233.393	500		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 2	E11
F IV	233.526	400		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 1	E11
F IV	237.913	300		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	3 - 3	E11
F IV	237.955	400		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	E11
F IV	238.012	300		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	2 - 2	E11
F IV	238.042	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	E11
F IV	238.099	100		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	1 - 1	E11
F IV	239.856	700		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 2	E11
F IV	240.017	700		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	0 - 1	E11
F IV	240.079	900		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	E11
F IV	240.146	700		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 1	E11
F IV	240.275	700		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 0	E11
F IV	240.371	700		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 1	E11
F IV	243.736	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	1 - 0	E11
F IV	243.796	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	2 - 1	E11
F IV	243.922	400		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	2 - 2	E11
F IV	249.228	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^1P^\circ - ^1P$	1 - 1	E11
F IV	249.744	10		$2s2p^3 - 2s2p^2(^2D)3d$	$^1P^\circ - ^1D$	1 - 2	E11
F IV	251.026	1000		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	E11
F IV	254.491	200		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	E11
F IV	254.595	100		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	1 - 2	E11
F IV	254.681	10		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	0 - 1	E11
F IV	268.785	400		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	3 - 2	E11
F IV	268.817	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 2	E11
F IV	269.076	300		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 1	E11
F IV	269.225	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	1 - 0	E11
F IV	270.225	600		$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	E11
F IV	279.834	300		$2s2p^3 - 2s2p^2(^2D)3s$	$^1D^\circ - ^1D$	2 - 2	E11
F IV	287.994	1		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 0	E11
F IV	288.078	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 1	E11
F IV	288.267	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 2	E11
F IV	290.147	400		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	E11
F IV	290.440	300		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	E11
F IV	290.461	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	0 - 1	E11
F IV	290.608	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	1 - 0	E11
F IV	319.695	300		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	3 - 2	E11
F IV	319.740	10		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	2 - 2	E11
F IV	320.004	200		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	2 - 1	E11
F IV	320.192	100		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	1 - 0	E11
F IV	328.213	10		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3D$	3 - 3	E11
F IV	355.045	200		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3S$	2 - 1	E11
F IV	360.635	100		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3D$	2 - 3	E11
F IV	361.208	10		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3D$	1 - 2	E11
F IV	419.645	800		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	P5
F IV	420.045	900		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	P5
F IV	420.729	1000		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	P5
F IV	430.759	900		$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	P5
F IV	490.568	700		$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	P5
F IV	491.001	1000		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	P5
F IV	497.375	60		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	1 - 0	P5
F IV	497.830	100		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	P5
F IV	498.796	150		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	P5
F IV	498.907	35		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 2	P5
F IV	570.640	800		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	P5
F IV	571.304	800		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 0	P5
F IV	571.391	900		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	P5
F IV	572.663	1000		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	P5
F IV	575.643	10		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 0	P5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IV	576.265	15		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	P5
F IV	576.359	10		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	0 - 1	P5
F IV	577.734	35		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	P5
F IV	607.37			$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	F6
F IV	639.13	-A		$2s^22p4s - 2s2p^2(^4P)5d$	$^3P^\circ - ^5P$?	2 - 2	F6,K8
F IV	666.662	1		$2s^22p^2 - 2s2p^3$	$^1D - ^3P^\circ$	2 - 1	P5
F IV	676.119	800		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	P5
F IV	677.149	700		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 1	P5
F IV	677.219	900		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	P5
F IV	678.991	700		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	P5
F IV	679.214	1000		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	P5
F IV	722.028	500		$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	P5
F IV	815.629	10		$2s^22p^2 - 2s2p^3$	$^1D - ^3D^\circ$	2 - 3	P5
F IV	821.694	1		$2s^22p^2 - 2s2p^3$	$^1S - ^3P^\circ$	0 - 1	P5
F IV	903.64	35		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	P5
F IV	905.14			$2s2p^2(^4P)3s - 2s^22p5d$	$^3P - ^1D^\circ$?	1 - 2	F6,K8
F IV	905.224	60		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	P5
F IV	908.837	100		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	P5
F IV	908.958	150		$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	P5
F IV	927.837	10		$2p3p - 2p4s$	$^3D - ^3P^\circ$	3 - 2	P5
F IV	993.29	10		$2p3d - 2p4f$	$^3F^\circ - 3/2[9/2]$	3 - 4	P5
F IV	995.12	1		$2p3d - 2p4f$	$^3F^\circ - 3/2[7/2]$	2 - 3	P5
F IV	996.62			$2p3d - 2p4f$	$^3F^\circ - 3/2[9/2]$	4 - 4	P5
F IV	998.86	15		$2p3d - 2p4f$	$^3F^\circ - 3/2[7/2]$	3 - 4	P5
F IV	999.14	60		$2p3d - 2p4f$	$^3F^\circ - 3/2[9/2]$	4 - 5	P5
F IV	999.79	15		$2p3d - 2p4f$	$^1D^\circ - 3/2[7/2]$	2 - 3	P5
F IV	1000.89	1		$2p3p - 2p4s$	$^3P - ^3P^\circ$	1 - 2	P5
F IV	1002.33	5		$2p3d - 2p4f$	$^3F^\circ - 3/2[7/2]$	4 - 4	P5
F IV	1003.45	10		$2p3p - 2p4s$	$^3P - ^3P^\circ$	2 - 2	P5
F IV	1004.59	5		$2p3d - 2p4f$	$^3F^\circ - 1/2[5/2]$	2 - 3	P5
F IV	1007.64	10		$2p3d - 2p4f$	$^3F^\circ - 1/2[7/2]$	3 - 4	P5
F IV	1007.74	5		$2p3p - 2p4s$	$^3P - ^3P^\circ$	2 - 1	P5
F IV	1007.88	5		$2p3d - 2p4f$	$^1D^\circ - 1/2[7/2]$	2 - 3	P5
F IV	1009.34	10		$2p3d - 2p4f$	$^1D^\circ - 1/2[5/2]$	2 - 3	P5
F IV	1012.90	5		$2p3d - 2p4f$	$^3F^\circ - 1/2[5/2]$	4 - 3	P5
F IV	1045.24	5		$2s^22p3p - 2s2p^2(^4P)3p$	$^3P - ^3P^\circ$	2 - 2	P5
F IV	1049.96	1		$2p3d - 2p4f$	$^3D^\circ - 3/2[7/2]$	3 - 4	P5
F IV	1058.10	10		$2p3d - 2p4f$	$^3D^\circ - 1/2[7/2]$	2 - 3	P5
F IV	1058.50	10		$2p3d - 2p4f$	$^3D^\circ - 1/2[5/2]$	1 - 2	P5
F IV	1059.63	35		$2p3d - 2p4f$	$^3D^\circ - 1/2[7/2]$	3 - 4	P5
F IV	1059.73	1		$2p3d - 2p4f$	$^3D^\circ - 1/2[5/2]$	2 - 3	P5
F IV	1073.22	5		$2p3d - 2p4f$	$^3P^\circ - 3/2[3/2]$	1 - 2	P5
F IV	1074.10	1		$2p3d - 2p4f$	$^3P^\circ - 3/2[3/2]$	1 - 1	P5
F IV	1075.05	5		$2p3d - 2p4f$	$^3P^\circ - 3/2[5/2]$	2 - 3	P5
F IV	1076.86	5		$2p3d - 2p4f$	$^3P^\circ - 3/2[5/2]$	1 - 2	P5
F IV	1091.35	10		$2p3p - 2p4s$	$^1D - ^1P^\circ$	2 - 1	P5
F IV	1092.45	5		$2p3d - 2p4f$	$^3P^\circ - 1/2[5/2]$	2 - 3	P5
F IV	1134.78	35		$2p3d - 2p4f$	$^1F^\circ - 3/2[9/2]$	3 - 4	P5
F IV	1142.07	5		$2p3d - 2p4f$	$^1F^\circ - 3/2[7/2]$	3 - 4	P5
F IV	1143.35	5		$2p3d - 2p4f$	$^1F^\circ - 3/2[7/2]$	3 - 3	P5
F IV	1145.89	10		$2p3d - 2p4f$	$^1P^\circ - 3/2[3/2]$	1 - 2	P5
F IV	1150.07	10		$2p3d - 2p4f$	$^1P^\circ - 3/2[5/2]$	1 - 2	P5
F IV	1351.924	10		$2s^22p^2 - 2s2p^3$	$g^3P - ^5S^\circ$	1 - 2	P5
F IV	1359.053	15		$2s^22p^2 - 2s2p^3$	$g^3P - ^5S^\circ$	2 - 2	P5
F IV	1453.14	1		$2p^4 - 2s^22p3s$	$^3P - ^3P^\circ$	2 - 2	P5

FLUORINE V (F^{4+}), Z = 9

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 921 430 cm^{-1}; 114.24 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F V	119.986	10		$2s^2 2p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2D$	½ - 3/2	E10
F V	120.032	15		$2s^2 2p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	122.042	10		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	E14,K8
F V	123.665	10		$2p - 5d$	$g\,^2P^\circ - ^2D$	½ - 3/2	E10
F V	123.774	100		$2p - 5d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	131.516	10		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2S$	½ - ½	E10
F V	131.638	10		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2S$	3/2 - ½	E10
F V	132.207	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	½ - 3/2	E10
F V	132.310	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 5/2	E10
F V	132.389	10d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$?	5/2 - 3/2	E14,K8
F V	132.453	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	½ - 3/2	E10
F V	132.484	300		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	E10
F V	132.511	300		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	E10
F V	132.699	100d		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2P$	½ - ½	E10
F V	132.819	200		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E10
F V	133.082	10		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2D$	½ - 3/2	E10
F V	133.208	100		$2s^2 2p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	133.599	110		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	E10
F V	133.662	100		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	E10
F V	134.407	400		$2p - 4d$	$g\,^2P^\circ - ^2D$	½ - 3/2	E10
F V	134.539	500		$2p - 4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	135.621	1		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4P^\circ$	3/2 - 5/2	E10
F V	135.692	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 5/2	E10
F V	136.902	300		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	E10
F V	136.955	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 5/2	E10
F V	138.181	100d		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	E14,K8
F V	138.256	10d		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	E14,K8
F V	140.266	10		$2p - 4s$	$g\,^2P^\circ - ^2S$	½ - ½	E10
F V	140.414	100		$2p - 4s$	$g\,^2P^\circ - ^2S$	3/2 - ½	E10
F V	142.422	100		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2D^\circ$?	5/2 - 5/2	E14,K8
F V	143.897	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	E10
F V	143.965	15		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	3/2 - 5/2	E10
F V	144.637	100		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2F^\circ$	5/2 - 7/2	E14,K8
F V	144.673	90		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2F^\circ$	3/2 - 5/2	E14,K8
F V	145.177	100d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	E10
F V	145.392	200		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2S$	½ - ½	E10
F V	145.547	300		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2S$	3/2 - ½	E10
F V	147.946	400		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	½ - 3/2	E10
F V	148.002	500		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	148.108	100		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	E10
F V	152.035	50		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^4D$	½ - ½	E22
F V	152.174	50		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^4D$	3/2 - 3/2	E22
F V	152.339	200		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	½ - 3/2	E10
F V	152.391	300		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	½ - ½	E10
F V	152.511	400		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E10
F V	152.563	200		$2s^2 2p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	3/2 - ½	E10
F V	157.515	100d		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	E10
F V	158.537	400b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	E10
F V	159.558	1		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	½ - 3/2	E10
F V	159.658	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	E10
F V	162.013	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	½ - ½	E10
F V	162.053	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	½ - 3/2	E10
F V	162.082	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - ½	E10
F V	162.121	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	E10
F V	162.172	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	E10
F V	162.215	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	E10
F V	162.270	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	E10
F V	163.456	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	½ - 3/2	E10
F V	163.501	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	E10
F V	163.558	500		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	E10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F V	163.596	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	E10
F V	165.983	900		$2p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	E10
F V	166.177	1000		$2p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	167.858	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	E10
F V	171.214	10		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 1/2	E10
F V	171.241	100		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	E10
F V	171.302	200		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	E10
F V	173.020	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	E10
F V	173.656	10		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E14,K8
F V	173.714	10		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	E14,K8
F V	174.490	300		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E10
F V	174.513	300		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E10
F V	174.568	300		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	E10
F V	174.698	400		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	E10
F V	176.472	10		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E10
F V	178.434	500		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	E10
F V	178.590	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	E10
F V	178.612	300		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	E10
F V	182.979	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	E10
F V	183.016	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	E10
F V	183.208	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E10
F V	186.715	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	E10
F V	186.788	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	E10
F V	186.842	500		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	E10
F V	186.879	300		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 3/2	E10
F V	186.968	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 1/2	E10
F V	187.008	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	E10
F V	189.943	200		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	190.571	600		$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	E10
F V	190.839	700		$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	E10
F V	191.892	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	E10
F V	191.973	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	E10
F V	194.108	300		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E10
F V	196.713	200		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	E14,K8
F V	196.870	100		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	E14,K8
F V	197.615	1		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	E10
F V	197.780	10		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E10
F V	198.476	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	E10
F V	198.765	1		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	E10
F V	200.861	100		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 3/2	E10
F V	205.552	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	E10
F V	205.778	300		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	E10
F V	206.430	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	E10
F V	206.594	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	E10
F V	213.684	10d		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^4P^\circ$?	3/2 - 1/2	E14,K8
F V	215.676	10		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	E10
F V	223.999	1		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2P$	5/2 - 3/2	E10
F V	225.114	10d		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2D$?	5/2 - 5/2	E14,K8
F V	226.341	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E10
F V	226.608	90		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	E10
F V	235.840	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	E10
F V	242.324	300		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	5/2 - 3/2	E10
F V	242.439	200		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	3/2 - 1/2	E10
F V	464.367	400		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	P5
F V	465.374	500		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	P5
F V	465.976	600		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	P5
F V	466.994	400		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	P5
F V	506.159	300		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	P5
F V	508.075	400		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	P5
F V	513.969	150		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	P5
F V	514.082	100		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	P5
F V	524.594	200		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	P5
F V	525.292	300		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	P5
F V	526.297	400		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	P5
F V	539.91			$2s^23d - 2s2p(^1P^\circ)3d$	$^2D - ^2D^\circ$?	5/2 - 3/2	F6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F V	552.06			$2s^2 3d - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$?	5/2 - 7/2	F6
F V	560.24			$2s^2 3p - 2s^2 4d$	$^2P^\circ - ^2D$?	3/2 - 5/2	F6
F V	643.21			$2s^2 4f - 2s2p(^3P^\circ)5p$	$^2F^\circ - ^2D$	7/2 - 5/2	F6
F V	647.666	150		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 3/2	P5
F V	647.768	400		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	P5
F V	647.868	500		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	P5
F V	647.967	150		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 5/2	P5
F V	654.029	700		$2s^2 2p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	P5
F V	657.227	500		$2s^2 2p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	P5
F V	657.333	800		$2s^2 2p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	P5
F V	667.218	35		$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	P5
F V	667.315	15		$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	P5
F V	694.40			$2s^2 3d - 2s^2 4f$	$^2D - ^2F^\circ$	5/2 - 7/2	F6
F V	706.43			$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2D^\circ - ^2F$	5/2 - 7/2	F6
F V	712.64			$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^4P^\circ - ^4D$	5/2 - 7/2	F6
F V	744.95			$2s2p(^3P^\circ)3d - 2s2p(^3P^\circ)4f$	$^2F^\circ - ^2G$	7/2 - 9/2	F6
F V	754.359	35		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	P5
F V	754.490	60		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	P5
F V	757.037	100		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	P5
F V	757.158	35		$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	P5
F V	1082.313	100		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	P5
F V	1087.820	35		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 3/2	P5
F V	1088.387	150		$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	P5
F V	1167.372	1		$2s^2 2p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 5/2	P5

FLUORINE VI (F^{5+}), Z = 9

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 1 267 622 cm^{-1}; 157.161 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F VI	99.044	10		$2s2p - 2s5d$	$^3P^\circ - ^3D$	0 - 1	E9
F VI	99.105	15		$2s2p - 2s5d$	$^3P^\circ - ^3D$	2 - 3	E9
F VI	99.203	10		$2s^2 - 2s4p$	$g^1S - ^1P^\circ$	0 - 1	E9
F VI	108.975	100		$2s2p - 2s4d$	$^3P^\circ - ^3D$	0 - 1	E9
F VI	109.040	150		$2s2p - 2s4d$	$^3P^\circ - ^3D$	2 - 3	E9
F VI	113.840	10d		$2p^2 - 2p4d$	$^3P - ^3D^\circ$	2 - 3	E9
F VI	116.094	10		$2p^2 - 2p4d$	$^1D - ^1F^\circ$	2 - 3	E9
F VI	120.116	100		$2s2p - 2s4d$	$^1P^\circ - ^1D$	1 - 2	E9
F VI	122.122	100		$2s2p - 2p3p$	$^3P^\circ - ^3P$	1 - 2	E9
F VI	122.169	10		$2s2p - 2p3p$	$^3P^\circ - ^3P$	1 - 1	E9
F VI	122.200	200		$2s2p - 2p3p$	$^3P^\circ - ^3P$	2 - 2	E9
F VI	122.251	15		$2s2p - 2p3p$	$^3P^\circ - ^3P$	2 - 1	E9
F VI	123.051	10		$2s2p - 2p3p$	$^3P^\circ - ^3S$	0 - 1	E9
F VI	123.090	10		$2s2p - 2p3p$	$^3P^\circ - ^3S$	1 - 1	E9
F VI	123.175	100		$2s2p - 2p3p$	$^3P^\circ - ^3S$	2 - 1	E9
F VI	124.387	300d		$2s2p - 2p3p$	$^3P^\circ - ^3D$	2 - 3	E9
F VI	124.440	10		$2s2p - 2p3p$	$^3P^\circ - ^3D$	1 - 1	E9
F VI	124.474	10		$2s2p - 2p3p$	$^3P^\circ - ^3D$	2 - 2	E9
F VI	126.923	500		$2s^2 - 2s3p$	$g^1S - ^1P^\circ$	0 - 1	E9
F VI	135.397	300		$2s2p - 2p3p$	$^1P^\circ - ^1D$	1 - 2	E9
F VI	139.758	500		$2s2p - 2s3d$	$^3P^\circ - ^3D$	0 - 1	E9
F VI	139.800	600		$2s2p - 2s3d$	$^3P^\circ - ^3D$	1 - 2	E9
F VI	139.900	700		$2s2p - 2s3d$	$^3P^\circ - ^3D$	2 - 3	E9
F VI	141.154	200		$2s2p - 2p3p$	$^1P^\circ - ^1P$	1 - 1	E9
F VI	145.462	100		$2p^2 - 2p3d$	$^3P - ^3P^\circ$	0 - 1	E9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F VI	145.489	100		$2p^2$ - 2p3d	^3P - $^3P^\circ$	1 - 0	E9
F VI	145.585	100		$2p^2$ - 2p3d	^3P - $^3P^\circ$	1 - 2	E9
F VI	145.630	100		$2p^2$ - 2p3d	^3P - $^3P^\circ$	2 - 1	E9
F VI	145.691	300		$2p^2$ - 2p3d	^3P - $^3P^\circ$	2 - 2	E9
F VI	146.576	200		$2p^2$ - 2p3d	^3P - $^3D^\circ$	0 - 1	E9
F VI	146.613	300		$2p^2$ - 2p3d	^3P - $^3D^\circ$	1 - 2	E9
F VI	146.676	400		$2p^2$ - 2p3d	^3P - $^3D^\circ$	2 - 3	E9
F VI	146.718	200		$2p^2$ - 2p3d	^3P - $^3D^\circ$	2 - 2	E9
F VI	148.653	400		$2p^2$ - 2p3d	^1D - $^1F^\circ$	2 - 3	E9
F VI	153.678	200		2s2p - 2s3s	$^3P^\circ$ - ^3S	0 - 1	E9
F VI	153.741	300		2s2p - 2s3s	$^3P^\circ$ - ^3S	1 - 1	E9
F VI	153.880	400		2s2p - 2s3s	$^3P^\circ$ - ^3S	2 - 1	E9
F VI	154.506	300		$2p^2$ - 2p3d	^1D - $^1D^\circ$	2 - 2	E9
F VI	156.247	600		2s2p - 2s3d	$^1P^\circ$ - ^1D	1 - 2	E9
F VI	161.174	120		$2p^2$ - 2p3s	^3P - $^3P^\circ$	1 - 2	E9
F VI	161.257	100		$2p^2$ - 2p3s	^3P - $^3P^\circ$	0 - 1	E9
F VI	161.308	300		$2p^2$ - 2p3s	^3P - $^3P^\circ$	2 - 2	E9
F VI	161.341	90		$2p^2$ - 2p3s	^3P - $^3P^\circ$	1 - 1	E9
F VI	161.414	100		$2p^2$ - 2p3s	^3P - $^3P^\circ$	1 - 0	E9
F VI	161.477	120		$2p^2$ - 2p3s	^3P - $^3P^\circ$	2 - 1	E9
F VI	163.138	200		$2p^2$ - 2p3d	^1S - $^1P^\circ$	0 - 1	E9
F VI	164.015	100		$2p^2$ - 2p3s	^1D - $^1P^\circ$	2 - 1	E9
F VI	173.145	100		2s2p - 2s3s	$^1P^\circ$ - ^1S	1 - 0	E9
F VI	194.840	100		$2p^2$ - 2s3p	^1D - $^1P^\circ$	2 - 1	E9
F VI	406.12			2p3s - 2p4p	$^3P^\circ$ - ^3D	2 - 3	F6
F VI	444.47			2s3p - 2s4d	$^1P^\circ$ - ^1D	1 - 2	F6
F VI	446.39			2s3p - 2s4d	$^3P^\circ$ - ^3D	1 - 2	F6
F VI?	469.48						F6
F VI	477.55			2s3p - 2s4s	$^1P^\circ$ - ^1S	1 - 0	F6
F VI	479.85			2s3d - 2s4f	^3D - $^3F^\circ$	3 - 4	F6
F VI	509.26			2s3p - 2s4s	$^3P^\circ$ - ^3S	2 - 1	F6
F VI	511.33			2s3d - 2s4f	^1D - $^1F^\circ$	2 - 3	F6
F VI	535.207	60		$2s^2$ - 2s2p	g^1S - $^1P^\circ$	0 - 1	P5
F VI	643.969	10		2s2p - $2p^2$	$^3P^\circ$ - ^3P	1 - 2	P5
F VI	644.999	10		2s2p - $2p^2$	$^3P^\circ$ - ^3P	0 - 1	P5
F VI	646.092	5		2s2p - $2p^2$	$^3P^\circ$ - ^3P	1 - 1	P5
F VI	646.360	35		2s2p - $2p^2$	$^3P^\circ$ - ^3P	2 - 2	P5
F VI	647.307	10		2s2p - $2p^2$	$^3P^\circ$ - ^3P	1 - 0	P5
F VI	648.496	10		2s2p - $2p^2$	$^3P^\circ$ - ^3P	2 - 1	P5
F VI	651.082	5		2s2p - $2p^2$	$^1P^\circ$ - ^1S	1 - 0	P5
F VI	1032.34 P			$2s^2$ - 2s2p	g^1S - $^3P^\circ$	0 - 1	E5
F VI	1139.496	100		2s2p - $2p^2$	$^1P^\circ$ - ^1D	1 - 2	P5

FLUORINE VII (F^{6+}), Z = 9

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 1 493 629 cm^{-1}; 185.182 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F VII	86.728	10		2s - 4p	g^2S - $^2P^\circ$	½ - 3/2	E9
F VII	95.697	10		2p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	E9
F VII	95.775	100		2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	E9
F VII	112.935	400		2s - 3p	g^2S - $^2P^\circ$	½ - 3/2	E9
F VII	112.976	300		2s - 3p	g^2S - $^2P^\circ$	½ - ½	E9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F VII	127.653	400		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	E9
F VII	127.796	500		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	E9
F VII	134.703	100		2p - 3s	$^2P^\circ - ^2S$	½ - ½	E9
F VII	134.882	200		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	E9
F VII	335.27			3s - 4p	$^2S - ^2P^\circ$	½ - 3/2	F6
F VII	367.43			3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	F6
F VII	367.87			3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F6
F VII	381.87			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F6
F VII	388.65			3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	F6
F VII	391.76			3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	F6
F VII	826.54			4f - 5g	$^2F^\circ - ^2G$	7/2 - 9/2	F6
F VII	883.110	10		2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	P5
F VII	890.786	5		2s - 2p	$g^2S - ^2P^\circ$	½ - ½	P5

FLUORINE VIII (F^{7+}), Z = 9

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 7 693 810 cm^{-1}; 953.886 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F VIII	13.49			$1s^2 - 1s5p$	$g^1S - ^1P^\circ$	0 - 1	S3
F VIII	13.780			$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	F36
F VIII	14.458			$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	F36
F VIII	16.807			$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	F36
F VIII	16.951			$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	T12
F VIII	17.15	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8
F VIII	98.707	10		1s2p - 1s3d	$^3P^\circ - ^3D$	1 - 2	E1
F VIII	98.799	10		1s2p - 1s3d	$^3P^\circ - ^3D$	2 - 3	E1

FLUORINE IX (F^{8+}), Z = 9

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 8 897 241 cm^{-1}; 1103.09 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IX	11.560 P			1s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	G2
F IX	11.707 P			1s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	G2
F IX	11.988 P	10		1s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	G2,K8
F IX	12.644 P	30		1s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	G2,K8
F IX	14.984 P	100		1s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	G2,K8
F IX	48.96 P			2 - 7			G2
F IX	50.58 P			2 - 6			G2
F IX	53.53 P			2 - 5			G2
F IX	59.95 P			2 - 4			G2
F IX	80.91 P			2 - 3			G2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
F IX	123.97 P			3 - 7			G2
F IX	134.94 P			3 - 6			G2
F IX	158.12 P			3 - 5			G2
F IX	231.3 P			3 - 4			G2
F IX	267.19 P			4 - 7			G2
F IX	323.9 P			4 - 6			G2
F IX	499.8 P			4 - 5			G2
F IX	574.1 P			5 - 7			G2
F IX	920.3 P			5 - 6			G2
F IX	1526.3 P			6 - 7			G2

NEON I (Ne^{0+}), Z = 10

Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)

Ionization Potential 173 929.70 cm^{-1}; 21.564 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne I	576.0052 st			$2p^6 - 2p^5(^2P^\circ)10d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	576.8650 st			$2p^6 - 2p^5(^2P^\circ)9d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	577.1090 st			$2p^6 - 2p^5(^2P^\circ)13d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	577.1692 st			$2p^6 - 2p^5(^2P^\circ)10s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	577.4886 st			$2p^6 - 2p^5(^2P^\circ)12d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	577.6047 st			$2p^6 - 2p^5(^2P^\circ)13s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	577.9749 st			$2p^6 - 2p^5(^2P^\circ)11d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	578.0715 st			$2p^6 - 2p^5(^2P^\circ)8d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	578.1270 st			$2p^6 - 2p^5(^2P^\circ)12s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	578.5129 st			$2p^6 - 2p^5(^2P^\circ)9s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	578.6056 st			$2p^6 - 2p^5(^2P^\circ)10d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	578.6185 st			$2p^6 - 2p^5(^2P^\circ)10d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	578.8224 st			$2p^6 - 2p^5(^2P^\circ)11s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	579.4722 st			$2p^6 - 2p^5(^2P^\circ)9d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	579.4888 st			$2p^6 - 2p^5(^2P^\circ)9d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	579.7711 st			$2p^6 - 2p^5(^2P^\circ)10s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	579.8411 st			$2p^6 - 2p^5(^2P^\circ)7d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	580.5119 st			$2p^6 - 2p^5(^2P^\circ)8s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	580.6893 st			$2p^6 - 2p^5(^2P^\circ)8d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	580.7137 st			$2p^6 - 2p^5(^2P^\circ)8d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	581.1219 st			$2p^6 - 2p^5(^2P^\circ)9s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	582.4691 st			$2p^6 - 2p^5(^2P^\circ)7d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	582.5064 st			$2p^6 - 2p^5(^2P^\circ)7d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	582.5982 st			$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	583.1261 st			$2p^6 - 2p^5(^2P^\circ)8s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	583.6893 st			$2p^6 - 2p^5(^2P^\circ)7s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	585.2472 st			$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	585.3042 st			$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	586.3140 st			$2p^6 - 2p^5(^2P^\circ)7s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4
Ne I	587.2128 st	35		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	589.1792 st	35		$2p^6 - 2p^5(^2P^\circ)6s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	589.9113 st	35		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	590.0108 st			$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4
Ne I	591.8303 st	70		$2p^6 - 2p^5(^2P^\circ)6s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	595.9200 st	100		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	598.7056 st	75		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	598.8908 st	35		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	600.0365 st	70		$2p^6 - 2p^5(^2P^\circ)5s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	602.7263 st	170		$2p^6 - 2p^5(^2P^\circ)5s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	615.6283 st	170	7	$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	618.6716 st	170	6	$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	619.1023 st	120	5	$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	626.8232 st	200	4	$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	629.7388 st	200	3	$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29
Ne I	735.8962 st	1000	2	$2p^6 - 2p^5(^2P^\circ)3s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K4,B29
Ne I	743.7195 st	400	1	$2p^6 - 2p^5(^2P^\circ)3s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K4,B29

NEON II (Ne^{1+}), Z = 10

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 330 391.0 cm^{-1}; 40.962 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne II	324.570	20		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P14
Ne II	325.393	10		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P14
Ne II	326.542	40		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P14
Ne II	326.787	50		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P14
Ne II	327.262	30		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P14
Ne II	327.355	20		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P14
Ne II	327.626	20		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	P14
Ne II	328.090	20		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P14
Ne II	330.146	5		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	P14
Ne II	330.205	5		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	P14
Ne II	330.626	5		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	P14
Ne II	330.790	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P14
Ne II	331.069	1		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P14,B29
Ne II	331.515	2		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P14,B29
Ne II	352.2466 st	30		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	P14
Ne II	352.9561 st	90		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P14
Ne II	353.2149 st	50		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P14
Ne II	353.9349 st	30		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	P14
Ne II	354.9622 st	60		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P14
Ne II	355.4541 st	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	P14
Ne II	355.6559 st	40		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	P14
Ne II	355.839	1		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	P14,B29
Ne II	355.9476 st	40		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	P14
Ne II	356.1290 st	40		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	P14
Ne II	356.4410 st	30		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P14
Ne II	356.5405 st	30	6	$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	P14
Ne II	356.7995 st	50	6	$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P14
Ne II	356.8769 st	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	P14
Ne II	357.5355 st	40	6	$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P14
Ne II	361.4326 st	90	5	$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P14
Ne II	362.4554 st	60	5	$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	P14
Ne II	405.8538 st	150	4	$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P14
Ne II	407.1376 st	120	4	$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P14
Ne II	445.0397 st	200	3	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	P14
Ne II	446.2256 st	300	3	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P14
Ne II	446.5901 st	250	3	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P14
Ne II	447.8150 st	180	3	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	P14
Ne II	454.6535 st	150	2	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	P14
Ne II	455.2738 st	200	2	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	P14
Ne II	456.2749 st	10	2	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	P14
Ne II	456.3483 st	120	2	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	P14
Ne II	456.8962 st	90	2	$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	P14
Ne II	460.7284 st	1000	1	$2s^2 2p^5 - 2s\,2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P14
Ne II	462.3908 st	500	1	$2s^2 2p^5 - 2s\,2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	P14
Ne II	992.253	30		$2s\,2p^6 - 2s^2 2p^4(^1D)4p$	$^2S - {}^2P^\circ$	1/2 - 1/2	P14
Ne II	993.884	60		$2s\,2p^6 - 2s^2 2p^4(^1D)4p$	$^2S - {}^2P^\circ$	1/2 - 3/2	P14
Ne II	1066.764	30		$2p^4(^3P)3s - 2p^4(^1D)4p$	$^2P - {}^2P^\circ$	3/2 - 1/2	P14
Ne II	1068.649	70		$2p^4(^3P)3s - 2p^4(^1D)4p$	$^2P - {}^2P^\circ$	3/2 - 3/2	P14
Ne II	1073.781	50		$2p^4(^3P)3s - 2p^4(^1D)4p$	$^2P - {}^2P^\circ$	1/2 - 1/2	P14
Ne II	1074.313	10		$2p^4(^3P)3s - 2p^4(^1D)4p$	$^2P - {}^2D^\circ$	1/2 - 3/2	P14
Ne II	1075.688	20		$2p^4(^3P)3s - 2p^4(^1D)4p$	$^2P - {}^2P^\circ$	1/2 - 3/2	P14
Ne II	1087.789	40		$2s\,2p^6 - 2s^2 2p^4(^3P)5p$	$^2S - {}^2P^\circ$	1/2 - 1/2	P14
Ne II	1090.628	50		$2s\,2p^6 - 2s^2 2p^4(^3P)5p$	$^2S - {}^2P^\circ$	1/2 - 3/2	P14
Ne II	1131.724	90		$2s\,2p^6 - 2s^2 2p^4(^1S)3p$	$^2S - {}^2P^\circ$	1/2 - 1/2	P14
Ne II	1131.848	100		$2s\,2p^6 - 2s^2 2p^4(^1S)3p$	$^2S - {}^2P^\circ$	1/2 - 3/2	P14
Ne II	1229.688	70		$2p^4(^3P)3s - 2p^4(^1S)3p$	$^2P - {}^2P^\circ$	3/2 - 1/2	P14
Ne II	1229.832	90		$2p^4(^3P)3s - 2p^4(^1S)3p$	$^2P - {}^2P^\circ$	3/2 - 3/2	P14
Ne II	1239.018	80		$2p^4(^3P)3s - 2p^4(^1S)3p$	$^2P - {}^2P^\circ$	1/2 - 1/2	P14
Ne II	1239.167	60		$2p^4(^3P)3s - 2p^4(^1S)3p$	$^2P - {}^2P^\circ$	1/2 - 3/2	P14
Ne II	1293.902	70		$2s\,2p^6 - 2s^2 2p^4(^3P)4p$	$^2S - {}^2P^\circ$	1/2 - 1/2	P14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne II	1298.046	80		$2s2p^6 - 2s^22p^4(^3P)4p$	$^2S - ^2P^\circ$	1/2 - 3/2	P14
Ne II	1381.509	40		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^2D^\circ$	3/2 - 5/2	P14
Ne II	1381.894	10		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 5/2	P14
Ne II	1385.937	30		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	3/2 - 3/2	P14
Ne II	1387.515	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	P14
Ne II	1387.665	20		$2p^4(^3P)3p - 2p^4(^3P)7s$	$^4P^\circ - ^4P$	5/2 - 5/2	P14
Ne II	1388.491	50		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	1/2 - 1/2	P14
Ne II	1391.704	60		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	1/2 - 3/2	P14
Ne II	1391.854	70		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4D^\circ$	3/2 - 5/2	P14
Ne II	1399.532	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 3/2	P14
Ne II	1399.956	20		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1400.809	40		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2D^\circ$	5/2 - 5/2	P14
Ne II	1400.868	20		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2D^\circ$	3/2 - 3/2	P14
Ne II	1403.135	50		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2P^\circ$	5/2 - 3/2	P14
Ne II	1403.202	20		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1403.679	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 5/2	P14
Ne II	1405.373	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 1/2	P14
Ne II	1409.747	60		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 3/2	P14
Ne II	1411.306	10		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	1/2 - 1/2	P14
Ne II	1413.956	70		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 5/2	P14
Ne II	1415.716	70		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^4P - ^4P^\circ$	1/2 - 3/2	P14
Ne II	1418.375	90		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2F^\circ$	5/2 - 7/2	P14
Ne II	1418.687	20		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2F^\circ$	5/2 - 5/2	P14
Ne II	1418.745	80		$2p^4(^1D)3s - 2p^4(^1D)4p$	$^2D - ^2F^\circ$	3/2 - 5/2	P14
Ne II	1423.564	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1428.579	90		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1436.086	90		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2P^\circ$	1/2 - 1/2	P14
Ne II	1441.188	40		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2P^\circ$	1/2 - 3/2	P14
Ne II	1446.183	20		$2p^4(^3P)3p - 2p^4(^3P)7s$	$^4D^\circ - ^4P$	7/2 - 5/2	P14
Ne II	1449.132	40		$2p^4(^3P)3p - 2p^4(^3P)7s$	$^4D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1454.390	5		$2p^4(^3P)3p - 2p^4(^3P)7s$	$^4D^\circ - ^4P$	3/2 - 3/2	P14
Ne II	1460.716	30		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2S^\circ$	3/2 - 1/2	P14
Ne II	1462.744	40		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2D^\circ$	3/2 - 3/2	P14
Ne II	1472.121	20		$2p^4(^3P)3p - 2p^4(^3P)7s$	$^2D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1473.894	10		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2S^\circ$	1/2 - 1/2	P14
Ne II	1475.959	80		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^2D^\circ$	1/2 - 3/2	P14
Ne II	1483.502	60		$2p^4(^3P)3s - 2p^4(^3P)4p$	$^2P - ^4D^\circ$	3/2 - 5/2	P14
Ne II	1499.006	40		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^4P^\circ - ^4P$	5/2 - 5/2	P14
Ne II	1557.487	30		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^4D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1567.526	70		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^4D^\circ - ^4P$	7/2 - 5/2	P14
Ne II	1569.015	40		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^4D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1596.397	30		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1597.971	80		$2p^4(^1D)3s - 2p^4(^3P)5p$	$^2D - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1600.080	40		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2D^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1604.004	80		$2p^4(^1D)3s - 2p^4(^3P)5p$	$^2D - ^2P^\circ$	5/2 - 3/2	P14
Ne II	1604.091	70		$2p^4(^1D)3s - 2p^4(^3P)5p$	$^2D - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1608.512	30		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1668.057	40		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^4S^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1670.737	20		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1674.290	60		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2P^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1681.035	50		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1681.683	120	7	$2s2p^6 - 2s^22p^4(^1D)3p$	$^2S - ^2P^\circ$	1/2 - 1/2	P14
Ne II	1688.356	180	7	$2s2p^6 - 2s^22p^4(^1D)3p$	$^2S - ^2P^\circ$	1/2 - 3/2	P14
Ne II	1694.481	40		$2p^4(^3P)3p - 2p^4(^3P)6s$	$^2P^\circ - ^4P$	3/2 - 3/2	P14
Ne II	1694.600	80		$2p^4(^1D)3s - 2p^4(^1S)3p$	$^2D - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1694.786	90		$2p^4(^1D)3s - 2p^4(^1S)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	P14
Ne II	1694.878	60		$2p^4(^1D)3s - 2p^4(^1S)3p$	$^2D - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1723.389	20		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1730.645	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1737.341	50		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1738.736	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	3/2 - 1/2	P14
Ne II	1742.869	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1744.277	50		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	1/2 - 1/2	P14
Ne II	1744.416	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1751.216	60		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	3/2 - 3/2	P14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne II	1751.698	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	5/2 - 5/2	P14
Ne II	1756.835	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	1/2 - 3/2	P14
Ne II	1758.105	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4P$	5/2 - 5/2	P14
Ne II	1758.555	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4P^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1758.590	20		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^4P - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1763.727	20		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^2F$	5/2 - 5/2	P14
Ne II	1765.015	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1765.898	70		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^4P - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1767.900	10		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^4P - ^2P^\circ$	1/2 - 1/2	P14
Ne II	1768.085	10		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^2F$	5/2 - 7/2	P14
Ne II	1778.282	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1778.747	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4P$	1/2 - 3/2	P14
Ne II	1783.783	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4P$	3/2 - 1/2	P14
Ne II	1789.613	20		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4P$	1/2 - 1/2	P14
Ne II	1796.516	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	5/2 - 5/2	P14
Ne II	1797.198	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	3/2 - 1/2	P14
Ne II	1798.281	80		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	5/2 - 7/2	P14
Ne II	1800.733	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	3/2 - 3/2	P14
Ne II	1803.114	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	1/2 - 1/2	P14
Ne II	1803.732	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	3/2 - 5/2	P14
Ne II	1806.671	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4P^\circ - ^4D$	1/2 - 3/2	P14
Ne II	1825.343	80		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2F^\circ - ^2D$	5/2 - 3/2	P14
Ne II	1826.667	5		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1826.829	90		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2F^\circ - ^2D$	7/2 - 5/2	P14
Ne II	1831.481	10		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1833.910	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1842.341	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1843.908	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	3/2 - 1/2	P14
Ne II	1845.996	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	7/2 - 5/2	P14
Ne II	1847.249	5		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1848.823	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	1/2 - 1/2	P14
Ne II	1849.381	90		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1853.115	90		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4P$	7/2 - 5/2	P14
Ne II	1853.453	20		$2p^4(^1D)3p - 2p^4(^1D)4d$	$^2F^\circ - ^2F$	5/2 - 5/2	P14
Ne II	1854.035	90		$2p^4(^3P)3p - 2p^4(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	P14
Ne II	1854.976	20		$2p^4(^1D)3p - 2p^4(^1D)4d$	$^2F^\circ - ^2F$	7/2 - 7/2	P14
Ne II	1857.565	30		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	5/2 - 5/2	P14
Ne II	1857.952	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4D^\circ - ^4P$	3/2 - 3/2	P14
Ne II	1858.408	80		$2p^4(^3P)3p - 2p^4(^1D)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	P14
Ne II	1859.017	20		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1859.361	80		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2F$	7/2 - 5/2	P14
Ne II	1861.137	50		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	7/2 - 5/2	P14
Ne II	1871.097	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2F$	5/2 - 5/2	P14
Ne II	1872.291	50		$2p^4(^1D)3p - 2p^4(^1D)4d$	$^2F^\circ - ^2G$	5/2 - 7/2	P14
Ne II	1872.721	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1873.492	20		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1873.677	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1873.873	60		$2p^4(^1D)3p - 2p^4(^1D)4d$	$^2F^\circ - ^2G$	7/2 - 9/2	P14
Ne II	1876.003	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2F$	5/2 - 7/2	P14
Ne II	1877.387	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	3/2 - 3/2	P14
Ne II	1877.679	40		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	P14
Ne II	1879.884	50		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2F$	3/2 - 5/2	P14
Ne II	1881.690	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	3/2 - 5/2	P14
Ne II	1882.478	60		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	1/2 - 3/2	P14
Ne II	1883.796	80		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	7/2 - 9/2	P14
Ne II	1888.107	100		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1889.710	100		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2D^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1891.366	60		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2P^\circ - ^2D$	3/2 - 5/2	P14
Ne II	1891.730	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2D$	5/2 - 5/2	P14
Ne II	1893.876	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4F$	5/2 - 7/2	P14
Ne II	1895.072	10		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2S^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1895.840	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4D$	7/2 - 5/2	P14
Ne II	1897.810	40		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4D$	7/2 - 7/2	P14
Ne II	1899.802	40		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2P^\circ - ^2D$	1/2 - 3/2	P14
Ne II	1900.189	40		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	P14

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne II	1900.695	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^2D$	3/2 - 5/2	P14
Ne II	1904.510	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2D^\circ - ^4P$	5/2 - 3/2	P14
Ne II	1904.691	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4D^\circ - ^4D$	5/2 - 3/2	P14
Ne II	1906.502	60		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2D^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1907.493	200	9	$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	P14
Ne II	1914.729	30		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	P14
Ne II	1916.083	500	9	$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	P14
Ne II	1920.181	80		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	P14
Ne II	1923.226	5		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2D^\circ - ^4P$	3/2 - 3/2	P14
Ne II	1924.166	70		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	P14
Ne II	1927.549	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 5/2	P14
Ne II	1928.786	60		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	P14
Ne II	1929.643	60		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2D^\circ - ^2D$	3/2 - 3/2	P14
Ne II	1930.028	300	9	$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	P14
Ne II	1930.335	60		$2p^4(^1D)3p - 2p^4(^1D)5s$	$^2D^\circ - ^2D$	5/2 - 5/2	P14
Ne II	1932.754	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	P14
Ne II	1933.529	90		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	1/2 - 1/2	P14
Ne II	1933.642	10		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1936.417	30		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2S^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1938.826	200	9	$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	P14
Ne II	1939.875	70		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1944.883	60		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1945.458	100		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1949.450	5		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	P14
Ne II	1949.696	70		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1950.276	40		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1951.727	80		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2D^\circ - ^4F$	5/2 - 7/2	P14
Ne II	1954.048	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2S^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1959.994	60		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4S^\circ - ^2P$	3/2 - 3/2	P14
Ne II	1961.772	60		$2p^4(^1D)3p - 2p^4(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	P14
Ne II	1971.621	20		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2S^\circ - ^4P$	1/2 - 3/2	P14
Ne II	1977.657	70		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^4S^\circ - ^4P$	3/2 - 3/2	P14
Ne II	1982.576	40		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2S^\circ - ^2P$	1/2 - 3/2	P14
Ne II	1989.036	80		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 1/2	P14
Ne II	1994.099	90		$2p^4(^3P)3p - 2p^4(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 1/2	P14
Ne II	1995.280	50		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 5/2	P14
Ne II	1998.667	20		$2p^4(^3P)3p - 2p^4(^3P)4d$	$^2S^\circ - ^2P$	1/2 - 1/2	P14

NEON III (Ne^{2+}), Z = 10

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 511 800 cm^{-1}; 63.45 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne III	251.12	200b	5	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	K10,M23
Ne III	251.54	200	5	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	K10,M23
Ne III	251.72	200	5	$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	K10,M23
Ne III	267.07	300b	4	$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	2 - 2	K10,M23
Ne III	267.53	300b	4	$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	1 - 2	K10,M23
Ne III	267.71	200	4	$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	0 - 1	K10,M23
Ne III	282.49	10	8	$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - ^1P^\circ$	2 - 1	B29,M23
Ne III	283.15	300b	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	2 - 2	K10,M23
Ne III	283.17	600	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	2 - 3	K10,M23
Ne III	283.66	500b	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	1 - 2	K10,M23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne III	283.87	300	3	$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	K10,M23
Ne III	301.12	400	7	$2p^4 - 2p^3(^2D^\circ)3s$	${}^1D - {}^1D^\circ$	2 - 2	B29,M23
Ne III	308.56	100	10	$2p^4 - 2p^3(^2P^\circ)3s$	${}^1S - {}^1P^\circ$	0 - 1	B29,M23
Ne III	313.05	400	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	B29,M23
Ne III	313.68	300	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	B29,M23
Ne III	313.92	100	2	$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	B29,M23
Ne III	379.31	700	6	$2s^22p^4 - 2s2p^5$	${}^1D - {}^1P^\circ$	2 - 1	B29,M23
Ne III	427.84	300	9	$2s^22p^4 - 2s2p^5$	${}^1S - {}^1P^\circ$	0 - 1	B29,M23
Ne III	488.10	800	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	B29,M23
Ne III	488.87	700	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	B29,M23
Ne III	489.50	1000	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	B29,M23
Ne III	489.64	400	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	B29,M23
Ne III	490.31	700	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	B29,M23
Ne III	491.05	900	1	$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	B29,M23
Ne III	1255.03	200	13	$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 0	B29,M23
Ne III	1255.68	500	13	$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 1	B29,M23
Ne III	1257.19	600	13	$2p^3(^4S^\circ)3s - 2p^3(^2D^\circ)3p$	${}^3S^\circ - {}^3P$	1 - 2	B29,M23

NEON IV (Ne^{3+}), Z = 10

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 783 300 cm^{-1}; 97.11 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne IV	140.13	15		$2p^3 - 2p^2(^1D)6s$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	142.93	15		$2p^3 - 2p^2(^1D)5d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	P8
Ne IV	144.02	10		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	P8
Ne IV	144.15	10		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	P8
Ne IV	144.28	5		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	P8
Ne IV	146.26	10		$2p^3 - 2p^2(^1D)5s$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	148.66	5		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	P8
Ne IV	148.79	15b		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	P8
Ne IV	148.94	20		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	P8
Ne IV	149.59	10		$2p^3 - 2p^2(^1S)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	150.93	5		$2p^3 - 2p^2(^1D)5s$	${}^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	151.46 P			$2p^3 - 2p^2(^1D)4d$	${}^2D^\circ - {}^2P$	5/2 - 3/2	P8
Ne IV	151.82	75		$2p^3 - 2p^2(^1D)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	152.23	75		$2p^3 - 2p^2(^1D)4d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	P8
Ne IV	154.49	25		$2p^3 - 2p^2(^1S)4d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	156.48	25d		$2p^3 - 2p^2(^1D)4d$	${}^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne IV	156.87	15		$2p^3 - 2p^2(^1D)4d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	157.63	25		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	P8
Ne IV	157.78	15		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	P8
Ne IV	157.86	10		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	P8
Ne IV	158.06	25		$2p^3 - 2p^2(^3P)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	158.11	10		$2p^3 - 2p^2(^3P)4d$	${}^2D^\circ - {}^2D$	3/2 - 3/2	P8
Ne IV	158.65	75		$2p^3 - 2p^2(^3P)4d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	P8
Ne IV	158.82	75		$2p^3 - 2p^2(^3P)4d$	${}^2D^\circ - {}^2F$	3/2 - 5/2	P8
Ne IV	160.47	50		$2p^3 - 2p^2(^1D)4s$	${}^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	163.56	60		$2p^3 - 2p^2(^3P)4d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	163.60	10		$2p^3 - 2p^2(^3P)4d$	${}^2P^\circ - {}^2D$	1/2 - 3/2	P8
Ne IV	167.92	25b		$2p^3 - 2p^2(^3P)4s$	${}^2D^\circ - {}^2P$	5/2 - 3/2	P8
Ne IV	168.10	10		$2p^3 - 2p^2(^3P)4s$	${}^2D^\circ - {}^2P$	3/2 - 1/2	P8
Ne IV	172.49	200	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	P8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne IV	172.53	250	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	P8
Ne IV	172.62	400	3	$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	P8
Ne IV	174.12 P			$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne IV	174.30	15		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - {}^2P$	1/2 - 1/2	P8
Ne IV	174.88	50		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	P8
Ne IV	174.92	40		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	P8
Ne IV	176.01	250		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	177.16	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	P8
Ne IV	180.40	75		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2S$	3/2 - 1/2	P8
Ne IV	181.61	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne IV	181.65	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	P8
Ne IV	182.83 P			$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	183.17	75		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	183.25	60		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	P8
Ne IV	185.48	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	P8
Ne IV	186.58	750	7	$2p^3 - 2p^2(^1S)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	186.79	25		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	P8
Ne IV	186.92	75		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	P8
Ne IV	190.57	125		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	190.65	75		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	P8
Ne IV	194.28	500	11	$2p^3 - 2p^2(^1S)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	194.48	200		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	P8
Ne IV	194.62	250b		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne IV	204.27	75		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - {}^2S$	3/2 - 1/2	P8
Ne IV	204.53	125		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	P8
Ne IV	204.79	75		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	P8
Ne IV	204.91	25		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	P8
Ne IV	208.49	500	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	P8
Ne IV	208.73	500	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	P8
Ne IV	208.90	400	2	$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	P8
Ne IV	212.56	750	6	$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	5/2 - 5/2	P8
Ne IV	215.40	25		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4S^\circ$	5/2 - 3/2	P8
Ne IV	215.71	15		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4S^\circ$	3/2 - 3/2	P8
Ne IV	215.84	75		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4S^\circ$	1/2 - 3/2	P8
Ne IV	217.34	75		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4P^\circ$	5/2 - 5/2	P8
Ne IV	217.64	75		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4P^\circ$	3/2 - 5/2	P8
Ne IV	217.78	75		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4P^\circ$	3/2 - 3/2	P8
Ne IV	217.83	125		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	5/2 - 7/2	P8
Ne IV	218.13	100		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4P^\circ$	1/2 - 1/2	P8
Ne IV	218.18	50		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	5/2 - 3/2	P8
Ne IV	218.34	75		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	3/2 - 5/2	P8
Ne IV	218.48	100d		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	3/2 - 3/2	P8
Ne IV	218.64	125		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	1/2 - 3/2	P8
Ne IV	218.77	250		$2s2p^4 - 2s^22p^2(^3P)4p$	$^4P - {}^4D^\circ$	1/2 - 1/2	P8
Ne IV	222.60	200		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne IV	223.235	125		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - {}^2P$	5/2 - 3/2	T3,P8
Ne IV	223.601	125		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - {}^2P$	3/2 - 1/2	T3,P8
Ne IV	234.319	125		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^2P$	3/2 - 3/2	T3,P8
Ne IV	234.704	125		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^2P$	1/2 - 1/2	T3,P8
Ne IV	247.42	50		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - {}^4S^\circ$	5/2 - 3/2	P8
Ne IV	247.81	40		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - {}^4S^\circ$	3/2 - 3/2	P8
Ne IV	248.00	40		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - {}^4S^\circ$	1/2 - 3/2	P8
Ne IV	286.45	75		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4S^\circ$	5/2 - 3/2	P8
Ne IV	286.93	75		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4S^\circ$	3/2 - 3/2	P8
Ne IV	287.21	50		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4S^\circ$	1/2 - 3/2	P8
Ne IV	293.12	75		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 5/2	P8
Ne IV	293.43	50		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	5/2 - 3/2	P8
Ne IV	293.65	25		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 5/2	P8
Ne IV	293.95	5		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 3/2	P8
Ne IV	294.10	15		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	3/2 - 1/2	P8
Ne IV	294.39	15		$2s2p^4 - 2s^22p^2(^3P)3p$	$^4P - {}^4P^\circ$	1/2 - 1/2	P8
Ne IV	357.831	250	5	$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	E6,P8
Ne IV	358.72	1000d	5	$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	E6,P8
Ne IV	387.141	700	10	$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 1/2	E6,P8
Ne IV	388.218	500	10	$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 3/2	E6,P8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne IV	421.609	750	9	$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	E6,P8
Ne IV	431.47	125		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	3/2 - 1/2	P8
Ne IV	433.24	250		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	P8
Ne IV	469.773	700	4	$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	T3
Ne IV	469.820	1000	4	$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	T3
Ne IV	469.866	900	4	$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	T3
Ne IV	469.921	700	4	$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 5/2	T3
Ne IV	521.741	125	8	$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	T3,P8
Ne IV	521.820	125	8	$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	T3,P8
Ne IV	536.97	5		$2s2p^4 - 2p^5$	$^2S - ^2P^\circ$	1/2 - 1/2	P8
Ne IV	539.73	15		$2s2p^4 - 2p^5$	$^2S - ^2P^\circ$	1/2 - 3/2	P8
Ne IV	541.127	400	1	$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	E6,P8
Ne IV	542.073	500	1	$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	E6,P8
Ne IV	543.891	750	1	$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	E6,P8
Ne IV	603.00	10		$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 1/2	P8
Ne IV	605.60	10		$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 1/2	P8
Ne IV	606.53	25		$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 3/2	P8
Ne IV	609.17	5		$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 3/2	P8
Ne IV	758.32	15d		$2p^5 - 2s^22p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	P8
Ne IV	780.25	15d		$2p^5 - 2s^22p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	P8
Ne IV	786.14	5		$2p^5 - 2s^22p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	P8

NEON V (Ne^{4+}), Z = 10

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 1 018 000 cm^{-1}; 126.21 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne V	118.8	50		$2p^2 - 2p4d$	$g^3P - ^3P^\circ$	2 - 2	P8
Ne V	118.9	10		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	2 - 3	P8
Ne V	122.52	200b		$2p^2 - 2p4d$	$^1D - ^1F^\circ$	2 - 3	P8
Ne V	123.71	30		$2p^2 - 2p4d$	$^1D - ^1D^\circ$	2 - 2	P8
Ne V	125.9	20		$2p^2 - 2p4s$	$g^3P - ^3P^\circ$	2 - 2	P8
Ne V	128.79	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 3	P8
Ne V	129.03	50		$2p^2 - 2p4s$	$^1D - ^1P^\circ$	2 - 1	P8
Ne V	136.21	20		$2s2p^3 - 2s2p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 3	P8
Ne V	140.72	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 1	P8
Ne V	140.76	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 2	P8
Ne V	140.79	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 3	P8
Ne V	142.44	100		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 0	P8
Ne V	142.52	100		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 1	P8
Ne V	142.66	40		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 1	P8
Ne V	142.72	150		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 2	P8
Ne V	143.22	50		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	0 - 1	P8
Ne V	143.27	100		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 2	P8
Ne V	143.34	150		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	P8
Ne V	147.13	150		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	P8
Ne V	148.78	15b		$2p^2 - 2p3d$	$^1D - ^1P^\circ$	2 - 1	P8
Ne V	151.42	120		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	P8
Ne V	156.61	20		$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	P8
Ne V	164.02	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 3	P8
Ne V	164.15	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 2	P8
Ne V	164.29	80		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 1	P8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne V	167.47	150		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	P8
Ne V	167.61	30		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	P8
Ne V	167.67	250		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	P8
Ne V	167.83	25		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 0	P8
Ne V	167.92	25b		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	P8
Ne V	173.93	500	6	$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	P8
Ne V	184.73	100		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$	0 - 1	P8
Ne V	195.37	50		$2s2p^3 - 2s2p^2(^4P)3s$	${}^3P^\circ - {}^3P$	2 - 2	P8
Ne V	195.55	30		$2s2p^3 - 2s2p^2(^4P)3s$	${}^3P^\circ - {}^3P$	2 - 1	P8
Ne V	195.62	20		$2s2p^3 - 2s2p^2(^4P)3s$	${}^3P^\circ - {}^3P$	1 - 0	P8
Ne V	357.95	400	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	0 - 1	P8
Ne V	358.48	500	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	1 - 1	P8
Ne V	359.39	500	3	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	P8
Ne V	365.61	1000	5	$2s^22p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	P8
Ne V	416.20	800	4	$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	P8
Ne V	416.82	250		$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	P8
Ne V	420.39	100		$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	1 - 0	P8
Ne V	420.94	150		$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	2 - 1	P8
Ne V	422.21	150		$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	3 - 2	P8
Ne V	422.34	50		$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	2 - 2	P8
Ne V	480.41	250	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	P8
Ne V	481.28	150	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 0	P8
Ne V	481.36	250	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	P8
Ne V	482.99	500	2	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	P8
Ne V	487.07	30d		$2s2p^3 - 2p^4$	${}^3P^\circ - {}^3P$	2 - 1	P8
Ne V	488.94 P			$2s2p^3 - 2p^4$	${}^3P^\circ - {}^3P$	2 - 2	P8
Ne V	568.42	400	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	0 - 1	P8
Ne V	569.76	250	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 1	P8
Ne V	569.83	500	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	P8
Ne V	572.11	250	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 2	P8
Ne V	572.34	800	1	$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	P8
Ne V	1137.0 P			$2s^22p^2 - 2s2p^3$	$g^3P - {}^5S^\circ$	1 - 2	E22
Ne V	1146.1 P			$2s^22p^2 - 2s2p^3$	$g^3P - {}^5S^\circ$	2 - 2	E22

NEON VI (Ne^{5+}), Z = 10

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 1 273 800 cm^{-1}; 157.93 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VI	110.5	20		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne VI	111.2	10		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P8
Ne VI	113.9	10		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne VI	121.14	50d		$2s2p^2 - 2s2p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	P8
Ne VI	122.49	200b		$2p - 3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	P8
Ne VI	122.69	100		$2p - 3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne VI	136.00	40		$2s2p^2 - 2s2p(^3P^\circ)3s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	P8
Ne VI	138.39	30		$2p - 3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	P8
Ne VI	138.64	30		$2p - 3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	P8
Ne VI	191.59 ?	20		$2s2p^2 - 2s^23p$	${}^2P - {}^2P^\circ$	1/2 - 1/2	K8,P8
Ne VI	191.77 ?	20		$2s2p^2 - 2s^23p$	${}^2P - {}^2P^\circ$	3/2 - 3/2	K8,P8
Ne VI	399.82	50		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	P8
Ne VI	401.14	150		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	P8
Ne VI	401.93	250		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P8
Ne VI	403.26	100		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	P8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VI	433.18	400		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	½ - ½	B9
Ne VI	435.65	400		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - ½	B9
Ne VI	440.40	100		$2s2p^2 - 2p^3$	${}^2D - {}^2P^\circ$	5/2 - 3/2	B9
Ne VI	440.60	10		$2s2p^2 - 2p^3$	${}^2D - {}^2P^\circ$	3/2 - ½	B9
Ne VI	451.84	200		$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	½ - 3/2	B9
Ne VI	452.74	300		$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	B9
Ne VI	454.07	300		$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	B9
Ne VI	558.59	50		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	½ - 3/2	P8
Ne VI	562.71	10		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	3/2 - 3/2	P8
Ne VI	562.80	150		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	P8
Ne VI	993.0 P			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^4P$	½ - 3/2	E22
Ne VI	997.4 P			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^4P$	½ - ½	E22
Ne VI	999.6 P			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^4P$	3/2 - 5/2	E22
Ne VI	1006.1 P			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^4P$	3/2 - 3/2	E22
Ne VI	1010.6 P			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^4P$	3/2 - ½	E22

NEON VII (Ne^{6+}), Z = 10

Ground State $1s^22s^2\ {}^1S_0$ (4 electrons)

Ionization Potential 1 671 792 cm^{-1}; 207.27 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VII	65.85			$2s^2 - 2s6p$	$g^1S - {}^1P^\circ$	0 - 1	T7
Ne VII	67.80	50		$2s2p - 2s8d$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	68.28	160		$2s2p - 2p5p$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	68.92	100		$2s2p - 2s7d$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	70.990	300		$2s2p - 2s6d$	${}^3P^\circ - {}^3D$	1 - 2	T7
Ne VII	71.038	300		$2s2p - 2s6d$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	74.23	80		$2s2p - 2s7d$	${}^1P^\circ - {}^1D$	1 - 2	T7
Ne VII	74.40			$2s2p - 2s5d$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	74.962	380		$2s2p - 2p4p$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	75.49	130		$2s2p - 2s5s$	${}^3P^\circ - {}^3S$	1 - 1	T7
Ne VII	75.55	120		$2s2p - 2s5s$	${}^3P^\circ - {}^3S$	2 - 1	T7
Ne VII	75.765	500		$2s^2 - 2s4p$	$g^1S - {}^1P^\circ$	0 - 1	T7
Ne VII	76.515	140		$2s2p - 2s6d$	${}^1P^\circ - {}^1D$	1 - 2	T7
Ne VII	77.25	220		$2p^2 - 2p5d$	${}^3P - {}^3D^\circ$	1 - 2	T7
Ne VII	77.30	220		$2p^2 - 2p5d$	${}^3P - {}^3D^\circ$	2 - 3	T7
Ne VII	80.533	520		$2s2p - 2s5d$	${}^1P^\circ - {}^1D$	1 - 2	T7
Ne VII	81.37	110		$2s2p - 2p4p$	${}^1P^\circ - {}^1P$	1 - 1	T7
Ne VII	82.198	500		$2s2p - 2s4d$	${}^3P^\circ - {}^3D$	1 - 2	T7
Ne VII	82.268	700		$2s2p - 2s4d$	${}^3P^\circ - {}^3D$	2 - 3	T7
Ne VII	84.212	200		$2s2p - 2s4s$	${}^3P^\circ - {}^3S$	1 - 1	T7
Ne VII	84.292	200		$2s2p - 2s4s$	${}^3P^\circ - {}^3S$	2 - 1	T7
Ne VII	85.19	150		$2p^2 - 2p4d$	${}^3P - {}^3P^\circ$	1 - 2	T7
Ne VII	85.29	190		$2p^2 - 2p4d$	${}^3P - {}^3P^\circ$	2 - 2	T7
Ne VII	85.43	340		$2p^2 - 2p4d$	${}^3P - {}^3D^\circ$	2 - 3	T7
Ne VII	86.47			$2p^2 - 2p4d$	${}^1D - {}^1P^\circ$	2 - 1	T7
Ne VII	86.818	190		$2p^2 - 2p4d$	${}^1D - {}^1F^\circ$	2 - 3	T7
Ne VII	87.85	200		$2p^2 - 2p4d$	${}^1D - {}^1D^\circ$	2 - 2	T7
Ne VII	89.02	130		$2p^2 - 2p4s$	${}^1D - {}^1P^\circ$	2 - 1	T7
Ne VII	89.368	500		$2s2p - 2s4d$	${}^1P^\circ - {}^1D$	1 - 2	T7
Ne VII	91.564	260		$2s2p - 2s4s$	${}^1P^\circ - {}^1S$	1 - 0	T7
Ne VII	92.850	90		$2p^2 - 2p4d$	${}^1S - {}^1P^\circ$	0 - 1	T7
Ne VII	94.29	400		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	1 - 2	T7
Ne VII	94.36	500		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	2 - 2	T7
Ne VII	94.40	400		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	2 - 1	T7
Ne VII	94.890	300		$2s2p - 2p3p$	${}^3P^\circ - {}^3S$	1 - 1	T7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VII	94.986	300		2s2p - 2p3p	$^3P^\circ - ^3S$	2 - 1	T7
Ne VII	95.75	700		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	T7
Ne VII	95.84	250		2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 2	T7
Ne VII	97.502	730		$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	T7
Ne VII	103.09			2s2p - 2p3p	$^1P^\circ - ^1D$	1 - 2	T7
Ne VII	106.040	300		2s2p - 2s3d	$^3P^\circ - ^3D$	0 - 1	T7
Ne VII	106.086	800		2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	T7
Ne VII	106.192	800		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	T7
Ne VII	107.099	200		2s2p - 2p3p	$^1P^\circ - ^1P$	1 - 1	T7
Ne VII	109.820	320		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 2	T7
Ne VII	109.995	470		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 2	T7
Ne VII	110.562	400		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	1 - 2	T7
Ne VII	110.630	600		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	T7
Ne VII	111.152	220		$2p^2$ - 2p3d	$^1D - ^1P^\circ$	2 - 1	T7
Ne VII	111.807	430		$2p^2$ - 2p3d	$^1D - ^1F^\circ$	2 - 3	T7
Ne VII	115.331	600		2s2p - 2s3s	$^3P^\circ - ^3S$	0 - 1	T7
Ne VII	115.392	600		2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	T7
Ne VII	115.522	700		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	T7
Ne VII	115.955	330		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	T7
Ne VII	116.693	770		2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	T7
Ne VII	120.192	500		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 2	T7
Ne VII	120.337	700		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	T7
Ne VII	120.487	500		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 1	T7
Ne VII	121.13	500		$2p^2$ - 2p3s	$^1D - ^1P^\circ$	2 - 1	T7
Ne VII	121.774	260		$2p^2$ - 2p3d	$^1S - ^1P^\circ$	0 - 1	T7
Ne VII	127.663	710		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	T7
Ne VII	133.64	150		$2p^2$ - 2p3s	$^1S - ^1P^\circ$	0 - 1	T7
Ne VII	465.221	700		$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	E6,B9
Ne VII	558.61	400b		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	E6,B9
Ne VII	559.947	300		2s2p - $2p^2$	$^3P^\circ - ^3P$	0 - 1	E6,B9
Ne VII	561.378	200		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 1	E6,B9
Ne VII	561.728	400		2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 2	E6,B9
Ne VII	562.992	200		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 0	E6,B9
Ne VII	564.529	200		2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 1	E6,B9
Ne VII	895.18 P			$2s^2$ - 2s2p	$g^1S - ^3P^\circ$	0 - 1	E22
Ne VII	1981.974	600		2s3s - 2s3p	$^3S - ^3P^\circ$	1 - 2	B9
Ne VII	1992.060	300		2s3s - 2s3p	$^3S - ^3P^\circ$	1 - 1	B9
Ne VII	1997.345	100		2s3s - 2s3p	$^3S - ^3P^\circ$	1 - 0	B9

NEON VIII (Ne^{7+}), Z = 10

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 1 928 462 cm^{-1}; 239.09 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VIII	11.905	40 -A		$1s^2 2s$ - 1s2s3p	$g^2S - ^2P^\circ$	½ - 3/2	P10
Ne VIII	13.654	70 -A		$1s^2 2s$ - 1s2s2p	$g^2S - ^2P^\circ$	½ - 3/2	P10
Ne VIII	13.710	70 -A		$1s^2 2p$ - 1s$2p^2$	$^2P^\circ - ^2D$	3/2 - 5/2	P10
Ne VIII	53.81	20		2s - 10p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	54.31	70		2s - 9p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	55.01	130		2s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	56.043	320		2s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	57.747	470		2s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	58.407	180		2p - 9d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	59.19	290		2p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	T7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne VIII	60.351	300		2p - 7d	$^2P^\circ - ^2D$	½ - 3/2	T7
Ne VIII	60.413	400		2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	60.49	10		2p - 7s	$^2P^\circ - ^2S$	3/2 - ½	T7
Ne VIII	60.796	630		2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	62.297	350		2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	T7
Ne VIII	62.361	500		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	62.58	150		2p - 6s	$^2P^\circ - ^2S$	3/2 - ½	T7
Ne VIII	65.822	600		2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	T7
Ne VIII	65.895	700		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	66.259	300		2p - 5s	$^2P^\circ - ^2S$	½ - ½	T7
Ne VIII	66.330	350		2p - 5s	$^2P^\circ - ^2S$	3/2 - ½	T7
Ne VIII	67.382	770		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	73.470	700		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	T7
Ne VIII	73.563	750		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	74.541	650		2p - 4s	$^2P^\circ - ^2S$	½ - ½	T7
Ne VIII	74.637	650		2p - 4s	$^2P^\circ - ^2S$	3/2 - ½	T7
Ne VIII	88.092	850		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	T7
Ne VIII	98.115	850		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	T7
Ne VIII	98.260	870		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	T7
Ne VIII	102.911	790		2p - 3s	$^2P^\circ - ^2S$	½ - ½	T7
Ne VIII	103.085	830		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	T7
Ne VIII	770.409	1000		2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	E6,B9
Ne VIII	780.324	500		2s - 2p	$g^2S - ^2P^\circ$	½ - ½	E6,B9

NEON IX (Ne^{8+}), Z = 10

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 9 645 005 cm^{-1}; 1195.797 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ne IX	10.513	50		$1s^2$ - 1s8p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	10.565	70		$1s^2$ - 1s7p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	10.646	120		$1s^2$ - 1s6p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	10.765	230		$1s^2$ - 1s5p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	11.001	350		$1s^2$ - 1s4p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	11.544	570		$1s^2$ - 1s3p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	12.303	50		1s2s - 2s2p	$^3S - ^3P^\circ$	1 - 2	P10
Ne IX	12.355	50		1s2p - $2p^2$	$^1P^\circ - ^1D$	1 - 2	P10
Ne IX	13.447	1000		$1s^2$ - 1s2p	$g^1S - ^1P^\circ$	0 - 1	P10
Ne IX	13.549	150		$1s^2$ - 1s2p	$g^1S - ^3P^\circ$	0 - 1	P10
Ne IX	13.71 ?	f		$1s^2$ - 1s2s	$g^1S - ^3S$	0 - 1	K8
Ne IX	46.3 P			1s2s - 1s7p	$^3S - ^3P^\circ$	1 - 2	F20
Ne IX	47.7 P			1s2s - 1s6p	$^3S - ^3P^\circ$	1 - 2	F20
Ne IX	48.0 P			1s2p - 1s7d	$^3P^\circ - ^3D$	2 - 3	F20
Ne IX	49.5 P			1s2p - 1s6d	$^3P^\circ - ^3D$	2 - 3	F20
Ne IX	50.3 P			1s2s - 1s5p	$^3S - ^3P^\circ$	1 - 2	F20
Ne IX	52.4 P			1s2p - 1s5d	$^3P^\circ - ^3D$	2 - 3	F20
Ne IX	56.1 P			1s2s - 1s4p	$^3S - ^3P^\circ$	1 - 2	F20
Ne IX	58.468	100		1s2p - 1s4d	$^3P^\circ - ^3D$	2 - 3	P10
Ne IX	74.4 P			1s2s - 1s3p	$^3S - ^3P^\circ$	1 - 2	F20
Ne IX	78.300	100		1s2p - 1s3d	$^3P^\circ - ^3D$	2 - 3	P10

NEON X (Ne^{9+}), Z = 10

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 10 986 875 cm^{-1}; 1362.16 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Ne X	9.291	P			1s - 7p	g^2S - $^2P°$	½ - 3/2	G2
Ne X	9.362	P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
Ne X	9.481	P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
Ne X	9.708	P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
Ne X	10.239	P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
Ne X	12.134	P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
Ne X	39.65	P			2 - 7			G2
Ne X	40.96	P			2 - 6			G2
Ne X	43.35	P			2 - 5			G2
Ne X	48.55	P			2 - 4			G2
Ne X	65.52	P			2 - 3			G2
Ne X	100.41	P			3 - 7			G2
Ne X	109.28	P			3 - 6			G2
Ne X	128.06	P			3 - 5			G2
Ne X	187.3	P			3 - 4			G2
Ne X	216.41	P			4 - 7			G2
Ne X	262.3	P			4 - 6			G2
Ne X	404.8	P			4 - 5			G2
Ne X	465.0	P			5 - 7			G2
Ne X	745.4	P			5 - 6			G2
Ne X	1236.3	P			6 - 7			G2

SODIUM, Z = 11

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na	67.027	100					S21
Na	70.320	10					S21
Na	71.386	10					S21
Na	73.128	10					S21
Na	77.076	10					S21
Na	78.023	10					S21
Na	86.890	10					S21
Na	87.524	200					S21
Na	93.070	10					S21
Na	95.796	10					S21
Na	96.018	100					S21
Na	96.572	10					S21
Na	104.314	10					S21
Na	104.440	10					S21
Na	106.345	200					S21
Na	106.703	10d					S21
Na	110.474	10					S21
Na	110.577	100					S21
Na	112.526	10					S21
Na	112.641	10					S21
Na	113.061	100					S21
Na	120.220	100					S21
Na	120.298	100					S21
Na	120.430	10					S21
Na	122.330	10					S21
Na	127.953	100					S21
Na	128.112	300					S21
Na	138.628	200					S21
Na	193.807	10					S22
Na	217.385	10					S22
Na	425.245	10					S22
Na	515.952	100					S22

SODIUM I (Na^{0+}), Z = 11

Ground State $1s^2 2s^2 2p^6 3s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 41 449.44 cm^{-1}; 5.139 eV

SODIUM II (Na^{1+}), Z = 11

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 381 395 cm^{-1}; 47.286 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na II	269.993	10		$2p^6 - 2p^5(^2P^\circ)7s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	270.947	7		$2p^6 - 2p^5(^2P^\circ)7s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	271.373	5		$2p^6 - 2p^5(^2P^\circ)6d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	273.940	12		$2p^6 - 2p^5(^2P^\circ)6s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	274.023	12		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	274.931	20		$2p^6 - 2p^5(^2P^\circ)6s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	275.003	20		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	275.218	5		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	281.691	25		$2p^6 - 2p^5(^2P^\circ)5s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	281.788	25		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	282.709	35		$2p^6 - 2p^5(^2P^\circ)5s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	282.803	35		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	283.258	15		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	300.153	160	4	$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	300.202	160		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	301.318	90		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	301.436	100	3	$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	302.446	60		$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	372.074	200	2	$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	C18
Na II	376.377	200	1	$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1276.597	30		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	2 - 2	C18
Na II	1281.308	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	2 - 1	C18
Na II	1285.117	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	2 - 1	C18
Na II	1285.686	25		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	1 - 0	C18
Na II	1289.213	60		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	1 - 2	C18
Na II	1293.974	60		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	1 - 1	C18
Na II	1297.856	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	1 - 1	C18
Na II	1298.142	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	2 - 2	C18
Na II	1299.018	30		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	2 - 1	C18
Na II	1301.782	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1303.957	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	0 - 1	C18
Na II	1304.546	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	1 - 0	C18
Na II	1306.618	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	2 - 2	C18
Na II	1307.936	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	0 - 1	C18
Na II	1311.158	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	1 - 2	C18
Na II	1312.026	30		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	1 - 1	C18
Na II	1312.587	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	2 - 3	C18
Na II	1322.295	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	0 - 1	C18
Na II	1327.742	50		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	2 - 1	C18
Na II	1328.497	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1338.575	35		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	1 - 0	C18
Na II	1341.369	35		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{3}{2}[\frac{3}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	1 - 1	C18
Na II	1342.401	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	1 - 2	C18
Na II	1347.543	45		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{1}{2}]$	1 - 1	C18
Na II	1351.799	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{1}{2}[\frac{3}{2}]$	1 - 1	C18
Na II	1352.118	35		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	0 - 1	C18
Na II	1359.055	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	1 - 0	C18
Na II	1366.242	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	1 - 2	C18
Na II	1374.688	90		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1375.618	15		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{5}{2}]$	1 - 2	C18
Na II	1381.236	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1384.794	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1392.316	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1392.940	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1398.143	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1399.070	30		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$\frac{1}{2}[\frac{1}{2}]^\circ - \frac{3}{2}[\frac{1}{2}]$	1 - 1	C18
Na II	1399.860	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1404.675	90		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1410.374	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1411.536	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	2 - 1	C18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na II	1418.579	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1420.216	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1421.889	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1422.996	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1425.499	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1426.048	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1429.963	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1431.015	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1431.228	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{1}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1435.776	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1442.907	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1455.969	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)7s$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1462.160	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1470.916	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1481.578	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	3 - 2	C18
Na II	1483.507	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1484.677	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	3 - 3	C18
Na II	1485.987	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1494.729	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	2 - 2	C18
Na II	1495.212	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1496.011	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1497.731	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1501.995	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1506.407	80f		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	3 - 1	C18
Na II	1506.914	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	3 - 2	C18
Na II	1510.701	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	3 - 2	C18
Na II	1513.102	70		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1515.229	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1515.709	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1518.505	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1519.629	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{5}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1525.311	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1527.555	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1527.985	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1528.742	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	2 - 3	C18
Na II	1530.307	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	2 - 2	C18
Na II	1534.163	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1534.538	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1534.737	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1539.895	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1546.722	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	1 - 2	C18
Na II	1547.066	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1549.352	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1549.507	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1550.348	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1551.793	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1551.934	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{1}{2}[\frac{5}{2}]^\circ$	2 - 2	C18
Na II	1552.203	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1556.370	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1556.753	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{1}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1558.678	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1568.673	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1569.264	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1573.430	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1574.110	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 1	C18
Na II	1574.664	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1575.749	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1576.118	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1578.807	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1581.108	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1581.835	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1584.173	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1588.983	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1591.321	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1591.712	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 0	C18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na II	1621.940	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 1/2[3/2]^\circ$	1 - 1	C18
Na II	1622.347	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[1/2] - 1/2[1/2]^\circ$	1 - 0	C18
Na II	1626.372	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 1/2[3/2]^\circ$	1 - 2	C18
Na II	1652.921	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[1/2] - 3/2[3/2]^\circ$	1 - 1	C18
Na II	1668.569	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 3/2[3/2]^\circ$	1 - 2	C18
Na II	1671.886	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 3/2[1/2]^\circ$	1 - 1	C18
Na II	1673.649	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 3/2[1/2]^\circ$	1 - 0	C18
Na II	1743.309	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[5/2] - 1/2[1/2]^\circ$	2 - 1	C18
Na II	1746.996	0		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 1/2[3/2]^\circ$	2 - 1	C18
Na II	1752.185	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 1/2[3/2]^\circ$	2 - 2	C18
Na II	1756.817	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 1/2[5/2]^\circ$	2 - 3	C18
Na II	1759.572	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 1/2[1/2]^\circ$	1 - 1	C18
Na II	1763.325	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[3/2]^\circ$	1 - 1	C18
Na II	1763.841	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 1/2[1/2]^\circ$	1 - 0	C18
Na II	1768.603	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[3/2]^\circ$	1 - 2	C18
Na II	1776.571	90		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[5/2] - 3/2[3/2]^\circ$	3 - 2	C18
Na II	1778.243	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[5/2]^\circ$	3 - 3	C18
Na II	1778.905	0		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[5/2]^\circ$	3 - 2	C18
Na II	1779.906	0		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)6s$	$1/2[1/2] - 1/2[1/2]^\circ$	0 - 1	C18
Na II	1783.043	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[5/2] - 3/2[3/2]^\circ$	2 - 1	C18
Na II	1783.475	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5d$	$1/2[1/2] - 1/2[3/2]^\circ$	0 - 1	C18
Na II	1785.989	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[7/2]^\circ$	3 - 3	C18
Na II	1787.189	80		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[7/2]^\circ$	3 - 4	C18
Na II	1788.846	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[5/2] - 3/2[3/2]^\circ$	2 - 2	C18
Na II	1790.562	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[5/2]^\circ$	2 - 3	C18
Na II	1791.224	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[5/2]^\circ$	2 - 2	C18
Na II	1791.862	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 1/2[1/2]^\circ$	2 - 1	C18
Na II	1795.772	1		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[3/2]^\circ$	2 - 1	C18
Na II	1798.410	80		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[5/2] - 3/2[7/2]^\circ$	2 - 3	C18
Na II	1800.048	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 3/2[3/2]^\circ$	1 - 1	C18
Na II	1801.256	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[3/2]^\circ$	2 - 2	C18
Na II	1803.833	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[3/2]^\circ$	1 - 1	C18
Na II	1805.998	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 3/2[3/2]^\circ$	1 - 2	C18
Na II	1806.061	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[5/2]^\circ$	2 - 3	C18
Na II	1807.092	90		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 1/2[5/2]^\circ$	2 - 2	C18
Na II	1808.375	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[5/2]^\circ$	1 - 2	C18
Na II	1814.474	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 1/2[1/2]^\circ$	1 - 1	C18
Na II	1818.473	5		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[3/2]^\circ$	1 - 1	C18
Na II	1818.628	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[3/2]^\circ$	1 - 2	C18
Na II	1819.024	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 1/2[1/2]^\circ$	1 - 0	C18
Na II	1821.695	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 1/2[1/2]^\circ$	2 - 1	C18
Na II	1822.568	5		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[1/2]^\circ$	1 - 1	C18
Na II	1824.098	0		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[3/2]^\circ$	1 - 2	C18
Na II	1825.730	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[3/2]^\circ$	2 - 1	C18
Na II	1830.124	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[5/2]^\circ$	1 - 2	C18
Na II	1831.172	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[1/2] - 1/2[1/2]^\circ$	0 - 1	C18
Na II	1831.402	1		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[3/2]^\circ$	2 - 2	C18
Na II	1833.873	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 3/2[3/2]^\circ$	2 - 1	C18
Na II	1835.217	80		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[1/2] - 1/2[3/2]^\circ$	0 - 1	C18
Na II	1836.367	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[5/2]^\circ$	2 - 3	C18
Na II	1837.522	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 1/2[5/2]^\circ$	2 - 2	C18
Na II	1837.890	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[3/2]^\circ$	2 - 1	C18
Na II	1839.270	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[1/2] - 1/2[3/2]^\circ$	1 - 1	C18
Na II	1839.835	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[1/2] - 1/2[1/2]^\circ$	1 - 0	C18
Na II	1840.032	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$3/2[3/2] - 3/2[3/2]^\circ$	2 - 2	C18
Na II	1841.822	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[5/2]^\circ$	2 - 3	C18
Na II	1845.016	70		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[1/2] - 1/2[3/2]^\circ$	1 - 2	C18
Na II	1851.194	70		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[1/2] - 1/2[5/2]^\circ$	1 - 2	C18
Na II	1853.166	80		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[3/2]^\circ$	2 - 2	C18
Na II	1857.265	25		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$3/2[3/2] - 3/2[1/2]^\circ$	2 - 1	C18
Na II	1857.576	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 3/2[3/2]^\circ$	1 - 1	C18
Na II	1863.898	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 3/2[3/2]^\circ$	1 - 2	C18
Na II	1865.139	35		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 3/2[3/2]^\circ$	2 - 1	C18
Na II	1866.452	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$1/2[3/2] - 3/2[5/2]^\circ$	1 - 2	C18
Na II	1871.517	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$1/2[3/2] - 3/2[3/2]^\circ$	2 - 2	C18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na II	1873.369	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{5}{2}]^\circ$	2 - 3	C18
Na II	1874.098	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{5}{2}]^\circ$	2 - 2	C18
Na II	1875.075	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1877.365	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1879.240	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{3}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	C18
Na II	1883.460	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 1	C18
Na II	1883.804	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 0	C18
Na II	1885.091	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	2 - 2	C18
Na II	1885.742	45		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1889.317	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{3}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	2 - 1	C18
Na II	1899.523	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{3}{2}]^\circ$	1 - 2	C18
Na II	1903.831	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 1	C18
Na II	1906.112	15		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4d$	$\frac{1}{2}[\frac{1}{2}] - \frac{3}{2}[\frac{1}{2}]^\circ$	1 - 0	C18

SODIUM III (Na^{2+}), Z = 11

Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 577 800 cm^{-1}; 71.64 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na III	183.575	10		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	183.747	100		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	184.218	10		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	S22
Na III	188.870	200		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	189.346	100		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	194.032	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	194.166	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	S22
Na III	194.306	100d		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	195.538	10		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	202.184	400		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	202.490	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	202.720	300		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	202.760	300		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	S22
Na III	203.050	300		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	203.282	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	203.324	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	S22
Na III?	206.871	10					S22
Na III?	207.458	10					S22
Na III	214.235	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	214.596	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	S22
Na III	214.868	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	215.042	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	215.230	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	S22
Na III	215.340	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III?	215.498	10					S22
Na III	215.671	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	215.870	100		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - ^4P$?	$\frac{3}{2} - \frac{5}{2}$	S22,K8
Na III?	216.120	100					S22
Na III	229.868	300		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	S22
Na III	230.593	200		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	S22
Na III	250.515	800		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S22
Na III	251.371	600		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	S22
Na III	266.893	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	S22
Na III	267.642	800		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S22
Na III	267.868	600		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	S22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na III	268.623	500		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S22
Na III	272.441	10d		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	S22
Na III	378.143	1000		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	E6,S22
Na III	380.107	800		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	E6,S22
Na III	1100.49	100		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4P^\circ - ^2S$	1/2 - 1/2	T4
Na III	1122.30	10		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4P^\circ - ^2F$	3/2 - 5/2	T4
Na III	1153.04	40		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4P^\circ - ^2P$	3/2 - 3/2	T4
Na III	1180.40	160		$2p^4(^1D)3p - 2p^4(^1S)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	T4
Na III	1221.12	100		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4D^\circ - ^2D$	3/2 - 3/2	T4
Na III	1223.44	80d		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4D^\circ - ^2P$	5/2 - 3/2	T4
Na III	1224.73	80		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4D^\circ - ^2D$	1/2 - 3/2	T4
Na III	1235.40	80d		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^4D^\circ - ^2G$	7/2 - 7/2	T4
Na III	1256.68	20		$2p^4(^5P)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	T4
Na III	1265.66	40		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	T4
Na III	1337.39	120d		$2p^4(^3P)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	T4
Na III	1427.27	10		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	T4
Na III	1436.21	240		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	T4
Na III	1458.15	60		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	T4
Na III	1529.67	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^2P$	1/2 - 1/2	T4
Na III	1541.19	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^2P$	3/2 - 3/2	T4
Na III	1548.68	160		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^2P$	1/2 - 3/2	T4
Na III	1602.91	100		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 1/2	T4
Na III	1604.47	120		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	5/2 - 3/2	T4
Na III	1610.97	80		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	1/2 - 1/2	T4
Na III	1613.77	160		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 3/2	T4
Na III	1621.94	100		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	1/2 - 3/2	T4
Na III	1624.07	240		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	5/2 - 5/2	T4
Na III	1633.64	80		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 5/2	T4
Na III	1650.91	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2P$	5/2 - 3/2	T4
Na III	1658.71	40		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^2P$	3/2 - 1/2	T4
Na III	1669.52	60d		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^2P$	5/2 - 3/2	T4
Na III	1669.52	60d		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2P$	1/2 - 3/2	T4
Na III	1678.74	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2F$	5/2 - 5/2	T4
Na III	1691.70	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2P$	1/2 - 1/2	T4
Na III	1718.48	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2D$	5/2 - 5/2	T4
Na III	1719.60	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2D$	1/2 - 3/2	T4
Na III	1731.08	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^2F$	5/2 - 7/2	T4
Na III	1741.33	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4F$	5/2 - 5/2	T4
Na III	1746.39	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4F$	5/2 - 3/2	T4
Na III	1752.06	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	T4
Na III	1752.65	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	5/2 - 5/2	T4
Na III	1754.97	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	5/2 - 3/2	T4
Na III	1761.05	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	7/2 - 5/2	T4
Na III	1762.13	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	1/2 - 1/2	T4
Na III	1763.84	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 5/2	T4
Na III	1767.21	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4F$	1/2 - 3/2	T4
Na III	1773.00	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 3/2	T4
Na III	1775.32	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	1/2 - 3/2	T4
Na III	1782.92	240		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	1/2 - 3/2	T4
Na III	1791.23	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 1/2	T4
Na III	1791.80	160		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	3/2 - 5/2	T4
Na III	1801.27	140		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	1/2 - 1/2	T4
Na III	1810.74	80		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2P$	5/2 - 3/2	T4
Na III	1811.70	100		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	5/2 - 5/2	T4
Na III	1814.35	60		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	7/2 - 5/2	T4
Na III	1816.83	40		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	T4
Na III	1819.01	40		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	5/2 - 7/2	T4
Na III	1821.68	240		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	7/2 - 7/2	T4
Na III	1824.52	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2P$	3/2 - 3/2	T4
Na III	1825.44	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2F$	7/2 - 5/2	T4
Na III	1835.22	300		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	1/2 - 1/2	T4
Na III	1838.11	120		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 3/2	T4
Na III	1843.43	40		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^4P$	5/2 - 3/2	T4
Na III	1844.36	400		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 5/2	T4
Na III	1845.10	240		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	3/2 - 1/2	T4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na III	1847.54	200		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2D$	5/2 - 5/2	T4
Na III	1849.58	700		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 7/2	T4
Na III	1850.24	400		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2D$	7/2 - 5/2	T4
Na III	1850.39	360		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	3/2 - 3/2	T4
Na III	1855.91	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	1/2 - 1/2	T4
Na III	1856.73	400		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	3/2 - 5/2	T4
Na III	1857.57	100		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	T4
Na III	1859.20	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2P$	1/2 - 1/2	T4
Na III	1859.61	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^4P$	3/2 - 1/2	T4
Na III	1861.19	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	1/2 - 3/2	T4
Na III	1862.40	120		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	T4
Na III	1869.43	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^4P$	5/2 - 5/2	T4
Na III	1872.45	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2D$	7/2 - 5/2	T4
Na III	1873.32	80		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2D$	5/2 - 3/2	T4
Na III	1874.22	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^4P$	3/2 - 3/2	T4
Na III	1885.75	80		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	T4
Na III	1887.48	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2F$	7/2 - 7/2	T4
Na III	1890.75	240		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	T4
Na III	1899.70	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	7/2 - 5/2	T4
Na III	1913.17	160		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	7/2 - 5/2	T4
Na III	1918.46	120		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	7/2 - 7/2	T4
Na III	1920.12	120		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 5/2	T4
Na III	1926.27	900		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 3/2	T4
Na III	1927.21	300		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	T4
Na III	1933.87	600		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	5/2 - 5/2	T4
Na III	1935.54	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	3/2 - 5/2	T4
Na III	1939.32	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 7/2	T4
Na III	1941.61	10		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^2P^\circ$	3/2 - 1/2	T4
Na III	1941.77	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	3/2 - 3/2	T4
Na III	1942.19	120		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	T4
Na III	1943.40	120		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2G$	5/2 - 7/2	T4
Na III	1944.99	60d		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	5/2 - 3/2	T4
Na III	1946.43	400d		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2G$	7/2 - 7/2	T4
Na III	1946.82	10		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^2P^\circ$	3/2 - 3/2	T4
Na III	1950.79	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	1/2 - 3/2	T4
Na III	1951.21	800		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	T4
Na III	1955.31	160		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	T4
Na III	1956.48	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 3/2	T4
Na III	1960.76	400		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	3/2 - 3/2	T4
Na III	1965.04	360		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	7/2 - 9/2	T4
Na III	1975.43	10		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	T4
Na III	1976.62	20		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	T4
Na III	1977.14	20		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	T4
Na III	1980.95	10		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	T4
Na III	1985.58	600		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	T4
Na III	1995.62	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	T4

525-206 O - 73 - 8

SODIUM IV (Na^{3+}), Z = 11

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 797 800 cm^{-1}; 98.91 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na IV	129.464	10		$2p^4 - 2p^3(^2D^\circ)5d$	$g^3P - {}^3D^\circ$	2 - 3	S22
Na IV	132.211	10		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	S21,S22
Na IV	132.465	10d		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	S21,S22
Na IV	132.740	10		$2p^4 - 2p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	2 - 3	S21,S22
Na IV	136.435	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3S^\circ$	2 - 1	S21,S22
Na IV	136.550	100		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3P^\circ$	2 - 2	S21,S22
Na IV	136.645	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3S^\circ$	1 - 1	S21,S22
Na IV	136.748	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3P^\circ$	1 - 2	S21,S22
Na IV	136.854	100		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	S21,S22
Na IV	137.062	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	S21,S22
Na IV	137.144	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	S22
Na IV	137.714	10		$2p^4 - 2p^3(^2P^\circ)4d$	${}^1D - {}^1F^\circ$	2 - 3	S21,S22
Na IV	137.945	10		$2p^4 - 2p^3(^2P^\circ)4d$	${}^1D - {}^1D^\circ$	2 - 2	S21,S22
Na IV	139.867	200b		$2p^4 - 2p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	S20,S22
Na IV	142.232	200b		$2p^4 - 2p^3(^2D^\circ)4d$	${}^1D - {}^1F^\circ$	2 - 3	S22
Na IV	142.363	100		$2p^4 - 2p^3(^2D^\circ)4d$	${}^1D - {}^1D^\circ$	2 - 2	S21,S22
Na IV	142.688	10		$2p^4 - 2p^3(^2D^\circ)4d$	${}^1D - {}^1P^\circ$	2 - 1	S21,S22
Na IV	144.979	10		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	S21,S22
Na IV	145.846	10		$2p^4 - 2p^3(^2P^\circ)4s$	${}^1D - {}^1P^\circ$	2 - 1	S21,S22
Na IV	146.060	300		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	S21,S22
Na IV	146.298	100		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	S21,S22
Na IV	146.398	10		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	S21,S22
Na IV	150.297	400		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S22
Na IV	150.545	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	S22
Na IV	150.647	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	S22
Na IV	150.695	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	S22
Na IV	150.968	200b		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	S22
Na IV	151.048	10		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	S22
Na IV	151.303	100b		$2p^4 - 2p^3(^2D^\circ)4s$	${}^1D - {}^1D^\circ$	2 - 2	S22
Na IV	155.090	100		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	S22
Na IV	155.248	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	S22
Na IV	155.354	10		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	S22
Na IV	155.445	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	S22
Na IV	155.515	400		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	S22
Na IV	155.622	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	0 - 1	S22
Na IV	155.693	200d		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	S22
Na IV	155.781	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	S22
Na IV	155.832	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	S22
Na IV	156.536	800		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S22
Na IV	156.780	500		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	S22
Na IV	156.887	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	S22
Na IV	157.090	400		$2p^4 - 2p^3(^2P^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	S22
Na IV	157.599	100		$2p^4 - 2p^3(^2P^\circ)3d$	${}^1D - {}^1P^\circ$	2 - 1	S22
Na IV	157.782	300		$2p^4 - 2p^3(^2P^\circ)3d$	${}^1D - {}^1D^\circ$	2 - 2	S22
Na IV	162.445	800		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	S22
Na IV	163.187	600		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1D - {}^1D^\circ$	2 - 2	S22
Na IV	163.840	400		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1D - {}^1P^\circ$	2 - 1	S22
Na IV?	164.841	400					S22
Na IV	168.084	1000		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S22
Na IV	168.409	800		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	S22
Na IV	168.544	500		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	S22
Na IV	174.008	10		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1S - {}^1P^\circ$	0 - 1	S22
Na IV	181.758	800		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	S22
Na IV	182.128	600		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 2	S22
Na IV	182.282	400		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	0 - 1	S22
Na IV	190.126	600		$2p^4 - 2p^3(^2P^\circ)3s$	${}^1D - {}^1P^\circ$	2 - 1	S22
Na IV	190.440	1000		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	S22
Na IV	190.835	800		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	S22
Na IV	191.000	600		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	S22
Na IV	199.769	600		$2p^4 - 2p^3(^2D^\circ)3s$	${}^1D - {}^1D^\circ$	2 - 2	S22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na IV	203.959	200		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	S22
Na IV	205.487	600		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	2 - 1	S22
Na IV	205.956	400		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	1 - 1	S22
Na IV	206.155	300		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	0 - 1	S22
Na IV	319.638	1000		$2s^22p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	E6,S22
Na IV	360.761	600		$2s^22p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	S22
Na IV	408.682	800		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	E6,S22
Na IV	409.615	800		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	E6,S22
Na IV	410.371	1000		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	E6,S22
Na IV	410.540	600		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	E6,S22
Na IV	411.333	700		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	E6,S22
Na IV	412.240	800		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	E6,S22

SODIUM V (Na^{4+}), Z = 11

Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 1 116 200 cm^{-1}; 138.39 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na V	100.88	10		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	100.945	10		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	103.482	10		$2p^3 - 2p^2(^1D)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	106.278	100		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Na V	106.302	100		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Na V	106.399	100		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4D$	3/2 - 1/2	S21
Na V	106.490	100		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4D$	3/2 - 5/2	S21
Na V	107.934	200b		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	108.017	200		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	110.817	200b		$2s^22p^3 - 2s2p^3(^3D^\circ)3p$	$^2D^\circ - ^2F$	3/2 - 5/2	S21
Na V	110.878	200		$2s^22p^3 - 2s2p^3(^3D^\circ)3p$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	110.921	10		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	111.512	100		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	111.552	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	3/2 - 3/2	S21
Na V	111.879	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	112.009	300b		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	S21
Na V	112.077	10		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	S21
Na V	112.186	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^4D$	3/2 - 1/2	S21
Na V	112.347	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Na V	113.574	10		$2p^3 - 2p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	113.952	10		$2s^22p^3 - 2s2p^3(^3D^\circ)3p$	$^2P^\circ - ^2F$?	3/2 - 5/2	S21,K8
Na V	114.700	100d		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	114.738	100		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	S21
Na V	117.703	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	S22
Na V	117.876	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	S22
Na V	117.990	400		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Na V	120.040	100		$2p^3 - 2p^2(^1D)3d$	$g^4S^\circ - ^2D$?	3/2 - 5/2	S21,K8
Na V	121.263	10		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Na V	125.178	400		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	S21
Na V	125.216	400		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Na V	125.286	500		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Na V	125.428	300		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 1/2	S21
Na V	125.461	300		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 5/2	S21
Na V	125.899	200		$2p^3 - 2p^23d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	126.090	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4S^\circ$	5/2 - 3/2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na V	126.210	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	S21
Na V	126.368	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	S21
Na V	126.458	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	S21
Na V	126.557	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Na V	126.608	100		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	S21
Na V	126.779	10b		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	S21
Na V	126.814	100b		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	S21
Na V	126.920	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	S21
Na V	126.985	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	S21
Na V	127.036	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	S21
Na V	127.444	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	127.473	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	S21
Na V	128.025	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	S21
Na V	128.051	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	129.942	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	S21
Na V	130.680	200		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Na V	130.723	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Na V	131.345	300		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	131.413	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	S21
Na V	131.635	300d		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	133.162	500		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Na V	133.388	400		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	S21
Na V	134.183	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	S21
Na V	134.272	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Na V	135.791	300		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	135.854	300		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	S21
Na V	138.812	200		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Na V	138.917	300		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Na V	140.171	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	S21
Na V	140.258	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	S21
Na V	142.232	200b		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	S21
Na V	142.415	10		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	S21
Na V	144.330	200		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	S21
Na V	144.546	200		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	S21
Na V	144.661	100		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	S21
Na V	147.897	200		$2p^3 - 2p^2 3s$	$^2P^\circ - ^2S$	3/2 - 1/2	S21
Na V	148.642	400		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Na V	148.856	300		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Na V	149.001	200		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 1/2	S21
Na V	150.968	200b		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	5/2 - 7/2	S21
Na V	151.127	400		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Na V	151.188	100		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	3/2 - 5/2	S21
Na V	151.303	100b		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	1/2 - 3/2	S21
Na V	157.036	200		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Na V	157.209	300		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Na V	157.511	200		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	S21
Na V	163.616	300		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Na V	163.930	200		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Na V	167.510	100		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^2D - ^2D^\circ$	5/2 - 5/2	S21
Na V	170.631	100		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	S21
Na V	170.923	100		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	S21
Na V	171.076	100d		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	1/2 - 3/2	S21
Na V	307.152	800		$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	E6,S21
Na V	308.264	1000		$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	E6,S21
Na V	330.718	10		$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2S$	3/2 - 1/2	S21
Na V	332.550	800		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Na V	333.910	900		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Na V	360.319	800		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	S21
Na V	360.367	800		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	S21
Na V	367.557	200		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	3/2 - 1/2	S21
Na V	369.743	300		$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	S21
Na V	400.722	1000		$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	E6,S21
Na V	436.946	10		$2p^5 - 2s^2 2p^2(^3P)3d$	$^2P^\circ - ^4P$?	1/2 - 1/2	S22,K8
Na V	445.046	500		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	S21
Na V	445.190	600		$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na V	459.897	600		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E6,S21
Na V	461.051	850		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E6,S21
Na V	463.263	1000		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E6,S21
Na V	510.102	10		$2s2p^4 - 2p^5$	${}^2P - {}^2P^\circ$	1/2 - 1/2	S21
Na V	511.193	100		$2s2p^4 - 2p^5$	${}^2P - {}^2P^\circ$	3/2 - 3/2	S21
Na V	514.350	10		$2s2p^4 - 2p^5$	${}^2P - {}^2P^\circ$	1/2 - 3/2	S21

SODIUM VI (Na^{5+}), Z = 11

Ground State $1s^22s^22p^2\ {}^3P_0$ (6 electrons)

Ionization Potential 1 388 500 cm^{-1}; 172.15 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VI	80.345	10		$2p^2 - 2p6d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Na VI	80.645	10d		$2s2p^3 - 2s2p^2(^4P)5d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Na VI	81.498	200b		$2p^2 - 2p5d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Na VI	81.543	100d		$2p^2 - 2p5d$	$g^3P - {}^3D^\circ$	2 - 3	S21
Na VI	81.584	100d -A		$2s2p^3 - 2s2p^2(^2D)5d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Na VI	83.639	100		$2p^2 - 2p5d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Na VI	87.141	100b		$2s2p^3 - 2s2p^2(^4P)4d$	${}^5S^\circ - {}^5P$	2 - 2	S21
Na VI	87.211	700b		$2s2p^3 - 2s2p^2(^4P)4d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Na VI	88.038	100		$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	1 - 2	S21
Na VI	88.143	200d		$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Na VI	88.223	100		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	0 - 1	S21
Na VI	88.246	200		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	1 - 2	S21
Na VI	88.270	300d		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 3	S21
Na VI	88.340	100d		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 2	S21
Na VI	88.387	10		$2s2p^3 - 2s2p^2(^2D)4d$	${}^3D^\circ - {}^3P$	3 - 2	S21
Na VI	88.460	100		$2s2p^3 - 2s2p^2(^2D)4d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Na VI	88.583	100		$2p^2 - 2p4d$	$g^3P - {}^1D^\circ$?	2 - 2	S21,K8
Na VI	90.468	300		$2p^2 - 2p4d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Na VI	90.746	10		$2s2p^3 - 2s2p^2(^4P)4s$	${}^5S^\circ - {}^5P$	2 - 3	S21
Na VI	91.268	100		$2p^2 - 2p4d$	${}^1D - {}^1D^\circ$	2 - 2	S21
Na VI	91.414	10d		$2s2p^3 - 2s2p^2(^2D)4d$	${}^3P^\circ - {}^3P$	2 - 2	S21
Na VI	91.475	10		$2p^2 - 2p4d$	${}^1D - {}^3F^\circ$	2 - 2	S21
Na VI	91.737	10		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	1 - 2	S21
Na VI	91.836	10		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$	2 - 2	S21
Na VI	92.608	10d		$2s2p^3 - 2s2p^2(^2D)5d$	${}^1P^\circ - {}^3F$?	1 - 2	S21,K8
Na VI	94.208	100		$2s2p^3 - 2p^3(^4S^\circ)3p$	${}^3D^\circ - {}^3P$	3 - 2	S21
Na VI	94.827	10d		$2s2p^3 - 2s2p^2(^4P)4d$	${}^3D^\circ - {}^3D$	3 - 3	S21
Na VI	95.182	100		$2s2p^3 - 2s2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Na VI	95.263	100		$2s2p^3 - 2s2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	2 - 3	S21
Na VI	95.319	10		$2s2p^3 - 2s2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	1 - 2	S21
Na VI	95.933	300		$2s^22p^2 - 2s2p^2(^2D)3p$	${}^1D - {}^1D^\circ$	2 - 2	S21
Na VI	96.124	10		$2s^22p^2 - 2s2p^2(^2D)3p$	$g^3P - {}^3D^\circ$	0 - 1	S21
Na VI	96.196	100		$2s^22p^2 - 2s2p^2(^2D)3p$	$g^3P - {}^3D^\circ$	1 - 2	S21
Na VI	96.307	100		$2s^22p^2 - 2s2p^2(^2D)3p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Na VI	96.475	300		$2s^22p^2 - 2s2p^2(^2D)3p$	${}^1D - {}^1F^\circ$	2 - 3	S21
Na VI	97.636	10		$2s2p^3 - 2p^3(^4S^\circ)3p$	${}^3P^\circ - {}^3P$	2 - 2	S21
Na VI	98.3	20		$2s2p^3 - 2s2p^2(^4P)4d$	${}^3P^\circ - {}^3D$	2 - 3	S21
Na VI	99.004	10		$2s2p^3 - 2s2p^2(^4P)4s$	${}^3D^\circ - {}^3P$	3 - 2	S21
Na VI	99.500	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3P^\circ$	1 - 2	S21
Na VI	99.617	100		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3P^\circ$	2 - 2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VI	99.680	100b		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3P^\circ$	2 - 1	S21
Na VI	100.469	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	1 - 2	S21
Na VI	100.519	300		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Na VI	100.590	100		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	2 - 2	S21
Na VI	101.348	10		$2s2p^3 - 2s2p^2(^2D)4d$	${}^1P^\circ - {}^3D$?	1 - 2	S21,K8
Na VI	103.002	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	0 - 1	S21
Na VI	103.078	100		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	1 - 1	S21
Na VI	103.210	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	2 - 1	S21
Na VI	106.040	300		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	S21
Na VI	106.077	300		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	S21
Na VI	106.125	400		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Na VI	106.580	10		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5D$	2 - 3	S21
Na VI	107.014	200		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	0 - 1	S21
Na VI	107.061	300b		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 0	S21
Na VI	107.093	300b		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 1	S21
Na VI	107.158	100b		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 2	S21
Na VI	107.227	300		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 1	S21
Na VI	107.288	400		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Na VI	107.535	300		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3D$	3 - 3	S21
Na VI	107.553	300		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	0 - 1	S21
Na VI	107.608	400		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 2	S21
Na VI	107.683	500		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	S21
Na VI	107.742	200		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 2	S21
Na VI	107.934	200b		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3P$	3 - 2	S21
Na VI	108.555	400		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Na VI	108.678	10		$2p^2 - 2p3d$	$g^3P - {}^1D^\circ$	1 - 2	S21
Na VI	109.763	10		$2p^2 - 2p3d$	${}^1D - {}^1P^\circ$	2 - 1	S21
Na VI	109.896	500		$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Na VI	110.085	200		$2s2p^3 - 2s2p^2(^4P)4d$	${}^1P^\circ - {}^3D$?	1 - 2	S21,K8
Na VI	110.750	200		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3P^\circ - {}^3S$	2 - 1	S21
Na VI	111.725	100		$2p^2 - 2p3d$	${}^1D - {}^3D^\circ$	2 - 3	S21
Na VI	111.793	100		$2p^2 - 2p3d$	${}^1D - {}^3D^\circ$	2 - 2	S21
Na VI	112.009	300b		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3P^\circ - {}^3D$	2 - 3	S21
Na VI	112.448	300d		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3P^\circ - {}^3P$	2 - 2	S21
Na VI	112.950	400		$2p^2 - 2p3d$	${}^1D - {}^1D^\circ$	2 - 2	S21
Na VI	113.125	400		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3P^\circ - {}^3F$	2 - 3	S21
Na VI	114.666	400		$2p^2 - 2p3d$	${}^1S - {}^1P^\circ$	0 - 1	S21
Na VI	115.729	200		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3D$	3 - 3	S21
Na VI	115.780	10d		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3D$	2 - 2	S21
Na VI	117.491	400		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Na VI	117.609	300		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	2 - 3	S21
Na VI	117.699	300		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	1 - 2	S21
Na VI	118.500	10		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3P$	2 - 1	S21
Na VI	118.585	10		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3P$	3 - 2	S21
Na VI	119.204	10b		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1D^\circ - {}^1P$	2 - 1	S21
Na VI	119.684	300		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1D^\circ - {}^1F$	2 - 3	S21
Na VI	120.355	10		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3S^\circ - {}^1P$?	1 - 1	S21,K8
Na VI	120.931	300		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3D$	2 - 3	S21
Na VI	120.973	200		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3D$	1 - 2	S21
Na VI	121.004	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3D$	1 - 2	S21
Na VI	121.004	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3D$	0 - 1	S21
Na VI	121.773	400		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	S21
Na VI	121.913	320		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 2	S21
Na VI	122.018	300b		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 1	S21
Na VI	123.134	400		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3D^\circ - {}^3D$	3 - 3	S21
Na VI	123.744	400		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	S21
Na VI	123.868	300		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	S21
Na VI	123.929	500		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	S21
Na VI	123.970	200		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 1	S21
Na VI	124.059	400		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3P$	2 - 2	S21
Na VI	124.153	400		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	S21
Na VI	124.850	10		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1P^\circ - {}^1P$	1 - 1	S21
Na VI	125.383	10		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1P^\circ - {}^1D$	1 - 2	S21
Na VI	127.837	400		$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	S21
Na VI	129.040	200		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3P^\circ - {}^3D$	2 - 3	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VI	133.825	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	3 - 2	S21
Na VI	134.021	100d		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 1	S21
Na VI	134.135	10		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	1 - 0	S21
Na VI	134.532	300		$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	S21
Na VI	137.589	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 2	S21
Na VI	138.693	200		$2s2p^3 - 2s2p^2(^2D)3s$	$^1D^\circ - ^1D$	2 - 2	S21
Na VI	140.833	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	S21
Na VI	141.040	10		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	S21
Na VI	146.398	10		$2s2p^3 - 2s2p^2(^2D)3s$	$^1P^\circ - ^1D$	1 - 2	S21
Na VI	149.442	10		$2s2p^3 - 2s^22p(^2P^\circ)3p$	$^3D^\circ - ^3P$	3 - 2	S21
Na VI	149.621	10		$2s2p^3 - 2s^22p(^2P^\circ)3p$	$^3D^\circ - ^3P$	2 - 1	S21
Na VI	191.205	10		$2s2p^3 - 2s^22p3p$	$^1P^\circ - ^3P$?	1 - 2	S22,K8
Na VI	311.921	400		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	S21
Na VI	312.608	300		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	S21
Na VI	313.748	500		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	S21
Na VI	317.641	600		$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	E6,S21
Na VI	361.250	800d		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	E6,S21
Na VI	362.444	400		$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	S21
Na VI	363.774	200		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	1 - 0	S21
Na VI	364.477	300		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	S21
Na VI	366.110	400		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	S21
Na VI	366.240	10		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 2	S21
Na VI	414.370	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	S21
Na VI	415.505	400		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	S21
Na VI	417.595	600		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	S21
Na VI	421.465	100		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	S21
Na VI	423.821	200		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	S21
Na VI	436.96			$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	F6
Na VI?	440.266	300					S21
Na VI	489.580	500		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	E6,S21
Na VI	491.240	300		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 1	E6,S21
Na VI	491.340	600		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	E6,S21
Na VI	494.160	300		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	E6,S21
Na VI	494.382	700		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	E6,S21
Na VI	516.00			$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	F6
Na VI?	528.730	10					S21
Na VI	632.90	10		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	S21
Na VI	638.21	10		$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	S21
Na VI	641.87			$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	F6

SODIUM VII (Na^{6+}), Z = 11

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 1 681 500 cm^{-1}; 208.47 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VII	62.725	10d		2p - 8d	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	63.185	10		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2D$	1/2 - 3/2	S21,S20
Na VII	63.227	10		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	63.361	10		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	63.442	10		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	S20
Na VII	63.778	10		2p - 7d	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	64.113	10		$2s^22p - 2s2p(^1P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	64.904	10		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Na VII	65.388	100		2p - 6d	$g^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	65.474	100		2p - 6d	$g^2P^\circ - ^2D$	3/2 - 5/2	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VII	67.826	100d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 1/2	S20
Na VII	67.877	100d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	67.912	200d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Na VII	68.422	10d		$2p - 5d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	68.519	100d		$2p - 5d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	68.866	10		$2s^22p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	68.908	100		$2s^22p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	69.314	10		$2s^22p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	69.395	10d		$2s^22p - 2s2p(^3P^\circ)4p$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S20
Na VII	72.020	100		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	72.079	100		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Na VII	72.865	200		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	74.097	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 5/2	S20
Na VII	74.180	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	74.217	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	1/2 - 3/2	S20
Na VII	74.255	300		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	S20
Na VII	74.268	300		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Na VII	74.861	300		$2p - 4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	74.980	300b		$2p - 4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	76.501	10		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	S20
Na VII	76.565	10		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	76.626	10d		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 1/2	S20
Na VII	76.827	10		$2p^3 - 2p^2(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 3/2	S20
Na VII	76.862	10		$2p^3 - 2p^2(^3P)4d$	$^4S^\circ - ^4P$	3/2 - 5/2	S20
Na VII	77.353	100		$2p - 4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S20
Na VII	77.558	10		$2s^22p - 2p^2(^3P)3s$	$g\,^2P^\circ - ^4P$?	1/2 - 3/2	S21,K8
Na VII	78.459	10		$2s2p^2 - 2s2p(^1P^\circ)4s$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Na VII	78.771	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2P^\circ$	3/2 - 1/2	S20
Na VII	78.907	300		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	78.982	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Na VII	79.477	200		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	S20
Na VII	79.571	100		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S20
Na VII	79.620	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^4D^\circ$?	5/2 - 5/2	S21,K8
Na VII	79.761	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S20
Na VII	79.786	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	79.893	300d		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	80.008	300		$2s^22p - 2s2p(^1P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	80.133	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	1/2 - 3/2	S20
Na VII	80.174	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	S20
Na VII	80.245	100		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	S20
Na VII	81.430	100		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	81.498	200b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	81.855	400		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Na VII	82.516	10		$2p^3 - 2s2p(^3P^\circ)5p$	$^4S^\circ - ^2P$?	3/2 - 3/2	S21,K8
Na VII	82.636	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - ^2P^\circ$	1/2 - 1/2	S20
Na VII	82.685	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Na VII	83.180	100		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^4P$?	3/2 - 5/2	S21,K8
Na VII	84.221	400		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Na VII	84.832	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Na VII	85.260	300		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	85.297	300		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Na VII	85.458	400		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S20
Na VII	86.596	400		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	86.652	500		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	86.758	300b		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S20
Na VII	87.141	100b		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Na VII	87.471	10		$2s2p^2 - 2p^2(^3P)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Na VII	88.698	200		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S20
Na VII	88.747	300		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	88.865	400		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S20
Na VII	88.914	200		$2s^22p - 2s2p(^3P^\circ)3p$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S20
Na VII	90.173	100		$2s2p^2 - 2p^2(^1D)3p$	$^2P - ^2D^\circ$	1/2 - 3/2	S20
Na VII	90.252	400b		$2s2p^2 - 2p^2(^1D)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Na VII	90.830	10		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	91.064	200		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VII	92.003	500		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	92.774	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	S20
Na VII	92.809	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	S20
Na VII	92.843	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	S20
Na VII	92.883	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	S20
Na VII	92.930	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	S20
Na VII	92.976	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	93.393	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	S20
Na VII	93.434	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	S20
Na VII	93.486	500		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Na VII	93.528	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	S20
Na VII	94.020	10		$2s2p^2 - 2p^2(^3P)3p$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Na VII	94.288	600		$2p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	94.468	700		$2p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	96.845	100		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 1/2	S20
Na VII	96.872	200		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	S20
Na VII	96.922	300		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	S20
Na VII	97.790	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	S20
Na VII	97.907	200		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Na VII	98.016	100		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	S20
Na VII	98.080	300b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	S20
Na VII	98.188	300		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Na VII	98.378	300		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	S20
Na VII	98.394	300		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	S20
Na VII	99.421	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Na VII	99.556	400		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Na VII	99.680	100b		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	S20
Na VII	100.337	100		$2p^3 - 2s^25d$	$^2P^\circ - ^2D$?	3/2 - 5/2	S21,K8
Na VII	100.718	200		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	101.201	10		$2p^3 - 2s2p(^3P^\circ)4p$	$^2P^\circ - ^2D$?	3/2 - 5/2	S21,K8
Na VII	101.785	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Na VII	101.816	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	S20
Na VII	102.226	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	S20
Na VII	102.390	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	S20
Na VII	102.448	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	S20
Na VII	103.354	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	S20
Na VII	103.400	10		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	103.779	300		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	S20
Na VII	103.842	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	S20
Na VII	103.891	400d		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Na VII	104.000	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 1/2	S20
Na VII	104.036	220		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	S20
Na VII	104.871	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	S20
Na VII	104.955	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Na VII	105.111	300		$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	S20
Na VII	105.205	200		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	105.354	400		$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20
Na VII	107.061	300b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	S20
Na VII	107.093	300b		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4P$	1/2 - 1/2	S20
Na VII	108.079	10		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	108.159	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2F^\circ$?	3/2 - 5/2	S21,K8
Na VII	108.193	200		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	S20
Na VII	108.373	100		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	S20
Na VII	108.733	200		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	S20
Na VII	108.829	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	3/2 - 3/2	S20
Na VII	109.362	100		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 1/2	S20
Na VII	109.519	200		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Na VII	110.647	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	S20
Na VII	110.778	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Na VII	110.817	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 3/2	S20
Na VII	111.211	300		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	111.390	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	S20
Na VII	115.361	10		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na VII	115.475	10		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	1/2 - 3/2	S20
Na VII	118.840	10		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2P$	5/2 - 3/2	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VII	118.902	10		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2P$	3/2 - 1/2	S20
Na VII	119.014	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Na VII	119.100	10		$2p^3 - 2s2p(^1P^\circ)3p$	$^2D^\circ - ^2D$	5/2 - 5/2	S20
Na VII	119.204	10b		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	S20
Na VII	122.018	300b		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Na VII	122.252	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 1/2	S20
Na VII	124.532	10		$2s2p^2 - 2s^23p$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	126.779	10		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2P$	1/2 - 3/2	S20
Na VII	126.814	100		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2P$	1/2 - 1/2	S20
Na VII	139.867	200b		$2p^3 - 2s2p(^3P^\circ)3p$	$^2D^\circ - ^2P$	5/2 - 3/2	S20
Na VII	350.645	500		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	E6,S20
Na VII	352.275	600		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	E6,S20
Na VII	353.294	800		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	E6,S20
Na VII	354.950	400		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	E6,S20
Na VII	378.22			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	F3
Na VII	381.300	300		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20
Na VII	385.061	10		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Na VII	385.254	10		$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	S20
Na VII	396.335	200		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	S20
Na VII	397.490	300		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	S20
Na VII	399.182	400		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	S20
Na VII	425.493	100		$2p^2(^3P)3p - 2s2p(^3P^\circ)5p$	$^2D^\circ - ^2D$?	5/2 - 5/2	S22,K8
Na VII	483.216	200		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	S20
Na VII	483.328	300		$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Na VII	486.740	400		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	E6,S20
Na VII	491.950	400d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	E6,S20
Na VII	777.83			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
Na VII	786.36			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	F3

SODIUM VIII (Na^{7+}), Z = 11

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 2 130 800 cm^{-1}; 264.18 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VIII	51.316	10		$2s2p - 2p6p$	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	51.789	10		$2s^2 - 2s6p$	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	53.750	10		$2s2p - 2p5p$	$^3P^\circ - ^3P$	2 - 2	S20
Na VIII	54.380	100		$2s^2 - 2s5p$	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	55.345	10		$2s2p - 2s6d$	$^3P^\circ - ^3D$	1 - 2	S20
Na VIII	55.396	100		$2s2p - 2s6d$	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	57.096	10		$2p^2 - 2p6d$	$^3P - ^3P^\circ$	2 - 2	S20
Na VIII	57.119	10		$2p^2 - 2p6d$	$^3P - ^3D^\circ$	2 - 3	S20
Na VIII	57.230	10d		$2s2p - 2p5p$	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	58.070	10		$2s2p - 2s5d$	$^3P^\circ - ^3D$	1 - 2	S20
Na VIII	59.009	100		$2s2p - 2p4p$	$^3P^\circ - ^3P$	2 - 2	S20
Na VIII	59.101	10		$2s2p - 2s6d$	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	59.204	300		$2s2p - 2p4p$	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	59.249	10		$2s2p - 2p4p$	$^3P^\circ - ^3D$	2 - 2	S20
Na VIII	59.759	200		$2s^2 - 2s4p$	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	59.992	10		$2p^2 - 2p5d$	$^3P - ^3D^\circ$	0 - 1	S20
Na VIII	60.053	100		$2p^2 - 2p5d$	$^3P - ^3P^\circ$	2 - 2	S20
Na VIII	60.073	100		$2p^2\ 2p5d$	$^3P - ^3D^\circ$	2 - 3	S20
Na VIII	61.088	200		$2p^2 - 2p5d$	$^1D - ^1F^\circ$	2 - 3	S20
Na VIII	61.347	1		$2p^2 - 2p5d$	$^1D - ^1D^\circ$	2 - 2	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VIII	62.276	100		2s2p - 2s5d	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	63.114	100		2s2p - 2p4p	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	63.695	10		2s2p - 2p4p	$^1P^\circ - ^1P$	1 - 1	S20
Na VIII	64.205	200		2s2p - 2s4d	$^3P^\circ - ^3D$	0 - 1	S20
Na VIII	64.237	400		2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 2	S20
Na VIII	64.302	500		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	65.672	10		2s2p - 2s4s	$^3P^\circ - ^3S$	1 - 1	S20
Na VIII	65.730	10		2s2p - 2s4s	$^3P^\circ - ^3S$	2 - 1	S20
Na VIII	66.059	200		$2s^2$ - 2p3d	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	66.358	10		$2p^2$ - 2p4d	$^3P - ^3P^\circ$	1 - 1	S20
Na VIII	66.433	200d		$2p^2$ - 2p4d	$^3P - ^3P^\circ$	2 - 2	S20
Na VIII	66.498	400		$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 3	S20
Na VIII	67.48	200		$2p^2$ - 2p4d	$^1D - ^1P^\circ$	2 - 1	S20
Na VIII	67.672	400		$2p^2$ - 2p4d	$^1D - ^1F^\circ$	2 - 3	S20
Na VIII	68.193	100		$2p^2$ - 2p4d	$^1D - ^1D^\circ$	2 - 2	S20
Na VIII	69.120	300		2s2p - 2s4d	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	70.741	10		2s2p - 2s4s	$^1P^\circ - ^1S$	1 - 0	S20
Na VIII	74.956	300		2s2p - 2p3p	$^3P^\circ - ^3P$	0 - 1	S20
Na VIII	74.980	300b		2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 1	S20
Na VIII	75.043	400		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 2	S20
Na VIII	75.096	300		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 1	S20
Na VIII	75.385	100		2s2p - 2p3p	$^3P^\circ - ^3S$	0 - 1	S20
Na VIII	75.428	200		2s2p - 2p3p	$^3P^\circ - ^3S$	1 - 1	S20
Na VIII	75.518	300		2s2p - 2p3p	$^3P^\circ - ^3S$	2 - 1	S20
Na VIII	76.123	500		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	76.173	100		2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 1	S20
Na VIII	76.217	200		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 2	S20
Na VIII	77.267	600		$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	80.756	10		2s2p - 2p3p	$^1P^\circ - ^1S$	1 - 0	S20
Na VIII	81.210	500		2s2p - 2p3p	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	83.240	700		2s2p - 2s3d	$^3P^\circ - ^3D$	0 - 1	S20
Na VIII	83.288	800		2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	S20
Na VIII	83.391	900		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	S20
Na VIII	84.050	500		2s2p - 2p3p	$^1P^\circ - ^1P$	1 - 1	S20
Na VIII	85.826	200		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	0 - 1	S20
Na VIII	85.861	300		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 0	S20
Na VIII	85.887	300		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 1	S20
Na VIII	85.936	100		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 2	S20
Na VIII	85.992	300		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 1	S20
Na VIII	86.039	500		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 2	S20
Na VIII	86.381	400		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	0 - 1	S20
Na VIII	86.417	500		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	1 - 2	S20
Na VIII	86.479	600		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	S20
Na VIII	86.530	100		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 2	S20
Na VIII	86.758	300b		$2p^2$ - 2p3d	$^1D - ^1P^\circ$	2 - 1	S20
Na VIII	87.211	700b		$2p^2$ - 2p3d	$^1D - ^1F^\circ$	2 - 3	S20
Na VIII	89.759	200		2s2p - 2s3s	$^3P^\circ - ^3S$	0 - 1	S20
Na VIII	89.818	300		2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	S20
Na VIII	89.948	400		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	S20
Na VIII	90.252	400b		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	S20
Na VIII	90.536	500		2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	S20
Na VIII	93.120	100		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 2	S20
Na VIII	93.197	10		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	0 - 1	S20
Na VIII	93.242	200		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	S20
Na VIII	93.339	10		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 0	S20
Na VIII	93.670	400		$2p^2$ - 2p3d	$^1S - ^1P^\circ$	0 - 1	S20
Na VIII	93.898	200		$2p^2$ - 2p3s	$^1D - ^1P^\circ$	2 - 1	S20
Na VIII	95.551	200		$2p^2$ - 2p3d	$^1S - ^3P^\circ$	0 - 1	S21,K8
Na VIII	98.080	300b		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	S20
Na VIII	102.043	10		$2p^2$ - 2p3s	$^1S - ^1P^\circ$	0 - 1	S20
Na VIII	107.158	100b		$2p^2$ - 2s3p	$^1D - ^1P^\circ$	2 - 1	S20
Na VIII	117.909	10		$2p^2$ - 2s3p	$^1S - ^1P^\circ$	0 - 1	S20
Na VIII	411.145	100		$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	S20
Na VIII	492.329	10		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	S20
Na VIII	492.79			2s2p - $2p^2$	$^1P^\circ - ^1S$	1 - 0	F3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na VIII	495.81			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	F3
Na VIII	496.249	100		$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	S20
Na VIII	499.78			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	F3
Na VIII	789.6 P			$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	E22

SODIUM IX (Na^{8+}), Z = 11

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 2 418 700 cm^{-1}; 299.87 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na IX	44.723	10		2s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	46.090	100		2s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	47.776	10		2p - 7d	$^2P^\circ - ^2D$	½ - 3/2	S20
Na IX	47.836	100		2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na IX	48.553	200		2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	49.326	100		2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	S20
Na IX	49.386	200		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na IX	52.116	100		2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	S20
Na IX	52.186	200		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na IX	52.487	1		2p - 5s	$^2P^\circ - ^2S$	3/2 - ½	S20
Na IX	53.860	300		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	58.201	500b		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	S20
Na IX	58.279	600		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na IX	58.954	100		2p - 4s	$^2P^\circ - ^2S$	½ - ½	S20
Na IX	59.042	200		2p - 4s	$^2P^\circ - ^2S$	3/2 - ½	S20
Na IX	70.615	700		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	70.653	600		2s - 3p	$g^2S - ^2P^\circ$	½ - ½	S20
Na IX	77.764	700		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	S20
Na IX	77.911	800		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Na IX	81.175	500		2p - 3s	$^2P^\circ - ^2S$	½ - ½	S20
Na IX	81.350	500		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	S20
Na IX	681.72	10		2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	S20
Na IX	694.17			2s - 2p	$g^2S - ^2P^\circ$	½ - ½	F3

SODIUM X (Na^{9+}), Z = 11

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 11 817 061 cm^{-1}; 1465.091 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na X	9.43			$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	S3
Na X	11.00			$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	S3
Na X	11.08			$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	S3
Na X	11.20 ?	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8

SODIUM XI (Na^{10+}), Z = 11
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential 13 297 676 cm^{-1}; 1648.66 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Na XI	7.677 P			1s - 7p	g^2S - $^2P°$	½ - 3/2	G2
Na XI	7.735 P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
Na XI	7.833 P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
Na XI	8.021 P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
Na XI	8.459 P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
Na XI	10.025 P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
Na XI	32.76 P			2 - 7			G2
Na XI	33.85 P			2 - 6			G2
Na XI	35.82 P			2 - 5			G2
Na XI	40.11 P			2 - 4			G2
Na XI	54.14 P			2 - 3			G2
Na XI	82.97 P			3 - 7			G2
Na XI	90.31 P			3 - 6			G2
Na XI	105.82 P			3 - 5			G2
Na XI	154.8 P			3 - 4			G2
Na XI	178.83 P			4 - 7			G2
Na XI	216.8 P			4 - 6			G2
Na XI	334.5 P			4 - 5			G2
Na XI	384.3 P			5 - 7			G2
Na XI	616.0 P			5 - 6			G2
Na XI	1021.6 P			6 - 7			G2

MAGNESIUM, Z = 12

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg	54.131	10					S21
Mg	70.512	10					S21
Mg	70.563	10					S21
Mg	70.762	100d					S21
Mg	70.787	100d					S21
Mg	71.621	10d					S21
Mg	71.724	10d					S21
Mg	75.112	100					S21
Mg	75.528	10d					S21
Mg	75.666	300					S21
Mg	76.169	100					S21
Mg	78.643	100d					S21
Mg	78.668	100d					S21
Mg	82.111	10					S21
Mg	85.091	10					S21
Mg	87.660	10					S21
Mg	89.256	100					S21
Mg	89.556	10					S21
Mg	90.165	10					S21
Mg	90.463	10					S21
Mg	91.013	10					S21
Mg	91.129	10d					S21
Mg	92.685	10					S21
Mg	93.720	100d					S21
Mg	94.721	100					S21
Mg	100.196	100					S21
Mg	100.545	200					S21
Mg	101.322	100					S21
Mg	101.398	10					S21
Mg	104.342	300					S21
Mg	105.066	500					S21
Mg	106.453	200					S21
Mg	109.420	100					S21
Mg	117.880	10					S21
Mg	127.013	10					S21
Mg	137.509	10					S21
Mg	139.705	10					S21
Mg	151.808	10					S22
Mg	341.790	10					S22
Mg	376.665	100					S22
Mg	430.767	10					S22
Mg	1579.05	10d					S22

MAGNESIUM I (Mg^{0+}), Z = 12

Ground State $1s^2 2s^2 2p^6 3s^2\ ^1S_0$ (12 electrons)

Ionization Potential 61 671.02 cm^{-1}; 7.646 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Mg I	1625.22	P			$3s^2 - 3s29p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1625.50	P			$3s^2 - 3s28p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1625.81	P			$3s^2 - 3s27p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1626.16	P			$3s^2 - 3s26p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1626.4	P			$3s^2 - 3s26p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1626.56	P			$3s^2 - 3s25p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1626.8	P			$3s^2 - 3s25p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1627.02	P			$3s^2 - 3s24p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1627.3	P			$3s^2 - 3s24p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1627.53	P			$3s^2 - 3s23p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1627.8	P			$3s^2 - 3s23p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1628.12	P			$3s^2 - 3s22p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1628.5	P			$3s^2 - 3s22p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1628.80	P			$3s^2 - 3s21p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1629.2	P			$3s^2 - 3s21p$	$g\,^1S - ^3P^\circ$	0 - 1	C7
Mg I	1629.59	P			$3s^2 - 3s20p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1629.7	P			$3s^2 - 3s20p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1630.52	P			$3s^2 - 3s19p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1630.6	P			$3s^2 - 3s19p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1631.62	P			$3s^2 - 3s18p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1631.7	P			$3s^2 - 3s18p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1632.93	P			$3s^2 - 3s17p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1633.0	P			$3s^2 - 3s17p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1634.52	P			$3s^2 - 3s16p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1634.7	P			$3s^2 - 3s16p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1636.48	P			$3s^2 - 3s15p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1636.6	P			$3s^2 - 3s15p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1638.90	P			$3s^2 - 3s14p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1639.1	P			$3s^2 - 3s14p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1641.97	P			$3s^2 - 3s13p$	$g\,^1S - ^1P^\circ$	0 - 1	C7
Mg I	1642.2	P			$3s^2 - 3s13p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1645.930		0		$3s^2 - 3s12p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1646.3	P			$3s^2 - 3s12p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1651.165		10		$3s^2 - 3s11p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1651.7	P			$3s^2 - 3s11p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1658.311		20		$3s^2 - 3s10p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1659.0	P			$3s^2 - 3s10p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1668.431		50		$3s^2 - 3s9p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1669.51	P			$3s^2 - 3s9p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1683.412		100		$3s^2 - 3s8p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1685.13	P			$3s^2 - 3s8p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1707.064		150		$3s^2 - 3s7p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1710.07	P			$3s^2 - 3s7p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1747.795		200		$3s^2 - 3s6p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1753.84	P			$3s^2 - 3s6p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Mg I	1827.934		300		$3s^2 - 3s5p$	$g\,^1S - ^1P^\circ$	0 - 1	G19
Mg I	1843.32	P			$3s^2 - 3s5p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

MAGNESIUM II (Mg^{1+}), Z = 12

Ground State $1s^2 2s^2 2p^6 3s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 121 267.61 cm^{-1}; 15.035 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg II	884.6967 P			3s - 8p	$g\,^2S - ^2P^\circ$	½ - 3/2	R17
Mg II	884.7189 P			3s - 8p	$g\,^2S - ^2P^\circ$	½ - ½	R17
Mg II	907.3752 P			3s - 7p	$g\,^2S - ^2P^\circ$	½ - 3/2	R17
Mg II	907.4115 P			3s - 7p	$g\,^2S - ^2P^\circ$	½ - ½	R17
Mg II	946.7032 P	80		3s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	R17,G19
Mg II	946.7694 P	90		3s - 6p	$g\,^2S - ^2P^\circ$	½ - ½	R17,G19
Mg II	1025.9681 P	140		3s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	R17,G19
Mg II	1026.1133 P	120		3s - 5p	$g\,^2S - ^2P^\circ$	½ - ½	R17,G19
Mg II	1239.9252 P	250		3s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	R17,G19
Mg II	1240.3947 P	200		3s - 4p	$g\,^2S - ^2P^\circ$	½ - ½	R17,G19
Mg II	1248.511	60		3p - 10s	$^2P^\circ - ^2S$	½ - ½	G19
Mg II	1249.932	80		3p - 10s	$^2P^\circ - ^2S$	3/2 - ½	G19
Mg II	1271.2388 P	80		3p - 8d	$^2P^\circ - ^2D$	½ - 3/2	R17,G19
Mg II	1271.9402 P	90		3p - 9s	$^2P^\circ - ^2S$	½ - ½	R17,G19
Mg II	1272.7212 P	80		3p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	R17,G19
Mg II	1273.4232 P	110		3p - 9s	$^2P^\circ - ^2S$	3/2 - ½	R17,G19
Mg II	1306.7139 P	110		3p - 7d	$^2P^\circ - ^2D$	½ - 3/2	R17,G19
Mg II	1307.8754 P	120		3p - 8s	$^2P^\circ - ^2S$	½ - ½	R17,G19
Mg II	1308.2809 P	120		3p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	R17,G19
Mg II	1309.4434 P	140		3p - 8s	$^2P^\circ - ^2S$	3/2 - ½	R17,G19
Mg II	1365.5442 P	140		3p - 6d	$^2P^\circ - ^2D$	½ - 3/2	R17,G19
Mg II	1367.2568 P	150		3p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	R17,G19
Mg II	1367.7082 P	150		3p - 7s	$^2P^\circ - ^2S$	½ - ½	R17,G19
Mg II	1369.4231 P	180		3p - 7s	$^2P^\circ - ^2S$	3/2 - ½	R17,G19
Mg II	1475.9998 P	200		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	R17,G19
Mg II	1478.0037 P	250		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	R17,G19
Mg II	1480.8797 P	200		3p - 6s	$^2P^\circ - ^2S$	½ - ½	R17,G19
Mg II	1482.8903 P	300		3p - 6s	$^2P^\circ - ^2S$	3/2 - ½	R17,G19
Mg II	1734.8523 P	400		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	R17,G19
Mg II	1737.6283 P	500		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	R17,G19
Mg II	1750.6637 P	400		3p - 5s	$^2P^\circ - ^2S$	½ - ½	R17,G19
Mg II	1753.4744 P	500		3p - 5s	$^2P^\circ - ^2S$	3/2 - ½	R17,G19

MAGNESIUM III (Mg^{2+}), Z = 12

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 646 410 cm^{-1}; 80.143 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg III	158.530	10d		$2p^6 - 2p^5(^2P^\circ)8d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	159.209	10d		$2p^6 - 2p^5(^2P^\circ)7d$	$g\,^1S - ½[3/2]^\circ$	0 - 1	S22,M22
Mg III	159.755	10d		$2p^6 - 2p^5(^2P^\circ)7d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	161.135	10		$2p^6 - 2p^5(^2P^\circ)6d$	$g\,^1S - ½[3/2]^\circ$	0 - 1	S22,M22
Mg III	163.586	10		$2p^6 - 2p^5(^2P^\circ)6s$	$g\,^1S - ½[½]^\circ$	0 - 1	S22,M22
Mg III	164.159	10		$2p^6 - 2p^5(^2P^\circ)6s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	164.384	200		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - ½[3/2]^\circ$	0 - 1	S22,M22
Mg III	164.954	200		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	165.195	10		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - 3/2[½]^\circ$	0 - 1	S22,M22
Mg III	169.150	100		$2p^6 - 2p^5(^2P^\circ)5s$	$g\,^1S - ½[½]^\circ$	0 - 1	S22,M22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg III	169.746	100		$2p^6 - 2p^5(^2P^\circ)5s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	170.802	500		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	171.395	400		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	171.896	10		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - 3/2[1/2]^\circ$	0 - 1	S22,M22
Mg III	182.240	300		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	S22,M22
Mg III	182.973	200		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	S22,M22
Mg III	186.510	900	4	$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	S22,A5
Mg III	187.194	800	3	$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - ^3D^\circ$	0 - 1	S22,A5
Mg III	188.526	300		$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - ^3P^\circ$	0 - 1	S22,A5
Mg III	231.730	1000	2	$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - ^1P^\circ$	0 - 1	S22,A5
Mg III	234.258	850	1	$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - ^3P^\circ$	0 - 1	S22,A5
Mg III	721.592	4		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 1/2[1/2]$	1 - 0	A5
Mg III	725.347	7		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 1/2[1/2]$	1 - 1	A5
Mg III	728.337	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[3/2]$	2 - 2	A5
Mg III	732.625	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[5/2]$	2 - 2	A5
Mg III	734.441	60		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[5/2]$	2 - 3	A5
Mg III	736.563	30		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[3/2]$	1 - 1	A5
Mg III	739.276	40		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	741.932	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[3/2]$	0 - 1	A5
Mg III	744.342	40		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[1/2]$	2 - 1	A5
Mg III	750.745	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 1/2[1/2]$	1 - 1	A5
Mg III	751.121	40		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 1/2[3/2]$	1 - 2	A5
Mg III	751.207	40		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[1/2]$	1 - 1	A5
Mg III	753.247	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 1/2[3/2]$	1 - 1	A5
Mg III	756.808	7		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^3P^\circ - 3/2[1/2]$	0 - 1	A5
Mg III	760.981	7		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 3/2[3/2]$	1 - 2	A5
Mg III	762.756	12		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 3/2[3/2]$	1 - 1	A5
Mg III	765.655	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)4p$	$^1P^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	821.369	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3S - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	823.788	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3S - 3/2[3/2]^\circ$	1 - 2	A5
Mg III	865.935	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3D - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	871.720	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3D - 3/2[3/2]^\circ$	3 - 2	A5
Mg III	873.580	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3D - 3/2[3/2]^\circ$	2 - 1	A5
Mg III	876.312	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3D - 3/2[5/2]^\circ$	2 - 2	A5
Mg III	878.847	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^1D - 1/2[1/2]^\circ$	2 - 1	A5
Mg III	880.107	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3D - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	886.158	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^1P - 1/2[1/2]^\circ$	1 - 1	A5
Mg III	889.888	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3P - 1/2[1/2]^\circ$	2 - 1	A5
Mg III	894.744	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3P - 1/2[1/2]^\circ$	1 - 1	A5
Mg III	895.324	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^1D - 3/2[3/2]^\circ$	2 - 1	A5
Mg III	896.640	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3P - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	898.207	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^1D - 3/2[3/2]^\circ$	2 - 2	A5
Mg III	902.923	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^1P - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	909.730	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)5s$	$^3P - 3/2[3/2]^\circ$	2 - 2	A5
Mg III	1229.389	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3S - 1/2[1/2]^\circ$	1 - 1	A5
Mg III	1239.827	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3S - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	1263.375	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3S - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	1271.784	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 1/2[5/2]$	1 - 2	A5
Mg III	1274.831	100		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3S - 3/2[3/2]^\circ$	1 - 2	A5
Mg III	1280.702	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 1/2[5/2]$	2 - 3	A5
Mg III	1306.59			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	0 - 1	A5
Mg III	1308.654	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	1310.271	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 1/2[7/2]$	2 - 3	A5
Mg III	1310.633	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	1 - 2	A5
Mg III	1310.720	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	1 - 1	A5
Mg III	1314.50			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1F^\circ - 1/2[7/2]$	3 - 4	A5
Mg III	1318.078	12		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[5/2]$	2 - 3	A5
Mg III	1320.022	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	2 - 2	A5
Mg III	1327.512	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	4 - 4	A5
Mg III	1329.583	60		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[9/2]$	4 - 5	A5
Mg III	1332.310	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	3 - 3	A5
Mg III	1334.359	30		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[9/2]$	3 - 4	A5
Mg III	1335.951	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[5/2]$	1 - 2	A5
Mg III	1346.46			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1D^\circ - 1/2[7/2]$	2 - 3	A5
Mg III	1348.342	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	2 - 3	A5

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg III	1349.132	12		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[7/2]$	3 - 3	A5
Mg III	1349.365	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[5/2]$	2 - 2	A5
Mg III	1350.156	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 1/2[1/2]^\circ$	2 - 1	A5
Mg III	1352.80			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1F^\circ - 3/2[7/2]$	3 - 4	A5
Mg III	1353.804	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[5/2]$	2 - 3	A5
Mg III	1353.915	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1F^\circ - 3/2[5/2]$	3 - 3	A5
Mg III	1371.769	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1P^\circ - 1/2[5/2]$	1 - 2	A5
Mg III	1376.713	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	1378.700	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	1378.891	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[3/2]$	1 - 2	A5
Mg III	1386.691	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^1D^\circ - 3/2[7/2]$	2 - 3	A5
Mg III	1389.504	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[7/2]$	3 - 4	A5
Mg III	1391.271	200		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 3/2[3/2]^\circ$	2 - 1	A5
Mg III	1393.391	350		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 3/2[3/2]^\circ$	3 - 2	A5
Mg III	1395.642	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[5/2]$	2 - 3	A5
Mg III	1402.82			$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1D - 1/2[1/2]^\circ$	2 - 1	A5
Mg III	1405.170	80		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 3/2[3/2]^\circ$	2 - 2	A5
Mg III	1407.880	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	1421.538	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1P - 1/2[1/2]^\circ$	1 - 1	A5
Mg III	1422.118	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3D - 3/2[3/2]^\circ$	1 - 2	A5
Mg III	1431.136	100		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 1/2[1/2]^\circ$	2 - 1	A5
Mg III	1435.550	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1P - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	1439.770	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 1/2[1/2]^\circ$	0 - 1	A5
Mg III	1443.738	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 1/2[1/2]^\circ$	1 - 1	A5
Mg III	1446.254	40		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^1S$	1 - 0	A5
Mg III	1447.260	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1D - 3/2[3/2]^\circ$	2 - 1	A5
Mg III	1458.172	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 1/2[1/2]^\circ$	1 - 0	A5
Mg III	1462.305	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1D - 3/2[3/2]^\circ$	2 - 2	A5
Mg III	1467.188	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1P - 3/2[3/2]^\circ$	1 - 1	A5
Mg III	1474.898	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3S - ^3D^\circ$	1 - 2	A5
Mg III	1477.416	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 3/2[3/2]^\circ$	2 - 1	A5
Mg III	1482.67			$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1P - 3/2[3/2]^\circ$	1 - 2	A5
Mg III	1486.624	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 3/2[3/2]^\circ$	0 - 1	A5
Mg III	1493.097	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 3/2[3/2]^\circ$	2 - 2	A5
Mg III	1506.826	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^3P - 3/2[3/2]^\circ$	1 - 2	A5
Mg III	1550.82			$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^1P^\circ - ^1S$	1 - 0	A5
Mg III	1572.712	400		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3S - ^3P^\circ$	1 - 2	A5
Mg III	1586.237	200		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3S - ^3P^\circ$	1 - 1	A5
Mg III	1592.360	60		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3S - ^3P^\circ$	1 - 0	A5
Mg III	1626.093	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1P^\circ$	2 - 1	A5
Mg III	1635.946	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	3 - 2	A5
Mg III	1642.826	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	3 - 3	A5
Mg III	1648.822	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1P^\circ$	1 - 1	A5
Mg III	1652.218	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	2 - 2	A5
Mg III	1659.244	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	2 - 3	A5
Mg III	1663.287	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1D^\circ$	2 - 2	A5
Mg III	1675.710	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	1 - 2	A5
Mg III	1679.470	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	2 - 1	A5
Mg III	1687.091	250		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1D^\circ$	1 - 2	A5
Mg III	1697.282	250		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1F^\circ$	3 - 3	A5
Mg III	1703.108	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	A5
Mg III	1703.731	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3D^\circ$	1 - 1	A5
Mg III	1704.368	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	3 - 2	A5
Mg III	1714.783	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^1F^\circ$	2 - 3	A5
Mg III	1722.041	100		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	2 - 2	A5
Mg III	1730.733	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	3 - 3	A5
Mg III	1730.778	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^1P^\circ$	1 - 1	A5
Mg III	1731.786	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 2	A5
Mg III	1738.835	600		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	3 - 4	A5
Mg III	1739.475	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 3	A5
Mg III	1743.947	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	A5
Mg III	1745.009	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^1P^\circ$	2 - 1	A5
Mg III	1747.561	200		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	1 - 2	A5
Mg III	1748.932	500		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3F^\circ$	2 - 3	A5
Mg III	1757.176	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	3 - 2	A5

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Mg III	1757.888	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^1P^\circ$	0 - 1	A5
Mg III	1761.74			$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 1	A5
Mg III	1763.805	30		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^1P^\circ$	1 - 1	A5
Mg III	1772.982	350		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^1D^\circ$	1 - 2	A5
Mg III	1773.959	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - ½[5/2]$	1 - 2	A5
Mg III	1775.942	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	2 - 2	A5
Mg III	1783.253	550		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 3	A5
Mg III	1787.927	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^1D^\circ$	2 - 2	A5
Mg III	1791.375	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^3D^\circ$	1 - 1	A5
Mg III	1791.40			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - ½[5/2]$	2 - 3	A5
Mg III	1793.207	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	2 - 1	A5
Mg III	1794.582	300		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3D^\circ$	1 - 2	A5
Mg III	1800.662	350		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	A5
Mg III	1803.087	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	1 - 2	A5
Mg III	1819.954	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - ½[7/2]$	3 - 4	A5
Mg III	1820.421	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3D^\circ$	0 - 1	A5
Mg III	1820.896	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	1 - 1	A5
Mg III	1826.750	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3D^\circ$	1 - 1	A5
Mg III	1828.974	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3D - ^3P^\circ$	1 - 0	A5
Mg III	1838.336	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3F^\circ$	2 - 3	A5
Mg III	1839.878	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^3F^\circ$	1 - 2	A5
Mg III	1846.121	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	0 - 1	A5
Mg III	1846.707	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	1847.561	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^1F^\circ$	2 - 3	A5
Mg III	1849.591	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - ½[5/2]$	2 - 2	A5
Mg III	1850.060	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - ½[7/2]$	2 - 3	A5
Mg III	1854.139	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	1 - 2	A5
Mg III	1855.99			$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3F^\circ$	2 - 2	A5
Mg III	1858.186	250		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 1	A5
Mg III	1858.451	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1F^\circ - ½[7/2]$	3 - 4	A5
Mg III	1865.388	1		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[5/2]$	2 - 2	A5
Mg III	1865.636	12		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[5/2]$	2 - 3	A5
Mg III	1868.225	40		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3P^\circ$	2 - 2	A5
Mg III	1872.956	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	2 - 2	A5
Mg III	1873.268	1		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	2 - 1	A5
Mg III	1879.492	200		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	2 - 2	A5
Mg III	1882.308	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	4 - 4	A5
Mg III	1886.764	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[5/2]$	4 - 3	A5
Mg III	1887.308	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1D - ^3P^\circ$	2 - 1	A5
Mg III	1890.380	40		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[9/2]$	4 - 5	A5
Mg III	1891.970	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	3 - 3	A5
Mg III	1896.304	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^1P$	2 - 1	A5
Mg III	1897.226	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1S - ½[1/2]^\circ$	0 - 1	A5
Mg III	1900.043	20		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[9/2]$	3 - 4	A5
Mg III	1901.360	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - ½[5/2]$	1 - 2	A5
Mg III	1901.572	20		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 1	A5
Mg III	1908.500	100		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 0	A5
Mg III	1918.777	20		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 2	A5
Mg III	1921.374	2		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^3P^\circ$	1 - 1	A5
Mg III	1922.540	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1D^\circ - ½[5/2]$	2 - 2	A5
Mg III	1922.788	1		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1D^\circ - ½[5/2]$	2 - 3	A5
Mg III	1923.042	20		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1D^\circ - ½[7/2]$	2 - 3	A5
Mg III	1923.896	200		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	1 - 2	A5
Mg III	1924.479	30		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	2 - 3	A5
Mg III	1928.198	2		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - ½[9/2]$	3 - 3	A5
Mg III	1928.424	30		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - ½[7/2]$	3 - 4	A5
Mg III	1928.811	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[5/2]$	2 - 2	A5
Mg III	1929.080	1		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[5/2]$	2 - 3	A5
Mg III	1930.374	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^1P - ^3P^\circ$	1 - 0	A5
Mg III	1930.672	250		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^1D$	2 - 2	A5
Mg III	1933.563	40		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[7/2]$	3 - 4	A5
Mg III	1937.539	1		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - ½[5/2]$	2 - 2	A5
Mg III	1937.78			$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - ½[5/2]$	2 - 3	A5
Mg III	1937.843	150		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^3P$	0 - 1	A5
Mg III	1938.249	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[5/2]$	3 - 3	A5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg III	1938.936	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	2 - 1	A5
Mg III	1941.500	12		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 2	A5
Mg III	1942.036	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[9/2]$	3 - 4	A5
Mg III	1954.831	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	0 - 1	A5
Mg III	1962.145	7		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 1	A5
Mg III	1971.514	4		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$^3P - ^3P^\circ$	1 - 0	A5
Mg III	1974.737	12		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^1P^\circ - 1/2[5/2]$	1 - 2	A5
Mg III	1977.554	60		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^1D$	1 - 2	A5
Mg III	1979.327	80		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$^3P^\circ - ^1P$	0 - 1	A5
Mg III	1979.43			$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)4s$	$^1S - 3/2[3/2]^\circ$	0 - 1	A5
Mg III	1985.173	12		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[5/2]$	1 - 2	A5
Mg III	1993.759	7		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	1 - 2	A5
Mg III	1994.089	4		$2p^5(^2P^\circ)3d - 2p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	1 - 1	A5

MAGNESIUM IV (Mg^{3+}), Z = 12

Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 881 100 cm^{-1}; 109.24 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IV?	112.914	10					S21
Mg IV?	118.158	10d					S21
Mg IV	118.421	10		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV?	118.603	100					S21
Mg IV	118.740	5		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV?	120.086	10d					S21
Mg IV?	120.283	100d					S21
Mg IV	121.549	20		$2p^5 - 2p^4(^1D)5s$	$g^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	121.881	10		$2p^5 - 2p^4(^1D)5s$	$g^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV	123.171	5		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	123.266	50		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	123.372	5		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2D$	3/2 - 3/2	A7
Mg IV?	123.418	10					S21
Mg IV	123.508	5		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	123.569	2		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2P$	3/2 - 1/2	A7
Mg IV	123.721	4		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV?	123.770	0					S21
Mg IV	123.913	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - ^2P$	1/2 - 1/2	A7
Mg IV	124.415	100		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2S$	3/2 - 1/2	A7
Mg IV	124.52	1		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	124.539	100		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	124.64	40		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	3/2 - 1/2	A7
Mg IV	124.650	240		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	124.761	80		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2S$	1/2 - 1/2	A7
Mg IV	124.870	100		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV	124.989	70		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	1/2 - 1/2	A7
Mg IV	124.994	90		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	125.459	100		$2p^5 - 2p^4(^1S)4s$	$g^2P^\circ - ^2S$	3/2 - 1/2	A7
Mg IV	125.810	30		$2p^5 - 2p^4(^1S)4s$	$g^2P^\circ - ^2S$	1/2 - 1/2	A7
Mg IV	126.600	4		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - ^2P$	3/2 - 1/2	A7
Mg IV	126.800	20		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	126.960	10		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - ^2P$	1/2 - 1/2	A7
Mg IV	127.165	5		$2p^5 - 2p^4(^3P)5s$	$g^2P^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	129.710	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	129.858	300		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	A7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IV	129.968	200		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	A7
Mg IV	129.98	30		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	A7
Mg IV	130.087	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	A7
Mg IV	130.116	90		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	A7
Mg IV	130.246	70		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	A7
Mg IV	130.349	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	130.36	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	A7
Mg IV?	130.541	0					S21
Mg IV	130.625	60		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	A7
Mg IV	132.126	20		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	A7
Mg IV	132.51			$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	132.800			$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	A7
Mg IV	132.8134	300		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	A7
Mg IV	133.1966	200		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	137.970	80		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	A7
Mg IV	138.265	150		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	A7
Mg IV	138.395	100		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	A7
Mg IV	138.6884	100		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	A7
Mg IV	138.939	1		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	A7
Mg IV	139.993	70		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	A7
Mg IV	140.121	120		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	A7
Mg IV	140.176	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	A7
Mg IV	140.427	100		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	A7
Mg IV	140.475	120		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	A7
Mg IV	140.525	120		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	A7
Mg IV	140.560	120		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	140.868	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	A7
Mg IV	140.915	80		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	A7
Mg IV	140.965	100		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	A7
Mg IV	146.526	250		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	A7
Mg IV	146.837	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	A7
Mg IV	146.954	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	A7
Mg IV	147.005	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	A7
Mg IV	147.050	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	A7
Mg IV	147.252	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	A7
Mg IV	147.319	160		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	A7
Mg IV	147.4062	300		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	A7
Mg IV	147.500	4		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	A7
Mg IV	147.535	300		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	147.630	60		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	A7
Mg IV	147.748	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	A7
Mg IV	147.881	80		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	A7
Mg IV	148.114	120		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	A7
Mg IV	148.958	7		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	A7
Mg IV	149.024	1		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	A7
Mg IV	149.400	5		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	A7
Mg IV	160.2358	200		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	A7
Mg IV	160.8088	150		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	A7
Mg IV	171.657	250		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	A7
Mg IV	172.311	150		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	A7
Mg IV	180.071	350		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	A7
Mg IV	180.618	400		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	A7
Mg IV	180.797	400		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	A7
Mg IV	181.345	350		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	A7
Mg IV	183.442	150		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	A7
Mg IV	183.921	50		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	A7
Mg IV	184.199	30		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	A7
Mg IV	187.697	15		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 1/2	A7
Mg IV	188.146	15		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 3/2	A7
Mg IV	320.994	1000		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	A7
Mg IV	323.307	900		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	A7
Mg IV	799.166	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - {}^4P$	3/2 - 1/2	A7
Mg IV	803.07	2		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - {}^4P$	5/2 - 3/2	A7
Mg IV	809.99	5		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - {}^4P$	1/2 - 3/2	A7
Mg IV	811.26	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - {}^4P$	5/2 - 5/2	A7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IV	814.88	8		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4P^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	840.37	4		$2p^4(^1D)3p - 2p^4(^1D)4s$	$^2F^\circ - ^2D$	5/2 - 3/2	A7
Mg IV	842.09	6		$2p^4(^1D)3p - 2p^4(^1D)4s$	$^2F^\circ - ^2D$	7/2 - 5/2	A7
Mg IV	854.409	20		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	5/2 - 3/2	A7
Mg IV	857.292	150		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	7/2 - 5/2	A7
Mg IV	859.26	2		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	3/2 - 3/2	A7
Mg IV	863.70	1		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4D^\circ - ^4P$	5/2 - 5/2	A7
Mg IV	865.724	8		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	A7
Mg IV	866.741	30		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	A7
Mg IV	877.495	5		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	891.01	1		$2p^4(^1D)3p - 2p^4(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	892.22	1		$2p^4(^1D)3p - 2p^4(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	A7
Mg IV	902.80	1		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	909.37	10		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 1/2	A7
Mg IV	919.03	50		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 3/2	A7
Mg IV	929.784	30		$2p^4(^3P)3p - 2p^4(^3P)4s$	$^4S^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	936.30	2		$2p^4(^1D)3p - 2p^4(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	1026.411	30		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 1/2	A7
Mg IV	1037.409	250		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	A7
Mg IV	1044.374	80		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 1/2	A7
Mg IV	1055.757	60		$2p^4(^3P)3s - 2p^4(^1D)3p$	$^2P - ^2P^\circ$	1/2 - 3/2	A7
Mg IV	1210.993	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	5/2 - 5/2	A7
Mg IV	1219.019	150		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	1220.929	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	5/2 - 3/2	A7
Mg IV	1229.093	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 3/2	A7
Mg IV	1235.908	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	3/2 - 1/2	A7
Mg IV	1236.977	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	1/2 - 3/2	A7
Mg IV	1243.874	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4P$	1/2 - 1/2	A7
Mg IV	1307.934	100		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	5/2 - 5/2	A7
Mg IV	1311.693	200		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	7/2 - 7/2	A7
Mg IV	1311.97	1		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2F$	7/2 - 5/2	A7
Mg IV	1316.482	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	7/2 - 5/2	A7
Mg IV	1328.09	1		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2D$	7/2 - 5/2	A7
Mg IV	1331.630	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	5/2 - 5/2	A7
Mg IV	1336.884	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 3/2	A7
Mg IV	1342.193	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 5/2	A7
Mg IV	1345.677	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2F$	7/2 - 7/2	A7
Mg IV	1346.573	800		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	5/2 - 7/2	A7
Mg IV	1346.680	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	3/2 - 3/2	A7
Mg IV	1351.652	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	1/2 - 1/2	A7
Mg IV	1352.049	600		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	3/2 - 5/2	A7
Mg IV	1355.67	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	3/2 - 3/2	A7
Mg IV	1356.132	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4P^\circ - ^4D$	1/2 - 3/2	A7
Mg IV	1356.277	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2F$	3/2 - 5/2	A7
Mg IV	1361.526	50		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^2F$	5/2 - 7/2	A7
Mg IV	1362.526	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	1/2 - 3/2	A7
Mg IV	1363.18	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 3/2	A7
Mg IV	1366.03	5		$2p^4(^1D)3p - 2p^4(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	1370.898	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4P$	1/2 - 1/2	A7
Mg IV	1371.077	150		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	7/2 - 7/2	A7
Mg IV	1373.226	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 5/2	A7
Mg IV	1375.531	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	3/2 - 3/2	A7
Mg IV	1377.419	50		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	A7
Mg IV	1382.578	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	1/2 - 3/2	A7
Mg IV	1384.463	900		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	7/2 - 9/2	A7
Mg IV	1385.772	500		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	3/2 - 5/2	A7
Mg IV	1386.19	1		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	A7
Mg IV	1387.527	800		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4F$	5/2 - 7/2	A7
Mg IV	1398.850	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	1404.68	300		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2G$	5/2 - 7/2	A7
Mg IV	1409.361	1000		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2F^\circ - ^2G$	7/2 - 9/2	A7
Mg IV	1413.895	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	1418.393	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	A7
Mg IV	1427.760	60		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	A7
Mg IV	1429.189	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	A7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IV	1432.791	50		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	1434.892	150		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	A7
Mg IV	1437.53	500		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	A7
Mg IV	1437.636	1000		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	A7
Mg IV	1437.844	10		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	A7
Mg IV	1438.267	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2S^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	1447.424	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	A7
Mg IV	1448.243	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV	1448.476	30		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	1450.66	1		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^4F$	5/2 - 5/2	A7
Mg IV	1451.48	3		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	A7
Mg IV	1454.212	5		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	1457.229	100		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	A7
Mg IV	1459.38	1		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	A7
Mg IV	1459.540	300		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2P^\circ$	3/2 - 1/2	A7
Mg IV	1459.617	400		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	A7
Mg IV	1466.655	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^4F$	5/2 - 7/2	A7
Mg IV	1468.882	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2S^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	1470.799	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	1472.984	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	7/2 - 5/2	A7
Mg IV	1478.267	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	7/2 - 7/2	A7
Mg IV	1480.798	25		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	1481.060	8		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2D^\circ - ^4F$	3/2 - 5/2	A7
Mg IV	1481.509	400		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2P^\circ$	5/2 - 3/2	A7
Mg IV	1481.859	15		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2P^\circ$	3/2 - 3/2	A7
Mg IV	1485.446	80		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	5/2 - 3/2	A7
Mg IV	1487.28	6		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2S$	3/2 - 1/2	A7
Mg IV	1490.451	350		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	A7
Mg IV	1491.998	100		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	5/2 - 5/2	A7
Mg IV	1492.82	3		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	1494.647	15		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	3/2 - 1/2	A7
Mg IV	1495.505	300		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	1495.993	60		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	A7
Mg IV	1497.422	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	5/2 - 7/2	A7
Mg IV	1500.142	70		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	3/2 - 3/2	A7
Mg IV	1501.534	30		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^4P$	3/2 - 5/2	A7
Mg IV	1502.970	15		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	1/2 - 1/2	A7
Mg IV	1506.48	3		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^2P^\circ - ^4F$	1/2 - 3/2	A7
Mg IV	1506.83			$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	3/2 - 5/2	A7
Mg IV	1508.534	20		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4D^\circ - ^4D$	1/2 - 3/2	A7
Mg IV	1508.841	250		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4S^\circ$	1/2 - 3/2	A7
Mg IV	1510.691	200		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	A7
Mg IV	1520.97	10		$2p^4(^3P)3p - 2p^4(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 1/2	A7
Mg IV	1571.83	1		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	A7
Mg IV	1578.57	20		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	A7
Mg IV	1597.78	6		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	A7
Mg IV	1607.109	300		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	A7
Mg IV	1607.517	30		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2D^\circ$	3/2 - 5/2	A7
Mg IV	1610.80	10		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 3/2	A7
Mg IV	1611.219	200		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2D^\circ$	3/2 - 3/2	A7
Mg IV	1617.65	12		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	A7
Mg IV	1624.155	15		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	A7
Mg IV	1638.54	8		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	A7
Mg IV	1640.91	10		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 3/2	A7
Mg IV	1645.06	5		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2S$	1/2 - 1/2	A7
Mg IV	1651.87	1		$2p^4(^1D)3p - 2p^4(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	A7
Mg IV	1658.868	100		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 5/2	A7
Mg IV	1669.588	50		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	3/2 - 1/2	A7
Mg IV	1679.987	300		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	3/2 - 3/2	A7
Mg IV	1683.016	500		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	A7
Mg IV	1687.03			$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2S^\circ$	3/2 - 1/2	A7
Mg IV	1692.704	200		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	1/2 - 1/2	A7
Mg IV	1698.806	400		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	3/2 - 5/2	A7
Mg IV	1699.686	100		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2P^\circ$	3/2 - 3/2	A7
Mg IV	1703.387	150		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4D^\circ$	1/2 - 3/2	A7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IV	1736.098	70		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2S°$	½ - ½	A7
Mg IV	1744.692	60		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2P°$	3/2 - ½	A7
Mg IV	1749.503	20		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2P°$	½ - 3/2	A7
Mg IV	1797.296	30		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2D°$	3/2 - 3/2	A7
Mg IV	1800.180	200		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2F°$	5/2 - 7/2	A7
Mg IV	1807.80	2		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2F°$	5/2 - 5/2	A7
Mg IV	1808.308	100		$2p^4(^1D)3s - 2p^4(^1D)3p$	$^2D - ^2F°$	3/2 - 5/2	A7
Mg IV	1844.169	300		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2D°$	3/2 - 5/2	A7
Mg IV	1853.107	60		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^2P - ^2D°$	½ - 3/2	A7
Mg IV	1874.598	70		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	5/2 - 3/2	A7
Mg IV	1893.898	200		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	5/2 - 5/2	A7
Mg IV	1906.729	50		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	3/2 - ½	A7
Mg IV	1925.754	20		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	3/2 - 3/2	A7
Mg IV	1936.931	5		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	½ - ½	A7
Mg IV	1946.135	60		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	3/2 - 5/2	A7
Mg IV	1956.570	40		$2p^4(^3P)3s - 2p^4(^3P)3p$	$^4P - ^4P°$	½ - 3/2	A7

MAGNESIUM V (Mg^{4+}), Z = 12

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential 1 139 400 cm^{-1}; 141.26 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg V	92.409	10d		$2p^4 - 2p^3(^2D°)5d$	$g^3P - ^3P°$	2 - 1	S21
Mg V	92.428	10d		$2p^4 - 2p^3(^2D°)5d$	$g^3P - ^3P°$	2 - 2	S21
Mg V	92.534	10		$2p^4 - 2p^3(^2D°)5d$	$g^3P - ^3P°$?	1 - 1	S21,K8
Mg V	92.588	10		$2p^4 - 2p^3(^2D°)5d$	$g^3P - ^3P°$	1 - 2	S21
Mg V	92.641	10		$2p^4 - 2p^3(^2D°)5d$	$g^3P - ^3D°$	2 - 3	S21
Mg V	93.109	100b		$2p^4 - 2p^3(^2P°)5d$	$^1D - ^1D°$	2 - 2	S21
Mg V	94.793	10		$2p^4 - 2p^3(^2D°)5s$	$g^3P - ^3D°$	2 - 3	S21
Mg V	95.556	100b		$2p^4 - 2p^3(^2D°)5d$	$^1D - ^1F°$	2 - 3	S21
Mg V	95.592	10		$2p^4 - 2p^3(^2D°)5d$	$^1D - ^1D°$	2 - 2	S21
Mg V	95.803	200		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3D°$	2 - 3	S21
Mg V	95.909	100d		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3P°$	2 - 2	S21
Mg V	95.965	100		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3D°$	1 - 2	S21
Mg V	96.019	200b		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3D°$	0 - 1	S21
Mg V	96.085	100b		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3P°$	1 - 1	S21
Mg V	96.159	10b		$2p^4 - 2p^3(^2P°)4d$	$g^3P - ^3P°$	0 - 1	S21
Mg V	97.391	100		$2p^4 - 2p^3(^4S°)5d$	$g^3P - ^3D°$	2 - 3	S21
Mg V	97.439	200		$2s^22p^4 - 2s2p^4(^4P)3p$	$g^3P - ^3D°$	2 - 3	S21
Mg V	97.563	100		$2p^4 - 2p^3(^4S°)5d$	$g^3P - ^3D°$	1 - 2	S21
Mg V	97.606	200b		$2s^22p^4 - 2s2p^4(^4P)3p$	$g^3P - ^3D°$	1 - 2	S21
Mg V	97.686	100b		$2s^22p^4 - 2s2p^4(^4P)3p$	$g^3P - ^3D°$	0 - 1	S21
Mg V	98.235	100		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3P°$	2 - 1	S21
Mg V	98.271	200		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3P°$	2 - 2	S21
Mg V	98.406	100		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3P°$	1 - 1	S21
Mg V	98.444	100		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3P°$	1 - 2	S21
Mg V	98.636	200		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3D°$	2 - 3	S21
Mg V	98.805	200		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3D°$	1 - 2	S21
Mg V	98.872	100		$2p^4 - 2p^3(^2D°)4d$	$g^3P - ^3D°$	0 - 1	S21
Mg V	98.983	400b		$2p^4 - 2p^3(^2P°)4d$	$^1D - ^1F°$	2 - 3	S21
Mg V	99.025	200b		$2p^4 - 2p^3(^2P°)4d$	$^1D - ^1P°$	2 - 1	S21
Mg V	99.067	200		$2p^4 - 2p^3(^2P°)4d$	$^1D - ^1D°$	2 - 2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg V?	99.149	10					S21
Mg V	99.205	1		$2p^4 - 2p^3(^2P^\circ)4d$	$^1D - ^3D^\circ$?	2 - 2	S21,K8
Mg V	99.535	100		$2p^4 - 2p^3(^2D^\circ)5d$	$^1S - ^3P^\circ$?	0 - 1	S21,K8
Mg V	99.610	200		$2p^4 - 2p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	S21
Mg V	99.788	100		$2p^4 - 2p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	S21
Mg V	100.949	10		$2p^4 - 2p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg V	101.671	300		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	S21
Mg V	101.782	300		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	S21
Mg V	101.845	100		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^3P^\circ$?	2 - 2	S21,K8
Mg V	102.079	200		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V	103.333	10 -A		$2s2p^5 - 2s2p^4(^4P)5s$	$^3P^\circ - ^3P$	2 - 2	S21
Mg V	103.904	400		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	103.947	300		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	104.100	200		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	104.140	200		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	104.182	100		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	104.214	100		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	104.432	200		$2p^4 - 2p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V	107.661	200		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	S21
Mg V	109.174	10		$2p^4 - 2p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	S21
Mg V	109.812	200		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	2 - 1	S21
Mg V	110.029	100		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	1 - 1	S21
Mg V	110.121	10b		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	0 - 1	S21
Mg V	110.809	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 2	S21
Mg V	110.859	400		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	110.939	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^1D^\circ$	2 - 2	S21
Mg V	111.031	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	111.091	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	111.199	400b		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg V	111.247	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	S21
Mg V	111.419	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	S21
Mg V	111.467	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	S21
Mg V	111.496	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	S21
Mg V	113.217	200		$2s2p^5 - 2s2p^4(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	S21
Mg V	113.279	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^1F^\circ$?	2 - 3	S21,K8
Mg V	113.414	200		$2s2p^5 - 2s2p^4(^2D)3d$	$^3P^\circ - ^3D$	1 - 2	S21
Mg V	113.518	100		$2s2p^5 - 2s2p^4(^2D)3d$	$^3P^\circ - ^3D$	0 - 1	S21
Mg V	113.703	400		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	2 - 1	S21
Mg V	113.823	100		$2s2p^5 - 2s2p^4(^4P)4s$	$^3P^\circ - ^3P$	2 - 2	S21
Mg V	113.934	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	1 - 1	S21
Mg V	113.990	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	S21
Mg V	114.029	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	0 - 1	S21
Mg V	114.059	400		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg V	114.199	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	S21
Mg V	114.226	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	S21
Mg V	114.285	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	S21
Mg V	114.324	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	S21
Mg V	114.498	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$?	2 - 1	S21,K8
Mg V	114.785	600d		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	115.013	600d		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	115.093	400b		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	115.399	400		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V	115.537	400		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	S21
Mg V	118.083	500		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	S21
Mg V	118.810	500		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	S21
Mg V	118.914	10		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^3P^\circ$?	2 - 2	S21,K8
Mg V	119.401	400		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V?	119.447	400					S21
Mg V	119.978	10		$2p^4 - 2p^3(^4S^\circ)4s$	$^1S - ^3S^\circ$?	0 - 1	S21,K8
Mg V	121.644	600		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	121.922	500		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	122.034	400		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	125.600	400b		$2p^4 - 2p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	S21
Mg V	126.280	400		$2s2p^5 - 2s2p^4(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	S21
Mg V	126.544	200		$2s2p^5 - 2s2p^4(^4P)3d$	$^3P^\circ - ^3D$	1 - 2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg V	126.677	10b		$2s2p^5 - 2s2p^4(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	S21
Mg V	132.171	600		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg V	132.485	500		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	1 - 2	S21
Mg V	132.623	300		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	0 - 1	S21
Mg V	135.638	200		$2s2p^5 - 2s2p^4(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	S21
Mg V	135.953	100		$2s2p^5 - 2s2p^4(^2D)3s$	$^3P^\circ - ^3D$	1 - 2	S21
Mg V	136.128	10		$2s2p^5 - 2s2p^4(^2D)3s$	$^3P^\circ - ^3D$	0 - 1	S21
Mg V	137.234	600		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V	137.414	800		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg V	137.748	700		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg V	137.880	600		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg V	142.933	600		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - ^1D^\circ$	2 - 2	S21
Mg V	145.485	500		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	S21
Mg V	146.083	600		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	2 - 1	S21
Mg V	146.464	500		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	1 - 1	S21
Mg V	146.621	400		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	0 - 1	S21
Mg V	147.252	300		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^3P^\circ$?	0 - 1	S22,K8
Mg V	152.019	10		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	S21
Mg V	152.149	300		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	S21
Mg V	152.384	100		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - ^3P$	1 - 1	S21
Mg V	152.527	100		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - ^3P$	1 - 2	S21
Mg V	152.591	10d		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - ^3P$	0 - 1	S21
Mg V	251.600	100		$2s^22p^4 - 2s2p^5$	$g^3P - ^1P^\circ$?	2 - 1	S22,K8
Mg V	276.581	1000		$2s^22p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	S21
Mg V	312.311	1000		$2s^22p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	S21
Mg V	351.089	850		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	S21
Mg V	352.202	700		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	S21
Mg V	353.094	1000		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg V	353.300	650		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	S21
Mg V	354.223	700		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	S21
Mg V	355.326	850		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	S21

MAGNESIUM VI (Mg^{5+}), Z = 12

Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 1 504 300 cm^{-1}; 186.50 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VI	72.430	100		$2p^3 - 2p^2(^3P)6s$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	74.319	300b		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	74.461	10b		$2p^3 - 2p^2(^3P)5d$	$g^4S^\circ - ^4D$	3/2 - 5/2	S21
Mg VI	74.574	200		$2s^22p^3 - 2s2p^3(^5S^\circ)4p$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	75.248	100		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Mg VI	75.334	100d		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Mg VI	75.834	200		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	75.890	10		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Mg VI	76.908	1		$2p^3 - 2p^2(^1D)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Mg VI	77.301	10		$2p^3 - 2p^2(^1D)4d$	$g^4S^\circ - ^2P$?	3/2 - 3/2	S21,K8
Mg VI	77.405	200b		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S21
Mg VI	77.511	100b		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^2F$	3/2 - 5/2	S21
Mg VI	77.639	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^4D$	5/2 - 5/2	S21,K8
Mg VI	78.239	10		$2p^3 - 2p^2(^1S)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Mg VI	79.059	10d		$2p^3 - 2p^2(^3P)5s$	$^2D^\circ - ^4P$	5/2 - 5/2	S21,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VI	79.817	200		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	S21
Mg VI	79.830	400		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	S21
Mg VI	79.857	400		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	S21
Mg VI	80.032	200		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4D$	3/2 - 1/2	S21
Mg VI	80.075	200		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	S21
Mg VI	80.563	100		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2S$?	3/2 - 1/2	S21,K8
Mg VI	80.724	10		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2P$	5/2 - 3/2	S21
Mg VI	80.930	200		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	S21
Mg VI	81.106	300		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	S21
Mg VI	82.238	200b		$2s2p^4 - 2s2p^3(^5S^\circ)5d$	$^4P - {}^4D^\circ$	5/2 - 7/2	S21
Mg VI	82.475	100		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - {}^2S$	3/2 - 1/2	S21
Mg VI	82.853	100		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S21
Mg VI	83.403	400b		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	S21
Mg VI	83.519	300b		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	3/2 - 5/2	S21
Mg VI	83.560	200b		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	S21
Mg VI	84.745	200d		$2p^3 - 2p^2(^1D)4s$	$^2D^\circ - {}^2D$	5/2 - 5/2	S21
Mg VI	85.153	10b		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S21
Mg VI	85.577	200		$2s^22p^3 - 2s2p^3(^3D^\circ)3p$	$^2D^\circ - {}^2F$	3/2 - 5/2	S21
Mg VI	85.622	300		$2s^22p^3 - 2s2p^3(^3D^\circ)3p$	$^2D^\circ - {}^2F$	5/2 - 7/2	S21
Mg VI	86.807	200		$2p^3 - 2p^2(^1D)4s$	$^2P^\circ - {}^2D$	1/2 - 3/2	S21
Mg VI	87.406	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - {}^2P$	5/2 - 3/2	S21
Mg VI	88.827	200		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - {}^4D^\circ$	5/2 - 7/2	S21
Mg VI	88.952	200		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - {}^4D^\circ$	3/2 - 5/2	S21
Mg VI	89.021	10		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - {}^4D^\circ$	1/2 - 3/2	S21
Mg VI	89.649	10		$2p^3 - 2p^2(^3P)4s$	$^2P^\circ - {}^2P$	3/2 - 3/2	S21
Mg VI	90.897	600b		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - {}^4P$	3/2 - 5/2	S21
Mg VI	92.964	100b		$2s2p^4 - 2s2p^3(^5S^\circ)4s$	$^4P - {}^4S^\circ$	5/2 - 3/2	S21
Mg VI	93.109	100b		$2s2p^4 - 2s2p^3(^5S^\circ)4s$	$^4P - {}^4S^\circ$	3/2 - 3/2	S21
Mg VI	93.493	300		$2p^3 - 2p^2(^1S)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	S21
Mg VI	95.385	400b		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	S21
Mg VI	95.421	400b		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	S21
Mg VI	95.483	500b		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	S21
Mg VI	95.637	300b		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 1/2	S21
Mg VI	95.675	300		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	S21
Mg VI	95.803	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2S$	3/2 - 1/2	S21
Mg VI	96.085	100b		$2p^3 - 2p^2(^1S)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S21
Mg VI	96.159	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4S^\circ$	5/2 - 3/2	S21
Mg VI	96.240	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	S21
Mg VI	96.256	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	S21
Mg VI	96.303	200		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	S21
Mg VI	96.388	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	S21
Mg VI	96.467	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	S21
Mg VI	96.670	200		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 3/2	S21
Mg VI	96.704	200		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4P^\circ$	5/2 - 5/2	S21
Mg VI	96.797	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 1/2	S21
Mg VI	96.857	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4P^\circ$	3/2 - 5/2	S21
Mg VI	96.903	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - {}^4P^\circ$	1/2 - 3/2	S21
Mg VI	96.939	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	S21
Mg VI	96.973	400		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	S21
Mg VI	97.251	500		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	S21
Mg VI	97.278	500		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	S21
Mg VI	98.508	300		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2S$	3/2 - 1/2	S21
Mg VI	98.983	400b		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	S21
Mg VI	99.025	200b		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	S21
Mg VI	99.279	400		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	S21
Mg VI	99.333	400		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	S21
Mg VI	99.713	300		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S21
Mg VI	99.738	300		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	S21
Mg VI	100.702	500		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	S21
Mg VI	100.904	400		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	S21
Mg VI	101.508	200d		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	S21
Mg VI	101.556	300		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	S21
Mg VI	102.189	500		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S21
Mg VI	102.239	500		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	S21
Mg VI	104.519	300		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VI	104.597	500		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Mg VI	105.410	200		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	S21
Mg VI	105.502	300		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	S21
Mg VI	105.778	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^2D - ^4D^\circ$?	3/2 - 5/2	S21,K8
Mg VI	105.830	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^2P^\circ$?	5/2 - 3/2	S21,K8
Mg VI	107.820	400		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	S21
Mg VI	108.015	300		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	S21
Mg VI	108.114	200		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	S21
Mg VI	108.148	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	S21
Mg VI	108.338	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	S21
Mg VI	108.441	10		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	S21
Mg VI	111.160	300		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - ^2S$	1/2 - 1/2	S21
Mg VI	111.199	400b		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - ^2S$	3/2 - 1/2	S21
Mg VI	111.552	500		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	111.746	400		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Mg VI	111.864	400		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 1/2	S21
Mg VI	113.189	500		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Mg VI	114.412	10		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	5/2 - 7/2	S21
Mg VI	114.624	10		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	3/2 - 5/2	S21
Mg VI	114.725	10		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^4P - ^4D^\circ$	1/2 - 3/2	S21
Mg VI	116.968	500		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Mg VI	117.226	300		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	S21
Mg VI	117.527	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	S21
Mg VI	120.415	10d		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2D - ^4P^\circ$?	5/2 - 5/2	S21,K8
Mg VI	121.025	500		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Mg VI	121.290	300		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Mg VI	123.590	100d		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^2D - ^2D^\circ$	5/2 - 5/2	S21
Mg VI	125.206	300		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	S21
Mg VI	125.459	300b		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	S21
Mg VI	125.600	400b		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	1/2 - 3/2	S21
Mg VI	126.450	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	S21
Mg VI	126.488	100		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	S21
Mg VI	130.294	200b		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	S21
Mg VI	130.630	100b		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 3/2	S21
Mg VI	130.701	10		$2s2p^4 - 2s2p^3(^3P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 1/2	S21
Mg VI	137.814	10		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^2P - ^2D^\circ$	3/2 - 5/2	S21
Mg VI	268.986	650		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	S21
Mg VI	270.394	750		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	S21
Mg VI	288.652	10		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2S$	3/2 - 1/2	S21
Mg VI	291.348	300		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	S21
Mg VI	291.458	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	S21
Mg VI	293.026	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	S21
Mg VI	293.124	400d		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	S21
Mg VI	314.554	300		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	S21
Mg VI	314.676	400		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	S21
Mg VI	349.155	700d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	S21
Mg VI	387.787	200d		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	S21
Mg VI	388.020	300d		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	S21
Mg VI	399.289	600		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	S21
Mg VI	400.676	700		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	S21
Mg VI	403.315	800		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	S21
Mg VI	436.13			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 1/2	F3
Mg VI	439.82			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 3/2	F3
Mg VI	441.22			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
Mg VI	444.90			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 1/2	F3
Mg VI	1900.04	100		$2s2p^3(^3D^\circ)3d - 2s^22p^2(^3P)5d$	$^2F^\circ - ^4D$?	5/2 - 3/2	S22,K8

MAGNESIUM VII (Mg^{6+}), Z = 12

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 1 814 300 cm^{-1}; 224.94 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VII	58.316	10		$2s^2 2p^2 - 2s 2p^2(^4P)5p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	59.640	1		$2s 2p^3 - 2s 2p^2(^4P)6d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Mg VII	60.138	10		$2p^2 - 2p 6d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Mg VII	62.166	10d		$2s 2p^3 - 2s 2p^2(^4P)5d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Mg VII	62.615	10		$2p^2 - 2p 5d$	$g^3P - {}^3P^\circ$?	1 - 2	S21,K8
Mg VII	62.696	100		$2p^2 - 2p 5d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Mg VII	63.396	100d		$2s^2 2p^2 - 2s 2p^2(^4P)4p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	64.122	200		$2p^2 - 2p 5d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Mg VII	64.377	100b		$2p^2 - 2p 5d$	${}^1D - {}^1D^\circ$	2 - 2	S21
Mg VII	66.788	10		$2s 2p^3 - 2s 2p^2(^4P)5d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Mg VII	67.453	10		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^5S^\circ - {}^5P$	2 - 1	S21
Mg VII	67.470	100d		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^5S^\circ - {}^5P$	2 - 2	S21
Mg VII	67.497	200		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Mg VII	67.993	100d		$2p^2 - 2p 4d$	$g^3P - {}^3P^\circ$	1 - 2	S21
Mg VII	68.064	200		$2p^2 - 2p 4d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Mg VII	68.100	200		$2p^2 - 2p 4d$	$g^3P - {}^3D^\circ$	1 - 2	S21
Mg VII	68.144	300d		$2p^2 - 2p 4d$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	68.352	200		$2s 2p^3 - 2s 2p^2(^2D)4d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Mg VII	69.615	300b		$2p^2 - 2p 4d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Mg VII	69.900	10		$2s 2p^3 - 2s 2p^2(^4P)4s$	${}^5S^\circ - {}^5P$	2 - 3	S21
Mg VII	70.193	100		$2p^2 - 2p 4d$	${}^1D - {}^1D^\circ$	2 - 2	S21
Mg VII	71.786	100		$2p^2 - 2p 4d$	${}^1S - {}^1P^\circ$	0 - 1	S21
Mg VII	72.546	10b		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^3D^\circ - {}^3D$	3 - 3	S21
Mg VII	72.787	100		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Mg VII	72.852	10		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	2 - 3	S21
Mg VII	72.896	1d		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^3D^\circ - {}^3F$	1 - 2	S21
Mg VII	73.112	10		$2s 2p^3 - 2s 2p^2(^4P)4d$	${}^3D^\circ - {}^5P$?	3 - 3	S21,K8
Mg VII	75.975	400		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	${}^1D - {}^1D^\circ$	2 - 2	S21
Mg VII	76.392	300		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	${}^1D - {}^1F^\circ$	2 - 3	S21
Mg VII	77.033	100		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	$g^3P - {}^3D^\circ$	1 - 2	S21
Mg VII	77.144	200		$2s^2 2p^2 - 2s 2p^2(^2D)3p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	78.376	10		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3P^\circ$?	0 - 1	S21,K8
Mg VII	78.405	10		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3P^\circ$	1 - 2	S21
Mg VII	78.521	200		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3P^\circ$	2 - 2	S21
Mg VII	79.131	500		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	1 - 2	S21
Mg VII	79.168	500		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	79.248	100		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	2 - 2	S21
Mg VII	81.024	100		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	1 - 1	S21
Mg VII	81.133	300		$2s^2 2p^2 - 2s 2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	2 - 1	S21
Mg VII	82.940	400		$2s 2p^3 - 2s 2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	S21
Mg VII	82.969	400		$2s 2p^3 - 2s 2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	S21
Mg VII	83.015	500d		$2s 2p^3 - 2s 2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	S21
Mg VII	83.403	400b		$2s 2p^3 - 2s 2p^2(^4P)3d$	${}^5S^\circ - {}^5D$	2 - 3	S21
Mg VII	83.519	300b		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	0 - 1	S21
Mg VII	83.560	200b		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	1 - 0	S21
Mg VII	83.587	200		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	1 - 1	S21
Mg VII	83.635	10		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	1 - 2	S21
Mg VII	83.716	300		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	2 - 1	S21
Mg VII	83.766	500		$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	2 - 2	S21
Mg VII	83.910	300		$2p^2 - 2p 3d$	$g^3P - {}^3D^\circ$	0 - 1	S21
Mg VII	83.959	400d		$2p^2 - 2p 3d$	$g^3P - {}^3D^\circ$	1 - 2	S21
Mg VII	84.025	500		$2p^2 - 2p 3d$	$g^3P - {}^3D^\circ$	2 - 3	S21
Mg VII	84.087	300b		$2p^2 - 2p 3d$	$g^3P - {}^3D^\circ$	2 - 2	S21
Mg VII	84.189	10		$2s 2p^3 - 2s 2p^2(^2D)3d$	${}^3D^\circ - {}^3P$	3 - 2	S21
Mg VII	84.642	500		$2s 2p^3 - 2s 2p^2(^2D)3d$	${}^3D^\circ - {}^3F$	3 - 4	S21
Mg VII	85.336	10		$2p^2 - 2p 3d$	${}^1D - {}^1P^\circ$	2 - 1	S21
Mg VII	85.407	700		$2p^2 - 2p 3d$	${}^1D - {}^1F^\circ$	2 - 3	S21
Mg VII	86.032	200d					S21
Mg VII	86.147	10		$2s 2p^3 - 2s 2p^2(^2D)3d$	${}^3P^\circ - {}^3S$?	2 - 1	S21,K8
Mg VII	86.762	100		$2p^2 - 2p 3d$	${}^1D - {}^3D^\circ$?	2 - 3	S21,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VII	87.131	500d		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	S21
Mg VII	87.175	400d		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	1 - 2	S21
Mg VII	87.722	600		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	S21
Mg VII	87.767	400		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3F$	2 - 3	S21
Mg VII	87.889	500		$2p^2 - 2p3d$	$^1D - ^3F^\circ$	2 - 2	S21
Mg VII	88.680	600		$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	S21
Mg VII	89.407	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	3 - 3	S21
Mg VII	89.448	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	2 - 2	S21
Mg VII	89.476	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$	1 - 1	S21
Mg VII	90.338	100		$2p^2 - 2p3d$	$^1S - ^3D^\circ$?	0 - 1	S21,K8
Mg VII	90.706	400		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 4	S21
Mg VII	90.815	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	2 - 3	S21
Mg VII	90.897	600b		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	1 - 2	S21
Mg VII	91.302	10d		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^3P$?	2 - 2	S21,K8
Mg VII	91.460	10d		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	2 - 1	S21
Mg VII	91.573	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3P$	3 - 2	S21
Mg VII	92.256	300		$2s2p^3 - 2s2p^2(^2D)3d$	$^1D^\circ - ^1F$	2 - 3	S21
Mg VII	92.503	10		$2s2p^3 - 2s2p^2(^2D)3d$	$^1D^\circ - ^3S$?	2 - 1	S21,K8
Mg VII	92.898	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	S21
Mg VII	92.934	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	1 - 2	S21
Mg VII	92.964	100b		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	S21
Mg VII	94.043	400b		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 3	S21
Mg VII	94.174	300		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 2	S21
Mg VII	94.276	200b		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 1	S21
Mg VII	95.027	400		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	3 - 3	S21
Mg VII	95.089	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	1 - 0	S21
Mg VII	95.139	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	0 - 1	S21
Mg VII	95.233	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	2 - 2	S21
Mg VII	95.259	200		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 2	S21
Mg VII	95.385	400b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	0 - 1	S21
Mg VII	95.421	400b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	S21
Mg VII	95.483	500b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 1	S21
Mg VII	95.556	100b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 0	S21
Mg VII	95.637	300b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 1	S21
Mg VII	96.019	200b		$2s2p^3 - 2s2p^2(^2D)3d$	$^1P^\circ - ^1D$	1 - 2	S21
Mg VII	98.032	300		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	S21
Mg VII	98.983	400b		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	S21
Mg VII	100.374	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^1D^\circ - ^3D$?	2 - 2	S21,K8
Mg VII	100.421	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^1D^\circ - ^3D$?	2 - 1	S21,K8
Mg VII	101.956	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	3 - 2	S21
Mg VII	102.053	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^1D^\circ - ^3F$?	2 - 3	S21,K8
Mg VII	102.138	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 1	S21
Mg VII	102.471	300		$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	S21
Mg VII	102.906	300		$2s2p^3 - 2s2p^2(^4P)3d$	$^1D^\circ - ^3P$?	2 - 1	S21,K8
Mg VII	103.743	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 1	S21
Mg VII	103.859	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3S^\circ - ^3P$	1 - 2	S21
Mg VII	105.159	100		$2s2p^3 - 2s2p^2(^2D)3s$	$^1D^\circ - ^1D$	2 - 2	S21
Mg VII	106.524	200d		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	S21
Mg VII	106.707	100		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	S21
Mg VII	106.809	10		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	1 - 0	S21
Mg VII	110.121	10b		$2s2p^3 - 2s2p^2(^2D)3s$	$^1P^\circ - ^1D$	1 - 2	S21
Mg VII	111.984	10d		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	3 - 2	S21
Mg VII	112.135	10		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	2 - 1	S21
Mg VII	112.269	1		$2s2p^3 - 2s^22p3p$	$^3D^\circ - ^3P$	1 - 0	S21
Mg VII	276.145	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	S21
Mg VII	277.007	300		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	S21
Mg VII	278.406	400		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	S21
Mg VII	280.744	300		$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	S21
Mg VII	319.016	400d		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	S21
Mg VII	320.50			$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	F6
Mg VII	321.00			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	F6
Mg VII	323.29			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	F6
Mg VII	363.770	10		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	S21
Mg VII	365.230	200d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	S21
Mg VII	367.679	400d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	S21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VII	371.08			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	F6
Mg VII	373.99			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	F6
Mg VII	382.72			$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	F6
Mg VII	429.134	100d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	S21
Mg VII	431.318	200d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	S21
Mg VII	434.710	10d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	S21
Mg VII	434.923	200d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	S21
Mg VII	450.69			$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	F6
Mg VII	545.98			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	F3
Mg VII	548.54			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	F3
Mg VII	554.89			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	F3
Mg VII	558.22			$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	F3

MAGNESIUM VIII (Mg^{7+}), Z = 12

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 2 144 700 cm^{-1}; 265.90 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VIII	50.219	20		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Mg VIII	50.386	20		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Mg VIII	51.040	10		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Mg VIII	51.098	40		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Mg VIII	51.389	20		$2p - 6d$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Mg VIII	51.470	40		$2p - 6d$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Mg VIII	52.395	10		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Mg VIII	52.628	40		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2D^\circ$	5/2 - 5/2	H7
Mg VIII	52.692	80		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Mg VIII	53.438	20		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Mg VIII	53.484	10d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	3/2 - 5/2	S20
Mg VIII	53.512	100d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Mg VIII	53.744	10		$2s2p^2 - 2s2p(^3P^\circ)6d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Mg VIII	53.812	10		$2p - 5d$	$g^2P^\circ - ^2D$	1/2 - 3/2	S20
Mg VIII	53.905	100		$2p - 5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	54.853	60		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Mg VIII	54.886	100		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	55.222	10d		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2P$	3/2 - 3/2	S20
Mg VIII	56.358	10d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Mg VIII	56.403	10d		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Mg VIII	57.590	10		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Mg VIII	57.736	100		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Mg VIII	58.537	10d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 1/2	S20
Mg VIII	58.614	200d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	S20
Mg VIII	58.667	300d		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	S20
Mg VIII	59.038	200		$2p - 4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	S20
Mg VIII	59.153	300		$2p - 4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	60.316	40		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Mg VIII	60.384	10		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	S20
Mg VIII	60.806	10		$2p - 4s$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20
Mg VIII	61.891	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	S20
Mg VIII	61.964	100b		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	3/2 - 5/2	S20
Mg VIII	62.291	10		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	S20
Mg VIII	64.246	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	S20
Mg VIII	64.377	100b		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Mg VIII	64.488	100d		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$		½ - 3/2	S20
Mg VIII	64.518	100d		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$		½ - ½	S20
Mg VIII	64.635	200		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$		3/2 - 3/2	S20
Mg VIII	64.702	200		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2D$		3/2 - 5/2	S20
Mg VIII	64.811	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4S^\circ$		3/2 - 3/2	S20
Mg VIII	64.878	100		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4S^\circ$		5/2 - 3/2	S20
Mg VIII	65.735	100		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$		3/2 - 5/2	S20
Mg VIII	65.806	200		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4P^\circ$		5/2 - 5/2	S20
Mg VIII	66.069	300		$2s2p^2 - 2p^2(^3P)3p$	$^4P - {}^4D^\circ$		5/2 - 7/2	S20
Mg VIII	67.731	400b		$2s2p^2 - 2p^2(^1D)3p$	$^2D - {}^2D^\circ$		5/2 - 5/2	S20
Mg VIII	68.450	100		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2S$		½ - ½	S20
Mg VIII	68.550	100		$2s2p^2 - 2p^2(^1D)3p$	$^2D - {}^2F^\circ$		5/2 - 7/2	S20
Mg VIII	68.580	10		$2s2p^2 - 2p^2(^1D)3p$	$^2D - {}^2F^\circ$		3/2 - 5/2	S20
Mg VIII	68.606	200		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2S$		3/2 - ½	S20
Mg VIII	69.327	10		$2s2p^2 - 2p^2(^3P)3p$	$^2D - {}^4S^\circ$	?	5/2 - 3/2	S21,K8
Mg VIII	69.413	400b		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$		½ - 3/2	S20
Mg VIII	69.467	500b		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$		3/2 - 5/2	S20
Mg VIII	69.577	100		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2D$		3/2 - 3/2	S20
Mg VIII	70.953	100		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$		½ - 3/2	S20
Mg VIII	71.007	200d		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$		½ - ½	S20
Mg VIII	71.118	300		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$		3/2 - 3/2	S20
Mg VIII	71.168	100		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$		3/2 - ½	S20
Mg VIII	71.454	100		$2p^3 - 2s2p(^3P^\circ)4p$	$^4S^\circ - {}^2P$	?	3/2 - 3/2	S21,K8
Mg VIII	72.027	300b		$2s2p^2 - 2p^2(^1D)3p$	$^2P - {}^2D^\circ$		3/2 - 5/2	S20
Mg VIII	72.546	10b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2P^\circ$		5/2 - 3/2	S20
Mg VIII	72.684	100d		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2D^\circ$		5/2 - 5/2	S20
Mg VIII	73.250	400		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2F^\circ$		5/2 - 7/2	S20
Mg VIII	73.710	10		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^4P - {}^2P^\circ$	?	½ - ½	S21,K8
Mg VIII	73.773	10		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^4P - {}^2P^\circ$	?	3/2 - ½	S21,K8
Mg VIII	73.825	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		½ - 3/2	S20
Mg VIII	73.862	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		3/2 - ½	S20
Mg VIII	73.890	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		3/2 - 3/2	S20
Mg VIII	73.927	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		3/2 - 5/2	S20
Mg VIII	73.981	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		5/2 - 3/2	S20
Mg VIII	74.021	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4P^\circ$		5/2 - 5/2	S20
Mg VIII	74.274	200b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$		½ - 3/2	S20
Mg VIII	74.319	300b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$		3/2 - 5/2	S20
Mg VIII	74.366	400b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$		5/2 - 7/2	S20
Mg VIII	74.411	100b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$		5/2 - 5/2	S20
Mg VIII	74.676	100		$2p^3 - 2p^2(^1D)3d$	$^4S^\circ - {}^2P$	?	3/2 - 3/2	S21,K8
Mg VIII	74.858	600		$2p - 3d$	$g^2P^\circ - {}^2D$		½ - 3/2	S20
Mg VIII	75.034	700		$2p - 3d$	$g^2P^\circ - {}^2D$		3/2 - 5/2	S20
Mg VIII	76.199	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2S - {}^2P^\circ$		½ - 3/2	S20
Mg VIII	76.714	100		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - {}^4P$		3/2 - ½	S20
Mg VIII	76.740	200		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - {}^4P$		3/2 - 3/2	S20
Mg VIII	76.788	300		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - {}^4P$		3/2 - 5/2	S20
Mg VIII	77.405	200b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2P^\circ$		½ - ½	S20
Mg VIII	77.511	100b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2P^\circ$		3/2 - 3/2	S20
Mg VIII	77.572	500		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$		½ - 3/2	S20
Mg VIII	77.671	500		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$		3/2 - 5/2	S20
Mg VIII	77.737	600b		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$		5/2 - 7/2	S20
Mg VIII	78.446	600d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2F^\circ$		5/2 - 7/2	S20
Mg VIII	78.574	600d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2F^\circ$		3/2 - 5/2	S20
Mg VIII	79.695	200		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - {}^2P^\circ$		5/2 - 3/2	S20
Mg VIII	79.880	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4P$	?	3/2 - 3/2	S21,K8
Mg VIII	80.229	400d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2D^\circ$		5/2 - 5/2	S20
Mg VIII	80.255	400d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2D^\circ$		3/2 - 3/2	S20
Mg VIII	80.806	10d		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$		5/2 - 5/2	S20
Mg VIII	80.889	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$		5/2 - 7/2	S20
Mg VIII	81.304	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	?	3/2 - 3/2	S20
Mg VIII	81.368	10		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	?	½ - ½	S20
Mg VIII	81.732	300		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - {}^4P^\circ$		3/2 - 5/2	S20
Mg VIII	81.790	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - {}^4P^\circ$		½ - 3/2	S20
Mg VIII	81.844	400		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - {}^4P^\circ$		5/2 - 5/2	S20
Mg VIII	81.943	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - {}^4P^\circ$		3/2 - ½	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg VIII	81.979	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	S20
Mg VIII	82.238	200b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	S20
Mg VIII	82.317	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Mg VIII	82.598	200		$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	S20
Mg VIII	82.709	200		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	82.822	300		$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20
Mg VIII	84.087	300b		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Mg VIII	84.827	10d		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	84.919	100		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	S20
Mg VIII	85.064	10		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	S20
Mg VIII	85.153	10b		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 1/2	S20
Mg VIII	85.248	200		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	S20
Mg VIII	85.599	300		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 1/2	S20
Mg VIII	85.749	400		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Mg VIII	86.234	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	S20
Mg VIII	86.359	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	S20
Mg VIII	86.417	200d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$?	3/2 - 3/2	S21,K8
Mg VIII	86.440	200d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^4D^\circ$?	3/2 - 5/2	S21,K8
Mg VIII	86.847	200		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	S20
Mg VIII	87.017	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	S20
Mg VIII	88.016	200		$2p^3 - 2s2p(^1P^\circ)3p$	$^4S^\circ - ^2P$?	3/2 - 3/2	S21,K8
Mg VIII	92.123	100d		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	S20
Mg VIII	92.324	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	S20
Mg VIII	93.650	200d		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^4P$?	3/2 - 5/2	S21,K8
Mg VIII	93.911	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 3/2	S20
Mg VIII	93.972	10		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^4P$?	3/2 - 1/2	S21,K8
Mg VIII	94.043	400b		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	S20
Mg VIII	94.276	200b		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 1/2	S20
Mg VIII	97.465	200		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2P$	3/2 - 3/2	S20
Mg VIII	97.525	10		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2P$	3/2 - 1/2	S20
Mg VIII	97.606	200b		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	97.686	100b		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2D$	1/2 - 3/2	S20
Mg VIII	100.519	10		$2p^3 - 2s2p(^3P^\circ)3p$	$^4S^\circ - ^2P$?	3/2 - 3/2	S21,K8
Mg VIII	100.597	200		$2p^3 - 2s2p(^3P^\circ)3p$	$^4S^\circ - ^2P$?	3/2 - 1/2	S21,K8
Mg VIII	269.295	10		$2s2p(^1P^\circ)3s - 2s^25d$	$^2P^\circ - ^2D$?	3/2 - 5/2	S22,K8
Mg VIII	295.393	10		$2s2p(^3P^\circ)3s - 2s^24d$	$^4P^\circ - ^2D$?	5/2 - 5/2	S22,K8
Mg VIII	311.806	10d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	S20
Mg VIII	313.743	100d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	S20
Mg VIII	315.022	200d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	S20
Mg VIII	317.029	100d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	S20
Mg VIII	335.230	10d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	S20
Mg VIII	339.007	100d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	S20
Mg VIII	341.75			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	F3
Mg VIII	342.07			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	F3
Mg VIII	352.46			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	F3
Mg VIII	353.86			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F3
Mg VIII	356.000	10		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	S20
Mg VIII	428.27			$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	F3
Mg VIII	430.467	10d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	S20
Mg VIII	436.726	100d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	S20
Mg VIII	441.22			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	F3
Mg VIII	441.76			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	F3
Mg VIII	465.972	10		$2s2p(^1P^\circ)3d - 2s2p(^3P^\circ)4p$	$^2P^\circ - ^2D$?	3/2 - 5/2	S22,K8
Mg VIII	485.13			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	F3
Mg VIII	485.59			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	F3
Mg VIII	489.86			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
Mg VIII	490.29			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	F3
Mg VIII	491.045	10		$2s2p(^3P^\circ)3d - 2p^2(^3P)3d$	$^2P^\circ - ^4P$?	1/2 - 1/2	S22,K8
Mg VIII	679.77			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
Mg VIII	689.55			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	F3

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MAGNESIUM IX (Mg^{8+}), Z = 12

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 2 645 200 cm^{-1}; 327.95 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IX	40.638	10		$2s^2 - 2s7p$	$g^1S - {}^1P^\circ$	0 - 1	H6
Mg IX	41.803	40		$2s^2 - 2s6p$	$g^1S - {}^1P^\circ$	0 - 1	H6
Mg IX	43.087	10		$2s2p - 2s7d$	${}^3P^\circ - {}^3D$	1 - 2	H6
Mg IX	43.138	20		$2s2p - 2s7d$	${}^3P^\circ - {}^3D$	2 - 3	H6
Mg IX	43.481	50		$2s2p - 2p5p$	${}^3P^\circ - {}^3P$	2 - 2	H6
Mg IX	43.843	60		$2s^2 - 2s5p$	$g^1S - {}^1P^\circ$	0 - 1	H6
Mg IX	44.373	40		$2s2p - 2s6d$	${}^3P^\circ - {}^3D$	1 - 2	H6
Mg IX	44.420	60		$2s2p - 2s6d$	${}^3P^\circ - {}^3D$	2 - 3	H6
Mg IX	44.983	20		$2p^2 - 2p7d$	${}^1D - {}^1F^\circ$	2 - 3	H6
Mg IX	45.635	40		$2s2p - 2s7d$	${}^1P^\circ - {}^1D$	1 - 2	H6
Mg IX	45.980	20		$2s2p - 2p5p$	${}^1P^\circ - {}^1D$	1 - 2	H6
Mg IX	46.340	40		$2p^2 - 2p6d$	${}^1D - {}^1F^\circ$	2 - 3	H6
Mg IX	46.657	160		$2s2p - 2s5d$	${}^3P^\circ - {}^3D$	1 - 2	H6
Mg IX	46.711	10		$2s2p - 2s5d$	${}^3P^\circ - {}^3D$	2 - 3	S20
Mg IX	47.041	60		$2s2p - 2s6d$	${}^1P^\circ - {}^1D$	1 - 2	H6
Mg IX	47.818	10d		$2s2p - 2p4p$	${}^3P^\circ - {}^3P$	2 - 2	S20
Mg IX	47.947	100d		$2s2p - 2p4p$	${}^3P^\circ - {}^3D$	2 - 3	S20
Mg IX	48.024	10d		$2p^2 - 2p5d$	${}^3P - {}^3D^\circ$	2 - 3	S20
Mg IX	48.340	100		$2s^2 - 2s4p$	$g^1S - {}^1P^\circ$	0 - 1	S20
Mg IX	48.794	10		$2p^2 - 2p5d$	${}^1D - {}^1F^\circ$	2 - 3	S20
Mg IX	49.586	1		$2s2p - 2s5d$	${}^1P^\circ - {}^1D$	1 - 2	S20
Mg IX	50.777	10		$2s2p - 2p4p$	${}^1P^\circ - {}^1D$	1 - 2	S20
Mg IX	51.560	10		$2s2p - 2s4d$	${}^3P^\circ - {}^3D$	0 - 1	S20
Mg IX	51.591	300		$2s2p - 2s4d$	${}^3P^\circ - {}^3D$	1 - 1	S20
Mg IX	51.654	400		$2s2p - 2s4d$	${}^3P^\circ - {}^3D$	2 - 3	S20
Mg IX	53.112	10		$2p^2 - 2p4d$	${}^3P - {}^3P^\circ$	1 - 2	S20
Mg IX	53.188	200d		$2p^2 - 2p4d$	${}^3P - {}^3P^\circ$	2 - 2	S20
Mg IX	53.222	200d		$2p^2 - 2p4d$	${}^3P - {}^3D^\circ$	2 - 3	S20
Mg IX	54.011	200		$2p^2 - 2p4d$	${}^1D - {}^1F^\circ$	2 - 3	S20
Mg IX	54.463	10		$2p^2 - 2p4d$	${}^1D - {}^1D^\circ$	2 - 2	S20
Mg IX	55.060	200		$2s2p - 2s4d$	${}^1P^\circ - {}^1D$	1 - 2	S20
Mg IX	56.861	10		$2p^2 - 2p4d$	${}^1S - {}^1P^\circ$	0 - 1	S20
Mg IX	61.038	200		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	1 - 2	S20
Mg IX	61.088	100		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	1 - 1	S20
Mg IX	61.127	300		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	2 - 2	S20
Mg IX	61.175	200		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	2 - 1	S20
Mg IX	61.359	10		$2s2p - 2p3p$	${}^3P^\circ - {}^3S$	0 - 1	S20
Mg IX	61.393	100		$2s2p - 2p3p$	${}^3P^\circ - {}^3S$	1 - 1	S20
Mg IX	61.489	200		$2s2p - 2p3p$	${}^3P^\circ - {}^3S$	2 - 1	S20
Mg IX	61.924	400		$2s2p - 2p3p$	${}^3P^\circ - {}^3D$	2 - 3	S20
Mg IX	61.964	100b		$2s2p - 2p3p$	${}^3P^\circ - {}^3D$	1 - 1	S20
Mg IX	62.020	10		$2s2p - 2p3p$	${}^3P^\circ - {}^3D$	2 - 2	S20
Mg IX	62.751	500		$2s^2 - 2s3p$	$g^1S - {}^1P^\circ$	0 - 1	S20
Mg IX	65.609	400		$2s2p - 2p3p$	${}^1P^\circ - {}^1D$	1 - 2	S20
Mg IX	67.090	500		$2s2p - 2s3d$	${}^3P^\circ - {}^3D$	0 - 1	S20
Mg IX	67.135	600		$2s2p - 2s3d$	${}^3P^\circ - {}^3D$	1 - 2	S20
Mg IX	67.239	700		$2s2p - 2s3d$	${}^3P^\circ - {}^3D$	2 - 3	S20
Mg IX	67.731	400b		$2s2p - 2p3p$	${}^1P^\circ - {}^1P$	1 - 1	S20
Mg IX	68.949	10		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	0 - 1	S20
Mg IX	68.986	100		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	1 - 0	S20
Mg IX	69.009	100		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	1 - 1	S20
Mg IX	69.058	10		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	1 - 2	S20
Mg IX	69.116	100		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	2 - 1	S20
Mg IX	69.161	300		$2p^2 - 2p3d$	${}^3P - {}^3P^\circ$	2 - 2	S20
Mg IX	69.374	200		$2p^2 - 2p3d$	${}^3P - {}^3D^\circ$	0 - 1	S20
Mg IX	69.413	400b		$2p^2 - 2p3d$	${}^3P - {}^3D^\circ$	1 - 2	S20
Mg IX	69.467	500b		$2p^2 - 2p3d$	${}^3P - {}^3D^\circ$	2 - 3	S20
Mg IX	69.513	100		$2p^2 - 2p3d$	${}^3P - {}^3D^\circ$	2 - 2	S20
Mg IX	69.615	300b		$2p^2 - 2p3d$	${}^1D - {}^1P^\circ$	2 - 1	S20
Mg IX	69.950	600		$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	S20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg IX	70.878	10d		$2p^2 - 2p3d$	$^1D - ^3P^\circ$?	2 - 2	S21,K8
Mg IX	71.841	100		$2s2p - 2s3s$	$^3P^\circ - ^3S$	0 - 1	S20
Mg IX	71.901	200		$2s2p - 2s3s$	$^3P^\circ - ^3S$	1 - 1	S20
Mg IX	72.027	300b		$2s2p - 2s3s$	$^3P^\circ - ^3S$	2 - 1	S20
Mg IX	72.226	300		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	S20
Mg IX	72.312	400		$2s2p - 2s3d$	$^1P^\circ - ^1D$	1 - 2	S20
Mg IX	74.274	200b		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	1 - 2	S20
Mg IX	74.319	300b		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	0 - 1	S20
Mg IX	74.366	400b		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	2 - 2	S20
Mg IX	74.411	100b		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	1 - 1	S20
Mg IX	74.461	10b		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	1 - 0	S20
Mg IX	74.520	100		$2p^2 - 2p3s$	$^3P - ^3P^\circ$	2 - 1	S20
Mg IX	74.738	100		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	S20
Mg IX	76.459	100		$2p^2 - 2p3d$	$^1S - ^3D^\circ$?	0 - 1	S21,K8
Mg IX	77.737	600b		$2s2p - 2s3s$	$^1P^\circ - ^1S$	1 - 0	S20
Mg IX	80.428	100		$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	S20
Mg IX	91.385	10d		$2p^2 - 2s3p$	$^1S - ^1P^\circ$	0 - 1	S20
Mg IX	368.071	100d		$2s^2 - 2s2p$	$g^1S - ^1P^\circ$	0 - 1	S20
Mg IX	438.69			$2s2p - 2p^2$	$^1P^\circ - ^1S$	1 - 0	F3
Mg IX	439.180	10		$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 2	S20
Mg IX	441.20			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	F3
Mg IX	443.40			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	F3
Mg IX	443.981	10d		$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	S20
Mg IX	445.97			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	F3
Mg IX	448.29			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	F3
Mg IX	705.8 P			$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	E22
Mg IX	749.55			$2s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	F3

MAGNESIUM X (Mg^{9+}), Z = 12

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 2 964 400 cm^{-1}; 367.53 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg X	35.366	3		2s - 9p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	35.827	6		2s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	36.518	35		2s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	37.644	60		2s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	38.769	60		2p - 7d	$^2P^\circ - ^2D$	½ - 3/2	F28
Mg X	38.823	120		2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Mg X	39.669	250		2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	40.022	120		2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	F28
Mg X	40.080	200		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Mg X	42.294	250		2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	F28
Mg X	42.363	400		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Mg X	42.523	6		2p - 5s	$^2P^\circ - ^2S$	½ - ½	F28
Mg X	42.596	10		2p - 5s	$^2P^\circ - ^2S$	3/2 - ½	F28
Mg X	44.050	400		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	47.231	250		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	F28
Mg X	47.310	400		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Mg X	57.876	700		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	F28
Mg X	57.920	700		2s - 3p	$g^2S - ^2P^\circ$	½ - ½	F28
Mg X	63.152	400		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	F28
Mg X	63.295	700		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	F28

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg X	65.672	35		2p - 3s	$^2P^\circ - ^2S$	½ - ½	F28
Mg X	65.847	60		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	F28
Mg X	170.21 P			3s - 4p	$^2S - ^2P^\circ$	½ - 3/2	K8
Mg X	181.50			3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	F6
Mg X	181.86			3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F6
Mg X	187.17			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F6
Mg X	609.76			2s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	F3
Mg X	624.93			2s - 2p	$g\,^2S - ^2P^\circ$	½ - ½	F3

MAGNESIUM XI (Mg^{10+}), Z = 12

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 14 210 261 cm^{-1}; 1761.802 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg XI	7.310			$1s^2 - 1s5p$	$g\,^1S - ^1P^\circ$	0 - 1	F36
Mg XI	7.473			$1s^2 - 1s4p$	$g\,^1S - ^1P^\circ$	0 - 1	F36
Mg XI	7.850			$1s^2 - 1s3p$	$g\,^1S - ^1P^\circ$	0 - 1	F36
Mg XI	7.864			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	D6
Mg XI	8.458			$1s2p - 2p^2$	$^1P^\circ - ^1S$	1 - 0	D6
Mg XI	8.490			$1s2s - 2s2p$	$^1S - ^1P^\circ$	0 - 1	D6
Mg XI	8.518			$1s2s - 2s2p$	$^3S - ^3P^\circ$	1 - 2	D6
Mg XI	8.550			$1s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	D6
Mg XI	9.168			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	F36
Mg XI	9.23			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	S3
Mg XI	9.32 ?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8,F40
Mg XI	50.48 P			$1s2s - 1s3p$	$^3S - ^3P^\circ$	1 - 2	K8
Mg XI	52.47 P			$1s2p - 1s3d$	$^3P^\circ - ^3D$	2 - 3	K8
Mg XI	950.6 P			$1s2s - 1s2p$	$^3S - ^3P^\circ$	1 - 2	K8

MAGNESIUM XII (Mg^{11+}), Z = 12

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 15 829 946 cm^{-1}; 1962.61 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mg XII	6.497 P			1s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Mg XII	6.580 P			1s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Mg XII	6.738 P	10		1s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Mg XII	7.106 P	30		1s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Mg XII	8.421 P	100		1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Mg XII	27.52 P			2 - 7			G2
Mg XII	28.43 P			2 - 6			G2
Mg XII	30.09 P			2 - 5			G2
Mg XII	33.70 P			2 - 4			G2
Mg XII	45.47 P			2 - 3			G2

Mg XII

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Mg XII	69.71	P			3 - 7			G2
Mg XII	75.87	P			3 - 6			G2
Mg XII	88.91	P			3 - 5			G2
Mg XII	130.0	P			3 - 4			G2
Mg XII	150.26	P			4 - 7			G2
Mg XII	182.1	P			4 - 6			G2
Mg XII	281.1	P			4 - 5			G2
Mg XII	322.9	P			5 - 7			G2
Mg XII	517.5	P			5 - 6			G2
Mg XII	858.4	P			6 - 7			G2

ALUMINUM, Z = 13

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al	53.412	10					F35
Al	53.598	10					F35
Al	55.143	10					F35
Al	55.622	1					F35
Al	56.274	30					F35
Al	56.545	10					F35
Al	57.244	50					F35
Al	57.271	50					F35
Al	57.663	10					F35
Al	59.298	10					F35
Al	59.481	10d					F35
Al	60.052	50					F35
Al	60.788	50					F35
Al	60.809	50					F35
Al	61.262	10					F35
Al	61.373	50					F35
Al	61.472	100					F35
Al	61.900	10					F35
Al	61.933	50					F35
Al	62.070	50					F35
Al	64.269	10					F35
Al	64.418	10					F35
Al	65.632	50					F35
Al	65.821	50					F35
Al	66.996	10d					F35
Al	67.873	10					F35
Al	68.000	10					F35
Al	68.439	50					F35
Al	68.458	50					F35
Al	68.783	10					F35
Al	68.904	10					F35
Al	69.165	200					F35
Al	69.379	50					F35
Al	69.631	200					F35
Al	70.040	50					F35
Al	70.090	100					F35
Al	70.802	50					F35
Al	71.077	10					F35
Al	71.139	50					F35
Al	71.590	70					F35
Al	71.625	70					F35
Al	71.774	10d					F35
Al	71.867	10d					F35
Al	71.987	10					F35
Al	72.674	300					F35
Al	73.278	100					F35
Al	74.016	120					F35
Al	74.259	10					F35
Al	74.321	50					F35
Al	75.164	100					F35
Al	75.226	100d					F35
Al	76.794	200					F35
Al	76.853	200					F35
Al	76.984	100					F35
Al	77.052	50					F35
Al	77.315	10					F35
Al	78.149	100					F35
Al	78.256	70					F35
Al	78.421	10					F35
Al	78.508	150					F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al	78.573	70					F35
Al	78.836	100					F35
Al	78.938	300					F35
Al	79.557	10					F35
Al	79.783	50					F35
Al	80.014	10					F35
Al	80.403	10					F35
Al	81.560	100					F35
Al	81.667	100					F35
Al	82.105	70					F35
Al	82.128	70					F35
Al	82.423	50					F35
Al	82.582	50					F35
Al	82.908	50d					F35
Al	83.102	10					F35
Al	83.335	10					F35
Al	84.479	10					F35
Al	85.046	1					F35
Al	85.189	10					F35
Al	86.282	50					S22
Al	86.360	100					F35
Al	86.393	100					F35
Al	86.427	100					F35
Al	86.540	10					F35
Al	86.975	10					F35
Al	87.932	100					F35
Al	88.108	100					F35
Al	88.241	10					F35
Al	91.023	500					F35
Al	94.970	150					F35
Al	95.405	10					F35
Al	95.624	100					F35
Al	95.720	200					F35
Al	95.859	10					F35
Al	96.939	10					F35
Al	104.227	10					F35
Al	104.960	10					F35
Al	106.471	10					F35
Al	113.140	50					F35
Al	135.231	10					S22
Al	135.620	50					S22
Al	190.560	50					S22
Al	221.543	10					S22
Al	1150.27	10					S22
Al	1165.38	10d					S22
Al	1183.62	10					S22
Al	1220.57	10					S22
Al	1291.81	10					S22
Al	1320.71	10					S22
Al	1337.86	50					S22
Al	1369.20	10d					S22
Al	1422.17	10					S22
Al	1429.57	10					S22
Al	1457.92	50d					S22

ALUMINUM I (Al^{0+}), Z = 13

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 48 278.37 cm^{-1}; 5.986 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al I	1762.892	100 -A		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - {}^2P$	½ - 3/2	E6,E34
Al I	1765.632	200 -A		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - {}^2P$	½ - ½	E6,E34
Al I	1766.381	200 -A		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - {}^2P$	3/2 - 3/2	E6,E34
Al I	1769.133	200 -A		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - {}^2P$	3/2 - ½	E6,E34

ALUMINUM II (Al^{1+}), Z = 13

Ground State $1s^2 2s^2 2p^6 3s^2\ ^1S_0$ (12 electrons)

Ionization Potential 151 860.4 cm^{-1}; 18.828 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al II	933.43	0		$3s 3p - 3s 9s$	$^3P^\circ - {}^3S$	0 - 1	S5
Al II	933.95	0		$3s 3p - 3s 9s$	$^3P^\circ - {}^3S$	1 - 1	S5
Al II	935.29	1		$3s^2 - 3s 4p$	$g\,^1S - {}^1P^\circ$	0 - 1	S5
Al II	952.65	0		$3s 3p - 3s 7d$	$^3P^\circ - {}^3D$	0 - 1	S5
Al II	953.18	0		$3s 3p - 3s 7d$	$^3P^\circ - {}^3D$	1 - 2	S5
Al II	954.35	1		$3s 3p - 3s 7d$	$^3P^\circ - {}^3D$	2 - 3	S5
Al II	954.87	0		$3s 3p - 3s 8s$	$^3P^\circ - {}^3S$	1 - 1	S5
Al II	955.99	1		$3s 3p - 3s 8s$	$^3P^\circ - {}^3S$	2 - 1	S5
Al II	986.55	0		$3s 3p - 3s 6d$	$^3P^\circ - {}^3D$	1 - 2	S5
Al II	987.80	0		$3s 3p - 3s 6d$	$^3P^\circ - {}^3D$	2 - 3	S5
Al II	989.70	0		$3s 3p - 3s 7s$	$^3P^\circ - {}^3S$	1 - 1	S5
Al II	990.88	1		$3s 3p - 3s 7s$	$^3P^\circ - {}^3S$	2 - 1	S5
Al II	1047.92	0		$3s 3p - 3s 5d$	$^3P^\circ - {}^3D$	0 - 1	S5
Al II	1048.59	1		$3s 3p - 3s 5d$	$^3P^\circ - {}^3D$	1 - 2	S5
Al II	1049.9220	6		$3s 3p - 3s 5d$	$^3P^\circ - {}^3D$?	2 - 3	K2
Al II	1055.28	1		$3s 3p - 3s 6s$	$^3P^\circ - {}^3S$	1 - 1	S5
Al II	1056.68	0		$3s 3p - 3s 6s$	$^3P^\circ - {}^3S$	2 - 1	S5
Al II	1142.97	5		$3s 3p - 3s 10d$	$^1P^\circ - {}^1D$	1 - 2	S5
Al II	1157.10	20		$3s 3p - 3s 9d$	$^1P^\circ - {}^1D$	1 - 2	J6,S5
Al II	1158.24	1		$3s 3p - 3s 10s$	$^1P^\circ - {}^1S$	1 - 0	S5
Al II	1177.43	40		$3s 3p - 3s 8d$	$^1P^\circ - {}^1D$	1 - 2	J6,S5
Al II	1179.34	1		$3s 3p - 3s 9s$	$^1P^\circ - {}^1S$	1 - 0	J6,S5
Al II	1189.18	5		$3s 3p - 3s 4d$	$^3P^\circ - {}^3D$	0 - 1	J6,S5
Al II	1190.0493	15		$3s 3p - 3s 4d$	$^3P^\circ - {}^3D$	1 - 2	K2
Al II	1191.8123	50		$3s 3p - 3s 4d$	$^3P^\circ - {}^3D$	2 - 3	K2
Al II	1208.35	20		$3s 3p - 3s 7d$	$^1P^\circ - {}^1D$	1 - 2	J6,S5
Al II	1209.19	1		$3s 3p - 3s 5s$	$^3P^\circ - {}^3S$	0 - 1	J6,S5
Al II	1210.09	5		$3s 3p - 3s 5s$	$^3P^\circ - {}^3S$	1 - 1	J6,S5
Al II	1211.90	3		$3s 3p - 3s 5s$	$^3P^\circ - {}^3S$	2 - 1	J6,S5
Al II	1258.86	40		$3s 3p - 3s 6d$	$^1P^\circ - {}^1D$	1 - 2	J6,S5
Al II	1266.66	0		$3s 3p - 3s 7s$	$^1P^\circ - {}^1S$	1 - 0	J6,S5
Al II	1350.18	150		$3s 3p - 3s 5d$	$^1P^\circ - {}^1D$	1 - 2	J6,S5
Al II	1371.24	5		$3s 3p - 3s 6s$	$^1P^\circ - {}^1S$	1 - 0	J6,S5
Al II	1539.8303	800	10	$3s 3p - 3s 4d$	$^1P^\circ - {}^1D$	1 - 2	K2
Al II	1555.9433	1		$3p^2 - 3s 16p$	$^1D - {}^1P^\circ$	2 - 1	K2
Al II	1560.35	1		$3p^2 - 3s 14f$	$^1D - {}^1F^\circ$	2 - 3	S5
Al II	1563.5797	1		$3p^2 - 3s 15p$	$^1D - {}^1P^\circ$	2 - 1	K2
Al II	1569.3853	100		$3p^2 - 3s 13f$	$^1D - {}^1F^\circ$	2 - 3	K2
Al II	1573.0028	3		$3p^2 - 3s 14p$	$^1D - {}^1P^\circ$	2 - 1	K2
Al II	1580.9193	1		$3p^2 - 3s 12f$	$^1D - {}^1F^\circ$	2 - 3	K2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al II	1584.7080	4		$3p^2 - 3s13p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1596.0586	125		$3p^2 - 3s11f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1599.4108	20		$3p^2 - 3s12p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II?	1611.2871	15					K2
Al II	1616.4148	10		$3p^2 - 3s10f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1618.3990	50		$3p^2 - 3s11p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1625.6271	150	9	$3s3p - 3s5s$	$^1P^\circ - ^1S$	1 - 0	K2
Al II	1644.2348	100		$3p^2 - 3s10p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1644.8089	100		$3p^2 - 3s9f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1670.7867	1000	2	$3s^2 - 3s3p$	$g^1S - ^1P^\circ$	0 - 1	K2
Al II	1681.8089	80		$3p^2 - 3s9p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1686.2505	100		$3p^2 - 3s8f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1719.4400	800	6	$3s3p - 3s3d$	$^3P^\circ - ^3D$	0 - 1	K2
Al II	1721.2435	500	6	$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 1	K2
Al II	1721.2714	900	6	$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 2	K2
Al II	1724.9519	500	6	$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 2	K2
Al II	1724.9838	900	6	$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 3	K2
Al II	1739.7382	50		$3p^2 - 3s8p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1750.6124	60		$3p^2 - 3s7f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1760.1044	350	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	K2
Al II	1761.9751	300	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	K2
Al II	1763.8692	500	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 1	K2
Al II	1763.9521	700	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	K2
Al II	1765.8150	300	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	K2
Al II	1767.7308	400	5	$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	K2
Al II	1776.27	0		$3s4s - 3s11p$	$^3S - ^3P^\circ$	1 - 2	S5
Al II	1807.4168	70		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 2	K2
Al II	1807.5851	20		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 1	K2
Al II	1807.6510	1		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 0	K2
Al II	1828.5876	600		$3s4s - 3p4s$	$^3S - ^3P^\circ$	1 - 2	K2
Al II	1832.8374	400		$3s4s - 3p4s$	$^3S - ^3P^\circ$	1 - 1	K2
Al II	1834.8077	250		$3s4s - 3p4s$	$^3S - ^3P^\circ$	1 - 0	K2
Al II	1836.9635	60		$3p^2 - 3s7p$	$^1D - ^1P^\circ$	2 - 1	K2
Al II	1848.8876	1		$3s4s - 3s15p$	$^1S - ^1P^\circ$	0 - 1	K2
Al II	1855.8054	90		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 2	K2
Al II	1855.9286	300	4	$3s3p - 3s4s$	$^3P^\circ - ^3S$	0 - 1	K2
Al II	1856.0957	90		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 1	K2
Al II	1856.2741	30		$3s4s - 3p3d$	$^3S - ^3P^\circ$	1 - 0	K2
Al II	1858.0262	700	4	$3s3p - 3s4s$	$^3P^\circ - ^3S$	1 - 1	K2
Al II	1859.9796	120		$3p^2 - 3s6f$	$^1D - ^1F^\circ$	2 - 3	K2
Al II	1862.0813	5		$3s4s - 3s14p$	$^1S - ^1P^\circ$	0 - 1	K2
Al II	1862.3111	1000	4	$3s3p - 3s4s$	$^3P^\circ - ^3S$	2 - 1	K2
Al II	1877.13	1		$3s3d - 3s12f$	$^3D - ^3F^\circ$	3 - 4	S5
Al II	1878.5043	8		$3s4s - 3s13p$	$^1S - ^1P^\circ$	0 - 1	K2
Al II	1897.4014	9		$3s3d - 3s11f$	$^3D - ^3F^\circ$	3 - 4	K2
Al II	1897.4605	3		$3s3d - 3s11f$	$^3D - ^3F^\circ$	2 - 3	K2
Al II	1897.4998	1		$3s3d - 3s11f$	$^3D - ^3F^\circ$	1 - 2	K2
Al II	1899.1943	25		$3s4s - 3s12p$	$^1S - ^1P^\circ$	0 - 1	K2
Al II	1904.3264	8		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	0 - 1	K2
Al II	1906.4082	25		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	1 - 2	K2
Al II	1906.5957	4		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	1 - 1	K2
Al II	1906.6743	8		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	1 - 0	K2
Al II	1910.8252	80		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	2 - 2	K2
Al II	1911.0132	12		$3p^2 - 3p3d$	$^3P - ^3P^\circ$	2 - 1	K2
Al II	1924.7537	50		$3s3d - 3s10f$	$^3D - ^3F^\circ$	3 - 4	K2
Al II	1924.8254	30		$3s3d - 3s10f$	$^3D - ^3F^\circ$	2 - 3	K2
Al II	1924.8788	10		$3s3d - 3s10f$	$^3D - ^3F^\circ$	1 - 2	K2
Al II	1926.0291	60		$3s4s - 3s11p$	$^1S - ^1P^\circ$	0 - 1	K2
Al II	1926.9478	20		$3s4s - 3s8p$	$^3S - ^3P^\circ$	1 - 2	K2
Al II	1927.0696	10		$3s4s - 3s8p$	$^3S - ^3P^\circ$	1 - 1	K2
Al II	1929.9775	200		$3p^2 - 3p4s$	$^3P - ^3P^\circ$	1 - 2	K2
Al II	1931.0481	150		$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	K2
Al II	1932.3768	200		$3p^2 - 3p4s$	$^3P - ^3P^\circ$	0 - 1	K2
Al II	1934.5032	400		$3p^2 - 3p4s$	$^3P - ^3P^\circ$	2 - 2	K2
Al II	1934.7129	150		$3p^2 - 3p4s$	$^3P - ^3P^\circ$	1 - 1	K2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al II	1936.9066	150		$3p^2$ - 3p4s	^3P - $^3P°$	1 - 0	K2
Al II	1939.2606	220		$3p^2$ - 3p4s	^3P - $^3P°$	2 - 1	K2
Al II	1958.2470	8		$3p^2$ - 3p3d	^3P - $^3P°$	0 - 1	K2
Al II	1958.77	1		3s3d - 3p3d	^3D - $^3P°$	3 - 2	J6,K8
Al II	1959.00	0		3s3d - 3p3d	^3D - $^3P°$	2 - 1	J6,K8
Al II	1960.3221	3		$3p^2$ - 3p3d	^3P - $^3P°$	1 - 2	K2
Al II	1960.6458	3		$3p^2$ - 3p3d	^3P - $^3P°$	1 - 1	K2
Al II	1960.8466	10		$3p^2$ - 3p3d	^3P - $^3P°$	1 - 0	K2
Al II	1962.5904	70		3s3d - 3s9f	^3D - $^3F°$	3 - 4	K2
Al II	1962.6452	8		3s3d - 3s9f	^3D - $^3F°$	3 - 3	K2
Al II	1962.6910	60		3s3d - 3s9f	^3D - $^3F°$	2 - 3	K2
Al II	1962.7349	70		3s4s - 3s10p	^1S - $^1P°$	0 - 1	K2
Al II	1962.7634	50		3s3d - 3s9f	^3D - $^3F°$	1 - 2	K2
Al II	1964.9903	40		$3p^2$ - 3p3d	^3P - $^3P°$	2 - 2	K2
Al II	1965.3157	10		$3p^2$ - 3p3d	^3P - $^3P°$	2 - 1	K2
Al II	1983.6496	10		3s3d - 3p4s	^3D - $^3P°$	3 - 2	K2
Al II	1988.6985	3		3s3d - 3p4s	^3D - $^3P°$	2 - 1	K2
Al II	1990.5310	700	8	3s3p - 3s3d	$^1P°$ - ^1D	1 - 2	K2
Al II	1991.05	1		3s3d - 3p4s	^3D - $^3P°$	1 - 0	J6,K8

ALUMINUM III (Al^{2+}), Z = 13

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 229 445.71 cm^{-1}; 28.447 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al III	486.8839	70		3s - 7p	g^2S - $^2P°$	½ - 3/2	I7
Al III	486.9124	30		3s - 7p	g^2S - $^2P°$	½ - ½	I7
Al III	511.1384	250		3s - 6p	g^2S - $^2P°$	½ - 3/2	I7
Al III	511.1907	150		3s - 6p	g^2S - $^2P°$	½ - ½	I7
Al III	560.3173	500	3	3s - 5p	g^2S - $^2P°$	½ - 3/2	I7
Al III	560.4331	200	3	3s - 5p	g^2S - $^2P°$	½ - ½	I7
Al III	644.3339			3p - 7d	$^2P°$ - ^2D	½ - 3/2	I7
Al III	645.3063			3p - 7d	$^2P°$ - ^2D	3/2 - 5/2	I7
Al III	670.0676	100		3p - 7s	$^2P°$ - ^2S	½ - ½	I7
Al III	671.1184	200		3p - 7s	$^2P°$ - ^2S	3/2 - ½	I7
Al III	677.0819			3p - 6d	$^2P°$ - ^2D	½ - 3/2	I7
Al III	678.1548			3p - 6d	$^2P°$ - ^2D	3/2 - 3/2	I7
Al III	678.1564			3p - 6d	$^2P°$ - ^2D	3/2 - 5/2	I7
Al III	695.8289	500	2	3s - 4p	g^2S - $^2P°$	½ - 3/2	I7
Al III	696.2170	400	2	3s - 4p	g^2S - $^2P°$	½ - ½	I7
Al III	725.6826	200		3p - 6s	$^2P°$ - ^2S	½ - ½	I7
Al III	726.9152	300		3p - 6s	$^2P°$ - ^2S	3/2 - ½	I7
Al III	739.6707			3p - 5d	$^2P°$ - ^2D	½ - 3/2	I7
Al III	740.9514			3p - 5d	$^2P°$ - ^2D	3/2 - 3/2	I7
Al III	740.9550			3p - 5d	$^2P°$ - ^2D	3/2 - 5/2	I7
Al III	855.0340	400		3p - 5s	$^2P°$ - ^2S	½ - ½	I7
Al III	856.7457	500		3p - 5s	$^2P°$ - ^2S	3/2 - ½	I7
Al III	892.0242	400		3p - 4d	$^2P°$ - ^2D	½ - 3/2	I7
Al III	893.8874	50		3p - 4d	$^2P°$ - ^2D	3/2 - 3/2	I7
Al III	893.8969	450		3p - 4d	$^2P°$ - ^2D	3/2 - 5/2	I7
Al III	1071.730			3d - 7f	^2D - $^2F°$	5/2 - 7/2	I7
Al III	1071.757			3d - 7f	^2D - $^2F°$	3/2 - 5/2	I7
Al III	1118.173			3d - 7p	^2D - $^2P°$	5/2 - 3/2	I7
Al III	1118.202			3d - 7p	^2D - $^2P°$	3/2 - 3/2	I7
Al III	1118.353			3d - 7p	^2D - $^2P°$	3/2 - ½	I7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al III	1162.588	10		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	I7
Al III	1162.621	5		3d - 6f	$^2D - ^2F^\circ$	3/2 - 5/2	I7
Al III	1254.933			3d - 6p	$^2D - ^2P^\circ$	5/2 - 3/2	I7
Al III	1254.969			3d - 6p	$^2D - ^2P^\circ$	3/2 - 3/2	I7
Al III	1255.284			3d - 6p	$^2D - ^2P^\circ$	3/2 - 1/2	I7
Al III	1262.248			4s - 7p	$^2S - ^2P^\circ$	1/2 - 3/2	I7
Al III	1262.440			4s - 7p	$^2S - ^2P^\circ$	1/2 - 1/2	I7
Al III	1352.810	100		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	I7
Al III	1352.816	5		3d - 5f	$^2D - ^2F^\circ$	5/2 - 5/2	I7
Al III	1352.858	70		3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	I7
Al III	1379.670	600		3p - 4s	$^2P^\circ - ^2S$	1/2 - 1/2	I7
Al III	1384.132	800		3p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	I7
Al III	1439.311			4s - 6p	$^2S - ^2P^\circ$	1/2 - 3/2	I7
Al III	1439.726			4s - 6p	$^2S - ^2P^\circ$	1/2 - 1/2	I7
Al III	1532.600			4p - 7d	$^2P^\circ - ^2D$	1/2 - 3/2	I7
Al III	1534.489			4p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	I7
Al III	1599.639			3d - 5p	$^2D - ^2P^\circ$	5/2 - 3/2	I7
Al III	1599.697			3d - 5p	$^2D - ^2P^\circ$	3/2 - 3/2	I7
Al III	1600.642			3d - 5p	$^2D - ^2P^\circ$	3/2 - 1/2	I7
Al III	1605.766	700		3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	I7
Al III	1611.814	100		3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	I7
Al III	1611.874	800		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	I7
Al III	1686.676			4p - 7s	$^2P^\circ - ^2S$	1/2 - 1/2	I7
Al III	1688.958			4p - 7s	$^2P^\circ - ^2S$	3/2 - 1/2	I7
Al III	1731.836			4p - 6d	$^2P^\circ - ^2D$	1/2 - 3/2	I7
Al III	1734.243			4p - 6d	$^2P^\circ - ^2D$	3/2 - 3/2	I7
Al III	1734.253			4p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	I7
Al III	1854.716	1000	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	I7
Al III	1862.790	600	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	I7
Al III	1911.817			4s - 5p	$^2S - ^2P^\circ$	1/2 - 3/2	I7
Al III	1913.166			4s - 5p	$^2S - ^2P^\circ$	1/2 - 1/2	I7
Al III	1935.840	300		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	I7
Al III	1935.863	15		3d - 4f	$^2D - ^2F^\circ$	5/2 - 5/2	I7
Al III	1935.949	200		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	I7

ALUMINUM IV (Al^{3+}), Z = 13

Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)

Ionization Potential 967 800 cm^{-1}; 119.99 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al IV	108.535	50		$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	S22
Al IV	108.907	50d		$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	S22
Al IV	111.196	100		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F35,S22
Al IV	111.589	150		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F35,S22
Al IV	111.781	50		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	F35,S22
Al IV	114.313	10		$2p^6 - 2p^5(^2P^\circ)5s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	F35,S22
Al IV	114.737	50		$2p^6 - 2p^5(^2P^\circ)5s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F35,S22
Al IV	116.464	250		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F35,S22
Al IV	116.921	150		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F35,S22
Al IV	117.410	10		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	F35,S22
Al IV	124.034	400		$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	S22
Al IV	124.543	300		$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	S22
Al IV	129.729	700		$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	S22
Al IV	131.652	150		$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	S22
Al IV	160.073	800		$2p^6 - 2p^5(^2P^\circ)3s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E6,S22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al IV	161.686	700		$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	E6,S22
Al IV	1118.80	200d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[1/2] - 3/2[3/2]^\circ$	1 - 2	S22
Al IV	1136.80	150		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[1/2] - 3/2[1/2]^\circ$	1 - 1	S22
Al IV	1142.03	50d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[1/2] - 3/2[1/2]^\circ$	1 - 0	S22
Al IV	1150.85	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 1/2[3/2]^\circ$	3 - 2	S22
Al IV	1156.21	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 1/2[5/2]^\circ$	3 - 3	S22
Al IV	1161.85	10d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 1/2[3/2]^\circ$	2 - 2	S22
Al IV	1167.35	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 1/2[5/2]^\circ$	2 - 3	S22
Al IV	1198.47	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 3/2[5/2]^\circ$	3 - 3	S22
Al IV	1211.80	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[1/2] - 1/2[3/2]^\circ$	0 - 1	S22
Al IV	1216.78	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[1/2] - 1/2[3/2]^\circ$	1 - 1	S22
Al IV	1219.19	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[3/2] - 1/2[3/2]^\circ$	2 - 2	S22
Al IV	1228.30	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 3/2[7/2]^\circ$	3 - 3	S22
Al IV	1229.94	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[3/2] - 3/2[3/2]^\circ$	2 - 1	S22
Al IV	1237.14	200		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 3/2[7/2]^\circ$	3 - 4	S22
Al IV	1240.18	100		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[3/2] - 3/2[5/2]^\circ$	1 - 2	S22
Al IV	1240.83	150		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 3/2[7/2]^\circ$	2 - 3	S22
Al IV	1248.76	100d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[3/2] - 1/2[5/2]^\circ$	1 - 2	S22
Al IV	1251.25	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[3/2] - 1/2[3/2]^\circ$	2 - 2	S22
Al IV	1257.58	150		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[3/2] - 1/2[5/2]^\circ$	2 - 3	S22
Al IV	1262.51	50		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[3/2] - 3/2[3/2]^\circ$	2 - 1	S22
Al IV	1264.14	150d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[1/2] - 1/2[3/2]^\circ$	1 - 2	S22
Al IV	1272.70	150d		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[3/2] - 3/2[5/2]^\circ$	2 - 3	S22
Al IV	1283.48	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[5/2] - 3/2[1/2]^\circ$	2 - 1	S22
Al IV	1302.13	100		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[1/2] - 3/2[3/2]^\circ$	0 - 1	S22
Al IV	1353.73	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$3/2[3/2] - 3/2[1/2]^\circ$	2 - 1	S22
Al IV	1359.49	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[3/2] - 3/2[3/2]^\circ$	1 - 2	S22
Al IV	1388.77	100		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[1/2]$	2 - 1	S22
Al IV	1404.72	100d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[3/2]$	2 - 2	S22
Al IV	1409.52	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[1/2] - 3/2[1/2]^\circ$	1 - 1	S22
Al IV	1412.24	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[3/2]$	2 - 1	S22
Al IV	1417.58	10		$2p^5(^2P^\circ)3p - 2p^5(^2P^\circ)3d$	$1/2[1/2] - 3/2[1/2]^\circ$	1 - 0	S22
Al IV	1425.00	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[1/2]$	1 - 1	S22
Al IV	1431.93	100		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[1/2]$	1 - 0	S22
Al IV	1441.81	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[3/2]$	1 - 2	S22
Al IV	1447.47	100d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[3/2]$	2 - 2	S22
Al IV	1449.70	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 1/2[3/2]$	1 - 1	S22
Al IV	1481.26	10		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 1/2[3/2]$	0 - 1	S22
Al IV	1486.87	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[3/2]$	1 - 2	S22
Al IV	1526.15	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 1/2[1/2]$	1 - 0	S22
Al IV	1537.52	100		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[5/2]$	2 - 2	S22
Al IV	1553.00	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[3/2]$	1 - 1	S22
Al IV	1557.24	250d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[5/2]$	2 - 3	S22
Al IV	1564.14	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 1/2[1/2]$	1 - 1	S22
Al IV	1582.04	150d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[5/2]$	1 - 2	S22
Al IV	1584.45	100d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 1/2[3/2]$	1 - 2	S22
Al IV	1589.27	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 3/2[3/2]$	0 - 1	S22
Al IV	1639.00	100		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$1/2[1/2]^\circ - 3/2[3/2]$	1 - 2	S22
Al IV	1818.55	50d		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[1/2]$	2 - 1	S22
Al IV	1881.19	50		$2p^5(^2P^\circ)3s - 2p^5(^2P^\circ)3p$	$3/2[3/2]^\circ - 3/2[1/2]$	1 - 1	S22

ALUMINUM V (Al^{4+}), Z = 13

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 1 239 800 cm^{-1}; 153.71 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al V	85.662	50		$2p^5 - 2p^4(^1D)5d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
Al V	85.804	350		$2p^5 - 2p^4(^3P)6d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	85.922	10b		$2p^5 - 2p^4(^3P)6d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
Al V	87.020	100		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	87.279	50d		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	88.425	100		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	88.539	400b		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
Al V	88.636	100b		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	88.688	200b		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	F35
Al V	88.817	50		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	88.945	1		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	F35
Al V	90.630	250b		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	90.646	100		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	90.701	200		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
Al V	90.914	200		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	90.982	50d		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
Al V	91.078	10		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	91.750	50		$2p^5 - 2p^4(^1S)4s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
Al V	92.039	10		$2p^5 - 2p^4(^1S)4s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
Al V	93.654	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	93.755	350		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	93.855	200		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
Al V	93.880	70		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
Al V	93.955	300		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	93.981	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
Al V	94.089	70		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	F35
Al V	94.117	120		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	F35
Al V	94.160	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	94.187	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	94.321	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F35
Al V	94.394	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	F35
Al V	95.835	100		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	96.150	50		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	99.200	50		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
Al V	99.290	500		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	99.427	200		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	99.544	100		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	99.616	350		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	99.769	20		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	103.805	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
Al V	103.881	700		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	103.990	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	104.073	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
Al V	104.121	600		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
Al V	104.180	700		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	104.363	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	104.447	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
Al V	104.495	400		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	107.711	300		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	107.945	1000		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	108.004	250		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
Al V	108.057	600		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
Al V	108.112	600		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	108.315	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	F35
Al V	108.385	500		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
Al V	108.404	250		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	108.446	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F35
Al V	108.462	500		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	108.526	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	F35
Al V	108.616	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al V	108.707	300		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	F35
Al V	108.851	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F35
Al V	109.021	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	F35
Al V	118.500	500		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
Al V	118.984	300		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
Al V	125.525	750		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
Al V	126.065	750		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
Al V	130.413	1000		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
Al V	130.848	1000		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
Al V	131.003	1000		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
Al V	131.441	1000		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
Al V	132.630	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F35
Al V	133.013	200		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
Al V	133.242	100		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F35
Al V	136.249	50		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 1/2	F35
Al V	136.668	100		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 3/2	F35
Al V	278.699	800		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	E6,S22
Al V	281.397	700		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	E6,S22

ALUMINUM VI (Al^{5+}), Z = 13

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential 1 536 300 cm^{-1}; 190.47 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VI	68.167	50d		$2p^4 - 2p^3(^2P^\circ)5d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	68.223	10		$2p^4 - 2p^3(^2P^\circ)5d$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	68.289	1		$2p^4 - 2p^3(^2P^\circ)5d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	72.714	1		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	72.810	250		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	72.865	50		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	72.926	100		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	73.076	100		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - {}^3P^\circ$	1 - 2	F35
Al VI	73.334	1		$2p^4 - 2p^3(^2D^\circ)5s$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	74.346	50		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3S^\circ$	2 - 1	F35
Al VI	74.444	300		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	74.504	50d		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3S^\circ$	1 - 1	F35
Al VI	74.592	150		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3P^\circ$	1 - 2	F35
Al VI	74.656	250		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	74.813	50		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	74.892	100		$2p^4 - 2p^3(^2P^\circ)4d$	$^1D - {}^1F^\circ$	2 - 3	F35
Al VI	76.618	200		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - {}^1F^\circ$	2 - 3	F35
Al VI	76.697	200		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	76.953	50		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - {}^1P^\circ$	2 - 1	F35
Al VI	77.945	500b		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	78.112	100		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	78.178	50		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	F35
Al VI	78.459	70		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	78.628	10		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	78.712	10		$2p^4 - 2p^3(^2P^\circ)4s$	$^1D - {}^1P^\circ$	2 - 1	F35
Al VI	80.770	70		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	81.176	50		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - {}^3D^\circ$?	2 - 3	F35
Al VI?	81.339	10					F35
Al VI	81.738	50b		$2p^4 - 2p^3(^2P^\circ)4s$	$^1S - {}^1P^\circ$	0 - 1	F35
Al VI	82.082	70		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	F35

Al VI

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VI	82.267	50		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	F35
Al VI	82.338	10		$2p^4 - 2p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	F35
Al VI?	84.650	100					F35
Al VI?	84.801	20					F35
Al VI?	84.828	70					F35
Al VI?	84.928	10					F35
Al VI	85.423	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	F35
Al VI	85.515	1000		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	85.569	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3F^\circ$	2 - 2	F35
Al VI	85.622	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	85.724	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3F^\circ$	2 - 3	F35
Al VI	85.764	400		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3F^\circ$	1 - 2	F35
Al VI	85.817	350		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	85.865	100b		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	F35
Al VI?	85.970	10					F35
Al VI	86.020	150		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	F35
Al VI	86.070	150		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	F35
Al VI	86.097	150		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	F35
Al VI	86.147	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	F35
Al VI	87.334	400		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	F35
Al VI	87.544	350		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	1 - 1	F35
Al VI	87.592	500		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	F35
Al VI	87.629	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	0 - 1	F35
Al VI	87.655	650		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	87.783	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	F35
Al VI	87.802	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	F35
Al VI	87.866	350		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	F35
Al VI	87.887	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	F35
Al VI	88.170	1000		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	88.273	750		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	F35
Al VI	88.325	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3F^\circ$	2 - 3	F35
Al VI	88.376	750		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	88.469	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F35
Al VI	88.688	100b		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	90.200	1000		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	F35
Al VI	90.858	600		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	91.332	500		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1P^\circ$	2 - 1	F35
Al VI	92.626	750		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	92.636	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	F35
Al VI	92.875	500		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	92.970	250		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F35
Al VI	95.436	100		$2p^4 - 2p^3(^2D^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	F35
Al VI?	96.071	10					F35
Al VI	96.442	10		$2s2p^5 - 2s2p^4(^2S)3s$	$^3P^\circ - {}^3S$	2 - 1	F35
Al VI	96.673	50d		$2s2p^5 - 2s2p^4(^2S)3s$	$^3P^\circ - {}^3S$	1 - 1	F35
Al VI?	98.684	10					F35
Al VI	100.616	600		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	F35
Al VI	100.639	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 1	F35
Al VI	100.894	200		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 2	F35
Al VI	100.919	200		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 1	F35
Al VI	101.027	150		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	0 - 1	F35
Al VI	103.062	10		$2s2p^5 - 2s2p^4(^2D)3s$	$^3P^\circ - {}^3D$	2 - 3	F35
Al VI	103.940	300		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - {}^1P^\circ$	2 - 1	F35
Al VI	104.047	1000		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	F35
Al VI	104.344	800		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	F35
Al VI	104.466	400		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	F35
Al VI	107.620	700		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	F35
Al VI	109.284	350		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	F35
Al VI	109.514	1000		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	F35
Al VI	109.843	600		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	F35
Al VI	109.974	200		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	F35
Al VI	113.314	50		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - {}^3P$	2 - 1	F35
Al VI	113.437	150		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - {}^3P$	2 - 2	F35
Al VI	113.623	50d		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - {}^3P$	1 - 1	F35
Al VI	113.756	50		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - {}^3P$	1 - 2	F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VI	243.760	600d		$2s^22p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	E6,S22
Al VI	275.350	300d		$2s^22p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	S22
Al VI	307.248	350d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	E6,S22
Al VI	308.560	300d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	E6,S22
Al VI	309.596	400d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	E6,S22
Al VI	309.852	300d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	E6,S22
Al VI	310.908	300d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	E6,S22
Al VI	312.241	300d		$2s^22p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	E6,S22

ALUMINUM VII (Al^{6+}), Z = 13

Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 1 947 300 cm^{-1}; 241.43 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VII	58.384	10		$2p^3 - 2p^2(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35
Al VII	58.752	1		$2p^3 - 2p^2(^3P)5s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	59.821	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35
Al VII	59.911	10		$2p^3 - 2p^2(^3P)5d$	$^2D^\circ - ^2F$	3/2 - 5/2	F35
Al VII	62.296	200b		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	62.432	10		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4D$	3/2 - 1/2	F35
Al VII	62.474	100b		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - ^4D$	3/2 - 5/2	F35
Al VII	63.025	500b		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35
Al VII	64.066	10		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2S$	3/2 - 1/2	F35
Al VII	64.325	50		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al VII	64.358	50		$2p^3 - 2p^2(^1D)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
Al VII	64.481	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	F35
Al VII	64.513	10		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2D$	3/2 - 3/2	F35
Al VII	64.704	150		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35
Al VII	64.815	120		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	64.904	100b		$2p^3 - 2p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	F35
Al VII	65.014	10d		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	F35
Al VII	65.865	50		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al VII	65.882	50		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
Al VII	68.531	100b		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	F35
Al VII	68.637	50b		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	F35
Al VII	68.681	10b		$2s2p^4 - 2s2p^3(^5S^\circ)4d$	$^4P - ^4D^\circ$	1/2 - 3/2	F35
Al VII	72.270	500d		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	74.095	100d		$2p^3 - 2p^2(^1S)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F35
Al VII	75.270	250		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	F35
Al VII	75.302	350		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F35
Al VII	75.360	600		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	75.532	200		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 5/2	F35
Al VII	75.809	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4S^\circ$	5/2 - 3/2	F35
Al VII	75.850	100b		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	F35
Al VII	75.894	100b		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	F35
Al VII	76.010	50		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F35
Al VII	76.086	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	F35
Al VII	76.221	50		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	F35
Al VII	76.257	100		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	F35
Al VII	76.342	10		$2s2p^4 - 2s2p^3(^3D^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	F35
Al VII	76.383	500		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F35
Al VII	76.422	500		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	F35
Al VII	76.543	1000		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	F35
Al VII	76.572	1000		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VII	77.448	150b		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	F35
Al VII	77.770	300		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	F35
Al VII	77.806	70		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	F35
Al VII	77.896	500		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F35
Al VII	77.945	500b		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	F35
Al VII	78.327	1000		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al VII	78.351	1000b		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
Al VII	79.012	500		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F35
Al VII	79.197	500		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	F35
Al VII	79.635	10		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	F35
Al VII	79.690	150		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	F35
Al VII	79.919	300		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al VII	79.952	250		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
Al VII	81.234	50		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^4D$?	1/2 - 1/2	F35
Al VII	81.738	50b		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	F35
Al VII	81.806	200d		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	F35
Al VII	83.831	350		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F35
Al VII	84.007	200		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F35
Al VII	84.098	100		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	F35
Al VII	86.671	10		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - ^2S$	1/2 - 1/2	F35
Al VII	86.689	50		$2p^3 - 2p^2(^1S)3s$	$^2P^\circ - ^2S$	3/2 - 1/2	F35
Al VII	86.887	750		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
Al VII	87.060	600		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	F35
Al VII	87.176	300		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 1/2	F35
Al VII	88.033	900		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - ^2D$	5/2 - 5/2	F35
Al VII	90.550	300		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	5/2 - 3/2	F35
Al VII	90.630	250b		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al VII	90.772	200		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - ^2P$	3/2 - 1/2	F35
Al VII	93.269	10		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 3/2	F35
Al VII	93.295	120		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 3/2	F35
Al VII	93.516	100		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	1/2 - 1/2	F35
Al VII	93.542	1		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - ^2P$	3/2 - 1/2	F35
Al VII	95.965	200d		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	5/2 - 3/2	F35
Al VII	96.198	50		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	3/2 - 3/2	F35
Al VII	96.319	10		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - ^4S^\circ$	1/2 - 3/2	F35
Al VII	208.1 ?			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^2P$	3/2 - 1/2	K8
Al VII	209.4 ?			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^2P$	3/2 - 3/2	K8
Al VII	239.030	100d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	S22
Al VII	240.770	200d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	S22
Al VII	259.035	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	S22
Al VII	259.219	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	S22
Al VII	261.053	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	S22
Al VII	261.219	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	S22
Al VII	278.95			$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	K17
Al VII	279.16			$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	K17
Al VII?	279.256	10					S22
Al VII	282.65			$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	3/2 - 1/2	K17
Al VII	285.81			$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	K17
Al VII	309.012	100d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	S22
Al VII	309.122	100d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	S22
Al VII	343.290	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	S22
Al VII	343.650	10d		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	S22
Al VII	352.160	100d		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	E6,S22
Al VII	353.776	200d		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	E6,S22
Al VII	356.885	250d		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	E6,S22
Al VII	381.689			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 1/2	S22,F3
Al VII	386.09			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 1/2	F3
Al VII	387.52			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
Al VII	392.07			$2s2p^4 - 2p^5$	$^2P - ^2P^\circ$	1/2 - 3/2	F3

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ALUMINUM VIII (Al^{7+}), Z = 13

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 2 295 400 cm^{-1}; 284.59 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VIII	53.785	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 1	F35
Al VIII	53.800	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 2	F35
Al VIII	53.823	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^5S^\circ - ^5P$	2 - 3	F35
Al VIII	54.217	200b		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	1 - 2	F35
Al VIII	54.258	200		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	2 - 3	F35
Al VIII	57.553	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3F$	3 - 4	F35
Al VIII	57.624	10		$2s2p^3 - 2s2p^2(^4P)4d$	$^3D^\circ - ^3F$	2 - 3	F35
Al VIII	61.694	150		$2s^22p^2 - 2s2p^2(^2D)3p$	$^1D - ^1D^\circ$	2 - 2	F35
Al VIII	62.016	100		$2s^22p^2 - 2s2p^2(^2D)3p$	$^1D - ^1F^\circ$	2 - 3	F35
Al VIII	63.203	10		$2s2p^3 - 2s2p^2(^2P)3d$	$^3D^\circ - ^3P$	3 - 2	F35
Al VIII	63.560	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3P^\circ$?	2 - 2	F35,K8
Al VIII	63.714	100		$2s2p^3 - 2s2p^2(^2P)3d$	$^3D^\circ - ^3F$	3 - 4	F35
Al VIII	63.933	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	0 - 1	F35
Al VIII	63.965	150d		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	1 - 2	F35
Al VIII	64.004	200		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	2 - 3	F35
Al VIII	64.086	10		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	2 - 2	F35
Al VIII	65.128	10d		$2s2p^3 - 2s2p^2(^2P)3d$	$^3P^\circ - ^3P$	2 - 2	F35
Al VIII	65.298	10		$2s2p^3 - 2s2p^2(^2P)3d$	$^3P^\circ - ^3D$	2 - 3	F35
Al VIII	65.381	50		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3S^\circ$	1 - 1	F35
Al VIII	65.494	50		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3S^\circ$	2 - 1	F35
Al VIII	66.321	60b		$2s2p^3 - 2s2p^2(^2S)3d$	$^3P^\circ - ^3D$	2 - 3	F35
Al VIII	66.363	10		$2s2p^3 - 2s2p^2(^2S)3d$	$^3P^\circ - ^3D$	1 - 2	F35
Al VIII	66.704	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 1	F35
Al VIII	66.731	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 2	F35
Al VIII	66.771	350		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 3	F35
Al VIII	67.044	10		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	0 - 1	F35
Al VIII	67.096	100		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 0	F35
Al VIII	67.121	100		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 1	F35
Al VIII	67.166	10		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	1 - 2	F35
Al VIII	67.244	150		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 1	F35
Al VIII	67.288	500		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 2	F35
Al VIII	67.360	250		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	0 - 1	F35
Al VIII	67.408	500		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 2	F35
Al VIII	67.437	50		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 1	F35
Al VIII	67.464	600		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	F35
Al VIII	67.529	10		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 2	F35
Al VIII	67.565	150b		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3D$	3 - 3	F35
Al VIII	67.946	500		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3F$	3 - 4	F35
Al VIII	68.375	750		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	F35
Al VIII	68.825	50b		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3S$	2 - 1	F35
Al VIII	69.420	50		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3P$	1 - 0	F35
Al VIII	69.502	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3P$	2 - 1	F35
Al VIII	69.611	200		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3P$	2 - 2	F35
Al VIII	69.773	150		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	F35
Al VIII	70.161	300		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	F35
Al VIII	70.323	200		$2p^2 - 2p3d$	$^1D - ^3F^\circ$	2 - 2	F35
Al VIII	70.402	1		$2s2p^3 - 2s2p^2(^2P)3s$	$^3D^\circ - ^3P$?	3 - 2	F35
Al VIII	70.727	250		$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	F35
Al VIII	71.277	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3D$?	2 - 2	F35,K8
Al VIII	72.223	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	3 - 4	F35
Al VIII	72.324	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	2 - 3	F35
Al VIII	72.401	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3D^\circ - ^3F$	1 - 2	F35
Al VIII	73.703	150		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	F35
Al VIII	73.733	100		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	1 - 2	F35
Al VIII	73.760	10		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	F35
Al VIII	73.879	200		$2s2p^3 - 2s2p^2(^2S)3s$	$^3P^\circ - ^3S$	2 - 1	F35
Al VIII	74.841	200		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 3	F35
Al VIII	74.965	150		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 2	F35
Al VIII	75.058	50		$2s2p^3 - 2s2p^2(^4P)3s$	$^5S^\circ - ^5P$	2 - 1	F35
Al VIII	75.397	70		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	0 - 1	F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al VIII	75.488	200b		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3P$	2 - 2	F35
Al VIII	75.577	150		$2s2p^3 - 2s2p^2(^2D)3s$	$^3D^\circ - ^3D$	3 - 3	F35
Al VIII	75.623	100		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 2	F35
Al VIII	75.734	50		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	0 - 1	F35
Al VIII	75.778	250		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	F35
Al VIII	75.894	100b		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	1 - 0	F35
Al VIII	75.985	50		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 1	F35
Al VIII	77.605	300		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	F35
Al VIII	78.225	1		$2s2p^3 - 2s2p^2(^2P)3s$	$^3S^\circ - ^3P$?	1 - 2	F35
Al VIII	78.351	1000b		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	F35
Al VIII	79.455	120		$2s2p^3 - 2s2p^2(^2S)3s$	$^3S^\circ - ^3S$	1 - 1	F35
Al VIII	80.320	10		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	3 - 2	F35
Al VIII	80.483	10d		$2s2p^3 - 2s2p^2(^4P)3s$	$^3D^\circ - ^3P$	2 - 1	F35
Al VIII	80.704	100		$2p^2 - 2p3s$	$^1S - ^1P^\circ$	0 - 1	F35
Al VIII	82.543	150		$2s2p^3 - 2s2p^2(^2D)3s$	$^1D^\circ - ^1D$	2 - 2	F35
Al VIII	83.465	50		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 2	F35
Al VIII	83.635	10		$2s2p^3 - 2s2p^2(^4P)3s$	$^3P^\circ - ^3P$	2 - 1	F35
Al VIII	91.487	50		$2s2p^3 - 2s^22p3p$	$^3P^\circ - ^3S$	2 - 1	F35
Al VIII	247.40	45		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	K18
Al VIII	248.45	83		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	K18
Al VIII	250.139	100		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	S22,K18
Al VIII	251.347	10		$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	S22
Al VIII	285.467	50d		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	S22
Al VIII	286.65			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	F3
Al VIII	287.13			$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	F3
Al VIII	289.12			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	F3
Al VIII	323.54			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	F3
Al VIII	325.29			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	F3
Al VIII	328.200	10d		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	S22
Al VIII	329.63			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 0	F3
Al VIII	331.03			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	F3
Al VIII	334.51			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	F3
Al VIII	340.23			$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	F6
Al VIII	381.15			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	F3
Al VIII	381.689	10		$2s^22p3d - 2s2p^2(^2D)3d$	$^1D^\circ - ^3F$?	2 - 3	S22,K8
Al VIII	383.70			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 1	K17
Al VIII	383.785	50		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	S22
Al VIII	387.83			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	K17
Al VIII	387.970	100		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	S22
Al VIII	399.57			$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	F6
Al VIII	480.11			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	F3
Al VIII	483.03			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	F3
Al VIII	490.44			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	F3
Al VIII	493.18			$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	F3
Al VIII	774.8 ?			$2s^22p^2 - 2s2p^3$	$g^3P - ^5S^\circ$	2 - 2	K8

ALUMINUM IX (Al^{8+}), Z = 13

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 2 663 400 cm^{-1}; 330.21 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al IX	40.904	10		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Al IX	41.037	20		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Al IX	41.543	20		$2p - 6d$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Al IX	42.708	10		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2D^\circ$	5/2 - 5/2	H7
Al IX	42.744	10		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al IX	42.928	20		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Al IX	43.195	40		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Al IX	43.237	40		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Al IX	43.261	80		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Al IX	43.549	10		$2p - 5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	44.704	60		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Al IX	44.743	80		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Al IX	45.077	10		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Al IX	45.344	40		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Al IX	46.896	40		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Al IX	47.417	80		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 3/2	H7
Al IX	47.455	170		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	W12
Al IX	47.489	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Al IX	47.534	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	F35
Al IX	47.755	10		$2p - 4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F35
Al IX	47.856	50		$2p - 4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	48.765	20		$2s2p^2 - 2s2p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Al IX	49.094	40		$2p - 4s$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Al IX	49.854	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	F35
Al IX	49.916	100		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	3/2 - 5/2	H7
Al IX	52.966	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	H7
Al IX	53.098	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Al IX	53.237	60		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 3/2	H7
Al IX	53.267	60		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 1/2	H7
Al IX	53.376	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 3/2	F35
Al IX	53.424	10		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	53.488	1		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	3/2 - 3/2	F35
Al IX	53.554	10		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	F35
Al IX	54.312	10d		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 5/2	F35
Al IX	54.457	200		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	F35
Al IX	55.667	10		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	F35
Al IX	56.150	50b		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	F35
Al IX	56.304	70		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	F35
Al IX	56.899	100b		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	1/2 - 3/2	F35
Al IX	56.945	250		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	58.060	10		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 3/2	F35
Al IX	58.112	50		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 1/2	F35
Al IX	58.222	100		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 3/2	F35
Al IX	58.276	1		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 1/2	F35
Al IX	59.381	10d		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	F35
Al IX	59.761	300		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F35
Al IX	59.960	60		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 1/2	H7
Al IX	60.162	10d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	F35
Al IX	60.197	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	F35
Al IX	60.222	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	F35
Al IX	60.262	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	F35
Al IX	60.312	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	F35
Al IX	60.347	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	F35
Al IX	60.504	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	F35
Al IX	60.549	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F35
Al IX	60.588	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F35
Al IX	60.645	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	F35
Al IX	60.896	300		$2p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F35
Al IX	61.069	600		$2p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	61.647	10		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	F35
Al IX	62.327	250		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	F35
Al IX	62.369	150		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	F35
Al IX	62.474	100b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 1/2	F35
Al IX	62.587	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	F35
Al IX	62.916	150		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	F35
Al IX	63.025	500b		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F35
Al IX	63.509	500d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F35
Al IX	63.632	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	F35
Al IX	64.625	50		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	F35
Al IX	64.885	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	F35

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al IX	64.904	100b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	F35
Al IX	66.038	50		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	F35
Al IX	66.092	50		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	F35
Al IX	66.142	120		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	F35
Al IX	66.239	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	H7
Al IX	66.275	50		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	F35
Al IX	66.321	60b		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	F35
Al IX	66.624	10		$2p - 3s$	$g^2P^\circ - ^2S$	1/2 - 1/2	F35
Al IX	66.836	100d		$2p - 3s$	$g^2P^\circ - ^2S$	3/2 - 1/2	F35
Al IX	67.828	10		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	F35
Al IX	68.531	100b		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 5/2	F35
Al IX	68.637	50b		$2p^3 - 2p^2(^3P)3s$	$^4S^\circ - ^4P$	3/2 - 3/2	F35
Al IX	68.825	50b		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	1/2 - 1/2	F35
Al IX	68.958	50		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	F35
Al IX	69.258	50d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F35
Al IX	69.716	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	F35
Al IX	69.850	50d		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	F35
Al IX	73.451	1		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	F35
Al IX	73.625	1		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	F35
Al IX	74.785	50		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	F35
Al IX	77.381	150		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
Al IX	77.448	150b		$2p^3 - 2s2p(^1P^\circ)3p$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
Al IX	280.16			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	F3
Al IX	282.45			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	F3
Al IX	284.042	10d		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	S22
Al IX	286.45			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	F3
Al IX	300.60			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	F3
Al IX	305.10			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	F3
Al IX	306.95			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	F3
Al IX	307.33			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	F3
Al IX	316.78			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	K18
Al IX	318.50			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	K18
Al IX	321.05			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	K18
Al IX	384.95			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	K18
Al IX	392.40			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	K18
Al IX	395.44			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	F3
Al IX	396.05			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	F3
Al IX	432.03			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	K18
Al IX	432.66			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	K18
Al IX	437.46			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	K18
Al IX	438.09			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	K18
Al IX	602.18			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$?	1/2 - 3/2	F3
Al IX	613.10			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$?	3/2 - 5/2	F3

ALUMINUM X (Al^{9+}), Z = 13

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 3 214 800 cm^{-1}; 398.57 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al X	34.445	25		$2s^2 - 2s6p$	$g^1S - ^1P^\circ$	0 - 1	H6
Al X	35.301	10		$2s2p - 2s7d$	$^3P^\circ - ^3D$	1 - 2	H6
Al X	35.340	10		$2s2p - 2s7d$	$^3P^\circ - ^3D$	2 - 3	H6
Al X	35.888	50		$2s2p - 2p5p$	$^3P^\circ - ^3P$	2 - 2	H6
Al X	36.188	25		$2s^2 - 2s5p$	$g^1S - ^1P^\circ$	0 - 1	H6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al X	36.350	25		2s 2p - 2s 6d	$^3P^\circ - ^3D$	1 - 2	H6
Al X	36.403	50		2s 2p - 2s 6d	$^3P^\circ - ^3D$	2 - 3	H6
Al X	36.925	100		$2s^2$ - 2s 4p	$g^1S - ^1P^\circ$	0 - 1	H6
Al X	38.255	100		2s 2p - 2s 5d	$^3P^\circ - ^3D$	1 - 2	H6
Al X	38.310	125		2s 2p - 2s 5d	$^3P^\circ - ^3D$	2 - 3	H6
Al X	39.291	75		$2p^2$ - 2p 5d	$^3P - ^3P^\circ$	2 - 2	H6
Al X	39.535	100		2s 2p - 2p 4p	$^3P^\circ - ^3P$	2 - 2	H6
Al X	39.628	125		2s 2p - 2p 4p	$^3P^\circ - ^3D$	2 - 3	H6
Al X	39.853	50		$2p^2$ - 2p 5d	$^1D - ^1F^\circ$	2 - 3	H6
Al X	40.421	25		2s 2p - 2s 5d	$^1P^\circ - ^1D$	1 - 2	H6
Al X	41.730	100		2s 2p - 2p 4p	$^1P^\circ - ^1D$	1 - 2	H6
Al X	42.310	75		2s 2p - 2s 4d	$^3P^\circ - ^3D$	0 - 1	H6
Al X	42.340	200		2s 2p - 2s 4d	$^3P^\circ - ^3D$	1 - 2	H6
Al X	42.403	350		2s 2p - 2s 4d	$^3P^\circ - ^3D$	2 - 3	H6
Al X	43.460	75		$2p^2$ - 2p 4d	$^3P - ^3P^\circ$	1 - 2	H6
Al X	43.549	350		$2p^2$ - 2p 4d	$^3P - ^3P^\circ$	2 - 2	H6
Al X	43.577	100		$2p^2$ - 2p 4d	$^3P - ^3D^\circ$	2 - 3	H6
Al X	44.136	10		$2p^2$ - 2p 4d	$^1D - ^1F^\circ$	2 - 3	F35
Al X	44.493	75		$2p^2$ - 2p 4d	$^1D - ^1D^\circ$	2 - 2	H6
Al X	44.902	10		2s 2p - 2s 4d	$^1P^\circ - ^1D$	1 - 2	F35
Al X	46.223	75		$2p^2$ - 2p 4d	$^1S - ^1P^\circ$	0 - 1	H6
Al X	50.670	50		2s 2p - 2p 3p	$^3P^\circ - ^3P$	1 - 2	F35
Al X	50.717	75		2s 2p - 2p 3p	$^3P^\circ - ^3P$	1 - 1	H6
Al X	50.762	350		2s 2p - 2p 3p	$^3P^\circ - ^3P$	2 - 2	H6
Al X	50.802	50		2s 2p - 2p 3p	$^3P^\circ - ^3P$	2 - 1	F35
Al X	50.903	50		2s 2p - 2p 3p	$^3P^\circ - ^3S$	0 - 1	H6
Al X	50.946	10		2s 2p - 2p 3p	$^3P^\circ - ^3S$	1 - 1	F35
Al X	51.039	10		2s 2p - 2p 3p	$^3P^\circ - ^3S$	2 - 1	F35
Al X	51.362	350		2s 2p - 2p 3p	$^3P^\circ - ^3D$	2 - 3	F35
Al X	51.400	1		2s 2p - 2p 3p	$^3P^\circ - ^3D$	1 - 1	F35
Al X	51.454	1		2s 2p - 2p 3p	$^3P^\circ - ^3D$	2 - 2	F35
Al X	51.979	300		$2s^2$ - 2s 3p	$g^1S - ^1P^\circ$	0 - 1	F35
Al X	54.115	220		2s 2p - 2p 3p	$^1P^\circ - ^1D$	1 - 2	F35
Al X	55.227	150		2s 2p - 2s 3d	$^3P^\circ - ^3D$	0 - 1	F35
Al X	55.272	500		2s 2p - 2s 3d	$^3P^\circ - ^3D$	1 - 2	F35
Al X	55.376	750		2s 2p - 2s 3d	$^3P^\circ - ^3D$	2 - 3	F35
Al X	55.731	50		2s 2p - 2p 3p	$^1P^\circ - ^1P$	1 - 1	F35
Al X	56.590	75		$2p^2$ - 2p 3d	$^3P - ^3P^\circ$	0 - 1	H6
Al X	56.650	10d		$2p^2$ - 2p 3d	$^3P - ^3P^\circ$	1 - 1	F35
Al X	56.696	75		$2p^2$ - 2p 3d	$^3P - ^3P^\circ$	1 - 2	H6
Al X	56.762	10		$2p^2$ - 2p 3d	$^3P - ^3P^\circ$	2 - 1	F35
Al X	56.802	200		$2p^2$ - 2p 3d	$^3P - ^3P^\circ$	2 - 2	F35
Al X	56.945	250		$2p^2$ - 2p 3d	$^3P - ^3D^\circ$	0 - 1	H6
Al X	56.964	150		$2p^2$ - 2p 3d	$^3P - ^3D^\circ$	1 - 2	F35
Al X	57.024	250		$2p^2$ - 2p 3d	$^3P - ^3D^\circ$	2 - 3	F35
Al X	57.072	10		$2p^2$ - 2p 3d	$^3P - ^3D^\circ$	2 - 2	F35
Al X	57.116	75		$2p^2$ - 2p 3d	$^1D - ^1P^\circ$	2 - 1	H6
Al X	57.368	350		$2p^2$ - 2p 3d	$^1D - ^1F^\circ$	2 - 3	F35
Al X	58.808	1		2s 2p - 2s 3s	$^3P^\circ - ^3S$	0 - 1	F35
Al X	58.858	100		2s 2p - 2s 3s	$^3P^\circ - ^3S$	1 - 1	F35
Al X	58.987	150		2s 2p - 2s 3s	$^3P^\circ - ^3S$	2 - 1	F35
Al X	59.107	400		2s 2p - 2s 3d	$^1P^\circ - ^1D$	1 - 2	F35
Al X	60.700	10		$2p^2$ - 2p 3s	$^3P - ^3P^\circ$	2 - 2	F35
Al X	60.896	300		$2p^2$ - 2p 3s	$^1D - ^1P^\circ$	2 - 1	H6
Al X	63.134	200		2s 2p - 2s 3s	$^1P^\circ - ^1S$	1 - 0	F35
Al X	177.80			2s 3d - 2s 4f	$^3D - ^3F^\circ$	3 - 4	F6
Al X	332.78			$2s^2$ - 2s 2p	$g^1S - ^1P^\circ$	0 - 1	K18
Al X	394.83			2s 2p - $2p^2$	$^1P^\circ - ^1S$	1 - 0	F3
Al X	395.36			2s 2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	K18
Al X	397.76			2s 2p - $2p^2$	$^3P^\circ - ^3P$	0 - 1	K18
Al X	400.43			2s 2p - $2p^2$	$^3P^\circ - ^3P$	1 - 1	K18
Al X	401.12			2s 2p - $2p^2$	$^3P^\circ - ^3P$	2 - 2	K18
Al X	403.55			2s 2p - $2p^2$	$^3P^\circ - ^3P$	1 - 0	K18
Al X	406.31			2s 2p - $2p^2$	$^3P^\circ - ^3P$	2 - 1	K18
Al X	670.06			2s 2p - $2p^2$	$^1P^\circ - ^1D$	1 - 2	F3

ALUMINUM XI (Al^{10+}), Z = 13

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 3 565 600 cm^{-1}; 442.07 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al XI	7.776			$1s^2 3p - 1s2p3p$	$^2P^\circ - ^2S$?	3/2 - 1/2	D6
Al XI	29.416	6		2s - 9p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	29.793	10		2s - 8p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	30.376	20		2s - 7p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	31.313	35		2s - 6p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	31.426	3		2p - 8d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	31.483	6		2p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	32.068	6		2p - 7d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	32.128	10		2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	33.007	200		2s - 5p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	33.109	10		2p - 6d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	33.172	35		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	34.994	200		2p - 5d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	35.065	250		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	35.163	6		2p - 5s	$^2P^\circ - ^2S$	1/2 - 1/2	F28
Al XI	35.239	6		2p - 5s	$^2P^\circ - ^2S$	3/2 - 1/2	F28
Al XI	36.675	400		2s - 4p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	39.091	250		2p - 4d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	39.180	400		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	39.530	60		2p - 4s	$^2P^\circ - ^2S$	1/2 - 1/2	F28
Al XI	39.623	90		2p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	F28
Al XI	48.297	700		2s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Al XI	48.338	700		2s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	F28
Al XI	52.299	400		2p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Al XI	52.446	700		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Al XI	54.388	60		2p - 3s	$^2P^\circ - ^2S$	3/2 - 1/2	F28
Al XI	150.31			3p - 4d	$^2P^\circ - ^2D$	1/2 - 3/2	F6
Al XI	150.61			3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F6
Al XI	154.66			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F6
Al XI	550.01			2s - 2p	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Al XI	568.12			2s - 2p	$g^2S - ^2P^\circ$	1/2 - 1/2	F3

ALUMINUM XII (Al^{11+}), Z = 13

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 16 825 022 cm^{-1}; 2085.983 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Al XII	6.18 P			$1s^2 - 1s5p$	$g^1S - ^1P^\circ$	0 - 1	K8
Al XII	6.314			$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	F36
Al XII	6.635			$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	F36
Al XII	7.757			$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	F36
Al XII	7.806 P			$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	K8
Al XII	7.873	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	D6
Al XII	42.23 P			$1s2s - 1s3p$	$^3S - ^3P^\circ$	1 - 2	K8
Al XII	847.4 P			$1s2s - 1s2p$	$^3S - ^3P^\circ$	1 - 2	K8

ALUMINUM XIII (Al^{12+}), Z = 13

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 18 584 139 cm^{-1}; 2304.08 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Al XIII	5.534	P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
Al XIII	5.605	P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
Al XIII	5.739	P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
Al XIII	6.053	P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
Al XIII	7.173	P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
Al XIII	23.44	P			2 - 7			G2
Al XIII	24.22	P			2 - 6			G2
Al XIII	25.63	P			2 - 5			G2
Al XIII	28.70	P			2 - 4			G2
Al XIII	38.73	P			2 - 3			G2
Al XIII	59.39	P			3 - 7			G2
Al XIII	64.64	P			3 - 6			G2
Al XIII	75.74	P			3 - 5			G2
Al XIII	110.8	P			3 - 4			G2
Al XIII	128.02	P			4 - 7			G2
Al XIII	155.2	P			4 - 6			G2
Al XIII	239.5	P			4 - 5			G2
Al XIII	275.1	P			5 - 7			G2
Al XIII	440.9	P			5 - 6			G2
Al XIII	731.4	P			6 - 7			G2

SILICON, Z = 14

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si	53.025	20					F34
Si	53.063	20					F34
Si	56.145	50					F34
Si	60.421	20					F34
Si	60.673	100					F34
Si	62.154	50					F34
Si	62.386	50d					F34
Si	63.183	50d					F34
Si	65.711	50					F34
Si	66.726	100					F34
Si	68.497	50d					F34
Si	68.522	50d					F34
Si	68.786	100					F34
Si	68.833	20					F34
Si	70.771	100d					F34
Si	82.622	50d					F34
Si	85.614	20					F34
Si	92.957	50d					F34

SILICON I (Si^{0+}), Z = 14

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2\ ^3P_0$ (14 electrons)

Ionization Potential 65 747.5 cm^{-1}; 8.151 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si I	1255.276	10 -A	41.12	$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3S^\circ$	0 - 1	R1
Si I	1256.490	40 -A	41.12	$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3S^\circ$	1 - 1	R1
Si I	1258.795	50 -A	41.12	$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3S^\circ$	2 - 1	R1
Si I?	1543.713	1r					R1
Si I?	1545.095	1r					R1
Si I	1545.565	1r	41.11	$3p^2 - 3p10d$	$g\,^3P - ^3D^\circ$	2 - 3	R1
Si I	1546.559	1r	41.10	$3p^2 - 3p10d$	$g\,^3P - ^3P^\circ$	2 - 2	R1
Si I?	1547.373	1r					R1
Si I	1548.7149 st	2	41.09	$3p^2 - 3p9d$	$g\,^3P - ^3D^\circ$	1 - 2	K5
Si I?	1551.2411	2					K5
Si I	1551.8595 st	2	41.09	$3p^2 - 3p9d$	$g\,^3P - ^3D^\circ$	2 - 3	K5
Si I?	1551.9323	1					K5
Si I	1552.2089	1	41.09	$3p^2 - 3p9d$	$g\,^3P - ^3D^\circ$?	2 - 2	K5,K8
Si I	1552.9498 st	2	41.08	$3p^2 - 3p9d$	$g\,^3P - ^3P^\circ$	2 - 2	K5
Si I?	1553.3712	1					K5
Si I?	1554.7021	2					K5
Si I	1555.5157 st	1	41.03	$3p^2 - 3p10s$	$g\,^3P - (3/2, 1/2)^\circ$	1 - 2	K5
Si I?	1555.6630	1					K5
Si I?	1556.1626	1					K5
Si I	1556.5273 st	1	41.05	$3p^2 - 3p8d$	$g\,^3P - ^3P^\circ$	1 - 0	K5
Si I	1558.2400 st	2	41.06	$3p^2 - 3p8d$	$g\,^3P - ^3D^\circ$	1 - 2	K5
Si I	1559.06		41.03	$3p^2 - 3p10s$	$g\,^3P - (3/2, 1/2)^\circ$	2 - 2	M19
Si I	1559.3645 st	2	41.07	$3p^2 - 3p10s$	$g\,^3P - (3/2, 1/2)^\circ$	2 - 1	K5
Si I	1560.39		41.03	$3p^2 - 3p10s$	$g\,^3P - ^3P^\circ$	0 - 1	M19
Si I	1560.7425 st	8	41.06	$3p^2 - 3p8d$	$g\,^3P - ^3D^\circ$	2 - 3	R2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si I	1561.792	10r	41.06	$3p^2 - 3p8d$	$g^3P - {}^3D^\circ$	2 - 2	R1
Si I	1562.0065 st	4	41.05	$3p^2 - 3p8d$	$g^3P - {}^3P^\circ$	2 - 2	R2
Si I	1562.0531 st	1	41.02	$3p^2 - 3p8d$	$g^3P - {}^1P^\circ$	0 - 1	K5
Si I	1562.28		41.03	$3p^2 - 3p10s$	$g^3P - {}^3P^\circ$	1 - 1	M19
Si I	1563.3641 st	1	41.04	$3p^2 - 3p8d$	$g^3P - {}^1F^\circ$	2 - 3	K5
Si I	1564.6138 st	8	41.01	$3p^2 - 3p8d$	$g^3P - {}^3F^\circ$	1 - 2	R2
Si I	1565.32		41	$3p^2 - 3p9s$	$g^3P - (3/2, 1/2)^\circ$	0 - 1	M19
Si I	1565.84		41.03	$3p^2 - 3p10s$	$g^3P - {}^3P^\circ$	2 - 1	M19
Si I	1567.21		41	$3p^2 - 3p9s$	$g^3P - (3/2, 1/2)^\circ$	1 - 1	M19
Si I	1567.7263 st	8	37.04	$3p^2 - 3p9s$	$g^3P - (3/2, 1/2)^\circ$	1 - 2	R2
Si I?	1567.8095	1					K5
Si I	1568.1963 st	10	40.01	$3p^2 - 3p7d$	$g^3P - {}^3P^\circ$	1 - 0	R2
Si I	1568.6182 st	3	40	$3p^2 - 3p7d$	$g^3P - {}^3D^\circ$	0 - 1	R2
Si I	1569.3185 st	8	41.01	$3p^2 - 3p8d$	$g^3P - {}^3F^\circ$	2 - 3	R2
Si I	1570.0275 st	2	40.01	$3p^2 - 3p7d$	$g^3P - {}^3P^\circ$	1 - 1	K5
Si I	1570.5175 st	3	40	$3p^2 - 3p7d$	$g^3P - {}^3D^\circ$	1 - 1	R2
Si I	1570.8104 st	1	41	$3p^2 - 3p9s$	$g^3P - (3/2, 1/2)^\circ$	2 - 1	K5
Si I	1571.3226 st	1	37.04	$3p^2 - 3p9s$	$g^3P - (3/2, 1/2)^\circ$	2 - 2	K5
Si I	1571.4058 st	10	40	$3p^2 - 3p7d$	$g^3P - {}^3D^\circ$	1 - 2	R2
Si I?	1571.7956	6					K5
Si I	1572.7173 st	2	37.04	$3p^2 - 3p9s$	$g^3P - (1/2, 1/2)^\circ$	0 - 1	K5
Si I?	1572.9245	1					K5
Si I?	1573.3483	1					K5
Si I	1573.6350 st	10	40.01	$3p^2 - 3p7d$	$g^3P - {}^3P^\circ$	2 - 1	R2
Si I	1573.8840 st	25	40	$3p^2 - 3p7d$	$g^3P - {}^3D^\circ$	2 - 3	R2
Si I	1574.1275 st	1	40	$3p^2 - 3p7d$	$g^3P - {}^3D^\circ$	2 - 1	K5
Si I	1574.63		37.04	$3p^2 - 3p9s$	$g^3P - (1/2, 1/2)^\circ$	1 - 1	M19
Si I	1574.7456 st	1	37.04	$3p^2 - 3p9s$	$g^3P - (1/2, 1/2)^\circ$	1 - 0	K5
Si I	1574.8435 st	30	40.01	$3p^2 - 3p7d$	$g^3P - {}^3P^\circ$	2 - 2	R2
Si I	1575.1268 st	10	37.03	$3p^2 - 3p7d$	$g^3P - {}^1P^\circ$	0 - 1	R2
Si I	1576.829 st	12	39	$3p^2 - 3p7d$	$g^3P - {}^1F^\circ$	2 - 3	K5
Si I	1577.0439 st	2	37.03	$3p^2 - 3p7d$	$g^3P - {}^1P^\circ$	1 - 1	K5
Si I	1578.25		37.04	$3p^2 - 3p9s$	$g^3P - (1/2, 1/2)^\circ$	2 - 1	M19
Si I	1580.3001 st	12	38	$3p^2 - 3p7d$	$g^3P - {}^3F^\circ$	1 - 2	R2
Si I	1580.68		37.03	$3p^2 - 3p7d$	$g^3P - {}^1P^\circ$	2 - 1	M19
Si I	1583.95		37.02	$3p^2 - 3p7d$	$g^3P - {}^3F^\circ$	2 - 2	M19
Si I	1584.0207 st	8	37	$3p^2 - 3p8s$	$g^3P - (3/2, 1/2)^\circ$	0 - 1	R2
Si I	1584.3455 st	12	38	$3p^2 - 3p7d$	$g^3P - {}^3F^\circ$	2 - 3	R2
Si I	1584.8540 st	2	35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	0 - 1	K5
Si I	1585.9580 st	3	37	$3p^2 - 3p8s$	$g^3P - (3/2, 1/2)^\circ$	1 - 1	R2
Si I	1586.1372 st	15	35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	1 - 0	R2
Si I	1586.7913 st	20	35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	1 - 1	R2
Si I	1586.8920 st	3	35.01	$3p^2 - 3p8s$	$g^3P - (3/2, 1/2)^\circ$	1 - 2	R2
Si I	1587.7620 st	15	37.01	$3p^2 - 3p7d$	$g^3P - {}^1D^\circ$	2 - 2	R2
Si I	1589.1733 st	15	35.02	$3p^2 - 3p6d$	$g^3P - {}^3D^\circ$	0 - 1	R2
Si I	1589.6399 st	7	37	$3p^2 - 3p8s$	$g^3P - (3/2, 1/2)^\circ$	2 - 1	R2
Si I	1590.4768 st	20	35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	2 - 1	R2
Si I	1590.5763 st	15	35.01	$3p^2 - 3p8s$	$g^3P - (3/2, 1/2)^\circ$	2 - 2	R2
Si I	1591.1232 st	20	35.02	$3p^2 - 3p6d$	$g^3P - {}^3D^\circ$	1 - 1	R2
Si I	1591.24		35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	1 - 2	M19
Si I	1592.0200 st	20	35.01	$3p^2 - 3p8s$	$g^3P - (1/2, 1/2)^\circ$	0 - 1	R2
Si I	1592.4234 st	60	35.02	$3p^2 - 3p6d$	$g^3P - {}^3D^\circ$	1 - 2	R2
Si I	1594.1455 st	3	35.01	$3p^2 - 3p8s$	$g^3P - (1/2, 1/2)^\circ$	1 - 0	K5
Si I	1594.5655 st	70	35.02	$3p^2 - 3p6d$	$g^3P - {}^3D^\circ$	2 - 3	R2
Si I	1594.83		35.02	$3p^2 - 3p6d$	$g^3P - {}^3D^\circ$	2 - 1	M19
Si I	1594.9493 st	70	35.03	$3p^2 - 3p6d$	$g^3P - {}^3P^\circ$	2 - 2	R2
Si I	1595.7552 st	30	33.01	$3p^2 - 3p6d$	$g^3P - {}^1P^\circ$	0 - 1	R2
Si I	1597.721 st	25	33.01	$3p^2 - 3p6d$	$g^3P - {}^1P^\circ$	1 - 1	K5
Si I?	1597.7357	20					K5
Si I	1597.9620 st	60	35	$3p^2 - 3p6d$	$g^3P - {}^1F^\circ$	2 - 3	R2
Si I	1601.46		33.01	$3p^2 - 3p6d$	$g^3P - {}^1P^\circ$	2 - 1	M19
Si I	1605.8370 st	20	33	$3p^2 - 3p6d$	$g^3P - {}^3F^\circ$	1 - 2	R2
Si I	1608.9157 st	25	33	$3p^2 - 3p6d$	$g^3P - {}^3F^\circ$	2 - 3	R2
Si I	1610.82		32	$3p^2 - 3p6d$	$g^3P - {}^1D^\circ$	1 - 2	M19
Si I	1614.5665 st	30	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	0 - 1	R2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si I	1614.6309 st	25	32	$3p^2 - 3p6d$	$g^3P - {}^1D^\circ$	2 - 2	R2
Si I	1615.9488 st	50	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	1 - 0	R2
Si I	1615.99		31	$3p^2 - 3p7s$	$g^3P - (3/2,1/2)^\circ$	0 - 1	M19
Si I	1616.5794 st	70	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	1 - 1	R2
Si I	1618.0054 st	8	31	$3p^2 - 3p7s$	$g^3P - (3/2,1/2)^\circ$	1 - 1	R2
Si I	1619.0458 st	8	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	1 - 2	R2
Si I	1619.5266 st	15	29	$3p^2 - 3p7s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	R2
Si I	1620.4049 st	60	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	2 - 1	R2
Si I	1621.8380 st	2	31	$3p^2 - 3p7s$	$g^3P - (3/2,1/2)^\circ$	2 - 1	K5
Si I	1622.8806 st	90	30	$3p^2 - 3p5d$	$g^3P - {}^3P^\circ$	2 - 2	R2
Si I	1623.3663 st	8	29	$3p^2 - 3p7s$	$g^3P - (3/2,1/2)^\circ$	2 - 2	R2
Si I	1623.4971 st	10	29	$3p^2 - 3p7s$	$g^3P - (1/2,1/2)^\circ$	0 - 1	R2
Si I	1625.5320 st	35	29	$3p^2 - 3p7s$	$g^3P - (1/2,1/2)^\circ$	1 - 1	R2
Si I	1625.7051 st	70	27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	0 - 1	R2
Si I	1627.0498 st	20	29	$3p^2 - 3p7s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	R2
Si I	1627.7459 st	30	27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	1 - 1	R2
Si I	1629.403 st	20	29	$3p^2 - 3p7s$	$g^3P - (1/2,1/2)^\circ$	2 - 1	K5
Si I	1629.438 st	100	27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	1 - 2	K5
Si I	1629.9477 st	100	27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	2 - 3	R2
Si I	1631.1676 st	70	26	$3p^2 - 3p5d$	$g^3P - {}^1P^\circ$	0 - 1	K5
Si I	1631.62		27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	2 - 1	M19
Si I	1633.2230 st	45	26	$3p^2 - 3p5d$	$g^3P - {}^1P^\circ$	1 - 1	K5
Si I	1633.3277 st	40	27	$3p^2 - 3p5d$	$g^3P - {}^3D^\circ$	2 - 2	R2
Si I	1633.9851 st	90	28	$3p^2 - 3p5d$	$g^3P - {}^1F^\circ$	2 - 3	R2
Si I	1637.0106 st	4 -A	104	$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	K5
Si I	1638.2823 st	2 -A	104	$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	K5
Si I	1640.267 st	1 -A	104	$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	K5
Si I	1651.0279 st	25	25	$3p^2 - 3p5d$	$g^3P - {}^3F^\circ$	1 - 2	R2
Si I	1653.3760 st	40	25	$3p^2 - 3p5d$	$g^3P - {}^3F^\circ$	2 - 3	R2
Si I	1655.012	1h	25	$3p^2 - 3p5d$	$g^3P - {}^3F^\circ$	2 - 2	M19
Si I	1660.4748 st	15	24	$3p^2 - 3p5d$	$g^3P - {}^1D^\circ$	1 - 2	R2
Si I	1664.5111 st	35	24	$3p^2 - 3p5d$	$g^3P - {}^1D^\circ$	2 - 2	R2
Si I	1666.3762 st	60	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	0 - 1	R2
Si I	1667.6288 st	70	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	1 - 0	R2
Si I	1668.5204 st	70	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	1 - 1	R2
Si I	1671.1168 st	40	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	1 - 2	R2
Si I	1672.5961 st	80	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	2 - 1	R2
Si I	1675.2053 st	200	23	$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	2 - 2	R2
Si I	1676.8207 st	15	21	$3p^2 - 3p6s$	$g^3P - (3/2,1/2)^\circ$	0 - 1	R2
Si I	1678.992		22	$3p^2 - 3p6s$	$g^3P - (3/2,1/2)^\circ$	1 - 1	M19
Si I	1682.6734 st	70	21	$3p^2 - 3p6s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	R2
Si I	1683.1189 st	3	22	$3p^2 - 3p6s$	$g^3P - (3/2,1/2)^\circ$	2 - 1	R2
Si I	1686.8185 st	100	21	$3p^2 - 3p6s$	$g^3P - (3/2,1/2)^\circ$	2 - 2	R2
Si I	1687.0923 st	20	21	$3p^2 - 3p6s$	$g^3P - (1/2,1/2)^\circ$	0 - 1	R2
Si I	1689.2902 st	60	21	$3p^2 - 3p6s$	$g^3P - (1/2,1/2)^\circ$	1 - 1	R2
Si I?	1689.921	1					K5
Si I	1690.7889 st	60	21	$3p^2 - 3p6s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	R2
Si I	1693.2934 st	125	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	0 - 1	R2
Si I	1693.4681 st	60	21	$3p^2 - 3p6s$	$g^3P - (1/2,1/2)^\circ$	2 - 1	R2
Si I	1695.5074 st	90	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	1 - 1	R2
Si I	1696.2065 st	200	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	1 - 2	R2
Si I	1697.9409 st	250	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	2 - 3	R2
Si I	1699.7162 st	10	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	2 - 1	R2
Si I	1700.4193 st	90	18	$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	2 - 2	R2
Si I	1700.6360 st	80	16	$3p^2 - 3p4d$	$g^3P - {}^1P^\circ$	0 - 1	R2
Si I?	1702.6978	1					K5
Si I	1702.8694 st	70	16	$3p^2 - 3p4d$	$g^3P - {}^1P^\circ$	1 - 1	R2
Si I	1704.4416 st	100	17	$3p^2 - 3p4d$	$g^3P - {}^1F^\circ$	2 - 3	R2
Si I	1707.1148 st	8	16	$3p^2 - 3p4d$	$g^3P - {}^1P^\circ$	2 - 1	R2
Si I?	1710.744	1					K5
Si I	1713.412		81.05	$3p^2 - 3p9d$	${}^1D - {}^3D^\circ$	2 - 3	M19
Si I	1713.85		81.05	$3p^2 - 3p9d$	${}^1D - {}^3D^\circ$	2 - 2	M19
Si I	1722.562 st	4	81.04	$3p^2 - 3p10s$	${}^1D - (3/2,1/2)^\circ$	2 - 1	K5
Si I	1724.242 st	6	81.03	$3p^2 - 3p8d$	${}^1D - {}^3D^\circ$	2 - 3	K5
Si I	1727.444 st	2	81.02	$3p^2 - 3p8d$	${}^1D - {}^1F^\circ$	2 - 3	K5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si I	1733.346 st	1	81.01	$3p^2 - 3p8d$	$^1D - ^3F^\circ$	2 - 2	K5
Si I	1734.718 st	8	81.01	$3p^2 - 3p8d$	$^1D - ^3F^\circ$	2 - 3	K5
Si I	1736.538 st	3	81	$3p^2 - 3p9s$	$^1D - (3/2,1/2)^\circ$	2 - 1	K5
Si I	1740.2988 st	20	80	$3p^2 - 3p7d$	$^1D - ^3D^\circ$	2 - 3	R2
Si I	1743.8941 st	20	79	$3p^2 - 3p7d$	$^1D - ^1F^\circ$	2 - 3	R2
Si I	1745.3475 st	25	15	$3p^2 - 3p4d$	$g^3P - ^3F^\circ$	1 - 2	R2
Si I	1745.647 st	1	77.03	$3p^2 - 3p9s$	$^1D - (1/2,1/2)^\circ$	2 - 1	K5
Si I	1747.4141 st	40	15	$3p^2 - 3p4d$	$g^3P - ^3F^\circ$	2 - 3	R2
Si I	1749.8076 st	3	15	$3p^2 - 3p4d$	$g^3P - ^3F^\circ$	2 - 2	R2
Si I	1752.634 st	3	77.02	$3p^2 - 3p7d$	$^1D - ^3F^\circ$	2 - 2	K5
Si I	1753.101 st	15	77.02	$3p^2 - 3p7d$	$^1D - ^3F^\circ$	2 - 3	K5
Si I	1757.2827 st	3	77.01	$3p^2 - 3p7d$	$^1D - ^1D^\circ$	2 - 2	R2
Si I	1759.5831 st	10	77	$3p^2 - 3p8s$	$^1D - (3/2,1/2)^\circ$	2 - 1	R2
Si I	1763.6607 st	80	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	0 - 1	R2
Si I	1765.0296 st	90	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	1 - 0	R2
Si I	1765.6215 st	50	76	$3p^2 - 3p6d$	$^1D - ^3D^\circ$	2 - 3	R2
Si I	1765.9452 st	8	76	$3p^2 - 3p6d$	$^1D - ^3D^\circ$	2 - 1	K5
Si I	1766.0627 st	100	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	1 - 1	R2
Si I	1766.3541 st	50	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	1 - 2	R2
Si I	1767.54		76	$3p^2 - 3p6d$	$^1D - ^3D^\circ$	2 - 2	M19
Si I	1769.4609 st	2	75.01	$3p^2 - 3p8s$	$^1D - (1/2,1/2)^\circ$	2 - 1	K5
Si I	1769.7859 st	70	75	$3p^2 - 3p6d$	$^1D - ^1F^\circ$	2 - 3	R2
Si I	1770.6295 st	125	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	2 - 1	R2
Si I	1770.9223 st	300	14	$3s^23p^2 - 3s3p^3$	$g^3P - ^3P^\circ$	2 - 2	R2
Si I	1772.2254 st	12	13	$3p^2 - 3p4d$	$g^3P - ^1D^\circ$	1 - 2	R2
Si I	1774.08		73.01	$3p^2 - 3p6d$	$^1D - ^1P^\circ$	2 - 1	M19
Si I	1776.8241 st	150	13	$3p^2 - 3p4d$	$g^3P - ^1D^\circ$	2 - 2	R2
Si I	1783.2315 st	25	73	$3p^2 - 3p6d$	$^1D - ^3F^\circ$	2 - 3	R2
Si I	1784.0884 st	8	73	$3p^2 - 3p6d$	$^1D - ^3F^\circ$	2 - 2	R2
Si I	1790.2548 st	25	72	$3p^2 - 3p6d$	$^1D - ^1D^\circ$	2 - 2	R2
Si I	1797.3560 st	6	70	$3p^2 - 3p5d$	$^1D - ^3P^\circ$	2 - 1	R2
Si I	1799.1193 st	30	71	$3p^2 - 3p7s$	$^1D - (3/2,1/2)^\circ$	2 - 1	R2
Si I	1800.404 st	1	70	$3p^2 - 3p5d$	$^1D - ^3P^\circ$	2 - 2	K5
Si I	1801.000		69	$3p^2 - 3p7s$	$^1D - (3/2,1/2)^\circ$	2 - 2	M19
Si I	1808.4301 st	20	69	$3p^2 - 3p7s$	$^1D - (1/2,1/2)^\circ$	2 - 1	R2
Si I	1809.1047 st	100	67	$3p^2 - 3p5d$	$^1D - ^3D^\circ$	2 - 3	R2
Si I	1813.27	1h	68.01	$3p^2 - 3p5d$	$^1D - ^3D^\circ$	2 - 2	M19
Si I	1814.0794 st	250	68	$3p^2 - 3p5d$	$^1D - ^1F^\circ$	2 - 3	R2
Si I	1817.9562 st	10	66	$3p^2 - 3p5d$	$^1D - ^1P^\circ$	2 - 1	R2
Si I	1822.4553 st	30	12	$3p^2 - 3p5s$	$g^3P - ^1P^\circ$	0 - 1	R2
Si I	1825.021 st	1	12	$3p^2 - 3p5s$	$g^3P - ^1P^\circ$	1 - 1	K5
Si I	1829.8975 st	10	12	$3p^2 - 3p5s$	$g^3P - ^1P^\circ$	2 - 1	R2
Si I	1836.5102 st	200	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 2	R2
Si I	1838.0120 st	40	65	$3p^2 - 3p5d$	$^1D - ^3F^\circ$	2 - 3	R2
Si I	1840.0418 st	8	65	$3p^2 - 3p5d$	$^1D - ^3F^\circ$	2 - 2	R2
Si I	1841.1520 st	125	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	0 - 1	R2
Si I	1841.4490 st	400	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	2 - 2	R2
Si I	1843.7700 st	200	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 1	R2
Si I	1845.5203 st	200	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	0 - 1	R2
Si I	1846.1118 st	200	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 0	R2
Si I	1847.4737 st	300	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 2	R2
Si I	1848.1504 st	200	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 1	R2
Si I	1848.7480 st	250	11	$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	2 - 1	R2
Si I	1850.6719 st	400	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 3	R2
Si I	1851.7829 st	70	64	$3p^2 - 3p5d$	$^1D - ^1D^\circ$	2 - 2	R2
Si I	1852.4717 st	250	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 2	R2
Si I	1853.1521 st	35	10	$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 1	R2
Si I	1861.7949 st	2	63	$3p^2 - 3p4d$	$^1D - ^3P^\circ$	2 - 1	K5
Si I	1865.0278 st	2	63	$3p^2 - 3p4d$	$^1D - ^3P^\circ$	2 - 2	K5
Si I	1873.1036 st	25	9	$3p^2 - 3p3d$	$g^3P - ^1P^\circ$	0 - 1	R2
Si I	1874.8423 st	175	62	$3p^2 - 3p6s$	$^1D - (3/2,1/2)^\circ$	2 - 1	R2
Si I	1875.8129 st	30	9	$3p^2 - 3p3d$	$g^3P - ^1P^\circ$	1 - 1	R2
Si I	1879.434		61	$3p^2 - 3p6s$	$^1D - (3/2,1/2)^\circ$	2 - 2	M19
Si I	1880.9657 st	5	9	$3p^2 - 3p3d$	$g^3P - ^1P^\circ$	2 - 1	R2
Si I	1881.8538 st	30	8	$3p^2 - 3p3d$	$g^3P - ^1F^\circ$	2 - 3	R2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si I	1887.6928 st	45	61	$3p^2 - 3p6s$	$^1D - (½,½)^\circ$	2 - 1	R2
Si I	1893.252 st	175	58	$3p^2 - 3p4d$	$^1D - ^3D^\circ$	2 - 3	K5
Si I	1895.461 st	1	58	$3p^2 - 3p4d$	$^1D - ^3D^\circ$	2 - 1	K5
Si I	1896.339 st	1	58	$3p^2 - 3p4d$	$^1D - ^3D^\circ$	2 - 2	K5
Si I	1901.3377 st	400	57	$3p^2 - 3p4d$	$^1D - ^1F^\circ$	2 - 3	R2
Si I	1904.6647 st	40	56	$3p^2 - 3p4d$	$^1D - ^1P^\circ$	2 - 1	R2
Si I	1954.9681 st	50	55	$3p^2 - 3p4d$	$^1D - ^3F^\circ$	2 - 3	R2
Si I	1957.965 st	1	55	$3p^2 - 3p4d$	$^1D - ^3F^\circ$	2 - 2	K5
Si I	1977.5978 st	400	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	0 - 1	R2
Si I	1979.2056 st	400	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 0	R2
Si I	1980.6185 st	300	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 1	R2
Si I	1983.2330 st	300	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 2	R2
Si I	1984.0719 st	3	53.01	$3s^23p^2 - 3s3p^3$	$^1D - ^3P^\circ$	2 - 1	R2
Si I	1984.4400 st	20	53.01	$3s^23p^2 - 3s3p^3$	$^1D - ^3P^\circ$	2 - 2	R2
Si I	1986.3640 st	500	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 1	R2
Si I	1988.9937 st	1000	7	$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 2	R2
Si I	1991.8537 st	50	53	$3p^2 - 3p4d$	$^1D - ^1D^\circ$	2 - 2	R2

SILICON II (Si^{1+}), Z = 14

Ground State $1s^22s^22p^63s^23p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 131 838.4 cm^{-1}; 16.345 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si II	711.34	0h -A	6.09	$3s^23p - 3s3p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	½ - 3/2	M18
Si II	711.83	1h -A	6.09	$3s^23p - 3s3p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	M18
Si II	755.362	2 -A	6.08	$3s^23p - 3s3p(^3P^\circ)4p$	$g^2P^\circ - ^2P$	3/2 - 3/2	M18
Si II	803.234	3h	6.07	$3p - 8d$	$g^2P^\circ - ^2D$	½ - 3/2	M18
Si II	805.101	10h	6.07	$3p - 8d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M18
Si II	818.590	2h	6.06	$3p - 7d$	$g^2P^\circ - ^2D$	½ - 3/2	M18
Si II	819.49	0h -A	8.08	$3s3p^2 - 3s3p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 5/2	M18
Si II	820.516	20h	6.06	$3p - 7d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M18
Si II	820.63	3h -A	8.08	$3s3p^2 - 3s3p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	820.9210 st	3h	6.05	$3p - 8s$	$g^2P^\circ - ^2S$	½ - ½	K7,M18
Si II	821.450	2h -A	8.07	$3s3p^2 - 3s3p(^3P^\circ)5d$	$^4P - ^4D^\circ$	5/2 - 7/2	M18
Si II	822.8613 st	5h	6.05	$3p - 8s$	$g^2P^\circ - ^2S$	3/2 - ½	K7,M18
Si II	826.42	1h -A	8.06	$3s3p^2 - 3s3p(^3P^\circ)6s$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	843.7192 st	20h	6.04	$3p - 6d$	$g^2P^\circ - ^2D$	½ - 3/2	K7,M18
Si II	845.7684 st	40h	6.04	$3p - 6d$	$g^2P^\circ - ^2D$	3/2 - 5/2	K7,M18
Si II	848.0700 st	5	6.03	$3p - 7s$	$g^2P^\circ - ^2S$	½ - ½	K7,M18
Si II	850.1409 st	10	6.03	$3p - 7s$	$g^2P^\circ - ^2S$	3/2 - ½	K7,M18
Si II	889.7228 st	100	6.02	$3p - 5d$	$g^2P^\circ - ^2D$	½ - 3/2	K7,M18
Si II	892.0007 st	200	6.02	$3p - 5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	K7,M18
Si II	899.4063 st	10	6.01	$3p - 6s$	$g^2P^\circ - ^2S$	½ - ½	K7,M18
Si II	901.7359 st	20	6.01	$3p - 6s$	$g^2P^\circ - ^2S$	3/2 - ½	K7,M18
Si II	905.71	0 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	½ - ½	M18
Si II	906.126	0 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	½ - 3/2	M18
Si II	906.586	1 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - ½	M18
Si II	907.033	0 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 3/2	M18
Si II	907.762	0 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 5/2	M18
Si II	908.461	1 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 3/2	M18
Si II	909.209	3 -A	8.05	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	912.375	5 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	½ - 3/2	M18
Si II	912.459	5 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	½ - ½	M18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si II	913.012	10 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	M18
Si II	913.264	3 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 3/2	M18
Si II	913.853	20 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	M18
Si II	914.476	2 -A	8.04	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 5/2	M18
Si II	928.297	5 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	3/2 - 5/2	M18
Si II	929.206	1 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	1/2 - 3/2	M18
Si II	929.810	20 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	930.242	0 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	1/2 - 1/2	M18
Si II	931.200	5 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	3/2 - 1/2	M18
Si II	931.667	5 -A	8.03	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^4P - ^4P^\circ$	5/2 - 3/2	M18
Si II	989.8730 st	100	6	3p - 4d	$g^2P^\circ - ^2D$	1/2 - 3/2	K7,M18
Si II	992.6826 st	200	6	3p - 4d	$g^2P^\circ - ^2D$	3/2 - 5/2	K7,M18
Si II	1020.6988 st	25	5.01	3p - 5s	$g^2P^\circ - ^2S$	1/2 - 1/2	K7,M18
Si II	1023.7002 st	50	5.01	3p - 5s	$g^2P^\circ - ^2S$	3/2 - 1/2	K7,M18
Si II	1034.967	0 -A	13.08	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1056.899	2 -A	13.07	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	3/2 - 5/2	M18
Si II	1057.050	30 -A	13.07	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	M18
Si II	1057.503	15 -A	13.07	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	3/2 - 3/2	M18
Si II	1057.690	2 -A	13.07	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 3/2	M18
Si II?	1082.400	2					M18
Si II?	1084.144	3					M18
Si II	1127.442	20h -A	13.06	$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1127.907	40h -A	13.06	$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1190.4157 st	100	5	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	K7,M18
Si II	1193.2894 st	200	5	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	K7,M18
Si II	1194.5001 st	250	5	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	K7,M18
Si II	1197.3936 st	100	5	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	K7,M18
Si II?	1216.117	10h					M18
Si II	1222.288	0	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 1/2	M18
Si II	1222.635	5	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	M18
Si II	1223.907	20	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	M18
Si II	1224.252	20	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	M18
Si II	1224.972	10	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	M18
Si II	1226.814	50	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 1/2	M18
Si II	1226.887	20	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	M18
Si II	1226.986	40	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	M18
Si II	1227.604	100	8.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	1228.437	10	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 1/2	M18
Si II	1228.617	25	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	M18
Si II	1228.746	150	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	M18
Si II	1229.388	200	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	M18
Si II	1231.406	5	8.01	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	M18
Si II?	1233.354	5h					M18
Si II?	1235.920	10					M18
Si II?	1237.36	3h					M18
Si II	1246.738	100	8	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	M18
Si II	1248.426	150	8	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	M18
Si II	1250.089	100 -A	13.05	$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	M18
Si II	1250.433	150 -A	13.05	$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	M18
Si II	1251.164	200	8	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	M18
Si II	1260.4212 st	500	4	3p - 3d	$g^2P^\circ - ^2D$	1/2 - 3/2	K7,M18
Si II	1264.7374 st	1000	4	3p - 3d	$g^2P^\circ - ^2D$	3/2 - 5/2	K7,M18
Si II	1265.0010 st	100	4	3p - 3d	$g^2P^\circ - ^2D$	3/2 - 3/2	K7,M18
Si II	1274.300	3h					M18
Si II	1275.662	5h					M18
Si II	1304.3720 st	100	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	K7,M18
Si II	1305.590	50h -A	13.04	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1309.2769 st	200	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	K7,M18
Si II	1309.458	20h	13.04	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1309.77	2h	13.04	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 5/2	M18
Si II	1311.265	2h					M18
Si II	1346.873	100	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	M18
Si II	1348.543	100	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 3/2	M18
Si II	1350.057	150	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	M18
Si II	1350.520	20	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 3/2	M18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si II	1350.658	20	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 1/2	M18
Si II	1352.635	100	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 1/2	M18
Si II	1353.718	100	7	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	M18
Si II	1403.783	5h	13.03	$3s3p^2 - 3s^210p$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1404.170	1h	13.03	$3s3p^2 - 3s^210p$	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si II	1404.478	6h	13.03	$3s3p^2 - 3s^210p$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1409.073	10h	13.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1409.90	2h	13.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si II	1410.219	20h	13.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1416.972	10h -A	18.06	$3s^23d - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 5/2	M18
Si II	1417.781	5 -A	18.06	$3s^23d - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	3/2 - 3/2	M18
Si II	1418.110	0 -A	18.06	$3s^23d - 3s3p(^3P^\circ)4d$	$^2D - ^2D^\circ$	5/2 - 3/2	M18
Si II	1434.400	1h	13.01	$3s3p^2 - 3s^29p$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1434.542	2h	13.01	$3s3p^2 - 3s^29p$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1438.576	2h	13	$3s3p^2 - 3s^28f$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1438.931	4h	13	$3s3p^2 - 3s^28f$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1471.775	2 -A	30	$3s3p^2 - 3s3p(^3P^\circ)5s$	$^2P - ^2P^\circ$	3/2 - 3/2	M18
Si II	1474.304	1h	12.02	$3s3p^2 - 3s^28p$	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si II	1474.649	15h	12.02	$3s3p^2 - 3s^28p$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1475.188	5h	12.02	$3s3p^2 - 3s^28p$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1476.928	1	12.01	$3s3p^2 - 3p^3$	$^2D - ^4S^\circ$	5/2 - 3/2	M18
Si II	1484.873	15	12	$3s3p^2 - 3s^27f$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1485.024	90h -A	15.04	$3s3p^2 - 3p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	M18
Si II	1485.224	30	12	$3s3p^2 - 3s^27f$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1485.513	100h -A	15.04	$3s3p^2 - 3p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	M18
Si II	1508.741	3h	11.01	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si II	1509.101	100h	11.01	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1512.072	50h	11.01	$3s3p^2 - 3s3p(^3P^\circ)4s$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1513.570	30 -A	29	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2P - ^2D^\circ$	1/2 - 3/2	M18
Si II	1516.910	60 -A	29	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	M18
Si II	1518.221	5 -A	29	$3s3p^2 - 3s3p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 3/2	M18
Si II	1526.7076 st	500	2	3p - 4s	$g^2P^\circ - ^2S$	1/2 - 1/2	K7,M18
Si II	1533.4320 st	1000	2	3p - 4s	$g^2P^\circ - ^2S$	3/2 - 1/2	K7,M18
Si II	1562.451	10	11	$3s3p^2 - 3s^26f$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1562.845	15	11	$3s3p^2 - 3s^26f$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1563.765	10	10.02	$3s3p^2 - 3s^27p$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1564.066	5	10.02	$3s3p^2 - 3s^27p$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1661.059	3h -A	28	$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	M18
Si II	1661.633	1h -A	28	$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	M18
Si II	1667.267	0 -A	28	$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	M18
Si II	1704.967	2h	10.01	$3s3p^2 - 3s^26p$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1710.826	10h	10	$3s3p^2 - 3s^25f$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1711.296	20h	10	$3s3p^2 - 3s^25f$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1786.817	4 -A	18.05	$3s^23d - 3p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	M18
Si II	1787.538	8 -A	18.05	$3s^23d - 3p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	M18
Si II	1808.0117	150	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	K5,M18
Si II	1816.9278	200	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	K5,M18
Si II	1817.4511	10	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	K5,M18
Si II	1868.765	1	9.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 5/2	M18
Si II	1869.317	20	9.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	M18
Si II	1870.227	15	9.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	M18
Si II	1870.782	3	9.02	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 3/2	M18
Si II	1902.459	100h -A	18.04	$3s^23d - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si II	1904.326	5h -A	31	$3s^24d - 3s3p(^3P^\circ)4d$	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si II	1905.878	3h -A	31	$3s^24d - 3s3p(^3P^\circ)4d$	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si II	1910.621	50h	18.04	$3s^23d - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	M18
Si II	1911.265	0h	18.04	$3s^23d - 3s3p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 5/2	M18
Si II	1941.667	50 -A	27	$3s3p^2 - 3p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	M18
Si II	1944.586	15 -A	23	$3s^24p - 3s3p(^3P^\circ)4p$	$^2P^\circ - ^2P$	3/2 - 3/2	M18
Si II	1945.504	3 -A	23	$3s^24p - 3s3p(^3P^\circ)4p$	$^2P^\circ - ^2P$	1/2 - 1/2	M18
Si II	1947.769	1 -A	23	$3s^24p - 3s3p(^3P^\circ)4p$	$^2P^\circ - ^2P$	3/2 - 1/2	M18
Si II	1949.331	10 -A	27	$3s3p^2 - 3p^3$	$^2P - ^2D^\circ$	3/2 - 3/2	M18
Si II	1949.564	100 -A	27	$3s3p^2 - 3p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	M18

SILICON III (Si^{2+}), Z = 14

Ground State $1s^2 2s^2 2p^6 3s^2\ ^1S_0$ (12 electrons)

Ionization Potential 270 139.3 cm^{-1}; 33.492 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Si III	423.817	P		3.04	$3s^2 - 3p4s$	$g^1S - {}^1P^\circ$	0 - 1	M18
Si III	426.644	P		3.03	$3s^2 - 3s6p$	$g^1S - {}^1P^\circ$	0 - 1	M18
Si III	437.255	P		3.02	$3s^2 - 3p3d$	$g^1S - {}^1P^\circ$	0 - 1	M18
Si III	466.129		80	3.01	$3s^2 - 3s5p$	$g^1S - {}^1P^\circ$	0 - 1	E6,M18
Si III	510.079	P		6.08	$3s3p - 3p4p$	${}^3P^\circ - {}^3S$	0 - 1	M18
Si III	510.414	P		6.08	$3s3p - 3p4p$	${}^3P^\circ - {}^3S$	1 - 1	M18
Si III	511.096	P		6.08	$3s3p - 3p4p$	${}^3P^\circ - {}^3S$	2 - 1	M18
Si III	511.994	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	1 - 2	M18
Si III	512.219	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	0 - 1	M18
Si III	512.557	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	1 - 1	M18
Si III	512.681	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	2 - 2	M18
Si III	512.772	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	1 - 0	M18
Si III	513.245	P		6.07	$3s3p - 3p4p$	${}^3P^\circ - {}^3P$	2 - 1	M18
Si III	520.79		10	6.06	$3s3p - 3p4p$	${}^3P^\circ - {}^3D$	1 - 2	M18
Si III	520.92		20	6.06	$3s3p - 3p4p$	${}^3P^\circ - {}^3D$	2 - 3	M18
Si III	521.149	P		6.06	$3s3p - 3p4p$	${}^3P^\circ - {}^3D$	1 - 1	M18
Si III	521.510	P		6.06	$3s3p - 3p4p$	${}^3P^\circ - {}^3D$	2 - 2	M18
Si III	521.861	P		6.06	$3s3p - 3p4p$	${}^3P^\circ - {}^3D$	2 - 1	M18
Si III	533.226	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	0 - 1	M18
Si III	533.530	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	1 - 2	M18
Si III	533.592	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	1 - 1	M18
Si III	534.189	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	2 - 3	M18
Si III	534.276	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	2 - 2	M18
Si III	534.339	P		6.05	$3s3p - 3s6d$	${}^3P^\circ - {}^3D$	2 - 1	M18
Si III	565.289		20	6.04	$3s3p - 3s6s$	${}^3P^\circ - {}^3S$	0 - 1	M18
Si III	565.698		40	6.04	$3s3p - 3s6s$	${}^3P^\circ - {}^3S$	1 - 1	M18
Si III	566.546	P		6.04	$3s3p - 3s6s$	${}^3P^\circ - {}^3S$	2 - 1	M18
Si III	566.613		160	3	$3s^2 - 3s4p$	$g^1S - {}^1P^\circ$	0 - 1	E6,M18
Si III	567.878	P		19	$3s3p - 3p4p$	${}^1P^\circ - {}^1S$	1 - 0	M18
Si III	573.538	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	0 - 1	M18
Si III	573.951	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	1 - 2	M18
Si III	573.961	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	1 - 1	M18
Si III	574.799	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	2 - 3	M18
Si III	574.814	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	2 - 2	M18
Si III	574.824	P		6.03	$3s3p - 3s5d$	${}^3P^\circ - {}^3D$	2 - 1	M18
Si III	605.873	P		18	$3s3p - 3p4p$	${}^1P^\circ - {}^1D$	1 - 2	M18
Si III	624.997	P		17	$3s3p - 3p4p$	${}^1P^\circ - {}^1P$	1 - 1	M18
Si III	634.255	P		16	$3s3p - 3s6d$	${}^1P^\circ - {}^1D$	1 - 2	M18
Si III	651.668		80	6.02	$3s3p - 3s5s$	${}^3P^\circ - {}^3S$	0 - 1	E6,M18
Si III	652.223		120	6.02	$3s3p - 3s5s$	${}^3P^\circ - {}^3S$	1 - 1	E6,M18
Si III	653.332		160	6.02	$3s3p - 3s5s$	${}^3P^\circ - {}^3S$	2 - 1	E6,M18
Si III	671.718		40	6.01	$3s3p - 3s4d$	${}^3P^\circ - {}^3D$	0 - 1	M18
Si III	672.293		80	6.01	$3s3p - 3s4d$	${}^3P^\circ - {}^3D$	1 - 2	M18
Si III	673.477		100	6.01	$3s3p - 3s4d$	${}^3P^\circ - {}^3D$	2 - 3	M18
Si III	678.055		40	15	$3s3p - 3s6s$	${}^1P^\circ - {}^1S$	1 - 0	M18
Si III	690.689		40	14	$3s3p - 3s5d$	${}^1P^\circ - {}^1D$	1 - 2	M18
Si III	800.066		100	13	$3s3p - 3s5s$	${}^1P^\circ - {}^1S$	1 - 0	M18
Si III	822.004	P		29	$3p^2 - 3s6f$	${}^1D - {}^1F^\circ$	2 - 3	M18
Si III	823.408		180	12	$3s3p - 3s4d$	${}^1P^\circ - {}^1D$	1 - 2	E6,M18
Si III	879.233		10	28	$3p^2 - 3p4s$	${}^1D - {}^1P^\circ$	2 - 1	M18
Si III	883.398		100	27	$3p^2 - 3p3d$	${}^1D - {}^1F^\circ$	2 - 3	M18
Si III	891.479	P		26	$3p^2 - 3s6p$	${}^1D - {}^1P^\circ$	2 - 1	M18
Si III	936.056		25	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	3 - 4	M18
Si III	936.058		2	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	3 - 3	M18
Si III	936.060		1	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	3 - 2	M18
Si III	936.077		18	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	2 - 3	M18
Si III	936.079		2	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	2 - 2	M18
Si III	936.100		12	44	$3s3d - 3s7f$	${}^3D - {}^3F^\circ$	1 - 2	M18
Si III	939.093		140	25	$3p^2 - 3p3d$	${}^1D - {}^1P^\circ$	2 - 1	E6,M18
Si III	967.946		180	24	$3p^2 - 3s5f$	${}^1D - {}^1F^\circ$	2 - 3	E6,M18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si III	993.519	200	6	3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	E6,M18
Si III	994.787	260	6	3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	E6,M18
Si III	997.389	320	6	3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	E6,M18
Si III	1005.349	60	43	3s3d - 3s6f	$^3D - ^3F^\circ$	3 - 4	M18
Si III	1005.353	5	43	3s3d - 3s6f	$^3D - ^3F^\circ$	3 - 3	M18
Si III	1005.357	1	43	3s3d - 3s6f	$^3D - ^3F^\circ$	3 - 2	M18
Si III	1005.374	40	43	3s3d - 3s6f	$^3D - ^3F^\circ$	2 - 3	M18
Si III	1005.378	5	43	3s3d - 3s6f	$^3D - ^3F^\circ$	2 - 2	M18
Si III	1005.403	30	43	3s3d - 3s6f	$^3D - ^3F^\circ$	1 - 2	M18
Si III	1031.169	140	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 2	M18
Si III	1032.851	60	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	0 - 1	M18
Si III	1033.920	160	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	2 - 2	M18
Si III	1034.287	80	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 1	M18
Si III	1035.657	60	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 0	M18
Si III	1037.053	140	33	$3p^2$ - 3p4s	$^3P - ^3P^\circ$	2 - 1	M18
Si III	1083.210	120	23	$3p^2$ - 3s5p	$^1D - ^1P^\circ$	2 - 1	M18
Si III	1092.915 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	3 - 2	M18
Si III	1092.940 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	2 - 2	M18
Si III	1092.969 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	1 - 2	M18
Si III	1093.105 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	2 - 1	M18
Si III	1093.133 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	1 - 1	M18
Si III	1093.293 P		42	3s3d - 3s6p	$^3D - ^3P^\circ$	1 - 0	M18
Si III	1108.368	280	5	3s3p - 3s3d	$^3P^\circ - ^3D$	0 - 1	E6,M18
Si III	1109.965	320	5	3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	E6,M18
Si III	1113.228	360	5	3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	E6,M18
Si III	1140.545	120	32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	0 - 1	M18
Si III	1141.580	140	32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	1 - 2	M18
Si III	1142.282	120	32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	1 - 1	M18
Si III	1144.306	160	32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 3	M18
Si III	1144.959	120	32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 2	M18
Si III	1145.122	150	41	3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	M18
Si III	1145.149	13	41	3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 3	M18
Si III	1145.16	1	41	3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 2	M18
Si III	1145.177	80	41	3s3d - 3s5f	$^3D - ^3F^\circ$	2 - 3	M18
Si III	1145.19	10	41	3s3d - 3s5f	$^3D - ^3F^\circ$	2 - 2	M18
Si III	1145.22	50	41	3s3d - 3s5f	$^3D - ^3F^\circ$	1 - 2	M18
Si III	1145.669 P		32	$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 1	M18
Si III	1154.998	120	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	0 - 1	M18
Si III	1155.957	120	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 0	M18
Si III	1156.782	80	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 1	M18
Si III	1158.102	140	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 2	M18
Si III	1160.255	120	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 1	M18
Si III	1161.579	160	31	$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 2	M18
Si III	1172.529	80	30	$3p^2$ - 3s5p	$^3P - ^3P^\circ$	0 - 1	M18
Si III	1174.369	100	30	$3p^2$ - 3s5p	$^3P - ^3P^\circ$	1 - 1	M18
Si III	1174.432	120	30	$3p^2$ - 3s5p	$^3P - ^3P^\circ$	1 - 2	M18
Si III	1178.004	160	30	$3p^2$ - 3s5p	$^3P - ^3P^\circ$	2 - 2	M18
Si III	1182.018	60	64	3s3d - 3s7f	$^1D - ^1F^\circ$	2 - 3	M18
Si III	1192.228 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	3 - 2	M18
Si III	1192.258 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	2 - 2	M18
Si III	1192.293 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	1 - 2	M18
Si III	1196.436 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	2 - 1	M18
Si III	1196.470 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	1 - 1	M18
Si III	1198.297 P		40	3s3d - 3p4s	$^3D - ^3P^\circ$	1 - 0	M18
Si III	1206.510	600	2	$3s^2$ - 3s3p	$g^1S - ^1P^\circ$	0 - 1	M18
Si III	1206.533	600	11	3s3p - 3s3d	$^1P^\circ - ^1D$	1 - 2	M18
Si III	1207.517	180	22	$3p^2$ - 3p3d	$^1D - ^1D^\circ$	2 - 2	M18
Si III	1210.456	200	21	$3p^2$ - 3s4f	$^1D - ^1F^\circ$	2 - 3	M18
Si III	1212.011	40	50	$3p^2$ - 3p4s	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1212.247 P		74	3s4p - 3p4p	$^1P^\circ - ^1S$	1 - 0	M18
Si III	1235.431	140	49	$3p^2$ - 3s6p	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1280.354	120	63	3s3d - 3s6f	$^1D - ^1F^\circ$	2 - 3	M18
Si III	1294.543	340	4	3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 2	E6,M18
Si III	1296.726	280	4	3s3p - $3p^2$	$^3P^\circ - ^3P$	0 - 1	E6,M18
Si III	1298.891	300	4	3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 1	E6,M18

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si III	1298.960	360	4	$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	M18
Si III	1300.703 P		54	3s4s - 3p4s	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1301.146	280	4	$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	E6,M18
Si III	1303.320	320	4	$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	E6,M18
Si III	1312.590	260	10	3s3p - 3s4s	$^1P^\circ - ^1S$	1 - 0	E6,M18
Si III	1327.703 P		53	3s4s - 3s6p	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1328.806 P		48	$3p^2 - 3p3d$	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1341.465	160	39	3s3d - 3p3d	$^3D - ^3D^\circ$	3 - 3	M18
Si III	1341.496 P		39	3s3d - 3p3d	$^3D - ^3D^\circ$	2 - 3	M18
Si III	1342.351 P		39	3s3d - 3p3d	$^3D - ^3D^\circ$	3 - 2	M18
Si III	1342.392	140	39	3s3d - 3p3d	$^3D - ^3D^\circ$	2 - 2	M18
Si III	1342.432 P		39	3s3d - 3p3d	$^3D - ^3D^\circ$	1 - 2	M18
Si III	1343.388	120	39	3s3d - 3p3d	$^3D - ^3D^\circ$	1 - 1	M18
Si III	1359.751 P		68	3s4p - 3p4p	$^3P^\circ - ^3S$	0 - 1	M18
Si III	1360.360	20	68	3s4p - 3p4p	$^3P^\circ - ^3S$	1 - 1	M18
Si III	1361.597	160	46	3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 2	E6,M18
Si III	1361.719 P		68	3s4p - 3p4p	$^3P^\circ - ^3S$	2 - 1	M18
Si III	1362.366	100	38	3s3d - 3p3d	$^3D - ^3P^\circ$	1 - 0	M18
Si III	1363.459	140	38	3s3d - 3p3d	$^3D - ^3P^\circ$	2 - 1	M18
Si III	1363.504 P		38	3s3d - 3p3d	$^3D - ^3P^\circ$	1 - 1	M18
Si III	1365.253	160	38	3s3d - 3p3d	$^3D - ^3P^\circ$	3 - 2	M18
Si III	1365.292 P		38	3s3d - 3p3d	$^3D - ^3P^\circ$	2 - 2	M18
Si III	1365.337 P		38	3s3d - 3p3d	$^3D - ^3P^\circ$	1 - 2	M18
Si III	1367.049	140	46	3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 1	E6,M18
Si III	1369.437	100	46	3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 0	M18
Si III	1371.652	60	67	3s4p - 3p4p	$^3P^\circ - ^3P$	1 - 2	M18
Si III	1373.030	100	67	3s4p - 3p4p	$^3P^\circ - ^3P$	2 - 2	M18
Si III	1375.083	40	67	3s4p - 3p4p	$^3P^\circ - ^3P$	0 - 1	M18
Si III	1375.688	40	67	3s4p - 3p4p	$^3P^\circ - ^3P$	1 - 1	M18
Si III	1377.082	60	67	3s4p - 3p4p	$^3P^\circ - ^3P$	2 - 1	M18
Si III	1377.238	40	67	3s4p - 3p4p	$^3P^\circ - ^3P$	1 - 0	M18
Si III	1387.948	25	37	3s3d - 3s5p	$^3D - ^3P^\circ$	2 - 1	M18
Si III	1387.979	10	37	3s3d - 3s5p	$^3D - ^3P^\circ$	1 - 0	M18
Si III	1387.994	8	37	3s3d - 3s5p	$^3D - ^3P^\circ$	1 - 1	M18
Si III	1388.011	50	37	3s3d - 3s5p	$^3D - ^3P^\circ$	3 - 2	M18
Si III	1388.052	8	37	3s3d - 3s5p	$^3D - ^3P^\circ$	2 - 2	M18
Si III	1388.098	1	37	3s3d - 3s5p	$^3D - ^3P^\circ$	1 - 2	M18
Si III	1399.615 P		73	3s4p - 3p4p	$^1P^\circ - ^1D$	1 - 2	M18
Si III	1417.237	260	9	$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	E6,M18
Si III	1424.775	40	62	3s3d - 3p4s	$^1D - ^1P^\circ$	2 - 1	M18
Si III	1433.690	120	66	3s4p - 3p4p	$^3P^\circ - ^3D$	2 - 3	M18
Si III	1435.776	160	61	3s3d - 3p3d	$^1D - ^1F^\circ$	2 - 3	E6,M18
Si III	1436.166	140	52	3s4s - 3p3d	$^1S - ^1P^\circ$	0 - 1	E6,M18
Si III	1436.724	80	66	3s4p - 3p4p	$^3P^\circ - ^3D$	1 - 2	M18
Si III	1438.228	40	66	3s4p - 3p4p	$^3P^\circ - ^3D$	2 - 2	M18
Si III	1438.702	40	66	3s4p - 3p4p	$^3P^\circ - ^3D$	0 - 1	M18
Si III	1439.391	40	66	3s4p - 3p4p	$^3P^\circ - ^3D$	1 - 1	M18
Si III	1440.908 P		66	3s4p - 3p4p	$^3P^\circ - ^3D$	2 - 1	M18
Si III	1441.732	100	3.05	$3s3p - 3p^2$	$^3P^\circ - ^1D$	1 - 2	M18
Si III	1447.196	120	3.05	$3s3p - 3p^2$	$^3P^\circ - ^1D$	2 - 2	M18
Si III	1457.253	100	60	3s3d - 3s6p	$^1D - ^1P^\circ$	2 - 1	M18
Si III	1500.241	240	36	3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	E6,M18
Si III	1501.150 P		36	3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 3	E6,M18
Si III	1501.191	200	36	3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	E6,M18
Si III	1501.780 P		36	3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 2	M18
Si III	1501.827 P		36	3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 2	E6,M18
Si III	1501.870	180	36	3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	M18
Si III	1506.060	120	72	3s4p - 3p4p	$^1P^\circ - ^1P$	1 - 1	M18
Si III	1513.533	40 -A	94	3p3d - 3p5f	$^1F^\circ - ½[7/2]$?	3 - 3	M18
Si III	1560.974 P		71	3s4p - 3s6d	$^1P^\circ - ^1D$	1 - 2	M18
Si III	1588.950	40	59	3s3d - 3p3d	$^1D - ^1P^\circ$	2 - 1	M18
Si III	1622.892 P		45	3s4s - 3s5p	$^3S - ^3P^\circ$	1 - 0	M18
Si III	1622.913 P		45	3s4s - 3s5p	$^3S - ^3P^\circ$	1 - 1	M18
Si III	1623.055 P		45	3s4s - 3s5p	$^3S - ^3P^\circ$	1 - 2	M18
Si III	1636.990	20	47	$3p^2 - 3s5p$	$^1S - ^1P^\circ$	0 - 1	M18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si III	1673.315	140	58	3s3d - 3s5f	$^1D - ^1F^\circ$	2 - 3	M18
Si III	1778.715 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	3 - 4	M18
Si III	1783.079 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	3 - 3	M18
Si III	1783.146 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	2 - 3	M18
Si III	1786.371 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	3 - 2	M18
Si III	1786.438 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	2 - 2	M18
Si III	1786.515 P		35	3s3d - 3p3d	$^3D - ^3F^\circ$	1 - 2	M18
Si III	1803.023	60	51	3s4s - 3s5p	$^1S - ^1P^\circ$	0 - 1	M18
Si III	1838.466 P		65	3s4p - 3s6s	$^3P^\circ - ^3S$	0 - 1	M18
Si III	1839.585 P		65	3s4p - 3s6s	$^3P^\circ - ^3S$	1 - 1	M18
Si III	1842.064 P		65	3s4p - 3s6s	$^3P^\circ - ^3S$	2 - 1	M18
Si III	1842.547	180	20	$3p^2$ - 3s4p	$^1D - ^1P^\circ$	2 - 1	M18
Si III	1856.062	20	70	3s4p - 3s6s	$^1P^\circ - ^1S$	1 - 0	M18
Si III	1892.030	60	1	$3s^2$ - 3s3p	$g^1S - ^3P^\circ$	0 - 1	M18
Si III	1953.968 P		69	3s4p - 3s5d	$^1P^\circ - ^1D$	1 - 2	M18
Si III	1979.233 P		83	3s4d - 3s8f	$^1D - ^1F^\circ$	2 - 3	M18

SILICON IV (Si^{3+}), Z = 14

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 364 093.1 cm^{-1}; 45.141 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si IV	327.137 P		2.02	3s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	M18
Si IV	327.181 P		2.02	3s - 6p	$g^2S - ^2P^\circ$	½ - ½	M18
Si IV	361.560 P		2.01	3s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	E6,M18
Si IV	361.659 P		2.01	3s - 5p	$g^2S - ^2P^\circ$	½ - ½	E6,M18
Si IV	412.155 P		9	3p - 6d	$^2P^\circ - ^2D$	½ - 3/2	M18
Si IV	412.939 P		9	3p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	M18
Si IV	437.849 P		8	3p - 6s	$^2P^\circ - ^2S$	½ - ½	M18
Si IV	438.734 P		8	3p - 6s	$^2P^\circ - ^2S$	3/2 - ½	M18
Si IV	454.112 P		7	3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	E6,M18
Si IV	455.065 P		7	3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	E6,M18
Si IV	457.818	250	2	3s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	E6,M18
Si IV	458.155	200	2	3s - 4p	$g^2S - ^2P^\circ$	½ - ½	E6,M18
Si IV	515.118	150	6	3p - 5s	$^2P^\circ - ^2S$	½ - ½	E6,M18
Si IV	516.348	200	6	3p - 5s	$^2P^\circ - ^2S$	3/2 - ½	E6,M18
Si IV	559.533	2	5	3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	E6,S18,M18
Si IV	560.980	5	5	3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	E6,S18,M18
Si IV	645.759	150	15	3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si IV	688.194	1	14	3d - 6p	$^2D - ^2P^\circ$	5/2 - 3/2	M18,S18
Si IV	688.200 P		14	3d - 6p	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si IV	688.395 P		14	3d - 6p	$^2D - ^2P^\circ$	3/2 - ½	M18
Si IV	749.941	300	13	3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	E6,M18
Si IV	815.049	500	4	3p - 4s	$^2P^\circ - ^2S$	½ - ½	E6,M18
Si IV	818.129	550	4	3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	E6,M18
Si IV	860.551	20	12	3d - 5p	$^2D - ^2P^\circ$	5/2 - 3/2	M18,S18
Si IV	860.560 P		12	3d - 5p	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si IV	861.118	5	12	3d - 5p	$^2D - ^2P^\circ$	3/2 - ½	M18,S18
Si IV	895.228 P		17	4s - 6p	$^2S - ^2P^\circ$	½ - 3/2	M18
Si IV	895.558 P		17	4s - 6p	$^2S - ^2P^\circ$	½ - ½	M18
Si IV	1045.500 P		21	4p - 6d	$^2P^\circ - ^2D$	½ - 3/2	M18
Si IV	1047.271 P		21	4p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	M18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si IV	1066.629	550	11	3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	E6,M18
Si IV	1122.486	550	3	3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	E6,M18
Si IV	1128.325 P		3	3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	E6,M18
Si IV	1128.340	650	3	3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	E6,M18
Si IV	1210.652 P		16	4s - 5p	$^2S - ^2P^\circ$	1/2 - 3/2	M18
Si IV	1211.757 P		16	4s - 5p	$^2S - ^2P^\circ$	1/2 - 1/2	M18
Si IV	1228.349 P		20	4p - 6s	$^2P^\circ - ^2S$	1/2 - 1/2	M18
Si IV	1230.795 P		20	4p - 6s	$^2P^\circ - ^2S$	3/2 - 1/2	M18
Si IV	1365.549 P		19	4p - 5d	$^2P^\circ - ^2D$	1/2 - 3/2	M18
Si IV	1368.571 P		19	4p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	M18
Si IV	1368.573 P		19	4p - 5d	$^2P^\circ - ^2D$	3/2 - 3/2	M18
Si IV	1393.755	1000	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	E6,M18
Si IV	1402.770	800	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	E6,M18
Si IV	1533.220 P		24	4d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	M18
Si IV	1634.607	70	28	4f - 6g	$^2F^\circ - ^2G$	7/2 - 9/2	M18
Si IV	1672.612 P		27	4f - 6d	$^2F^\circ - ^2D$	7/2 - 5/2	M18
Si IV	1722.534	400	10	3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si IV	1727.377	300	10	3d - 4p	$^2D - ^2P^\circ$	3/2 - 1/2	M18
Si IV	1796.162 P		23	4d - 6p	$^2D - ^2P^\circ$	5/2 - 3/2	M18
Si IV	1796.166 P		23	4d - 6p	$^2D - ^2P^\circ$	3/2 - 3/2	M18
Si IV	1797.496 P		23	4d - 6p	$^2D - ^2P^\circ$	3/2 - 1/2	M18

SILICON V (Si^{4+}), Z = 14

Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)

Ionization Potential 1 345 100 cm^{-1}; 166.77 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si V	78.611	50		$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F34
Si V	78.903	50		$2p^6 - 2p^5(^2P^\circ)6d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F34
Si V	80.807	100		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F34
Si V	81.113	100		$2p^6 - 2p^5(^2P^\circ)5d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F34
Si V	85.175	500		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F34
Si V	85.579	300		$2p^6 - 2p^5(^2P^\circ)4d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F34
Si V	90.453	200		$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	F34
Si V	90.852	200		$2p^6 - 2p^5(^2P^\circ)4s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F34
Si V	96.439	750		$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F34
Si V	97.143	500		$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F34
Si V	98.209	100		$2p^6 - 2p^5(^2P^\circ)3d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	F34
Si V	117.860	1000		$2p^6 - 2p^5(^2P^\circ)3s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E6,F34
Si V	118.968	1000		$2p^6 - 2p^5(^2P^\circ)3s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,F34

SILICON VI (Si^{5+}), Z = 14

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 1 653 900 cm^{-1}; 205.05 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VI	65.004	20d		$2p^5 - 2p^4(^1D)5d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F34
Si VI	65.211	10		$2p^5 - 2p^4(^1D)5d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F34
Si VI	66.772	20		$2p^5 - 2p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	66.796	10		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	69.204	50d		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	69.236	250		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F34
Si VI	69.421	50		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	69.448	100d		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	71.181	250		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	71.273	100		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F34
Si VI	71.304	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F34
Si VI	71.340	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F34
Si VI	71.366	150		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	71.384	200b		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F34
Si VI	71.474	50		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	F34
Si VI	71.534	50		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	71.561	50		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VI	71.644	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F34
Si VI	71.718	10		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	F34
Si VI	72.896	50		$2p^5 - 2p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	75.193	200b		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VI?	75.398	150					F34
Si VI	75.486	50		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	75.587	50		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F34
Si VI	77.429	500		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	77.718	300		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	80.395	250		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F34
Si VI	80.449	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	F34
Si VI	80.491	250		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VI	80.501	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	80.577	600		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F34
Si VI	80.698	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F34
Si VI	80.725	500		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	80.821	400		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	80.908	400		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F34
Si VI	81.030	350		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VI	83.006	200		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VI	83.128	750		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	83.258	250		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F34
Si VI	83.283	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F34
Si VI	83.358	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	83.526	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F34
Si VI	83.611	400		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	83.639	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VI	83.684	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	F34
Si VI	83.729	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	F34
Si VI	83.802	300		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	F34
Si VI	83.965	10		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F34
Si VI	84.082	600b		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	F34
Si VI	91.369	200		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F34
Si VI	91.798	200		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F34
Si VI	96.020	500		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VI	96.488	500		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VI	99.095	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F34
Si VI	99.460	750		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VI	99.598	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VI	99.966	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VI	100.640	500d		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F34
Si VI	100.963	50		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F34
Si VI	101.160	10		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F34

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VI	102.846	50		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	½ - ½	F34
Si VI	103.163	100		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	½ - 3/2	F34
Si VI	246.001	400		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - ^2S$	3/2 - ½	E6,F34
Si VI	249.125	400		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - ^2S$	½ - ½	E6,F34

SILICON VII (Si^{6+}), Z = 14

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential 1 988 400 cm^{-1}; 246.52 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VII	54.462	50b		$2p^4 - 2p^3(^2D^\circ)5d$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	54.522	50d		$2p^4 - 2p^3(^2D^\circ)5d$	$g^3P - ^3D^\circ$	2 - 3	F35,F34
Si VII	56.528	50		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	56.645	50d		$2p^4 - 2p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$?	1 - 2	F34,K8
Si VII	57.325	50		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	57.434	50		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	57.589	50b		$2p^4 - 2p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	1 - 2	F34
Si VII	58.388	50		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3S^\circ$	2 - 1	F34
Si VII	58.445	100		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	58.526	10		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3S^\circ$	1 - 1	F34
Si VII	58.580	100		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	58.719	50		$2p^4 - 2p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	F34
Si VII	58.782	50		$2p^4 - 2p^3(^2P^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	F34
Si VII	59.884	50		$2p^4 - 2p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	59.966	100b		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	F34,F35
Si VII	60.221	100		$2p^4 - 2p^3(^2D^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	F34
Si VII	60.837	100		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	60.989	100b		$2p^4 - 2p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	F34
Si VII	61.306	50		$2p^4 - 2p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	62.940	50		$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	F34
Si VII	65.595	50		$2s2p^5 - 2s2p^4(^4P)4s$	$^3P^\circ - ^3P$	2 - 2	F34,F35
Si VII	68.026	10		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 2	F34
Si VII	68.148	250		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	68.190	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^1D^\circ$	2 - 2	F34,K8
Si VII	68.212	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	F34
Si VII	68.270	50d		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^1P^\circ$?	0 - 1	F34,K8
Si VII	68.340	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3F^\circ$?	2 - 3	F34,K8
Si VII	68.408	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	68.456	10		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	F34
Si VII	68.593	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	F34
Si VII	68.642	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	F34
Si VII	68.669	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	F34
Si VII	68.715	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	F34
Si VII	69.385	150		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	2 - 1	F34
Si VII	69.580	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	1 - 1	F34
Si VII	69.602	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	F34
Si VII	69.663	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	F34
Si VII	69.790	200b		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	F34
Si VII	69.861	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	F34
Si VII	69.872	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	F34
Si VII	70.027	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	F34
Si VII	70.072	250		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F34
Si VII	70.123	20		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3F^\circ$	2 - 3	F34
Si VII	70.222	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	F34
Si VII	70.250	200		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	F34

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VII	70.323	50		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3F^\circ$	1 - 2	F34
Si VII	70.427	50		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F34
Si VII	70.594	100		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^3F^\circ$?	2 - 3	F34,K8
Si VII	70.730	50		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^3P^\circ$	2 - 1	F34
Si VII	71.384	200b		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	F34
Si VII	71.900	200		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^3P^\circ$?	2 - 1	F34,K8
Si VII	71.955	200		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F34,F35
Si VII	72.324	300b		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1P^\circ$	2 - 1	F34
Si VII	73.123	500		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F34
Si VII	73.350	250		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F34
Si VII	73.433	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F34
Si VII	75.193	200b		$2p^4 - 2p^3(^2D^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	F34,F35
Si VII	79.236	250		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	F34
Si VII	79.262	50		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 1	F34
Si VII	79.491	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 2	F34
Si VII	79.523	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 1	F34
Si VII	79.615	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	0 - 1	F34
Si VII	81.449	50		$2s2p^5 - 2s2p^4(^2D)3s$	$^3P^\circ - {}^3D$	2 - 3	F35
Si VII	81.558	250		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - {}^1P^\circ$	2 - 1	F34
Si VII	81.620	600		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	F34
Si VII	81.895	500		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	F34
Si VII	81.998	150		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	F34
Si VII	84.082	600b		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	F34
Si VII	85.219	100		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	F34
Si VII	85.289	500		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	F34
Si VII	85.584	500		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	F34
Si VII	85.698	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	F34
Si VII	88.008	150		$2s2p^5 - 2s2p^4(^4P)3s$	$^3P^\circ - {}^3P$	2 - 2	F34,F35
Si VII	217.826	350		$2s^22p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	E6,F34
Si VII	246.06			$2s^22p^4 - 2s2p^5$	$^1S - {}^1P^\circ$	0 - 1	F16
Si VII	272.641	200		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	E6,F34
Si VII	274.175	200		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	E6,F34
Si VII	275.352	250		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	E6,F34
Si VII	275.665	200		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	E6,F34
Si VII	276.839	200b		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	E6,F34
Si VII	278.445	200		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	E6,F34

SILICON VIII (Si^{7+}), Z = 14

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 2 445 300 cm^{-1}; 303.17 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VIII	49.987	10		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F34
Si VIII	50.019	50d		$2p^3 - 2p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F34
Si VIII	50.524	50b		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F34
Si VIII	51.718	20		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F34
Si VIII	51.819	20		$2p^3 - 2p^2(^3P)4d$	$^2D^\circ - {}^2F$	3/2 - 5/2	F34
Si VIII	52.554	20		$2p^3 - 2p^2(^3P)4d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VIII	53.770	10		$2p^3 - 2p^2(^3P)4s$	$^2D^\circ - {}^2P$	5/2 - 3/2	F34
Si VIII	58.885	150d		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F34
Si VIII	60.989	100b		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F34
Si VIII	61.019	100		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F34

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si VIII	61.070	200		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F34
Si VIII	61.175	50d		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 1/2	F34
Si VIII	61.223	100		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	F34
Si VIII	61.395	50		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	F34
Si VIII	61.446	100d		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	F34
Si VIII	61.798	100		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F34
Si VIII	61.852	100b		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	F34
Si VIII	61.895	150d		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	F34
Si VIII	61.914	150d		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F34
Si VIII	62.586	50d		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2S$	3/2 - 1/2	F34
Si VIII	62.808	100		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VIII	62.849	150d		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F34
Si VIII	62.884	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	F34
Si VIII	63.229	150		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VIII	63.266	50		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VIII	63.732	150		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F34
Si VIII	63.879	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^4D$?	5/2 - 5/2	F34,K8
Si VIII	63.903	150		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	F34
Si VIII	64.281	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	F34
Si VIII	64.327	150		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VIII	64.355	50		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	F34
Si VIII	65.833	50		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VIII	67.157	150		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	F34
Si VIII	67.318	100		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	F34
Si VIII	67.408	150		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	F34
Si VIII	68.853	100		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^2P$?	3/2 - 3/2	F34,K8
Si VIII	69.632	150		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F34
Si VIII	69.790	200b		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F34
Si VIII	69.905	50		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F34
Si VIII	70.458	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	5/2 - 5/2	F34
Si VIII	70.473	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	3/2 - 3/2	F34
Si VIII	72.228	200		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - {}^2P$	5/2 - 3/2	F34
Si VIII	72.324	300b		$2p^3 - 2p^2(^1D)3s$	$^2P^\circ - {}^2D$	3/2 - 5/2	F34
Si VIII	72.420	200d		$2p^3 - 2p^2(^3P)3s$	$^2D^\circ - {}^2P$	3/2 - 1/2	F34
Si VIII	74.186	100		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VIII	74.371	20		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VIII	75.986	50		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - {}^4S^\circ$	5/2 - 3/2	F34
Si VIII	76.198	20		$2s2p^4 - 2s2p^3(^5S^\circ)3s$	$^4P - {}^4S^\circ$	3/2 - 3/2	F34
Si VIII	214.756	100		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	F34
Si VIII	216.800	20d		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 3/2	F34
Si VIII	216.918	100		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F34
Si VIII	232.864	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 1/2	F34
Si VIII	233.159	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 1/2	F34
Si VIII	235.221	10		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 3/2	F34
Si VIII	235.563	20		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 3/2	F34
Si VIII	250.45			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	1/2 - 1/2	F16
Si VIII	250.79			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	F16
Si VIII	252.79			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	3/2 - 1/2	F16
Si VIII	256.53			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	5/2 - 3/2	F16
Si VIII	276.839	200b		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	F34
Si VIII	277.054	200		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	5/2 - 3/2	F34
Si VIII	307.65 P	20		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	1/2 - 3/2	S22
Si VIII	308.26 P	50		$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	3/2 - 5/2	T10
Si VIII	314.31	50		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	T10
Si VIII	316.202	100		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F34
Si VIII	319.829	100d		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F34
Si VIII	338.43			$2s2p^4 - 2p^5$	$^2P - {}^2P^\circ$	3/2 - 1/2	F3
Si VIII	343.49			$2s2p^4 - 2p^5$	$^2P - {}^2P^\circ$	1/2 - 1/2	F3
Si VIII	345.10			$2s2p^4 - 2p^5$	$^2P - {}^2P^\circ$	3/2 - 3/2	F3
Si VIII	350.38			$2s2p^4 - 2p^5$	$^2P - {}^2P^\circ$	1/2 - 3/2	F3

SILICON IX (Si^{8+}), Z = 14

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 2 831 900 cm^{-1}; 351.10 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si IX	44.215	10		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	1 - 2	F34
Si IX	44.249	10		$2p^2 - 2p4d$	$g^3P - {}^3D^\circ$	2 - 3	F34
Si IX	51.113	50		$2s^2 2p^2 - 2s2p^2(^2D)3p$	${}^1D - {}^1D^\circ$	2 - 2	F34
Si IX	51.362	100		$2s^2 2p^2 - 2s2p^2(^2D)3p$	${}^1D - {}^1F^\circ$	2 - 3	F34
Si IX	52.671	10		$2s2p^3 - 2s2p^2(^2P)3d$	${}^3D^\circ - {}^3F$	3 - 4	F35
Si IX	52.810	20		$2s^2 2p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	1 - 2	F34
Si IX	52.838	50		$2s^2 2p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3D^\circ$	2 - 3	F34
Si IX	53.992	10		$2s^2 2p^2 - 2s2p^2(^4P)3p$	$g^3P - {}^3S^\circ$	2 - 1	F34
Si IX	54.403	50d		$2p^2 - 2p3d$	$g^3P - {}^1P^\circ$?	0 - 1	F34,K8
Si IX	54.841	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	F34
Si IX	54.870	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	F34
Si IX	54.907	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	F34
Si IX	55.094	50		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 0	F34
Si IX	55.116	50		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 1	F34
Si IX	55.234	50		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 1	F34
Si IX	55.272	150		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	F34
Si IX	55.305	50		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	0 - 1	F34
Si IX	55.356	100		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	1 - 2	F34
Si IX	55.401	100		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	F34
Si IX	55.511	50		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3D$	3 - 3	F34,F35
Si IX	55.781	150		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3F$	3 - 4	F34,F35
Si IX	56.027	150		$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	F34
Si IX	57.157	50		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3P^\circ - {}^3D$	2 - 3	F34,F35
Si IX	57.434	50		$2p^2 - 2p3d$	${}^1D - {}^1D^\circ$	2 - 2	F34
Si IX	57.589	50b		$2p^2 - 2p3d$	${}^1D - {}^3F^\circ$	2 - 2	F35
Si IX	57.778	100		$2p^2 - 2p3d$	${}^1S - {}^1P^\circ$	0 - 1	F34
Si IX	58.150	50		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3D$?	3 - 3	F34,K8
Si IX	58.906	50d		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	3 - 4	F34
Si IX	59.004	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	2 - 3	F34
Si IX	59.077	50		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	1 - 2	F34
Si IX	59.966	100b		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3D$	2 - 3	F34,F35
Si IX	60.459	20		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1D^\circ - {}^3D$?	2 - 2	F34,K8
Si IX	60.989	100b		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	F34
Si IX	61.109	50		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 2	F34
Si IX	61.190	50d		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 1	F34
Si IX	61.355	50		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3P^\circ - {}^3P$	2 - 2	F34
Si IX	61.502	50		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	F34
Si IX	61.546	100		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3D^\circ - {}^3D$	3 - 3	F34,F35
Si IX	61.600	50		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	F34
Si IX	61.649	100		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	F34
Si IX	61.852	100b		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	F35
Si IX	62.454	20		$2s2p^3 - 2s2p^2(^2D)3d$	${}^1P^\circ - {}^3D$?	1 - 2	F34,K8
Si IX	62.974	50		$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	F34
Si IX	63.478	20		$2p^2 - 2p3s$	${}^1D - {}^3P^\circ$?	2 - 2	F34,K8
Si IX	63.586	100		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3P^\circ - {}^3D$?	2 - 3	F34,K8
Si IX	65.236	10		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$	0 - 1	F34
Si IX	66.912	100		$2s2p^3 - 2s2p^2(^4P)3s$	${}^3D^\circ - {}^5P$?	3 - 2	F34,K8
Si IX	67.574	50d		$2s2p^3 - 2s2p^2(^4P)3d$	${}^1P^\circ - {}^5P$?	1 - 2	F34,K8
Si IX	223.72 P	80		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	0 - 1	T10
Si IX	225.033	800		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	1 - 1	T10
Si IX	227.007	800		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	T10
Si IX	227.30			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	F16
Si IX	257.27			$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	1 - 0	F16
Si IX	258.10 P			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	Z1
Si IX	258.36			$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	2 - 1	F16
Si IX	259.75			$2s^2 2p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	F16
Si IX	261.41			$2s2p^3 - 2p^4$	${}^3D^\circ - {}^3P$	3 - 2	F16
Si IX	290.63 P	20		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	T10
Si IX	292.83 P	80		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	T10
Si IX	296.19 P	150		$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	T10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si IX	298.32			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	F3
Si IX	302.51			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	F3
Si IX	342.97			$2s^22p^2 - 2s2p^3$	$^3P - ^3D^\circ$	0 - 1	F3
Si IX	345.10	20		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	T10
Si IX	349.96	50		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	T10
Si IX	358.29			$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	F16
Si IX	427.10			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	F3
Si IX	430.37			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	F3
Si IX	438.94			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	F3
Si IX	441.03			$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	F3

SILICON X (Si^{9+}), Z = 14

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 3 237 800 cm^{-1}; 401.43 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si X	34.040	5		$2s^22p - 2s2p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Si X	34.238	5		$2s^22p - 2s^26d$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Si X	35.310	10		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2D^\circ$	5/2 - 5/2	H7
Si X	35.353	10		$2s2p^2 - 2s2p(^1P^\circ)5d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Si X	35.656	5		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Si X	35.709	20		$2s2p^2 - 2s2p(^3P^\circ)5d$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Si X	35.838	40		$2s2p^2 - 2p^2(^3P)4p$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Si X	35.932	20		$2s^22p - 2s^25d$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Si X	37.159	20		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Si X	37.206	20		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Si X	37.248	10		$2s^22p - 2s2p(^3P^\circ)4p$	$g^2P^\circ - ^2D$	3/2 - 3/2	H7
Si X	38.830	60		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Si X	39.175	40		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 3/2	H7
Si X	39.203	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4P^\circ$	3/2 - 5/2	H7
Si X	39.264	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	3/2 - 5/2	H7
Si X	39.305	80		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Si X	39.443	50		$2s^22p - 2s^24d$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Si X	39.552	70		$2s^22p - 2s^24d$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Si X	40.407	10		$2s^22p - 2s^24s$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Si X	40.503	5		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	H7
Si X	41.023	30		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	H7
Si X	41.086	30		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	3/2 - 5/2	H7
Si X	44.521	30		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	H7
Si X	44.655	30		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Si X	44.719	20		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 1/2	H7
Si X	44.830	30		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Si X	44.855	30		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 5/2	H7
Si X	44.979	60		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4S^\circ$	5/2 - 3/2	H7
Si X	45.606	5		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Si X	45.684	60		$2s2p^2 - 2p^2(^3P)3p$	$^4P - ^4D^\circ$	5/2 - 7/2	H7
Si X	46.563	30		$2s2p^2 - 2p^2(^1D)3p$	$^2D - ^2D^\circ$	5/2 - 5/2	H7
Si X	46.895	20		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	1/2 - 1/2	H7
Si X	47.043	50		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Si X	47.489	50		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	1/2 - 3/2	H7
Si X	47.545	50		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2D$	3/2 - 5/2	F34,F35
Si X	48.381	20		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 3/2	H7
Si X	48.440	40		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	1/2 - 1/2	H7
Si X	48.553	10		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 3/2	F34,F35
Si X	48.596	20		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - ^2P$	3/2 - 1/2	H7
Si X	49.182	10		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	H7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si X	49.441	50		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	H7
Si X	49.701	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F34,F35
Si X	49.984	60		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	H7
Si X	50.018	90		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	H7
Si X	50.124	70		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	H7
Si X	50.154	50		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^4P - ^2P^\circ$?	3/2 - 3/2	F34
Si X	50.254	70		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	H7
Si X	50.305	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F34
Si X	50.333	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F34
Si X	50.390	10		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	H7
Si X	50.524	50b		$2s^22p - 2s^23d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F34,F35
Si X	50.691	100		$2s^22p - 2s^23d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F34,F35
Si X	51.635	10		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 3/2	F35
Si X	51.676	20		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - ^4P$	3/2 - 5/2	F34,F35
Si X	52.070	50		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	F34,F35
Si X	52.155	100d		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F34,F35
Si X	52.485	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F34,F35
Si X	52.611	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	F34,F35
Si X	53.463	10		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	F35
Si X	53.573	50d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	F34,F35
Si X	53.595	50d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	3/2 - 3/2	F34,F35
Si X	54.462	50b		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 5/2	F34
Si X	54.522	50d		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	1/2 - 3/2	F34,F35
Si X	54.571	50		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 5/2	F34
Si X	54.599	50d		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	F34,F35
Si X	54.664	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	3/2 - 1/2	F34
Si X	54.702	10		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^4P - ^4P^\circ$	5/2 - 3/2	F34
Si X	55.096	100		$2s^22p - 2s^23s$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Si X	56.680	50d		$2s2p^2 - 2s2p(^1P^\circ)3s$	$^2P - ^2P^\circ$	3/2 - 3/2	F34,F35
Si X	56.804	50		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F34,F35
Si X	57.209	20		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	5/2 - 3/2	F34,F35
Si X	57.365	80		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2D - ^2P^\circ$	3/2 - 1/2	H7
Si X	60.151	20		$2p^3 - 2s2p3p$	$^2D^\circ - ^2D$?	5/2 - 5/2	F34,K8
Si X	62.251	100		$2s2p^2 - 2s2p(^3P^\circ)3s$	$^2P - ^4P^\circ$?	3/2 - 5/2	F34,K8
Si X	64.772	50		$2s2p^2 - 2s^23p$	$^2P - ^2P^\circ$?	3/2 - 1/2	F34,K8
Si X	66.977	20d		$2p^3 - 2s2p(^3P^\circ)3p$	$^2D^\circ - ^2P$?	5/2 - 3/2	F34,K8
Si X	253.772	70		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	H7
Si X	256.569	10		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	H7
Si X	258.347	120		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	H7
Si X	261.27 P	200		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	Z1
Si X	271.995	40		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	H7
Si X	277.261	50		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	H7
Si X	278.15			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	F3
Si X	278.61			$2s2p^2 - 2p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	F3
Si X	287.16			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	F3
Si X	289.186	100		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	H7
Si X	292.220	60		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	H7
Si X	347.43	100		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	T10
Si X	347.71			$2s2p^2 - 2p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	F3
Si X	356.07	100		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	T10
Si X	357.51			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	F3
Si X	358.30			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	F3
Si X	388.62			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	F3
Si X	389.59			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	F3
Si X	394.71			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
Si X	395.68			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	F3
Si X	539.44			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
Si X	551.20			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	F3

SILICON XI (Si^{10+}), Z = 14

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 3 839 800 cm^{-1}; 476.06 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si XI	30.126	5		2s2p - 2p5p	$^3P^\circ - ^3P$	2 - 2	H6
Si XI	30.322	5		2s2p - 2s6d	$^3P^\circ - ^3D$	2 - 3	H6
Si XI	30.368	10		$2s^2$ - 2s5p	$g^1S - ^1P^\circ$	0 - 1	H6
Si XI	31.924	10		2s2p - 2s5d	$^3P^\circ - ^3D$	1 - 2	H6
Si XI	31.980	20		2s2p - 2s5d	$^3P^\circ - ^3D$	2 - 3	H6
Si XI	32.735	10		$2p^2$ - 2p5d	$^3P - ^3P^\circ$?	2 - 2	H6
Si XI	33.153	10		$2p^2$ - 2p5d	$^1D - ^1F^\circ$	2 - 3	H6
Si XI	33.222	20		2s2p - 2p4p	$^3P^\circ - ^3P$	2 - 2	H6
Si XI	33.298	20		2s2p - 2p4p	$^3P^\circ - ^3D$	2 - 3	H6
Si XI	33.515	20		$2s^2$ - 2s4p	$g^1S - ^1P^\circ$	0 - 1	H6
Si XI	33.573	10		2s2p - 2s5d	$^1P^\circ - ^1D$	1 - 2	H6
Si XI	34.910	20		2s2p - 2p4p	$^1P^\circ - ^1D$	1 - 2	H6
Si XI	35.353	10		2s2p - 2s4d	$^3P^\circ - ^3D$	0 - 1	H6
Si XI	35.383	60		2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 2	H6
Si XI	35.446	100		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	H6
Si XI	36.238	10		$2p^2$ - 2p4d	$^3P - ^3P^\circ$?	1 - 2	H6
Si XI	36.311	80		$2p^2$ - 2p4d	$^3P - ^3P^\circ$	2 - 2	H6
Si XI	36.335	80		$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 3	H6
Si XI	36.772	70		$2p^2$ - 2p4d	$^1D - ^1F^\circ$	2 - 3	H6
Si XI	37.060	10		$2p^2$ - 2p4d	$^1D - ^1D^\circ$	2 - 2	H6
Si XI	37.340	50		2s2p - 2s4d	$^1P^\circ - ^1D$	1 - 2	H6
Si XI	38.336	20		$2p^2$ - 2p4d	$^1S - ^1P^\circ$	0 - 1	H6
Si XI	42.730	40		2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 2	H6
Si XI	42.773	10		2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 1	H6
Si XI	42.826	70		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 2	H6
Si XI	42.866	30		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 1	H6
Si XI	42.910	10		2s2p - 2p3p	$^3P^\circ - ^3S$	0 - 1	H6
Si XI	42.950	20		2s2p - 2p3p	$^3P^\circ - ^3S$	1 - 1	H6
Si XI	43.046	20		2s2p - 2p3p	$^3P^\circ - ^3S$	2 - 1	H6
Si XI	43.290	10		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	F34
Si XI	43.329	10		2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 1	H6
Si XI	43.385	10		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 2	H6
Si XI	43.763	10		$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	F34
Si XI	45.398	10		2s2p - 2p3p	$^1P^\circ - ^1D$	1 - 2	F34
Si XI	46.264	10		2s2p - 2s3d	$^3P^\circ - ^3D$	0 - 1	F34
Si XI	46.300	50		2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	F34
Si XI	46.401	100		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	F34
Si XI	46.662	40		2s2p - 2p3p	$^1P^\circ - ^1P$	1 - 1	H6
Si XI	47.293	20		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	0 - 1	H6
Si XI	47.350	50		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 1	H6
Si XI	47.385	10		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 2	H6
Si XI	47.453	10		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 1	H6
Si XI	47.489	50		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 2	F34
Si XI	47.607	50		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	1 - 2	F34
Si XI	47.653	50		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	F34
Si XI	47.702	5		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 2	H6
Si XI	47.735	20		$2p^2$ - 2p3d	$^1D - ^1P^\circ$	2 - 1	H6
Si XI	47.899	50		$2p^2$ - 2p3d	$^1D - ^1F^\circ$	2 - 3	F34
Si XI	48.991	20		2s2p - 2s3s	$^3P^\circ - ^3S$	0 - 1	H6
Si XI	49.052	30		2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	H6
Si XI	49.181	30		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	H6
Si XI	49.222	50		2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	F34
Si XI	49.265	10		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	F34
Si XI	50.524	100		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	H6
Si XI	50.617	40		$2p^2$ - 2p3s	$^1D - ^1P^\circ$	2 - 1	H6
Si XI	52.296	100		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	H6
Si XI	147.60			2s3d - 2s4f	$^3D - ^3F^\circ$	3 - 4	F6
Si XI	303.31	500		$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	J5,T10
Si XI	358.29			2s2p - $2p^2$	$^1P^\circ - ^1S$	1 - 0	F3
Si XI	358.63			2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	F3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si XI	361.41			$2s2p - 2p^2$	$^3P^\circ - ^3P$	0 - 1	F3
Si XI	364.50			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	F3
Si XI	365.42			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	F3
Si XI	368.28			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	F3
Si XI	371.48			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	F3
Si XI	582.9 ?			$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	K8
Si XI	604.14			$2s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	F3

SILICON XII (Si^{11+}), Z = 14

Ground State $1s^22s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 4 222 400 cm^{-1}; 523.50 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si XII	5.816			$1s^22p - 1s2p3p$	$^2P^\circ - ^2S$?	3/2 - 1/2	D6
Si XII	6.717			$1s^22s - 1s2s2p$	$g^2S - ^2P^\circ$	1/2 - 3/2	D6
Si XII	6.787			$1s^22s - 1s2s2p$	$g^2S - ^4P^\circ$	1/2 - 3/2	D6
Si XII	25.655	1		$2s - 7p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Si XII	26.03			$2p - 9d$	$^2P^\circ - ^2D$	3/2 - 5/2	T5
Si XII	26.460	3		$2s - 6p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Si XII	26.98			$2p - 7d$	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Si XII	27.035	1		$2p - 7d$	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Si XII	27.850	3		$2p - 6d$	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Si XII	27.909	10		$2p - 6d$	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Si XII	29.439	10		$2p - 5d$	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Si XII	29.509	20		$2p - 5d$	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Si XII	29.574	1		$2p - 5s$	$^2P^\circ - ^2S$	1/2 - 1/2	F28
Si XII	29.645	3		$2p - 5s$	$^2P^\circ - ^2S$	3/2 - 1/2	F28
Si XII	31.015	60		$2s - 4p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Si XII	32.888	35		$2p - 4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Si XII	32.972	90		$2p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Si XII	40.911	200		$2s - 3p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F28
Si XII	40.951	200		$2s - 3p$	$g^2S - ^2P^\circ$	1/2 - 1/2	F28
Si XII	44.021	200		$2p - 3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F28
Si XII	44.165	250		$2p - 3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F28
Si XII	45.519	10		$2p - 3s$	$^2P^\circ - ^2S$	1/2 - 1/2	F28
Si XII	45.692	20		$2p - 3s$	$^2P^\circ - ^2S$	3/2 - 1/2	F28
Si XII	88.84			$3d - 5f$	$^2D - ^2F^\circ$	5/2 - 7/2	T5
Si XII	126.43			$3p - 4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F6
Si XII	126.77			$3p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F6
Si XII	129.89			$3d - 4f$	$^2D - ^2F^\circ$	3/2 - 5/2	T5
Si XII	130.02			$3d - 4f$	$^2D - ^2F^\circ$	5/2 - 7/2	T5
Si XII	499.37			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Si XII	520.66			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 1/2	F3

SILICON XIII (Si^{12+}), Z = 14

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 19 661 693 cm^{-1}; 2437.676 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si XIII	5.283			$1s^2$ - 1s5p	$g\,^1S$ - $^1P°$	0 - 1	D6
Si XIII	5.410			$1s^2$ - 1s4p	$g\,^1S$ - $^1P°$	0 - 1	D6
Si XIII	5.68 P			$1s^2$ - 1s3p	$g\,^1S$ - $^3P°$	0 - 1	K8
Si XIII	6.224			$1s^2$ - 1s3p	$g\,^1S$ - $^1P°$	0 - 1	D6
Si XIII	6.272			1s2p - $2p^2$	$^1P°$ - ^1D ?	1 - 2	D6
Si XIII	6.650			$1s^2$ - 1s2p	$g\,^1S$ - $^1P°$	0 - 1	D6
Si XIII	6.690			$1s^2$ - 1s2p	$g\,^1S$ - $^3P°$	0 - 1	D6
Si XIII	6.737	f		$1s^2$ - 1s2s	$g\,^1S$ - ^3S	0 - 1	D6
Si XIII	35.96 P			1s2s - 1s3p	^3S - $^3P°$	1 - 2	K8
Si XIII	110.957	100		1s3d - 1s4f	^1D - $^1F°$?	2 - 3	F34,K8
Si XIII	763.36 P			1s2s - 1s2p	^3S - $^3P°$	1 - 2	K8

SILICON XIV (Si^{13+}), Z = 14

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 21 560 628 cm^{-1}; 2673.11 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Si XIV	4.770 P			1s - 6p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
Si XIV	4.831 P			1s - 5p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
Si XIV	4.947 P	10		1s - 4p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Si XIV	5.217 P	30		1s - 3p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Si XIV	6.182 P	100		1s - 2p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Si XIV	20.21 P			2 - 7			G2
Si XIV	20.88 P			2 - 6			G2
Si XIV	22.09 P			2 - 5			G2
Si XIV	24.74 P			2 - 4			G2
Si XIV	33.39 P			2 - 3			G2
Si XIV	51.20 P			3 - 7			G2
Si XIV	55.72 P			3 - 6			G2
Si XIV	65.30 P			3 - 5			G2
Si XIV	95.5 P			3 - 4			G2
Si XIV	110.37 P			4 - 7			G2
Si XIV	133.8 P			4 - 6			G2
Si XIV	206.4 P			4 - 5			G2
Si XIV	237.2 P			5 - 7			G2
Si XIV	380.2 P			5 - 6			G2
Si XIV	631.6 P			6 - 7			G2

PHOSPHORUS I (P^{0+}), Z = 15

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3$ $^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential 84 580 cm^{-1}; 10.486 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P I	1241.49	1		$3p^3 - 3p^2(^3P)5d$	$g^4S^\circ - {}^2D$	3/2 - 5/2	M3
P I	1242.02	3		$3p^3 - 3p^2(^3P)7s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1243.37	3		$3p^3 - 3p^2(^3P)5d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1245.19	6		$3p^3 - 3p^2(^3P)5d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1247.31	2		$3p^3 - 3p^2(^3P)5d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M3
P I	1248.20	1		$3p^3 - 3p^2(^3P)7s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1248.61	1		$3p^3 - 3p^2(^3P)7s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M3
P I	1253.74	6		$3p^3 - 3p^2(^3P)5d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	M3
P I	1278.57	3		$3p^3 - 3p^2(^3P)6s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1282.96	6w		$3p^3 - 3p^2(^3P)6s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1283.89	6		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1284.80	3		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^2D$	3/2 - 3/2	M3
P I	1285.84	2		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M3
P I	1286.44	9		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1372.03	9		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^2D$	3/2 - 5/2	M3
P I	1373.49	60		$3p^3 - 3p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1374.73	6		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^2D$	3/2 - 3/2	M3
P I	1377.06	60		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M3
P I	1377.93	60		$3p^3 - 3p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1379.40	75		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	M3
P I	1381.47	75		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	M3
P I	1381.65	45		$3p^3 - 3p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M3
P I	1411.31	24		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	M3
P I	1411.75	2		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	M3
P I	1420.08	30		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^2F$	5/2 - 7/2	M3
P I	1425.29	30		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^2F$	3/2 - 5/2	M3
P I	1427.77	1		$3p^3 - 3p^2(^3P)8s$	$^2D^\circ - {}^4P$	5/2 - 3/2	M3
P I	1428.05	1		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^4D$	5/2 - 5/2	M3
P I	1429.77	12		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^4D$	3/2 - 3/2	M3
P I	1430.13	150d		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^4D$	5/2 - 3/2	M3
P I	1430.73	30		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 3/2	M3
P I	1431.50	1		$3p^3 - 3p^2(^3P)6d$	$^2D^\circ - {}^4F$	5/2 - 7/2	M3
P I	1440.24	15		$3p^3 - 3p^2(^3P)7s$	$^2D^\circ - {}^2P$	5/2 - 3/2	M3
P I	1442.76	15		$3p^3 - 3p^2(^3P)7s$	$^2D^\circ - {}^2P$	3/2 - 1/2	M3
P I	1445.66	3		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^2D$	5/2 - 5/2	M3
P I	1446.01	12		$3p^3 - 3p^2(^3P)7s$	$^2D^\circ - {}^4P$	3/2 - 5/2	M3
P I	1446.33	3		$3p^3 - 3p^2(^3P)7s$	$^2D^\circ - {}^4P$	5/2 - 5/2	M3
P I	1447.50	60		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^2F$	5/2 - 7/2	M3
P I	1450.38	9		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^4P$	3/2 - 5/2	M3
P I	1453.01	45		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^2F$	3/2 - 5/2	M3
P I	1467.58	9		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^4F$	5/2 - 7/2	M3
P I	1469.71	3		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^4F$	3/2 - 5/2	M3
P I	1473.65	6		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^2P$	3/2 - 1/2	M3
P I	1476.11	9		$3p^3 - 3p^2(^3P)5d$	$^2D^\circ - {}^2P$	5/2 - 3/2	M3
P I	1488.01	60		$3p^3 - 3p^2(^3P)6s$	$^2D^\circ - {}^2P$	5/2 - 3/2	M3
P I	1491.36	150		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	M3
P I	1492.99	120		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	M3
P I	1493.34	45		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 5/2	M3
P I	1499.51	24		$3p^3 - 3p^2(^3P)6s$	$^2D^\circ - {}^2P$	3/2 - 1/2	M3
P I	1501.81	60		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^2D$	3/2 - 5/2	M3
P I	1502.17	24		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^2D$	5/2 - 5/2	M3
P I	1503.12	3		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^4P$	3/2 - 3/2	M3
P I	1503.48	3		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^4P$	5/2 - 3/2	M3
P I	1504.37	36		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^2D$	3/2 - 3/2	M3
P I	1504.72	6b		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^2D$	5/2 - 3/2	M3
P I	1505.84	2		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^4P$	3/2 - 1/2	M3
P I	1506.63	21		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^4P$	3/2 - 5/2	M3
P I	1506.98	18		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - {}^4P$	5/2 - 5/2	M3
P I?	1508.74	9w					M3
P I?	1515.10	6w					M3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P I	1530.58	12		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^4D$	5/2 - 7/2	M3
P I	1534.73	15		$3p^3 - 3p^2(^1D)4s$	$g^4S^\circ - ^2D$	3/2 - 5/2	M3
P I?	1541.69	30					M3
P I	1543.26	45		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^4F$	5/2 - 7/2	M3
P I	1545.95	45		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^4F$	3/2 - 5/2	M3
P I	1546.32	9		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^4F$	5/2 - 5/2	M3
P I	1548.43	180		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	M3
P I	1551.04	105		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	M3
P I	1551.42	45		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 5/2	M3
P I	1554.84	3		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2P$	3/2 - 3/2	M3
P I	1555.25	6		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2P$	5/2 - 3/2	M3
P I?	1556.18	2					M3
P I	1575.18	9		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I	1575.47	3		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	M3
P I	1583.73	24		$3p^3 - 3p^2(^3P)6d$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I	1586.25	3		$3p^3 - 3p^2(^3P)6d$	$^2P^\circ - ^2D$	1/2 - 3/2	M3
P I	1586.88	2		$3p^3 - 3p^2(^3P)6d$	$^2P^\circ - ^2D$	3/2 - 3/2	M3
P I	1595.08	6		$3p^3 - 3p^2(^3P)8s$	$^2P^\circ - ^4P$	1/2 - 3/2	M3
P I	1595.72	1		$3p^3 - 3p^2(^3P)8s$	$^2P^\circ - ^4P$	3/2 - 3/2	M3
P I	1596.06	3		$3p^3 - 3p^2(^3P)6d$	$^2P^\circ - ^4D$	3/2 - 5/2	M3
P I	1597.97	3		$3p^3 - 3p^2(^3P)6d$	$^2P^\circ - ^4D$	1/2 - 3/2	M3
P I?	1598.76	3					M3
P I	1599.25	15		$3p^3 - 3p^2(^3P)8s$	$^2P^\circ - ^4P$	1/2 - 1/2	M3
P I	1611.29	30		$3p^3 - 3p^2(^3P)7s$	$^2P^\circ - ^2P$	3/2 - 3/2	M3
P I	1614.19	30		$3p^3 - 3p^2(^3P)7s$	$^2P^\circ - ^2P$	1/2 - 1/2	M3
P I?	1614.67	3					M3
P I	1614.87	9		$3p^3 - 3p^2(^3P)7s$	$^2P^\circ - ^2P$	3/2 - 1/2	M3
P I	1615.79	36		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^2P$	3/2 - 3/2	M3
P I	1616.20	120		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^2P$	5/2 - 3/2	M3
P I	1618.11	45		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I	1618.93	36		$3p^3 - 3p^2(^3P)7s$	$^2P^\circ - ^4P$	3/2 - 5/2	M3
P I	1621.33	9		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^4P$	3/2 - 3/2	M3
P I?	1622.08	3					M3
P I	1623.83	75		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^2P$	3/2 - 1/2	M3
P I	1623.99	30		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^2D$	1/2 - 3/2	M3
P I	1624.43	2		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^4P$	3/2 - 5/2	M3
P I	1624.67	3		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^2D$	3/2 - 3/2	M3
P I	1625.40	30		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	M3
P I	1625.80	75		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	M3
P I	1627.86	9		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^4P$	5/2 - 5/2	M3
P I	1629.17	60		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	M3
P I	1629.59	15		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	M3
P I	1633.69	2		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^4P$	3/2 - 3/2	M3
P I	1634.10	21		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^4P$	5/2 - 3/2	M3
P I	1635.79	9		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$	3/2 - 3/2	M3
P I	1636.20	9		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$	5/2 - 3/2	M3
P I	1638.68	3		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$	3/2 - 5/2	M3
P I	1638.89	15		$3p^3 - 3p^2(^3P)5s$	$^2D^\circ - ^4P$	3/2 - 1/2	M3
P I	1639.09	24		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$	5/2 - 5/2	M3
P I	1652.97	30		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^2P$	1/2 - 1/2	M3
P I	1653.68	24		$3p^3 - 3p^2(^3P)5d$	$^2P^\circ - ^2P$	3/2 - 1/2	M3
P I	1671.07	210		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	M3
P I	1671.49	105		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	M3
P I	1671.68	540	2	$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	M3
P I	1672.05	105		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	3/2 - 5/2	M3
P I	1672.48	270		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	M3
P I?	1673.94	3					M3
P I	1674.61	690	2	$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	M3
P I	1679.71	900	2	$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	M3
P I	1685.99	360	6	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	M3
P I	1688.64	9		$3p^3 - 3p^2(^3P)6s$	$^2P^\circ - ^4P$	1/2 - 3/2	M3
P I	1689.25	105		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I	1690.17	30		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^4P$	1/2 - 3/2	M3
P I	1690.90	9		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^4P$	3/2 - 3/2	M3
P I	1691.75	60		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	M3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P I	1692.48	15		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 3/2	M3
P I	1694.06	300	6	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	M3
P I	1694.50	120	6	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	M3
P I	1695.35	45		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^4P$	3/2 - 5/2	M3
P I	1706.41	180		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 7/2	M3
P I	1707.57	120		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	3/2 - 5/2	M3
P I	1708.03	3		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 5/2	M3
P I	1708.45	12		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	3/2 - 3/2	M3
P I	1708.90	3		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 3/2	M3
P I	1718.55	60		$3p^3 - 3p^24s$	$^2P^\circ - ^2S$	1/2 - 1/2	M3
P I	1719.00	30		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^2P$	3/2 - 3/2	M3
P I	1719.31	90		$3p^3 - 3p^24s$	$^2P^\circ - ^2S$	3/2 - 1/2	M3
P I	1727.85	15		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^2P$	3/2 - 1/2	M3
P I	1754.40	90		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4F$	5/2 - 7/2	M3
P I	1755.86	9		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2P$	1/2 - 3/2	M3
P I	1756.65	9		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2P$	3/2 - 3/2	M3
P I	1757.47	60		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	M3
P I	1757.95	60		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4F$	3/2 - 5/2	M3
P I	1759.91	30		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	M3
P I	1760.40	45		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	M3
P I	1761.67	30		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	M3
P I	1768.45	60		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	M3
P I	1768.94	45		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	M3
P I	1774.99	750	1	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	M3
P I	1782.87	600	1	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	M3
P I	1787.68	540	1	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	M3
P I	1833.98	30		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 3/2	M3
P I	1834.83	60		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 3/2	M3
P I	1844.33	60		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 1/2	M3
P I	1845.19	30		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 1/2	M3
P I	1847.19	300		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I?	1849.05	3					M3
P I	1849.84	105		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^4P$	3/2 - 5/2	M3
P I	1851.22	240		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	M3
P I	1852.09	120		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	M3
P I	1855.48	1		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4P$	1/2 - 1/2	M3
P I	1857.04	45		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^4P$	1/2 - 3/2	M3
P I	1858.91	450	5	$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	M3
P I	1859.43	450	5	$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 3/2	M3
P I	1860.63	45		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4P$	3/2 - 3/2	M3
P I	1863.78	3		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^4P$	1/2 - 1/2	M3
P I	1864.37	105		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4P$	3/2 - 5/2	M3
P I	1864.64	3		$3p^3 - 3p^2(^3P)5s$	$^2P^\circ - ^4P$	3/2 - 1/2	M3
P I	1905.48	90		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	M3
P I	1906.40	60		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	3/2 - 3/2	M3
P I	1907.66	120		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	M3
P I	1954.01	12		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4D$	3/2 - 5/2	M3
P I	1954.20	21		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4D$	1/2 - 3/2	M3
P I	1955.16	21		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4D$	3/2 - 3/2	M3
P I	1955.79	21		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4D$	1/2 - 1/2	M3

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PHOSPHORUS II (P^{1+}), Z = 15

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ $^3P_0$ (14 electrons)

Ionization Potential 159 100 cm^{-1}; 19.725 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P II	782.59	5		$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	1 - 2	M3
P II	782.72	1		$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	1 - 1	M3
P II	782.90	1		$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	1 - 0	M3
P II	783.71	5		$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	0 - 1	M3
P II	784.46	1		$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	2 - 2	M3
P II	784.81	5		$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	2 - 3	M3
P II	786.18	5		$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	1 - 2	M3
P II	786.52	5		$3p^2 - 3p4d$	$g^3P - {}^3P^\circ$	2 - 1	M3
P II	801.35	1		$3p^2 - 3p4d$	$g^3P - {}^3F^\circ$	1 - 2	M3
P II	802.20	1		$3p^2 - 3p4d$	$g^3P - {}^3F^\circ$	2 - 3	M3
P II	808.25	50		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	1 - 2	M3
P II	810.00	30		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	0 - 1	M3
P II	810.24	100		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	2 - 2	M3
P II	811.10	20		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	1 - 1	M3
P II	811.85	30		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	1 - 0	M3
P II	813.10	40		$3p^2 - 3p5s$	$g^3P - {}^3P^\circ$	2 - 1	M3
P II	813.768	5		$3p^2 - 3p4d$	${}^1D - {}^1P^\circ$	2 - 1	M3
P II	824.66	30		$3p^2 - 3p4d$	${}^1D - {}^1F^\circ$	2 - 3	M3
P II	840.04	1		$3p^2 - 3p4d$	${}^1D - {}^3D^\circ$	2 - 1	M3
P II	841.21	20		$3p^2 - 3p4d$	${}^1D - {}^1D^\circ$	2 - 2	M3
P II	844.01	20		$3p^2 - 3p4d$	${}^1D - {}^3D^\circ$	2 - 2	M3
P II	861.61	10		$3p^2 - 3p4d$	${}^1D - {}^3F^\circ$	2 - 2	M3
P II	865.44	100		$3p^2 - 3p5s$	${}^1D - {}^1P^\circ$	2 - 1	M3
P II	872.84	5		$3p^2 - 3p5s$	${}^1D - {}^3P^\circ$	2 - 1	M3
P II?	906.89	5					M3
P II	906.987	10		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	0 - 1	M3
P II	907.56	40		$3p^2 - 3p4d$	${}^1S - {}^1P^\circ$	0 - 1	M3
P II	908.38	1		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	1 - 1	M3
P II	910.88	5		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	2 - 1	M3
P II	913.59	10		$3p^2 - 3p3d$	${}^1D - {}^1P^\circ$	2 - 1	M3
P II	927.771	10		$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 1	M3
P II	928.550	10		$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 2	M3
P II	929.642	10		$3s3p^3 - 3s3p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	M3
P II	961.04	1		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	0 - 1	M3
P II	962.13	5		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 2	M3
P II	962.57	5		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 1	M3
P II	963.59	1		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 0	M3
P II	963.81	5		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	0 - 1	M3
P II	964.09	10		$3p^2 - 3p3d$	${}^1D - {}^1D^\circ$	2 - 2	M3
P II	964.95	10		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	M3
P II	965.43	20		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 3	M3
P II	966.52	10		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 2	M3
P II	968.17	1		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 1	M3
P II	969.38	5		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 2	M3
P II	972.24	5		$3p^2 - 3p5s$	${}^1S - {}^1P^\circ$	0 - 1	M3
P II	972.807	30		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	0 - 1	M3
P II	974.36	5		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	1 - 1	M3
P II	977.258	1		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	2 - 1	M3
P II	1015.47	100		$3p^2 - 3p3d$	${}^1D - {}^1F^\circ$	2 - 3	M3
P II	1033.41	100		$3p^2 - 3p3d$	${}^1S - {}^1P^\circ$	0 - 1	M3
P II	1064.80	150		$3s^2 3p^2 - 3s3p^3$	${}^1D - {}^1P^\circ$	2 - 1	M3
P II	1124.945	10		$3p^2 - 3p4s$	$g^3P - {}^1P^\circ$	0 - 1	M3
P II	1130.925	10		$3p^2 - 3p4s$	$g^3P - {}^1P^\circ$	2 - 1	M3
P II	1141.00	5		$3p^2 - 3p3d$	$g^3P - {}^3F^\circ$	1 - 2	M3
P II	1142.88	20		$3p^2 - 3p3d$	$g^3P - {}^3F^\circ$	2 - 3	M3
P II?	1143.71	1					M3
P II	1145.01	1		$3p^2 - 3p3d$	$g^3P - {}^3F^\circ$	2 - 2	M3
P II	1149.96	70	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 2	M3
P II	1152.81	50	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	0 - 1	M3
P II	1153.99	120	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 2	M3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P II	1155.00	40	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 1	M3
P II	1156.96	50	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 0	M3
P II	1159.08	80	3	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 1	M3
P II	1231.18	50		$3s^23p^2 - 3s3p^3$	${}^1S - {}^1P^\circ$	0 - 1	M3
P II	1249.82	200		$3p^2 - 3p4s$	${}^1D - {}^1P^\circ$	2 - 1	M3
P II	1264.47	30		$3p^2 - 3p3d$	${}^1D - {}^3F^\circ$	2 - 3	M3
P II	1267.06	5		$3p^2 - 3p3d$	${}^1D - {}^3F^\circ$	2 - 2	M3
P II	1278.094	5		$3p^2 - 3p4s$	${}^1D - {}^3P^\circ$	2 - 2	M3
P II	1284.31	5		$3p^2 - 3p4s$	${}^1D - {}^3P^\circ$	2 - 1	M3
P II	1289.57	30		$3s^23p^2 - 3s3p^3$	$g^3P - {}^1D^\circ$	1 - 2	M3
P II	1294.64	150		$3s^23p^2 - 3s3p^3$	$g^3P - {}^1D^\circ$	2 - 2	M3
P II	1301.87	200	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	0 - 1	M3
P II	1304.47	200	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 0	M3
P II	1304.68	150	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 1	M3
P II	1305.48	350	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 2	M3
P II	1309.87	250	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 1	M3
P II	1310.70	600	2	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 2	M3
P II	1452.89	300		$3s^23p^2 - 3s3p^3$	${}^1D - {}^1D^\circ$	2 - 2	M3
P II	1473.129	10		$3s^23p^2 - 3s3p^3$	${}^1D - {}^3P^\circ$	2 - 2	M3
P II	1485.49	250		$3p^2 - 3p4s$	${}^1S - {}^1P^\circ$	0 - 1	M3
P II	1489.834	10		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3D$	1 - 1	M3
P II	1494.990	10		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3D$	2 - 2	M3
P II	1496.44	5		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3D$	3 - 3	M3
P II	1506.44	30		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3G$	3 - 4	M3
P II	1506.975	10		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3G$	2 - 3	M3
P II	1512.87	5h		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^1D$	1 - 2	M3
P II	1521.62	300w		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3F$	3 - 4	M3
P II	1522.11	4		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3F$	1 - 2	M3
P II	1522.392	10		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3F$	3 - 3	M3
P II	1522.59	5		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^3F$	2 - 2	M3
P II	1523.44	10		$3s3p^3 - 3s^23p4f$	${}^3D^\circ - {}^1F$	2 - 3	M3
P II	1525.58	1		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^3S$	1 - 1	M3
P II	1532.51	700w	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	0 - 1	M3
P II	1535.90	1000w	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	M3
P II	1536.39	700w	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 1	M3
P II	1542.29	1000w	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	M3
P II	1543.09	400	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 2	M3
P II	1543.61	150	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 1	M3
P II	1552.51	5h		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^3D$	1 - 2	M3
P II	1552.94	1		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^3D$	2 - 2	M3
P II	1553.392	1		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^3P$	1 - 1	M3
P II	1553.82	10		$3s3p^3 - 3s^23p5p$	${}^3D^\circ - {}^3D$	3 - 2	M3
P II	1734.88	1		$3s3p^3 - 3s^23p4p$	${}^5S^\circ - {}^3D$	2 - 2	M3
P II	1772.30	30		$3s^23p^2 - 3s3p^3$	${}^1D - {}^3D^\circ$	2 - 3	M3
P II	1797.54	10		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^1D$	2 - 2	M3
P II	1798.37	5		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	2 - 1	M3
P II	1799.10	50		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^1D$	1 - 2	M3
P II	1799.91	20		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	1 - 1	M3
P II	1800.27	20		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	0 - 1	M3
P II	1805.11	30		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	2 - 2	M3
P II	1806.12	150		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	2 - 3	M3
P II	1806.67	50		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3D$	1 - 2	M3
P II	1828.63	30		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^1D$	2 - 2	M3
P II	1836.47	10		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^3D$	2 - 2	M3
P II	1837.51	20		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^3D$	2 - 3	M3
P II	1844.06	5		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^3F$	2 - 3	M3
P II	1846.78	20		$3s3p^3 - 3s^23p4f$	${}^3P^\circ - {}^1F$	2 - 3	M3
P II	1850.61	20		$3s3p^3 - 3s^23p5p$	${}^3P^\circ - {}^3S$	2 - 1	M3
P II	1852.27	20		$3s3p^3 - 3s^23p5p$	${}^3P^\circ - {}^3S$	1 - 1	M3
P II	1852.65	10		$3s3p^3 - 3s^23p5p$	${}^3P^\circ - {}^3S$	0 - 1	M3
P II	1854.59	150		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^3G$	2 - 3	M3
P II	1864.22	150		$3s3p^3 - 3s^23p5p$	${}^1D^\circ - {}^1D$	2 - 2	M3
P II	1872.36	1		$3s3p^3 - 3s^23p5p$	${}^3P^\circ - {}^3P$	2 - 2	M3
P II	1876.79	100		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^3F$	2 - 3	M3
P II	1879.62	250		$3s3p^3 - 3s^23p4f$	${}^1D^\circ - {}^1F$	2 - 3	M3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P II	1928.30	5		$3s3p^3 - 3s^23p5p$	$^1D^\circ - ^3D$	2 - 1	M3
P II	1945.54	50		$3s3p^3 - 3s^23p5p$	$^1D^\circ - ^1P$	2 - 1	M3

PHOSPHORUS III (P^{2+}), Z = 15

Ground State $1s^22s^22p^63s^23p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 243 400 cm^{-1}; 30.18 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P III	568.09	10		$3p - 5s$	$g^2P^\circ - ^2S$	1/2 - 1/2	R19
P III	569.90	200h		$3p - 5s$	$g^2P^\circ - ^2S$	3/2 - 1/2	R19
P III	579.98	1h		$3p - 4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	R19
P III	581.90	1h		$3p - 4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	R19
P III	781.73	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	R19
P III	782.98	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 3/2	R19
P III	783.75	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	R19
P III	785.39	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 1/2	R19
P III	786.24	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	R19
P III	844.64	100	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	M23,R19
P III	845.05	100	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 1/2	R19
P III	845.66	100	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	M23,R19
P III	846.12	100b	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	R19
P III	846.49	10b	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 1/2	R19
P III	847.66	300b	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	M23,R19
P III	848.02	200d	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	R19
P III	848.44	100	5	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 3/2	R19
P III	848.64	300d		$3p - 4s$	$g^2P^\circ - ^2S$	1/2 - 1/2	R19
P III	852.68	500		$3p - 4s$	$g^2P^\circ - ^2S$	3/2 - 1/2	R19
P III	853.35	10		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 1/2	R19
P III	854.22	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	R19
P III	854.86	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	R19
P III	855.62	500	4	$3p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M23,R19
P III	856.96	200		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	R19
P III	858.14	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	R19
P III	859.41	10		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	R19
P III	859.68	800	4	$3p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M23,R19
P III	909.85	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2D - ^2P^\circ$	5/2 - 3/2	R19
P III	913.99	500	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	M23,R19
P III	917.13	400	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	M23,R19
P III	918.71	500	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	M23,R19
P III	921.86	500	3	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	M23,R19
P III	963.99	100b		$3s3p^2 - 3s^24f$	$^2D - ^2F^\circ$	3/2 - 5/2	R19
P III	964.25	100		$3s3p^2 - 3s^24f$	$^2D - ^2F^\circ$	5/2 - 7/2	R19
P III	972.81	300		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	R19
P III	974.78	300		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	R19
P III	977.89	400		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	R19
P III	998.00	800	2	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	M23,R19
P III	1003.59	1000	2	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	M23,R19
P III	1049.82	400		$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	R19
P III	1050.52	100		$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	3/2 - 3/2	R19
P III	1050.82	400		$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	R19
P III	1093.63	200		$3s3p^2 - 3s^25p$	$^2S - ^2P^\circ$	1/2 - 3/2	R19
P III	1210.60	100		$3s3p^2 - 3s^25p$	$^2P - ^2P^\circ$	1/2 - 3/2	R19
P III	1283.95	10		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^2P - ^2P^\circ$	1/2 - 3/2	R19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P III	1290.13	1		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^2P - ^2P^\circ$	3/2 - 3/2	R19
P III	1318.91	10		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2P - ^2P^\circ$	1/2 - 3/2	R19
P III	1325.51	70		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^2P - ^2P^\circ$	3/2 - 3/2	R19
P III	1334.87	650	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	M23,R19
P III	1337.50	70		$3d - 5p$	$^2D - ^2P^\circ$	3/2 - 3/2	R19
P III	1337.71	150		$3d - 5p$	$^2D - ^2P^\circ$	5/2 - 3/2	R19
P III	1343.8	70 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4P^\circ - ^4D$	5/2 - 3/2	R19
P III	1344.34	1000	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	M23,R19
P III	1344.90	650	1	$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	M23,R19
P III	1347.00	200 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 3/2	R19
P III	1347.51	10 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4P^\circ - ^4D$	3/2 - 5/2	R19
P III	1348.45	10 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4P^\circ - ^4D$	1/2 - 1/2	R19
P III	1349.11	200 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4P^\circ - ^4D$	1/2 - 3/2	R19
P III	1354.96	10		$4s - 5p$	$^2S - ^2P^\circ$	1/2 - 3/2	R19
P III	1370.39	10 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4D^\circ - ^4D$	1/2 - 3/2	R19
P III	1372.01	100 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4D^\circ - ^4D$	3/2 - 5/2	R19
P III	1372.71	300 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4D^\circ - ^4D$	5/2 - 3/2	R19
P III	1374.78	100 -A		$3s3p(^3P^\circ)3d - 3s3p(^3P^\circ)4f$	$^4D^\circ - ^4D$	7/2 - 7/2	R19
P III	1379.87	500	7	$4p - 6d$	$^2P^\circ - ^2D$	3/2 - 5/2	M23,R19
P III	1380.46	1000	7	$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$	5/2 - 5/2	M23,R19
P III	1381.11	1000	7	$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$	3/2 - 3/2	M23,R19
P III	1381.63	800	7	$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$	5/2 - 3/2	M23,R19
P III	1429.24	100		$3s3p^2 - 3p^3$	$^2S - ^2P^\circ$	1/2 - 1/2	R19
P III	1430.41	200		$3s3p^2 - 3p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	R19
P III	1447.51	200		$3s^24s - 3s3p(^3P^\circ)4s$	$^2S - ^2P^\circ$	1/2 - 3/2	R19
P III	1471.2	10		$3s^23d - 3s3p(^3P^\circ)3d$	$^2D - ^2P^\circ$?	5/2 - 3/2	R19
P III	1492.1	500		$3s^24s - 3s3p(^3P^\circ)3d$	$^2S - ^2P^\circ$?	1/2 - 3/2	R19
P III	1501.55	700	6	$3s3p^2 - 3s^24p$	$^2D - ^2P^\circ$	3/2 - 3/2	M23,R19
P III	1502.27	1000	6	$3s3p^2 - 3s^24p$	$^2D - ^2P^\circ$	5/2 - 3/2	M23,R19
P III	1504.72	900b	6	$3s3p^2 - 3s^24p$	$^2D - ^2P^\circ$	3/2 - 1/2	R19
P III	1618.66	600		$3d - 4f$	$^2D - ^2F^\circ$	3/2 - 5/2	R19
P III	1618.94	600		$3d - 4f$	$^2D - ^2F^\circ$	5/2 - 7/2	R19
P III	1635.80	200		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	R19
P III	1637.38	100		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	R19
P III	1645.91	200		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	3/2 - 1/2	R19
P III	1647.55	300		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	R19
P III	1674.26	1		$4p - 6s$	$^2P^\circ - ^2S$	1/2 - 1/2	R19
P III	1678.12	10		$4p - 6s$	$^2P^\circ - ^2S$	3/2 - 1/2	R19
P III	1693.03	100		$4p - 5d$	$^2P^\circ - ^2D$	1/2 - 3/2	R19
P III	1696.92	100		$4p - 5d$	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P III	1756.82	10		$3s^23p - 3s3p^2$	$g^2P^\circ - ^4P$	1/2 - 1/2	R19
P III	1757.68	100		$3s^23p - 3s3p^2$	$g^2P^\circ - ^4P$	3/2 - 5/2	R19

PHOSPHORUS IV (P^{3+}), Z = 15

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential 414 312.4 cm^{-1}; 51.37 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P IV	284.0	20h		$3s^2 - 3s6p$	$g^1S - ^1P^\circ$	0 - 1	R19
P IV	312.44	160		$3s^2 - 3s5p$	$g^1S - ^1P^\circ$	0 - 1	R19
P IV	359.63	20		$3s3p - 3s6s$	$^3P^\circ - ^3S$	2 - 1	R19
P IV	388.32	240		$3s^2 - 3s4p$	$g^1S - ^1P^\circ$	0 - 1	R19
P IV	414.60	10h		$3s3p - 3s5s$	$^3P^\circ - ^3S$?	0 - 1	R19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P IV	415.02	20		3s3p - 3s5s	$^3P^\circ - ^3S$	1 - 1	R19
P IV	415.82	40		3s3p - 3s5s	$^3P^\circ - ^3S$	2 - 1	R19
P IV	444.25	20		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	R19
P IV	445.19	20		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	R19
P IV	472.96	80		3s3p - 3s5s	$^1P^\circ - ^1S$	1 - 0	R19
P IV	522.02	10h		3s3p - 3s4d	$^1P^\circ - ^1D$	1 - 2	R19
P IV	629.02	120	4	3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	M23,R19
P IV	629.92	160	4	3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	M23,R19
P IV	631.79	400	4	3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	M23,R19
P IV	648.51	80		3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	R19
P IV	649.69	20		3s3d - 3s5f	$^3D - ^3F^\circ$	2 - 3	R19
P IV	652.79	80		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 2	R19
P IV	653.51	80		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	0 - 1	R19
P IV	654.54	40		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 1	R19
P IV	654.86	120		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	2 - 2	R19
P IV	655.78	80		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	1 - 0	R19
P IV	656.55	80		$3p^2$ - 3p4s	$^3P - ^3P^\circ$	2 - 1	R19
P IV	680.57	20		$3p^2$ - 3p4s	$^1D - ^1P^\circ$	2 - 1	R19
P IV	756.51	240		$3p^2$ - 3p3d	$^1D - ^1P^\circ$	2 - 1	R19
P IV	765.28	10		3s3d - 3s5p	$^3D - ^3P^\circ$	2 - 1	R19
P IV	776.37	120		3s3p - 3s4s	$^1P^\circ - ^1S$	1 - 0	R19
P IV	823.18	800	3	3s3p - 3s3d	$^3P^\circ - ^3D$	0 - 1	M23,R19
P IV	824.73	800	3	3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	M23,R19
P IV	827.93	1000	3	3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	M23,R19
P IV	843.98	40		$3p^2$ - 3p4s	$^1S - ^1P^\circ$	0 - 1	R19
P IV	845.99	80		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	0 - 1	R19
P IV	846.12	80b		3s3d - 3p3d	$^1D - ^1D^\circ$	2 - 2	R19
P IV	846.49	40b		3s3d - 3p3d	$^1D - ^1F^\circ$	2 - 3	R19
P IV	847.00	200		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	1 - 2	R19
P IV	847.66	240b		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	1 - 1	R19
P IV	849.76	160		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 3	R19
P IV	850.39	120		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 2	R19
P IV	851.09	10		$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 1	R19
P IV	860.45	80		$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 0	R19
P IV	861.55	40		$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 1	R19
P IV	863.32	120		$3p^2$ - 3p3d	$^3P - ^3P^\circ$	1 - 2	R19
P IV	865.04	120		$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 1	R19
P IV	866.84	20		$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 2	R19
P IV	875.13	440		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	R19
P IV	877.49	440		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	R19
P IV	879.31	80		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	R19
P IV	907.59	80		$3p^2$ - 3p3d	$^1D - ^1D^\circ$	2 - 2	R19
P IV	908.05	160		$3p^2$ - 3p3d	$^1D - ^1F^\circ$	2 - 3	R19
P IV	950.66	1000	1	$3s^2$ - 3s3p	$g^1S - ^1P^\circ$	0 - 1	M23,R19
P IV	963.99	100b		$3p^2$ - 3p3d	$^1S - ^1P^\circ$	0 - 1	R19
P IV	1006.22	40		3s3d - 3s4p	$^1D - ^1P^\circ$	2 - 1	R19
P IV	1025.56	160	2	3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 2	M23,R19
P IV	1028.09	40	2	3s3p - $3p^2$	$^3P^\circ - ^3P$	0 - 1	M23,R19
P IV	1030.51	400	2	3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 2	M23,R19
P IV	1033.10	320	2	3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 0	M23,R19
P IV	1035.50	320	2	3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 1	M23,R19
P IV	1064.60	120		3s3d - 3p3d	$^3D - ^3D^\circ$	3 - 3	R19
P IV	1065.55	120		3s3d - 3p3d	$^3D - ^3D^\circ$	2 - 2	R19
P IV	1066.64	80		3s3d - 3p3d	$^3D - ^3D^\circ$	1 - 1	R19
P IV	1072.53	120		3s4s - 3s5p	$^3S - ^3P^\circ$	1 - 2	R19
P IV	1073.37	120		3s4s - 3s5p	$^3S - ^3P^\circ$	1 - 1	R19
P IV	1086.94	80		3s3d - 3p3d	$^3D - ^3P^\circ$	1 - 0	R19
P IV	1088.61	120		3s3d - 3p3d	$^3D - ^3P^\circ$	2 - 1	R19
P IV	1091.44	160		3s3d - 3p3d	$^3D - ^3P^\circ$	3 - 2	R19
P IV	1093.32	80		3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 2	R19
P IV	1098.18	80		3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 1	R19
P IV	1101.65	40		3s4s - 3p4s	$^3S - ^3P^\circ$	1 - 0	R19
P IV	1111.13	40		3s3p - 3s3d	$^3P^\circ - ^1D$	1 - 2	R19
P IV	1116.92	20		3s3p - 3s3d	$^3P^\circ - ^1D$	2 - 2	R19
P IV	1118.59	160		3s3p - $3p^2$	$^1P^\circ - ^1S$	1 - 0	R19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P IV	1161.87	40		3s4s - 3s5p	$^1S - ^1P^\circ$	0 - 1	R19
P IV	1197.82	40		3s4p - 3s5d	$^1P^\circ - ^1D$	1 - 2	R19
P IV	1203.41	40		3s4p - 3s5d	$^3P^\circ - ^3D$	0 - 1	R19
P IV	1204.30	40		3s4p - 3s5d	$^3P^\circ - ^3D$	1 - 2	R19
P IV	1206.52	40d		3s4p - 3s5d	$^3P^\circ - ^3D$	2 - 3	R19
P IV	1264.48	40		3s4s - 3p4s	$^1S - ^1P^\circ$	0 - 1	R19
P IV	1467.59 P	40		$3s^2$ - 3s3p	$g^1S - ^3P^\circ$	0 - 1	R19
P IV	1484.51	240		3s3d - 3s4p	$^3D - ^3P^\circ$	3 - 2	R19
P IV	1487.80	160		3s3d - 3s4p	$^3D - ^3P^\circ$	2 - 1	R19
P IV	1489.10	160		3s3d - 3s4p	$^3D - ^3P^\circ$	1 - 0	R19
P IV	1589.02 P			$3p^2$ - 3s4p	$^1S - ^1P^\circ$	0 - 1	K8
P IV	1612.53 P			$3p^2$ - 3s4p	$^1S - ^3P^\circ$	0 - 1	K8
P IV	1640.58	120		3s3p - $3p^2$	$^1P^\circ - ^1D$	1 - 2	R19
P IV	1673.76	20		3s3p - $3p^2$	$^1P^\circ - ^3P$	1 - 0	R19
P IV	1691.81	40		3s4p - 3s5s	$^1P^\circ - ^1S$	1 - 0	R19
P IV	1888.65	400	5	3s3p - 3s3d	$^1P^\circ - ^1D$	1 - 2	M23,R19
P IV	1902.62	40		3s4p - 3s5s	$^3P^\circ - ^3S$	0 - 1	R19
P IV	1904.80	40		3s4p - 3s5s	$^3P^\circ - ^3S$	1 - 1	R19
P IV	1910.18	40		3s4p - 3s5s	$^3P^\circ - ^3S$	2 - 1	R19

PHOSPHORUS V (P^{4+}), Z = 15

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 524 460 cm^{-1}; 65.023 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P V	210.00	10		3s - 8p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	217.22	20		3s - 7p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	229.83	200		3s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	255.60	500		3s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	255.69	500		3s - 5p	$g^2S - ^2P^\circ$	½ - ½	R19
P V	264.94	300		3p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P V	273.13	10		3p - 7s	$^2P^\circ - ^2S$	3/2 - ½	R19
P V	280.61	150		3p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P V	296.11	70		3p - 6s	$^2P^\circ - ^2S$	3/2 - ½	R19
P V	310.58	200		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	R19
P V	311.35	250		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P V	328.46	300		3s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	328.77	300		3s - 4p	$g^2S - ^2P^\circ$	½ - ½	R19
P V	347.24	150		3p - 5s	$^2P^\circ - ^2S$	½ - ½	R19
P V	348.19	250		3p - 5s	$^2P^\circ - ^2S$	3/2 - ½	R19
P V	389.50	200		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	R19
P V	390.70	550		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P V	410.07	150h		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	R19
P V	475.61	550h		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	R19
P V	542.57	500		3p - 4s	$^2P^\circ - ^2S$	½ - ½	R19
P V	544.91	550		3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	R19
P V	673.89	650		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	R19
P V	865.44	1000		3p - 3d	$^2P^\circ - ^2D$	½ - 3/2	R19
P V	871.40	1000d		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	R19
P V	997.64	200		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	R19
P V	1000.36	200		3d - 4p	$^2D - ^2P^\circ$	3/2 - ½	R19
P V	1117.98	1000		3s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	R19
P V	1128.01	650		3s - 3p	$g^2S - ^2P^\circ$	½ - ½	R19
P V	1385.11	20		4p - 5s	$^2P^\circ - ^2S$	3/2 - ½	R19
P V	1447.92	150		4d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	R19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P V	1610.54	20		4f - 5g	$^2F^\circ$ - ^2G	7/2 - 9/2	R19

PHOSPHORUS VI (P^{5+}), Z = 15

Ground State $1s^22s^22p^6$ $^1S_0$ (10 electrons)

Ionization Potential 1 777 900 cm^{-1}; 220.43 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P VI	57.93 P			$2p^6$ - $2p^5(^2P^\circ)9d$	g^1S - 3/2[3/2]°	0 - 1	M22
P VI	58.29 P			$2p^6$ - $2p^5(^2P^\circ)8d$	g^1S - 3/2[3/2]°	0 - 1	M22
P VI	58.73 P			$2p^6$ - $2p^5(^2P^\circ)7d$	g^1S - 1/2[3/2]°	0 - 1	M22
P VI	58.96 P			$2p^6$ - $2p^5(^2P^\circ)7d$	g^1S - 3/2[3/2]°	0 - 1	M22
P VI	59.78 P			$2p^6$ - $2p^5(^2P^\circ)6d$	g^1S - 1/2[3/2]°	0 - 1	M22
P VI	60.02 P			$2p^6$ - $2p^5(^2P^\circ)6d$	g^1S - 3/2[3/2]°	0 - 1	M22
P VI	60.57 P			$2p^6$ - $2p^5(^2P^\circ)6s$	g^1S - 1/2[1/2]°	0 - 1	M22
P VI	61.622	50		$2p^6$ - $2p^5(^2P^\circ)5d$	g^1S - 1/2[3/2]°	0 - 1	F18
P VI	61.869	50		$2p^6$ - $2p^5(^2P^\circ)5d$	g^1S - 3/2[3/2]°	0 - 1	F18
P VI	61.970	50		$2p^6$ - $2p^5(^2P^\circ)5d$	g^1S - 3/2[1/2]°	0 - 1	F18
P VI	63.18 P			$2p^6$ - $2p^5(^2P^\circ)5s$	g^1S - 1/2[1/2]°	0 - 1	M22
P VI	63.45 P			$2p^6$ - $2p^5(^2P^\circ)5s$	g^1S - 3/2[3/2]°	0 - 1	M22
P VI	65.308	150		$2p^6$ - $2p^5(^2P^\circ)4d$	g^1S - 1/2[3/2]°	0 - 1	F18
P VI	65.640	350		$2p^6$ - $2p^5(^2P^\circ)4d$	g^1S - 3/2[3/2]°	0 - 1	F18
P VI	65.940	350		$2p^6$ - $2p^5(^2P^\circ)4d$	g^1S - 3/2[1/2]°	0 - 1	F18
P VI	69.121	50		$2p^6$ - $2p^5(^2P^\circ)4s$	g^1S - 1/2[1/2]°	0 - 1	F18
P VI	74.951	400		$2p^6$ - $2p^5(^2P^\circ)3d$	g^1S - 1/2[3/2]°	0 - 1	F18
P VI	75.648	200		$2p^6$ - $2p^5(^2P^\circ)3d$	g^1S - 3/2[3/2]°	0 - 1	F18
P VI	76.534	50		$2p^6$ - $2p^5(^2P^\circ)3d$	g^1S - 3/2[1/2]°	0 - 1	F18
P VI	90.647	500		$2p^6$ - $2p^5(^2P^\circ)3s$	g^1S - 1/2[1/2]°	0 - 1	F18
P VI	91.471	500		$2p^6$ - $2p^5(^2P^\circ)3s$	g^1S - 3/2[3/2]°	0 - 1	F18

PHOSPHORUS VII (P^{6+}), Z = 15

Ground State $1s^22s^22p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 2 123 100 cm^{-1}; 263.22 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P VII	54.708	50		$2p^5$ - $2p^4(^1D)4d$	g^2P° - ^2P	3/2 - 3/2	F18
P VII	54.887	100		$2p^5$ - $2p^4(^1D)4d$	g^2P° - ^2P	1/2 - 1/2	F18
P VII	56.174	50		$2p^5$ - $2p^4(^3P)4d$	g^2P° - ^2P	3/2 - 1/2	F18
P VII	56.282	10		$2p^5$ - $2p^4(^3P)4d$	g^2P° - ^2D	1/2 - 3/2	F18
P VII	56.322	120		$2p^5$ - $2p^4(^3P)4d$	g^2P° - ^2P	1/2 - 3/2	F18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P VII	57.42 P			$2p^5 - 2p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	M22
P VII	57.66 P			$2p^5 - 2p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	M22
P VII	58.972	35		$2p^5 - 2p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F18
P VII	59.028	15		$2p^5 - 2p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F18
P VII	62.245	150		$2p^5 - 2p^4 3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F18
P VII	62.515	50		$2p^5 - 2p^4 3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F18
P VII	64.286	150		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F18
P VII	64.361	250		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F18
P VII	64.579	150		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F18
P VII	64.587	100		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F18
P VII	64.635	200		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F18
P VII	66.17 P			$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	M22
P VII	66.432	150		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F18
P VII	66.488	50		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F18
P VII	66.576	100		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F18
P VII	66.691	150		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F18
P VII	66.75 P			$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	M22
P VII	67.989	50		$2s2p^6 - 2s2p^5(^3P^\circ)3d$	$^2S - 4^\circ$	1/2 -	F18
P VII	68.147	50		$2s2p^6 - 2s2p^5(^3P^\circ)3d$	$^2S - 3^\circ$	1/2 -	F18
P VII	72.684	100		$2p^5 - 2p^4 3s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F18
P VII	73.070	100		$2p^5 - 2p^4 3s$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F18
P VII	75.924	450		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F18
P VII	76.344	200		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F18
P VII	77.969	250		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F18
P VII	78.285	400		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F18
P VII	78.414	150		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F18
P VII	78.734	250		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F18
P VII	80.507	50		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	F18
P VII	80.813	100		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	F18
P VII	219.91	450		$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F18
P VII	223.48	350		$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F18

PHOSPHORUS VIII (P^{7+}), Z = 15

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 2 495 600 cm^{-1}; 309.41 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P VIII	45.69 P			$2p^4 - 2p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	M22
P VIII	48.86 P			$2p^4 - 2p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	M22
P VIII	49.47 P			$2p^4 - 2p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	M22
P VIII	50.48 P			$2p^4 - 2p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	M22
P VIII	50.95 P			$2p^4 - 2p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	M22
P VIII	55.672	120		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F18
P VIII	55.710	70		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F18
P VIII	55.876	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F18
P VIII	55.926	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 1	F18
P VIII	57.042	450		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F18
P VIII	57.230	350		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F18
P VIII	58.018	350		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F18
P VIII	58.506	150		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	F18
P VIII	58.776	50		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	F18
P VIII	59.302	350		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P VIII	59.516	250		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F18
P VIII	64.051	80		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	F18
P VIII	64.100	20		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 1	F18
P VIII	64.337	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 1	F18
P VIII	64.361	300		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	1 - 0	F18
P VIII	65.788	350		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	F18
P VIII	66.051	350		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	F18
P VIII	67.587	300		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	F18
P VIII	68.384	200		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	F18
P VIII	68.385	100		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	F18
P VIII	68.654	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	F18
P VIII	196.76	400		$2s^22p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	F18
P VIII	244.55	100		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	F18
P VIII	246.32	50		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	F18
P VIII	247.64	250		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	F18
P VIII	248.04	150		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	F18
P VIII	249.32	100		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	F18
P VIII	251.23	150		$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	F18

PHOSPHORUS IX (P^{8+}), Z = 15

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 2 998 300 cm^{-1}; 371.73 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P IX	41.556	150		$2p^3 - 2p^2(^1D)4d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F18
P IX	48.925	350		$2s^22p^3 - 2s2p^3(^5S^\circ)3p$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F18
P IX	50.511	200		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F18
P IX	50.560	300		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F18
P IX	50.626	100		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4D$	3/2 - 5/2	F18
P IX	51.156	450		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F18
P IX	51.861	300		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F18
P IX	51.889	100		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	F18
P IX	52.160	300		$2p^3 - 2p^2(^1D)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F18
P IX	52.552	150		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F18
P IX	52.709	150		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	3/2 - 5/2	F18
P IX	52.980	250		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F18
P IX	54.124	150		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	F18
P IX	55.066	100		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	F18
P IX	55.220	100		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	F18
P IX	55.299	50		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - {}^4D^\circ$	1/2 - 3/2	F18
P IX	57.083	450		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F18
P IX	57.266	350		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F18
P IX	57.339	150		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F18
P IX	57.683	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	5/2 - 5/2	F18
P IX	57.711	50		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	3/2 - 3/2	F18
P IX	61.065	50		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^4P$	3/2 - 5/2	F18
P IX	61.270	50		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^4P$	3/2 - 3/2	F18
P IX	61.320	50		$2s2p^4 - 2s2p^3(^3D^\circ)3s$	$^2D - {}^2D^\circ$	5/2 - 5/2	F18
P IX	194.61	300		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	F18
P IX	197.25	400		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F18
P IX	228.25 P			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	M22
P IX	234.94 P			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	5/2 - 3/2	M22
P IX	250.05 P			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	M22
P IX	250.37	150		$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 5/2	F18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P IX	250.73	200		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F18
P IX	285.36			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	M22
P IX	289.53			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	M22

PHOSPHORUS X (P^{9+}), Z = 15

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 3 423 900 cm^{-1}; 424.50 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P X	36.75	50b		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	2 - 3	F18
P X	44.364	250		$2s^22p^2 - 2s2p^2(^4P)3p$	$g^3P - ^3D^\circ$	2 - 3	F18
P X	45.905	75		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 1	F18
P X	45.931	125		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 2	F18
P X	45.963	200		$2s2p^3 - 2s2p^2(^4P)3d$	$^5S^\circ - ^5P$	2 - 3	F18
P X	46.294	450		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	1 - 2	F18
P X	46.334	450		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	F18
P X	46.636	300		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3F$	3 - 4	F18
P X	46.769	350		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	F18
P X	47.702	100		$2s2p^3 - 2s2p^2(^2D)3d$	$^3P^\circ - ^3D$	2 - 3	F18
P X	47.896	50		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	F18
P X	49.765	50		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	2 - 3	F18
P X	49.803	25		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	1 - 2	F18
P X	49.865	15		$2s2p^3 - 2s2p^2(^4P)3d$	$^3P^\circ - ^3D$	0 - 1	F18
P X	51.155	450		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	F18
P X	52.158	250		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	F18
P X	52.594	200		$2s2p^3 - 2s2p^2(^2D)3s$	$^3P^\circ - ^3D$	2 - 3	F18
P X	56.597	150		$2s2p^3 - 2s2p^2(^1D)3s$	$^1P^\circ - ^1D$	1 - 2	F18
P X	203.87			$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	F16
P X	205.38	50		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	F18
P X	207.35			$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	F16
P X	207.67	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	F18
P X	235.27	400		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	F18
P X	236.95			$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	F1
P X	238.53			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	F16
P X	263.22			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	F1
P X	265.62			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	F1
P X	265.79			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 0	F1
P X	269.48			$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	F3
P X	309.44			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	F3
P X	312.87			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	F3
P X	318.29			$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	F3

PHOSPHORUS XI (P^{10+}), Z = 15

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 3 868 100 cm^{-1}; 479.57 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P XI	30.34	150		2p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	F18
P XI	33.01	200		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - {}^4D^\circ$	5/2 - 7/2	F18
P XI	33.23	100		2p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	F18
P XI	34.35	150		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - {}^2F^\circ$	5/2 - 7/2	F18
P XI	42.006	150		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - {}^2F^\circ$	5/2 - 7/2	F18
P XI	42.468	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	3/2 - 5/2	F18
P XI	42.479	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - {}^4D^\circ$	5/2 - 7/2	F18
P XI	42.599	150		2p - 3d	$g^2P^\circ - {}^2D$	1/2 - 3/2	F18
P XI	42.764	200		2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	F18
P XI	43.488	50		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - {}^4P$	3/2 - 3/2	F18
P XI	43.529	70		$2p^3 - 2p^2(^3P)3d$	$^4S^\circ - {}^4P$	3/2 - 5/2	F18
P XI	43.808	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - {}^2D^\circ$	3/2 - 5/2	F18
P XI	44.115	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2F^\circ$	5/2 - 7/2	F18
P XI	44.987	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - {}^2D^\circ$	5/2 - 5/2	F18
P XI	45.997	400		2p - 3s	$g^2P^\circ - {}^2S$	1/2 - 1/2	F18
P XI	46.203	450		2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	F18
P XI	231.67	100		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F18
P XI	234.84	400		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F18
P XI	237.00	400		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F18
P XI	240.31	100		$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F18
P XI	247.94			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F3
P XI	253.90			$2s2p^2 - 2p^3$	$^2D - {}^2P^\circ$	5/2 - 3/2	F1
P XI	254.05			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F3
P XI	254.54			$2s2p^2 - 2p^3$	$^2D - {}^2P^\circ$	3/2 - 1/2	F1
P XI	261.92			$2s2p^2 - 2p^3$	$^4P - {}^4S^\circ$	1/2 - 3/2	F1
P XI	264.41			$2s2p^2 - 2p^3$	$^4P - {}^4S^\circ$	3/2 - 3/2	F3
P XI	268.02			$2s2p^2 - 2p^3$	$^4P - {}^4S^\circ$	5/2 - 3/2	F3
P XI	315.64			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F3
P XI	317.24			$2s2p^2 - 2p^3$	$^2D - {}^2D^\circ$	5/2 - 5/2	F3
P XI	325.31			$2s2p^2 - 2p^3$	$^2S - {}^2P^\circ$	1/2 - 3/2	F1
P XI	325.52			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F3
P XI	326.45			$2s2p^2 - 2p^3$	$^2S - {}^2P^\circ$	1/2 - 1/2	F1
P XI	352.26			$2s2p^2 - 2p^3$	$^2P - {}^2P^\circ$	1/2 - 3/2	F1
P XI	353.59			$2s2p^2 - 2p^3$	$^2P - {}^2P^\circ$	1/2 - 1/2	F1
P XI	358.94			$2s2p^2 - 2p^3$	$^2P - {}^2P^\circ$	3/2 - 3/2	F3
P XI	360.36			$2s2p^2 - 2p^3$	$^2P - {}^2P^\circ$	3/2 - 1/2	F1
P XI	487.43			$2s2p^2 - 2p^3$	$^2S - {}^2D^\circ$	1/2 - 3/2	F3

PHOSPHORUS XII (P^{11+}), Z = 15

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 4 520 100 cm^{-1}; 560.41 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P XII	25.788	0		$2s^2 - 2s5p$	$g^1S - {}^1P^\circ$	0 - 1	G18
P XII	27.049	10		2s2p - 2s5d	$^3P^\circ - {}^3D$	1 - 2	G18
P XII	27.101	10		2s2p - 2s5d	$^3P^\circ - {}^3D$	2 - 3	G18
P XII	27.677	0		$2p^2 - 2p5d$	$^3P - {}^3D^\circ$	2 - 3	G18
P XII	28.017	10		$2p^2 - 2p5d$	$^1D - {}^1F^\circ$	2 - 3	G18

P XII

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P XII	28.304	30		2s2p - 2p4p	$^3P^\circ - ^3P$	2 - 2	G18
P XII	28.549	10		$2s^2$ - 2s4p	$g^1S - ^1P^\circ$	0 - 1	G18
P XII	29.622	10		2s2p - 2p4p	$^1P^\circ - ^1D$	1 - 2	G18
P XII	29.970	10		2s2p - 2s4d	$^3P^\circ - ^3D$	0 - 1	G18
P XII	29.996	40		2s2p - 2s4d	$^3P^\circ - ^3D$	1 - 2	G18
P XII	30.060	60		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	G18
P XII	30.667	0		$2p^2$ - 2p4d	$^3P - ^3P^\circ$	1 - 2	G18
P XII	30.722	40		$2p^2$ - 2p4d	$^3P - ^3P^\circ$	2 - 2	G18
P XII	30.749	40		$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 3	G18
P XII	31.090	40		$2p^2$ - 2p4d	$^1D - ^1F^\circ$	2 - 3	G18
P XII	31.327	10		$2p^2$ - 2p4d	$^1D - ^1D^\circ$	2 - 2	G18
P XII	31.527	30		2s2p - 2s4d	$^1P^\circ - ^1D$	1 - 2	G18
P XII	32.304	0		$2p^2$ - 2p4d	$^1S - ^1P^\circ$	0 - 1	G18
P XII	36.520	30		2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 2	G18
P XII	36.562	50		2s2p - 2p3p	$^3P^\circ - ^3P$	1 - 1	G18
P XII	36.613	80		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 2	G18
P XII	36.655	60		2s2p - 2p3p	$^3P^\circ - ^3P$	2 - 1	G18
P XII	36.697	40		2s2p - 2p3p	$^3P^\circ - ^3S$	1 - 1	G18
P XII	36.792	70		2s2p - 2p3p	$^3P^\circ - ^3S$	2 - 1	G18
P XII	36.975	100		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	G18
P XII	37.041	10		2s2p - 2p3p	$^3P^\circ - ^3D$	1 - 1	G18
P XII	37.074	10		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 2	G18
P XII	37.347	150		$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	G18
P XII	38.629	90		2s2p - 2p3p	$^1P^\circ - ^1D$	1 - 2	G18
P XII	39.310	120		2s2p - 2s3d	$^3P^\circ - ^3D$	0 - 1	G18
P XII	39.354	300		2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	G18
P XII	39.456	500		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	G18
P XII	39.664	40		2s2p - 2p3p	$^1P^\circ - ^1P$	1 - 1	G18
P XII	40.157	10		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 1	G18
P XII	40.171	30		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 2	G18
P XII	40.301	200		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 2	G18
P XII	40.348	50		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	0 - 1	G18
P XII	40.388	120		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	1 - 2	G18
P XII	40.429	150		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	G18
P XII	40.478	20		$2p^2$ - 2p3d	$^1D - ^1P^\circ$	2 - 1	G18
P XII	40.613	120		$2p^2$ - 2p3d	$^1D - ^1F^\circ$	2 - 3	G18
P XII	41.471	50		2s2p - 2s3s	$^3P^\circ - ^3S$	0 - 1	G18
P XII	41.518	60		2s2p - 2s3s	$^3P^\circ - ^3S$	1 - 1	G18
P XII	41.634	120		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	G18
P XII	41.700	70		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	G18
P XII	42.553	20		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 2	G18
P XII	42.647	40		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	G18
P XII	42.679	20		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	1 - 1	G18
P XII	42.763	140		$2p^2$ - 2p3s	$^1D - ^1P^\circ$	2 - 1	G18
P XII	42.779	20		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 1	G18
P XII	44.044	10		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	G18
P XII	278.30			$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	F3
P XII	327.0			2s2p - $2p^2$	$^1P^\circ - ^1S$	1 - 0	K8
P XII	327.27			2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	F3
P XII	330.29			2s2p - $2p^2$	$^3P^\circ - ^3P$	0 - 1	F3
P XII	333.88			2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 1	F3
P XII	335.07			2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 2	F3
P XII	338.41			2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 0	F3
P XII	342.06			2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 1	F3
P XII	548.38			2s2p - $2p^2$	$^1P^\circ - ^1D$	1 - 2	F3

PHOSPHORUS XIII (P^{12+}), Z = 15

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 4 935 000 cm^{-1}; 611.85 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P XIII	22.64	50		2p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	F18
P XIII	23.08	50		2p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	F18
P XIII	23.810	10		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	G18
P XIII	25.103	20		2p - 5d	$^2P^\circ - ^2D$	1/2 - 3/2	G18
P XIII	25.169	20		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	G18
P XIII	26.608	10		2s - 4p	$g^2S - ^2P^\circ$	1/2 - 3/2	G18
P XIII	28.044	50		2p - 4d	$^2P^\circ - ^2D$	1/2 - 3/2	G18
P XIII	28.128	70		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	G18
P XIII	28.66	10		2p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	F18
P XIII	35.095	150		2s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	G18
P XIII	35.136	100		2s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	G18
P XIII	37.561	150		2p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	G18
P XIII	37.706	200		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	G18
P XIII	37.723	20		2p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	G18
P XIII	38.754	30		2p - 3s	$^2P^\circ - ^2S$	1/2 - 1/2	G18
P XIII	38.921	50		2p - 3s	$^2P^\circ - ^2S$	3/2 - 1/2	G18
P XIII	455.78			2s - 2p	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
P XIII	480.42			2s - 2p	$g^2S - ^2P^\circ$	1/2 - 1/2	F3

PHOSPHORUS XIV (P^{13+}), Z = 15

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 22 720 766 cm^{-1}; 2816.943 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
P XIV	4.58 P			$1s^2 - 1s5p$	$g^1S - ^1P^\circ$	0 - 1	K8
P XIV	4.68 P			$1s^2 - 1s4p$	$g^1S - ^1P^\circ$	0 - 1	K8
P XIV	4.92 P			$1s^2 - 1s3p$	$g^1S - ^1P^\circ$	0 - 1	K8
P XIV	5.76 P			$1s^2 - 1s2p$	$g^1S - ^1P^\circ$	0 - 1	K8
P XIV	5.79 P			$1s^2 - 1s2p$	$g^1S - ^3P^\circ$	0 - 1	K8
P XIV	5.84 ?	f		$1s^2 - 1s2s$	$g^1S - ^3S$	0 - 1	K8

PHOSPHORUS XV (P^{14+}), Z = 15

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 24 759 943 cm^{-1}; 3069.76 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
P XV	4.154	P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
P XV	4.207	P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
P XV	4.308	P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
P XV	4.543	P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
P XV	5.383	P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
P XV	17.60	P			2 - 7			G2
P XV	18.18	P			2 - 6			G2
P XV	19.24	P			2 - 5			G2
P XV	21.54	P			2 - 4			G2
P XV	29.07	P			2 - 3			G2
P XV	44.59	P			3 - 7			G2
P XV	48.53	P			3 - 6			G2
P XV	56.87	P			3 - 5			G2
P XV	83.2	P			3 - 4			G2
P XV	96.13	P			4 - 7			G2
P XV	116.5	P			4 - 6			G2
P XV	179.8	P			4 - 5			G2
P XV	206.6	P			5 - 7			G2
P XV	331.1	P			5 - 6			G2
P XV	549.3	P			6 - 7			G2

SULFUR I (S^{0+}), Z = 16

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4\ ^3P_2$ (16 electrons)

Ionization Potential 83 558.0 cm^{-1}; 10.360 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S I	1214.295	1		$3p^4 - 3p^3(^4S^\circ)10d$	$g^3P - ^3D^\circ$	2 - 2	K2
S I	1214.318	7		$3p^4 - 3p^3(^4S^\circ)10d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1218.571	2		$3p^4 - 3p^3(^4S^\circ)9d$	$g^3P - ^3D^\circ$	2 - 2	K2
S I	1218.595	10		$3p^4 - 3p^3(^4S^\circ)9d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1220.162	5		$3p^4 - 3p^3(^4S^\circ)10d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1221.753	6		$3p^4 - 3p^3(^4S^\circ)10s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1222.799	1		$3p^4 - 3p^3(^4S^\circ)10d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1224.424	1		$3p^4 - 3p^3(^4S^\circ)9d$	$g^3P - ^3D^\circ$	1 - 1	K2
S I	1224.479	7		$3p^4 - 3p^3(^4S^\circ)9d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1224.544	7		$3p^4 - 3p^3(^4S^\circ)8d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1227.089	4		$3p^4 - 3p^3(^4S^\circ)9d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1227.692	5		$3p^4 - 3p^3(^4S^\circ)10s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1229.608	10		$3p^4 - 3p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1230.374	2		$3p^4 - 3p^3(^4S^\circ)10s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1230.473	4		$3p^4 - 3p^3(^4S^\circ)8d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1233.132	1		$3p^4 - 3p^3(^4S^\circ)8d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1233.922	3		$3s^2 3p^4 - 3s3p^5$	$g^3P - ^1P^\circ$	1 - 1	K2
S I	1235.624	7		$3p^4 - 3p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1236.632	4		$3s^2 3p^4 - 3s3p^5$	$g^3P - ^1P^\circ$	0 - 1	K2
S I	1238.340	5		$3p^4 - 3p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1241.905	30		$3p^4 - 3p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1247.160	45		$3p^4 - 3p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1248.045	22		$3p^4 - 3p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1250.814	12		$3p^4 - 3p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1253.297	20		$3p^4 - 3p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	1 - 1	K2
S I	1253.325	40		$3p^4 - 3p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1256.093	22		$3p^4 - 3p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1262.8596	70		$3p^4 - 3p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1269.2086	50		$3p^4 - 3p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1270.7821	100		$3p^4 - 3p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1272.0749	30		$3p^4 - 3p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1277.199	40		$3p^4 - 3p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	1 - 1	K2
S I	1277.216	90		$3p^4 - 3p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1280.0991	50		$3p^4 - 3p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1295.6526	110	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 2	K2
S I	1296.1738	70	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 1	K2
S I	1302.3370	100	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 2	K2
S I	1302.8633	80	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 1	K2
S I	1303.1105	80	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 0	K2
S I	1303.4295	85		$3p^4 - 3p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1305.8834	95	9	$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	0 - 1	K2
S I	1310.1940	100		$3p^4 - 3p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1313.2493	60		$3p^4 - 3p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1316.5423	160	8	$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	K2
S I	1316.6183	120	8	$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 2	K2
S I	1323.5153	180	8	$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	K2
S I	1323.5220	45	8	$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 1	K2
S I	1326.6432	160	8	$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	K2
S I	1333.792	2		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^5D^\circ$	2 - 3	K2
S I	1381.5521	650	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 1	K2
S I	1385.041	1		$3s^2 3p^4 - 3s3p^5$	$^1D - ^1P^\circ$	2 - 1	K2
S I	1385.5100	550	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 0	K2
S I	1388.4347	950	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 2	K2
S I	1389.1538	450	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 1	K2
S I	1392.5878	650	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	0 - 1	K2
S I	1396.1122	1000	7	$3s^2 3p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 2	K2
S I	1401.5136	100	6	$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	K2
S I	1409.3369	125	6	$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	K2
S I	1412.8726	100	6	$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	0 - 1	K2
S I	1414.365	2		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^5S^\circ$	2 - 2	K2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S I	1425.0301	300	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	K2
S I	1425.1882	90	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	K2
S I	1425.2190	65	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	K2
S I	1433.2800	225	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	K2
S I	1433.3105	100	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	K2
S I	1436.9675	125	5	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	K2
S I	1444.2967	30		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	2 - 2	K2
S I	1448.2290	125	12	$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^1P^\circ$	2 - 1	K2
S I	1471.832	25	12	$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^3P^\circ$	2 - 2	K2
S I	1472.503	4	12	$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^3P^\circ$	2 - 1	K2
S I	1472.972	225	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	2 - 3	K2
S I	1473.019	120	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	2 - 2	K2
S I	1473.995	350	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	K2
S I	1474.380	125	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	K2
S I	1474.572	60	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 1	K2
S I	1481.665	170	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	1 - 2	K2
S I	1481.712	100	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	1 - 1	K2
S I	1483.039	280	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	K2
S I	1483.233	125	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	K2
S I	1485.622	150	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	0 - 1	K2
S I	1487.150	200	3	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	K2
S I	1498.850	2		$3p^4 - 3p^3(^4S^\circ)4d$	${}^1D - {}^3D^\circ$	2 - 3	K2
S I	1498.942	1		$3p^4 - 3p^3(^4S^\circ)4d$	${}^1D - {}^3D^\circ$	2 - 2	K2
S I	1583.683	1		$3s^23p^4 - 3s3p^5$	${}^1D - {}^3P^\circ$	2 - 1	K2
S I	1592.736	4		$3s^23p^4 - 3s3p^5$	${}^1D - {}^3P^\circ$	2 - 2	K2
S I	1641.085	7		$3p^4 - 3p^3(^4S^\circ)3d$	${}^1D - {}^3D^\circ$	2 - 3	K2
S I	1641.296	10		$3p^4 - 3p^3(^4S^\circ)3d$	${}^1D - {}^3D^\circ$	2 - 2	K2
S I	1666.6875	500	11	$3p^4 - 3p^3(^2D^\circ)4s$	${}^1D - {}^1D^\circ$	2 - 2	K2
S I	1687.5305	450		$3s^23p^4 - 3s3p^5$	${}^1S - {}^1P^\circ$	0 - 1	K2
S I	1704.986	5		$3p^4 - 3p^3(^4S^\circ)3d$	${}^1D - {}^5D^\circ$	2 - 3	K2
S I	1705.115	3		$3p^4 - 3p^3(^4S^\circ)3d$	${}^1D - {}^5D^\circ$	2 - 1	K2
S I	1706.360	10	10	$3p^4 - 3p^3(^2D^\circ)4s$	${}^1D - {}^3D^\circ$	2 - 3	K2
S I	1707.132	8	10	$3p^4 - 3p^3(^2D^\circ)4s$	${}^1D - {}^3D^\circ$	2 - 1	K2
S I	1782.2626	50	13	$3p^4 - 3p^3(^2P^\circ)4s$	${}^1S - {}^1P^\circ$	0 - 1	K2
S I	1807.3108	550	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	K2
S I	1820.3426	500	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	K2
S I	1826.2451	450	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	K2
S I	1900.2863	550	1	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^5S^\circ$	2 - 2	K2
S I	1914.6982	350	1	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^5S^\circ$	1 - 2	K2
S I	1991.9369	8		$3s^23p^4 - 3s3p^5$	${}^1S - {}^3P^\circ$	0 - 1	K2

SULFUR II (S^{1+}), Z = 16

Ground State $1s^22s^22p^63s^23p^3\ {}^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential 188 200 cm^{-1}; 23.33 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S II	640.41	50		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	I5
S II	640.93	50		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	I5
S II	641.81	100		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	I5
S II	694.71	50		$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	I5
S II	705.62	50		$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	I5
S II	707.86	50		$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2F$	3/2 - 5/2	I5
S II	798.92	50		$3p^3$ -	${}^2D^\circ - {}^2P$	3/2 - 3/2	I5
S II	799.14	50		$3p^3$ -	${}^2D^\circ - {}^2P$	5/2 - 3/2	I5
S II	800.04	50		$3p^3$ -	${}^2D^\circ - {}^2P$	3/2 - 1/2	I5
S II	843.82	200		$3p^3$ -	${}^2D^\circ$ - 1	3/2 - 1/2	I5

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S II	865.87	50		$3p^3$ -	$^2P^\circ$ - ^2P	1/2 - 3/2	I5
S II	866.23	100		$3p^3$ -	$^2P^\circ$ - ^2P	3/2 - 3/2	I5
S II	867.15	100		$3p^3$ -	$^2P^\circ$ - ^2P	1/2 - 1/2	I5
S II	867.50	100		$3p^3$ -	$^2P^\circ$ - ^2P	3/2 - 1/2	I5
S II	906.87	300	2	$3p^3$ - $3p^2(^3P)4s$	g^4S° - ^4P	3/2 - 5/2	I5,M23
S II	910.49	300	2	$3p^3$ - $3p^2(^3P)4s$	g^4S° - ^4P	3/2 - 3/2	I5,M23
S II	912.74	300	2	$3p^3$ - $3p^2(^3P)4s$	g^4S° - ^4P	3/2 - 1/2	I5,M23
S II	918.82	300		$3p^3$ -	$^2P^\circ$ - 1	1/2 - 1/2	I5
S II	919.24	100		$3p^3$ -	$^2P^\circ$ - 1	3/2 - 1/2	I5
S II	937.41	300	6	$3p^3$ - $3p^2(^1D)4s$	$^2D^\circ$ - ^2D	3/2 - 3/2	I5,M23
S II	937.69	300	6	$3p^3$ - $3p^2(^1D)4s$	$^2D^\circ$ - ^2D	5/2 - 5/2	I5,M23
S II	957.88	100		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^2D ?	3/2 - 3/2	I5
S II	968.37	50		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^2P	5/2 - 3/2	I5
S II	996.00	200	5	$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^2F	5/2 - 7/2	I5,M23
S II	1000.48	200	5	$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^2F	3/2 - 5/2	I5,M23
S II	1000.75	65	5	$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^2F ?	5/2 - 5/2	R22,K8
S II	1006.15	270		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4D ?	5/2 - 7/2	R22,K8
S II	1006.95	35		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4D ?	3/2 - 1/2	R22,K8
S II	1014.09	50	4	$3p^3$ - $3p^2(^3P)4s$	$^2D^\circ$ - ^2P	3/2 - 3/2	I5
S II	1014.42	200	4	$3p^3$ - $3p^2(^3P)4s$	$^2D^\circ$ - ^2P	5/2 - 3/2	I5,M23
S II	1019.53	200	4	$3p^3$ - $3p^2(^3P)4s$	$^2D^\circ$ - ^2P	3/2 - 1/2	I5,M23
S II	1030.87	100	9	$3p^3$ - $3p^2(^1D)4s$	$^2P^\circ$ - ^2D	1/2 - 3/2	I5,M23
S II	1031.34	100	9	$3p^3$ - $3p^2(^1D)4s$	$^2P^\circ$ - ^2D	3/2 - 5/2	I5,M23
S II	1045.74	65		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4F ?	5/2 - 7/2	R22,K8
S II	1047.56	35		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4F ?	3/2 - 5/2	R22,K8
S II	1047.86	35		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4F ?	5/2 - 5/2	R22,K8
S II	1048.43	35		$3p^3$ - $3p^2(^3P)4s$	$^2D^\circ$ - ^4P ?	5/2 - 5/2	R22,K8
S II	1049.06	35		$3p^3$ - $3p^2(^3P)3d$	$^2D^\circ$ - ^4F	3/2 - 3/2	R22,K8
S II	1053.21	35		$3p^3$ - $3p^2(^3P)4s$	$^2D^\circ$ - ^4P ?	5/2 - 3/2	R22,K8
S II	1096.57	200	3	$3s^23p^3$ - $3s3p^4$	$^2D^\circ$ - ^2P	3/2 - 1/2	I5,M23
S II	1102.32	300	3	$3s^23p^3$ - $3s3p^4$	$^2D^\circ$ - ^2P	5/2 - 3/2	I5,M23
S II	1124.39	100	8	$3p^3$ - $3p^2(^3P)4s$	$^2P^\circ$ - ^2P	1/2 - 3/2	I5,M23
S II	1125.00	100	8	$3p^3$ - $3p^2(^3P)4s$	$^2P^\circ$ - ^2P	3/2 - 3/2	I5,M23
S II	1131.05	200	8	$3p^3$ - $3p^2(^3P)4s$	$^2P^\circ$ - ^2P	1/2 - 1/2	I5,M23
S II	1131.65	200	8	$3p^3$ - $3p^2(^3P)4s$	$^2P^\circ$ - ^2P	3/2 - 1/2	I5,M23
S II?	1204.30	500					T8,R22
S II	1226.70	100	7	$3s^23p^3$ - $3s3p^4$	$^2P^\circ$ - ^2P	1/2 - 1/2	I5,M23
S II	1227.45	100	7	$3s^23p^3$ - $3s3p^4$	$^2P^\circ$ - ^2P	3/2 - 1/2	I5,M23
S II	1233.36	50	7	$3s^23p^3$ - $3s3p^4$	$^2P^\circ$ - ^2P	1/2 - 3/2	I5,M23
S II	1234.14	300	7	$3s^23p^3$ - $3s3p^4$	$^2P^\circ$ - ^2P	3/2 - 3/2	I5,M23
S II	1250.50	300	1	$3s^23p^3$ - $3s3p^4$	g^4S° - ^4P	3/2 - 1/2	I5,M23
S II	1253.79	500	1	$3s^23p^3$ - $3s3p^4$	g^4S° - ^4P	3/2 - 3/2	I5,M23
S II	1259.53	500	1	$3s^23p^3$ - $3s3p^4$	g^4S° - ^4P	3/2 - 5/2	I5,M23
S II	1936.71	300		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4S^\circ$	5/2 - 3/2	G8
S II	1950.45	300		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4S^\circ$	3/2 - 3/2	G8
S II	1958.45	300		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4S^\circ$	1/2 - 3/2	G8
S II	1970.86	400		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4P^\circ$	5/2 - 5/2	G8
S II	1981.64	200		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4P^\circ$	5/2 - 3/2	G8
S II	1985.07	200		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4P^\circ$	3/2 - 5/2	G8
S II	1998.80	200		$3s3p^4$ - $3s^23p^2(^3P)4p$	^4P - $^4P^\circ$	3/2 - 1/2	G8

SULFUR III (S^{2+}), Z = 16

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2\ ^3P_0$ (14 electrons)

Ionization Potential 280 900 cm^{-1}; 34.83 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
S III	484.58		50		$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	1 - 2	I6
S III	485.22		50		$3p^2 - 3p4d$	$g^3P - {}^3D^\circ$	2 - 3	I6
S III	499.98		300		$3p^2 - 3p5s$	${}^1D - {}^1P^\circ$	2 - 1	R20
S III	543.03		200		$3p^2 - 3p5s$	${}^1S - {}^1P^\circ$	0 - 1	R20
S III	677.75		200	7	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	0 - 1	I6,M23
S III	678.46		200	7	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 2	I6,M23
S III	679.11		200	7	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 1	I6,M23
S III	680.69		200	7	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 3	I6,M23
S III	680.95		200b	7	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 2	I6,M23
S III	681.50		100b	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	0 - 1	I6,M23
S III	683.07		50	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 0	I6,M23
S III	683.47		100	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 2	I6,M23
S III	685.35		50	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 1	I6,M23
S III	698.73		200	5	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	0 - 1	I6,M23
S III	700.15		300	5	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 2	I6,M23
S III	700.29		300	5	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 0	I6,M23
S III	702.78	P		5	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	M23
S III	702.82	P		5	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 1	M23
S III	724.29		300	4	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	0 - 1	I6,M23
S III	725.86		3	4	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	1 - 1	I6,M23
S III	728.69		300	4	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	2 - 1	I6,M23
S III	729.53		400	12	$3p^2 - 3p4s$	${}^1D - {}^1P^\circ$	2 - 1	R20
S III	730.78		300	3	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	0 - 1	R20
S III	732.38		500	3	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	1 - 1	R20
S III	732.98		50		$3p^2 - 3p3d$	${}^1D - {}^3D^\circ$	2 - 3	R20
S III	733.34		50		$3p^2 - 3p3d$	${}^1D - {}^3D^\circ$	2 - 2	R20
S III	734.05	P	100		$3p^2 - 3p3d$	${}^1D - {}^3D^\circ$	2 - 1	R20
S III	735.25		400	3	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	2 - 1	R20
S III	736.25		200	11	$3p^2 - 3p4s$	${}^1D - {}^3P^\circ$	2 - 2	R20
S III	738.47		400	11	$3p^2 - 3p4s$	${}^1D - {}^3P^\circ$	2 - 1	R20
S III	788.98		400	10	$3s^2 3p^2 - 3s3p^3$	${}^1D - {}^3S^\circ$	2 - 1	R20
S III	796.69		400	9	$3s^2 3p^2 - 3s3p^3$	${}^1D - {}^1P^\circ$	2 - 1	R20
S III	824.88		400	14	$3p^2 - 3p4s$	${}^1S - {}^1P^\circ$	0 - 1	R20
S III	836.31		400	13	$3p^2 - 3p4s$	${}^1S - {}^3P^\circ$	0 - 1	R20
S III	911.77		20		$3s^2 3p^2 - 3s3p^3$	${}^1S - {}^1P^\circ$	0 - 1	R20
S III	1012.49		300	2	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	0 - 1	I6,M23
S III	1015.51		200	2	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 1	I6,M23
S III	1015.76		100	2	$3s^2 3p^2 - 3s^2 3p^3$	$g^3P - {}^3P^\circ$	1 - 2	I6,M23
S III	1021.10		100	2	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 1	I6,M23
S III	1021.32		200	2	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 2	I6,M23
S III	1077.13		800	8	$3s^2 3p^2 - 3s3p^3$	${}^1D - {}^1D^\circ$	2 - 2	R20
S III	1122.42		200		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3P$	3 - 2	I6
S III	1126.48		50		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3P$	1 - 1	I6
S III	1126.85		100		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3P$	2 - 1	I6
S III	1155.34		200		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3D$	3 - 3	I6
S III	1162.52		100		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3D$	2 - 2	I6
S III	1166.13		50		$3s3p^3 - 3s^2 3p4p$	${}^3D^\circ - {}^3D$	1 - 1	I6
S III	1190.17		200	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	0 - 1	I6,M23
S III	1194.02		400	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	I6,M23
S III	1194.40		300	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 1	I6,M23
S III	1200.97		400	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	I6,M23
S III	1201.71		200	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 2	I6,M23
S III	1202.10		50	1	$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 1	I6,M23
S III	1328.12		50		$3s3p^3 - 3s^2 3p4p$	${}^3P^\circ - {}^3S$	2 - 1	I6
S III	1328.52		50		$3s3p^3 - 3s^2 3p4p$	${}^3P^\circ - {}^3S$	1 - 1	I6
S III	1343.25		50		$3s3p^3 - 3s^2 3p4p$	${}^3P^\circ - {}^3P$	2 - 2	I6
S III	1343.53		50		$3s3p^3 - 3s^2 3p4p$	${}^3P^\circ - {}^3P$	1 - 2	I6
S III	1390.67		50		$3s3p^3 - 3s^2 3p4p$	${}^3P^\circ - {}^3D$	2 - 3	I6

SULFUR IV (S^{3+}), Z = 16

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 381 541.4 cm^{-1}; 47.304 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
S IV	519.30		200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 5/2	B19
S IV	520.11		200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	1/2 - 3/2	B19
S IV	520.83		300		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 5/2	B19
S IV	521.03		100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 3/2	B19
S IV	521.99		200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	3/2 - 1/2	B19
S IV	522.54		200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - ^4P^\circ$	5/2 - 3/2	B19
S IV	551.17		200	5	$3p - 4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	M13,M23
S IV	652.52		300	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	B19
S IV	653.00		300	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 1/2	B19
S IV	653.56		400	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	B19
S IV	653.98		300	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	B19
S IV	654.37		100	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 1/2	B19
S IV	655.55		400	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	B19
S IV	655.89		200	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	B19
S IV	656.30		100	8	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 3/2	B19
S IV	657.34		500	4	$3p - 3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	M13,M23
S IV	660.94		300	7	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	B19
S IV	661.42		600	4	$3p - 3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	M13,M23
S IV	663.70		300	7	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	B19
S IV	664.82		300	7	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	B19
S IV	666.11		400	7	$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	B19
S IV	744.92		500	3	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	M13,M23
S IV	748.40		500	3	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	M13,M23
S IV	750.23		500	3	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	M13,M23
S IV	753.76		500	3	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	M13,M23
S IV	798.28		300	6	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	B19
S IV	800.47		400	6	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	B19
S IV	803.99		400	6	$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	B19
S IV	809.69		400	2	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	M13,M23
S IV	815.97		500	2	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	M13,M23
S IV	836.34		400		$3s3p^2 - 3s^2 4p$	$^2D - ^2P^\circ$	5/2 - 3/2	B17
S IV	837.48		400		$3s3p^2 - 3s^2 4p$	$^2D - ^2P^\circ$	3/2 - 1/2	B17
S IV	852.76		300		$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	3/2 - 1/2	B17
S IV	853.10		300		$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$	5/2 - 3/2	B17
S IV	1062.67		600	1	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	B17,M23
S IV	1072.99		600	1	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	B17,M23
S IV	1073.52		400	1	$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	B17,M23
S IV	1108.48		200		$3s3p^2 - 3s^2 4p$	$^2S - ^2P^\circ$	1/2 - 3/2	M13,K8
S IV	1111.08		200		$3s3p^2 - 3s^2 4p$	$^2S - ^2P^\circ$	1/2 - 1/2	M13,K8
S IV	1138.12		100		$3s3p^2 - 3p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	B17
S IV	1286.17		100		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	1/2 - 3/2	B17
S IV	1296.61		200		$3s3p^2 - 3p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	B17
S IV	1398.13	P			$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^4P$	1/2 - 3/2	K8
S IV	1404.77		70		$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^4P$	1/2 - 1/2	E27
S IV	1406.00		30		$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	E27
S IV	1416.94		10		$3s^2 3p - 3s3p^2$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E27
S IV	1623.62		50		$3d - 4p$	$^2D - ^2P^\circ$	3/2 - 3/2	M13
S IV	1624.00		200		$3d - 4p$	$^2D - ^2P^\circ$	5/2 - 3/2	M13
S IV	1629.20		200		$3d - 4p$	$^2D - ^2P^\circ$	3/2 - 1/2	M13
S IV	1739.03		50		$4p - 5s$	$^2P^\circ - ^2S$	1/2 - 1/2	M13
S IV	1745.42		100		$4p - 5s$	$^2P^\circ - ^2S$	3/2 - 1/2	M13

SULFUR V (S^{4+}), Z = 16

Ground State $1s^2 2s^2 2p^6 3s^2$ $^1S_0$ (12 electrons)

Ionization Potential [586 200] cm^{-1}; [72.68] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S V	437.37	100	4	3s3p - 3s4s	$^3P^\circ$ - ^3S	0 - 1	B19
S V	438.19	100	4	3s3p - 3s4s	$^3P^\circ$ - ^3S	1 - 1	B19
S V	439.65	100	4	3s3p - 3s4s	$^3P^\circ$ - ^3S	2 - 1	B19
S V	658.26	300	3	3s3p - 3s3d	$^3P^\circ$ - ^3D	0 - 1	B19
S V	659.85	400	3	3s3p - 3s3d	$^3P^\circ$ - ^3D	1 - 2	B19
S V	663.16	500	3	3s3p - 3s3d	$^3P^\circ$ - ^3D	2 - 3	B19
S V	676.21	100		$3p^2$ - 3p3d	^3P - $^3D^\circ$	0 - 1	B19
S V	677.34	100		$3p^2$ - 3p3d	^3P - $^3D^\circ$	1 - 2	B19
S V	678.08	200		$3p^2$ - 3p3d	^3P - $^3D^\circ$	1 - 1	B19
S V	680.33	300		$3p^2$ - 3p3d	^3P - $^3D^\circ$	2 - 3	B19
S V	680.94	500b		$3p^2$ - 3p3d	^3P - $^3D^\circ$	2 - 2	B19
S V	681.68	300b		$3p^2$ - 3p3d	^3P - $^3D^\circ$	2 - 1	B19
S V	686.15	100		$3p^2$ - 3p3d	^3P - $^3P^\circ$	0 - 1	B19
S V	686.93	100		$3p^2$ - 3p3d	^3P - $^3P^\circ$	1 - 0	B19
S V	688.04	50		$3p^2$ - 3p3d	^3P - $^3P^\circ$	1 - 1	B19
S V	689.84	100		$3p^2$ - 3p3d	^3P - $^3P^\circ$	1 - 2	B19
S V	691.74	100		$3p^2$ - 3p3d	^3P - $^3P^\circ$	2 - 1	B19
S V	693.52	200		$3p^2$ - 3p3d	^3P - $^3P^\circ$	2 - 2	B19
S V	786.48	800	1	$3s^2$ - 3s3p	g^1S - $^1P^\circ$	0 - 1	B19
S V	849.24	600	2	3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 2	B19
S V	852.18	500	2	3s3p - $3p^2$	$^3P^\circ$ - ^3P	0 - 1	B19
S V	854.80	700	2	3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 2	B19
S V	857.87	500	2	3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 0	B19
S V	860.46	500	2	3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 1	B19
S V	883.59	200		3s3d - 3p3d	^3D - $^3D^\circ$	3 - 3	B19
S V	884.46	200		3s3d - 3p3d	^3D - $^3D^\circ$	2 - 2	B19
S V	885.77	100		3s3d - 3p3d	^3D - $^3D^\circ$	1 - 1	B19
S V	900.93	200		3s3d - 3p3d	^3D - $^3P^\circ$	1 - 0	B19
S V	902.80	100		3s3d - 3p3d	^3D - $^3P^\circ$	2 - 1	B19
S V	905.92	200		3s3d - 3p3d	^3D - $^3P^\circ$	3 - 2	B19
S V	1210.71 ?			$3s^2$ - 3s3p	g^1S - $^3P^\circ$	0 - 1	K8

SULFUR VI (S^{5+}), Z = 16

Ground State $1s^2 2s^2 2p^6 3s$ $^2S_{1/2}$ (11 electrons)

Ionization Potential 710 184 cm^{-1}; 88.049 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S VI	171.33	20		3s - 6p	g^2S - $^2P^\circ$	½ - 3/2	R20
S VI	191.48	20		3s - 5p	g^2S - $^2P^\circ$	½ - 3/2	R20
S VI	191.56	50		3s - 5p	g^2S - $^2P^\circ$	½ - ½	R20
S VI	192.27	20		3p - 7d	$^2P^\circ$ - ^2D	3/2 - 5/2	R20
S VI	204.19	50		3p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	R20
S VI	214.28	20		3p - 6s	$^2P^\circ$ - ^2S	3/2 - ½	R20
S VI	227.20	200		3p - 5d	$^2P^\circ$ - ^2D	½ - 3/2	R20
S VI	227.84	200		3p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	R20
S VI	248.99	400	2	3s - 4p	g^2S - $^2P^\circ$	½ - 3/2	R20
S VI	249.27	400	2	3s - 4p	g^2S - $^2P^\circ$	½ - ½	R20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S VI	251.91	200		3p - 5s	$^2P^\circ - ^2S$	3/2 - 1/2	R20
S VI	261.81	50		3d - 7f	$^2D - ^2F^\circ$	5/2 - 7/2	R20
S VI	283.50	300		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	R20
S VI	289.09	200		3p - 4d	$^2P^\circ - ^2D$	1/2 - 3/2	R20
S VI	290.13	300		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	R20
S VI	328.51	600		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	R20
S VI	388.94	600	4	3p - 4s	$^2P^\circ - ^2S$	1/2 - 1/2	R20
S VI	390.86	800	4	3p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	R20
S VI	464.68	1000	5	3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	R20
S VI	648.63	100		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	R20
S VI	650.43	100		3d - 4p	$^2D - ^2P^\circ$	3/2 - 1/2	R20
S VI	706.48	600	3	3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	R20
S VI	712.68	400	3	3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	R20
S VI	712.84	300	3	3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	R20
S VI	933.38	400	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	R20
S VI	944.52	500	1	3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	R20
S VI	1117.91	100		4f - 5g	$^2F^\circ - ^2G$	7/2 - 9/2	B28,K8

SULFUR VII (S^{6+}), Z = 16

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 2 265 900 cm^{-1}; 280.93 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S VII	46.212	10		$2p^6 - 2p^5(^2P^\circ)7d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	F35
S VII	47.098	50		$2p^6 - 2p^5(^2P^\circ)6d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	F35
S VII	47.307	50		$2p^6 - 2p^5(^2P^\circ)6d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	48.647	150		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	F35
S VII	48.874	100		$2p^6 - 2p^5(^2P^\circ)5d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	49.990	120		$2s^2 2p^6 - 2s\,2p^6 3p$	$g\,^1S - ^1P^\circ$?	0 - 1	F35,K8
S VII	50.027	70		$2p^6 - 2p^5(^2P^\circ)5s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	51.807	350		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	F35
S VII	52.097	200		$2p^6 - 2p^5(^2P^\circ)4d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	54.652	100		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	F35
S VII	54.938	100		$2p^6 - 2p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	60.161	1000		$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - 1/2[3/2]^\circ$	0 - 1	F35
S VII	60.804	750		$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35
S VII	61.547	200		$2p^6 - 2p^5(^2P^\circ)3d$	$g\,^1S - 3/2[1/2]^\circ$	0 - 1	F35
S VII	72.029	1000		$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	F35
S VII	72.663	1000		$2p^6 - 2p^5(^2P^\circ)3s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	F35

SULFUR VIII (S^{7+}), Z = 16

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 2 647 400 cm^{-1}; 328.23 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S VIII	44.350	20		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	F35
S VIII	44.374	100b		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
S VIII	44.547	50		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
S VIII	45.279	50		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
S VIII	45.290	50		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
S VIII	45.370	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
S VIII	45.458	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
S VIII	45.508	20		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
S VIII	47.566	10		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
S VIII	47.594	10		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
S VIII	47.793	10b		$2p^5 - 2p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
S VIII	51.227	100		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
S VIII	51.470	70		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
S VIII	52.681	20		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
S VIII	52.702	20		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
S VIII	52.756	300		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	F35
S VIII	52.789	300		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
S VIII	52.854	100		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
S VIII	52.958	350		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
S VIII	52.985	70		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
S VIII	53.073	50		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
S VIII	53.239	30		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
S VIII	54.118	500		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
S VIII	54.266	100		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F35
S VIII	54.370	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
S VIII	54.385	100		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
S VIII	54.424	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
S VIII	54.501	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F35
S VIII	54.566	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
S VIII	54.604	50		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	F35
S VIII	59.236	70		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F35
S VIII	59.593	20		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F35
S VIII	61.600	500		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F35
S VIII	61.978	250		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F35
S VIII	63.026	50		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F35
S VIII	63.304	500		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F35
S VIII	63.431	100		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F35
S VIII	63.711	50		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F35
S VIII	63.886	250		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	F35
S VIII	64.120	50		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F35
S VIII	64.137	100		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	F35
S VIII	64.305	20		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F35
S VIII	64.874	20		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 1/2	F35
S VIII	65.149	50		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 3/2	F35
S VIII	198.550	50		$2s^2 2p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	R20
S VIII	202.605	50		$2s^2 2p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	R20

SULFUR IX (S^{8+}), Z = 16

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 3 057 700 cm^{-1}; 379.10 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S IX	46.373	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F35
S IX	46.413	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^1P^\circ$	1 - 1	F35
S IX	46.585	10d		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F35
S IX	46.624	10		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 1	F35
S IX	46.713	50		$2p^4 - 2p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$?	2 - 1	F35,K8
S IX	46.765	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$?	1 - 2	F35,K8
S IX	47.052	50		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3S^\circ$	2 - 1	F35
S IX	47.188	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 1	F35
S IX	47.249	50		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F35
S IX	47.433	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F35
S IX	47.518	30		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	F35
S IX	47.616	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F35
S IX	48.160	100b		$2p^4 - 2p^3(^2P^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	F35,K8
S IX	48.362	20		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^3S^\circ$?	2 - 1	F35,K8
S IX	48.564	20		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	F35
S IX	49.119	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F35
S IX	49.328	50		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F35
S IX	52.854	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g\,^3P - ^3P^\circ$	2 - 2	G13,F35
S IX	54.178	100		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^3D^\circ$	2 - 3	F35
S IX	54.396	50		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^3D^\circ$	1 - 2	F35
S IX	55.540	100		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - ^1D^\circ$	2 - 2	F35
S IX	56.081	50		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	2 - 1	F35
S IX	56.125	20		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	F35
S IX	56.332	20d		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	1 - 1	F35
S IX	179.32	450		$2s^2 2p^4 - 2s\,2p^5$	$^1D - ^1P^\circ$	2 - 1	D1,K15
S IX	202.62	250b		$2s^2 2p^4 - 2s\,2p^5$	$^1S - ^1P^\circ$	0 - 1	D1,K15
S IX	221.26	100		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	2 - 1	D1,K15
S IX	223.27	100		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 0	D1,K15
S IX	224.75	450		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	2 - 2	D1,K15
S IX	225.23	50		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 1	D1,K15
S IX	226.59	100		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	0 - 1	D1,K15
S IX	228.84	100		$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 2	D1,K15

SULFUR X (S^{9+}), Z = 16

Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 3 606 100 cm^{-1}; 447.09 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S X	42.16	100b		$2s^2 2p^3 - 2s\,2p^3(^5S^\circ)3p$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	F18
S X	42.51 P	15		$2p^3 - 2p^2 3d$	$g\,^4S^\circ - ^4P$	3/2 - 1/2	T10
S X	42.54 P	35		$2p^3 - 2p^2 3d$	$g\,^4S^\circ - ^4P$	3/2 - 3/2	T10
S X	42.58 P	50		$2p^3 - 2p^2 3d$	$g\,^4S^\circ - ^4P$	3/2 - 5/2	T10
S X	43.5			$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F18
S X	44.374	100b		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F35
S X	44.387	20		$2p^3 - 2p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F35
S X?	44.5	350					F18
S X	45.99	100		$2s\,2p^4 - 2s\,2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F18
S X	46.24	100		$2s\,2p^4 - 2s\,2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S X	46.41	100b		$2s2p^4 - 2s2p^3(^5S^\circ)3d$	$^4P - ^4D^\circ$	1/2 - 3/2	F18
S X	47.654	20		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F35
S X	47.793	10b		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 3/2	F35
S X	177.55	250		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	D2,F18
S X	180.36	150		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	D2,F18
S X	180.72	350		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	D2,F18
S X	189.99	150		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2S$	3/2 - 1/2	P19
S X	192.88	50		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	F18
S X	193.49	150		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	D2,F18
S X	196.14	100		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	F18
S X	196.83	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	D2,F18
S X	207.53	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	D2,F18
S X	208.33	200		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	D2,F18
S X	212.60			$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	F16
S X	228.18	250		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	D2,F18
S X	228.70	350		$2s^22p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	D2,F18
S X	254.00			$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	D2
S X	255.08	20		$2s^22p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	D2,K15
S X	257.16	100		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	D2,F18
S X	259.52	150		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	D2,F18
S X	264.24	200		$2s^22p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	D2,F18

SULFUR XI (S^{10+}), Z = 16

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 4 071 400 cm^{-1}; 504.78 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XI	31.02	150b		$2p^2 - 2p4d$	$g^3P - ^3D^\circ$	2 - 3	F18
S XI	38.99	450		$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	0 - 1	F18
S XI	39.26	350		$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	F18
S XI	39.65	350		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	F18
S XI	43.56	150		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	F18
S XI	43.75	150		$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	F18
S XI	186.85	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	0 - 1	P19
S XI	188.68	225		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	1 - 1	P19
S XI	190.37	250		$2s^22p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	P19
S XI	191.26	250		$2s^22p^2 - 2s2p^3$	$g^3P - ^3S^\circ$	2 - 1	P19
S XI	213.55	125		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	1 - 0	P19
S XI	214.85	125		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	P19
S XI	214.98	100		$2s2p^3 - 2p^4$	$^3D^\circ - ^3D$	1 - 1	P19
S XI	215.95	250		$2s^22p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	P19
S XI	217.63	200		$2s^22p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	P19
S XI	218.99	125		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 2	P19
S XI	219.13	200		$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	P19
S XI	239.81	150		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	0 - 1	P19
S XI	242.57	125		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 2	P19
S XI	242.82	175		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	1 - 1	P19
S XI	245.94	75		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 0	P19
S XI	246.90	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 2	P19
S XI	247.12	250		$2s^22p^2 - 2s2p^3$	$g^3P - ^3P^\circ$	2 - 1	P19
S XI	247.83	75		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 1	P19
S XI	248.09	75		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 1	P19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XI	252.93	25		$2s2p^3 - 2p^4$	$^1P^\circ - ^1S$	1 - 0	P19
S XI	253.36	50		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 2	P19
S XI	253.62	150		$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	P19
S XI	281.40	175		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	0 - 1	P19
S XI	285.58	250		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 1	P19
S XI	285.83	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	1 - 2	P19
S XI	291.59	200		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 3	P19
S XI	291.83	0		$2s^22p^2 - 2s2p^3$	$g^3P - ^3D^\circ$	2 - 2	P19
S XI	295.63	200		$2s2p^3 - 2p^4$	$^1D^\circ - ^1D$	2 - 2	P19
S XI	346.52			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 0	F3
S XI	350.40			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 1	F3
S XI	361.57			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	F3
S XI	362.34	0		$2s2p^3 - 2p^4$	$^1P^\circ - ^1D$	1 - 2	P19

SULFUR XII (S^{11+}), Z = 16

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 4 554 300 cm^{-1}; 564.65 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XII	25.55	50		$2p - 5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F18
S XII	28.29	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^4P - ^4D^\circ$	5/2 - 7/2	F18
S XII	28.41	100		$2p - 4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F18
S XII	29.23	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	F18
S XII	35.94	200		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F18
S XII	36.33	300		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F18
S XII	36.54	150		$2p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F18
S XII	36.71	150		$2p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F18
S XII	37.59	100		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F18
S XII	37.74	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	3/2 - 5/2	F18
S XII	38.34	100		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	F18
S XII	212.14	150		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	P19
S XII	215.18	150		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	P19
S XII	218.20	250		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	P19
S XII	221.44	175		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	P19
S XII	227.50	150		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	P19
S XII	234.48	75		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	P19
S XII	240.26	175		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	P19
S XII	243.06	200		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	P19
S XII	247.12	250		$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	P19
S XII	288.45	175		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	P19
S XII	299.50	175		$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	P19
S XII	309.6 P			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	K8
S XII	323.18			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
S XII	328.39			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	1/2 - 1/2	F3
S XII	444.16			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
S XII	456.55			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
S XII	535.1 P			$2s^22p - 2s2p^2$	$g^2P^\circ - ^4P$	3/2 - 5/2	K8

SULFUR XIII (S^{12+}), Z = 16

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 5 255 900 cm^{-1}; 651.63 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XIII	23.25	150		2s2p - 2s5d	$^3P^\circ - ^3D$	2 - 3	F18
S XIII	23.70	250		$2p^2$ - 2p5d	$^3P - ^3D^\circ$	2 - 3	F18
S XIII	25.80	100		2s2p - 2s4d	$^3P^\circ - ^3D$	2 - 3	F18
S XIII	26.35	150		$2p^2$ - 2p4d	$^3P - ^3D^\circ$	2 - 3	F18
S XIII	30.2 P			$2s^2$ - 2p3s	$g^1S - ^1P^\circ$	0 - 1	K8
S XIII	31.6	150		2s2p - 2p3p	$^3P^\circ - ^3P$?	2 - 2	F18
S XIII	31.94	350		2s2p - 2p3p	$^3P^\circ - ^3D$	2 - 3	F18
S XIII	32.41	250b		$2s^2$ - 2s3p	$g^1S - ^1P^\circ$	0 - 1	F18
S XIII	33.2 P			2s2p - 2p3p	$^1P^\circ - ^1D$	1 - 2	K8
S XIII	33.89			2s2p - 2s3d	$^3P^\circ - ^3D$	1 - 2	F9
S XIII	33.99			2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	F9
S XIII	34.67	400		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	F18
S XIII	35.7 P			2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	K8
S XIII	36.2 P			2s2p - 2s3d	$^1P^\circ - ^3D$	1 - 2	K8
S XIII	36.7 P			$2p^2$ - 2p3s	$^1D - ^1P^\circ$	2 - 1	K8
S XIII	37.6 P			2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	K8
S XIII	38.2 P			2s2p - 2s3s	$^1P^\circ - ^3S$	1 - 1	K8
S XIII	39.7 P			$2p^2$ - 2s3p	$^1D - ^1P^\circ$	2 - 1	K8
S XIII	256.66	250		$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	P19
S XIII	299.89	75		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 2	P19
S XIII	303.37	50		2s2p - $2p^2$	$^3P^\circ - ^3P$	0 - 1	P19
S XIII	307.36	50		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 1	P19
S XIII	308.91	125		2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 2	P19
S XIII	312.68	25		2s2p - $2p^2$	$^3P^\circ - ^3P$	1 - 0	P19
S XIII	316.84	50		2s2p - $2p^2$	$^3P^\circ - ^3P$	2 - 1	P19
S XIII	495.0 P			$2s^2$ - 2s2p	$g^1S - ^3P^\circ$	0 - 1	K8
S XIII	500.42			2s2p - $2p^2$	$^1P^\circ - ^1D$	1 - 2	F3

SULFUR XIV (S^{13+}), Z = 16

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 5 703 600 cm^{-1}; 707.14 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XIV	4.394			$1s^2 2s$ - 1s2s3p	$g^2S - ^2P^\circ$?	½ - 3/2	D6
S XIV	5.083			$1s^2 2s$ - 1s2s2p	$g^2S - ^2P^\circ$	½ - 3/2	D6
S XIV	5.137			$1s^2 2s$ - 1s2s2p	$g^2S - ^4P^\circ$	½ - 3/2	D6
S XIV	21.79	50		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	F18
S XIV	23.04	150		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	F18
S XIV	24.26	100		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F18
S XIV	24.43	150		2p - 4s	$^2P^\circ - ^2S$	3/2 - ½	F18
S XIV	30.43	250		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	F18
S XIV	32.40	200		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	F18
S XIV	32.55	300		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	F18
S XIV	33.28	150		2p - 3s	$^2P^\circ - ^2S$	½ - ½	F18
S XIV	33.38	50		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	F18
S XIV	417.60			2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	F3
S XIV	445.78			2s - 2p	$g^2S - ^2P^\circ$	½ - ½	F3

SULFUR XV (S^{14+}), Z = 16
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential 26 002 663 cm^{-1}; 3323.836 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XV	4.00 P			$1s^2$ - 1s5p	$g\,^1S$ - $^1P°$	0 - 1	K8
S XV	4.104			$1s^2$ - 1s4p	$g\,^1S$ - $^1P°$	0 - 1	D6
S XV	4.299			$1s^2$ - 1s3p	$g\,^1S$ - $^1P°$	0 - 1	D6
S XV	5.039			$1s^2$ - 1s2p	$g\,^1S$ - $^1P°$	0 - 1	D6
S XV	5.067			$1s^2$ - 1s2p	$g\,^1S$ - $^3P°$	0 - 1	D6
S XV	5.099	f		$1s^2$ - 1s2s	$g\,^1S$ - ^3S	0 - 1	D6

SULFUR XVI (S^{15+}), Z = 16
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential 28 182 535 cm^{-1}; 3494.10 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
S XVI	3.649 P			1s - 6p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
S XVI	3.696 P			1s - 5p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
S XVI	3.784 P	10		1s - 4p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
S XVI	3.991 P	30		1s - 3p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
S XVI	4.729 P	100		1s - 2p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
S XVI	15.46 P			2 - 7			G2
S XVI	15.97 P			2 - 6			G2
S XVI	16.90 P			2 - 5			G2
S XVI	18.93 P			2 - 4			G2
S XVI	25.54 P			2 - 3			G2
S XVI	39.18 P			3 - 7			G2
S XVI	42.65 P			3 - 6			G2
S XVI	49.97 P			3 - 5			G2
S XVI	73.1 P			3 - 4			G2
S XVI	84.48 P			4 - 7			G2
S XVI	102.4 P			4 - 6			G2
S XVI	158.0 P			4 - 5			G2
S XVI	181.5 P			5 - 7			G2
S XVI	291.0 P			5 - 6			G2
S XVI	482.7 P			6 - 7			G2

CHLORINE I (Cl^{0+}), Z = 17

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5$ $^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 104 591.0 cm^{-1}; 12.967 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl I	969.917	10		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	R3
Cl I	976.452	1		$3p^5 - 3p^4(^3P)8s$	$g^2P^\circ - 0[0]$	3/2 - 1/2	R3
Cl I	978.2844	13		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	R3
Cl I	979.963	1		$3p^5 - 3p^4(^3P)7d$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	980.5061	3		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 0[2]$	3/2 - 5/2	R3
Cl I	980.9191	4		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	R3
Cl I	981.879	2		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[2]$	3/2 - 3/2	R3
Cl I	982.285	2		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[3]$	3/2 - 5/2	R3
Cl I	984.2864	7		$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	R3
Cl I	984.3230	8		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	984.939	2		$3p^5 - 3p^4(^3P)8s$	$g^2P^\circ - 0[0]$	1/2 - 1/2	R3
Cl I	987.599	1		$3p^5 - 3p^4(^3P)8s$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	987.885	2		$3p^5 - 3p^4(^3P)8s$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	987.916	1		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[3]$	3/2 - 5/2	R3
Cl I	988.410	2		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[1]$	3/2 - 3/2	R3
Cl I	988.9436	5		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 0[2]$	1/2 - 3/2	R3
Cl I	989.484	2		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	R3
Cl I	989.6543	4		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	989.713	1		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 0[0]$	3/2 - 1/2	R3
Cl I	990.4591	5		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[2]$	1/2 - 3/2	R3
Cl I	990.629	2		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[1]$	3/2 - 1/2	R3
Cl I	991.640	2		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	992.679	1		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	992.9098	8		$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	R3
Cl I	992.9470	5		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	993.007	2		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 1[1]$	3/2 - 3/2	R3
Cl I	994.1414	3		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 0[2]$	3/2 - 5/2	R3
Cl I	994.9965	4		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 0[2]$	3/2 - 3/2	R3
Cl I	996.5402	3		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[2]$	3/2 - 5/2	R3
Cl I	996.5591	3		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[0]$	1/2 - 1/2	R3
Cl I	997.1064	4		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[1]$	1/2 - 3/2	R3
Cl I	997.5099	4		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[3]$	3/2 - 5/2	R3
Cl I	997.5375	4		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[2]$	3/2 - 3/2	R3
Cl I	998.294	2		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[1]$	3/2 - 3/2	R3
Cl I	998.3723	9		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	998.4319	9		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 0[0]$	1/2 - 1/2	R3
Cl I	999.3638	8		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - 2[1]$	1/2 - 1/2	R3
Cl I	999.4929	5		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	1000.113	2		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	1000.278	2		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	1001.4491	3		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	1002.3464	20		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[3]$	3/2 - 5/2	R3
Cl I	1002.8952	3		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[0]$	3/2 - 1/2	R3
Cl I	1003.191	2		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[1]$	3/2 - 3/2	R3
Cl I	1003.8093	5		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 0[2]$	1/2 - 3/2	R3
Cl I	1004.6776	8		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	R3
Cl I	1005.956	1		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[1]$	3/2 - 1/2	R3
Cl I	1006.3957	3		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[2]$	1/2 - 3/2	R3
Cl I	1006.495	1		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	1007.1647	8		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	1007.3626	3		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	1008.3859	5		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	1009.1857	4		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	1011.8492	10		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[0]$	1/2 - 1/2	R3
Cl I	1012.1505	6		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[1]$	1/2 - 3/2	R3
Cl I	1013.6635	30		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	R3
Cl I	1015.5139	6		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	1016.3558	3		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 0[0]$	3/2 - 1/2	R3
Cl I	1019.3644	4		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	1019.9400	9		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 1[1]$	3/2 - 3/2	R3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl I	1022.0478	3		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 0[2]$	3/2 - 3/2	R3
Cl I	1022.4143	15		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 0[2]$	3/2 - 5/2	R3
Cl I	1025.2821	7		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[2]$	3/2 - 5/2	R3
Cl I	1025.5528	22		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 0[0]$	1/2 - 1/2	R3
Cl I	1025.8444	8		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	1027.1785	10		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[2]$	3/2 - 3/2	R3
Cl I	1027.3386	15		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[3]$	3/2 - 5/2	R3
Cl I	1028.1739	6		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[1]$	3/2 - 3/2	R3
Cl I	1028.4075	8		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	1028.6162	15		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	1029.2023	3		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	1029.3432	7		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	1030.8845	10		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[1]$	3/2 - 3/2	R3
Cl I	1031.3486	20		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 0[2]$	1/2 - 3/2	R3
Cl I	1031.5070	15		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[3]$	3/2 - 5/2	R3
Cl I	1031.6704	6		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[0]$	3/2 - 1/2	R3
Cl I	1035.2148	30		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	1036.5734	5		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[2]$	1/2 - 3/2	R3
Cl I	1037.5871	27		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	1038.7779	25		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	1040.3475	30		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[1]$	1/2 - 3/2	R3
Cl I	1041.1480	15		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[0]$	1/2 - 1/2	R3
Cl I	1041.7148	4		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[1]$	3/2 - 1/2	R3
Cl I	1042.7793	8		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	1043.9857	7		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	1051.3787	9		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[1]$	1/2 - 1/2	R3
Cl I	1052.4631	4		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	1079.8821	30		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 0[0]$	3/2 - 1/2	R3
Cl I	1084.6671	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	R3
Cl I	1085.1709	40		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 1[1]$	3/2 - 1/2	R3
Cl I	1085.3035	45		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 1[1]$	3/2 - 3/2	R3
Cl I	1088.062	60		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	R3
Cl I	1090.2706	55		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 0[0]$	1/2 - 1/2	R3
Cl I	1090.7386	40		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 2[2]$	3/2 - 3/2	R3
Cl I	1090.9815	45		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	R3
Cl I	1092.1287	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	R3
Cl I	1092.4366	45		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	R3
Cl I	1094.7686	60		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 2[2]$	3/2 - 5/2	R3
Cl I	1095.1483	55		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	R3
Cl I	1095.6619	55		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 1[1]$	1/2 - 1/2	R3
Cl I	1095.7971	60		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 1[1]$	1/2 - 3/2	R3
Cl I	1096.8098	45		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	R3
Cl I	1097.3692	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	R3
Cl I	1098.0682	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	R3
Cl I	1099.5230	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	R3
Cl I	1101.3381	50		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - 2[2]$	1/2 - 3/2	R3
Cl I	1101.9362	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	R3
Cl I	1102.755	40		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	R3
Cl I	1103.069	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	R3
Cl I	1107.5282	70		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	R3
Cl I	1108.8113	15		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	R3
Cl I	1110.2948	60		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	R3
Cl I	1132.8528	45		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	R3
Cl I	1133.9341	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	R3
Cl I	1135.3310	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	R3
Cl I	1144.2909	60		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	R3
Cl I	1145.3941	30		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	R3
Cl I	1167.1479	100		$3s^2 3p^5 - 3s\,3p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	R3
Cl I	1179.2927	250		$3s^2 3p^5 - 3s\,3p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	R3
Cl I	1188.7515	50		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	R3
Cl I	1188.7743	130		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	R3
Cl I	1201.3527	100		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	R3
Cl I	1335.7257	250	2	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	R3
Cl I	1347.2397	550	2	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	R3
Cl I	1351.6568	350	2	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	R3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl I	1363.4471	600	2	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	½ - 3/2	R3
Cl I	1373.1163	200	1	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - ½	R3
Cl I	1379.5278	900	1	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	R3
Cl I	1389.6928	1000	1	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	R3
Cl I	1389.9569	900	1	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	½ - ½	R3
Cl I	1396.5267	600	1	$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	½ - 3/2	R3

CHLORINE II (Cl^{1+}), Z = 17

Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)

Ionization Potential 192 070 cm^{-1}; 23.81 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl II	558.14	100		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^1P^\circ$	1 - 1	K13
Cl II	562.28	300		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^1D^\circ$	1 - 2	K13
Cl II	562.54	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3P^\circ$	2 - 1	K13
Cl II	563.58	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3S^\circ$	2 - 1	K13
Cl II	565.75	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3P^\circ$	0 - 1	K13
Cl II	566.77	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3S^\circ$	0 - 1	K13
Cl II	571.95	100		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	K13
Cl II	574.37	300		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 2	K13
Cl II	575.30	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3D^\circ$	0 - 1	K13
Cl II	584.10	100		$3p^4 - 3p^3(^2D^\circ)5s$	$g\,^3P - ^1D^\circ$	2 - 2	K13
Cl II	586.25	10		$3p^4 - 3p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	2 - 3	K13
Cl II	588.77	10		$3p^4 - 3p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	1 - 2	K13
Cl II	589.82	10		$3p^4 - 3p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	0 - 1	K13
Cl II	594.49	10		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	K13
Cl II	599.19	10		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	K13
Cl II	612.73	10		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	K13
Cl II	617.27	10		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 1	K13
Cl II	617.61	100		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 2	K13
Cl II	618.02	200		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	K13
Cl II	619.95	10		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 1	K13
Cl II	620.28	100		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 2	K13
Cl II	621.12	400		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	0 - 1	K13
Cl II	626.70	100		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	K13
Cl II	634.24	100		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	2 - 1	K13
Cl II	635.87	200		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	1 - 0	K13
Cl II	636.62	200		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	2 - 2	K13
Cl II	637.06	100		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	1 - 1	K13
Cl II	638.23	200		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	0 - 1	K13
Cl II	639.42	200		$3s^23p^4 - 3p^54s$	$g\,^3P - ^3P^\circ$	1 - 2	K13
Cl II	650.88	100		$3p^4 - 3p^3(^4S^\circ)5s$	$g\,^3P - ^3S^\circ$	2 - 1	K13
Cl II	651.13	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3S^\circ$	2 - 1	K13
Cl II	653.80	100		$3p^4 - 3p^3(^4S^\circ)5s$	$g\,^3P - ^3S^\circ$	1 - 1	K13
Cl II	655.09	100		$3p^4 - 3p^3(^4S^\circ)5s$	$g\,^3P - ^3S^\circ$	0 - 1	K13
Cl II	661.62	10		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 1	K13
Cl II	661.82	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	K13
Cl II	662.15	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 2	K13
Cl II	663.08	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 1	K13
Cl II	663.67	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	K13
Cl II	664.67	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 1	K13
Cl II	665.21	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	K13

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl II	666.08	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	K13
Cl II	666.17	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	K13
Cl II	667.49	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	K13
Cl II	684.83	10		$3s^2 3p^4 - 3p^5 4s$	$^1D - {}^3P^\circ$	2 - 1	K13
Cl II	687.55	100		$3s^2 3p^4 - 3p^5 4s$	$^1D - {}^3P^\circ$	2 - 2	K13
Cl II	693.55	10		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3F^\circ$	2 - 3	K13
Cl II	696.11	10		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3F^\circ$	1 - 2	K13
Cl II	707.43	400		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	K13
Cl II	709.16	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	K13
Cl II	710.53	10		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	K13 *
Cl II	712.66	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	K13
Cl II	714.03	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	K13
Cl II	715.58	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	K13
Cl II	717.15	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^3D^\circ$	2 - 3	K13
Cl II	719.26	100		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^3P^\circ$	2 - 2	K13
Cl II	725.27	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	K13
Cl II	725.64	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 1	K13
Cl II	728.94	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 2	K13
Cl II	729.39	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 1	K13
Cl II	729.52	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 0	K13
Cl II	730.92	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	0 - 1	K13
Cl II	753.66	10		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3F^\circ$	2 - 2	K13
Cl II	754.55	10		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3F^\circ$	2 - 3	K13
Cl II	771.00	10		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3D^\circ$	2 - 3	K13
Cl II	774.76	10		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3D^\circ$	2 - 1	K13
Cl II	777.55	300		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	K13
Cl II	787.15	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^1P^\circ$	1 - 1	K13
Cl II	787.62	300		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - {}^1P^\circ$	2 - 1	K13
Cl II	788.75	400	5	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	K13
Cl II	789.01	700	5	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	K13
Cl II	792.19	200		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - {}^3P^\circ$	2 - 2	K13
Cl II	793.34	300	5	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	K13
Cl II	793.47	300	5	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	K13
Cl II	795.36	200	5	$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	K13
Cl II	797.81	10		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3F^\circ$	1 - 2	K13
Cl II	827.75	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^1D^\circ$	1 - 2	K13
Cl II	834.67	1000	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	K13
Cl II	839.30	200	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	K13
Cl II	839.63	200	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	K13
Cl II	841.41	400	4	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	K13
Cl II	851.70	700		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - {}^1D^\circ$	2 - 2	K13
Cl II	864.67	500	3	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^1P^\circ$	2 - 1	K13
Cl II	872.20	10	3	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^1P^\circ$	0 - 1	K13
Cl II	888.07	400	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	K13
Cl II	893.56	300	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	K13
Cl II	895.95	300	2	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	K13
Cl II	906.60	10		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	2 - 3	K13
Cl II	910.25	10		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	K13
Cl II	912.34	10		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	1 - 2	K13
Cl II	914.90	100		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	0 - 1	K13
Cl II	926.96	10		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^5S^\circ$	2 - 2	K13
Cl II	961.49	500		$3s^2 3p^4 - 3s 3p^5$	$^1D - {}^1P^\circ$	2 - 1	K13
Cl II	1063.83	500	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	2 - 1	K13
Cl II	1067.94	200	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 0	K13
Cl II	1071.05	1000	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	2 - 2	K13
Cl II	1071.76	500	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 1	K13
Cl II	1075.24	350	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	0 - 1	K13
Cl II	1079.08	750	1	$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 2	K13
Cl II	1223.71	100		$3s^2 3p^4 - 3s 3p^5$	$^1D - {}^3P^\circ$	2 - 2	K13
Cl II	1401.16	10		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^1S$	1 - 0	K13
Cl II	1471.06	200		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^1P$	2 - 1	K13
Cl II	1484.76	10		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^1P$	1 - 1	K13
Cl II	1528.91	100		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^3D$	2 - 2	K13
Cl II	1542.94	10		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^3S$	2 - 1	K13
Cl II	1558.15	100		$3s 3p^5 - 3s^2 3p^3(^2P^\circ)4p$	$^3P^\circ - {}^3S$	1 - 1	K13

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl II	1767.24	100		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	2 - 1	K13
Cl II	1772.01	300		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	2 - 2	K13
Cl II	1785.06	100		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	1 - 0	K13
Cl II	1787.20	300		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	1 - 1	K13
Cl II	1792.10	400		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	1 - 2	K13
Cl II	1797.91	10		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3P$	0 - 1	K13
Cl II	1813.75	10		$3p^3(^4S^\circ)4p - 3p^3(^2D^\circ)6s$	$^3P - ^3D^\circ$	2 - 3	K13
Cl II	1814.43	10		$3p^3(^4S^\circ)4p - 3p^3(^2D^\circ)6s$	$^3P - ^3D^\circ$	1 - 2	K13
Cl II	1815.16	10		$3p^3(^4S^\circ)4p - 3p^3(^2D^\circ)6s$	$^3P - ^3D^\circ$	0 - 1	K13
Cl II	1815.61	10		$3p^3(^4S^\circ)4p - 3p^3(^2D^\circ)6s$	$^3P - ^3D^\circ$	1 - 1	K13
Cl II	1883.14	300		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3D$	2 - 3	K13
Cl II	1887.90	10		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3D$	2 - 2	K13
Cl II	1910.76	10		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3D$	1 - 2	K13
Cl II	1923.35	400		$3s3p^5 - 3s^23p^3(^2D^\circ)4p$	$^3P^\circ - ^3D$	0 - 1	K13

CHLORINE III (Cl^{2+}), Z = 17

Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential 319 500 cm^{-1}; 39.61 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl III	406.27	100		$3p^3 - 3p^2(^3P)5s$	$g^4S^\circ - ^4P$	3/2 - 5/2	B21
Cl III	407.51	10		$3p^3 - 3p^2(^3P)5s$	$g^4S^\circ - ^4P$	3/2 - 3/2	B21
Cl III	411.16	300		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 1/2	B21
Cl III	411.37	400		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 3/2	B21
Cl III	411.81	400		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 5/2	B21
Cl III	415.20	100		$3p^3 - 3p^2(^1D)5s$	$^2D^\circ - ^2D$	3/2 - 3/2	B21
Cl III	415.33	100		$3p^3 - 3p^2(^1D)5s$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	421.77	300		$3p^3 - 3p^2(^1D)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	B21
Cl III	421.99	300		$3p^3 - 3p^2(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	B21
Cl III	422.71	100		$3p^3 - 3p^2(^1D)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	433.66	10		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2D$	3/2 - 5/2	B21
Cl III	433.77	10		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	441.40	300		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	B21
Cl III	442.95	200		$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	B21
Cl III	457.17	300		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	B21
Cl III	457.24	200		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	B21
Cl III	457.44	10		$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	3/2 - 3/2	B21
Cl III	552.91	200b		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	B21
Cl III	556.23	600	3	$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	B21
Cl III	556.61	700	3	$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	B21
Cl III	557.12	700	3	$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	B21
Cl III	558.39	100		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^2P$	3/2 - 3/2	B21
Cl III	560.64	100		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^2P$	3/2 - 1/2	B21
Cl III	561.53	700	5	$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	B21
Cl III	561.68	700	5	$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	B21
Cl III	561.74	700	5	$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	B21
Cl III	564.29	400		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	B21
Cl III	564.51	200		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	B21
Cl III	565.27	300		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	B21
Cl III	565.48	400b		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	572.69	400	2	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	B17
Cl III	574.41	300	2	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	B17
Cl III	575.58	300	2	$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	B17
Cl III	586.87	400		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	B21
Cl III	587.08	300		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 5/2	B21

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl III	587.30	400		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	591.12	300	6	$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	B21
Cl III	591.43	400	6	$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	B21
Cl III	591.65	400	6	$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	B21
Cl III	591.96	200	6	$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	B21
Cl III	594.64	400		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	B21
Cl III	595.99	300		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	B21
Cl III	596.24	400		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	B21
Cl III	605.86	100		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	B21
Cl III	606.10	200	4	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	B21
Cl III	606.35	500	4	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	609.67	400	4	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	B21
Cl III	609.90	10	4	$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	B21
Cl III	619.03	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$	5/2 - 3/2	B21
Cl III	621.03	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 3/2	B21
Cl III	621.28	400		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	B21
Cl III	623.77	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	B21
Cl III	630.38	100		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	B21
Cl III	630.75	100		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 3/2	B21
Cl III	631.01	100		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	B21
Cl III	639.76	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	B21
Cl III	640.93	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	B21
Cl III	641.30	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	B21
Cl III	653.01	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	B21
Cl III	656.77	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	B21
Cl III	657.17	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	B21
Cl III	669.95	200		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	B21
Cl III	670.38	300		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	B21
Cl III	673.13	300		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	B21
Cl III	673.60	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	B21
Cl III	746.86	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	3/2 - 1/2	B21
Cl III	747.42	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	3/2 - 5/2	B21
Cl III	747.55	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4D$	5/2 - 3/2	B21
Cl III	930.94	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4S^\circ$	5/2 - 3/2	B17
Cl III	936.28	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4S^\circ$	3/2 - 3/2	B17
Cl III	939.31	10		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4S^\circ$	1/2 - 3/2	B17
Cl III	943.22	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 5/2	B17
Cl III	946.97	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4P^\circ$	5/2 - 3/2	B17
Cl III	948.72	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 5/2	B17
Cl III	953.40	200		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^4P^\circ$	3/2 - 1/2	B17
Cl III	1005.28	500	1	$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	B17
Cl III	1008.78	600	1	$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	B17
Cl III	1015.02	700	1	$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	B17
Cl III	1683.18	10		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4S^\circ$	3/2 - 3/2	B21
Cl III	1689.50	100		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4S^\circ$	5/2 - 3/2	B21
Cl III	1797.98	200	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	5/2 - 7/2	B21
Cl III	1808.51	400	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	7/2 - 7/2	B21
Cl III	1810.26	100	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	3/2 - 5/2	B21
Cl III	1817.73	400	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	5/2 - 5/2	B21
Cl III	1822.50	600	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	9/2 - 7/2	B21
Cl III	1824.59	300	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	3/2 - 3/2	B21
Cl III	1828.40	500	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	7/2 - 5/2	B21
Cl III	1832.08	400	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	5/2 - 3/2	B21
Cl III	1833.31	400	7	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4F - ^4D^\circ$	3/2 - 1/2	B21
Cl III	1848.74	10		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4S^\circ$	5/2 - 3/2	B21
Cl III	1849.64	10		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^2D^\circ$	3/2 - 5/2	B21
Cl III	1852.11	200		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4S^\circ$	1/2 - 3/2	B21
Cl III	1880.10	300		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^2D^\circ$	5/2 - 3/2	B21
Cl III	1889.06	10		$3p^2(^3P)4p - 3p^2(^1D)5s$	$^2D^\circ - ^2D$	5/2 - 5/2	B21
Cl III	1897.85	300	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	5/2 - 5/2	B21
Cl III	1901.61	500	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	7/2 - 5/2	B21
Cl III	1912.90	400	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	5/2 - 3/2	B21
Cl III	1914.09	300	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	3/2 - 3/2	B21
Cl III	1916.53	400	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	1/2 - 3/2	B21
Cl III	1917.87	400	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	3/2 - 1/2	B21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl III	1920.32	400	8	$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4P^\circ$	½ - ½	B21
Cl III	1979.46	300		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4D^\circ$	⅝ - ⅞	B21
Cl III	1983.61	500		$3p^2(^3P)3d - 3p^2(^3P)4p$	$^4D - ^4D^\circ$	⅞ - ⅞	B21

CHLORINE IV (Cl^{3+}), Z = 17

Ground State $1s^22s^22p^63s^23p^2\ ^3P_0$ (14 electrons)

Ionization Potential 431 226 cm^{-1}; 53.46 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl IV	318.75	100		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 2	B21
Cl IV	319.51	100		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	0 - 1	B21
Cl IV	319.62	300		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	2 - 2	B21
Cl IV	319.99	10		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 1	B21
Cl IV	320.25	100		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	1 - 0	B21
Cl IV	320.88	100		$3p^2 - 3p5s$	$g^3P - ^3P^\circ$	2 - 1	B21
Cl IV	331.84	200		$3p^2 - 3p5s$	$^1D - ^1P^\circ$	2 - 1	B22
Cl IV	437.83	400		$3s3p^3 - 3s3p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 3	B21
Cl IV	439.26	300		$3s3p^3 - 3s3p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 2	B21
Cl IV	440.25	200		$3s3p^3 - 3s3p^2(^4P)4s$	$^5S^\circ - ^5P$	2 - 1	B21
Cl IV	463.01	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 2	B17
Cl IV	464.29	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	0 - 1	B17
Cl IV	464.86	400		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 2	B17
Cl IV	465.35	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 1	B17
Cl IV	466.13	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 0	B17
Cl IV	467.19	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 1	B17
Cl IV	486.17	800		$3p^2 - 3p4s$	$^1D - ^1P^\circ$	2 - 1	B22
Cl IV	534.73	800		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	0 - 1	B21
Cl IV	535.04	400		$3p^2 - 3p4s$	$^1S - ^1P^\circ$	0 - 1	B22
Cl IV	535.67	700		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 2	B21
Cl IV	536.15	600		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 1	B21
Cl IV	537.61	900		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 3	B21
Cl IV	538.12	600		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 2	B21
Cl IV	538.60	400		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 1	B21
Cl IV	549.22	500		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	0 - 1	B21
Cl IV	550.02	400		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 0	B21
Cl IV	550.71	300		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 1	B21
Cl IV	551.12	200		$3p3d - 3p5p$	$^3D^\circ - ^3D$?	2 - 2	B21,K8
Cl IV	551.64	100		$3p3d - 3p5p$	$^3D^\circ - ^3D$?	1 - 1	B21,K8
Cl IV	552.02	700		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 2	B21
Cl IV	553.30	600		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 1	B21
Cl IV	554.21	100		$3p3d - 3p5p$	$^3P^\circ - ^3P$?	2 - 2	B21,K8
Cl IV	554.62	700		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 2	B21
Cl IV	555.49	100b		$3p3d - 3p5p$	$^3P^\circ - ^3P$?	1 - 2	B21,K8
Cl IV	599.73	200		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P^\circ$	0 - 1	B22
Cl IV	601.50	500		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P^\circ$	1 - 1	B22
Cl IV	604.59	500		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P^\circ$	2 - 1	B22
Cl IV	607.09	300		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S^\circ$	0 - 1	B17
Cl IV	608.90	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S^\circ$	1 - 1	B17
Cl IV	612.07	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S^\circ$	2 - 1	B17
Cl IV	653.70	400		$3s^23p^2 - 3s3p^3$	$^1D - ^1P^\circ$	2 - 1	B22
Cl IV	662.45	300		$3s^23p^2 - 3s3p^3$	$^1D - ^3S^\circ$	2 - 1	B22
Cl IV	668.77	200		$3s3p^3 - 3s^23p4p$	$^3D^\circ - ^3P$	3 - 2	B21
Cl IV	672.43	10		$3s3p^3 - 3s^23p4p$	$^3D^\circ - ^3P$	1 - 0	B21
Cl IV	684.49	10		$3s3p^3 - 3s^23p4p$	$^3D^\circ - ^3D$	3 - 3	B21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl IV	745.21	400		$3s^23p^2 - 3s3p^3$	$^1S - ^1P°$	0 - 1	B22
Cl IV	756.56	100		$3s^23p^2 - 3s3p^3$	$^1S - ^3S°$	0 - 1	B22
Cl IV	776.91	10		$3s3p^3 - 3s^23p4p$	$^3P° - ^3D$	2 - 3	B21
Cl IV	831.43	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	0 - 1	B17
Cl IV	834.66	300		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 0	B17
Cl IV	834.84	500		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 1	B17
Cl IV	834.97	500		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 2	B17
Cl IV	840.81	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	2 - 1	B17
Cl IV	840.93	600		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	2 - 2	B17
Cl IV	865.3			$3s^23p^2 - 3s3p^3$	$^1D - ^1D°$?	2 - 2	B2
Cl IV	973.21	500		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	0 - 1	B17
Cl IV	977.56	600		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	1 - 2	B17
Cl IV	977.90	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	1 - 1	B17
Cl IV	984.95	700		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	2 - 3	B17
Cl IV	985.75	400		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	2 - 2	B17
Cl IV	1413.39	100		3p3d - 3p4p	$^3P° - ^3P$	2 - 2	B21
Cl IV	1421.97	100		3p3d - 3p4p	$^3P° - ^3P$	1 - 2	B21
Cl IV	1426.89	100		3p3d - 3p4p	$^3P° - ^3P$	2 - 1	B21
Cl IV	1440.95	10		3p3d - 3p4p	$^3P° - ^3P$	1 - 0	B21
Cl IV	1529.28	10		3p3d - 3p4p	$^3D° - ^3P$	1 - 2	B21
Cl IV	1532.19	100		3p4p - 3p5s	$^3D - ^3P°$	3 - 2	B21
Cl IV	1533.25	100		3p3d - 3p4p	$^3D° - ^3P$	2 - 2	B21
Cl IV	1537.21	300		3p3d - 3p4p	$^3D° - ^3P$	3 - 2	B21
Cl IV	1539.30	200		3p4p - 3p5s	$^3D - ^3P°$	2 - 1	B21
Cl IV	1545.19	200		3p3d - 3p4p	$^3D° - ^3P$	1 - 1	B21
Cl IV	1549.15	200		3p3d - 3p4p	$^3D° - ^3P$	2 - 1	B21
Cl IV	1551.27	100		3p3d - 3p4p	$^3D° - ^3P$	1 - 0	B21
Cl IV	1617.43	100		3p4p - 3p5s	$^3P - ^3P°$	2 - 2	B21
Cl IV	1622.86	200		3p3d - 3p4p	$^3D° - ^3D$	3 - 3	B21
Cl IV	1638.95	10		3p3d - 3p4p	$^3D° - ^3D$	1 - 2	B21
Cl IV	1643.40	100		3p3d - 3p4p	$^3D° - ^3D$	2 - 2	B21
Cl IV	1648.04	10		3p3d - 3p4p	$^3D° - ^3D$	3 - 2	B21
Cl IV	1651.21	100		3p3d - 3p4p	$^3D° - ^3D$	1 - 1	B21

CHLORINE V (Cl^{4+}), Z = 17

Ground State $1s^22s^22p^63s^23p\ ^2P°_{1/2}$ (13 electrons)

Ionization Potential 547 000 cm^{-1}; 67.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl V	236.44	100		3p - 5d	$g^2P° - ^2D$	½ - 3/2	P18
Cl V	237.23	200		3p - 5d	$g^2P° - ^2D$	3/2 - 5/2	P18
Cl V	286.13	200		3p - 4d	$g^2P° - ^2D$	½ - 3/2	B21
Cl V	287.33	300		3p - 4d	$g^2P° - ^2D$	3/2 - 5/2	B21
Cl V	372.59	200		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	3/2 - 5/2	B21
Cl V	373.17	200		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	½ - 3/2	B21
Cl V	373.78	300		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	5/2 - 5/2	B21
Cl V	373.91	10		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	3/2 - 3/2	B21
Cl V	374.66	100		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	3/2 - ½	B21
Cl V	375.10	200		$3s3p^2 - 3s3p(^3P°)4s$	$^4P - ^4P°$	5/2 - 3/2	B21
Cl V	390.15	400		3p - 4s	$g^2P° - ^2S$	½ - ½	B21
Cl V	392.43	500		3p - 4s	$g^2P° - ^2S$	3/2 - ½	B21
Cl V	535.46	200		$3s3p^2 - 3s3p(^3P°)3d$	$^4P - ^4D°$	½ - 3/2	B21
Cl V	535.92	200		$3s3p^2 - 3s3p(^3P°)3d$	$^4P - ^4D°$	½ - ½	B21
Cl V	536.53	300		$3s3p^2 - 3s3p(^3P°)3d$	$^4P - ^4D°$	3/2 - 5/2	B21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl V	537.01	400		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 3/2	B21
Cl V	537.46	300		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	3/2 - 1/2	P18
Cl V	538.03	500		$3p - 3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	B17
Cl V	538.68	400		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	B21
Cl V	538.98	300		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	B21
Cl V	539.44	10		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 3/2	B21
Cl V	541.28	300		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 1/2	P18
Cl V	542.23	800		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	P18
Cl V	542.30	600		$3p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	B17
Cl V	542.40	300		$3p - 3d$	$g^2P^\circ - ^2D$	3/2 - 3/2	B17
Cl V	542.87	400		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 1/2	P18
Cl V	543.82	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	P18
Cl V	545.11	1000		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	P18
Cl V	546.33	600		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	P18
Cl V	547.63	1000		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	P18
Cl V	629.35	300		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	B17
Cl V	633.19	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	B17
Cl V	635.32	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	B17
Cl V	639.23	300		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	B17
Cl V	676.79	300		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	B17
Cl V	679.26	300		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	B17
Cl V	681.92	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	B17
Cl V	683.17	400		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	B17
Cl V	688.93	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	B17
Cl V	715.55			$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$?	3/2 - 1/2	F4
Cl V	716.19			$3s3p^2 - 3p^3$	$^2D - ^2P^\circ$?	5/2 - 3/2	F4
Cl V	883.13	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	B17
Cl V	894.34	400		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	B17
Cl V	894.91	100		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	B17
Cl V	914.5			$3s3p^2 - 3p^3$	$^2D - ^2D^\circ$?	5/2 - 5/2	B2

CHLORINE VI (Cl^{5+}), Z = 17

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential [782 600] cm^{-1}; [97.03] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl VI	194.80	100		$3s3p - 3s5d$	$^3P^\circ - ^3D$	1 - 2	P6
Cl VI	195.23	150		$3s3p - 3s5d$	$^3P^\circ - ^3D$	2 - 3	P6
Cl VI	242.89	250		$3s3p - 3s4d$	$^3P^\circ - ^3D$	0 - 1	P6
Cl VI	243.19	400		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 2	P6
Cl VI	243.21	100		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 1	P6
Cl VI	243.85	600		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 3	P6
Cl VI	243.88	150		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 2	P6
Cl VI	323.36	600		$3s3p - 3s4s$	$^3P^\circ - ^3S$	0 - 1	P6
Cl VI	323.94	800		$3s3p - 3s4s$	$^3P^\circ - ^3S$	1 - 1	P6
Cl VI	325.16	1000		$3s3p - 3s4s$	$^3P^\circ - ^3S$	2 - 1	P6
Cl VI	399.94	250		$3s3d - 3s4f$	$^3D - ^3F^\circ$	1 - 2	P6
Cl VI	399.96	350		$3s3d - 3s4f$	$^3D - ^3F^\circ$	2 - 3	P6
Cl VI	400.00	400		$3s3d - 3s4f$	$^3D - ^3F^\circ$	3 - 4	P6
Cl VI	550.36	250		$3s3p - 3s3d$	$^3P^\circ - ^3D$	0 - 1	P6
Cl VI	551.99	500		$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 2	P6
Cl VI	552.05	100		$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 1	P6
Cl VI	555.49	1000b		$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 3	P6
Cl VI	555.58	150		$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 2	P6
Cl VI	565.48	400b		$3p^2 - 3p3d$	$^3P - ^3D^\circ$	0 - 1	P18
Cl VI	566.63	200		$3p^2 - 3p3d$	$^3P - ^3D^\circ$	1 - 2	P18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl VI	567.48	100		$3p^2$ - 3p3d	^3P - $^3D°$	1 - 1	P18
Cl VI	570.03	400		$3p^2$ - 3p3d	^3P - $^3D°$	2 - 3	P18
Cl VI	570.53	200		$3p^2$ - 3p3d	^3P - $^3D°$	2 - 2	P18
Cl VI	570.88	10		$3p^2$ - 3p3d	^3P - $^3P°$	1 - 0	P18
Cl VI	571.38	100		$3p^2$ - 3p3d	^3P - $^3P°$	0 - 1	P18
Cl VI	571.44	10		$3p^2$ - 3p3d	^3P - $^3D°$	2 - 1	P18
Cl VI	576.42	200		$3p^2$ - 3p3d	^3P - $^3P°$	1 - 2	P18
Cl VI	577.44	100		$3p^2$ - 3p3d	^3P - $^3P°$	2 - 1	P18
Cl VI	580.44	200		$3p^2$ - 3p3d	^3P - $^3P°$	2 - 2	P18
Cl VI	624.11			$3p^2$ - 3p3d	^1D - $^1D°$	2 - 2	F2
Cl VI	668.30			$3p^2$ - 3p3d	^1S - $^1P°$	0 - 1	F2
Cl VI	671.37	400		$3s^2$ - 3s3p	g^1S - $^1P°$	0 - 1	B27
Cl VI	724.13	150		3s3p - $3p^2$	$^3P°$ - ^3P	1 - 2	P6
Cl VI	727.54	150		3s3p - $3p^2$	$^3P°$ - ^3P	0 - 1	P6
Cl VI	730.31	200		3s3p - $3p^2$	$^3P°$ - ^3P	2 - 2	P6
Cl VI	733.89	150		3s3p - $3p^2$	$^3P°$ - ^3P	1 - 0	P6
Cl VI	736.76	150		3s3p - $3p^2$	$^3P°$ - ^3P	2 - 1	P6
Cl VI	755.55			3s3d - 3p3d	^3D - $^3D°$	3 - 3	F2
Cl VI	756.37			3s3d - 3p3d	^3D - $^3D°$	2 - 2	F2
Cl VI	757.68			3s3d - 3p3d	^3D - $^3D°$	1 - 1	F2
Cl VI	773.89			3s3d - 3p3d	^3D - $^3P°$	3 - 2	F2
Cl VI	786.44			3s3p - $3p^2$	$^1P°$ - ^1S	1 - 0	F2
Cl VI	1021.94 ?			$3s^2$ - 3s3p	g^1S - $^3P°$	0 - 1	K8
Cl VI	1245.77			3s3p - 3s3d	$^1P°$ - ^1D	1 - 2	F2
Cl VI	1767.7			3s4p - 3s4d	$^3P°$ - ^3D ?	0 - 1	B2
Cl VI	1772.0			3s4p - 3s4d	$^3P°$ - ^3D ?	1 - 2	B2
Cl VI	1783.3			3s4p - 3s4d	$^3P°$ - ^3D ?	2 - 3	B2

CHLORINE VII (Cl^{6+}), Z = 17

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 921 051 cm^{-1}; 114.193 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl VII	133.11			3s - 6p	g^2S - $^2P°$	½ - 3/2	D1
Cl VII	149.37			3s - 5p	g^2S - $^2P°$	½ - 3/2	D1
Cl VII	149.43			3s - 5p	g^2S - $^2P°$	½ - ½	D1
Cl VII	155.32			3p - 6d	$^2P°$ - ^2D	½ - 3/2	D1
Cl VII	155.78			3p - 6d	$^2P°$ - ^2D	3/2 - 5/2	D1
Cl VII	174.04	150		3p - 5d	$^2P°$ - ^2D	½ - 3/2	P15
Cl VII	174.60	200		3p - 5d	$^2P°$ - ^2D	3/2 - 5/2	P15
Cl VII	190.59	100		3p - 5s	$^2P°$ - ^2S	½ - ½	P15
Cl VII	191.28	200		3p - 5s	$^2P°$ - ^2S	3/2 - ½	P15
Cl VII	196.12	500		3s - 4p	g^2S - $^2P°$	½ - 3/2	P15
Cl VII	196.39	400		3s - 4p	g^2S - $^2P°$	½ - ½	P15
Cl VII	207.76	200d		3d - 6f	^2D - $^2F°$	5/2 - 7/2	P15
Cl VII	224.14	300		3p - 4d	$^2P°$ - ^2D	½ - 3/2	P15
Cl VII	225.08	500		3p - 4d	$^2P°$ - ^2D	3/2 - 5/2	P15
Cl VII	240.83	300		3d - 5f	^2D - $^2F°$	3/2 - 5/2	P15
Cl VII	240.87	200		3d - 5f	^2D - $^2F°$	5/2 - 7/2	P15
Cl VII	293.25	400		3p - 4s	$^2P°$ - ^2S	½ - ½	P15
Cl VII	294.90	500		3p - 4s	$^2P°$ - ^2S	3/2 - ½	P15
Cl VII	340.23	750		3d - 4f	^2D - $^2F°$	3/2 - 5/2	P15
Cl VII	340.30	900		3d - 4f	^2D - $^2F°$	5/2 - 7/2	P15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl VII	455.27	100		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	P15
Cl VII	456.56	50		3d - 4p	$^2D - ^2P^\circ$	3/2 - 1/2	P15
Cl VII	532.7			4p - 5d	$^2P^\circ - ^2D$?	3/2 - 5/2	B2
Cl VII	598.21	600		3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	P15
Cl VII	604.79	1000		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	P15
Cl VII	605.05	50		3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	P15
Cl VII	800.70	150		3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	B28,P15
Cl VII	813.00	100		3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	B28,P15
Cl VII	820.7			4f - 5g	$^2F^\circ - ^2G$?		B2
Cl VII	943.8			5f - 7g	$^2F^\circ - ^2G$?		B2
Cl VII	949.2			5g - 7h	$^2G - ^2H^\circ$?		B2
Cl VII	1356.3			5d - 6f	$^2D - ^2F^\circ$?		B2
Cl VII	1509.2			5f - 6g	$^2F^\circ - ^2G$?		B2
Cl VII	1521.0			5g - 6h	$^2G - ^2H^\circ$?		B2
Cl VII	1531.0			6h - 8i	$^2H^\circ - ^2I$?		B2
Cl VII	1668.8			4p - 4d	$^2P^\circ - ^2D$?	1/2 - 3/2	B2
Cl VII	1686.5			4p - 4d	$^2P^\circ - ^2D$?	3/2 - 5/2	B2

CHLORINE VIII (Cl^{7+}), Z = 17

Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)

Ionization Potential 2 809 100 cm^{-1}; 348.28 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl VIII	39.462	100		$2p^6 - 2p^55d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	E17
Cl VIII	39.655	10		$2p^6 - 2p^55d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E17
Cl VIII	41.636	1		$2s^22p^6 - 2s2p^63p$	$g^1S - ^1P^\circ$	0 - 1	E17
Cl VIII	42.166	10		$2s^22p^6 - 2s2p^63p$	$g^1S - ^3P^\circ$	0 - 1	E17
Cl VIII	42.220	200		$2p^6 - 2p^54d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	E17
Cl VIII	42.430	100		$2p^6 - 2p^54d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E17
Cl VIII	44.361	200b		$2p^6 - 2p^54s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E17
Cl VIII	44.603	200		$2p^6 - 2p^54s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E17
Cl VIII	49.487	700		$2p^6 - 2p^53d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	E17
Cl VIII	50.074	500		$2p^6 - 2p^53d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E17
Cl VIII	50.700	200		$2p^6 - 2p^53d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	E17
Cl VIII	58.673	1000		$2p^6 - 2p^53s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E17
Cl VIII	59.191	900		$2p^6 - 2p^53s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E17

CHLORINE IX (Cl^{8+}), Z = 17

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 3 226 700 cm^{-1}; 400.05 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl IX	42.940	100		$2p^5 - 2p^4 3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E17
Cl IX	43.168	120		$2p^5 - 2p^4 3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E17
Cl IX	44.003	200		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_1$	3/2 - 1/2	E17
Cl IX	44.088	400		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_2$	3/2 - 3/2	E17
Cl IX	44.183	200		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_4$	3/2 - 5/2	E17
Cl IX	44.267	300b		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_1$	1/2 - 1/2	E17
Cl IX	44.361	200b		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_2$	1/2 - 3/2	E17
Cl IX	44.530	100		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - X_5$	1/2 - 3/2	E17
Cl IX	45.112	400		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_1$	3/2 - 3/2	E17
Cl IX	45.261	200		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_2$	3/2 - 1/2	E17
Cl IX	45.332	100		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_3$	3/2 - 3/2	E17
Cl IX	45.378	300		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_4$	3/2 - 1/2	E17
Cl IX	45.396	300b		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_1$	1/2 - 3/2	E17
Cl IX	45.465	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_5$	3/2 - 3/2	E17
Cl IX	45.519	200		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_6$	3/2 - 5/2	E17
Cl IX	45.539	200		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_2$	1/2 - 1/2	E17
Cl IX	45.657	100		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_4$	1/2 - 1/2	E17
Cl IX	45.745	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - X_5$	1/2 - 3/2	E17
Cl IX	46.098	100		$2s2p^6 - 2s2p^5(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 3/2	E17
Cl IX	46.242	10		$2s2p^6 - 2s2p^5(^3P^\circ)3d$	$^2S - ^2P^\circ$	1/2 - 1/2	E17
Cl IX	49.234	100		$2p^5 - 2p^4 3s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	E17
Cl IX	49.568	100		$2p^5 - 2p^4 3s$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	E17
Cl IX	51.026	400		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E17
Cl IX	51.378	300		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E17
Cl IX	52.055	200		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	E17
Cl IX	52.303	400		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E17
Cl IX	52.426	300		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	E17
Cl IX	52.677	200		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	E17
Cl IX	52.726	300		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E17
Cl IX	52.939	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	E17
Cl IX	52.959	1		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	1/2 - 1/2	E17
Cl IX	53.108	1		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	1/2 - 3/2	E17
Cl IX	53.448	10		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 1/2	E17
Cl IX	53.696	100		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	E17
Cl IX	180.71			$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	D1
Cl IX	185.26			$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	D1

CHLORINE X (Cl^{9+}), Z = 17

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 3 674 900 cm^{-1}; 455.62 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl X	39.01	250		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$?	2 - 1	F3,K8
Cl X	39.253	10		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	E17
Cl X	39.77	250		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3S^\circ$?	2 - 1	F3,K8
Cl X	39.956	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	E17
Cl X	40.085	200		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	E17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl X	40.136	1		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	E17
Cl X	40.49	250		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - {}^3P^\circ$?	2 - 1	F3,K8
Cl X	40.660	100		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	E17
Cl X	40.994	10		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	E17
Cl X	41.390	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	E17
Cl X	41.589	10		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	E17
Cl X	44.361	200b		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$?	2 - 2	E17,G13
Cl X	45.396	300b		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	E17
Cl X	45.431	10		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - {}^1P^\circ$	2 - 1	E17
Cl X	45.626	15		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	E17
Cl X	46.476	200		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	E17
Cl X	46.845	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	E17
Cl X	46.908	10		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	E17
Cl X	47.085	15		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	E17
Cl X	164.5			$2s^22p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	D1
Cl X	186.06			$2s^22p^4 - 2s2p^5$	$^1S - {}^1P^\circ$	0 - 1	F16
Cl X	201.50			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	D1
Cl X	203.80			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	D1
Cl X	205.40			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	D1
Cl X	206.02			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	D1
Cl X	207.41			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	D1
Cl X	210.08			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	D1

CHLORINE XI (Cl^{10+}), Z = 17

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 4 268 900 cm^{-1}; 529.26 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XI	36.29			$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F16
Cl XI	36.67			$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F16
Cl XI	37.05			$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F16
Cl XI	40.392	10		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E17
Cl XI	40.787	10		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$	5/2 - 5/2	E17
Cl XI	162.83			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	D2
Cl XI	166.07			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 3/2	D2
Cl XI	166.63			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	D2
Cl XI	177.00			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 1/2	D2
Cl XI	177.96			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 1/2	D2
Cl XI	180.85			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 3/2	F16
Cl XI	181.84			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 3/2	D2
Cl XI	190.03			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	3/2 - 1/2	F16
Cl XI	190.94			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	1/2 - 1/2	D2
Cl XI	192.06			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	D2
Cl XI	195.69			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	5/2 - 3/2	F16
Cl XI	209.18			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	D2
Cl XI	209.93			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	D2
Cl XI	233.17			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	1/2 - 3/2	D2
Cl XI	234.67			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	3/2 - 5/2	D2
Cl XI	234.84			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	D2
Cl XI	237.42			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	D2
Cl XI	242.76			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	D2

CHLORINE XII (Cl^{11+}), Z = 17

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 4 774 700 cm^{-1}; 591.97 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XII	33.54	250		$2s^2 2p^2 - 2s^2 2p3d$	$g\,^3P - ^3P^\circ$?	0 - 1	F3
Cl XII	33.58	350		$2s^2 2p^2 - 2s^2 2p3d$	$g\,^3P - ^3P^\circ$?	1 - 0	F3
Cl XII	33.74	350		$2s^2 2p^2 - 2s^2 2p3d$	$g\,^3P - ^3P^\circ$	2 - 2	F3
Cl XII	33.81	450		$2s^2 2p^2 - 2s^2 2p3d$	$g\,^3P - ^3D^\circ$	2 - 3	F3
Cl XII	34.00	300		$2s2p^3 - 2s2p^2(^2D)3d$	$^3D^\circ - ^3F$	3 - 4	F3
Cl XII	34.03	350		$2s^2 2p^2 - 2s^2 2p3d$	$^1D - ^1F^\circ$	2 - 3	F3
Cl XII	34.66	300		$2s^2 2p^2 - 2s^2 2p3d$	$^1D - ^3D^\circ$?	2 - 3	F3
Cl XII	34.79	350		$2s^2 2p^2 - 2s^2 2p3d$	$^1D - ^1D^\circ$?	2 - 2	F3
Cl XII	36.68	350		$2s^2 2p^2 - 2s^2 2p3s$	$g\,^3P - ^1P^\circ$?	2 - 1	F3
Cl XII	36.86	300		$2s^2 2p^2 - 2s^2 2p3s$	$g\,^3P - ^3P^\circ$?	2 - 2	F3
Cl XII	37.05	300		$2s^2 2p^2 - 2s^2 2p3s$	$g\,^3P - ^3P^\circ$?	2 - 1	F3
Cl XII	37.67	200		$2p^2 - 2p3s$	$^1D - ^1P^\circ$?	2 - 1	F3,K8
Cl XII	37.88	200		$2p^2 - 2p3s$	$^1D - ^3P^\circ$?	2 - 2	F3,K8
Cl XII	39.15	250		$2p^2 - 2p3s$	$^1S - ^3P^\circ$?	0 - 1	F3,K8
Cl XII	172.06			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3S^\circ$	0 - 1	D2
Cl XII	174.21			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3S^\circ$	1 - 1	D2
Cl XII	175.71			$2s^2 2p^2 - 2s2p^3$	$^1D - ^1P^\circ$	2 - 1	D2
Cl XII	177.11			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3S^\circ$	2 - 1	D2
Cl XII	196.33			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	1 - 0	F16
Cl XII	197.55			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	2 - 1	F16
Cl XII	199.37			$2s^2 2p^2 - 2s2p^3$	$^1D - ^1D^\circ$	2 - 2	D2
Cl XII	200.96			$2s^2 2p^2 - 2s2p^3$	$^1S - ^1P^\circ$	0 - 1	F16
Cl XII	202.54			$2s2p^3 - 2p^4$	$^3D^\circ - ^3P$	3 - 2	F16
Cl XII	219.53			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	0 - 1	D2
Cl XII	222.72			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	1 - 2	D2
Cl XII	223.10			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	1 - 1	F3
Cl XII	223.14			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	1 - 0	F16
Cl XII	227.47			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	2 - 2	D2
Cl XII	227.83			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	2 - 1	D2
Cl XII	228.29			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	1 - 2	F16
Cl XII	234.64			$2s2p^3 - 2p^4$	$^3P^\circ - ^3P$	2 - 2	F16
Cl XII	257.43			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3D^\circ$	0 - 1	F16
Cl XII	262.32			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3D^\circ$	1 - 1	F16
Cl XII	262.60			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3D^\circ$	1 - 2	F16
Cl XII	268.77			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3D^\circ$	2 - 3	F16
Cl XII	269.21			$2s^2 2p^2 - 2s2p^3$	$g\,^3P - ^3P^\circ$	2 - 2	F16
Cl XII	331.94			$2s2p^3 - 2p^4$	$^3S^\circ - ^3P$	1 - 2	F3

CHLORINE XIII (Cl^{12+}), Z = 17

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 5 296 700 cm^{-1}; 656.69 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XIII	24.09	50		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	F3
Cl XIII	24.29	200		$2s2p^2 - 2s2p(^1P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
Cl XIII?	24.40	50					F3
Cl XIII	24.79	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
Cl XIII	24.83 ?			$2s^2 2p - 2s^2 4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XIII	24.86	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
Cl XIII	24.97	50		$2s2p^2 - 2s2p(^3P^\circ)4d$	$^2D - ^2F^\circ$	5/2 - 7/2	F3
Cl XIII	31.12	250		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F3
Cl XIII	31.24	150		$2s2p^2 - 2s2p(^1P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
Cl XIII	31.35	300		$2s^22p - 2s^23d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F3
Cl XIII	31.44	450		$2s^22p - 2s^23d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XIII	31.47			$2s2p^2 - 2s2p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F9
Cl XIII?	31.60	250					F3
Cl XIII?	32.05	150					F3
Cl XIII	32.32	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
Cl XIII	32.43	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$	3/2 - 5/2	F3
Cl XIII	32.55	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2F^\circ$	5/2 - 7/2	F3
Cl XIII	33.04	150		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2D - ^2D^\circ$	5/2 - 5/2	F3
Cl XIII	33.87 ?			$2s^22p - 2s^23s$	$g^2P^\circ - ^2S$	3/2 - 1/2	K8
Cl XIII	34.31	200		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$?	1/2 - 3/2	F3,K8
Cl XIII	34.44	250		$2s2p^2 - 2s2p(^3P^\circ)3d$	$^2P - ^2D^\circ$?	3/2 - 5/2	F3,K8
Cl XIII	195.22			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	F16
Cl XIII	198.40			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	F16
Cl XIII	202.10			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	F16
Cl XIII	205.47			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	F16
Cl XIII	209.81			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	F16
Cl XIII	217.77			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	F16
Cl XIII	221.38			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	F16
Cl XIII	224.60			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F16
Cl XIII	229.15			$2s2p^2 - 2p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F16
Cl XIII	264.78			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	F16
Cl XIII	277.17			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	F16
Cl XIII	277.59			$2s^22p - 2s2p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	F16
Cl XIII	290.7 ?			$2s2p^2 - 2p^3$	$^2S - ^2P^\circ$	1/2 - 3/2	K8
Cl XIII	302.24			$2s2p^2 - 2p^3$	$^2P - ^2P^\circ$	3/2 - 3/2	F3
Cl XIII	407.48			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	1/2 - 3/2	F3
Cl XIII	419.46			$2s2p^2 - 2p^3$	$^2P - ^2D^\circ$	3/2 - 5/2	F3

CHLORINE XIV (Cl^{13+}), Z = 17

Ground State $1s^22s^2\ ^1S_0$ (4 electrons)

Ionization Potential 6 047 200 cm^{-1}; 749.74 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XIV	18.63	50		$2s2p - 2s7d$	$^3P^\circ - ^3D$		F3
Cl XIV	19.58	50		$2s2p - 2s6d$	$^3P^\circ - ^3D$		F3
Cl XIV	20.55	50		$2s2p - 2s5d$	$^3P^\circ - ^3D$		F3
Cl XIV	20.84	50		$2p^2 - 2p5d$	$^3P - ^3D^\circ$		F3
Cl XIV	22.00	50		$2s2p - 2p4p$	$^3P^\circ - ^3P$		F3
Cl XIV	22.11	50		$2s2p - 2p4p$	$^3P^\circ - ^3D$		F3
Cl XIV	22.37	50		$2s2p - 2s4d$	$^3P^\circ - ^3D$	1 - 2	F3
Cl XIV	22.42	100		$2s2p - 2s4d$	$^3P^\circ - ^3D$	2 - 3	F3
Cl XIV	22.86	100		$2p^2 - 2p4d$	$^3P - ^3D^\circ$		F3
Cl XIV	27.65	250		$2s2p - 2p3p$	$^3P^\circ - ^3P$	2 - 2	F3
Cl XIV	27.88	250		$2s2p - 2p3p$	$^3P^\circ - ^3D$	2 - 3	F3
Cl XIV	28.12	250		$2s^2 - 2s3p$	$g^1S - ^1P^\circ$	0 - 1	F3
Cl XIV	28.9 ?			$2s2p - 2p3p$	$^1P^\circ - ^1D$	1 - 2	K8
Cl XIV	29.40	350		$2s2p - 2s3d$	$^3P^\circ - ^3D$	1 - 2	F3
Cl XIV	29.52	450		$2s2p - 2s3d$	$^3P^\circ - ^3D$	2 - 3	F3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XIV	30.00	200		$2p^2 - 2p3d$	$^3P - ^3P^\circ$		F3
Cl XIV	30.07	250		$2p^2 - 2p3d$	$^3P - ^3P^\circ$		F3
Cl XIV	30.10	150		$2p^2 - 2p3d$	$^3P - ^3D^\circ$	1 - 2	F3
Cl XIV	30.13	350		$2p^2 - 2p3d$	$^3P - ^3D^\circ$	2 - 3	F3
Cl XIV	30.25	300		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	F3
Cl XIV	30.90	200		$2s2p - 2s3d$	$^1P^\circ - ^1D$	1 - 2	F3
Cl XIV	30.98	200		$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	F3
Cl XIV	31.0 ?			$2s2p - 2s3s$	$^3P^\circ - ^3S$	2 - 1	K8
Cl XIV	237.70			$2s^2 - 2s2p$	$g^1S - ^1P^\circ$	0 - 1	F3
Cl XIV	276.13			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 2	F16
Cl XIV	284.31			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 1	F16
Cl XIV	286.26			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 2	F16
Cl XIV	290.51			$2s2p - 2p^2$	$^3P^\circ - ^3P$	1 - 0	F16
Cl XIV	295.05			$2s2p - 2p^2$	$^3P^\circ - ^3P$	2 - 1	F16
Cl XIV	458.39			$2s2p - 2p^2$	$^1P^\circ - ^1D$	1 - 2	F3
Cl XIV	460.8 ?			$2s^2 - 2s2p$	$g^1S - ^3P^\circ$	0 - 1	K8

CHLORINE XV (Cl^{14+}), Z = 17

Ground State $1s^22s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential 6 528 300 cm^{-1}; 809.39 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cl XV	17.10	50		$2p - 8d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	17.25	50		$2s - 6p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Cl XV	17.46	50		$2p - 7d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	17.96	50		$2p - 6d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	18.13	50		$2s - 5p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Cl XV	18.99	100		$2p - 5d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	20.13	150		$2s - 4p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Cl XV	21.10	100		$2p - 4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F3
Cl XV	21.18	150		$2p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	21.41	50		$2p - 4s$	$^2P^\circ - ^2S$	3/2 - 1/2	F3
Cl XV	26.66	350		$2s - 3p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Cl XV	26.67	350		$2s - 3p$	$g^2S - ^2P^\circ$	1/2 - 1/2	F3
Cl XV	28.27	300		$2p - 3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F3
Cl XV	28.42	450		$2p - 3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F3
Cl XV	28.93	200		$2p - 3s$	$^2P^\circ - ^2S$	1/2 - 1/2	F3
Cl XV	29.09	200		$2p - 3s$	$^2P^\circ - ^2S$	3/2 - 1/2	F3
Cl XV	383.96			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 3/2	F3
Cl XV	415.50			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 1/2	F3

CHLORINE XVI (Cl^{15+}), Z = 17

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 29 507 950 cm^{-1}; 3658.425 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Cl XVI	3.53	P			$1s^2 - 1s5p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Cl XVI	3.60	P			$1s^2 - 1s4p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Cl XVI	3.80	P			$1s^2 - 1s3p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Cl XVI	4.44	P			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Cl XVI	4.46	P			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Cl XVI	4.51	?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

CHLORINE XVII (Cl^{16+}), Z = 17

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential 31 829 006 cm^{-1}; 3946.19 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Cl XVII	3.231	P			1s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Cl XVII	3.272	P			1s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Cl XVII	3.351	P	10		1s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Cl XVII	3.534	P	30		1s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Cl XVII	4.187	P	100		1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Cl XVII	13.69	P			2 - 7			G2
Cl XVII	14.15	P			2 - 6			G2
Cl XVII	14.97	P			2 - 5			G2
Cl XVII	16.76	P			2 - 4			G2
Cl XVII	22.61	P			2 - 3			G2
Cl XVII	34.70	P			3 - 7			G2
Cl XVII	37.77	P			3 - 6			G2
Cl XVII	44.26	P			3 - 5			G2
Cl XVII	64.72	P			3 - 4			G2
Cl XVII	74.82	P			4 - 7			G2
Cl XVII	90.7	P			4 - 6			G2
Cl XVII	140.0	P			4 - 5			G2
Cl XVII	160.8	P			5 - 7			G2
Cl XVII	257.8	P			5 - 6			G2
Cl XVII	427.6	P			6 - 7			G2

ARGON, Z = 18

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar	26.30	100					F16
Ar	27.79	50					F16
Ar	27.90	50					F16
Ar	40.42	50					F16
Ar	40.64	100					F16
Ar	41.08	50					F16
Ar	41.38	150					F16
Ar	43.42	150					F16
Ar	44.19	100					F16
Ar	44.79	150					F16
Ar	45.67	150					F16
Ar	46.26	50					F16
Ar	46.39	100					F16
Ar	46.53	150					F16
Ar	450.44	80					S6
Ar	465.02	150					S6
Ar	468.38	80					S6
Ar	470.57	80					S6
Ar	485.79	60					S6
Ar	486.60	300					S6
Ar	505.45	60					S6
Ar	539.79	50					S6
Ar	618.63	200					S6
Ar	631.68	60					S6
Ar	649.03	50					S6
Ar	664.93	50					S6
Ar	684.81	100					S6
Ar	701.11	150					S6
Ar	716.42	10					S6
Ar	720.94	10					S6
Ar	783.14	250					S6
Ar	783.65	120					S6
Ar	804.59	60					S6
Ar	820.98	50					S6
Ar	845.68	150					S6
Ar	893.50	50					S6
Ar	904.89	80					S6

ARGON I (Ar^{0+}), Z = 18

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential 127 109.9 cm^{-1}; 15.759 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar I	806.88	80		$3p^6 - 3p^5(^2P^\circ)8s$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	B31
Ar I	807.22	80		$3p^6 - 3p^5(^2P^\circ)7s$	$g^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	B31
Ar I	807.70	80		$3p^6 - 3p^5(^2P^\circ)6d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	B31
Ar I	809.93	80		$3p^6 - 3p^5(^2P^\circ)6d$	$g^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	B31
Ar I	816.23	160		$3p^6 - 3p^5(^2P^\circ)5d$	$g^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	B31

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar I	816.47	160		$3p^6 - 3p^5(^2P^\circ)7s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B31
Ar I	820.13	10		$3p^6 - 3p^5(^2P^\circ)5d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	B31
Ar I	825.346	40		$3p^6 - 3p^5(^2P^\circ)6s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E6,B31
Ar I	826.364	80		$3p^6 - 3p^5(^2P^\circ)4d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	E6,B31
Ar I	834.392	240		$3p^6 - 3p^5(^2P^\circ)4d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B31
Ar I	835.00	240		$3p^6 - 3p^5(^2P^\circ)6s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B31
Ar I	842.81	80		$3p^6 - 3p^5(^2P^\circ)4d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	B31
Ar I	866.80	200		$3p^6 - 3p^5(^2P^\circ)3d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	B31
Ar I	869.75	100		$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	B31
Ar I	876.06	200	4	$3p^6 - 3p^5(^2P^\circ)3d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B31
Ar I	879.95	120		$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B31
Ar I	894.31	200	3	$3p^6 - 3p^5(^2P^\circ)3d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	B31
Ar I	1048.22	1000	2	$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	B31
Ar I	1066.66	750	1	$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B31

ARGON II (Ar^{1+}), Z = 18

Ground State $1s^22s^22p^63s^23p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 222 848.2 cm^{-1}; 27.629 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar II	465.8365 st	15		$3p^5 - 3p^4(^1D)5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	469.6301 st	30		$3p^5 - 3p^4(^1D)6s$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	472.8114 st	30		$3p^5 - 3p^4(^1D)6s$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16
Ar II	475.9054 st	180		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	477.1048 st	120		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^2P$	3/2 - 3/2	M16
Ar II	477.6068 st	30		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^2F$	3/2 - 5/2	M16
Ar II	479.1678 st	30		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^4P$	3/2 - 3/2	M16
Ar II	479.2177 st	60		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^4F$	3/2 - 5/2	M16
Ar II	480.8108 st	30		$3p^5 - 3p^4(^3P)6d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16
Ar II	482.4451 st	15		$3p^5 - 3p^4(^3P)7s$	$g^2P^\circ - ^4P$	3/2 - 3/2	M16
Ar II	487.2272 st	300		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2S$	3/2 - 1/2	M16
Ar II	488.7926 st	270		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	488.9615 st	120		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2P$	3/2 - 1/2	M16
Ar II	489.1953 st	240		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2D$	3/2 - 3/2	M16
Ar II	490.6495 st	290		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2S$	1/2 - 1/2	M16
Ar II	490.7012 st	70		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2P$	1/2 - 3/2	M16
Ar II	492.4083 st	150		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2P$	1/2 - 1/2	M16
Ar II	492.6454 st	30		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16
Ar II	494.6676 st	15		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^2F$	3/2 - 5/2	M16
Ar II	496.6592 st	15		$3p^5 - 3p^4(^3P)5d$	$g^2P^\circ - ^4P$	3/2 - 3/2	M16
Ar II	499.9192 st	0		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - ^2P$	3/2 - 3/2	M16
Ar II	500.8016 st	30		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	501.1897 st	60		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2P$	3/2 - 3/2	M16
Ar II	501.3872 st	15		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2P$	3/2 - 1/2	M16
Ar II	502.0276 st	15		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - ^2P$	1/2 - 1/2	M16
Ar II	502.1629 st	60		$3p^5 - 3p^4(^3P)6s$	$g^2P^\circ - ^4P$	3/2 - 3/2	M16
Ar II	503.6503 st	60		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16
Ar II	504.8117 st			$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2P$	1/2 - 3/2	M16
Ar II	505.0121 st	30		$3p^5 - 3p^4(^1D)4d$	$g^2P^\circ - ^2P$	1/2 - 1/2	M16
Ar II	510.5509 st	30		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	3/2 - 3/2	M16
Ar II	510.5564 st	200		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	514.3100 st	210		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16
Ar II	518.9088 st	150	12	$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - ^2D$	3/2 - 3/2	M16
Ar II	519.3269 st	300	12	$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M16
Ar II	522.7924 st	450	12	$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - ^2D$	1/2 - 3/2	M16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar II	524.6803 st	450		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M16
Ar II	526.4969 st	210		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M16
Ar II	528.6511 st	30		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M16
Ar II	530.4954 st	450		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M16
Ar II	533.0794 st	30		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	M16
Ar II	535.0711 st	15		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M16
Ar II	537.1396 st	150		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M16
Ar II	537.4193 st	30		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	M16
Ar II	540.8066 st	30		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	M16
Ar II	541.3019 st	60		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M16
Ar II	542.9123 st	300		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	M16
Ar II	543.2032 st	450		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M16
Ar II	543.508	20		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	M14,M15
Ar II	543.7305 st	270		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M16
Ar II	546.1768 st	240		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M16
Ar II	547.1650 st	270		$3p^5 - 3p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	M16
Ar II	547.4605 st	360		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M16
Ar II	547.9960 st	120		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M16
Ar II	548.7808 st	210		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M16
Ar II	550.4810 st	120		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M16
Ar II	550.9045 st	30		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M16
Ar II	553.1263 st	60		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M16
Ar II	555.7659 st	90		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M16
Ar II	556.8169 st	360		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M16
Ar II	560.2232 st	270		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M16
Ar II	572.0136 st	270	11	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M16
Ar II	573.3619 st	360	11	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M16
Ar II	576.7364 st	300	11	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M16
Ar II	578.1071 st	270	11	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M16
Ar II	578.6043 st	270	10	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M16
Ar II	580.2631 st	360	10	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M16
Ar II	583.4371 st	300	10	$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M16
Ar II	597.7000 st	360	9	$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M16
Ar II	602.8584 st	300	9	$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M16
Ar II	612.3715 st	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	M16
Ar II	661.8689 st	540	8	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M16
Ar II	664.5622 st	300	8	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M16
Ar II	666.0108 st	450	7	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	M16
Ar II	670.9455 st	600	8	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M16
Ar II	671.8513 st	900	6	$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M16
Ar II	672.8562 st	240	6	$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M16
Ar II	676.2424 st	360		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M16
Ar II	677.9518 st	300		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M16
Ar II	679.2183 st	300		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M16
Ar II	679.4005 st	450	6	$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M16
Ar II	686.4883 st	180		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M16
Ar II	691.0373 st	150		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M16
Ar II	693.3018 st	180		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M16
Ar II	697.4890 st	150	5	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	M16
Ar II	697.9418 st	180		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M16
Ar II	698.7745 st	270	5	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	M16
Ar II	704.5237 st	270	5	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	M16
Ar II	718.0898 st	450	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M16
Ar II	723.3605 st	900	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M16
Ar II	725.5485 st	540	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M16
Ar II	730.9297 st	360	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M16
Ar II	737.4537 st	60	3	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M16
Ar II	740.2691 st	450	3	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M16
Ar II	744.9247 st	450	3	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M16
Ar II	745.3222 st	360	3	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M16
Ar II	748.1982 st	210	3	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M16
Ar II	753.3654 st	15	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	M16
Ar II	754.8239 st	210	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	M16
Ar II	761.5791 st	60	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	M16
Ar II	762.2000 st	180	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	M16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar II	919.7810 st	1000	1	$3s^2 3p^5 - 3s 3p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M16,M14
Ar II	932.0537 st	1000	1	$3s^2 3p^5 - 3s 3p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M16,M14
Ar II	1001.29	1		$3s 3p^6 - 3s^2 3p^4(^1D)4f$	${}^2S - 2[1]^\circ$?	1/2 - 3/2	S23
Ar II	1268.483	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4D - 1[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1280.225	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1282.620	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4D - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1284.793	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4D - 2[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1324.51	30		$3p^4(^3P)4s - 3p^4(^3P)6f$	${}^4P - 2[1]^\circ$?	3/2 - 3/2	S23
Ar II	1348.751	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1351.333	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1354.915	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1357.435	20		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1360.735	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 1[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1363.032	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 1[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1376.106	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[3]^\circ$	7/2 - 7/2	M14,M15
Ar II	1376.956	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[4]^\circ$	7/2 - 7/2	M14,M15
Ar II	1377.211	400		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1377.442	20		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[2]^\circ$	5/2 - 5/2	M14,M15
Ar II	1379.378	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[3]^\circ$	5/2 - 5/2	M14,M15
Ar II	1379.884	300		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1380.728	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1382.228	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1382.770	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4D - 2[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1396.231	100		$3p^4(^3P)3d - 3p^4(^3P)7f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M14,M15
Ar II	1451.879	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1455.484	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1459.878	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1463.155	200		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M14,M15
Ar II	1464.176	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 1[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1465.153	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 2[4]^\circ$	9/2 - 9/2	M14,M15
Ar II	1474.537	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	${}^4F - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1544.177	200		$3p^4(^1D)3d - 3p^4(^1D)5f$	${}^2G - 2[5]^\circ$	9/2 - 9/2	M14,M15
Ar II	1544.711	200		$3p^4(^1D)3d - 3p^4(^1D)5f$	${}^2G - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1547.356	100		$3s 3p^6 - 3s^2 3p^4(^1D)4p$	${}^2S - {}^2D^\circ$	1/2 - 3/2	M14,M15
Ar II	1557.305	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	${}^2P - 2[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1559.072	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1560.191	400	14	$3s 3p^6 - 3s^2 3p^4(^1D)4p$	${}^2S - {}^2P^\circ$	1/2 - 1/2	M14,M15
Ar II	1562.442	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1563.043	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[3]^\circ$	7/2 - 7/2	M14,M15
Ar II	1565.377	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	${}^2P - 2[1]^\circ$	1/2 - 3/2	M14,M15
Ar II	1566.811	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1567.987	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1571.391	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1574.401	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1574.993	600	14	$3s 3p^6 - 3s^2 3p^4(^1D)4p$	${}^2S - {}^2P^\circ$	1/2 - 3/2	M14,M15
Ar II	1575.815	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1576.898	300		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1578.812	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 1[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1580.770	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1580.960	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	${}^2P - 2[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1583.833	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 1[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1586.261	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1589.465	500		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M14,M15
Ar II	1590.233	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 1[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1591.939	1		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[1]^\circ$	5/2 - 3/2	M14,M15
Ar II	1593.587	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	${}^4F - 2[4]^\circ$	9/2 - 9/2	M14,M15
Ar II	1594.799	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[2]^\circ$	7/2 - 5/2	M14,M15
Ar II	1595.737	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[1]^\circ$	3/2 - 3/2	M14,M15
Ar II	1596.151	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[1]^\circ$	3/2 - 1/2	M14,M15
Ar II	1598.575	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[3]^\circ$	7/2 - 7/2	M14,M15
Ar II	1598.722	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[2]^\circ$	5/2 - 5/2	M14,M15
Ar II	1598.880	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[1]^\circ$	1/2 - 1/2	M14,M15
Ar II	1599.130	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[3]^\circ$	7/2 - 5/2	M14,M15
Ar II	1599.607	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[2]^\circ$	5/2 - 3/2	M14,M15
Ar II	1600.133	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	${}^4D - 2[4]^\circ$	7/2 - 7/2	M14,M15

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Ar II	1600.694	600		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1602.554	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1602.891	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1603.075	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[3]^\circ$	5/2 - 5/2	M14,M15
Ar II	1603.442	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1604.082	500		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1606.197	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1606.926	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - 2[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1607.180	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4F - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1615.807	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4F - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1616.972	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4F - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1627.085	20		$3p^4(^3P)3d - 3p^4(^3P)6f$	$^2F - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1628.825	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2P - 1[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1629.834	100		$3p^4(^3P)3d - 3p^4(^3P)6f$	$^2F - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1640.343	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2P - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1650.535	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2P - 1[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1653.322	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2P - 2[1]^\circ$	1/2 - 3/2	M14,M15
Ar II	1662.253	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2F - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1686.076	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2P - 2[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1689.470	50		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2F - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1701.358	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2F - 2[2]^\circ$	5/2 - 3/2	M14,M15
Ar II	1702.188	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1705.980	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 1[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1710.909	50		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2D - 2[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1713.218	200		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 1[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1718.680	100		$3p^4(^3P)4p - 3p^4(^3P)7g$	$^4P^\circ - 2[2]$	1/2 - 3/2	M14,M15
Ar II	1719.346	200		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2D - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1725.147	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[1]^\circ$	1/2 - 3/2	M14,M15
Ar II	1725.549	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[1]^\circ$	1/2 - 1/2	M14,M15
Ar II	1729.075	100		$3p^4(^3P)3d - 3p^4(^1D)4f$	$^2D - 2[2]^\circ$	5/2 - 5/2	M14,M15
Ar II	1729.259	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1733.372	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[1]^\circ$	3/2 - 3/2	M14,M15
Ar II	1735.378	50		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4D^\circ$	5/2 - 3/2	M14,M15
Ar II	1736.834	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1750.694	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^4P - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1751.679	200		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4D^\circ$	7/2 - 7/2	M14,M15
Ar II	1755.819	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1763.669	50		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4P^\circ$	1/2 - 1/2	M14,M15
Ar II	1768.043	100		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4P^\circ$	5/2 - 3/2	M14,M15
Ar II	1770.658	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1771.829	200		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4P^\circ$	7/2 - 5/2	M14,M15
Ar II	1776.672	100		$3p^4(^3P)3d - 3p^4(^3P)5p$	$^4D - ^4P^\circ$	5/2 - 5/2	M14,M15
Ar II	1782.596	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 1[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1785.672	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1788.104	300		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1791.561	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 2[3]^\circ$	7/2 - 7/2	M14,M15
Ar II	1793.435	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1795.10	30		$3p^4(^3P)4p - 3p^4(^3P)7g$	$^4D^\circ - 2[3]$?	3/2 - 5/2	S23
Ar II	1812.475	50		$3p^4(^3P)4s - 3p^4(^3P)5p$	$^4P - ^4D^\circ$	5/2 - 7/2	M14,M15
Ar II	1813.014	100		$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - 2[4]^\circ$	9/2 - 9/2	M14,M15
Ar II	1813.766	100		$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - 2[4]^\circ$	7/2 - 7/2	M14,M15
Ar II	1815.98	15		$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - 2[3]^\circ$?	9/2 - 7/2	S23
Ar II	1816.14	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2D - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1823.205	100		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2F - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1824.842	50		$3p^4(^3P)4s - 3p^4(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 3/2	M14,M15
Ar II	1830.770	500		$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - 2[5]^\circ$	9/2 - 11/2	M14,M15
Ar II	1831.527	500		$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1834.038	200		$3p^4(^3P)4s - 3p^4(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 5/2	M14,M15
Ar II	1854.986	50		$3p^4(^3P)3d - 3p^4(^3P)5f$	$^2D - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1866.089	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[3]^\circ$	7/2 - 7/2	M14,M15
Ar II	1868.660	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 0[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1872.589	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[4]^\circ$	7/2 - 7/2	M14,M15
Ar II	1873.140	600		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1877.523	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1879.420	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[3]^\circ$	5/2 - 5/2	M14,M15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar II	1879.790	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1886.386	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1887.42	30		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[2]^\circ$?	5/2 - 5/2	S23
Ar II	1888.782	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1889.029	600		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[5]^\circ$	9/2 - 11/2	M14,M15
Ar II	1897.352	50		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 1[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1898.36	15		$3p^4(^3P)3d - 3p^4(^1D)5p$	$^2D - ^2F^\circ$?	3/2 - 5/2	S23
Ar II	1899.287	100		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^4P^\circ - ^4D$?	5/2 - 7/2	M14,M15
Ar II	1899.847	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[4]^\circ$	9/2 - 7/2	M14,M15
Ar II	1900.638	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[4]^\circ$	9/2 - 9/2	M14,M15
Ar II	1907.988	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M14,M15
Ar II	1909.5689 ST	50		$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - ^2S^\circ$	1/2 - 1/2	H4,M14,M15
Ar II	1911.053	50		$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - ^4S^\circ$	1/2 - 3/2	M14,M15
Ar II	1917.79	30		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^4D^\circ - ^2F$?	7/2 - 5/2	S23
Ar II	1919.199	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[4]^\circ$	7/2 - 7/2	M14,M15
Ar II	1920.007	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[4]^\circ$	7/2 - 9/2	M14,M15
Ar II	1927.19	10		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[2]^\circ$?	5/2 - 3/2	S23
Ar II	1931.419	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[3]^\circ$	5/2 - 7/2	M14,M15
Ar II	1932.230	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[3]^\circ$	5/2 - 5/2	M14,M15
Ar II	1933.694	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[4]^\circ$	5/2 - 7/2	M14,M15
Ar II	1937.041	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1941.0724 ST	300	13	$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - ^2P^\circ$	1/2 - 3/2	H4,M14,M15
Ar II	1942.13	30		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - 2[3]^\circ$?	3/2 - 5/2	S23
Ar II	1946.795	200		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 1[2]^\circ$	1/2 - 3/2	M14,M15
Ar II	1961.3610 ST	400	13	$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - ^2P^\circ$	1/2 - 1/2	H4,M14,M15
Ar II	1962.161	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 0[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1966.953	100		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^4D^\circ - ^4F$?	1/2 - 3/2	M14,M15
Ar II	1972.274	200		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^4D^\circ - ^4F$?	7/2 - 9/2	M14,M15
Ar II	1973.4837 ST	200		$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - ^2D^\circ$	1/2 - 3/2	H4,M14,M15
Ar II	1974.462	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 1[3]^\circ$	3/2 - 5/2	M14,M15
Ar II	1976.765	300		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 2[1]^\circ$	1/2 - 3/2	M14,M15
Ar II	1977.200	20		$3p^4(^3P)4p - 3p^4(^3P)7s$	$^4D^\circ - ^2P$?	5/2 - 3/2	M14,M15
Ar II	1981.74	100		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^4D^\circ - ^4D$?	7/2 - 7/2	M14,M15
Ar II	1983.299	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 1[2]^\circ$	3/2 - 5/2	M14,M15
Ar II	1983.829	100		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2P - 1[2]^\circ$	3/2 - 3/2	M14,M15
Ar II	1988.620	300		$3p^4(^3P)4p - 3p^4(^3P)6d$	$^2D^\circ - ^2F$	5/2 - 7/2	M14,M15
Ar II	1993.555	20		$3p^4(^3P)4p - 3p^4(^3P)7s$	$^4D^\circ - ^4P$?	3/2 - 1/2	M14,M15

ARGON III (Ar^{2+}), Z = 18

Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)

Ionization Potential 328 600 cm^{-1}; 40.74 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar III	382.61	125		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	F23
Ar III	387.45	100		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	F23
Ar III	389.49	25		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	F23
Ar III	395.92	50		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	B31
Ar III	396.37	200		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	F23
Ar III	397.67	50		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	B31
Ar III	398.17	125		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	F23
Ar III	398.91	50		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	F23
Ar III	466.53	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	B31
Ar III	467.39	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	B31

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar III	468.47	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	B31
Ar III	468.96	150		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	B31
Ar III	469.83	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	B31
Ar III	469.97	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	B31
Ar III	473.03	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$?	2 - 1	B31
Ar III	473.92	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	B31
Ar III	476.43	350		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	B31
Ar III	481.85	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 1	B31
Ar III	482.55	400		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	B31
Ar III	484.12	250		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 0	B31
Ar III	484.45	250		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 1	B31
Ar III	485.15	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 2	B31
Ar III	485.52	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	0 - 1	B31
Ar III?	487.99	350					B31
Ar III	488.45	350		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	B31
Ar III	491.12	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	1 - 1	B31
Ar III	492.23	150		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	0 - 1	B31
Ar III	508.44	450		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	K9
Ar III	508.61	300		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	K9
Ar III	508.68	180		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 1	K9
Ar III	511.51	300		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	K9
Ar III	511.57	180		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	K9
Ar III	512.77	180		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	K9
Ar III	529.90	450		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	B31
Ar III	532.41	350		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	B31
Ar III	534.26	50		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	B31
Ar III	535.58	350		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	B31
Ar III	537.46	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	B31
Ar III	538.79	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	B31
Ar III	553.47	450	4	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	B31
Ar III	556.89	300	4	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	B31
Ar III	558.32	250	4	$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	B31
Ar III	573.47	200		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^5S^\circ$	2 - 2	B31
Ar III	577.15	150		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^5S^\circ$	1 - 2	B31
Ar III	578.39	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^3F^\circ$	2 - 2	B32
Ar III	579.21	150		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^3F^\circ$	2 - 3	B32
Ar III?	604.15	500					B31
Ar III	636.82	150	3	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	B31
Ar III	637.28	1000	3	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	B31
Ar III	641.36	250	3	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	B31
Ar III	641.81	600	3	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	B31
Ar III	643.26	450	3	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	B31
Ar III	690.17	400d	2	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	2 - 3	B31
Ar III	695.54	300	2	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	1 - 2	B31
Ar III	697.74	100	2	$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^5D^\circ$	0 - 1	B31
Ar III	699.72	50		$3p^4 - 3p^3(^4S^\circ)3d$	$^1D - {}^3D^\circ$	2 - 2	B32
Ar III	769.15	600	5	$3s^23p^4 - 3s3p^5$	$^1D - {}^1P^\circ$	2 - 1	B31
Ar III	871.10	500	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	2 - 1	B31
Ar III	875.53	450	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	1 - 0	B31
Ar III	878.73	600	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	2 - 2	B31
Ar III	879.62	400	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	1 - 1	B31
Ar III	883.18	450	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	0 - 1	B31
Ar III	887.40	500	1	$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	1 - 2	B31
Ar III	1002.10	150		$3s^23p^4 - 3s3p^5$	$^1D - {}^3P^\circ$	2 - 2	B32
Ar III	1460.08	200		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	3 - 3	B31
Ar III	1460.23	100		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	2 - 3	B31
Ar III	1465.53	100		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	2 - 1	B31
Ar III	1465.71	150		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	2 - 2	B31
Ar III	1467.84	150		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	1 - 1	B31
Ar III	1468.01	100		$3p^3(^4S^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - {}^3D$	1 - 2	B31
Ar III	1669.10	50	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - {}^5P$	2 - 3	B31
Ar III	1669.30	250	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - {}^5P$	3 - 3	B31
Ar III	1669.67	350	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - {}^5P$	4 - 3	B31
Ar III	1673.14	50	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - {}^5P$	1 - 2	B31
Ar III	1673.24	150	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - {}^5P$	2 - 2	B31

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar III	1673.43	350	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - ^5P$	3 - 2	B31
Ar III	1675.58	350	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - ^5P$	1 - 1	B31
Ar III	1675.64	200	6	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - ^5P$	2 - 1	B31
Ar III	1914.40	450	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	3 - 2	B31
Ar III	1914.65	150	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	2 - 2	B31
Ar III	1915.56	350	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	2 - 1	B31
Ar III	1918.06	50	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	1 - 0	B31
Ar III	1918.67	200	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	1 - 2	B31
Ar III	1919.52	200	7	$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^3D^\circ - ^3P$	1 - 1	B31
Ar III	1957.83	50		$3p^3(^4S^\circ)4s - 3p^3(^2D^\circ)4p$	$^3S^\circ - ^3P$	1 - 0	B31
Ar III	1962.74	100		$3p^3(^4S^\circ)4s - 3p^3(^2D^\circ)4p$	$^3S^\circ - ^3P$	1 - 1	B31
Ar III	1973.78	200		$3p^3(^4S^\circ)4s - 3p^3(^2D^\circ)4p$	$^3S^\circ - ^3P$	1 - 2	B31

ARGON IV (Ar^{3+}), Z = 18

Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential 482 400 cm^{-1}; 59.81 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar IV	396.87	160		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	B31
Ar IV	398.55	160		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	B31
Ar IV	399.63	120		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	B31
Ar IV	423.48	10		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$?	5/2 - 3/2	S6,K8
Ar IV	443.40	80		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	G1,S6
Ar IV	451.20	15		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	F2,S6
Ar IV	451.87	45		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F2,S6
Ar IV	452.91	80		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F2,S6
Ar IV	458.1			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F2
Ar IV	471.09	60		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	S6,E27
Ar IV	471.97	60		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	S6,E27
Ar IV	492.64	50		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	S6,E27
Ar IV	495.55	80		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	S6,E27
Ar IV	501.01	120		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^4P$?	5/2 - 5/2	S6,K8
Ar IV	538.41	40		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^4P$?	3/2 - 5/2	S6,K8
Ar IV	561.06	20		$3s3p^4 - 3s^23p^2(^3P)4p$	$^4P - ^2P^\circ$?	5/2 - 3/2	S6,K8
Ar IV	623.77	250		$3s3p^4 - 3s^23p^2(^1D)4p$	$^2D - ^2D^\circ$?	3/2 - 5/2	B32,K8
Ar IV	683.28	400	3	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	B31
Ar IV	688.39	300	3	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	B31
Ar IV	689.01	500	3	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	B31
Ar IV	694.85	100		$3s3p^4 - 3s^23p^2(^3P)4p$	$^2D - ^4P^\circ$?	3/2 - 5/2	S6,K8
Ar IV	698.08	20		$3s3p^4 - 3s^23p^2(^3P)4p$	$^2D - ^4P^\circ$?	5/2 - 3/2	S6,K8
Ar IV	699.41	240		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	B31
Ar IV	700.28	320		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	B31
Ar IV	754.21	160		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	B31
Ar IV	755.21	120		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	B31
Ar IV	760.44	120		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	B31
Ar IV	761.47	200		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	B31
Ar IV	772.49	10		$3s3p^4 - 3s^23p^2(^3P)4p$	$^2P - ^2P^\circ$?	3/2 - 3/2	S6,K8
Ar IV	800.57	200	2	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	3/2 - 5/2	B31
Ar IV	801.09	400	2	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	B31
Ar IV	801.41	400	2	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	B31
Ar IV	801.91	200	2	$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	B31
Ar IV	840.03	600	1	$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	B31
Ar IV	843.77	800	1	$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	B31

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar IV	850.60	1000	1	$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	B31
Ar IV	900.36	200		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^2D$	1/2 - 3/2	B31
Ar IV	901.17	400		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^2D$	3/2 - 5/2	B31
Ar IV	901.80	80		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^2D$	3/2 - 3/2	B31
Ar IV	1037.93	40		$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^4P$	5/2 - 5/2	B31
Ar IV	1187.80	40		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^4P$	1/2 - 1/2	B31
Ar IV	1190.35	80		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^4P$	3/2 - 1/2	B31
Ar IV	1197.84	40		$3s^2 3p^3 - 3s 3p^4$	${}^2P^\circ - {}^4P$	3/2 - 3/2	B31

ARGON V (Ar^{4+}), Z = 18

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ ${}^3P_0$ (14 electrons)

Ionization Potential 605 100 cm^{-1}; 75.02 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar V	336.56	150	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 2	P18
Ar V	337.56	150	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	0 - 1	P18
Ar V	338.00	300	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 2	P18
Ar V	338.43	100	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 1	P18
Ar V	339.01	150	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 0	P18
Ar V	339.89	150	6	$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 1	P18
Ar V	350.88	150	8	$3p^2 - 3p4s$	${}^1D - {}^1P^\circ$	2 - 1	P18
Ar V	436.67	120		$3p^2 - 3p3d$	${}^1D - {}^1F^\circ$	2 - 3	S6,E27
Ar V	445.997	250	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	0 - 1	E6,P18
Ar V	446.949	400	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 2	E6,P18
Ar V	447.53	200	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 1	P18
Ar V	449.065	900	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 3	E6,P18
Ar V	449.49	200	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 2	P18
Ar V	450.08	50	5	$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 1	P18
Ar V	458.12	150	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	0 - 1	P18
Ar V	458.98	100	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 0	P18
Ar V	459.73	50	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 1	P18
Ar V	461.23	300b	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 2	P18
Ar V	462.42	150	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 1	P18
Ar V	463.938	350	4	$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	E6,P18
Ar V	466.82	60		$3p^2 - 3p3d$	${}^1S - {}^1P^\circ$	0 - 1	S6,E27
Ar V	496.91	40		$3p^2 - 3p3d$	${}^1D - {}^3P^\circ$?	2 - 2	S6,K8
Ar V	511.89	25		$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^1P^\circ$	0 - 1	P18
Ar V	513.91	50		$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^1P^\circ$	1 - 1	P18
Ar V	517.25	25		$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^1P^\circ$	2 - 1	P18
Ar V	522.09	150	3	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3S^\circ$	0 - 1	P18
Ar V	524.19	250	3	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3S^\circ$	1 - 1	P18
Ar V	527.69	300	3	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3S^\circ$	2 - 1	P18
Ar V	554.50	120		$3p^2 - 3p3d$	${}^1S - {}^3P^\circ$?	0 - 1	S6,K8
Ar V	558.48	250	7	$3s^2 3p^2 - 3s 3p^3$	${}^1D - {}^1P^\circ$	2 - 1	P18
Ar V	570.61	80		$3s^2 3p^2 - 3s 3p^3$	${}^1D - {}^3S^\circ$	2 - 1	S6,E27
Ar V	635.12	150		$3s^2 3p^2 - 3s 3p^3$	${}^1S - {}^1P^\circ$	0 - 1	S6,E27
Ar V	651.04	10		$3s^2 3p^2 - 3s 3p^3$	${}^1S - {}^3S^\circ$?	0 - 1	S6,E27
Ar V	705.35	150	2	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3P^\circ$	0 - 1	P18
Ar V	709.20	250	2	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3P^\circ$	1 - 2	P18
Ar V	715.60	200	2	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3P^\circ$	2 - 1	P18
Ar V	715.65	150	2	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3P^\circ$	2 - 2	P18
Ar V	725.11	100		$3s^2 3p^2 - 3s 3p^3$	${}^1D - {}^1D^\circ$	2 - 2	S6,E27
Ar V	822.161	200	1	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3D^\circ$	0 - 1	E6,P18
Ar V	827.052	250	1	$3s^2 3p^2 - 3s 3p^3$	$g^3P - {}^3D^\circ$	1 - 2	E6,P18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar V	827.35	150	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 1	P18
Ar V	834.88	200	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	P18
Ar V	835.79	50	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 2	P18
Ar V	836.13	100	1	$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 1	P18

ARGON VI (Ar^{5+}), Z = 18

Ground State $1s^22s^22p^63s^23p\ {}^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 734 040 cm^{-1}; 91.007 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar VI	180.07	80		3p - 5d	$g^2P^\circ - {}^2D$	½ - 3/2	P18
Ar VI	180.72	120		3p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	P18
Ar VI	219.90	120		3p - 4d	$g^2P^\circ - {}^2D$	½ - 3/2	P18
Ar VI	220.95	200		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	P18
Ar VI	281.43	120		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 5/2	P18
Ar VI	281.92	160		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	½ - 3/2	P18
Ar VI	282.42	240		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	P18
Ar VI	282.56	40		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 3/2	P18
Ar VI	283.16	120		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - ½	P18
Ar VI	292.15	200		3p - 4s	$g^2P^\circ - {}^2S$	½ - ½	P18
Ar VI	294.05	240		3p - 4s	$g^2P^\circ - {}^2S$	3/2 - ½	P18
Ar VI	455.81	80		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	½ - 3/2	P18
Ar VI	456.38	120		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	½ - ½	P18
Ar VI	457.01	200		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 5/2	P18
Ar VI	457.48	800b		3p - 3d	$g^2P^\circ - {}^2D$	½ - 3/2	P18
Ar VI	458.04	40		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - ½	P18
Ar VI	459.32	400		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	P18
Ar VI	459.60	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 5/2	P18
Ar VI	460.06	40		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 3/2	P18
Ar VI	460.20	40		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	½ - ½	P18
Ar VI	461.23	300b		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	½ - 3/2	P18
Ar VI	461.90	40		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	3/2 - ½	P18
Ar VI	462.007	1000d		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E6,P18
Ar VI	462.15	160		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 3/2	P18
Ar VI	464.26	160		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	3/2 - 5/2	P18
Ar VI	465.59	80		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	5/2 - 3/2	P18
Ar VI	466.93	160		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	P18
Ar VI	544.73	160		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - 3/2	P18
Ar VI	548.91	200		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - ½	P18
Ar VI	551.37	320		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	P18
Ar VI	555.64	160		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - ½	P18
Ar VI	587.01	40		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	½ - 3/2	P18
Ar VI	588.92	200		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	½ - ½	P18
Ar VI	589.78	80		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	P18
Ar VI	594.10	100		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	P18
Ar VI	596.69	160		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	3/2 - ½	P18
Ar VI	754.93	100		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	½ - 3/2	F21
Ar VI	767.06	200		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F21
Ar VI	767.71	100		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F21
Ar VI	998.43	30		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^4P$	½ - ½	E27
Ar VI	1000.16	40		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^4P$	3/2 - 5/2	E27
Ar VI	1012.67	10		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^4P$	3/2 - 3/2	E27

ARGON VII (Ar^{6+}), Z = 18

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential 1 002 730 cm^{-1}; 124.319 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar VII	151.70	50		3s3p - 3s5d	$^3P^\circ - ^3D$	0 - 1	P18
Ar VII	151.88	100		3s3p - 3s5d	$^3P^\circ - ^3D$	1 - 2	P18
Ar VII	152.26	150		3s3p - 3s5d	$^3P^\circ - ^3D$	2 - 3	P18
Ar VII	176.57	500		$3s^2$ - 3s4p	$g^1S - ^1P^\circ$	0 - 1	P18
Ar VII	191.76	150		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	P18
Ar VII	192.04	250		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	P18
Ar VII	192.64	350		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	P18
Ar VII	249.38	100		3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	P18
Ar VII	249.886	250		3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	E6,P18
Ar VII	250.940	350		3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	E6,P18
Ar VII	297.62	150		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	P18
Ar VII	297.66	200		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	P18
Ar VII	297.70	300		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	P18
Ar VII	473.938	200		3s3p - 3s3d	$^3P^\circ - ^3D$	0 - 1	E6,P18
Ar VII	475.656	400		3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	E6,P18
Ar VII	475.73	100		3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 1	P18
Ar VII	479.379	600		3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	E6,P18
Ar VII	479.49	100		3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 2	P18
Ar VII	585.75	750		$3s^2$ - 3s3p	$g^1S - ^1P^\circ$	0 - 1	P18
Ar VII	630.31	100		3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 2	P18
Ar VII	634.21	100		3s3p - $3p^2$	$^3P^\circ - ^3P$	0 - 1	P18
Ar VII	637.05	200		3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 2	P18
Ar VII	637.47	50		3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 1	P18
Ar VII	641.32	100		3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 0	P18
Ar VII	644.39	100		3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 1	P18
Ar VII	883.17 ?			$3s^2$ - 3s3p	$g^1S - ^3P^\circ$	0 - 1	K8

ARGON VIII (Ar^{7+}), Z = 18

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 1 157 080 cm^{-1}; 143.406 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar VIII	120.09	100		3s - 5p	$g^2S - ^2P^\circ$	½ - ⅜	P18
Ar VIII	120.16	50		3s - 5p	$g^2S - ^2P^\circ$	½ - ½	P18
Ar VIII	122.62	10		3p - 6d	$^2P^\circ - ^2D$	½ - ⅜	P18
Ar VIII	123.03	50		3p - 6d	$^2P^\circ - ^2D$	⅜ - ⅝	P18
Ar VIII	137.93	150		3p - 5d	$^2P^\circ - ^2D$	½ - ⅜	P18
Ar VIII	138.44	250		3p - 5d	$^2P^\circ - ^2D$	⅜ - ⅝	P18
Ar VIII	148.73	100		3p - 5s	$^2P^\circ - ^2S$	½ - ½	P18
Ar VIII	149.33	150		3p - 5s	$^2P^\circ - ^2S$	⅜ - ½	P18
Ar VIII	158.92	400		3s - 4p	$g^2S - ^2P^\circ$	½ - ⅜	P18
Ar VIII	159.18	250		3s - 4p	$g^2S - ^2P^\circ$	½ - ½	P18
Ar VIII	179.40	500		3p - 4d	$^2P^\circ - ^2D$	½ - ⅜	P18
Ar VIII	180.25	750		3p - 4d	$^2P^\circ - ^2D$	⅜ - ⅝	P18
Ar VIII	184.27	150		3d - 5f	$^2D - ^2F^\circ$	⅜ - ⅝	P18
Ar VIII	184.32	250		3d - 5f	$^2D - ^2F^\circ$	⅝ - ⅞	P18
Ar VIII	229.44	250		3p - 4s	$^2P^\circ - ^2S$	½ - ½	P18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar VIII	230.88	350		3p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	P18
Ar VIII	260.25	200		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	P18
Ar VIII	260.33	300		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	P18
Ar VIII	337.26	100d		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	P18
Ar VIII	338.22	10d		3d - 4p	$^2D - ^2P^\circ$	3/2 - 1/2	P18
Ar VIII	519.43	150		3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	P18
Ar VIII	526.46	250		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	P18
Ar VIII	526.87	50		3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	P18
Ar VIII	700.40	1000		3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	P18,F21
Ar VIII	713.99	500		3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	P18,F21

ARGON IX (Ar^{8+}), Z = 18

Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)

Ionization Potential 3 407 300 cm^{-1}; 422.44 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar IX	31.52	600		$2p^6 - 2p^56d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F15
Ar IX	31.66	700		$2p^6 - 2p^56d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F15
Ar IX	32.64	400		$2p^6 - 2p^55d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F15
Ar IX	35.02	700		$2p^6 - 2p^54d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F15
Ar IX	35.28	300		$2p^6 - 2p^54d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F15
Ar IX	35.82	500		$2s^22p^6 - 2s2p^63p$	$g^1S - ^1P^\circ$	0 - 1	F8,F15
Ar IX	36.96	100		$2p^6 - 2p^54s$	$g^1S - 3/2[3/2]^\circ$?	0 - 1	F16,W13
Ar IX	41.48	600		$2p^6 - 2p^53d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	F15
Ar IX	42.02	200		$2p^6 - 2p^53d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F15
Ar IX	42.56	200		$2p^6 - 2p^53d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	F15
Ar IX	48.73	500		$2p^6 - 2p^53s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	P18
Ar IX	49.18	500		$2p^6 - 2p^53s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	P18

ARGON X (Ar^{9+}), Z = 18

Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 3 860 900 cm^{-1}; 478.68 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar X	29.1	100		$2p^5 - 2p^45d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F16
Ar X	29.2	50		$2p^5 - 2p^45d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F16
Ar X	30.96	150		$2p^5 - 2p^44d$	$g^2P^\circ - ^2D$	3/2 - 5/2	F16
Ar X	31.08	100		$2p^5 - 2p^44d$	$g^2P^\circ - ^2D$	1/2 - 3/2	F16
Ar X	32.45	320		$2s^22p^5 - 2s2p^53p$	$g^2P^\circ - ^2P$	3/2 - 3/2	C15
Ar X	32.55	50		$2s^22p^5 - 2s2p^53p$	$g^2P^\circ - ^2D$	3/2 - 5/2	F16
Ar X	32.61	200		$2s^22p^5 - 2s2p^53p$	$g^2P^\circ - ^2S$	3/2 - 1/2	C15
Ar X	32.70	230		$2s^22p^5 - 2s2p^53p$	$g^2P^\circ - ^2P$	1/2 - 1/2	C15
Ar X	32.74	50		$2s^22p^5 - 2s2p^53p$	$g^2P^\circ - ^2D$	1/2 - 3/2	F16
Ar X?	36.39	100					F16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar X?	36.56	100					F16
Ar X	36.69	200		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F16
Ar X	36.78	150		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F16
Ar X?	37.10	50					F16
Ar X	37.43	250		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F16
Ar X	37.60	200		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F16
Ar X	38.23	150		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F16
Ar X	38.40	500		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$?	3/2 - 3/2	F15,K8
Ar X	38.51	420		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	C15
Ar X	38.64	700		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$?	1/2 - 1/2	F15,K8
Ar X	38.88	500		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$?	1/2 - 3/2	F15,K8
Ar X	41.57	200		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F16
Ar X	41.89	100		$2p^5 - 2p^4(^1S)3s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F16
Ar X	42.94	250		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F16
Ar X	43.27	150		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F16
Ar X	43.69	350		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F16
Ar X	43.92	450		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F16
Ar X	44.05	350		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F16
Ar X	44.27	450		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F16
Ar X	44.45	450		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	F16
Ar X	44.63	400		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	F16
Ar X	44.84	300		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	${}^2S - {}^2P^\circ$	1/2 - 1/2	F16
Ar X	45.03	350		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	${}^2S - {}^2P^\circ$	1/2 - 3/2	F16
Ar X	165.53	400		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	D1,F15
Ar X	170.63	200		$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	D1,F15

ARGON XI (Ar^{10+}), Z = 18

Ground State $1s^22s^22p^4\ {}^3P_2$ (8 electrons)

Ionization Potential 4 347 000 cm^{-1}; 538.95 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XI	29.48	150		$2s^22p^4 - 2s2p^4(^4P)3p$	$g^3P - {}^3S^\circ$	2 - 1	C15
Ar XI	30.40	150		$2s^22p^4 - 2s2p^4(^4P)3p$	$g^3P - {}^3P^\circ$	2 - 2	C15
Ar XI	31.10	200		$2s^22p^4 - 2s2p^4(^4P)3p$	${}^1S - {}^1P^\circ$	0 - 1	C15
Ar XI	31.36	300		$2s^22p^4 - 2s2p^4(^2D)3p$	${}^1S - {}^1P^\circ$	0 - 1	C15
Ar XI?	33.03	50					F16
Ar XI	33.53	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$?	1 - 1	F16
Ar XI	33.65	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F16
Ar XI	33.84	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F16
Ar XI	33.96	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F16
Ar XI	34.10	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	F16
Ar XI	34.24	150		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F16
Ar XI	34.33	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F16
Ar XI	34.52	100		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F16
Ar XI	34.80	500		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	F16,G13
Ar XI	35.07	100		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1D - {}^1D^\circ$	2 - 2	F16
Ar XI	35.37	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F16
Ar XI	35.58	150		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F16
Ar XI	35.70	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F16
Ar XI	35.96	100		$2p^4 - 2p^3(^2D^\circ)3d$	${}^1S - {}^1P^\circ$	0 - 1	F16
Ar XI?	36.16	200					F16
Ar XI?	36.31	200					F16
Ar XI	37.79	150		$2p^4 - 2p^33d$	${}^1D - {}^1F^\circ$?	2 - 3	F16,G13
Ar XI	38.00	150		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$?		F16,K8
Ar XI	38.33	380		$2p^4 - 2p^33s$	${}^1D - {}^1P^\circ$	2 - 1	C15
Ar XI	38.62	400		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	F16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XI	38.79	300		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	F16
Ar XI	38.87	250		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	0 - 1	F16
Ar XI?	39.30	200					F16
Ar XI	39.49	300		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	F16
Ar XI	39.64	300		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^3D^\circ$?	2 - 2	F16,K8
Ar XI	39.75	250		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	F16
Ar XI?	39.79	150					F16
Ar XI	39.98	150		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	F16
Ar XI	40.02	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	F16
Ar XI	40.04	250		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	F16
Ar XI	151.86			$2s^22p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	D1
Ar XI	171.36 P			$2s^22p^4 - 2s2p^5$	$^1S - {}^1P^\circ$	0 - 1	K8
Ar XI	184.51			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	D1
Ar XI	187.08			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	D1
Ar XI	188.82			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	D1
Ar XI	189.57			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	D1
Ar XI	190.96			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	D1
Ar XI	194.09			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	D1

ARGON XII (Ar^{11+}), Z = 18

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 4 986 600 cm^{-1}; 618.24 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XII	25.19	100		$2p^3 - 2p^24d$			F16
Ar XII	25.24	100		$2p^3 - 2p^24d$			F16
Ar XII	28.05	100		$2s^22p^3 - 2s2p^33p$	$^2P^\circ - {}^2P$		C15
Ar XII	30.65			$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2D$		C15
Ar XII?	31.18	50					F16
Ar XII	31.35	250		$2p^3 - 2p^23d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F16
Ar XII	31.39	300		$2p^3 - 2p^23d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F16
Ar XII?	31.47	300					C15
Ar XII	31.55	100		$2p^3 - 2p^23d$			F16
Ar XII	31.65	350		$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F16
Ar XII	31.99	200		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F16
Ar XII	32.16	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$?	3/2 - 5/2	F16,K8
Ar XII	32.20	50		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2D$?	5/2 - 3/2	F16,K8
Ar XII	32.35	250		$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F16
Ar XII	34.67	300		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F16
Ar XII	34.80	250		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F16
Ar XII	34.88	200		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F16
Ar XII	35.68	220		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2P$?	5/2 - 3/2	C15
Ar XII	36.67	500		$2p^3 - 2p^2(^3P)3s$	$^2P^\circ - {}^4P$?	3/2 - 5/2	F15,K8
Ar XII	45.38	50		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$?	5/2 - 5/2	F16,K8
Ar XII	45.49	100		$2p^3 - 2p^2(^1D)3s$	$^2D^\circ - {}^2D$?	3/2 - 3/2	C15,K8
Ar XII	149.93			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	D2
Ar XII	153.63			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 3/2	D2
Ar XII	154.43			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	D2
Ar XII	163.23			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 1/2	D2
Ar XII	164.51			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 1/2	F16
Ar XII	167.62			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 3/2	D2
Ar XII	169.00			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 3/2	D2
Ar XII	176.62			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	1/2 - 1/2	D2
Ar XII	178.15			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	D2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XII	192.66			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 5/2	D2
Ar XII	193.68			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	5/2 - 3/2	D2
Ar XII	215.49			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	D2
Ar XII	217.21			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	3/2 - 3/2	D2
Ar XII	218.29			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	D2
Ar XII	224.25			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	D2

ARGON XIII (Ar^{12+}), Z = 18

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential 5 533 800 cm^{-1}; 686.09 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XIII	23.03	50		$2p^2 - 2p4d$	$g^3P - {}^3P^\circ$		C15
Ar XIII	23.39	50		$2p^2 - 2p4d$	$^1D - {}^1P^\circ$	2 - 1	C15
Ar XIII	23.57	200		$2p^2 - 2p4s$	$g^3P - {}^3P^\circ$		C15
Ar XIII	23.93	50		$2p^2 - 2p4d$	$^1S - {}^1P^\circ$	0 - 1	C15
Ar XIII	24.61	80		$2p^2 - 2p4s$	$^1S - {}^3P^\circ$	0 - 1	C15
Ar XIII	26.36	110		$2s^22p^2 - 2s2p^23p$	$g^3P - {}^3S^\circ$		C15
Ar XIII	26.53	60		$2s^22p^2 - 2s2p^23p$	$g^3P - {}^3P^\circ$		C15
Ar XIII	26.82	40		$2s^22p^2 - 2s2p^23p$	$^1D - {}^1P^\circ$	2 - 1	C15
Ar XIII	27.17	60		$2s^22p^2 - 2s2p^23p$	$^1D - {}^1D^\circ$	2 - 2	C15
Ar XIII	27.60	100		$2s^22p^2 - 2s2p^23p$	$g^3P - {}^3D^\circ$		C15
Ar XIII	28.68	80		$2s^22p^2 - 2s2p^23p$	$^1S - {}^1P^\circ$	0 - 1	C15
Ar XIII	29.20	100		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	1 - 0	F16,K8
Ar XIII	29.32	150		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 1	F16,K8
Ar XIII	29.37	250		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	F16,K8
Ar XIII	29.56	250		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$?		F16,K8
Ar XIII	29.67	50		$2p^2 - 2p3d$	$^1D - {}^1F^\circ$?	2 - 3	F16,K8
Ar XIII	29.85	100		$2p^2 - 2p3d$	$^1D - {}^1P^\circ$	2 - 1	C15
Ar XIII?	30.21	50					F16
Ar XIII?	30.24	50					F16
Ar XIII	30.34	50		$2p^2 - 2p3d$	$^1D - {}^1D^\circ$?	2 - 2	F16,K8
Ar XIII?	30.58	100					F16
Ar XIII	30.68	50		$2p^2 - 2p3d$	$^1S - {}^3P^\circ$?	0 - 1	F16,K8
Ar XIII?	30.77	50					F16
Ar XIII?	30.84	50					F16
Ar XIII	31.56	100		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$?	0 - 1	F16,K8
Ar XIII	31.66 ?	100		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	K8
Ar XIII	31.70 ?	80		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	0 - 1	K8
Ar XIII	31.78 ?	300		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	K8
Ar XIII	31.86 ?	80		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	1 - 0	K8
Ar XIII	31.92 ?	100		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	K8
Ar XIII	32.25	200		$2p^2 - 2p3s$	$^1D - {}^1P^\circ$	2 - 1	C15
Ar XIII	33.95	300		$2p^2 - 2p3s$	$^1S - {}^1P^\circ$	0 - 1	C15
Ar XIII	159.08			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	0 - 1	D2
Ar XIII	161.61			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	1 - 1	D2
Ar XIII	162.96			$2s^22p^2 - 2s2p^3$	$^1D - {}^1P^\circ$	2 - 1	D2
Ar XIII	164.80			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	D2
Ar XIII	184.90			$2s^22p^2 - 2s2p^3$	$^1D - {}^1D^\circ$	2 - 2	F16
Ar XIII	186.38			$2s^22p^2 - 2s2p^3$	$^1S - {}^1P^\circ$	0 - 1	F16
Ar XIII	201.69			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	F16
Ar XIII	205.24			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	F16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XIII	205.77			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 1	F16
Ar XIII	205.94			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 0	F16
Ar XIII	210.46			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	F16
Ar XIII	211.00			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	F16
Ar XIII	236.27			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	0 - 1	F16
Ar XIII	241.90			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 1	F16
Ar XIII	242.22			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	F16
Ar XIII	248.68			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	F16
Ar XIII	249.46			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 2	F16

ARGON XIV (Ar^{13+}), Z = 18

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential 6 095 500 cm^{-1}; 755.73 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XIV	21.61 ?			$2p - 4s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ar XIV	25.42	60		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	1/2 - 1/2	C15
Ar XIV	25.58	60		$2s^22p - 2s2p(^1P^\circ)3p$	$g^2P^\circ - {}^2P$	3/2 - 3/2	C15
Ar XIV	26.72	40		$2s^22p - 2s2p(^3P^\circ)3p$	$g^2P^\circ - {}^2P$		C15
Ar XIV	27.22	50		$2s2p^2 - 2s2p(^1P^\circ)3d$	${}^2D - {}^2F^\circ$	5/2 - 7/2	F16
Ar XIV	27.42	200		$2s2p^2 - 2s2p(^1P^\circ)3d$	${}^2D - {}^2D^\circ$?		F16
Ar XIV	27.47	300		$2s^22p - 2s^23d$	$g^2P^\circ - {}^2D$?	1/2 - 3/2	F16
Ar XIV	27.63	300		$2s^22p - 2s^23d$	$g^2P^\circ - {}^2D$?	3/2 - 5/2	F16
Ar XIV	29.33	150		$2s^22p - 2s^23s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	C15
Ar XIV	29.49	150		$2s^22p - 2s^23s$	$g^2P^\circ - {}^2S$?	3/2 - 1/2	C15
Ar XIV	29.90	50		$2s2p^2 - 2s2p3d$	${}^2P - {}^2D^\circ$?	3/2 - 5/2	F16,K8
Ar XIV	32.55	150		$2s2p^2 - 2s^23p$	${}^2S - {}^2P^\circ$?	1/2 - 3/2	F16,K8
Ar XIV	32.74	100		$2s2p^2 - 2s^23p$	${}^2S - {}^2P^\circ$?	1/2 - 1/2	F16,K8
Ar XIV	180.29			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	F16
Ar XIV	183.41			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	F16
Ar XIV	187.95			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F16
Ar XIV	191.35			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	F16
Ar XIV	194.39			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F16
Ar XIV	203.35			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	F16
Ar XIV	204.64			$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	1/2 - 3/2	F16
Ar XIV	208.31			$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	F16
Ar XIV	213.42			$2s2p^2 - 2p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	F16
Ar XIV	243.74			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	1/2 - 3/2	F16
Ar XIV	257.37			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F16
Ar XIV	257.98			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F16

ARGON XV (Ar^{14+}), Z = 18

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential 6 894 200 cm^{-1}; 854.75 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XV	3.33	5		$1s^2 2s^2 - 1s 2s^2 4p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XV	3.45	5		$1s^2 2s^2 - 1s 2s^2 3p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XV	4.015	70		$1s^2 2s^2 - 1s 2s^2 2p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XV	25.05	100		$2s^2 - 2s 3p$	$g\,^1S - ^3P^\circ$	0 - 1	C15
Ar XV	25.60	100		$2s 2p - 2s 3d$	$^3P^\circ - ^1D$?	2 - 2	F16,K8
Ar XV	25.72	40		$2s 2p - 2s 3d$	$^3P^\circ - ^3D$	0 - 1	C15
Ar XV	25.84	60		$2s 2p - 2s 3d$	$^3P^\circ - ^3D$	1 - 2	C15
Ar XV	26.00	80		$2s 2p - 2s 3d$	$^3P^\circ - ^3D$	2 - 3	C15
Ar XV	27.14 P			$2s 2p - 2s 3s$	$^3P^\circ - ^3S$	2 - 1	K8
Ar XV	27.41	120		$2s 2p - 2s 3d$	$^1P^\circ - ^1D$	1 - 2	C15
Ar XV	28.26	120		$2s 2p - 2s 3s$	$^1P^\circ - ^1S$	1 - 0	C15
Ar XV	28.32	150		$2s 2p - 2s 3s$	$^1P^\circ - ^1S$?	1 - 0	F16,C15
Ar XV	29.57	500		$2p^2 - 2s 3p$	$^1D - ^1P^\circ$?	2 - 1	F15,K8
Ar XV	221.10			$2s^2 - 2s 2p$	$g\,^1S - ^1P^\circ$	0 - 1	F16
Ar XV	431.03 P			$2s^2 - 2s 2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

ARGON XVI (Ar^{15+}), Z = 18

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [7 404 400] cm^{-1}; [918] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XVI	3.25	5		$1s^2 2s - 1s 2s 4p$	$g\,^2S - ^2P^\circ$	½ - 3/2	P10
Ar XVI	3.268	5		$1s^2 2p - 1s 2p 4p$	$^2P^\circ - ^2D$	3/2 - 5/2	P10
Ar XVI	3.42	5		$1s^2 2s - 1s 2s 3p$	$g\,^2S - ^2P^\circ$	½ - 3/2	P10
Ar XVI	3.430	150		$1s^2 2p - 1s 2p 3p$	$^2P^\circ - ^2D$	3/2 - 5/2	P10
Ar XVI	3.989	260b		$1s^2 2s - 1s 2s 2p$	$g\,^2S - ^2P^\circ$	½ - 3/2	P10
Ar XVI	3.992	260b		$1s^2 2p - 1s 2p^2$	$^2P^\circ - ^2D$	3/2 - 5/2	P10
Ar XVI	25.71	400		$2p - 3s$	$^2P^\circ - ^2S$?	3/2 - ½	F15,K8
Ar XVI	351.60 P			$2s - 2p$	$g\,^2S - ^2P^\circ$	½ - 3/2	K8
Ar XVI	387.66 P			$2s - 2p$	$g\,^2S - ^2P^\circ$	½ - ½	K8

ARGON XVII (Ar^{16+}), Z = 18

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 33 237 173 cm^{-1}; 4120.778 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XVII	3.095	5		$1s^2 - 1s 6p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XVII	3.138	5		$1s^2 - 1s 5p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XVII	3.203	130		$1s^2 - 1s 4p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XVII	3.366	190		$1s^2 - 1s 3p$	$g\,^1S - ^1P^\circ$	0 - 1	P10
Ar XVII	3.948	1000		$1s^2 - 1s 2p$	$g\,^1S - ^1P^\circ$	0 - 1	P10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XVII	3.968	550		$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	P10
Ar XVII	4.014	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	D6
Ar XVII	21.17	100		1s2s - 1s3p	$^3S - ^3P^\circ$?	1 - 2	C15
Ar XVII	22.37	40		1s2s - 1s3p	$^1S - ^1P^\circ$?	0 - 1	C15

ARGON XVIII (Ar^{17+}), Z = 18

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 35 699 937 cm^{-1}; 4426.11 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ar XVIII	2.881 P			1s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Ar XVIII	2.918 P			1s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2
Ar XVIII	2.987 P	10		1s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Ar XVIII	3.151 P	30		1s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,K8
Ar XVIII	3.733 P	100		1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	G2,P10
Ar XVIII	12.21 P			2 - 7			G2
Ar XVIII	12.61 P			2 - 6			G2
Ar XVIII	13.35 P			2 - 5			G2
Ar XVIII	14.94 P			2 - 4			G2
Ar XVIII	20.16 P			2 - 3			G2
Ar XVIII	30.94 P			3 - 7			G2
Ar XVIII	33.68 P			3 - 6			G2
Ar XVIII	39.47 P			3 - 5			G2
Ar XVIII	57.7 P			3 - 4			G2
Ar XVIII	66.73 P			4 - 7			G2
Ar XVIII	80.9 P			4 - 6			G2
Ar XVIII	124.8 P			4 - 5			G2
Ar XVIII	143.4 P			5 - 7			G2
Ar XVIII	229.9 P			5 - 6			G2
Ar XVIII	381.4 P			6 - 7			G2

POTASSIUM, Z = 19

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K	255.530	50					E29
K	265.353	50					E29
K	294.515	50					E29
K	322.146	50					E29
K	331.966	50					E29
K	353.325	150					E29
K	353.455	150					E29
K	354.397	50					E29
K	354.627	20					E29
K	363.647	50					E29
K	368.465	50					E29
K	368.580	100					E29
K	376.061	150					E29
K	384.689	50					E29
K	394.063	50					E29
K	406.912	50					E29
K	409.737	400					E29
K	423.371	50					E29
K	423.558	50					E29
K	482.281	50					E29
K	502.798	50					E29
K	503.697	50					E29
K	511.371	50					E29
K	520.493	150					E29
K	527.565	50					E29
K	528.519	100					E29
K	534.059	100					E29
K	655.188	50					E29
K	675.335	50					E29
K	696.608	50					E29
K	737.761	50					E29
K	738.075	50					E29
K	747.677	150					E29
K	748.783	50					E29
K	774.192	50					E29
K	781.338	50					E29
K	812.493	50					E29
K	843.317	50					E29
K	940.839	50					E29
K	986.203	50					E29
K	986.763	50					E29
K	1017.337	50					E29
K	1020.566	20					E29
K	1032.768	100					E29
K	1033.875	100					E29

POTASSIUM I (K^{0+}), Z = 19

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 4s\ ^2S_{1/2}$ (19 electrons)

Ionization Potential 35 009.77 cm^{-1}; 4.341 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K I	653.31			$3p^6 4s - 3p^5 4s^2$	$g^2S - {}^2P^\circ$	½ - ½	M22
K I	662.329	20		$3p^6 4s - 3p^5 4s^2$	$g^2S - {}^2P^\circ$	½ - 3/2	E29,M22

POTASSIUM II (K^{1+}), Z = 19

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6\ ^1S_0$ (18 electrons)

Ionization Potential 255 076 cm^{-1}; 31.625 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K II?	261.200	50					E29
K II?	441.812	250					E29
K II	465.078	50		$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - ½[½]^\circ$	0 - 1	E29,K29
K II	469.50			$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	K29
K II?	476.029	100					E29
K II?	495.144	300					E29
K II	600.765	300	2	$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - ½[½]^\circ$	0 - 1	E29,M23
K II	607.931	250	3	$3p^6 - 3p^5(^2P^\circ)3d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E29,M23
K II	612.621	300	1	$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E29,M23

POTASSIUM III (K^{2+}), Z = 19

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 368 800 cm^{-1}; 45.72 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K III	325.278	20		$3p^5$ -	$g^2P^\circ - 2$	3/2 - 3/2	E29,T11
K III	327.605	50		$3p^5$ -	$g^2P^\circ - 2$	½ - 3/2	E29,T11
K III?	328.845	100					E29
K III?	328.933	150					E29
K III	329.053	100		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,T11
K III	330.684	250		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,T11
K III	331.416	50		$3p^5 - 3p^4(^1S)3d$	$g^2P^\circ - {}^2D$	½ - 3/2	E29,T11
K III?	341.924	300					E29
K III?	344.270	200					E29
K III?	344.635	200					E29
K III	345.405	100		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,T11
K III	345.545	100		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,T11
K III	347.999	150		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - {}^2D$	½ - 3/2	E29,T11
K III	379.118	300		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - ½	E29,T11
K III	380.477	250b		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,T11

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K III	382.229	300		$3p^5 - 3p^4(^3P)5s$	$g^2P^\circ - {}^2P$	½ - ½	E29,T11
K III	396.763	20		$3p^5 -$	$g^2P^\circ - 1$	3/2 - ½	E29,T11
K III	398.633	150		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - ½	E29,T11
K III	402.104	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	½ - ½	E29,T11
K III	406.484	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,T11
K III	408.959	400		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,T11
K III	410.102	400		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	½ - 3/2	E29,T11
K III	412.289	250		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - ½	E29,T11
K III	413.792	500	6	$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	3/2 - ½	E29,T11
K III	414.870	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,T11
K III	416.001	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	½ - ½	E29,T11
K III	417.535	300	6	$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - {}^2S$	½ - ½	E29,T11
K III	418.623	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	½ - 3/2	E29,T11
K III	431.622	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$?	3/2 - 3/2	E29,K8
K III	434.722	750		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$?	3/2 - 5/2	E29,K8
K III	435.676	500		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$?	½ - 3/2	E29,K8
K III?	437.216	150					E29
K III?	440.429	750					E29
K III?	442.913	150					E29
K III	444.344	750	5	$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,E20
K III	448.595	750b	5	$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	½ - 3/2	E29,E20
K III	466.793	750	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - ½	E29,M23
K III	470.089	1000	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,M23
K III	471.569	750	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	½ - ½	E29,M23
K III	474.920	450	4	$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	½ - 3/2	E29,M23
K III	479.185	400		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	E29,E20
K III	482.107	100		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	E29,E20
K III	482.408	100		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	½ - ½	E29,E20
K III	484.200	50		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	½ - 3/2	E29,E20
K III	497.104	750	3	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	E29,M23
K III?	514.943	100					E29
K III	520.611	500	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,M23
K III	523.792	250	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,M23
K III	529.796	400	2	$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	½ - 3/2	E29,M23
K III	539.731	150		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,S29
K III	546.123	150		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	½ - 3/2	E29,S29
K III	550.323	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	½ - ½	E29,S29
K III?	708.838	200					E29
K III?	765.314	200					E29
K III	765.644	300	1	$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	3/2 - ½	E29,M23
K III	778.528	350	1	$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	½ - ½	E29,M23
K III	872.313	200		$3s3p^6 - 3s^23p^4(^3P)4p$	${}^2S - {}^2P^\circ$	½ - 3/2	E29,T11
K III?	873.865	100					E29
K III?	874.045	150					E29

POTASSIUM IV (K^{3+}), Z = 19

Ground State $1s^22s^22p^63s^23p^4\ {}^3P_2$ (16 electrons)

Ionization Potential 491 300 cm^{-1}; 60.91 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K IV	271.820	150		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	2 - 1	B23
K IV	273.065	100		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	1 - 1	E29,B23
K IV	273.546	50		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	0 - 1	B23
K IV?	274.552	150					E29
K IV	279.877			$3p^4 - 3p^3(^2D^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	F2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K IV	340.462	300		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	E29,K8
K IV	340.745	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$?	2 - 1	E29,K8
K IV	342.410	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 2	E29,K8
K IV	342.805	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 0	E29,K8
K IV	354.139	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	2 - 2	E29,B23
K IV	354.927	300b		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^1P^\circ$	2 - 1	E29,B23
K IV	356.260	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	1 - 2	E29,B23
K IV	359.730	300		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	E29,K22
K IV	359.907	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	E29,K8
K IV	360.568	100		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^3P^\circ$	2 - 2	E29,B23
K IV	362.085	250		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	E29,K8
K IV	362.154	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	E29,K8
K IV	363.021	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	E29,K8
K IV	368.030	100		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^1D^\circ$	1 - 2	E29,S29
K IV	375.955	300		$3p^4 - 3p^3(^2D^\circ)4s$	${}^1D - {}^1D^\circ$	2 - 2	E29,K22
K IV	379.279	100		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	B23
K IV	379.877	300		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	E29,S29
K IV	380.477	250b		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	E29,S29
K IV	381.702	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	E29,S29
K IV	382.229	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	E29,S29
K IV	382.487	150		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^1P^\circ$	2 - 1	B23
K IV	382.646	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	B23,S29
K IV	382.906	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	E29,S29
K IV	384.095	250		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	E29,K8
K IV	386.610	200		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$?	1 - 1	E29,K8
K IV	388.920	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	E29,S29
K IV	389.069	250b		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^1D^\circ$	2 - 2	E29,S29
K IV	390.415	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	E29,S29
K IV	390.574	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	E29,S29
K IV	391.462	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	E29,S29
K IV	392.274	100		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1S - {}^3P^\circ$	0 - 1	E29,E4
K IV	392.467	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	E29,S29
K IV	393.142	500		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	E29,S29
K IV	400.210	400		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	E29,S29
K IV	402.907	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	1 - 1	E29,S29
K IV	403.967	250		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	0 - 1	E29,S29
K IV	404.412	150		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^3D^\circ$	2 - 1	E29,S29
K IV	405.773	100		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^3D^\circ$	2 - 2	E29,S29
K IV	408.076	250		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1D - {}^1P^\circ$	2 - 1	E29,B23
K IV	417.280	150		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^3P^\circ$	2 - 2	E29,S29
K IV?	440.905	100					E29
K IV	442.300	200b		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 1	E29,T11
K IV	442.518	100b		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 0	E29,T11
K IV	443.567	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	E29,T11
K IV	445.607	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 1	E29,T11
K IV	446.830	250		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$?	1 - 2	E29,K8
K IV	446.926	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	E29,T11
K IV	448.595	750b		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1S - {}^1P^\circ$	0 - 1	E29,K8
K IV	456.328	400b		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1D - {}^1P^\circ$	2 - 1	E29,T11
K IV	473.207	100		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1S - {}^3S^\circ$	0 - 1	E29,K8
K IV	485.359	100		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	E29,T11
K IV	499.993	100		$3p^4 - 3p^3(^2D^\circ)3d$	${}^1D - {}^1D^\circ$?	2 - 2	E29,S29
K IV?	500.047	100					E29
K IV?	500.125	150					E29
K IV?	505.761	50					E29
K IV	523.001	250		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	E29,T11
K IV	526.448	200b		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	E29,T11
K IV	527.064	100		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	E29,T11
K IV	527.617	150		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	E29,T11
K IV	528.879	50		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	E29,T11
K IV?	543.640	100					E29
K IV?	543.973	50					E29
K IV?	591.237	50					E29
K IV?	591.311	50					E29
K IV?	605.316	50					E29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K IV?	605.908	50					E29
K IV	646.188	750		$3s^23p^4 - 3s3p^5$	$^1D - ^1P^\circ$	2 - 1	E29,E4
K IV?	705.641	150					E29
K IV?	725.848	50					E29
K IV	737.144	500		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 1	E29,B18
K IV	741.950	500		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 0	E29,B18
K IV	745.264	500		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 2	E29,B18
K IV	746.350	400		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 1	E29,B18
K IV	749.993	300		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	0 - 1	E29,B18
K IV	754.194	150		$3s^23p^4 - 3s3p^5$	$^1S - ^1P^\circ$	0 - 1	E29,E4
K IV	754.673	400		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 2	E29,B18
K IV?	855.815	100					E29
K IV?	892.621	100					E29

POTASSIUM V (K^{4+}), Z = 19

Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [666 700] cm^{-1}; [82.66] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K V?	213.121	50					E29
K V?	214.351	100					E29
K V?	232.673	50					E29
K V?	282.355	150					E29
K V	293.050	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2S$	½ - ½	E27
K V	293.332	150		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2S$	3/2 - ½	E29,E27
K V	294.836	300		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	E29,B23
K V	296.169	200		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	E29,B23
K V	297.064	200		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - ½	E29,B23
K V	300.252	200		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	E29,B23
K V	300.503	200		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	E29,B23
K V	311.243	200		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	E29,B23
K V	312.770	250		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - ½	E29,B23
K V	315.181	200		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	½ - 3/2	E29,B23
K V	315.537	150		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	E29,B23
K V?	318.969	50					E29
K V	327.031	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	½ - 3/2	E29,B23
K V	327.376	250		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	E29,B23
K V	328.973	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	½ - ½	B23
K V	329.307	50		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - ½	E29,B23
K V?	331.168	50					E29
K V?	342.703	100					E29
K V?	343.468	150					E29
K V	349.504	200		$3p^3$ -	$^2D^\circ$ - 6	3/2 - 5/2	E29,T11
K V	349.793	150		$3p^3$ -	$^2D^\circ$ - 6	5/2 - 5/2	E29,T11
K V	352.463	100		$3p^3$ -	$^2D^\circ$ - 5	3/2 - 3/2	E29,T11
K V	352.750	100		$3p^3$ -	$^2D^\circ$ - 5	5/2 - 3/2	E29,T11
K V	355.800	50		$3p^3 - 3p^2(^1D)3d$	$g^4S^\circ - ^2D$	3/2 - 3/2	E29,K8
K V	356.372	50		$3p^3 - 3p^2(^1D)3d$	$g^4S^\circ - ^2D$	3/2 - 5/2	E29,K8
K V	356.615	150		$3p^3 - 3p^2(^1S)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	E29,K8
K V	357.685	150		$3p^3 - 3p^2(^1S)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E29,K8
K V?	370.523	150					E29
K V?	370.580	150					E29
K V	372.148	500		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E29,E27
K V	372.462	200		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E29,E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K V	372.774	200		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$?	5/2 - 5/2	E29,K8
K V	373.074	100		$3p^3 -$	$g^4S^\circ - 3$	3/2 - 3/2	E29,T11
K V?	373.318	150					E29
K V	375.955	300		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E27
K V	377.763	250		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E29,T11
K V	378.219	150		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	E29,T11
K V	379.118	300		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E27
K V	383.318	100		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^2P$	3/2 - 1/2	E29,K8
K V?	384.400	100					E29
K V	385.020	50		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	E29,T11
K V	385.689	100		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	E29,T11
K V	387.800	300		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	E29,T11
K V	389.069	250b		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	E29,T11
K V	389.428	100		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	E29,T11
K V	389.750	100		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	E29,E27
K V	390.114	250		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E29,E27
K V	394.909	150		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2S$	1/2 - 1/2	E29,T11
K V	395.395	250b		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	E29,T11
K V	398.363	200		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	E29,T11
K V	398.878	200		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E29,T11
K V	399.400	150		$3p^3 -$	$^2D^\circ - 4$	3/2 - 3/2	E29,T11
K V	399.754	200		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	E29,E27
K V?	412.080	300					E29
K V	414.465	150		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E29,T11
K V	415.052	250		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	E29,T11
K V	415.465	150		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	E29,T11
K V	415.793	200		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E29,T11
K V	419.045	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	E29,T11
K V	419.310	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E29,T11
K V	419.731	50		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 5/2	E29,T11
K V	422.178	400		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	E29,B23
K V	425.159	300		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	E29,B23
K V	425.588	500		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E29,B23
K V	438.023	250		$3p^3 -$	$^2P^\circ - 3$	1/2 - 3/2	E29,T11
K V	438.647	100		$3p^3 -$	$^2P^\circ - 3$	3/2 - 3/2	E29,T11
K V?	445.878	50					E29
K V?	447.085	150					E29
K V	449.013	150b		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 3/2	E29,T11
K V	449.708	200		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4D$	3/2 - 5/2	E29,T11
K V	452.227	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	B23
K V	452.900	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	E29,B23
K V	455.670	250		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	E29,B23
K V	456.328	400b		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E29,B23
K V?	459.005	150					E29
K V?	468.447	100					E29
K V	482.706	200		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4F$	3/2 - 5/2	E29,T11
K V	483.745	200		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4F$	3/2 - 3/2	E29,T11
K V?	515.320	50					E29
K V?	534.873	100					E29
K V?	536.216	100					E29
K V?	544.537	50					E29
K V?	544.627	50					E29
K V	580.319	750		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	E29,B23
K V	585.510	250		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	E29,B23
K V	586.322	500		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	E29,B23
K V	602.269	250		$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	E29,T11
K V	603.429	400		$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	E29,T11
K V	638.668	250		$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	E29,B23
K V	639.982	100		$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	E29,B23
K V	644.963	20		$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	E29,B23
K V	686.978	50		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	E27
K V	687.495	300		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	E27
K V	688.085	150		$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	E27
K V?	694.477	100					E29
K V?	695.042	150					E29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K V?	713.041	50					E29
K V	720.432	300		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E29,T11
K V	724.420	400b		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E29,T11
K V	731.858	600		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E29,T11
K V?	743.292	100					E29
K V?	750.230	150					E29
K V?	750.381	50					E29
K V?	757.112	200					E29
K V?	758.559	50					E29
K V?	769.402	100					E29
K V	770.287	150		$3s^23p^3 - 3s3p^4$	${}^2P^\circ - {}^2D$	1/2 - 3/2	E29,E27
K V?	771.376	150					E29
K V	771.456	150		$3s^23p^3 - 3s3p^4$	${}^2P^\circ - {}^2D$	3/2 - 5/2	E29,E27
K V?	784.713	100					E29
K V?	786.464	100					E29
K V?	802.122	100					E29
K V?	803.826	100					E29
K V?	810.215	50					E29
K V?	810.893	50					E29
K V?	823.047	150					E29
K V?	823.358	150					E29
K V?	825.559	50					E29
K V?	826.395	50					E29
K V?	830.785	50					E29
K V?	839.439	50					E29
K V?	854.416	100					E29
K V?	854.771	50					E29
K V?	867.921	50					E29
K V?	868.140	50					E29
K V?	868.552	50					E29
K V?	869.965	150					E29
K V?	874.883	50					E29
K V?	874.985	50					E29
K V?	881.405	150					E29
K V?	917.498	50					E29
K V?	1021.332	100					E29
K V?	1027.174	100					E29
K V	1035.60 ?			$3s^23p^3 - 3s3p^4$	${}^2P^\circ - {}^4P$	3/2 - 5/2	K8

POTASSIUM VI (K^{5+}), Z = 19

Ground State $1s^22s^22p^63s^23p^2\ {}^3P_0$ (14 electrons)

Ionization Potential [805 700] cm^{-1}; [99.89] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VI?	157.433	50					E29
K VI?	200.341	50					E29
K VI	256.831	150		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 2	E29,W5
K VI	257.657	100		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	0 - 1	E29,W5
K VI	258.018	200		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 2	E29,W5
K VI	258.411	50		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 1	E29,W5
K VI	258.873	150		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 0	E29,W5
K VI	259.609	100		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 1	E29,W5
K VI	266.344	200		$3p^2 - 3p4s$	${}^1D - {}^1P^\circ$	2 - 1	E27
K VI	284.860	20		$3p^2 - 3p4s$	${}^1S - {}^1P^\circ$	0 - 1	E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VI?	293.438	100					E29
K VI?	302.657	100					E29
K VI?	335.175	150					E29
K VI?	338.161	150					E29
K VI?	367.378	100					E29
K VI?	370.115	100					E29
K VI	374.940	250		$3p^2 - 3p3d$	$^1D - ^1F°$	2 - 3	E27
K VI?	377.263	100					E29
K VI	384.514	100		$3p^2 - 3p3d$	$g^3P - ^3D°$	0 - 1	E27
K VI	385.547	200b		$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 2	E27
K VI	386.193			$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 1	E27
K VI?	386.505	100					E29
K VI	387.809	300		$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 3	E27
K VI	388.241	150		$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 2	E27
K VI?	388.485	100					E29
K VI?	389.531	100					E29
K VI	394.480	150		$3p^2 - 3p3d$	$g^3P - ^3P°$	0 - 1	E27
K VI	395.407	150		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 0	E27
K VI	396.242	50		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 1	E27
K VI	398.104	150		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 2	E27
K VI	399.075	100		$3p^2 - 3p3d$	$g^3P - ^3P°$	2 - 1	E27
K VI	399.419	100		$3p^2 - 3p3d$	$^1S - ^1P°$	0 - 1	E27
K VI	400.963	200		$3p^2 - 3p3d$	$g^3P - ^3P°$	2 - 2	E27
K VI?	404.684	200					E29
K VI?	405.178	100					E29
K VI?	405.475	50					E29
K VI?	405.675	100					E29
K VI?	406.102	100					E29
K VI?	412.790	50					E29
K VI?	416.509	50					E29
K VI?	418.160	100					E29
K VI	426.338	100		$3p^2 - 3p3d$	$^1D - ^3P°$?	2 - 1	E29,K8
K VI?	428.315	100					E29
K VI	428.538	250		$3p^2 - 3p3d$	$^1D - ^3P°$?	2 - 2	E29,K8
K VI?	429.438	100					E29
K VI?	439.047	150					E29
K VI?	441.370	150					E29
K VI?	446.009	200					E29
K VI	449.009	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P°$	1 - 1	E27
K VI?	451.320	100					E29
K VI	452.658	10		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P°$	2 - 1	E27
K VI?	457.323	50					E29
K VI?	457.427	20					E29
K VI	458.043	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	0 - 1	E27
K VI	460.438	150		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	1 - 1	E27
K VI?	461.737	150					E29
K VI	464.274	250		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	2 - 1	E27
K VI?	480.397	50					E29
K VI	488.134	250		$3s^23p^2 - 3s3p^3$	$^1D - ^1P°$	2 - 1	E27
K VI?	490.423	100					E29
K VI	501.664	20		$3s^23p^2 - 3s3p^3$	$^1D - ^3S°$	2 - 1	E27
K VI	554.136			$3s^23p^2 - 3s3p^3$	$^1S - ^1P°$	0 - 1	E27
K VI	571.643	20		$3s^23p^2 - 3s3p^3$	$^1S - ^3S°$	0 - 1	E27
K VI	611.862	150		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	0 - 1	E29,W5
K VI?	612.272	50					E29
K VI	616.140	150		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 2	E27
K VI	623.011	250		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	2 - 2	E27
K VI	625.405	150		$3s^23p^2 - 3s3p^3$	$^1D - ^1D°$	2 - 2	E27
K VI?	627.560	100					E29
K VI?	630.940	50					E29
K VI?	637.195	50					E29
K VI?	657.931	150					E29
K VI?	661.402	150					E29
K VI?	668.864	150					E29
K VI	710.525	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	0 - 1	E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VI?	710.932	50					E29
K VI?	712.728	50					E29
K VI	716.012	100		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	E27
K VI	716.276	20		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 1	E27
K VI	724.278	200		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	E27
K VI	725.331	20		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 2	E27
K VI?	739.177	50					E29
K VI?	747.848	100					E29
K VI?	753.877	150					E29
K VI?	757.199	200					E29
K VI?	770.022	50					E29
K VI?	771.103	250					E29
K VI?	776.957	200					E29
K VI?	882.184	100					E29
K VI?	918.581	100					E29
K VI?	929.374	50					E29
K VI?	930.318	50					E29
K VI?	968.518	250					E29
K VI?	982.115	100					E29
K VI?	1000.056	100					E29

POTASSIUM VII (K^{6+}), Z = 19

Ground State $1s^22s^22p^63s^23p\ {}^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 948 200 cm^{-1}; 117.56 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VII	126.650	10		3p - 6d	$g^2P^\circ - {}^2D$	½ - 3/2	E27
K VII	127.151	20		3p - 6d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
K VII	133.084	10		3p - 6s	$g^2P^\circ - {}^2S$	3/2 - ½	E27
K VII	139.480	20		3p - 5d	$g^2P^\circ - {}^2D$	½ - 3/2	E27
K VII	140.085	50		3p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
K VII	152.888	20		3p - 5s	$g^2P^\circ - {}^2S$	½ - ½	E27
K VII	153.624	100		3p - 5s	$g^2P^\circ - {}^2S$	3/2 - ½	E27
K VII	175.210	100		3p - 4d	$g^2P^\circ - {}^2D$	½ - 3/2	E27
K VII	176.122	200		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
K VII	176.181	20		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 3/2	E27
K VII	207.568	20		3d - 5f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
K VII	218.987	20		$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	3/2 - 5/2	E27
K VII	219.063			$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
K VII	220.629	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 5/2	E27
K VII	221.035	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	½ - 3/2	E27
K VII	221.480	150		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	E27
K VII	221.567	10		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	½ - ½	E27
K VII	221.597	10		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 3/2	E27
K VII	222.122	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - ½	E27
K VII	222.450	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 3/2	E27
K VII	227.625	100		3p - 4s	$g^2P^\circ - {}^2S$	½ - ½	E27
K VII	229.258	150		3p - 4s	$g^2P^\circ - {}^2S$	3/2 - ½	E27
K VII	279.433	20		3d - 4f	${}^2D - {}^2F^\circ$	3/2 - 5/2	E27
K VII	279.521	20		3d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
K VII	397.691	20		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	½ - 3/2	E27
K VII	398.354	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	½ - ½	E27
K VII	398.943	200		3p - 3d	$g^2P^\circ - {}^2D$	½ - 3/2	E27
K VII	399.006			$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 5/2	E27
K VII	399.495	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 3/2	E27
K VII	400.147	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - ½	E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VII	401.553	150		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 7/2	E27
K VII	401.790	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 5/2	E27
K VII	402.132	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	1/2 - 3/2	E27
K VII	402.291	20		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4D^\circ$	5/2 - 3/2	E27
K VII	403.800	300		$3p - 3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	E27
K VII	403.991	150		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 3/2	E27
K VII	405.345	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	3/2 - 5/2	E27
K VII	406.850	20		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 3/2	E27
K VII	408.210	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	$^4P - ^4P^\circ$	5/2 - 5/2	E27
K VII	479.780	200		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	E27
K VII	484.261	250		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	E27
K VII	487.102	350		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	E27
K VII	491.722	200		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	E27
K VII?	516.853	50					E29
K VII	517.794	50		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	1/2 - 3/2	E27
K VII	517.926	100		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	E27
K VII	520.857	100		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	E27
K VII?	524.639	100					E29
K VII	525.612	150		$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	E27
K VII	526.453	100		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	E27
K VII	658.420	200		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	E27
K VII	671.535	250		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	E27
K VII	672.302	20		$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	E27

POTASSIUM VIII (K^{7+}), Z = 19

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential 1 249 100 cm^{-1}; 154.86 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VIII	155.715	125		$3s3p - 3s4d$	$^3P^\circ - ^3D$	0 - 1	P6
K VIII	155.961	175		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 2	P6
K VIII	155.985	100		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 1	P6
K VIII	156.507	225		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 3	P6
K VIII	156.543	75		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 2	P6
K VIII	156.566	25		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 1	P6
K VIII	198.536	125		$3s3p - 3s4s$	$^3P^\circ - ^3S$	0 - 1	P6
K VIII	198.975	250		$3s3p - 3s4s$	$^3P^\circ - ^3S$	1 - 1	P6
K VIII	199.921	375		$3s3p - 3s4s$	$^3P^\circ - ^3S$	2 - 1	P6
K VIII	230.678	250		$3s3d - 3s4f$	$^3D - ^3F^\circ$	1 - 2	P6
K VIII	230.706	300		$3s3d - 3s4f$	$^3D - ^3F^\circ$	2 - 3	P6
K VIII	230.745	375		$3s3d - 3s4f$	$^3D - ^3F^\circ$	3 - 4	P6
K VIII	416.628	75		$3s3p - 3s3d$	$^3P^\circ - ^3D$	0 - 1	P6
K VIII	418.443	175		$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 2	P6
K VIII	418.571	25		$3s3p - 3s3d$	$^3P^\circ - ^3D$	1 - 1	P6
K VIII	422.511	250		$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 3	P6
K VIII	422.642	50		$3s3p - 3s3d$	$^3P^\circ - ^3D$	2 - 2	P6
K VIII	430.31			$3p^2 - 3p3d$	$^3P - ^3D^\circ$	1 - 2	F2
K VIII	434.01			$3p^2 - 3p3d$	$^3P - ^3D^\circ$	2 - 3	F2
K VIII	441.33			$3p^2 - 3p3d$	$^3P - ^3P^\circ$	2 - 2	F2
K VIII	474.83			$3p^2 - 3p3d$	$^1D - ^1D^\circ$	2 - 2	F2
K VIII	519.372	250		$3s^2 - 3s3p$	$g^1S - ^1P^\circ$	0 - 1	E29,T11
K VIII	557.029	50		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	P6
K VIII	561.593	150		$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	P6
K VIII	564.462	300		$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	P6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K VIII	565.112	150		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 1	P6
K VIII	569.479	100		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	P6
K VIII	569.696	20		$3s3p - 3s3d$	$^1P^\circ - ^3D$?	1 - 2	E29,K8
K VIII	569.915	20		$3s3p - 3s3d$	$^1P^\circ - ^3D$?	1 - 1	E29,K8
K VIII	572.790	125		$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	P6
K VIII	585.25			$3s3d - 3p3d$	$^3D - ^3D^\circ$	3 - 3	F2
K VIII	605.61			$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	F2
K VIII	721.4			$3s3d - 3p3d$	$^3D - ^3F^\circ$	3 - 4	F2
K VIII	729.9			$3s3d - 3p3d$	$^3D - ^3F^\circ$	2 - 3	F2
K VIII	737.2			$3s3d - 3p3d$	$^3D - ^3F^\circ$	1 - 2	F2
K VIII	774.738	150		$3s^2 - 3s3p$	$g^1S - ^3P^\circ$	0 - 1	E29,B3
K VIII	938.287	100		$3s3p - 3s3d$	$^1P^\circ - ^1D$	1 - 2	E29,T11

POTASSIUM IX (K^{8+}), Z = 19

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 1 418 070 cm^{-1}; 175.814 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K IX	112.113	50		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	K25
K IX	112.581	100		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
K IX	131.646	150		3s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	K25
K IX	131.896	100		3s - 4p	$g^2S - ^2P^\circ$	½ - ½	K25
K IX	145.702	125		3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	K25
K IX	145.753	125		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	K25
K IX	147.157	150		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	K25
K IX	147.943	200		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
K IX	147.973	25		3p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	K25
K IX	184.586	175		3p - 4s	$^2P^\circ - ^2S$	½ - ½	K25
K IX	185.883	250		3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	K25
K IX	205.772	300		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	K25
K IX	205.862	375		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	K25
K IX	260.052	125		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	K25
K IX	260.834	75		3d - 4p	$^2D - ^2P^\circ$	3/2 - ½	K25
K IX	451.078	50		4p - 5s	$^2P^\circ - ^2S$	½ - ½	E29,T11
K IX	453.882	20		4p - 5s	$^2P^\circ - ^2S$	3/2 - ½	E29,T11
K IX	459.498	50		3p - 3d	$^2P^\circ - ^2D$	½ - 3/2	K25
K IX	466.943	100		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
K IX	544.855	50		4f - 5g	$^2F^\circ - ^2G$	5/2 - 7/2	E29,T11
K IX	545.232	100		4f - 5g	$^2F^\circ - ^2G$	7/2 - 9/2	E29,T11
K IX	621.422	225		3s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	K25
K IX	636.300	125		3s - 3p	$g^2S - ^2P^\circ$	½ - ½	K25

POTASSIUM X (K^{9+}), Z = 19

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 4 060 600 cm^{-1}; 503.44 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K X	29.588	100		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
K X	29.794	50		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
K X	30.887	50		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - {}^1P^\circ$	0 - 1	E26
K X	30.937	20		$2p^6 - 2p^5 4s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
K X	31.062	20		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - {}^3P^\circ$	0 - 1	E26
K X	31.200	20		$2p^6 - 2p^5 4s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
K X	35.307	400		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
K X	35.779	200		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
K X	36.229	100		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
K X	41.148	700		$2p^6 - 2p^5 3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
K X	41.541	700		$2p^6 - 2p^5 3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26

POTASSIUM XI (K^{10+}), Z = 19

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 4 550 100 cm^{-1}; 564.13 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XI	32.180	100		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - {}^2P$	$\frac{3}{2} - \frac{3}{2}$	E26,K8
K XI	32.339	50		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - {}^2P$	$\frac{3}{2} - \frac{1}{2}$	E26,K8
K XI	32.810	50		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - {}^2D$	$\frac{3}{2} - \frac{5}{2}$	E26,K8
K XI	36.662	70		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - {}^2D$	$\frac{3}{2} - \frac{5}{2}$	E26
K XI	36.971	50		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - {}^2D$	$\frac{1}{2} - \frac{3}{2}$	E26
K XI	37.435	70		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - {}^2P$	$\frac{3}{2} - \frac{3}{2}$	E26
K XI	37.696	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - {}^4P$	$\frac{3}{2} - \frac{3}{2}$	E26
K XI	37.870	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - {}^4P$	$\frac{3}{2} - \frac{5}{2}$	E26
K XI	38.31 P			$2s 2p^6 - 2s 2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	$\frac{1}{2} - \frac{3}{2}$	K8
K XI	152.46			$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - {}^2S$	$\frac{3}{2} - \frac{1}{2}$	D2
K XI	158.11			$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - {}^2S$	$\frac{1}{2} - \frac{1}{2}$	D2

POTASSIUM XII (K^{11+}), Z = 19

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 5 074 100 cm^{-1}; 629.09 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XII	140.85			$2s^2 2p^4 - 2s 2p^5$	$^1D - ^1P^\circ$	2 - 1	D2
K XII	153.26			$2s^2 2p^4 - 2s 2p^5$	$^1S - ^1P^\circ$	0 - 1	F9
K XII	169.71			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	2 - 1	D2
K XII	172.57			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	1 - 0	D2
K XII	174.40			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	2 - 2	D2
K XII	175.35			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	1 - 1	D2
K XII	176.68			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	0 - 1	D2
K XII	180.37			$2s^2 2p^4 - 2s 2p^5$	$g^3P - ^3P^\circ$	1 - 2	D2

POTASSIUM XIII (K^{12+}), Z = 19

Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 5 759 100 cm^{-1}; 714.02 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XIII	138.50	250		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	B12
K XIII	142.68	250		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	B12
K XIII	143.76	500		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	B12
K XIII	151.05	50		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	B12
K XIII	152.77	300		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	B12
K XIII	156.03	50		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	B12
K XIII	157.86	200		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	B12
K XIII	164.13	250		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	B12
K XIII	166.19	100		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	B12
K XIII	178.15	300		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	B12
K XIII	179.46	400		$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	B12
K XIII	198.49	150		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	B12
K XIII	199.54	50		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	B12
K XIII	201.48	200		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	B12
K XIII	202.01	50		$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	B12
K XIII	208.12	150		$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	B12

POTASSIUM XIV (K^{13+}), Z = 19
Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)
Ionization Potential 6 348 800 cm^{-1}; 787.13 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XIV	147.57	50		$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S^\circ$	0 - 1	B12
K XIV	150.48	100		$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S^\circ$	1 - 1	B12
K XIV	151.68	100		$2s^2 2p^2 - 2s 2p^3$	$^1D - {}^1P^\circ$	2 - 1	B12
K XIV	153.91	200		$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3S^\circ$	2 - 1	B12
K XIV	172.26	100		$2s^2 2p^2 - 2s 2p^3$	$^1D - {}^1D^\circ$	2 - 2	B12
K XIV	174.09	50		$2s^2 2p^2 - 2s 2p^3$	$^1S - {}^1P^\circ$	0 - 1	B12
K XIV	186.06 P			$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3P^\circ$	0 - 1	D2
K XIV	190.07 P			$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3P^\circ$	1 - 2	D2
K XIV	190.75 P			$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3P^\circ$	1 - 0	D2
K XIV	195.59 P			$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3P^\circ$	2 - 2	D2
K XIV	196.31 P			$2s^2 2p^2 - 2s 2p^3$	$g^3P - {}^3P^\circ$	2 - 1	D2

POTASSIUM XV (K^{14+}), Z = 19
Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential 6 950 800 cm^{-1}; 861.77 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XV	24.34 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
K XV	25.91 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
K XV	175.68	50		$2s^2 2p - 2s 2p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	B12
K XV	184.07 ?			$2s^2 2p - 2s 2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
K XV	194.44 ?			$2s^2 2p - 2s 2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

POTASSIUM XVI (K^{15+}), Z = 19
Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)
Ionization Potential [7 791 500] cm^{-1}; [966] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XVI	15.05 ?			$2s^2 - 2s 5p$	$g^1S - {}^3P^\circ$	0 - 1	K8
K XVI	16.70 ?			$2s^2 - 2s 4p$	$g^1S - {}^3P^\circ$	0 - 1	K8
K XVI	20.76 ?			$2s^2 - 2p 3s$	$g^1S - {}^1P^\circ$	0 - 1	K8
K XVI	211.81 ?			$2s^2 - 2s 2p$	$g^1S - {}^1P^\circ$	0 - 1	K8
K XVI	405.20 ?			$2s^2 - 2s 2p$	$g^1S - {}^3P^\circ$	0 - 1	K8

POTASSIUM XVII (K^{16+}), Z = 19

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [8 340 000] cm^{-1}; [1034] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
K XVII	13.92	P			2p - 6d	$^2P^\circ$ - ^2D	½ - 3/2	G15
K XVII	13.98	P			2p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
K XVII	14.14	P			2s - 5p	g^2S - $^2P^\circ$	½ - 3/2	G15
K XVII	14.70	P			2p - 5d	$^2P^\circ$ - ^2D	½ - 3/2	G15
K XVII	14.76	P			2p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
K XVII	15.75	P			2s - 4p	g^2S - $^2P^\circ$	½ - 3/2	G15
K XVII	16.43	P			2p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	G15
K XVII	16.50	P			2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
K XVII	20.88	P			2s - 3p	g^2S - $^2P^\circ$	½ - 3/2	G15
K XVII	20.93	P			2s - 3p	g^2S - $^2P^\circ$	½ - ½	G15
K XVII	22.020		100		2p - 3d	$^2P^\circ$ - ^2D	½ - 3/2	G15
K XVII	22.163		100		2p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
K XVII	22.53	P			2p - 3s	$^2P^\circ$ - ^2S	½ - ½	G15
K XVII	22.70	P			2p - 3s	$^2P^\circ$ - ^2S	3/2 - ½	G15
K XVII	323.74	P			2s - 2p	g^2S - $^2P^\circ$	½ - 3/2	K8
K XVII	363.37	P			2s - 2p	g^2S - $^2P^\circ$	½ - ½	K8

POTASSIUM XVIII (K^{17+}), Z = 19

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 37 190 818 cm^{-1}; 4610.955 eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
K XVIII	2.80	P			$1s^2$ - 1s5p	g^1S - $^1P^\circ$	0 - 1	K8
K XVIII	2.86	P			$1s^2$ - 1s4p	g^1S - $^1P^\circ$	0 - 1	K8
K XVIII	3.02				$1s^2$ - 1s3p	g^1S - $^1P^\circ$	0 - 1	C11
K XVIII	3.53	P			$1s^2$ - 1s2p	g^1S - $^1P^\circ$	0 - 1	K8,C11
K XVIII	3.55	P			$1s^2$ - 1s2p	g^1S - $^3P^\circ$	0 - 1	K8,C11
K XVIII	3.59	?	f		$1s^2$ - 1s2s	g^1S - ^3S	0 - 1	K8

POTASSIUM XIX (K^{18+}), Z = 19
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential 39 795 864 cm^{-1}; 4933.93 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
K XIX	2.584 P			1s - 6p	g^2S - $^2P°$	½ - 3/2	G2
K XIX	2.617 P			1s - 5p	g^2S - $^2P°$	½ - 3/2	G2
K XIX	2.680 P	10		1s - 4p	g^2S - $^2P°$	½ - 3/2	G2,K8
K XIX	2.826 P	30		1s - 3p	g^2S - $^2P°$	½ - 3/2	G2,K8
K XIX	3.348 P	100		1s - 2p	g^2S - $^2P°$	½ - 3/2	G2,K8
K XIX	10.95 P			2 - 7			G2
K XIX	11.32 P			2 - 6			G2
K XIX	11.97 P			2 - 5			G2
K XIX	13.41 P			2 - 4			G2
K XIX	18.08 P			2 - 3			G2
K XIX	27.77 P			3 - 7			G2
K XIX	30.22 P			3 - 6			G2
K XIX	35.41 P			3 - 5			G2
K XIX	51.8 P			3 - 4			G2
K XIX	59.88 P			4 - 7			G2
K XIX	72.59 P			4 - 6			G2
K XIX	112.0 P			4 - 5			G2
K XIX	128.7 P			5 - 7			G2
K XIX	206.3 P			5 - 6			G2
K XIX	342.2 P			6 - 7			G2

CALCIUM, Z = 20

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca	135.597	50					E29
Ca	143.173	100					E29
Ca	144.038	150					E29
Ca	175.963	50					E29
Ca	178.557	50					E29
Ca	187.515	40					E29
Ca	242.384	150					E29
Ca	330.809	50					E29
Ca	337.020	50					E29
Ca	337.396	100					E29
Ca	368.303	150					E29
Ca	369.647	250					E29
Ca	427.655	50					E29
Ca	440.118	100					E29
Ca	442.607	50					E29
Ca	444.254	50					E29
Ca	459.811	50					E29
Ca	468.540	50					E29
Ca	476.177	100					E29
Ca	477.300	50					E29
Ca	478.305	200					E29
Ca	480.345	100					E29
Ca	480.471	150					E29
Ca	482.663	50					E29
Ca	482.769	100					E29
Ca	484.368	150					E29
Ca	514.498	50					E29
Ca	528.286	400					E29
Ca	569.122	50					E29
Ca	576.662	50					E29
Ca	603.622	150					E29
Ca	611.186	50					E29
Ca	620.566	50					E29
Ca	642.812	100					E29
Ca	659.694	50					E29
Ca	667.126	100					E29
Ca	668.462	50					E29
Ca	672.083	50					E29
Ca	686.190	100					E29
Ca	769.602	50					E29
Ca	772.641	100					E29
Ca	780.116	50					E29
Ca	846.611	150					E29
Ca	850.966	150					E29
Ca	856.635	200					E29
Ca	856.791	200					E29
Ca	860.983	50					E29
Ca	890.892	100					E29
Ca	897.972	50					E29
Ca	916.917	100					E29
Ca	917.278	115					E29
Ca	938.699	50					E29
Ca	987.336	250					E29
Ca	998.397	150					E29
Ca	1019.371	100					E29
Ca	1028.560	200					E29
Ca	1031.760	200					E29

CALCIUM I (Ca^{0+}), Z = 20

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$ $^1S_0$ (20 electrons)

Ionization Potential 49 305.72 cm^{-1}; 6.113 eV

CALCIUM II (Ca^{1+}), Z = 20

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 4s$ $^2S_{1/2}$ (19 electrons)

Ionization Potential 95 751.87 cm^{-1}; 11.871 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca II	1341.889	240	2	4s - 6p	g^2S - $^2P°$	½ - ⅜	E6,E23
Ca II	1342.535	120	2	4s - 6p	g^2S - $^2P°$	½ - ½	E6,E23
Ca II	1432.503	120	7	3d - 6f	^2D - $^2F°$	⅜ - ⅝	E6,E23
Ca II	1433.749	200	7	3d - 6f	^2D - $^2F°$	⅝ - ⅞	E6,E23
Ca II	1553.176	200	6	3d - 5f	^2D - $^2F°$	⅜ - ⅝	E6,E23
Ca II	1554.642	320	6	3d - 5f	^2D - $^2F°$	⅝ - ⅞	E6,E23
Ca II	1642.802	40	5	3d - 6p	^2D - $^2P°$	⅜ - ⅜	E6,E23
Ca II	1643.770	200	5	3d - 6p	^2D - $^2P°$	⅜ - ½	E6,E23
Ca II	1644.442	360	5	3d - 6p	^2D - $^2P°$	⅝ - ⅜	E6,E23
Ca II	1649.858	600	1	4s - 5p	g^2S - $^2P°$	½ - ⅜	E6,E23
Ca II	1651.991	320	1	4s - 5p	g^2S - $^2P°$	½ - ½	E6,E23
Ca II	1673.860	120		4p - 7d	$^2P°$ - ^2D	½ - ⅜	E6,E23
Ca II	1680.051	200		4p - 7d	$^2P°$ - ^2D	⅜ - ⅝	E6,E23
Ca II	1680.129	20		4p - 7d	$^2P°$ - ^2D	⅜ - ⅜	E6,E23
Ca II	1691.779	80		4p - 8s	$^2P°$ - ^2S	½ - ½	E6,E23
Ca II	1698.183	160		4p - 8s	$^2P°$ - ^2S	⅜ - ½	E6,E23
Ca II	1807.337	200	11	4p - 6d	$^2P°$ - ^2D	½ - ⅜	E6,E23
Ca II	1814.495	400	11	4p - 6d	$^2P°$ - ^2D	⅜ - ⅝	E6,E23
Ca II	1814.647	40	11	4p - 6d	$^2P°$ - ^2D	⅜ - ⅜	E6,E23
Ca II	1838.008	400	4	3d - 4f	^2D - $^2F°$	⅜ - ⅝	E6,E23
Ca II	1840.061	600	4	3d - 4f	^2D - $^2F°$	⅝ - ⅞	E6,E23
Ca II	1843.088	200	10	4p - 7s	$^2P°$ - ^2S	½ - ½	E6,E23
Ca II	1850.691	400	10	4p - 7s	$^2P°$ - ^2S	⅜ - ½	E6,E23

CALCIUM III (Ca^{2+}), Z = 20

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential 410 614.1 cm^{-1}; 50.908 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	273.695	50		$3p^6$ - $3p^5(^2P°)5d$	g^1S - ⅜[⅜]°	0 - 1	B15
Ca III	274.461	10		$3p^6$ - $3p^5(^2P°)6s$	g^1S - ⅜[½]°	0 - 1	B15
Ca III	296.958	300		$3p^6$ - $3p^5(^2P°)4d$	g^1S - $^1P°$	0 - 1	B14
Ca III	301.741	200		$3p^6$ - $3p^5(^2P°)5s$	g^1S - $^1P°$	0 - 1	B14
Ca III	304.330	150		$3p^6$ - $3p^5(^2P°)5s$	g^1S - $^3P°$	0 - 1	B14

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	304.910	150		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - ^3D^\circ$	0 - 1	B14
Ca III	357.980	150b		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	B14
Ca III	403.724	450		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - ^1P^\circ$	0 - 1	B14
Ca III	409.954	350		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - ^3P^\circ$	0 - 1	B14
Ca III	439.691	250		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^3D^\circ$	0 - 1	B14
Ca III	490.549	200		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^3P^\circ$	0 - 1	B14
Ca III	552.411	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3P^\circ - 3/2[5/2]$	2 - 3	B15
Ca III	561.969	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3P^\circ - 1/2[5/2]$	2 - 3	B15
Ca III	562.607	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)7f$	$^3F^\circ - 3/2[9/2]$	4 - 5	B14
Ca III	580.058	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	583.350	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3F^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	586.547	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3F^\circ - 3/2[7/2]$	4 - 4	B14
Ca III	587.354	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3F^\circ - 3/2[9/2]$	4 - 5	B14
Ca III	589.013	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	590.987	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	591.584	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	594.978	50w		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	0 - 1	B14
Ca III	596.675	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	1 - 1	B14
Ca III	597.291	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	1 - 2	B14
Ca III	600.852	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3P^\circ - 3/2[3/2]$	2 - 2	B14
Ca III	606.756	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)7f$	$^1F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	610.225	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)7f$	$^3D^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	624.821	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	625.269	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1D^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	628.663	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	629.922	25					B14
Ca III	631.015	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3D^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	632.017	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	4 - 4	B14
Ca III	633.325	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[3/2]$	3 - 2	B14
Ca III	633.468	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[9/2]$	4 - 4	B14
Ca III	633.588	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[9/2]$	4 - 5	B14
Ca III	635.481	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	636.318	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	636.388	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	3 - 3	B14
Ca III	637.111	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1D^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	637.788	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	639.124	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^3D^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	640.280	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3F^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	648.618	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	675.424	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1D^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	677.620	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1D^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	679.845	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	680.049	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	682.632	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	684.018	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	684.659	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 1/2[5/2]$	2 - 2	B14
Ca III	685.408	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	688.543	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1D^\circ - 3/2[5/2]$	2 - 3	B14
Ca III	689.602	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	689.708	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1F^\circ - 1/2[7/2]$	3 - 3	B14
Ca III	690.963	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[5/2]$	3 - 3	B14
Ca III	691.136	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1D^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	692.148	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1D^\circ - 1/2[5/2]$	2 - 2	B15
Ca III	693.487	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	694.154	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[3/2]$	2 - 1	B14
Ca III	694.370	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[3/2]$	1 - 1	B14
Ca III	694.898	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[5/2]$	1 - 2	B14
Ca III	694.994	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[3/2]$	2 - 2	B14
Ca III	695.219	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	695.382	10					B14
Ca III	696.031	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[5/2]$	2 - 3	B14
Ca III	697.551	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	0 - 1	B14
Ca III	698.690	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^3D^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	699.085	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	1 - 2	B14
Ca III	699.891	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	1 - 1	B14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	701.390	300		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[5/2]$	2 - 3	B14
Ca III	704.772	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3P^\circ - 3/2[3/2]$	2 - 1	B14
Ca III	705.426	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	709.802	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3P$	0 - 1	B14
Ca III	714.628	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1P$	1 - 1	B14
Ca III	717.283	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3P$	2 - 1	B14
Ca III	717.836	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3P$	2 - 2	B14
Ca III	724.762	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	0 - 1	B14
Ca III	725.956	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1D$	1 - 2	B14
Ca III	727.656	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	728.004	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 1/2[5/2]$	3 - 3	B14
Ca III	730.474	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	1 - 2	B14
Ca III	731.215	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1D$	2 - 2	B14
Ca III	732.244	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 1/2[5/2]$	2 - 2	B14
Ca III	732.894	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	733.096	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	736.239	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3S$	0 - 1	B14
Ca III	736.693	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	4 - 4	B14
Ca III	736.823	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	4 - 3	B14
Ca III	738.845	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3S$	1 - 1	B14
Ca III	740.330	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[9/2]$	4 - 4	B14
Ca III	740.553	400		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[9/2]$	4 - 5	B14
Ca III	742.541	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	742.672	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	3 - 3	B14
Ca III	744.293	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3S$	2 - 1	B14
Ca III	746.060	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[5/2]$	3 - 3	B14
Ca III	746.248	300		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	747.978	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	749.479	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3F^\circ - 3/2[5/2]$	2 - 2	B14
Ca III	764.699	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3P$	3 - 2	B14
Ca III	770.321	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3P$	2 - 2	B14
Ca III	772.498	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^1P$	2 - 1	B14
Ca III	779.608	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3D$	4 - 3	B14
Ca III	779.902	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^1D$	3 - 2	B14
Ca III	785.120	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3D$	3 - 2	B14
Ca III	786.159	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3D$	3 - 3	B14
Ca III	791.051	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3D$	2 - 2	B14
Ca III	799.529	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 1/2[5/2]$	2 - 2	B14
Ca III	800.301	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	800.550	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	800.886	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3F^\circ - ^3S$	2 - 1	B14
Ca III	803.396	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	803.553	10		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[7/2]$	3 - 3	B14
Ca III	809.642	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[5/2]$	2 - 2	B14
Ca III	809.930	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	810.434	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[7/2]$	2 - 3	B14
Ca III	810.687	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 1/2[5/2]$	2 - 3	B14
Ca III	817.056	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 1/2[7/2]$	3 - 4	B14
Ca III	817.223	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 1/2[7/2]$	3 - 3	B14
Ca III	817.480	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 1/2[5/2]$	3 - 3	B14
Ca III	818.321	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	820.131	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 3/2[5/2]$	2 - 2	B14
Ca III	821.572	300		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	822.432	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1D^\circ - 3/2[5/2]$	2 - 3	B14
Ca III	825.880	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[5/2]$	3 - 3	B14
Ca III	826.108	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	828.920	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[7/2]$	2 - 3	B14
Ca III	829.445	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	3 - 2	B14
Ca III	830.777	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[5/2]$	2 - 2	B14
Ca III	831.077	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[5/2]$	1 - 2	B14
Ca III	833.141	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[5/2]$	2 - 3	B14
Ca III	835.861	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[7/2]$	3 - 4	B14
Ca III	836.024	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[7/2]$	3 - 3	B14
Ca III	836.769	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	2 - 2	B14
Ca III	837.918	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	2 - 1	B14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	838.237	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^3D^\circ - 3/2[3/2]$	1 - 1	B14
Ca III	838.501	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - 3/2[1/2]$	1 - 0	B15
Ca III	840.317	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[5/2]$	3 - 3	B14
Ca III	840.558	300		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1F^\circ - 3/2[9/2]$	3 - 4	B14
Ca III	847.757	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^1D^\circ - ^1P$	2 - 1	B14
Ca III	855.660	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - ^3P$	2 - 1	B14
Ca III	855.978	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - ^3P$	1 - 1	B14
Ca III	864.035	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^1F^\circ - ^3P$	3 - 2	B14
Ca III	864.470	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - 1/2[1/2]$	1 - 0	B15
Ca III	865.629	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^1D^\circ - ^3D$	2 - 1	B14
Ca III	867.545	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - ^1D$	3 - 2	B14
Ca III	870.152	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^1D^\circ - ^3D$	2 - 2	B14
Ca III	874.009	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - ^3D$	3 - 2	B14
Ca III	875.301	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5p$	$^3D^\circ - ^3D$	3 - 3	B14
Ca III	934.875	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)4f$	$^3P^\circ - 1/2[5/2]$?	1 - 2	E29,K8
Ca III	938.497	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1P^\circ - 3/2[5/2]$	1 - 2	B15
Ca III	966.186	25		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)6f$	$^1P^\circ - 1/2[5/2]$	1 - 2	B15
Ca III	984.919	25		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6d$	$^3D - ^3F^\circ$	1 - 2	B14
Ca III	995.135	10		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6d$	$^1D - ^1F^\circ$	2 - 3	B14
Ca III	997.804	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3P$	1 - 2	B14
Ca III	1002.143	25		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6d$	$^3D - ^3F^\circ$	3 - 4	B14
Ca III	1005.000	10		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6d$	$^3D - ^3F^\circ$	2 - 3	B14
Ca III	1009.546	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1D$	2 - 2	B14
Ca III	1012.125	10		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	2 - 1	B14
Ca III	1013.715	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3P$	0 - 1	B14
Ca III	1018.302	100		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	2 - 2	B14
Ca III	1018.600	100		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1P$	0 - 1	B14
Ca III	1020.071	300		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	2 - 3	B14
Ca III	1023.849	100		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^1D$	1 - 2	B14
Ca III	1026.495	100		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	1 - 1	B14
Ca III	1032.862	200		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	1 - 2	B14
Ca III	1034.650	250		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3S$	2 - 1	B14
Ca III	1035.607	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^3P$	1 - 1	B14
Ca III	1036.766	150		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^3P$	1 - 2	B14
Ca III	1040.705	100		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^1P$	1 - 1	B14
Ca III	1044.518	10		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3D$	0 - 1	B14
Ca III	1049.673	150		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^3P^\circ - ^3S$	1 - 1	B14
Ca III	1060.751	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1P^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	1064.899	50		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^1D$	1 - 2	B14
Ca III	1067.781	25		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^3D$	1 - 1	B14
Ca III	1074.667	10		$3p^5(^2P^\circ)4s - 3p^5(^2P^\circ)5p$	$^1P^\circ - ^3D$	1 - 2	B14
Ca III	1099.495	50		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)5f$	$^1P^\circ - 1/2[5/2]$	1 - 2	B15
Ca III	1124.039	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3S - 1/2[3/2]^\circ$	1 - 2	B15
Ca III	1145.062	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3S - 1/2[3/2]^\circ$	1 - 2	B15
Ca III	1148.399	100		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1S$	1 - 0	B14
Ca III	1149.848	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3S - 1/2[1/2]^\circ$	1 - 1	B15
Ca III	1152.706	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3S - 1/2[1/2]^\circ$	1 - 0	B15
Ca III	1181.988	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1D - 3/2[1/2]^\circ$	2 - 1	B15
Ca III	1187.303	250		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1P - 3/2[3/2]^\circ$	1 - 1	B15
Ca III	1188.606	400		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3D - 1/2[3/2]^\circ$	3 - 2	B15
Ca III	1190.864	250		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3D - 1/2[3/2]^\circ$	2 - 1	B15
Ca III	1193.697	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3D - 1/2[3/2]^\circ$	2 - 2	B15
Ca III	1200.772	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1D - 3/2[3/2]^\circ$	2 - 2	B15
Ca III	1202.309	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[3/2]^\circ$	1 - 1	B15
Ca III	1203.507	10		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1P - 3/2[1/2]^\circ$	1 - 0	B15
Ca III	1207.341	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[5/2]^\circ$	2 - 2	B15
Ca III	1207.838	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 3/2[3/2]^\circ$	1 - 1	B15
Ca III	1208.046	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - ^3F^\circ$	3 - 3	B14
Ca III	1208.716	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3D - 1/2[3/2]^\circ$	1 - 1	B15
Ca III	1211.822	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[7/2]^\circ$	3 - 4	B15
Ca III	1211.889	250		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - ^3F^\circ$	3 - 4	B14
Ca III	1212.682	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3P - 1/2[1/2]^\circ$	2 - 1	B15
Ca III	1213.301	300		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - ^3F^\circ$	2 - 3	B14
Ca III	1217.450	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[3/2]^\circ$	2 - 2	B15
Ca III	1218.738	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1D - 1/2[3/2]^\circ$	2 - 1	B15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	1222.895	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3P - 3/2[1/2]^\circ$	1 - 1	B15
Ca III	1223.185	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1P - 3/2[5/2]^\circ$	1 - 2	B15
Ca III	1225.321	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1D - 1/2[3/2]^\circ$	2 - 1	B15
Ca III	1225.699	350		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[5/2]^\circ$	1 - 2	B15
Ca III	1228.317	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1D - 1/2[3/2]^\circ$	2 - 2	B15
Ca III	1230.975	400		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 3/2[5/2]^\circ$	2 - 3	B15
Ca III	1234.400	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 3/2[5/2]^\circ$	2 - 2	B15
Ca III	1236.102	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3D - 1/2[3/2]^\circ$	1 - 2	B15
Ca III	1239.863	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1P - 1/2[3/2]^\circ$	1 - 1	B15
Ca III	1239.976	400		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1D - 1/2[5/2]^\circ$	2 - 3	B15
Ca III	1243.008	350		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 3/2[3/2]^\circ$	1 - 2	B15
Ca III	1253.464	300		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1D - 1/2[3/2]^\circ$	2 - 2	B15
Ca III	1254.413	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 1/2[3/2]^\circ$	0 - 1	B15
Ca III	1259.209	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^1D - 1/2[1/2]^\circ$	2 - 1	B15
Ca III	1261.381	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3P - 1/2[3/2]^\circ$	0 - 1	B15
Ca III	1262.653	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	0 - 1	B14
Ca III	1269.333	10		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3P - 1/2[3/2]^\circ$	1 - 1	B15
Ca III	1270.333	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	1 - 1	B14
Ca III	1272.544	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^3P - 1/2[3/2]^\circ$	1 - 2	B15
Ca III	1273.775	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 1/2[5/2]^\circ$	2 - 3	B15
Ca III	1278.392	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	1 - 0	B14
Ca III	1281.553	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	1 - 2	B14
Ca III	1285.908	400		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1P$	0 - 1	B14
Ca III	1286.523	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 1	B14
Ca III	1288.029	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3P - 1/2[3/2]^\circ$	2 - 2	B15
Ca III	1293.871	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1P$	1 - 1	B14
Ca III	1298.035	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3P$	2 - 2	B14
Ca III	1309.418	50		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5d$	$^3P - 1/2[1/2]^\circ$	1 - 0	B15
Ca III	1310.669	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1P$	2 - 1	B14
Ca III	1317.699	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1D$	1 - 2	B14
Ca III	1328.945	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	0 - 1	B14
Ca III	1335.129	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^1D$	2 - 2	B14
Ca III	1337.466	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	1 - 1	B14
Ca III	1355.415	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 1	B14
Ca III	1360.010	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	1 - 2	B14
Ca III	1362.222	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1S - 3/2[1/2]^\circ$	0 - 1	B15
Ca III	1378.584	250		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 2	B14
Ca III	1385.426	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3D$	2 - 3	B14
Ca III	1397.687	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1P^\circ - 1/2[5/2]$	1 - 2	B14
Ca III	1420.067	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)6s$	$^1S - 1/2[3/2]^\circ$	0 - 1	B15
Ca III	1453.157	650		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3S$	0 - 1	B14
Ca III	1459.787	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3P$	3 - 2	B14
Ca III	1461.875	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1P^\circ - 3/2[5/2]$	1 - 2	B14
Ca III	1463.335	750		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3S$	1 - 1	B14
Ca III	1465.477	300		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3P$	2 - 1	B14
Ca III	1480.425	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3P$	2 - 2	B14
Ca III	1480.527	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4f$	$^1P^\circ - 3/2[3/2]$	1 - 2	B14
Ca III	1484.869	800		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3P^\circ - ^3S$	2 - 1	B14
Ca III	1496.884	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^1P$	2 - 1	B14
Ca III	1506.876	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^1D$	3 - 2	B14
Ca III	1528.866	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^1D$	2 - 2	B14
Ca III	1545.294	1000		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	4 - 3	B14
Ca III	1555.527	750		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	2 - 1	B14
Ca III	1562.473	900		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	3 - 2	B14
Ca III	1571.268	650		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	3 - 3	B14
Ca III	1586.125	650		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	2 - 2	B14
Ca III	1595.193	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3F^\circ - ^3D$	2 - 3	B14
Ca III	1684.392	25		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^1P^\circ$	2 - 1	B14
Ca III	1688.770	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3S - ^1P^\circ$	1 - 1	B14
Ca III	1698.939	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3S - ^3P^\circ$	1 - 0	B14
Ca III	1720.334	300		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^1P^\circ$	1 - 1	B14
Ca III	1754.153	100		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	B14
Ca III	1762.259	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^3P$	2 - 1	B14
Ca III	1773.241	400		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3S - ^3P^\circ$	1 - 1	B14
Ca III	1783.929	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^3P$	2 - 2	B14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca III	1788.827	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3S - ^1D^\circ$	1 - 2	B14
Ca III	1794.223	500		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3S - ^3P^\circ$	1 - 2	B14
Ca III	1798.246	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^1P - ^1P^\circ$	1 - 1	B14
Ca III	1800.208	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3P$	3 - 2	B14
Ca III	1807.885	650		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^1P$	2 - 1	B14
Ca III	1812.153	700		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3P$	2 - 1	B14
Ca III	1813.585	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3P$	1 - 1	B14
Ca III	1822.592	25		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3P - ^1P^\circ$	2 - 1	B14
Ca III	1830.059	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3P$	1 - 0	B14
Ca III	1835.072	200		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3P$	2 - 2	B14
Ca III	1845.775	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3P - ^1P^\circ$	1 - 1	B14
Ca III	1851.090	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^1P^\circ$	2 - 1	B14
Ca III	1860.432	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^1P$	2 - 1	B14
Ca III	1870.263	700		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1F^\circ - ^3P$	3 - 2	B14
Ca III	1872.367	700		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^1D$	3 - 2	B14
Ca III	1876.915	10		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3S - ^3F^\circ$	1 - 2	B14
Ca III	1894.124	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^3D$	2 - 1	B14
Ca III	1894.582	250		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^1P^\circ$	1 - 1	B14
Ca III	1907.385	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^3P^\circ$	1 - 0	B14
Ca III	1910.097	550		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^1D$	2 - 2	B14
Ca III	1911.692	450		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^1D$	1 - 2	B14
Ca III	1935.72	600		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^1D - ^1P^\circ$	2 - 1	B14
Ca III	1938.572	150		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^3D^\circ$	3 - 2	B14
Ca III	1939.244	400		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^3D^\circ$	3 - 3	B14
Ca III	1939.683	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^3D$	2 - 2	B14
Ca III	1943.012	550		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3S - ^3P^\circ$	1 - 2	B14
Ca III	1948.257	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1F^\circ - ^1D$	3 - 2	B14
Ca III	1951.888	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3D$	2 - 1	B14
Ca III	1952.133	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^3D^\circ$	2 - 2	B14
Ca III	1952.823	200		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^3D^\circ$	2 - 3	B14
Ca III	1953.064	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^3P^\circ$	2 - 1	B14
Ca III	1953.295	150		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^1D^\circ - ^3D$	2 - 3	B14
Ca III	1953.546	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3D$	1 - 1	B14
Ca III	1958.149	300		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^1D^\circ$	3 - 2	B14
Ca III	1958.971	500		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3D$	3 - 2	B14
Ca III	1964.614	650		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^3P^\circ$	3 - 2	B14
Ca III	1967.936	650		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3S - ^3P^\circ$	1 - 1	B14
Ca III	1971.992	250		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^1D^\circ$	2 - 2	B14
Ca III	1972.823	600		$3p^5(^2P^\circ)3d - 3p^5(^2P^\circ)4p$	$^3D^\circ - ^3D$	3 - 3	B14
Ca III	1977.013	500		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3D - ^3D^\circ$	2 - 1	B14
Ca III	1978.551	500		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^3D - ^3P^\circ$	2 - 2	B14
Ca III	1981.192	550		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)4d$	$^3S - ^3P^\circ$	1 - 0	B14
Ca III	1989.512	450		$3p^5(^2P^\circ)4p - 3p^5(^2P^\circ)5s$	$^1P - ^1P^\circ$	1 - 1	B14

CALCIUM IV (Ca^{3+}), Z = 20

Ground State $1s^22s^22p^63s^23p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 541 200 cm^{-1}; 67.10 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca IV	249.408	150		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	3/2 - 3/2	E29,T11
Ca IV	250.153	150		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	3/2 - 5/2	E29,T11
Ca IV	251.354	150		$3p^5 - 3p^4(^1D)5s$	$g^2P^\circ - ^2D$	1/2 - 3/2	E29,T11
Ca IV	296.554	250		$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - ^2S$	3/2 - 1/2	E29,K23
Ca IV	299.315	200		$3p^5 - 3p^4(^1S)4s$	$g^2P^\circ - ^2S$	1/2 - 1/2	E29,K23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca IV	318.094	200		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,K23
Ca IV	318.385	50		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,K23
Ca IV	321.593	120		$3p^5 - 3p^4(^1D)4s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	K23
Ca IV?	328.577	50					E29
Ca IV	329.116	250		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,F13
Ca IV	329.391	150		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	E29,G1
Ca IV	331.442	200		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,G1
Ca IV	331.991	250		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,G1
Ca IV	332.531	235		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	E29,G1
Ca IV	332.808	150		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	E29,G1
Ca IV	338.828	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	E29,F13
Ca IV	339.790	150		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	E29,K23
Ca IV	340.286	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,G1
Ca IV	341.284	200		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	E29,K23
Ca IV	341.455	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	E29,F13
Ca IV	342.447	250b		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	E29,F13
Ca IV	343.194	100		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	E29,K23
Ca IV	343.438	200		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	E29,K23
Ca IV	343.933	250		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	E29,G1
Ca IV	344.958	200		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	E29,K23
Ca IV	345.130	215		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	E29,F13
Ca IV	374.744	250		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	E29,T11
Ca IV	434.570	600		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E29,T11
Ca IV	437.271	100		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	E29,T11
Ca IV	437.773	250		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E29,T11
Ca IV	438.930	200		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	E29,T11
Ca IV	443.821	750		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	E29,T11
Ca IV?	444.766	150					E29
Ca IV	445.018	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	E29,T11
Ca IV	450.565	500		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E29,S29
Ca IV	454.553	50		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	E29,S29
Ca IV	456.981	250		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	E29,S29
Ca IV	461.085	250		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	E29,S29
Ca IV?	536.790	85					E29
Ca IV	565.463	150		$3s3p^6 - 3s^23p^4(^3P)4p$	$^2S - {}^2P^\circ$	1/2 - 3/2	E29,T11
Ca IV	655.998	750		$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	B14,E29
Ca IV	669.696	500		$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	B14,E29
Ca IV?	775.526	150					E29
Ca IV?	892.671	150					E29
Ca IV?	994.311	300					E29
Ca IV?	997.579	350					E29
Ca IV?	1024.339	250					E29
Ca IV?	1027.309	250					E29
Ca IV?	1029.566	150					E29
Ca IV?	1030.273	200					E29

CALCIUM V (Ca^{4+}), Z = 20

Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)

Ionization Potential 680 800 cm^{-1}; 84.41 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca V	184.280	150		$3p^4 - 3p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	2 - 2	B23
Ca V	184.415	50		$3p^4 - 3p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	2 - 1	B23
Ca V	185.102	100		$3p^4 - 3p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	1 - 2	B23
Ca V	185.288	50		$3p^4 - 3p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	1 - 0	B23
Ca V	185.540	100		$3p^4 - 3p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	0 - 1	B23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca V	190.363	200		$3p^4 - 3p^3(^2P^\circ)5s$	$^1D - ^1P^\circ$	2 - 1	B23
Ca V	190.457	250		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	2 - 3	B23
Ca V	190.558	150		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	2 - 2	B23
Ca V	191.439	150		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	1 - 2	B23
Ca V	191.480	100		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	1 - 1	B23
Ca V	191.801	100		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	0 - 1	B23
Ca V	196.970	250		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	B23
Ca V	197.531	100		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 3	B23
Ca V	197.648	100		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 2	B23
Ca V	197.685	20		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 1	E29,K8
Ca V	199.553	300		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	B23,K13
Ca V	199.890	150		$3p^4 - 3p^3(^2P^\circ)5s$	$^1S - ^1P^\circ$	0 - 1	B23
Ca V	200.512	250		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	B23
Ca V	200.860	150		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	0 - 1	B23
Ca V	257.976	265		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 2	E29,K8
Ca V	258.251	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 1	E29,K8
Ca V	259.576	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 2	E29,K8
Ca V	259.856	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 1	E29,K8
Ca V	259.978	150		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 0	E29,K8
Ca V	260.446	165		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	0 - 1	E29,K8
Ca V	266.863	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^1D^\circ$	2 - 2	B23
Ca V	267.772	400		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	B23
Ca V	268.583	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^1D^\circ$	1 - 2	B23
Ca V	270.305	300		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 3	E29,K8
Ca V	270.494	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 2	E29,K8
Ca V	270.570	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 1	B23
Ca V	271.141	200		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^3P^\circ$	2 - 2	B23
Ca V	271.440	50		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^3P^\circ$	2 - 1	B23
Ca V	272.265	250		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	1 - 2	E29,K8
Ca V	272.336	150		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	1 - 1	E29,K8
Ca V	272.982	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	0 - 1	E29,K8
Ca V	280.992	400		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	B23
Ca V	284.794	100		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^3D^\circ$	2 - 3	B23
Ca V	284.978	300		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	2 - 1	E29,K8
Ca V	286.96	450b		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	1 - 1	B23,K8
Ca V	287.657	150		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	0 - 1	E29,K8
Ca V	301.139	20		$3p^4 - 3p^3(^4S^\circ)4s$	$^1D - ^3S^\circ$	2 - 1	B23
Ca V	316.115	150		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^1D^\circ$	1 - 2	E29,S29
Ca V	321.609	120b		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 1	B23
Ca V	322.166	500		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	E29,G1
Ca V	322.757	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 2	E29,G1
Ca V	323.223	300		$3p^4 - 3p^3(^2P^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	E29,S29
Ca V	324.110	150		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 1	E29,G1
Ca V	324.477	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	E29,G1
Ca V	325.020	150		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	E29,G1
Ca V	325.282	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	E29,G1
Ca V	330.937	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	2 - 1	B23
Ca V	333.438	200		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	E29,F13
Ca V	333.570	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	1 - 1	B23
Ca V	333.857	150		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	E29,S29
Ca V	334.545	300		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	0 - 1	B23
Ca V	335.344	250b		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	E29,S29
Ca V	336.554	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	E29,S29
Ca V	337.541	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	E29,S29
Ca V	338.056	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	E29,S29
Ca V	340.389	150		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	2 - 1	E29,S29
Ca V	343.194	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	1 - 1	E29,S29
Ca V	343.640	200		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 2	B23
Ca V	344.219	100		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	0 - 1	E29,S29
Ca V	352.915	450		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	B23
Ca V	356.246	250		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3P^\circ$	2 - 1	B23
Ca V?	371.225	300					E29
Ca V?	372.904	300					E29.
Ca V?	375.333	150					E29
Ca V	377.181	250		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	E29,S29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca V?	380.396	250					E29
Ca V?	381.601	150					E29
Ca V	387.080	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	E29,S29
Ca V	425.000	750		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	E29,S29
Ca V?	445.933	50					E29
Ca V?	446.036	50					E29
Ca V?	476.606	100					E29
Ca V?	509.293	100					E29
Ca V?	549.070	150					E29
Ca V	558.602	500		$3s^2 3p^4 - 3s 3p^5$	$^1D - ^1P^\circ$	2 - 1	E29,E4
Ca V?	593.404	50					E29
Ca V?	593.472	50					E29
Ca V?	594.239	50					E29
Ca V	637.928	400		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 1	E29,K8
Ca V	643.118	300		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 0	E29,K8
Ca V	646.570	400		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 2	E29,K8
Ca V	647.876	250		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 1	E29,K8
Ca V	651.550	250		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	0 - 1	E29,K8
Ca V	656.763	300		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 2	E29,K8
Ca V	725.088	50		$3s^2 3p^4 - 3s 3p^5$	$^1D - ^3P^\circ$?	2 - 1	E29,K8
Ca V?	730.257	250					E29
Ca V?	774.088	250					E29
Ca V?	774.354	150					E29
Ca V?	842.950	150					E29
Ca V?	962.896	100					E29
Ca V?	966.466	300					E29
Ca V?	968.236	150					E29
Ca V?	973.437	315					E29
Ca V?	975.825	200					E29
Ca V?	987.680	150					E29
Ca V?	994.946	150					E29
Ca V?	1000.310	300					E29
Ca V?	1001.544	150					E29
Ca V?	1009.638	150					E29
Ca V?	1012.613	150					E29
Ca V?	1014.162	200					E29
Ca V?	1021.139	150					E29

CALCIUM VI (Ca^{5+}), Z = 20

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3$ $^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [877 400] cm^{-1}; [108.78] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VI	227.642	20		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2S$	½ - ½	E27
Ca VI	227.922	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2S$	3/2 - ½	E27
Ca VI	228.628	350		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	B23
Ca VI	229.734	350		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	B23
Ca VI	230.495	250		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - ½	B23
Ca VI	232.275	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	E27
Ca VI	232.531	250		$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	B23
Ca VI	239.296	20		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 3/2	B23
Ca VI	239.535	350		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	B23
Ca VI	240.721	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - ½	B23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VI	242.265	150		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	B23
Ca VI	242.592	150		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 3/2	B23
Ca VI	242.631	250		$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	B23
Ca VI	249.914	150		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	B23
Ca VI	250.265	200		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	B23
Ca VI	251.465	200		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	B23
Ca VI	251.816	50		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	B23
Ca VI?	291.976	50					E29
Ca VI?	316.389	20					E29
Ca VI?	316.947	165					E29
Ca VI?	320.445	100					E29
Ca VI	323.223	300		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	3/2 - 5/2	E29,E27
Ca VI	327.806	200		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E27
Ca VI	329.298	150		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E27
Ca VI	333.44			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	F2
Ca VI	334.14			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F2
Ca VI	335.33			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F2
Ca VI	339.463	150		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	E27
Ca VI	339.953	150		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	E27
Ca VI	340.037	200		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 5/2	E27
Ca VI	340.516	150		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	E27
Ca VI	346.335	100		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	E29,T11
Ca VI	347.005	200b		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E29,T11
Ca VI?	347.334	50					E29
Ca VI	347.967	150b		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	E29,T11
Ca VI	348.650	50		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	E29,T11
Ca VI?	348.927	50					E29
Ca VI?	358.153	150					E29
Ca VI?	361.114	200					E29
Ca VI	361.241	20		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	E27
Ca VI?	361.645	100					E29
Ca VI	362.617	100		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	E27
Ca VI?	362.788	50					E29
Ca VI?	363.525	100					E29
Ca VI	370.033	250		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	E27
Ca VI	373.417	100		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	E27
Ca VI	374.000	200		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	E27
Ca VI?	376.279	135					E29
Ca VI?	378.653	50					E29
Ca VI?	378.745	50					E29
Ca VI?	379.138	100					E29
Ca VI?	380.003	50					E29
Ca VI?	381.464	100					E29
Ca VI?	381.849	100					E29
Ca VI?	385.091	100					E29
Ca VI?	385.941	50					E29
Ca VI?	386.106	50					E29
Ca VI?	386.254	50					E29
Ca VI?	388.685	150					E29
Ca VI?	389.495	20					E29
Ca VI	396.044	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	E27
Ca VI	396.918	100		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	E27
Ca VI	399.928	50		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	E27
Ca VI	400.827	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	E27
Ca VI	505.199	400		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	E27
Ca VI	510.435	150		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	E27
Ca VI	511.523	50		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	E27
Ca VI	528.746	150		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	E27
Ca VI	530.303	300		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	E27
Ca VI?	536.008	20					E29
Ca VI?	547.898	150					E29
Ca VI	554.990	50		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	E27
Ca VI	561.300			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	E27
Ca VI?	562.250	150					E29
Ca VI	563.066			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VI?	578.732	200					E29
Ca VI?	579.775	100					E29
Ca VI?	581.466	150					E29
Ca VI?	587.604	100					E29
Ca VI?	587.872	50					E29
Ca VI?	590.396	150					E29
Ca VI	600.917	300		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	E29,T11
Ca VI	601.700	250		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	E29,T11
Ca VI	602.389	20		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 3/2	E29,T11
Ca VI?	614.015	150					E29
Ca VI?	617.517	200					E29
Ca VI	629.594	100		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	B23
Ca VI	633.815	100		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	B23
Ca VI	641.883	100		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	B23
Ca VI?	672.315	20					E29
Ca VI	672.651	50		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	E27
Ca VI	673.367	50		$3p^3$ -	$^2D^\circ$ - 1 ?	5/2 - 3/2	E29,K8
Ca VI?	674.046	50					E29
Ca VI	674.278	100		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	E27
Ca VI?	689.539	150					E29
Ca VI?	758.465	50					E29
Ca VI?	766.522	50					E29
Ca VI?	770.928	50					E29
Ca VI?	777.508	50					E29
Ca VI?	778.718	50					E29
Ca VI?	816.805	100					E29
Ca VI?	854.923	150					E29
Ca VI?	860.827	100					E29
Ca VI?	969.652	300					E29
Ca VI?	975.055	150					E29
Ca VI?	1021.508	200					E29
Ca VI?	1032.612	100					E29

CALCIUM VII (Ca^{6+}), Z = 20

Ground State $1s^22s^22p^63s^23p^2\ ^3P_0$ (14 electrons)

Ionization Potential 1 030 000 cm^{-1}; 127.7 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VII	202.989	150		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 2	E27
Ca VII	203.701	100		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	0 - 1	E27
Ca VII	204.002	250		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 2	E27
Ca VII	204.376	50		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 1	E27
Ca VII	204.736	150		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 0	E27
Ca VII	205.402	150		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 1	E27
Ca VII	209.723	250		$3p^2 - 3p4s$	$^1D - ^1P^\circ$	2 - 1	E27
Ca VII	213.194	10		$3p^2 - 3p4s$	$^1D - ^3P^\circ$	2 - 1	E27
Ca VII	222.373			$3p^2 - 3p4s$	$^1S - ^1P^\circ$	0 - 1	E27
Ca VII	226.292	50		$3p^2 - 3p4s$	$^1S - ^3P^\circ$?	0 - 1	E29,K8
Ca VII?	272.866	150					E29
Ca VII?	295.171	150					E29
Ca VII?	295.396	150					E29
Ca VII?	307.563	100					E29
Ca VII?	313.478	100					E29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VII?	314.609	100					E29
Ca VII?	315.702	100					E29
Ca VII	330.010	200		$3p^2 - 3p3d$	$^1D - ^1F°$	2 - 3	E27
Ca VII?	330.403	100					P16
Ca VII?	331.650	160					P16
Ca VII?	332.184	60					P16
Ca VII?	334.136	200					P16
Ca VII?	334.357	100					P16
Ca VII?	334.904	40					P16
Ca VII	338.824	100		$3p^2 - 3p3d$	$g^3P - ^3D°$	0 - 1	E27
Ca VII	339.965	150		$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 2	E27
Ca VII	340.700	50		$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 1	E27
Ca VII	342.394	150		$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 3	E27
Ca VII	342.818	50		$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 2	E27
Ca VII	347.021	100		$3p^2 - 3p3d$	$g^3P - ^3P°$	0 - 1	E27
Ca VII	347.972	100		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 0	E27
Ca VII?	348.043	150					E29
Ca VII	348.999	20		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 1	E27
Ca VII	351.373	100		$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 2	E27
Ca VII	351.469	100		$3p^2 - 3p3d$	$^1S - ^1P°$	0 - 1	E27
Ca VII	352.008	50		$3p^2 - 3p3d$	$g^3P - ^3P°$	2 - 1	E27
Ca VII	354.418	150		$3p^2 - 3p3d$	$g^3P - ^3P°$	2 - 2	E27
Ca VII?	360.296	100					E29
Ca VII?	367.011	150					E29
Ca VII	378.258	150		$3p^2 - 3p3d$	$^1D - ^3P°$?	2 - 2	E29,K8
Ca VII?	389.195	50					E29
Ca VII	396.038	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P°$	0 - 1	E27
Ca VII	398.623	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P°$	1 - 1	E27
Ca VII	402.552	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^1P°$	2 - 1	E27
Ca VII	407.780	100		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	0 - 1	E27
Ca VII	410.501	150		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	1 - 1	E27
Ca VII?	412.175	100					E29
Ca VII	414.666	200		$3s^23p^2 - 3s3p^3$	$g^3P - ^3S°$	2 - 1	E27
Ca VII?	420.191	50					E29
Ca VII?	428.819	50					E29
Ca VII	433.599	250		$3s^23p^2 - 3s3p^3$	$^1D - ^1P°$	2 - 1	E27
Ca VII	447.681	20		$3s^23p^2 - 3s3p^3$	$^1D - ^3S°$	2 - 1	E27
Ca VII?	486.838	100					E29
Ca VII?	489.700	50					E29
Ca VII?	491.097	50					E29
Ca VII	491.386	100		$3s^23p^2 - 3s3p^3$	$^1S - ^1P°$	0 - 1	E27
Ca VII	501.168	20		$3s^23p^2 - 3s3p^3$	$g^3P - ^1D°$	2 - 2	E27
Ca VII?	504.591	150					E29
Ca VII	539.395	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	0 - 1	E27
Ca VII	544.118	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 2	E27
Ca VII	544.174	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 1	E27
Ca VII	544.269	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 0	E27
Ca VII	550.194	200		$3s^23p^2 - 3s3p^3$	$^1D - ^1D°$	2 - 2	E27
Ca VII	551.460	250		$3s^23p^2 - 3s3p^3$	$g^3P - ^3P°$	2 - 2	E27
Ca VII	624.380	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	0 - 1	E27
Ca VII	630.517	100		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	1 - 2	E27
Ca VII	630.766	50		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	1 - 1	E27
Ca VII	639.212	200		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	2 - 3	E27
Ca VII	640.404	20		$3s^23p^2 - 3s3p^3$	$g^3P - ^3D°$	2 - 2	E27
Ca VII?	647.292	100					E29
Ca VII?	673.885	50					E29
Ca VII?	676.563	150					E29
Ca VII?	681.363	150					E29
Ca VII?	684.383	100					E29
Ca VII?	684.743	250					E29
Ca VII?	687.985	100					E29
Ca VII?	688.223	50					E29
Ca VII?	697.281	100					E29
Ca VII?	697.809	100					E29
Ca VII?	697.972	100					E29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VII?	709.001	100					E29
Ca VII?	709.932	100					E29
Ca VII?	710.671	100					E29
Ca VII?	711.390	100					E29
Ca VII?	713.793	150					E29
Ca VII?	714.176	135					E29
Ca VII?	721.514	50					E29
Ca VII?	722.456	100					E29
Ca VII?	727.185	50					E29
Ca VII?	954.270	150					E29
Ca VII?	970.887	100					E29
Ca VII?	983.432	200					E29
Ca VII?	987.867	150					E29
Ca VII?	989.973	150					E29
Ca VII?	992.740	50					E29
Ca VII?	1002.398	250					E29
Ca VII?	1003.611	100					E29
Ca VII?	1019.799	150					E29
Ca VII?	1022.010	100					E29
Ca VII?	1027.110	150					E29
Ca VII?	1028.366	100					E29

CALCIUM VIII (Ca^{7+}), Z = 20

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 1 187 600 cm^{-1}; 147.24 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VIII	102.067	10		3p - 6d	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ca VIII	102.482	50		3p - 6d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ca VIII	112.906	50		3p - 5d	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ca VIII	113.453	100		3p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ca VIII?	114.566	40					P16
Ca VIII?	115.107	80					P16
Ca VIII	131.420	10		3d - 7f	$^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ca VIII	131.470	10		3d - 7f	$^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ca VIII	141.110	50		3d - 6f	$^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ca VIII	141.153	50		3d - 6f	$^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ca VIII	143.216	250		3p - 4d	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ca VIII	144.069	200		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ca VIII	144.111	50		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 3/2	E27
Ca VIII	160.592	50		3d - 5f	$^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ca VIII	160.640	50		3d - 5f	$^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ca VIII	174.910	50		$3s3p^2 - 3s^2 4f$	$^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ca VIII	174.976	50		$3s3p^2 - 3s^2 4f$	$^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ca VIII	177.886	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 5/2	E27
Ca VIII	178.241	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	1/2 - 3/2	E27
Ca VIII	178.639	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 5/2	E27
Ca VIII	178.684	50		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	1/2 - 1/2	E27
Ca VIII	178.747	10		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 3/2	E27
Ca VIII	179.215	100		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	3/2 - 1/2	E27
Ca VIII	179.509	150		$3s3p^2 - 3s3p(^3P^\circ)4s$	$^4P - {}^4P^\circ$	5/2 - 3/2	E27
Ca VIII	182.707	200		3p - 4s	$g^2P^\circ - {}^2S$	1/2 - 1/2	E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca VIII	184.158	200		3p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	E27
Ca VIII	216.955	100		3d - 4f	${}^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ca VIII	217.040	200		3d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ca VIII	352.998			$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	1/2 - 3/2	E27
Ca VIII	353.699	20		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	1/2 - 1/2	E27
Ca VIII	354.165	150		3p - 3d	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ca VIII	354.488	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 5/2	E27
Ca VIII	354.975	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 3/2	E27
Ca VIII	355.704	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 1/2	E27
Ca VIII	356.907	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	1/2 - 3/2	E27
Ca VIII	357.348	150		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	E27
Ca VIII	357.492	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 5/2	E27
Ca VIII	357.977	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 3/2	E27
Ca VIII	359.364	200		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ca VIII	359.647	50		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 3/2	E27
Ca VIII	360.298	100		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	3/2 - 5/2	E27
Ca VIII	361.984	20		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	5/2 - 3/2	E27
Ca VIII	363.391	50		$3s3p^2 - 3s3p(^3P^\circ)3d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	E27
Ca VIII	428.100	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	E27
Ca VIII	432.866	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	E27
Ca VIII	436.134	200		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	E27
Ca VIII	441.084	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	E27
Ca VIII	461.705	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	E27
Ca VIII	462.591	50		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	1/2 - 3/2	E27
Ca VIII	465.993	100		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	E27
Ca VIII	471.070	100		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	E27
Ca VIII	471.183	100		$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	E27
Ca VIII	582.834	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ca VIII	596.940	150		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ca VIII	597.832			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 3/2	E27

CALCIUM IX (Ca^{8+}), Z = 20

Ground State $1s^22s^22p^63s^2\ {}^1S_0$ (12 electrons)

Ionization Potential 1 520 700 cm^{-1}; 188.54 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca IX	100.645	40		3s3p - 3s5d	${}^3P^\circ - {}^3D$	1 - 2	P6
Ca IX	100.958	80		3s3p - 3s5d	${}^3P^\circ - {}^3D$	2 - 3	P6
Ca IX	129.197	120		3s3p - 3s4d	${}^3P^\circ - {}^3D$	0 - 1	P6
Ca IX	129.425	240		3s3p - 3s4d	${}^3P^\circ - {}^3D$	1 - 2	P6
Ca IX	129.445	40		3s3p - 3s4d	${}^3P^\circ - {}^3D$	1 - 1	P6
Ca IX	129.934	400		3s3p - 3s4d	${}^3P^\circ - {}^3D$	2 - 3	P6
Ca IX	129.970	40		3s3p - 3s4d	${}^3P^\circ - {}^3D$	2 - 2	P6
Ca IX	161.979	80		3s3p - 3s4s	${}^3P^\circ - {}^3S$	0 - 1	P6
Ca IX	162.371	160		3s3p - 3s4s	${}^3P^\circ - {}^3S$	1 - 1	P6
Ca IX	163.229	240		3s3p - 3s4s	${}^3P^\circ - {}^3S$	2 - 1	P6
Ca IX	184.338	120		3s3d - 3s4f	${}^3D - {}^3F^\circ$	1 - 2	P6
Ca IX	184.377	240		3s3d - 3s4f	${}^3D - {}^3F^\circ$	2 - 3	P6
Ca IX	184.433	320		3s3d - 3s4f	${}^3D - {}^3F^\circ$	3 - 4	P6
Ca IX	371.902	100b		3s3p - 3s3d	${}^3P^\circ - {}^3D$	0 - 1	E29,P6
Ca IX	373.802	400		3s3p - 3s3d	${}^3P^\circ - {}^3D$	1 - 2	P6
Ca IX	373.979	600		3s3p - 3s3d	${}^3P^\circ - {}^3D$	1 - 1	P6
Ca IX	378.089	800		3s3p - 3s3d	${}^3P^\circ - {}^3D$	2 - 3	P6
Ca IX	378.382	40		3s3p - 3s3d	${}^3P^\circ - {}^3D$	2 - 2	P6
Ca IX	378.551	50b		3s3p - 3s3d	${}^3P^\circ - {}^3D$	2 - 1	E29,P6
Ca IX	385.61			$3p^2 - 3p3d$	${}^3P - {}^3D^\circ$	1 - 2	F2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca IX	388.77			$3p^2 - 3p3d$	$^3P - ^3D^\circ$	2 - 3	F2
Ca IX	395.01			$3p^2 - 3p3d$	$^3P - ^3P^\circ$	2 - 2	F2
Ca IX	424.34			$3p^2 - 3p3d$	$^1D - ^1D^\circ$	2 - 2	F2
Ca IX	455.34			$3p^2 - 3p3d$	$^1S - ^1P^\circ$	0 - 1	F2
Ca IX	466.227	300		$3s^2 - 3s3p$	$g^1S - ^1P^\circ$	0 - 1	E29,T11
Ca IX	497.996	40		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	P6
Ca IX	503.261	20		$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	P6
Ca IX	506.163	160		$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	P6
Ca IX	507.105	20		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 1	P6
Ca IX	512.060	20		$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	P6
Ca IX	515.576	40		$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	P6
Ca IX	525.43			$3s3d - 3p3d$	$^3D - ^3D^\circ$	3 - 3	F2
Ca IX	542.26			$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	F2
Ca IX	651.31			$3s3d - 3p3d$	$^3D - ^3F^\circ$	2 - 3	F2
Ca IX	659.48			$3s3d - 3p3d$	$^3D - ^3F^\circ$	1 - 2	F2
Ca IX	693.824	100		$3s^2 - 3s3p$	$g^1S - ^3P^\circ$	0 - 1	E29,M22
Ca IX	828.451	100		$3s3p - 3s3d$	$^1P^\circ - ^1D$	1 - 2	E29,T11

CALCIUM X (Ca^{9+}), Z = 20

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 1 704 050 cm^{-1}; 211.270 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca X	93.069	25		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	K25
Ca X	93.502	50		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
Ca X	101.977	50		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	K25
Ca X	110.962	75		3s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	K25
Ca X	111.197	50		3s - 4p	$g^2S - ^2P^\circ$	½ - ½	K25
Ca X	118.174	50		3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	K25
Ca X	118.223	100		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	K25
Ca X	122.995	50		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	K25
Ca X	123.733	125		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
Ca X	151.832	75		3p - 4s	$^2P^\circ - ^2S$	½ - ½	K25
Ca X	153.012	150		3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	K25
Ca X	166.945	200		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	K25
Ca X	167.034	250		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	K25
Ca X	206.746	50		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	K25
Ca X	207.386	25		3d - 4p	$^2D - ^2P^\circ$	3/2 - ½	K25
Ca X	371.902	100b		4p - 5s	$^2P^\circ - ^2S$	3/2 - ½	E29,T11
Ca X	411.690	75		3p - 3d	$^2P^\circ - ^2D$	½ - 3/2	K25
Ca X	419.757	200		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	K25
Ca X	420.493	25		3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	K25
Ca X	557.740	100		3s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	K25
Ca X	574.007	50		3s - 3p	$g^2S - ^2P^\circ$	½ - ½	K25

CALCIUM XI (Ca^{10+}), Z = 20
Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)
Ionization Potential 4 768 900 cm^{-1}; 591.25 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XI	25.327	100		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ca XI	25.517	100		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ca XI	26.442	20		$2p^6 - 2p^5 4s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
Ca XI	26.639	20		$2p^6 - 2p^5 4s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ca XI	26.962	100		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^1P^\circ$	0 - 1	E26
Ca XI	27.079	20		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^3P^\circ$	0 - 1	E26
Ca XI	30.448	600		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ca XI	30.867	300		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ca XI	31.257	200		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
Ca XI	35.212	800		$2p^6 - 2p^5 3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
Ca XI	35.576	800		$2p^6 - 2p^5 3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26

CALCIUM XII (Ca^{11+}), Z = 20
Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential 5 294 300 cm^{-1}; 656.39 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XII	27.412	20		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	E26
Ca XII	27.606	20		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	E26
Ca XII	27.978	100		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$?	$\frac{3}{2} - \frac{3}{2}$	E26,K8
Ca XII	28.134	50		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$?	$\frac{3}{2} - \frac{1}{2}$	E26,K8
Ca XII	31.660	100		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	E26
Ca XII	31.960	50		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	E26
Ca XII	32.280	100		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	E26
Ca XII	32.498	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{3}{2}$	E26
Ca XII	32.655	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{5}{2}$	E26
Ca XII	33.01 P			$2s 2p^6 - 2s 2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	$\frac{1}{2} - \frac{3}{2}$	K8
Ca XII	141.05	60		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	F9,Z1
Ca XII	147.27	50		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	F9,Z1

CALCIUM XIII (Ca^{12+}), Z = 20

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential 5 856 000 cm^{-1}; 726.03 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XIII	25.76			$2p^4 - 2p^3(^2P^\circ)3d$	$^3P - ^3D^\circ$	2 - 3	F5
Ca XIII	26.02			$2p^4 - 2p^3(^2D^\circ)3d$	$^3P - ^3D^\circ$	2 - 3	F5
Ca XIII	26.36			$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F5
Ca XIII	131.22			$2s^2 2p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	F9
Ca XIII	142.39			$2s^2 2p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	F9
Ca XIII	156.68			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	F9
Ca XIII	159.82			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	F9
Ca XIII	161.75			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	F9
Ca XIII	162.91			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	F9
Ca XIII	164.09			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	F9
Ca XIII	168.40			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	F9

CALCIUM XIV (Ca^{13+}), Z = 20

Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 6 586 600 cm^{-1}; 816.61 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XIV	22.07			$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F40
Ca XIV	24.11			$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F5
Ca XIV	24.30			$2p^3 - 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F5
Ca XIV	24.6			$2p^3 - 2p^2(^3P)3d$	$^2D^\circ - ^2D$		F5
Ca XIV	128.28			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	F9
Ca XIV	132.93			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	F9
Ca XIV	134.30			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F9
Ca XIV	140.20			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	F5
Ca XIV	142.37			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	F5
Ca XIV	145.80			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	F5
Ca XIV	148.15			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	F5
Ca XIV	153.03			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	F5
Ca XIV	155.62			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	F5
Ca XIV	157.30			$2s2p^4 - 2p^5$	$^2D - ^2P^\circ$	5/2 - 3/2	F5
Ca XIV	165.36			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F5
Ca XIV	167.00			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F5
Ca XIV	183.46			$2s^2 2p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	F5
Ca XIV	185.74			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2D$	1/2 - 3/2	F5
Ca XIV	186.62			$2s^2 2p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	F5
Ca XIV	189.00			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	F5
Ca XIV	193.88			$2s^2 2p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	F5

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CALCIUM XV (Ca^{14+}), Z = 20

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential 7 219 800 cm^{-1}; 895.12 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XV	22.73			$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	F5
Ca XV	137.21			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	0 - 1	F5
Ca XV	140.55			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	1 - 1	F5
Ca XV	141.66			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	F5
Ca XV	144.29			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	F5
Ca XV	160.96			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	F5
Ca XV	164.94	P		$2s^2 2p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	D2
Ca XV	171.58			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	F5
Ca XV	176.88			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 1	F5
Ca XV	181.90			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	F5
Ca XV	208.66			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	F5
Ca XV	215.37			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	F5

CALCIUM XVI (Ca^{15+}), Z = 20

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [7 856 000] cm^{-1}; [974] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XVI	16.81 ?			2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ca XVI	21.61 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
Ca XVI	22.95 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ca XVI	172.73 ?			$2s^2 2p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
Ca XVI	184.37 ?			$2s^2 2p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

CALCIUM XVII (Ca^{16+}), Z = 20

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [8 751 300] cm^{-1}; [1085] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XVII	13.41 ?			$2s^2 - 2s5p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Ca XVII	14.90 ?			$2s^2 - 2s4p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Ca XVII	18.60 ?			$2s^2 - 2p3s$	$g^1S - {}^1P^\circ$	0 - 1	K8
Ca XVII	19.368	20		$2s2p - 2p3p$	${}^3P^\circ - {}^3P$	2 - 2	G16
Ca XVII	19.438	200		$2s2p - 2p3p$	${}^3P^\circ - {}^3S$	2 - 1	G16
Ca XVII	19.459	300		$2s2p - 2p3p$	${}^3P^\circ - {}^3D$	2 - 3	G16
Ca XVII	19.539	200		$2s2p - 2p3p$	${}^3P^\circ - {}^3D$	2 - 2	G16
Ca XVII	19.638	300		$2s^2 - 2s3p$	$g^1S - {}^1P^\circ$	0 - 1	G16
Ca XVII	20.082	100		$2s2p - 2p3p$	${}^1P^\circ - {}^1P$	1 - 1	G16
Ca XVII	20.330	200		$2s2p - 2s3d$	${}^3P^\circ - {}^3D$	1 - 2	G16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XVII	20.433	300		2s2p - 2s3d	$^3P^\circ - ^3D$	2 - 3	G16
Ca XVII	20.502	100		2s2p - 2p3p	$^1P^\circ - ^1P$	1 - 1	G16
Ca XVII	20.665	200		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	1 - 2	G16
Ca XVII	20.700	100		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 1	G16
Ca XVII	20.754	200		$2p^2$ - 2p3d	$^3P - ^3P^\circ$	2 - 2	G16
Ca XVII	20.768	100		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	1 - 2	G16
Ca XVII	20.827	300		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 3	G16
Ca XVII	20.855	200		$2p^2$ - 2p3d	$^3P - ^3D^\circ$	2 - 2	G16
Ca XVII	20.880	300		$2p^2$ - 2p3d	$^1D - ^1F^\circ$	2 - 3	G16
Ca XVII	21.212	200		2s2p - 2s3d	$^1P^\circ - ^1D$	1 - 2	G16
Ca XVII	21.267	200		$2p^2$ - 2p3d	$^1D - ^1D^\circ$	2 - 2	G16
Ca XVII	21.303	100		2s2p - 2s3s	$^3P^\circ - ^3S$	2 - 1	G16
Ca XVII	21.606	200		$2p^2$ - 2p3s	$^3P - ^3P^\circ$	2 - 2	G16
Ca XVII	22.113	200		2s2p - 2s3s	$^1P^\circ - ^1S$	1 - 0	G16
Ca XVII	22.347	100		$2p^2$ - 2p3s	$^1S - ^1P^\circ$	0 - 1	G16
Ca XVII	199.74 ?			$2s^2$ - 2s2p	$g^1S - ^1P^\circ$	0 - 1	K8
Ca XVII	382.03 ?			$2s^2$ - 2s2p	$g^1S - ^3P^\circ$	0 - 1	K8

CALCIUM XVIII (Ca^{17+}), Z = 20

Ground State $1s^22s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [9 332 000] cm^{-1}; [1157] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XVIII	3.197			$1s^22s$ - 1s2s2p	$g^2S - ^2P^\circ$	½ - 3/2	D6
Ca XVIII	3.206			$1s^22s$ - 1s2s2p	$g^2S - ^4P^\circ$	½ - 3/2	D6
Ca XVIII	12.40 P			2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ca XVIII	12.478	10		2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ca XVIII	12.636	20		2s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	G15
Ca XVIII	13.118	20		2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ca XVIII	13.191	20		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ca XVIII	14.082	100		2s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	G15
Ca XVIII	14.658	100		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ca XVIII	14.738	300		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ca XVIII	18.691	500		2s - 3p	$g^2S - ^2P^\circ$	½ - 3/2	G15
Ca XVIII	18.732	300		2s - 3p	$g^2S - ^2P^\circ$	½ - ½	G15
Ca XVIII	19.642	600		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ca XVIII	19.789	600		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ca XVIII	20.052	100		2p - 3s	$^2P^\circ - ^2S$	½ - ½	G15
Ca XVIII	20.220	100		2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	G15
Ca XVIII	298.40 P			2s - 2p	$g^2S - ^2P^\circ$	½ - 3/2	K8
Ca XVIII	341.54 P			2s - 2p	$g^2S - ^2P^\circ$	½ - ½	K8

CALCIUM XIX (Ca^{18+}), Z = 20

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential 41 369 608 cm^{-1}; 5129.045 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XIX	2.516			$1s^2$ - 1s5p	$g\,^1S$ - $^1P°$	0 - 1	D6
Ca XIX	2.573			$1s^2$ - 1s4p	$g\,^1S$ - $^1P°$	0 - 1	D6
Ca XIX	2.706			$1s^2$ - 1s3p	$g\,^1S$ - $^1P°$	0 - 1	D6
Ca XIX	3.173			$1s^2$ - 1s2p	$g\,^1S$ - $^1P°$	0 - 1	D6
Ca XIX	3.186			$1s^2$ - 1s2p	$g\,^1S$ - $^3P°$	0 - 1	D6
Ca XIX	3.225	f		$1s^2$ - 1s2s	$g\,^1S$ - ^3S	0 - 1	D6

CALCIUM XX (Ca^{19+}), Z = 20

Ground State 1s $^2S_{1/2}$ (1 electron)

Ionization Potential 44 117 545 cm^{-1}; 5469.74 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ca XX	2.314 P			1s - 7p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
Ca XX	2.331 P			1s - 6p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
Ca XX	2.361 P			1s - 5p	$g\,^2S$ - $^2P°$	½ - 3/2	G2
Ca XX	2.417 P	10		1s - 4p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Ca XX	2.549 P	30		1s - 3p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Ca XX	3.020 P	100		1s - 2p	$g\,^2S$ - $^2P°$	½ - 3/2	G2,K8
Ca XX	9.88 P			2 - 7			G2
Ca XX	10.21 P			2 - 6			G2
Ca XX	10.80 P			2 - 5			G2
Ca XX	12.09 P			2 - 4			G2
Ca XX	16.31 P			2 - 3			G2
Ca XX	25.05 P			3 - 7			G2
Ca XX	27.27 P			3 - 6			G2
Ca XX	31.95 P			3 - 5			G2
Ca XX	46.7 P			3 - 4			G2
Ca XX	54.03 P			4 - 7			G2
Ca XX	65.50 P			4 - 6			G2
Ca XX	101.1 P			4 - 5			G2
Ca XX	116.1 P			5 - 7			G2
Ca XX	186.1 P			5 - 6			G2
Ca XX	308.8 P			6 - 7			G2

SCANDIUM, Z = 21

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc	84.777	100					B3
Sc	98.180	200					B3
Sc	98.192	100					B3
Sc	98.323	300					B3
Sc	98.889	300d					B3
Sc	98.911	100					B3
Sc	100.676	100					B3
Sc	100.781	100					B3
Sc	100.924	100					B3
Sc	101.918	200					B3
Sc	102.251	300					B3
Sc	102.835	230					B3
Sc	102.868	100					B3
Sc	102.975	100					B3
Sc	104.592	300					B3
Sc	104.658	100					B3
Sc	105.578	300					B3
Sc	106.655	100d					B3
Sc	107.273	100					B3
Sc	107.929	200					B3
Sc	108.026	100d					B3
Sc	108.296	100					B3
Sc	109.609	200					B3
Sc	109.897	300					B3
Sc	110.306	100					B3
Sc	110.498	300					B3
Sc	110.920	200					B3
Sc	111.402	200					B3
Sc	111.711	200					B3
Sc	111.757	100					B3
Sc	112.210	300					B3
Sc	112.434	100					B3
Sc	112.544	300					B3
Sc	113.014	300					B3
Sc	113.767	100d					B3
Sc	116.158	300					B3
Sc	116.770	200					B3
Sc	117.373	100					B3
Sc	118.048	200d					B3
Sc	118.179	100					B3
Sc	118.297	300					B3
Sc	118.552	400					B3
Sc	118.616	300					B3
Sc	120.881	100					B3
Sc	121.022	200					B3
Sc	122.676	400					B3
Sc	122.741	100					B3
Sc	123.223	200					B3
Sc	124.464	100					B3
Sc	125.610	100					B3
Sc	128.088	100					B3
Sc	129.283	100					B3
Sc	129.454	200					B3
Sc	130.213	200					B3
Sc	130.304	200					B3
Sc	130.558	100					B3
Sc	130.642	300					B3
Sc	130.683	100					B3
Sc	130.886	200					B3
Sc	131.068	270					B3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc	131.354	100					B3
Sc	132.714	400					B3
Sc	133.882	300					B3
Sc	134.794	300					B3
Sc	134.971	200					B3
Sc	137.352	100					B3
Sc	137.418	70					B3
Sc	138.662	200					B3
Sc	139.319	100d					B3
Sc	139.980	100					B3
Sc	142.836	200					B3
Sc	143.120	200					B3
Sc	146.825	300					B3
Sc	148.249	100					B3
Sc	148.287	200					B3
Sc	148.580	100d					B3
Sc	148.743	100d					B3
Sc	148.805	200					B3
Sc	149.357	100d					B3
Sc	152.681	200					B3
Sc	153.172	300					B3
Sc	154.006	230					B3
Sc	154.507	100					B3
Sc	154.643	300					B3
Sc	160.337	230					B3
Sc	160.387	200					B3
Sc	160.949	230					B3
Sc	161.162	200					B3
Sc	161.908	200d					B3
Sc	162.172	200d					B3
Sc	162.236	200					B3
Sc	163.006	300					B3
Sc	169.105	100					B3
Sc	169.451	200					B3
Sc	170.105	100					B3
Sc	170.735	100					B3
Sc	171.530	200					B3
Sc	171.823	100					B3
Sc	173.346	100					B3
Sc	176.325	300					B3
Sc	177.686	200					B3
Sc	182.618	100					B3
Sc	183.593	370					B3
Sc	183.626	130					B3
Sc	183.673	100					B3
Sc	185.219	100					B3
Sc	193.332	200d					B3
Sc	210.550	200					B3
Sc	211.505	170					B3
Sc	277.809	200					B3
Sc	285.966	300					B3
Sc	287.873	400					B3
Sc	288.104	300					B3
Sc	298.66	200					B3
Sc	300.817	200					B3
Sc	308.895	300					B3
Sc	315.786	300					B3
Sc	315.890	200					B3
Sc	316.567	200					B3
Sc	322.35	150					F4
Sc	326.791	400					B3
Sc	330.39	100					F4
Sc	335.18	100					F4
Sc	335.58	50					F4
Sc	335.89	50					F4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc	342.91	50					F4
Sc	355.16	50					F4
Sc	358.22	250					F4
Sc	363.31	50					F4
Sc	363.82	50					F4
Sc	365.89	50					F4
Sc	369.42	50					F4
Sc	377.79	50					F4
Sc	379.77	50					F4
Sc	381.540	100					B3
Sc	393.71	200					F4
Sc	396.440	400					B3
Sc	403.84	100					F4
Sc	407.85	150					F4
Sc	420.82	250					F4
Sc	422.07	100					F4
Sc	430.74	150					F4
Sc	431.82	50					F4
Sc	434.43	150					F4
Sc	436.20	50					F4
Sc	438.800	200					B3
Sc	439.28	150					F4
Sc	440.29	50					F4
Sc	441.72	200					F4
Sc	442.30	50					F4
Sc	456.83	50					F4
Sc	461.91	50					F4
Sc	462.61	200					F4
Sc	463.74	50					F4
Sc	465.54	250					F4
Sc	466.24	300					F4
Sc	470.25	300					F4
Sc	471.83	400					F4
Sc	473.03	150					F4
Sc	474.76	150					F4
Sc	475.41	150					F4
Sc	480.51	200					F4
Sc	482.220	400					B3
Sc	483.40	200					F4
Sc	484.69	50					F4
Sc	487.89	250					F4
Sc	496.52	300					F4
Sc	496.84	150					F4
Sc	497.19	150					F4
Sc	499.70	100					F4
Sc	507.32	350					F4
Sc	508.16	100					F4
Sc	524.43	100					F4
Sc	525.49	200					F4
Sc	525.79	150					F4
Sc	526.28	200					F4
Sc	526.99	200					F4
Sc	527.89	200					F4
Sc	528.58	350					F4
Sc	529.16	300					F4
Sc	531.13	250					F4
Sc	531.82	250					F4
Sc	541.31	350					F4
Sc	542.11	150					F4
Sc	542.68	300					F4
Sc	544.06	300					F4
Sc	546.75	150					F4
Sc	548.45	200					F4
Sc	567.23	350					F4
Sc	574.11	150					F4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc	574.48	150					F4
Sc	580.10	350					F4
Sc	586.29	150					F4
Sc	589.83	400					F4
Sc	591.37	300					F4
Sc	591.75	300					F4
Sc	595.06	50					F4
Sc	597.10	50					F4
Sc	599.57	250					F4
Sc	692.48	100					F4
Sc	693.20	100					F4
Sc	695.72	250					F4
Sc	700.08	350					F4
Sc	707.72	150					F4
Sc	714.87	300					F4
Sc	754.49	250					F4
Sc	757.56	300					F4
Sc	761.50	400					F4
Sc	768.62	150					F4
Sc	769.80	400					F4
Sc	785.21	450					F4
Sc	789.21	450					F4
Sc	793.93	250					F4
Sc	799.97	250					F4
Sc	835.70	300					B3
Sc	837.76	300d					B3
Sc	838.70	300d					B3
Sc	845.07	700					B3
Sc	846.90	600					B3
Sc	867.01	200					B3
Sc	868.32	600					B3
Sc	869.13	200					B3
Sc	874.18	300d					B3
Sc	903.19	500					B3
Sc	905.28	200					B3
Sc	906.95	700					B3
Sc	908.18	700					B3
Sc	908.23	700					B3
Sc	908.73	900					B3
Sc	911.50	200					B3
Sc	912.15	200					B3
Sc	915.85	200					B3
Sc	927.54	400					B3
Sc	930.67	500					B3
Sc	932.40	300					B3
Sc	932.58	300d					B3
Sc	936.77	600					B3
Sc	937.30	700d					B3
Sc	961.32	600					B3
Sc	964.46	1000					B3
Sc	974.65	300					B3
Sc	974.81	600					B3
Sc	975.04	200					B3
Sc	984.49	300					B3
Sc	985.20	800					B3
Sc	994.36	300					B3
Sc	994.86	400					B3
Sc	995.52	200					B3
Sc	996.01	300					B3
Sc	999.12	200					B3
Sc	1003.00	700					B3
Sc	1015.50	900					B3
Sc	1015.71	500					B3
Sc	1016.04	500					B3
Sc	1016.72	400					B3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc	1023.90	200					B3
Sc	1030.32	800					B3
Sc	1030.50	200					B3
Sc	1033.38	400					B3
Sc	1048.89	300					B3
Sc	1082.62	200					B3
Sc	1107.13	200					B3
Sc	1107.77	200					B3
Sc	1109.40	200					B3
Sc	1110.96	200					B3
Sc	1122.32	200					B3
Sc	1123.96	200					B3
Sc	1128.79	400					B3
Sc	1133.53	200					B3
Sc	1139.53	200					B3
Sc	1147.69	300d					B3
Sc	1151.09	200					B3
Sc	1160.91	200					B3
Sc	1162.77	200					B3
Sc	1173.03	300					B3
Sc	1177.14	200					B3
Sc	1181.91	300					B3
Sc	1613.11	300					B3

SCANDIUM I (Sc^{0+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d 4s^2$ $^2D_{3/2}$ (21 electrons)

Ionization Potential 52 750 cm^{-1}; 6.54 eV

SCANDIUM II (Sc^{1+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d 4s$ $^3D_1$ (20 electrons)

Ionization Potential 103 240 cm^{-1}; 12.80 eV

SCANDIUM III (Sc^{2+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 199 677 cm^{-1}; 24.76 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc III	557.995	10		3d - 7f	$g^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	558.608	10		3d - 7f	$g^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	582.114	20		3d - 6f	$g^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	582.785	30		3d - 6f	$g^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	627.069	70		3d - 5f	$g^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	627.846	80		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	643.133	20		3d - 6p	$g^2D - {}^2P^\circ$	3/2 - 1/2	V1
Sc III	643.597	20		3d - 6p	$g^2D - {}^2P^\circ$	5/2 - 3/2	V1
Sc III	730.600	100	2	3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	731.655	150	2	3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	769.019	10		4s - 6p	${}^2S - {}^2P^\circ$	1/2 - 3/2	V1
Sc III	769.524	10		4s - 6p	${}^2S - {}^2P^\circ$	1/2 - 1/2	V1
Sc III	780.597	60		3d - 5p	$g^2D - {}^2P^\circ$	3/2 - 1/2	V1
Sc III	780.729	80		3d - 5p	$g^2D - {}^2P^\circ$	5/2 - 3/2	V1
Sc III	961.052	10		4p - 7s	${}^2P^\circ - {}^2S$	1/2 - 1/2	V1
Sc III	965.448	20		4p - 7s	${}^2P^\circ - {}^2S$	3/2 - 1/2	V1
Sc III	966.293	15		4p - 6d	${}^2P^\circ - {}^2D$	1/2 - 3/2	V1
Sc III	970.638	20		4p - 6d	${}^2P^\circ - {}^2D$	3/2 - 5/2	V1
Sc III	973.295	40		4s - 5p	${}^2S - {}^2P^\circ$	1/2 - 3/2	V1
Sc III	974.965	30		4s - 5p	${}^2S - {}^2P^\circ$	1/2 - 1/2	V1
Sc III	1148.241	30		4p - 6s	${}^2P^\circ - {}^2S$	1/2 - 1/2	V1
Sc III	1154.523	40		4p - 6s	${}^2P^\circ - {}^2S$	3/2 - 1/2	V1
Sc III	1162.443	40		4p - 5d	${}^2P^\circ - {}^2D$	1/2 - 3/2	V1
Sc III	1168.608	50		4p - 5d	${}^2P^\circ - {}^2D$	3/2 - 5/2	V1
Sc III	1168.883	20		4p - 5d	${}^2P^\circ - {}^2D$	3/2 - 3/2	V1
Sc III	1493.502	2		4d - 7f	${}^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	1494.506	2		4d - 7f	${}^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	1598.002	160	1	3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 3/2	V1
Sc III	1603.064	360	1	3d - 4p	$g^2D - {}^2P^\circ$	5/2 - 3/2	V1
Sc III	1610.194	300	1	3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 1/2	V1
Sc III	1679.824	10		4d - 6f	${}^2D - {}^2F^\circ$	3/2 - 5/2	V1
Sc III	1681.105	14		4d - 6f	${}^2D - {}^2F^\circ$	5/2 - 7/2	V1
Sc III	1742.69	4h		4d - 7p	${}^2D - {}^2P^\circ$		V1
Sc III	1895.441	80	5	4p - 5s	${}^2P^\circ - {}^2S$	1/2 - 1/2	V1
Sc III	1912.620	120	5	4p - 5s	${}^2P^\circ - {}^2S$	3/2 - 1/2	V1
Sc III	1993.886	180	4	4p - 4d	${}^2P^\circ - {}^2D$	1/2 - 3/2	V1

SCANDIUM IV (Sc^{3+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6\ ^1S_0$ (18 electrons)

Ionization Potential 592 600 cm^{-1}; 73.47 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc IV	174.57	200		$3p^6 - 3p^5(^2P^\circ)6s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	F23
Sc IV	175.89	200		$3p^6 - 3p^5(^2P^\circ)6s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	F23
Sc IV	215.522	100	4	$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	B3,M23
Sc IV	217.189	40	3	$3p^6 - 3p^5(^2P^\circ)5s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	B3,M23
Sc IV?	286.677	40					B3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc IV	289.850	900		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	B3,G1
Sc IV?	290.487	300					B3
Sc IV	296.316	500	2	$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	B3,G1
Sc IV	299.041	900	1	$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	B3,G1
Sc IV	370.034	400		$3p^6 - 3p^5 3d$	$g\,^1S - ^3D^\circ$	0 - 1	B3,F2
Sc IV?	372.415	300					B3
Sc IV?	376.449	300					B3

SCANDIUM V (Sc^{4+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 739 300 cm^{-1}; 91.66 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc V	179.42	150		$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	F23
Sc V	180.14	350		$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	F23
Sc V	180.82	200		$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	F23
Sc V	180.96	200		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	F23
Sc V	181.55	50		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	F23
Sc V	182.392	200		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$?	$\frac{1}{2} - \frac{3}{2}$	B3,K8
Sc V	228.565	300		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	B3
Sc V	230.848	100		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	B3
Sc V	243.823	40		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	B3
Sc V	243.872	500		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	B3
Sc V	246.424	400		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	B3
Sc V	250.978	400		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	B3
Sc V	252.846	500		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	B3
Sc V	253.733	500		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	B3
Sc V	255.379	50		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{1}{2}$	K23
Sc V	255.636	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	B3
Sc V	257.157	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{3}{2}$	B3
Sc V	258.238	150		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	$\frac{1}{2} - \frac{1}{2}$	K23,B31
Sc V	258.808	40		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{5}{2}$	B3
Sc V	260.054	50		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	$\frac{1}{2} - \frac{3}{2}$	K23
Sc V	280.997	400		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	B3,F13
Sc V	283.911	900		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	B3,F13
Sc V	284.450	800		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	B3,F13
Sc V	288.286	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	B3,F13
Sc V	289.589	900		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	B3,F13
Sc V	291.932	1000d		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	B3,F13
Sc V	293.248	800		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	B3,F13
Sc V	296.166	400		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	B3,F13
Sc V	300.004	700		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	B3,F13
Sc V	375.048	400		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	B3,S29
Sc V	378.677	100		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	B3,S29
Sc V	388.682	200		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	B3,S29
Sc V	395.317	400		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	B3,S29
Sc V	399.501	200		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	B3,S29
Sc V	573.356	1000		$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	B3
Sc V	587.935	600		$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	B3

SCANDIUM VI (Sc^{5+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4$ $^3P_2$ (16 electrons)

Ionization Potential 896 000 cm^{-1}; 111.1 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VI	147.740	100		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - {}^1D^\circ$?	2 - 2	B3,K8
Sc VI	147.90	100		$3p^4 - 3p^3(^2P^\circ)5s$	$^1D - {}^1P^\circ$	2 - 1	F23
Sc VI	148.18	150		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	2 - 3	F23
Sc VI	148.536	100d		$3p^4 - 3p^3(^2D^\circ)5s$	$g^3P - {}^1D^\circ$?	1 - 2	B3,K8
Sc VI	152.60	250		$3p^4 - 3p^3(^2D^\circ)5s$	$^1D - {}^1D^\circ$	2 - 2	F23
Sc VI	154.25	50		$3p^4 - 3p^3(^2P^\circ)5s$	$^1S - {}^1P^\circ$	0 - 1	F23
Sc VI	154.29	250		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	2 - 1	F23
Sc VI	155.10	150		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	1 - 1	F23
Sc VI	155.36	50		$3p^4 - 3p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	0 - 1	F23
Sc VI	160.637	300		$3p^4 - 3p^3(^2D^\circ)4d$	$g^3P - {}^1F^\circ$?	2 - 3	B3,K8
Sc VI	166.35	350		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - {}^1F^\circ$	2 - 3	F23
Sc VI	166.957	200		$3p^4 - 3p^3(^4S^\circ)5s$	$^1S - {}^3S^\circ$?	0 - 1	B3,K8
Sc VI	167.17	200		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - {}^1D^\circ$	2 - 2	F23
Sc VI	169.26	350		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	F23
Sc VI	170.25	250		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	F23
Sc VI	170.54	150		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	F23
Sc VI	200.810	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^1P^\circ$	2 - 1	K22
Sc VI	202.638	50		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^1P^\circ$	0 - 1	K22
Sc VI	202.921	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	B3,K22
Sc VI	203.216	50		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 1	B3,K22
Sc VI	204.310	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 2	B3,K22
Sc VI	204.610	50		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 1	B3,K22
Sc VI	204.719	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 0	B3,K22
Sc VI	205.072	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	0 - 1	B3,K22
Sc VI	209.050	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	2 - 2	K22
Sc VI	209.821	200		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - {}^1P^\circ$	2 - 1	B3,K22
Sc VI	210.523	40		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	1 - 2	B3,K22
Sc VI	211.416	400		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	B3,K22
Sc VI	211.612	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	B3,K22
Sc VI	211.696	50		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 1	K22
Sc VI	212.121	50		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - {}^3P^\circ$	2 - 2	B3,K22
Sc VI	213.118	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	B3,K22
Sc VI	213.192	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	B3,K22
Sc VI	213.702	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	B3,K22
Sc VI	218.837	400		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - {}^1D^\circ$	2 - 2	B3,K22
Sc VI	221.204	330		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	B3,K22
Sc VI	222.844	150		$3p^4 - 3p^3(^2P^\circ)4s$	$^1S - {}^1P^\circ$	0 - 1	K22
Sc VI	222.855	300		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	K22
Sc VI	223.408	100		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	B3,K22
Sc VI?	277.943	300					B3
Sc VI	281.327	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 1	B3,S29
Sc VI	282.209	700		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	B3,S29
Sc VI	282.497	600		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	B3,S29
Sc VI	282.587	300		$3p^4 - 3p^3(^2P^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	B3,S29
Sc VI	283.99	40		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	B3,S29
Sc VI	284.263	900		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	B3,S29
Sc VI	284.884	600		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	B3,S29
Sc VI	285.191	800		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	B3,S29
Sc VI	292.344	600		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	B3,S29
Sc VI	294.292	700		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$?	2 - 1	B3,S29
Sc VI	295.478	900b		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	B3,S29
Sc VI	298.194	800		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	0 - 1	B3,S29
Sc VI	298.428	800		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	2 - 1	B3,S29
Sc VI	300.677	300		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3D^\circ$	2 - 2	B3,S29
Sc VI	301.426	400		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	1 - 1	B3,S29
Sc VI	302.436	100d		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3S^\circ$	0 - 1	B3,S29
Sc VI	311.947	400		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1P^\circ$	2 - 1	B3,S29
Sc VI	314.049	400		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - {}^3P^\circ$	2 - 1	B3,S29
Sc VI	331.309	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	B3,S29
Sc VI	341.62	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	B3,S29

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VI	492.423	600		$3s^23p^4 - 3s3p^5$	$^1D - ^1P^\circ$	2 - 1	B3,E4
Sc VI	561.176	300		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 1	B3,K22
Sc VI	566.790	100		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 0	B3,K22
Sc VI	570.307	300		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	2 - 2	B3,K22
Sc VI	571.937	300		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 1	B3,K22
Sc VI	575.580	300		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	0 - 1	B3,K22
Sc VI	581.404	400		$3s^23p^4 - 3s3p^5$	$g^3P - ^3P^\circ$	1 - 2	B3,K22

SCANDIUM VII (Sc^{6+}), Z = 21

Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [1 105 000] cm^{-1}; [137] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VII	180.260	200		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^2P$?	3/2 - 3/2	B3,K8
Sc VII	182.743	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2S$	3/2 - 1/2	E27
Sc VII	182.993	400		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	E27
Sc VII	183.96	200		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	B3,E27
Sc VII	184.607	200		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 1/2	E27
Sc VII	185.526	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	E27
Sc VII	185.575	40		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2D$	3/2 - 5/2	K22,E27
Sc VII	185.808	330		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2D$	5/2 - 5/2	B3,E27
Sc VII	190.654	400		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	K22,E27
Sc VII	191.602	300		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^2P$	3/2 - 1/2	K22,E27
Sc VII	192.607	150		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2D$	1/2 - 3/2	K22,E27
Sc VII	193.004	300		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	B3,E27
Sc VII	194.813	40		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - ^4P$?	5/2 - 3/2	B3,K8
Sc VII	197.875	50		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 3/2	B3,E27
Sc VII	198.232	200		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 3/2	B3,E27
Sc VII	199.166	100		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	1/2 - 1/2	B3,E27
Sc VII	199.522	50		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^2P$	3/2 - 1/2	B3,E27
Sc VII	201.476	40		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - ^4P$?	3/2 - 5/2	B3,K8
Sc VII	266.800	200		$3p^3 - 3p^2(^1D)3d$	$g^4S^\circ - ^2P$?	3/2 - 3/2	B3,K8
Sc VII	286.927	1000		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	B3,E27
Sc VII	287.48	40		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2F$?	5/2 - 5/2	B3,K8
Sc VII	290.232	800		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	B3,E27
Sc VII	290.700	600		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	B3,E27
Sc VII	292.344	600		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	B3,E27
Sc VII	296.539	400		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	B3,E27
Sc VII	297.269	700		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	B3,E27
Sc VII	298.557	600		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	B3,E27
Sc VII	301.301	300		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2S$	3/2 - 1/2	B3,E27
Sc VII	301.820	500		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	B3,E27
Sc VII	302.436	100		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 3/2	B3,E27
Sc VII	307.320	200d		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	B3,E27
Sc VII	308.180	600		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	B3,E27
Sc VII	309.161	500		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	B3,E27
Sc VII	310.043	100		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 1/2	B3,E27
Sc VII?	320.406	100					B3
Sc VII?	325.121	200					B3
Sc VII	329.640	300		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	B3,E27
Sc VII	333.386	200		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	B3,E27
Sc VII	334.138	500		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	B3,E27
Sc VII	353.845	200		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2P$?	3/2 - 1/2	B3,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VII	447.554	400		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	B3,E27
Sc VII	452.704			$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	E27
Sc VII	454.106	500		$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	B3,E27
Sc VII	470.68			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	F4,E27
Sc VII	472.77			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	F4,E27
Sc VII?	489.77						F4
Sc VII	491.140			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 1/2	E27
Sc VII?	491.90						F4
Sc VII	493.350			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	E27
Sc VII?	495.89						F4
Sc VII	497.349			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	E27
Sc VII?	498.15						F4
Sc VII	499.615			$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2P$	3/2 - 3/2	E27
Sc VII	533.43			$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F4,E27
Sc VII	534.50			$3s^23p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F4,E27
Sc VII	558.023	200		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	K22,E27
Sc VII	562.547	300		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	K22,E27
Sc VII?	563.401	200					B3
Sc VII?	568.329	100					B3
Sc VII	571.256	400		$3s^23p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	K22,E27
Sc VII	598.67	100		$3s^23p^3 - 3s3p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	E27

SCANDIUM VIII (Sc^{7+}), Z = 21

Ground State $1s^22s^22p^63s^23p^2\ ^3P_0$ (14 electrons)

Ionization Potential 1 280 000 cm^{-1}; 158.7 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VIII?	161.353	300					B3
Sc VIII	163.416	400		$3p^2 - 3p4s$	$g^3P - ^1P^\circ$?	1 - 1	B3,K8
Sc VIII?	164.444	100					B3
Sc VIII	164.772	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 2	B3,E27
Sc VIII	165.395	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	0 - 1	B3,E27
Sc VIII	165.654	400		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 2	B3,E27
Sc VIII	166.022	200		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 1	B3,E27
Sc VIII	166.317	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 0	B3,E27
Sc VIII	166.916	300		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 1	B3,E27
Sc VIII	169.759	400		$3p^2 - 3p4s$	$^1D - ^1P^\circ$	2 - 1	B3,E27
Sc VIII	178.821	200		$3p^2 - 3p4s$	$^1S - ^1P^\circ$	0 - 1	B3,E27
Sc VIII	287.55	50		$3p^2 - 3p3d$	$^1D - ^1P^\circ$	2 - 1	B3,E27
Sc VIII	295.478	900b		$3p^2 - 3p3d$	$^1D - ^1F^\circ$	2 - 3	B3,E27
Sc VIII	303.157			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	0 - 1	E27
Sc VIII	304.456	100		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 2	B3,E27
Sc VIII	305.260	100		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 1	B3,E27
Sc VIII	307.083	600		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 3	B3,E27
Sc VIII	307.447	40		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$?	2 - 2	B3,E27
Sc VIII	310.042	500		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	0 - 1	K24,E27
Sc VIII	311.138	200		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 0	K24,E27
Sc VIII?	311.332	100					B3
Sc VIII	312.239	200		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 1	K24,E27
Sc VIII	314.53	200d		$3p^2 - 3p3d$	$^1S - ^1P^\circ$	0 - 1	B3,E27
Sc VIII	315.163	350		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 2	K24,E27
Sc VIII	315.420	300		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 1	K24,E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc VIII?	317.437	400					B3
Sc VIII	318.408	500		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	K24,E27
Sc VIII	339.52	200		$3p^2 - 3p3d$	${}^1D - {}^3P^\circ$?	2 - 2	B3,K8
Sc VIII	358.107	50		$3s^23p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	1 - 1	P16,E27
Sc VIII	362.308	100		$3s^23p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	2 - 1	P16,E27
Sc VIII	367.083	50		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	0 - 1	K24,E27
Sc VIII?	368.088	100d					B3
Sc VIII	370.174	150		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	1 - 1	K24,E27
Sc VIII?	371.184	300					B3
Sc VIII	374.658	250		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	2 - 1	K24,E27
Sc VIII?	375.705	300					B3
Sc VIII	389.866	200		$3s^23p^2 - 3s3p^3$	${}^1D - {}^1P^\circ$	2 - 1	B3,E27
Sc VIII	441.197			$3s^23p^2 - 3s3p^3$	${}^1S - {}^1P^\circ$	0 - 1	E27
Sc VIII	481.33	300		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	0 - 1	E27
Sc VIII	486.618	200		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 2	B3,E27
Sc VIII	492.423	600		$3s^23p^2 - 3s3p^3$	${}^1D - {}^1D^\circ$	2 - 2	B3,E27
Sc VIII	494.446	600		$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 2	B3,E27
Sc VIII	562.75			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	F4,E27
Sc VIII	571.34			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	F4,E27

SCANDIUM IX (Sc^{8+}), Z = 21

Ground State $1s^22s^22p^63s^23p\ {}^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 1 452 000 cm^{-1}; 180.02 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc IX	93.393	100		3p - 5d	$g^2P^\circ - {}^2D$	½ - 3/2	B3,E27
Sc IX	93.889	100d		3p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	B3,E27
Sc IX	102.047	50		3p - 5s	$g^2P^\circ - {}^2S$	½ - ½	B3,E27
Sc IX	102.653	100		3p - 5s	$g^2P^\circ - {}^2S$	3/2 - ½	B3,E27
Sc IX	110.718	100d		$3s3p^2 - 3s^25f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	B3,E27
Sc IX	119.444	400		3p - 4d	$g^2P^\circ - {}^2D$	½ - 3/2	B3,E27
Sc IX	120.236	500		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	B3,E27
Sc IX	120.324	50		3p - 4d	$g^2P^\circ - {}^2D$?	3/2 - 3/2	B3,K8
Sc IX	127.985	50		3d - 5f	${}^2D - {}^2F^\circ$	3/2 - 5/2	B3,E27
Sc IX	128.035	50		3d - 5f	${}^2D - {}^2F^\circ$	5/2 - 7/2	B3,E27
Sc IX	143.324	230		$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	3/2 - 5/2	B3,E27
Sc IX	143.393	200		$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	B3,E27
Sc IX	146.628	300		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 5/2	B3,E27
Sc IX	146.954	400		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	½ - 3/2	B3,E27
Sc IX	147.310	300		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	B3,E27
Sc IX	147.346	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$?	½ - ½	B3,K8
Sc IX	147.834	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - ½	B3,E27
Sc IX	148.103	200		$3s3p^2 - 3s3p(^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 3/2	B3,E27
Sc IX	150.092	500		3p - 4s	$g^2P^\circ - {}^2S$	½ - ½	E27,B3
Sc IX	151.401	400		3p - 4s	$g^2P^\circ - {}^2S$	3/2 - ½	B3,E27
Sc IX	173.771	300		3d - 4f	${}^2D - {}^2F^\circ$	3/2 - 5/2	B3,E27
Sc IX	173.858	400		3d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	B3,E27
Sc IX	318.615	400		3p - 3d	$g^2P^\circ - {}^2D$	½ - 3/2	K24,E27
Sc IX	324.199	600		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K24,E27
Sc IX	324.570	50		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 3/2	K24,E27
Sc IX	385.878			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - 3/2	E27
Sc IX	387.906	40		4d - 5f	${}^2D - {}^2F^\circ$?	5/2 - 7/2	B3,K8
Sc IX	390.888	400		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - ½	K24,E27
Sc IX	394.652	600		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	K24,E27
Sc IX	399.890	200		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - ½	K24,E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc IX	416.036	200		$3s^2 3p - 3s 3p^2$	$g^2P^\circ - {}^2S$	½ - ½	E27,B3
Sc IX	417.46			$3s 3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	½ - 3/2	F4,E27
Sc IX	421.18			$3s 3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	F4,E27
Sc IX	426.252	200		$3s^2 3p - 3s 3p^2$	$g^2P^\circ - {}^2S$	3/2 - ½	B3,E27
Sc IX	426.86			$3s 3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	F4,E27
Sc IX	521.896			$3s^2 3p - 3s 3p^2$	$g^2P^\circ - {}^2D$	½ - 3/2	E27
Sc IX	523.490	100		$3s 3p^2 - 3p^3$	${}^2D - {}^4S^\circ$?	5/2 - 3/2	B3,K8
Sc IX	536.901			$3s^2 3p - 3s 3p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27
Sc IX?	537.612	300					B3

SCANDIUM X (Sc^{9+}), Z = 21

Ground State $1s^2 2s^2 2p^6 3s^2\ {}^1S_0$ (12 electrons)

Ionization Potential 1 817 400 cm^{-1}; 225.32 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc X	76.343	100		$3s^2 - 3s 5p$	$g^1S - {}^1P^\circ$	0 - 1	B3
Sc X	83.760	40		$3s 3p - 3s 5d$	${}^3P^\circ - {}^3D$	0 - 1	B3
Sc X	83.901	100		$3s 3p - 3s 5d$	${}^3P^\circ - {}^3D$	1 - 2	B3
Sc X	84.204	200		$3s 3p - 3s 5d$	${}^3P^\circ - {}^3D$	2 - 3	B3
Sc X	89.736	40d		$3s 3p - 3s 5d$	${}^1P^\circ - {}^3D$?	1 - 2	B3,K8
Sc X	95.02	40		$3s 3d - 3s 6f$	${}^3D - {}^3F^\circ$	1 - 2	B3
Sc X	95.05	40		$3s 3d - 3s 6f$	${}^3D - {}^3F^\circ$	2 - 3	B3
Sc X	95.09	40		$3s 3d - 3s 6f$	${}^3D - {}^3F^\circ$	3 - 4	B3
Sc X	100.739	100		$3p^2 - 3s 5f$	${}^3P - {}^3F^\circ$?	2 - 3	B3,K8
Sc X	101.978	600		$3s^2 - 3s 4p$	$g^1S - {}^1P^\circ$	0 - 1	B3
Sc X	106.557	100		$3s 3d - 3s 5p$	${}^1D - {}^1P^\circ$?	2 - 1	B3,K8
Sc X	109.072	100		$3s 3p - 3s 4d$	${}^3P^\circ - {}^3D$	0 - 1	B3
Sc X	109.202	40		$3s 3d - 3s 5f$	${}^3D - {}^3F^\circ$	1 - 2	B3
Sc X	109.227	100		$3s 3d - 3s 5f$	${}^3D - {}^3F^\circ$	2 - 3	B3
Sc X	109.285	300		$3s 3p - 3s 4d$	${}^3P^\circ - {}^3D$	1 - 2	B3
Sc X	109.307	10		$3s 3p - 3s 4d$	${}^3P^\circ - {}^3D$	1 - 1	B3
Sc X	109.765	400		$3s 3p - 3s 4d$	${}^3P^\circ - {}^3D$	2 - 3	B3
Sc X	109.805	200		$3s 3p - 3s 4d$	${}^3P^\circ - {}^3D$	2 - 2	B3
Sc X	112.677	200		$3p^2 - 3s 5p$	${}^1D - {}^1P^\circ$?	2 - 1	B3,K8
Sc X?	119.049	400					B3
Sc X	119.332	100		$3s 3p - 3s 4d$	${}^1P^\circ - {}^3D$?	1 - 2	B3,K8
Sc X	134.767	300		$3s 3p - 3s 4s$	${}^3P^\circ - {}^3S$	0 - 1	B3
Sc X	135.128	400		$3s 3p - 3s 4s$	${}^3P^\circ - {}^3S$	1 - 1	B3
Sc X	135.921	500		$3s 3p - 3s 4s$	${}^3P^\circ - {}^3S$	2 - 1	B3
Sc X	150.900	300		$3s 3d - 3s 4f$	${}^3D - {}^3F^\circ$	1 - 2	B3
Sc X	150.939	400		$3s 3d - 3s 4f$	${}^3D - {}^3F^\circ$	2 - 3	B3
Sc X	150.995	500		$3s 3d - 3s 4f$	${}^3D - {}^3F^\circ$	3 - 4	B3
Sc X	331.679	40d		$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$	0 - 1	B3
Sc X	333.521	200		$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$?	1 - 2	B3
Sc X	337.911	200d		$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$?	2 - 3	B3
Sc X	338.03			$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$?	1 - 2	F4
Sc X	338.447	200		$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$?	2 - 2	B3,K8
Sc X	342.53			$3s 3p - 3s 3d$	${}^3P^\circ - {}^3D$?	2 - 3	F4
Sc X	348.14			$3p^2 - 3p 3d$	${}^3P - {}^3D^\circ$	1 - 2	F4
Sc X	353.55			$3p^2 - 3p 3d$	${}^3P - {}^3D^\circ$	2 - 3	F4
Sc X	357.85			$3p^2 - 3p 3d$	${}^3P - {}^3P^\circ$	2 - 2	F4
Sc X	382.650	200		$3p^2 - 3p 3d$	${}^1D - {}^1P^\circ$?	2 - 1	B3,K8
Sc X	383.58			$3p^2 - 3p 3d$	${}^1D - {}^1D^\circ$	2 - 2	F4
Sc X	410.89			$3p^2 - 3p 3d$	${}^1S - {}^1P^\circ$	0 - 1	F4
Sc X	422.850	400		$3s^2 - 3s 3p$	$g^1S - {}^1P^\circ$	0 - 1	B3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc X	449.28			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	F4
Sc X	455.32			$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	F4
Sc X	458.18			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	F4
Sc X	459.38			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 1	F4
Sc X	465.01			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	F4
Sc X	468.74			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	F4
Sc X	490.23			$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	F4
Sc X	576.79			$3s3d - 3p3d$	$^3D - ^3F^\circ$	3 - 4	F4
Sc X	586.96			$3s3d - 3p3d$	$^3D - ^3F^\circ$	2 - 3	F4
Sc X	595.98			$3s3d - 3p3d$	$^3D - ^3F^\circ$	1 - 2	F4
Sc X	628.111	40		$3s^2 - 3s3p$	$g^1S - ^3P^\circ$	0 - 1	B3
Sc X	740.32			$3s3p - 3s3d$	$^1P^\circ - ^1D$	1 - 2	F4

SCANDIUM XI (Sc^{10+}), Z = 21

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 2 015 080 cm^{-1}; 249.832 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XI	62.132	40		3s - 6p	$g^2S - ^2P^\circ$	½ - 3/2	B3
Sc XI	64.70	10		3p - 7d	$^2P^\circ - ^2D$	½ - 3/2	B3
Sc XI	64.98	40		3p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	B3
Sc XI	69.252	40		3p - 6d	$^2P^\circ - ^2D$	½ - 3/2	B3
Sc XI	69.575	100		3p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	B3
Sc XI	70.445	200		3s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	B3
Sc XI	70.509	100		3s - 5p	$g^2S - ^2P^\circ$	½ - ½	B3
Sc XI	71.887	40		3p - 6s	$^2P^\circ - ^2S$	3/2 - ½	B3
Sc XI	77.917	40d		3d - 7f	$^2D - ^2F^\circ$	5/2 - 7/2	B3
Sc XI	78.509	100		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	B3
Sc XI	78.917	300		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	B3
Sc XI	83.958	40		3p - 5s	$^2P^\circ - ^2S$	½ - ½	B3
Sc XI	84.351	40		3d - 6f	$^2D - ^2F^\circ$	3/2 - 5/2	B3
Sc XI	84.393	50		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	B3
Sc XI	84.433	100		3p - 5s	$^2P^\circ - ^2S$	3/2 - ½	B3
Sc XI	94.888	600		3s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	B3
Sc XI	95.117	500		3s - 4p	$g^2S - ^2P^\circ$	½ - ½	B3
Sc XI	97.777	300		3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	B3
Sc XI	97.830	400		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	B3
Sc XI	104.142	40		3d - 5p	$^2D - ^2P^\circ$	3/2 - 3/2	B3
Sc XI	104.219	40		3d - 5p	$^2D - ^2P^\circ$	5/2 - 3/2	B3
Sc XI	104.435	500		3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	B3
Sc XI	105.140	600		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	B3
Sc XI	105.170	200		3p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	B3
Sc XI	127.156	500		3p - 4s	$^2P^\circ - ^2S$	½ - ½	B3
Sc XI	128.247	500		3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	B3
Sc XI	138.283	500		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	B3
Sc XI	138.380	500		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	B3
Sc XI	168.165	100		4d - 7f	$^2D - ^2F^\circ$?	5/2 - 7/2	B3,K8
Sc XI	168.396	400		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	B3
Sc XI	168.942	200		3d - 4p	$^2D - ^2P^\circ$	3/2 - ½	B3
Sc XI	354.24	100		4f - 5d	$^2F^\circ - ^2D$?	5/2 - 5/2	F4,K8
Sc XI	354.350	100		4f - 5d	$^2F^\circ - ^2D$?	7/2 - 5/2	B3,K8
Sc XI	372.507	300		3p - 3d	$^2P^\circ - ^2D$?	½ - 3/2	K25
Sc XI	381.151	700		3p - 3d	$^2P^\circ - ^2D$?	3/2 - 5/2	K25

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XI	505.117	400		3s - 3p	g^2S - $^2P°$	½ - ⅜	K25
Sc XI	522.810	200		3s - 3p	g^2S - $^2P°$	½ - ½	K25

SCANDIUM XII (Sc^{11+}), Z = 21

Ground State $1s^22s^22p^6$ $^1S_0$ (10 electrons)

Ionization Potential 5 532 200 cm^{-1}; 685.89 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XII	20.298	100		$2p^6$ - $2p^55d$	g^1S - $^1P°$	0 - 1	F24
Sc XII	20.438	50		$2p^6$ - $2p^55d$	g^1S - $^3D°$	0 - 1	F24
Sc XII	21.940	250		$2p^6$ - $2p^54d$	g^1S - $^1P°$	0 - 1	F24
Sc XII	22.119	200		$2p^6$ - $2p^54d$	g^1S - $^3D°$	0 - 1	F24
Sc XII	22.837	50		$2p^6$ - $2p^54s$	g^1S - $^1P°$	0 - 1	F24
Sc XII	23.045	50		$2p^6$ - $2p^54s$	g^1S - $^3P°$	0 - 1	F24
Sc XII	23.725	350		$2s^22p^6$ - $2s2p^63p$	g^1S - $^1P°$	0 - 1	F24
Sc XII	23.821	50		$2s^22p^6$ - $2s2p^63p$	g^1S - $^3P°$	0 - 1	F24
Sc XII	26.544			$2p^6$ - $2p^53d$	g^1S - ½[⅜]°	0 - 1	E26
Sc XII	26.920			$2p^6$ - $2p^53d$	g^1S - ⅜[⅜]°	0 - 1	E26
Sc XII	27.260			$2p^6$ - $2p^53d$	g^1S - ⅜[½]°	0 - 1	E26
Sc XII	30.480			$2p^6$ - $2p^53s$	g^1S - ½[½]°	0 - 1	E26
Sc XII	30.816			$2p^6$ - $2p^53s$	g^1S - ⅜[⅜]°	0 - 1	E26

SCANDIUM XIII (Sc^{12+}), Z = 21

Ground State $1s^22s^22p^5$ $^2P°_{3/2}$ (9 electrons)

Ionization Potential 6 093 400 cm^{-1}; 755.47 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XIII	19.93			$2p^5$ - $2p^44d$			F5
Sc XIII	24.09	20		$2p^5$ - $2p^4(^1S)3d$	$g^2P°$ - ^2D	⅜ - ⅝	C10
Sc XIII	24.28	30		$2p^5$ - $2p^4(^1S)3d$	$g^2P°$ - ^2D	½ - ⅜	C10
Sc XIII	24.56	60		$2p^5$ - $2p^4(^1D)3d$	$g^2P°$ - ^2P	⅜ - ⅜	C10
Sc XIII	24.65	10		$2p^5$ - $2p^4(^1D)3d$	$g^2P°$ - ^2S	⅜ - ½	C10
Sc XIII	24.71	40		$2p^5$ - $2p^4(^1D)3d$	$g^2P°$ - ^2D	⅜ - ⅝	C10
Sc XIII	24.89	10		$2p^5$ - $2p^4(^1D)3d$	$g^2P°$ - ^2P	½ - ½	C10
Sc XIII	24.97	30		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2D	⅜ - ⅝	C10
Sc XIII	25.08	20		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2D	⅜ - ⅜	C10
Sc XIII	25.12	20		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2P	⅜ - ⅜	C10
Sc XIII	25.19	20		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2P	⅜ - ½	C10
Sc XIII	25.23	20		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^4D	⅜ - ⅜	C10
Sc XIII	25.33	10		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2D	½ - ⅜	C10
Sc XIII	25.43	10		$2p^5$ - $2p^4(^3P)3d$	$g^2P°$ - ^2P	½ - ½	C10
Sc XIII	27.63	20		$2p^5$ - $2p^4(^1D)3s$	$g^2P°$ - ^2D	⅜ - ⅝	C10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XIII	27.90	30		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	½ - 3/2	C10
Sc XIII	27.97	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - ½	C10
Sc XIII	28.13	40		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	C10
Sc XIII	28.27	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	½ - ½	C10
Sc XIII	28.32	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	C10
Sc XIII	28.45	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	C10
Sc XIII	28.75	20		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	½ - 3/2	C10
Sc XIII	130.96	300		$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - ½	F9,B3
Sc XIII	137.80	300		$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	½ - ½	F9,B3

SCANDIUM XIV (Sc^{13+}), Z = 21

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential 6 692 900 cm^{-1}; 829.79 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XIV	22.650	150		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	G13
Sc XIV	22.825	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	G13
Sc XIV	22.964	300		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	G13
Sc XIV	23.274	250		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	G13
Sc XIV	23.430	200		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	G13
Sc XIV	23.568	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	G13
Sc XIV	23.740	100		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	G13
Sc XIV	24.971	50		$2p^4 - 2p^3(^2P^\circ)3s$	$g\,^3P - ^3P^\circ$	2 - 2	G13
Sc XIV	25.441	300		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^3D^\circ$	2 - 3	G13
Sc XIV	25.647	150		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^3D^\circ$	1 - 2	G13
Sc XIV	25.923	300		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - ^1D^\circ$	2 - 2	G13
Sc XIV	25.988	250		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	2 - 1	G13
Sc XIV	26.059	150		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	G13
Sc XIV	26.200	150		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	1 - 1	G13
Sc XIV	26.226	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	0 - 1	G13
Sc XIV	111.937	40d		$2s^22p^4 - 2s2p^5$	$g\,^3P - ^1P^\circ$?	2 - 1	B3,K8
Sc XIV	122.66			$2s^22p^4 - 2s2p^5$	$g\,^1D - ^1P^\circ$	2 - 1	F5
Sc XIV	139.46			$2s^22p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	F5
Sc XIV	145.035	200		$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$?	2 - 1	B3,F5
Sc XIV	148.47			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	1 - 0	F5
Sc XIV	150.46			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	2 - 2	F5
Sc XIV	151.89			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	1 - 1	F5
Sc XIV	152.85			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	0 - 1	F5
Sc XIV	157.86			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	1 - 2	F5

SCANDIUM XV (Sc^{14+}), Z = 21

Ground State $1s^2 2s^2 2p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential 7 468 900 cm^{-1}; 926.00 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XV	21.41			$2s^2 2p^3 - 2s^2 2p^2(^3P)3d$	$g\,^4S^\circ - {}^4P$	3/2 - 3/2	F5
Sc XV	21.49			$2s^2 2p^3 - 2s^2 2p^2(^3P)3d$	$g\,^4S^\circ - {}^4P$	3/2 - 5/2	F5
Sc XV	21.51			$2s^2 2p^3 - 2s^2 2p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F5
Sc XV	112.337	100		$2s\,2p^4 - 2p^5$	$^4P - {}^2P^\circ$?	1/2 - 1/2	B3,K8
Sc XV	112.895	40		$2s\,2p^4 - 2p^5$	$^4P - {}^2P^\circ$?	5/2 - 3/2	B3,K8
Sc XV	113.937	200		$2s^2 2p^3 - 2s\,2p^4$	$g\,^4S^\circ - {}^2S$?	3/2 - 1/2	B3,K8
Sc XV	118.99			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	F5
Sc XV	124.14			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2P$	3/2 - 3/2	F5
Sc XV	125.83			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F5
Sc XV	130.42			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2P$	1/2 - 1/2	F5
Sc XV	133.12			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2P$	3/2 - 1/2	F5
Sc XV	136.62			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2P$	1/2 - 3/2	F5
Sc XV	138.68			$2s\,2p^4 - 2p^5$	$^2D - {}^2P^\circ$	3/2 - 1/2	F5
Sc XV	143.44			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2S$	1/2 - 1/2	F5
Sc XV	146.71			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	F5
Sc XV	147.54			$2s\,2p^4 - 2p^5$	$^2D - {}^2P^\circ$	5/2 - 3/2	F5
Sc XV	153.80			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	F5
Sc XV	154.89			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2D$?	3/2 - 5/2	B3,K8
Sc XV	155.73			$2s^2 2p^3 - 2s\,2p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	F5
Sc XV	170.00			$2s^2 2p^3 - 2s\,2p^4$	$g\,^4S^\circ - {}^4P$	3/2 - 1/2	F5
Sc XV	173.27			$2s^2 2p^3 - 2s\,2p^4$	$g\,^4S^\circ - {}^4P$	3/2 - 3/2	F5
Sc XV	173.49			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2D$	1/2 - 3/2	F5
Sc XV	177.47			$2s^2 2p^3 - 2s\,2p^4$	$^2P^\circ - {}^2D$	3/2 - 5/2	F5
Sc XV	181.21			$2s^2 2p^3 - 2s\,2p^4$	$g\,^4S^\circ - {}^4P$	3/2 - 5/2	F5
Sc XV	190.49			$2s\,2p^4 - 2p^5$	$^2P - {}^2P^\circ$	3/2 - 3/2	F5

SCANDIUM XVI (Sc^{15+}), Z = 21

Ground State $1s^2 2s^2 2p^2\ {}^3P_0$ (6 electrons)

Ionization Potential [8 138 300] cm^{-1}; [1009] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XVI	20.200	80		$2s^2 2p^2 - 2s^2 2p\,3d$	$g\,^3P - {}^3P^\circ$	1 - 2	G14
Sc XVI	20.224	20		$2s\,2p^3 - 2s\,2p^2(^4P)3d$	$^5S^\circ - {}^5P$	2 - 3	G14
Sc XVI	20.291	40		$2s^2 2p^2 - 2s^2 2p\,3d$	$g\,^3P - {}^3P^\circ$	2 - 2	G14
Sc XVI	20.330	80		$2s^2 2p^2 - 2s^2 2p\,3d$	$g\,^3P - {}^3D^\circ$	2 - 3	G14
Sc XVI	20.392	80		$2s^2 2p^2 - 2s^2 2p\,3d$	$^1D - {}^1F^\circ$	2 - 3	G14
Sc XVI	20.458	80		$2s\,2p^3 - 2s\,2p^2(^2D)3d$	$^3D^\circ - {}^3F$	3 - 4	G14
Sc XVI	20.831	40		$2s^2 2p^2 - 2s^2 2p\,3d$	$^1S - {}^1P^\circ$	0 - 1	G14
Sc XVI	21.114	20		$2s\,2p^3 - 2s\,2p^2(^4P)3d$	$^3D^\circ - {}^3F$	2 - 3	G14
Sc XVI	21.637	40		$2s^2 2p^2 - 2s^2 2p\,3s$	$g\,^3P - {}^3P^\circ$	1 - 2	G14
Sc XVI	21.670	60		$2s\,2p^3 - 2s\,2p^2(^4P)3s$	$^5S^\circ - {}^5P$	2 - 3	G14
Sc XVI	21.732	80		$2s^2 2p^2 - 2s^2 2p\,3s$	$g\,^3P - {}^3P^\circ$	2 - 2	G14
Sc XVI	21.816	40		$2s\,2p^3 - 2s\,2p^2(^2D)3s$	$^3D^\circ - {}^3D$	2 - 2	G14
Sc XVI	21.927	40		$2s^2 2p^2 - 2s^2 2p\,3s$	$g\,^3P - {}^3P^\circ$	2 - 1	G14
Sc XVI	22.016	20		$2s^2 2p^2 - 2s^2 2p\,3s$	$^1D - {}^1P^\circ$	2 - 1	G14
Sc XVI	22.522	20		$2s^2 2p^2 - 2s^2 2p\,3s$	$^1S - {}^1P^\circ$	0 - 1	G14
Sc XVI	127.844	200		$2s^2 2p^2 - 2s\,2p^3$	$g\,^3P - {}^3S^\circ$?	0 - 1	B3,K8
Sc XVI	128.780	40		$2s^2 2p^2 - 2s\,2p^3$	$g\,^3P - {}^1P^\circ$?	2 - 1	B3,K8
Sc XVI	131.69			$2s^2 2p^2 - 2s\,2p^3$	$g\,^3P - {}^3S^\circ$	1 - 1	F5
Sc XVI	132.67			$2s^2 2p^2 - 2s\,2p^3$	$^1D - {}^1P^\circ$	2 - 1	F5
Sc XVI	135.62			$2s^2 2p^2 - 2s\,2p^3$	$g\,^3P - {}^3S^\circ$	2 - 1	F5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XVI	139.60			$2s^22p^2 - 2s2p^3$	$g^3P - {}^1D^\circ$?	1 - 2	F5,K8
Sc XVI	143.487	100		$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$?	2 - 1	B3,K8
Sc XVI	150.94			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	F5
Sc XVI	157.94 ?			$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	K8
Sc XVI	158.68			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	0 - 1	K8
Sc XVI	160.725	330		$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$?	0 - 1	B3,K8
Sc XVI	163.44			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	F5
Sc XVI	164.67			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 1	F5
Sc XVI	165.11			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 0	F5
Sc XVI	169.65			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	F5
Sc XVI	188.50			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	0 - 1	F5
Sc XVI	194.72			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	1 - 2	F5
Sc XVI	201.25			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	F5

SCANDIUM XVII (Sc^{16+}), Z = 21

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [8 823 900] cm^{-1}; [1094] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XVII	14.99 ?			2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Sc XVII	19.32 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
Sc XVII	20.47 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Sc XVII	162.65 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
Sc XVII	175.61 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

SCANDIUM XVIII (Sc^{17+}), Z = 21

Ground State $1s^22s^2\ {}^1S_0$ (4 electrons)

Ionization Potential [9 759 600] cm^{-1}; [1210] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Sc XVIII	12.03 ?			$2s^2 - 2s5p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Sc XVIII	13.37 ?			$2s^2 - 2s4p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Sc XVIII	16.76 ?			$2s^2 - 2p3s$	$g^1S - {}^1P^\circ$	0 - 1	K8
Sc XVIII	188.98 ?			$2s^2 - 2s2p$	$g^1S - {}^1P^\circ$	0 - 1	K8
Sc XVIII	361.36 ?			$2s^2 - 2s2p$	$g^1S - {}^3P^\circ$	0 - 1	K8

SCANDIUM XIX (Sc^{18+}), Z = 21

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [10 389 000] cm^{-1}; [1288] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Sc XIX	11.14	P			2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	G15
Sc XIX	11.20	P			2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Sc XIX	11.37	P			2s - 5p	$g\,^2S - ^2P^\circ$		G15
Sc XIX	11.78	P			2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	G15
Sc XIX	11.84		20		2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Sc XIX	12.66		20		2s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G15
Sc XIX	13.160		20		2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	G15
Sc XIX	13.236		100		2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Sc XIX	16.819		200		2s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G15
Sc XIX	16.861		200		2s - 3p	$g\,^2S - ^2P^\circ$	½ - ½	G15
Sc XIX	17.634		200		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	G15
Sc XIX	17.779		300		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Sc XIX	18.026				2p - 3s	$^2P^\circ - ^2S$	½ - ½	G15
Sc XIX	18.182				2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	G15
Sc XIX	275.25	P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8
Sc XIX	321.77	P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - ½	K8

SCANDIUM XX (Sc^{19+}), Z = 21

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [45 773 000] cm^{-1}; [5675] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Sc XX	2.46				$1s^2 - 1s3p$	$g\,^1S - ^1P^\circ$	0 - 1	C11
Sc XX	2.87	P			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8,C11
Sc XX	2.88				$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Sc XX	2.92	?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

SCANDIUM XXI (Sc^{20+}), Z = 21

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential [48 665 500] cm^{-1}; [6033.6] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Sc XXI	2.74	P			1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8

TITANIUM, Z = 22

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	72.093	1					S30
Ti	72.772	1					S30
Ti	72.991	1					S30
Ti	76.030	1					S30
Ti	76.490	1					S30
Ti	77.435	1					S30
Ti	77.506	1					S30
Ti	77.541	1					S30
Ti	77.823	1					S30
Ti	77.935	1					S30
Ti	81.306	1					S30
Ti	87.972	6					S30
Ti	88.284	1					S30
Ti	88.642	1					S30
Ti	88.961	1					S30
Ti	89.181	1					S30
Ti	89.814	3					S30
Ti	92.272	1					S30
Ti	92.581	1					S30
Ti	93.909	10					S30
Ti	94.570	3					S30
Ti	95.293	3					S30
Ti	95.640	3					S30
Ti	95.929	3					S30
Ti	96.017	3					S30
Ti	96.170	1					S30
Ti	96.246	1					S30
Ti	96.731	3					S30
Ti	97.142	1					S30
Ti	99.377	6					S30
Ti	100.208	6					S30
Ti	100.359	3					S30
Ti	100.638	3					S30
Ti	100.835	20					S30
Ti	101.111	3					S30
Ti	102.576	6					S30
Ti	104.015	6					S30
Ti	104.348	6					S30
Ti	104.466	1					S30
Ti	104.659	3					S30
Ti	104.861	3					S30
Ti	107.801	3					S30
Ti	108.493	3					S30
Ti	108.886	3					S30
Ti	109.153	1					S30
Ti	109.509	3					S30
Ti	109.593	3					S30
Ti	109.904	6					S30
Ti	109.963	1					S30
Ti	110.019	1					S30
Ti	110.283	10					S30
Ti	111.345	20					S30
Ti	111.942	3					S30
Ti	112.002	1					S30
Ti	112.116	1					S30
Ti	112.153	1					S30
Ti	112.178	3					S30
Ti	113.289	3					S30
Ti	113.374	1					S30
Ti	113.643	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	114.053	3					S30
Ti	116.910	6					S30
Ti	118.131	6					S30
Ti	118.915	6					S30
Ti	119.050	6					S30
Ti	119.268	10					S30
Ti	120.226	1					S30
Ti	120.406	1					S30
Ti	120.559	20					S30
Ti	121.464	6					S30
Ti	121.622	3					S30
Ti	121.783	1					S30
Ti	121.922	3					S30
Ti	122.136	1					S30
Ti	122.376	6					S30
Ti	122.847	6					S30
Ti	122.894	10					S30
Ti	123.063	6					S30
Ti	123.196	3					S30
Ti	123.253	6					S30
Ti	124.104	3					S30
Ti	124.555	1					S30
Ti	124.632	1					S30
Ti	124.940	6					S30
Ti	125.195	1					S30
Ti	125.744	3					S30
Ti	126.276	1					S30
Ti	128.111	6					S30
Ti	128.591	3					S30
Ti	128.731	3					S30
Ti	128.871	3					S30
Ti	129.288	0					G17
Ti	129.418	1					G17
Ti	131.102	3					S30
Ti	131.474	1					S30
Ti	131.623	3					S30
Ti	132.924	1					S30
Ti	133.053	3					S30
Ti	133.170	1					G17
Ti	133.482	6					S30
Ti	133.568	1					S30
Ti	133.721	1					S30
Ti	133.866	0					G17
Ti	133.990	0					G17
Ti	134.287	1					S30
Ti	134.701	3					S30
Ti	134.894	3					S30
Ti	135.326	1					S30
Ti	135.458	1					S30
Ti	140.240	3					S30
Ti	141.208	1					S30
Ti	142.543	1					S30
Ti	144.092	1					S30
Ti	144.461	1					S30
Ti	147.316	1					S30
Ti	148.014	1					S30
Ti	149.842	3					S30
Ti	155.494	1					S30
Ti	155.545	1					S30
Ti	157.378	6					S30
Ti	158.042	3					S30
Ti	158.391	3					S30
Ti	158.952	3					S30
Ti	165.653	1					S30
Ti	166.566	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	167.625	1					S30
Ti	167.930	1					S30
Ti	168.162	10					S30
Ti	168.192	10					S30
Ti	169.036	1					S30
Ti	171.392	3					S30
Ti	171.723	3					S30
Ti	176.105	1					S30
Ti	176.538	1					S30
Ti	177.729	1					S30
Ti	179.842	1					S30
Ti	186.417	1					S30
Ti	187.671	1					S30
Ti	187.752	1					S30
Ti	187.819	1					S30
Ti	190.181	1					S30
Ti	190.762	1					S30
Ti	192.102	3					S30
Ti	192.272	3					S30
Ti	192.474	6					S30
Ti	193.501	1					S30
Ti	193.534	3					S30
Ti	193.585	6					S30
Ti	193.668	10					S30
Ti	193.737	1					S30
Ti	193.791	1					S30
Ti	194.039	1					S30
Ti	194.420	1					S30
Ti	194.490	3					S30
Ti	196.443	1					S30
Ti	196.785	1					S30
Ti	197.178	3					S30
Ti	197.629	6					S30
Ti	197.697	6					S30
Ti	197.843	3					S30
Ti	198.079	1					S30
Ti	198.137	3					S30
Ti	198.311	3					S30
Ti	198.540	3					S30
Ti	199.960	3					S30
Ti	199.993	1					S30
Ti	200.691	1					S30
Ti	202.303	1					S30
Ti	205.880	1					S30
Ti	220.045	1					S30
Ti	220.739	1					S30
Ti	221.497	1					S30
Ti	222.021	1					S30
Ti	224.169	1					S30
Ti	224.818	1					S30
Ti	225.033	1					S30
Ti	226.409	1					S30
Ti	226.462	1					S30
Ti	226.561	10					S30
Ti	226.629	1					S30
Ti	226.680	1					S30
Ti	226.722	1					S30
Ti	227.639	1					S30
Ti	228.135	1					S30
Ti	229.619	3					S30
Ti	230.155	1					S30
Ti	230.304	1					S30
Ti	230.425	1					S30
Ti	230.591	1					S30
Ti	231.553	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	232.361	1					S30
Ti	232.466	1					S30
Ti	232.711	1					S30
Ti	232.847	1					S30
Ti	233.787	1					S30
Ti	234.184	3					S30
Ti	234.680	1					S30
Ti	234.902	1					S30
Ti	235.096	10					S30
Ti	235.316	3					S30
Ti	235.353	6					S30
Ti	235.450	6					S30
Ti	235.683	20					S30
Ti	235.887	10					S30
Ti	236.914	1					S30
Ti	237.059	3					S30
Ti	237.250	1					S30
Ti	237.519	1					S30
Ti	237.826	1					S30
Ti	238.054	6					S30
Ti	238.294	1					S30
Ti	238.689	3					S30
Ti	239.404	3					S30
Ti	239.933	1					S30
Ti	240.009	1					S30
Ti	240.321	3					S30
Ti	240.926	10					S30
Ti	241.013	1					S30
Ti	241.240	1					S30
Ti	241.271	1					S30
Ti	241.750	1					S30
Ti	241.917	3					S30
Ti	242.059	1					S30
Ti	242.403	1					S30
Ti	242.475	3					S30
Ti	242.604	1					S30
Ti	242.847	3					S30
Ti	243.035	3					S30
Ti	243.259	1					S30
Ti	243.503	1					S30
Ti	243.968	3					S30
Ti	244.291	1					S30
Ti	244.482	1					S30
Ti	244.779	1					S30
Ti	245.258	1					S30
Ti	245.535	1					S30
Ti	245.637	1					S30
Ti	245.894	1					S30
Ti	245.937	1					S30
Ti	246.198	6					S30
Ti	246.235	1					S30
Ti	246.395	3					S30
Ti	246.564	10					S30
Ti	246.699	1					S30
Ti	246.743	1					S30
Ti	247.135	1					S30
Ti	247.278	1					S30
Ti	247.385	1					S30
Ti	247.536	1					S30
Ti	247.719	3					S30
Ti	247.929	3					S30
Ti	248.150	1					S30
Ti	248.481	1					S30
Ti	248.592	1					S30
Ti	248.908	20					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	248.980	6					S30
Ti	249.229	1					S30
Ti	249.278	1					S30
Ti	249.471	1					S30
Ti	249.529	1					S30
Ti	249.589	3					S30
Ti	249.632	1					S30
Ti	249.688	1					S30
Ti	249.785	1					S30
Ti	249.920	20					S30
Ti	249.984	3					S30
Ti	250.050	1					S30
Ti	250.339						S30
Ti	250.790	3					S30
Ti	250.999	10					S30
Ti	251.266	6					S30
Ti	251.533	6					S30
Ti	251.622	35					S30
Ti	251.715	1					S30
Ti	251.800	6					S30
Ti	252.065	20					S30
Ti	252.874	3					S30
Ti	253.427	1					S30
Ti	253.518	1					S30
Ti	253.591	1					S30
Ti	253.674	1					S30
Ti	253.906	3					S30
Ti	254.188	3					S30
Ti	254.288	20					S30
Ti	254.485	6					S30
Ti	254.574	1					S30
Ti	254.859	1					S30
Ti	255.439	1					S30
Ti	255.628	3					S30
Ti	255.754	1					S30
Ti	255.813	10					S30
Ti	255.875	6					S30
Ti	256.149	6					S30
Ti	256.305	10					S30
Ti	256.338	3					S30
Ti	256.454	10					S30
Ti	256.525	1					S30
Ti	256.586	20					S30
Ti	256.685	3					S30
Ti	256.732	6					S30
Ti	256.815	1					S30
Ti	256.869	1					S30
Ti	257.003	10					S30
Ti	257.155	6					S30
Ti	257.382	1					S30
Ti	257.430	6					S30
Ti	257.645	6					S30
Ti	258.008	1					S30
Ti	258.056	1					S30
Ti	258.178	1					S30
Ti	258.267	1					S30
Ti	258.467	1					S30
Ti	258.868	3					S30
Ti	258.930	3					S30
Ti	258.969	3					S30
Ti	259.311	6					S30
Ti	259.448	35					S30
Ti	259.649	20					S30
Ti	259.835	10					S30
Ti	259.895	3					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	260.251	60					S30
Ti	260.408	1					S30
Ti	260.522	6					S30
Ti	260.566	1					S30
Ti	260.829	1					S30
Ti	260.986	3					S30
Ti	261.026	10					S30
Ti	261.224	1					S30
Ti	261.280	1					S30
Ti	261.365	1					S30
Ti	261.493	10					S30
Ti	261.578	1					S30
Ti	261.916	1					S30
Ti	262.300	3					S30
Ti	262.499	1					S30
Ti	262.651	10					S30
Ti	262.894	1					S30
Ti	262.967	1					S30
Ti	263.384	6					S30
Ti	263.658	6					S30
Ti	263.822	1					S30
Ti	264.272	20					S30
Ti	264.367	3					S30
Ti	264.650	1					S30
Ti	264.739	1					S30
Ti	264.958	1					S30
Ti	265.145	3					S30
Ti	265.255	1					S30
Ti	265.574	6					S30
Ti	265.666	1					S30
Ti	266.180	3					S30
Ti	266.670	3					S30
Ti	267.024	3					S30
Ti	267.187	1					S30
Ti	268.269	6					S30
Ti	268.566	1					S30
Ti	268.699	1					S30
Ti	268.748	1					S30
Ti	269.010	1					S30
Ti	269.314	1					S30
Ti	269.708	1					S30
Ti	269.939	10					S30
Ti	270.067	3					S30
Ti	270.281	10					S30
Ti	270.443	1					S30
Ti	270.675	10					S30
Ti	270.913	6					S30
Ti	271.030	6					S30
Ti	271.234	6					S30
Ti	271.488	6					S30
Ti	271.892	1					S30
Ti	272.417	3					S30
Ti	272.569	3					S30
Ti	272.707	1					S30
Ti	273.562	6					S30
Ti	273.916	3					S30
Ti	274.028	6					S30
Ti	275.128	3					S30
Ti	275.979	1					S30
Ti	276.565	35					S30
Ti	276.909	1					S30
Ti	277.034	1					S30
Ti	277.111	3					S30
Ti	277.168	1					S30
Ti	277.760	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	277.866	3					S30
Ti	277.984	3					S30
Ti	278.065	35					S30
Ti	278.331	60					S30
Ti	278.627	10					S30
Ti	278.926	6					S30
Ti	279.140	35					S30
Ti	279.195	3					S30
Ti	279.654	6					S30
Ti	280.284	20					S30
Ti	281.193	1					S30
Ti	282.086	6					S30
Ti	282.520	1					S30
Ti	283.204	1					S30
Ti	283.316	1					S30
Ti	284.349	20					S30
Ti	284.829	1					S30
Ti	285.417	90					S30
Ti	285.543	35					S30
Ti	285.672	6					S30
Ti	285.726	3					S30
Ti	285.860	10					S30
Ti	286.233	1					S30
Ti	286.333	1					S30
Ti	286.532	20					S30
Ti	287.041	10					S30
Ti	287.355	6					S30
Ti	287.400	6					S30
Ti	288.125	6					S30
Ti	288.232	6					S30
Ti	289.019	3					S30
Ti	289.178	1					S30
Ti	289.318	10					S30
Ti	289.456	1					S30
Ti	289.731	1					S30
Ti	289.992	1					S30
Ti	290.215	10					S30
Ti	290.344	3					S30
Ti	290.385	20					S30
Ti	290.506	1					S30
Ti	290.601	6					S30
Ti	290.726	3					S30
Ti	291.186	60					S30
Ti	291.403	6					S30
Ti	291.585	3					S30
Ti	291.958	1					S30
Ti	292.401	1					S30
Ti	293.033	1					S30
Ti	293.240	1					S30
Ti	293.549	1					S30
Ti	293.640	1					S30
Ti	293.944	20					S30
Ti	294.239	1					S30
Ti	294.302	3					S30
Ti	295.070	6					S30
Ti	295.207	6					S30
Ti	297.106	3					S30
Ti	297.312	1					S30
Ti	297.418	1					S30
Ti	297.527	6					S30
Ti	297.858	1					S30
Ti	298.014	3					S30
Ti	298.380	1					S30
Ti	299.563	3					S30
Ti	299.889	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti	300.416	1					S30
Ti	301.244	1					S30
Ti	302.007	1					S30
Ti	302.558	1					S30
Ti	302.906	1					S30
Ti	303.791	1					S30
Ti	303.891	35					S30
Ti	306.083	1					S30
Ti	307.493	1					S30
Ti	308.408	3					S30
Ti	310.518	1					S30
Ti	314.940	3					S30
Ti	315.670	1					S30
Ti	315.779	3					S30
Ti	316.987	1					S30
Ti	318.543	1					S30
Ti	319.887	1					S30
Ti	324.047	1					S30
Ti	325.767	1					S30
Ti	326.259	1					S30
Ti	328.248	1					S30
Ti	331.074	1					S30
Ti	332.554	1					S30
Ti	334.859	1					S30
Ti	343.668	1					S30
Ti	349.299	1					S30
Ti	351.126	6					S30
Ti	351.351	1					S30
Ti	352.348	1					S30
Ti	352.574	1					S30
Ti	353.757	1					S30
Ti	354.843	1					S30
Ti	368.818	3					S30
Ti	370.408	1					S30
Ti	371.332	1					S30
Ti	371.410	6					S30
Ti	375.508	1					S30
Ti	385.211	1					S30
Ti	394.153	1					S30
Ti	396.288	1					S30

TITANIUM I (Ti^{0+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2 4s^2$ $^3F_2$ (22 electrons)

Ionization Potential 55 010 cm^{-1}; 6.82 eV

TITANIUM II (Ti^{1+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2 4s\ ^4F_{3/2}$ (21 electrons)

Ionization Potential 109 506 cm^{-1}; 13.58 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti II	1906.30	300	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	3/2 - 3/2	M23
Ti II	1908.29	300	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	7/2 - 7/2	M23
Ti II	1909.33	200	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	5/2 - 5/2	M23
Ti II	1909.74	200	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	5/2 - 3/2	M23
Ti II	1911.01	50	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	3/2 - 1/2	M23
Ti II	1914.11	25	3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	7/2 - 5/2	M23
Ti II	1914.32 P		3	$3d^2(a^3F)4s - 3d4s(a^3D)4p$	$g^4F - {}^4D°$	9/2 - 7/2	M23

TITANIUM III (Ti^{2+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2\ ^3F_2$ (20 electrons)

Ionization Potential 221 735 cm^{-1}; 27.491 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti III	1002.38	5		3d4s - 4s4p	${}^3D - {}^3P°$	2 - 2	R26
Ti III	1004.68	40		3d4s - 4s4p	${}^3D - {}^3P°$	3 - 2	R26
Ti III	1005.75	10		3d4s - 4s4p	${}^3D - {}^3P°$	1 - 1	R26
Ti III	1007.15	20		3d4s - 4s4p	${}^3D - {}^3P°$	2 - 1	R26
Ti III	1008.08	10		3d4s - 4s4p	${}^3D - {}^3P°$	1 - 0	R26
Ti III	1235.461	2		$3d^2 - 3d4p$	$g^3F - {}^3P°$	2 - 1	M9
Ti III	1237.028	4		$3d^2 - 3d4p$	$g^3F - {}^3P°$	3 - 2	M9
Ti III	1282.484	125	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	3 - 4	M9
Ti III	1286.228	90	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	2 - 3	M9
Ti III	1286.365	700	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	4 - 4	M9
Ti III	1289.299	500	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	3 - 3	M9
Ti III	1291.622	450	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	2 - 2	M9
Ti III	1293.228	400	2	$3d^2 - 3d4p$	$g^3F - {}^3F°$	4 - 3	M9
Ti III	1294.698	600b	1	$3d^2 - 3d4p$	$g^3F - {}^3D°$	3 - 3	M9
Ti III	1295.883	400	1	$3d^2 - 3d4p$	$g^3F - {}^3D°$	2 - 2	M9
Ti III	1298.659	1000b	1	$3d^2 - 3d4p$	$g^3F - {}^3D°$	4 - 3	M9
Ti III	1298.970	800	1	$3d^2 - 3d4p$	$g^3F - {}^3D°$	3 - 2	M9
Ti III	1327.592	550	4	$3d^2 - 3d4p$	${}^1D - {}^1P°$	2 - 1	M9
Ti III	1329.837	40		$3d^2 - 3d4p$	$g^3F - {}^1D°$	2 - 2	M9
Ti III	1339.691	170		$3d^2 - 3d4p$	${}^1D - {}^1F°$	2 - 3	M9
Ti III	1365.021	6		$3d^2 - 3d4p$	${}^3P - {}^1P°$	0 - 1	M9
Ti III	1368.442	25		$3d^2 - 3d4p$	${}^3P - {}^1P°$	2 - 1	M9
Ti III	1379.960	25		$3d^2 - 3d4p$	${}^1D - {}^3P°$	2 - 1	M9
Ti III	1420.036	300		$3d^2 - 3d4p$	${}^3P - {}^3P°$	1 - 2	M9
Ti III	1420.440	280		$3d^2 - 3d4p$	${}^3P - {}^3P°$	0 - 1	M9
Ti III	1421.631	280		$3d^2 - 3d4p$	${}^3P - {}^3P°$	1 - 0	M9
Ti III	1421.767	250		$3d^2 - 3d4p$	${}^3P - {}^3P°$	1 - 1	M9
Ti III	1422.405	650		$3d^2 - 3d4p$	${}^3P - {}^3P°$	2 - 2	M9
Ti III	1424.140	300		$3d^2 - 3d4p$	${}^3P - {}^3P°$	2 - 1	M9
Ti III	1433.85	40		$3d^2 - 3d4p$	${}^1S - {}^1P°$?	0 - 1	R26
Ti III	1450.358	25		$3d^2 - 3d4p$	${}^1D - {}^3F°$	2 - 2	M9
Ti III	1455.194	1000	5	$3d^2 - 3d4p$	${}^1G - {}^1F°$	4 - 3	M9
Ti III	1455.734	8		$3d^2 - 3d4p$	${}^1D - {}^3D°$	2 - 2	M9
Ti III	1491.978	35		$3d^2 - 3d4p$	${}^3P - {}^3F°$	2 - 3	M9
Ti III	1495.08	20		$3d^2 - 3d4p$	${}^1S - {}^3P°$?	0 - 1	R26

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti III	1496.597	30		$3d^2 - 3d4p$	$^3P - ^3F°$	1 - 2	M9
Ti III	1498.697	600	3	$3d^2 - 3d4p$	$^1D - ^1D°$	2 - 2	M9
Ti III	1499.173	300		$3d^2 - 3d4p$	$^3P - ^3D°$	2 - 3	M9
Ti III	1502.311	200		$3d^2 - 3d4p$	$^3P - ^3D°$	1 - 2	M9
Ti III	1504.621	120		$3d^2 - 3d4p$	$^3P - ^3D°$	0 - 1	M9
Ti III	1504.974	70		$3d^2 - 3d4p$	$^3P - ^3D°$	2 - 2	M9
Ti III	1506.084	80		$3d^2 - 3d4p$	$^3P - ^3D°$	1 - 1	M9
Ti III	1715.24	5		3d4p - 3d4d	$^3D° - ^3P$	3 - 2	R26
Ti III	1783.58	20		3d4p - 3d4d	$^3D° - ^3F$	1 - 2	R26
Ti III	1784.36	20		3d4p - 3d4d	$^3D° - ^3F$	2 - 3	R26
Ti III	1787.32	40		3d4p - 3d4d	$^3D° - ^3F$	3 - 4	R26
Ti III	1788.86	20		3d4p - 3d4d	$^3D° - ^3F$	2 - 2	R26
Ti III	1792.56	40		3d4p - 3d4d	$^3D° - ^3F$	3 - 3	R26
Ti III	1797.10	10		3d4p - 3d4d	$^3F° - ^3F$	2 - 2	R26
Ti III	1797.69	20		3d4p - 3d4d	$^3F° - ^3F$	3 - 4	R26
Ti III	1811.09	40		3d4p - 3d4d	$^3F° - ^3F$	4 - 4	R26
Ti III	1825.30	10		3d4p - 3d4d	$^3P° - ^3P$	1 - 2	R26
Ti III	1828.14	20		3d4p - 3d4d	$^3P° - ^3P$	2 - 2	R26
Ti III	1829.42	10		3d4p - 3d4d	$^3P° - ^3P$	1 - 1	R26
Ti III	1831.31	10		3d4p - 3d4d	$^3P° - ^3P$	1 - 0	R26
Ti III	1832.21	10		3d4p - 3d4d	$^3P° - ^3P$	2 - 1	R26
Ti III	1897.27	10		3d4p - 3d4d	$^3D° - ^3D$	2 - 2	R26
Ti III	1901.31	60		3d4p - 3d4d	$^3D° - ^3D$	3 - 3	R26
Ti III	1926.18	5		3d4p - 3d4d	$^3P° - ^3S$	1 - 1	R26
Ti III	1929.34	20		3d4p - 3d4d	$^3P° - ^3S$	2 - 1	R26
Ti III	1935.18	60		3d4p - 3d4d	$^3F° - ^3G$	2 - 3	R26
Ti III	1941.40	80		3d4p - 3d4d	$^3F° - ^3G$	3 - 4	R26
Ti III	1948.79	100		3d4p - 3d4d	$^3F° - ^3G$	4 - 5	R26
Ti III	1957.02	5		3d4p - 3d4d	$^3F° - ^3G$	4 - 4	R26

TITANIUM IV (Ti^{3+}), Z = 22

Ground State $1s^22s^22p^63s^23p^63d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 348 973 cm^{-1}; 43.266 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti IV	362.520	1					S30
Ti IV	363.003	1					S30
Ti IV	423.487	6		3d - 4f	$g^2D - ^2F°$	3/2 - 5/2	S30,R26
Ti IV	424.160	6		3d - 4f	$g^2D - ^2F°$	5/2 - 7/2	S30,R26
Ti IV	729.39	10		4p - 6s	$^2P° - ^2S$	3/2 - 1/2	R26
Ti IV	776.82	200	1	3d - 4p	$g^2D - ^2P°$	3/2 - 3/2	M23,R26
Ti IV	779.14	400	1	3d - 4p	$g^2D - ^2P°$	5/2 - 3/2	M23,R26
Ti IV	781.78	400	1	3d - 4p	$g^2D - ^2P°$	3/2 - 1/2	M23,R26
Ti IV	1183.63	100		4p - 5s	$^2P° - ^2S$	1/2 - 1/2	R26
Ti IV	1195.25	100		4p - 5s	$^2P° - ^2S$	3/2 - 1/2	R26
Ti IV	1451.75	600	3	4p - 4d	$^2P° - ^2D$	1/2 - 3/2	M23,R26
Ti IV	1467.35	600	3	4p - 4d	$^2P° - ^2D$	3/2 - 5/2	M23,R26
Ti IV	1469.21	300	3	4p - 4d	$^2P° - ^2D$	3/2 - 3/2	M23,R26

TITANIUM V (Ti^{4+}), Z = 22
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)
Ionization Potential 800 300 cm^{-1}; 99.20 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti V	144.551	6		$3s^2 3p^6 - 3s3p^6 4p$	$g\,^1S - ^1P^\circ$	0 - 1	S29
Ti V	145.79	1		$3p^6 - 3p^5(^2P^\circ)6s$	$g\,^1S - ^1P^\circ$	0 - 1	S29
Ti V	146.897	3		$3p^6 - 3p^5(^2P^\circ)6s$	$g\,^1S - ^3P^\circ$	0 - 1	S29
Ti V	162.984	20		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - ^1P^\circ$	0 - 1	S29
Ti V	164.446	35		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - ^3P^\circ$	0 - 1	S29
Ti V	225.347	400		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - ^1P^\circ$	0 - 1	S29
Ti V	228.909	250		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - ^3P^\circ$	0 - 1	S29
Ti V	252.958	900		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	S29
Ti V	323.365	85		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^3D^\circ$	0 - 1	S29
Ti V	363.145	1		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^3P^\circ$	0 - 1	S29

TITANIUM VI (Ti^{5+}), Z = 22
Ground State $1s^2 2s^2 2p^6 3s^2 3p^5$ $^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential 962 700 cm^{-1}; 119.36 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti VI	125.456	10		$3p^5 - 3p^4(^1D)5d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	125.689	6		$3p^5 - 3p^4(^1D)5d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	126.330	3		$3p^5 - 3p^4(^1D)5d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	126.566	1		$3p^5 - 3p^4(^1D)5d$	$g\,^2P^\circ - ^2P$?	1/2 - 3/2	S30,K8
Ti VI	128.450	1		$3p^5 - 3p^4(^3P)5d$	$g\,^2P^\circ - ^4F$	3/2 - 5/2	S29
Ti VI	129.148	3		$3p^5 - 3p^4(^3P)5d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	129.249	6		$3p^5 - 3p^4(^3P)5d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	130.113	3		$3p^5 - 3p^4(^3P)5d$	$g\,^2P^\circ - ^2D$?	1/2 - 3/2	S30,K8
Ti VI	136.714	6		$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	137.813	3		$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	139.911	3		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S29
Ti VI	140.443	20		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	141.061	3		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S29
Ti VI	141.113	10		$3p^5 - 3p^4(^3P)5s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	S29
Ti VI	141.988	3		$3p^5 - 3p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	143.176	1		$3p^5 - 3p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	148.104	3		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	148.303	20		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	149.010	20		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	149.392	10		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	149.560	10		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S29
Ti VI	150.213	3		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S29
Ti VI	150.315	3		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S29
Ti VI	151.897	1		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	152.338	10		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	S29
Ti VI	152.960	10		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^4F$	3/2 - 5/2	S29
Ti VI	153.255	3		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S29
Ti VI	153.384	3		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	153.550	35		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	154.161	1		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^4F$	1/2 - 3/2	S29
Ti VI	154.768	6		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	182.151	90		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S29
Ti VI	184.106	35		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	S29
Ti VI	192.710	20		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	E20
Ti VI	192.754	250		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti VI	194.900	200		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	197.460	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S29
Ti VI	198.977	400		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	199.759	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S29
Ti VI	201.311	90		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S29
Ti VI	201.865	125		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	S29
Ti VI	203.200	6		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	S29
Ti VI	203.434	3		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	1/2 - 1/2	S29
Ti VI	247.450	250		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	250.482	1000		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	251.071	700		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	254.03	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F11,K8
Ti VI	255.375	300		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	257.855	250		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S29
Ti VI	259.232	250		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S29
Ti VI	263.246	250		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S29
Ti VI	267.343	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	S29
Ti VI	282.215	1		$3p^5 - 3p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	283.586	20		$3p^5 - 3p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	288.355	60		$3p^5 - 3p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	301.913	20		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	S29
Ti VI	330.703	60		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S29
Ti VI	331.767	6		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^4P$	3/2 - 1/2	S29
Ti VI	334.457	20		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	S29
Ti VI	341.109	20		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S29
Ti VI	342.595	35		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S29
Ti VI	346.728	1		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S29
Ti VI	349.574	6		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S29
Ti VI	353.877	6		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S29
Ti VI	508.575	1000		$3s^2 3p^5 - 3s 3p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S27
Ti VI	524.113	900		$3s^2 3p^5 - 3s 3p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	S27

TITANIUM VII (Ti^{6+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4\ ^3P_2$ (16 electrons)

Ionization Potential 1 136 000 cm^{-1}; 140.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti VII	128.269	1		$3p^4 - 3p^3(^2P^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	G17,S29
Ti VII	129.603	1		$3p^4 - 3p^3(^2P^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 1	S29
Ti VII	129.722	3		$3p^4 - 3p^3(^2P^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 2	S29
Ti VII	131.284	1		$3p^4 - 3p^3(^2P^\circ)4d$	$^1D - ^1P^\circ$?	2 - 1	S30,K8
Ti VII	131.937	6		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^1D^\circ$?	2 - 2	S30,K8
Ti VII	132.093	1		$3p^4 - 3p^3(^2P^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	S29
Ti VII	132.149	3		$3p^4 - 3p^3(^2P^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	S29
Ti VII	132.322	1		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3P^\circ$	2 - 1	S29
Ti VII	132.351	1		$3p^4 - 3p^3(^2P^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	S29
Ti VII	132.522	6		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 2	S29
Ti VII	132.733	10		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	S29
Ti VII	132.837	3		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3P^\circ$?	2 - 2	S30,K8
Ti VII	132.982	1		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3S^\circ$	1 - 1	S29
Ti VII	133.218	6		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3S^\circ$?	0 - 1	S30,K8
Ti VII	133.385	1		$3p^4 - 3p^3(^2D^\circ)4d$	$g\,^3P - ^3P^\circ$?	0 - 1	S30,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti VII	133.633	3		$3p^4 - 3p^3(^2D^\circ)4d$	$g^3P - ^3P^\circ$	1 - 2	S29
Ti VII	135.801	20		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	S29
Ti VII	136.267	6		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	S29
Ti VII	136.815	3		$3p^4 - 3p^3(^2P^\circ)4d$	$^1S - ^1P^\circ$	0 - 1	S29
Ti VII	137.661	20		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	S29
Ti VII	138.548	10		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	S29
Ti VII	138.814	1		$3p^4 - 3p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	S29
Ti VII	164.173	10		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 2	S29
Ti VII	164.478	3		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	2 - 1	S29
Ti VII	165.403	6		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 2	S29
Ti VII	165.716	1		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 1	S29
Ti VII	165.836	3		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	1 - 0	S29
Ti VII	166.087	10		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - ^3P^\circ$	0 - 1	S29
Ti VII	168.652	10		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^1D^\circ$	2 - 2	S29
Ti VII	169.301	20		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	S29
Ti VII	170.358	125		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 3	S29
Ti VII	170.559	20		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	2 - 2	S29
Ti VII	170.938	3		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^3P^\circ$	2 - 2	S29
Ti VII	171.888	20		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	1 - 2	S29
Ti VII	171.952	6		$3p^4 - 3p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	1 - 1	S29
Ti VII	172.353	6		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - ^3D^\circ$	0 - 1	S29
Ti VII	175.812	90		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	S29
Ti VII	177.238	60		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	2 - 1	S29
Ti VII	178.572	10		$3p^4 - 3p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	S29
Ti VII	178.673	20		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	1 - 1	S29
Ti VII	179.107	10		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - ^3S^\circ$	0 - 1	S29
Ti VII	248.037	3		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^1D^\circ$	1 - 2	S29
Ti VII	250.913	3		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 1	S29
Ti VII	252.162	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 2	S29
Ti VII	252.275	800		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	S29
Ti VII	252.571	60		$3p^4 - 3p^3(^2P^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	S29
Ti VII	253.811	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 1	S29
Ti VII	254.022	800		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	S29
Ti VII	254.687	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	0 - 1	S29
Ti VII	255.076	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	S29
Ti VII	260.704	250		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	S29
Ti VII	261.851	60		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	2 - 1	S29
Ti VII	263.944	35		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 1	S29
Ti VII	264.823	250		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	S29
Ti VII	264.997	35		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	1 - 1	S29
Ti VII	265.059	90		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 0	S29
Ti VII	265.951	60		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^1P^\circ$	0 - 1	S29
Ti VII	266.502	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	2 - 1	S29
Ti VII	267.136	60		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 1	S29
Ti VII	268.035	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	1 - 2	S29
Ti VII	268.106	35		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	0 - 1	S29
Ti VII	268.493	1		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 2	S29
Ti VII	269.759	90		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	1 - 1	S29
Ti VII	270.748	10		$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - ^3S^\circ$	0 - 1	S29
Ti VII	279.516	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1P^\circ$	2 - 1	S29
Ti VII	281.898	200		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3P^\circ$	2 - 1	S29
Ti VII	282.898	1		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3P^\circ$	2 - 2	S29
Ti VII	296.056	35		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	S29
Ti VII	305.730	1		$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	S29
Ti VII	332.081	6		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	S29
Ti VII	440.361	125		$3s^2 3p^4 - 3s 3p^5$	$^1D - ^1P^\circ$	2 - 1	S27
Ti VII	499.853	125		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 1	S27
Ti VII	505.899	100		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 0	S27
Ti VII	509.127	60		$3s^2 3p^4 - 3s 3p^5$	$^1S - ^1P^\circ$	0 - 1	S27
Ti VII	509.511	550		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 2	S27
Ti VII	511.442	125		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 1	S27
Ti VII	515.008	125		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	0 - 1	S27
Ti VII	521.561	250		$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 2	S27

TITANIUM VIII (Ti^{7+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3\ {}^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential 1 359 000 cm^{-1}; 168.5 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti VIII	148.498	1					S30
Ti VIII	148.820	1					S30
Ti VIII	149.653	3		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2S$	1/2 - 1/2	E27
Ti VIII	149.981	1		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2S$	3/2 - 1/2	E27
Ti VIII	150.039	60		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E27
Ti VIII	150.867	35		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E27
Ti VIII	151.484	10		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E27
Ti VIII	151.864	10		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2D$	3/2 - 3/2	E27
Ti VIII	151.915	1		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2D$	3/2 - 5/2	E27
Ti VIII	152.164	20		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2D$	5/2 - 5/2	E27
Ti VIII	155.456	1		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2P$?	3/2 - 3/2	S30,K8
Ti VIII	155.675	20		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2P$	5/2 - 3/2	E27
Ti VIII	156.444	10		$3p^3 - 3p^2(^3P)4s$	$^2D^\circ - {}^2P$	3/2 - 1/2	E27
Ti VIII	157.112	3		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ti VIII	157.472	3		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2D$	3/2 - 3/2	E27
Ti VIII	157.528	3		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ti VIII	160.914	1		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2P$	1/2 - 3/2	E27
Ti VIII	161.290	6		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2P$	3/2 - 3/2	E27
Ti VIII	162.016	1		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2P$	1/2 - 1/2	E27
Ti VIII	162.401	1		$3p^3 - 3p^2(^3P)4s$	$^2P^\circ - {}^2P$	3/2 - 1/2	K22
Ti VIII	258.610	700		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	E27
Ti VIII	261.725	60		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ti VIII	262.718	10		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - {}^2D$	3/2 - 3/2	E27
Ti VIII	263.564	120		$3p^3 - 3p^2(^1S)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ti VIII	267.401	60		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	E27
Ti VIII	268.178	120		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	E27
Ti VIII	269.533	175		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E27
Ti VIII	270.530	1		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2S$	1/2 - 1/2	E27
Ti VIII	271.591	3		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2S$	3/2 - 1/2	E27
Ti VIII	272.037	90		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	E27
Ti VIII	272.369	10		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 5/2	E27
Ti VIII	272.843	6		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 3/2	E27
Ti VIII	273.178	90		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	E27
Ti VIII	274.514	3					S30
Ti VIII	276.701	10		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 3/2	E27
Ti VIII	277.813	35		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	E27
Ti VIII	278.806	20		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	E27
Ti VIII	279.940	20		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 1/2	E27
Ti VIII	289.375	1		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ti VIII	290.971	35		$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	E27
Ti VIII	297.197	20		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - {}^2P$	3/2 - 1/2	E27
Ti VIII	301.297	6		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - {}^2P$	3/2 - 3/2	E27
Ti VIII	302.272	60		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - {}^2P$	5/2 - 3/2	E27
Ti VIII	317.992	1		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	E27
Ti VIII	319.463	1		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2P$	3/2 - 1/2	E27
Ti VIII	322.698	1		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2P$	1/2 - 3/2	E27
Ti VIII	324.207	1		$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	E27
Ti VIII	401.739	1		$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	E27
Ti VIII	408.535	3		$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	E27
Ti VIII	479.01			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	E27
Ti VIII	480.35			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	E27
Ti VIII	499.86			$3s^2 3p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F4
Ti VIII	504.70			$3s^2 3p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F4
Ti VIII	514.17			$3s^2 3p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	E27

TITANIUM IX (Ti^{8+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ $^3P_0$ (14 electrons)

Ionization Potential [1 556 700] cm^{-1}; [193] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti IX	136.595	6		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 2	S30,E27
Ti IX	137.153	3		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	0 - 1	S30,E27
Ti IX	137.377	20		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 2	S30,E27
Ti IX	137.743	1		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 1	S30,E27
Ti IX	137.991	3		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	1 - 0	S30,E27
Ti IX	138.548	10		$3p^2 - 3p4s$	$g^3P - {}^3P^\circ$	2 - 1	S30,E27
Ti IX	140.443	35		$3p^2 - 3p4s$	$^1D - {}^1P^\circ$	2 - 1	S30,E27
Ti IX	147.157	1		$3p^2 - 3p4s$	$^1S - {}^1P^\circ$	0 - 1	S30,E27
Ti IX	260.916	6		$3p^2 - 3p3d$	$^1D - {}^1P^\circ$	2 - 1	S30,E27
Ti IX	267.941	120		$3p^2 - 3p3d$	$^1D - {}^1F^\circ$	2 - 3	S30,E27
Ti IX	274.411	10		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	0 - 1	S30,E27
Ti IX	275.867	60		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 2	S30,E27
Ti IX	276.785	20		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 1	S30,E27
Ti IX	278.713	225		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 3	S30,E27
Ti IX	279.074	20		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 2	S30,E27
Ti IX	280.027	20		$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$?	2 - 1	S30,E27
Ti IX	280.141	3		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	0 - 1	S30,E27
Ti IX	281.446	6		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 0	S30,E27
Ti IX	282.613			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 1	S30,E27
Ti IX?	282.720	40					P16
Ti IX	285.128	20		$3p^2 - 3p3d$	$^1S - {}^1P^\circ$	0 - 1	S30,E27
Ti IX	285.981			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 1	E27
Ti IX	286.112	20		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 2	S30,E27
Ti IX	289.579	90		$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	S30,E27
Ti IX	304.498	1		$3p^2 - 3p3d$	$^1D - {}^3P^\circ$	2 - 1	E27
Ti IX	308.568	35		$3p^2 - 3p3d$	$^1D - {}^3P^\circ$	2 - 2	S30,E27
Ti IX	324.712	1		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^1P^\circ$	1 - 1	S30,E27
Ti IX	333.385	3		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	0 - 1	S30,E27
Ti IX	336.895	6		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	1 - 1	S30,E27
Ti IX	341.691	10		$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	2 - 1	S30,E27
Ti IX	353.939	6		$3s^2 3p^2 - 3s3p^3$	$^1D - {}^1P^\circ$	2 - 1	S30,E27
Ti IX	400.009	1		$3s^2 3p^2 - 3s3p^3$	$^1S - {}^1P^\circ$	0 - 1	S30,E27
Ti IX	433.54			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	0 - 1	K8
Ti IX	439.30			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 2	K8
Ti IX	439.60			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	1 - 0	K8
Ti IX	447.49			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 2	E27
Ti IX	447.69			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 1	K8
Ti IX	507.12			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	E27
Ti IX	516.14			$3s^2 3p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	E27,K8

TITANIUM X (Ti^{9+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s^2 3p$ $^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential 1 741 500 cm^{-1}; 215.91 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti X	70.265	0		3p - 6d	$g^2P^\circ - {}^2D$	½ - 3/2	E27
Ti X	70.625	1		3p - 6d	$g^2P^\circ - {}^2D$	3/2 - 5/2	S30,E27
Ti X	78.655	1		3p - 5d	$g^2P^\circ - {}^2D$	½ - 3/2	S30,E27
Ti X	79.110	3		3p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	S30,E27
Ti X	84.711	6		3p - 5s	$g^2P^\circ - {}^2S$	½ - ½	S30,E27

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti X	85.262	10		3p - 5s	$g^2P^\circ - {}^2S$	3/2 - 1/2	S30,E27
Ti X	91.806	0		3d - 6f	${}^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ti X	91.855	0		3d - 6f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ti X	101.353	35		3p - 4d	$g^2P^\circ - {}^2D$	1/2 - 3/2	S30,E27
Ti X	102.106	20		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	S30,E27
Ti X	104.516	0		3d - 5f	${}^2D - {}^2F^\circ$	3/2 - 5/2	E27
Ti X	104.568	0		3d - 5f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E27
Ti X	119.822	1		$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	3/2 - 5/2	S30,E27
Ti X	119.891	6		$3s3p^2 - 3s^24f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	S30,E27
Ti X	123.036	6		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 5/2	S30,E27
Ti X	123.331	3		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	1/2 - 3/2	S30,E27
Ti X	123.657	6		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	S30,E27
Ti X	123.703	3		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	1/2 - 1/2	S30,E27
Ti X	124.143	3		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	3/2 - 1/2	S30,E27
Ti X	124.391	6		$3s3p^2 - 3s3p({}^3P^\circ)4s$	${}^4P - {}^4P^\circ$	5/2 - 3/2	S30,E27
Ti X	125.456	10		3p - 4s	$g^2P^\circ - {}^2S$	1/2 - 1/2	S30,E27
Ti X	126.651	20		3p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	S30,E27
Ti X	142.595	3		3d - 4f	${}^2D - {}^2F^\circ$	3/2 - 5/2	S30,E27
Ti X	142.687	10		3d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	S30,E27
Ti X	288.462	1		$3s3p^2 - 3s3p({}^3P^\circ)3d$	${}^4P - {}^4D^\circ$	1/2 - 3/2	S30,E27
Ti X	289.579	90		3p - 3d	$g^2P^\circ - {}^2D$	1/2 - 3/2	S30,E27
Ti X	290.294	1		$3s3p^2 - 3s3p({}^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 5/2	S30,E27
Ti X	290.815	1		$3s3p^2 - 3s3p({}^3P^\circ)3d$	${}^4P - {}^4D^\circ$	3/2 - 3/2	S30,E27
Ti X	293.684	10		$3s3p^2 - 3s3p({}^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 7/2	S30,E27
Ti X	293.798	1		$3s3p^2 - 3s3p({}^3P^\circ)3d$	${}^4P - {}^4D^\circ$	5/2 - 5/2	S30,E27
Ti X	295.584	35		3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	S30,E27
Ti X	350.596	6		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	S30,E27
Ti X	355.811	1		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	S30,E27
Ti X	360.133	10		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	S30,E27
Ti X	365.636	1		$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	S30,E27
Ti X	378.09			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	E27
Ti X	379.74			$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	1/2 - 3/2	E27
Ti X	383.83			$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	K8
Ti X	389.25			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	E27
Ti X	389.99			$3s3p^2 - 3p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	E27
Ti X	471.595			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	1/2 - 3/2	E27
Ti X	487.672			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	E27

TITANIUM XI (Ti^{10+}), Z = 22

Ground State $1s^22s^22p^63s^2\ {}^1S_0$ (12 electrons)

Ionization Potential 2 139 300 cm^{-1}; 265.23 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XI	52.218	1					S30
Ti XI	54.322	1					S30
Ti XI	57.891	1					S30
Ti XI	65.403	3					S30
Ti XI	71.201	1					S30
Ti XI	71.323	3					S30
Ti XI	71.603	6		3s3p - 3s5d	${}^3P^\circ - {}^3D$	2 - 3	S30,K8
Ti XI	73.281	1					S30
Ti XI	75.415	1					S30
Ti XI	76.403	1					S30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XI	76.731	1					S30
Ti XI	79.028	1					S30
Ti XI	79.076	1					S30
Ti XI	81.119	1					S30
Ti XI	84.835	6					S30
Ti XI	85.290	3					S30
Ti XI	87.725	35		$3s^2$ - 3s4p	g^1S - $^1P^\circ$	0 - 1	S30,E18
Ti XI	90.908	1					S30
Ti XI	90.927	3					S30
Ti XI	90.966	3		3s3d - 3s5f	^3D - $^3F^\circ$	3 - 4	S30,E18
Ti XI	93.395	6		3s3p - 3s4d	$^3P^\circ$ - ^3D	0 - 1	S30,E18
Ti XI	93.589	20		3s3p - 3s4d	$^3P^\circ$ - ^3D	1 - 2	S30,E18
Ti XI	93.626	10		3s3p - 3s4d	$^3P^\circ$ - ^3D	1 - 1	S30,E18
Ti XI	94.053	35		3s3p - 3s4d	$^3P^\circ$ - ^3D	2 - 3	S30,E18
Ti XI	94.085	3		3s3p - 3s4d	$^3P^\circ$ - ^3D	2 - 2	S30,E18
Ti XI	100.591	6					S30
Ti XI	111.664	6					S30
Ti XI	113.151	3		3s3d - 3s4f	^1D - $^3F^\circ$?	2 - 3	S30,K8
Ti XI	113.940	6		3s3p - 3s4s	$^3P^\circ$ - ^3S	0 - 1	S30,E18
Ti XI	114.272	10		3s3p - 3s4s	$^3P^\circ$ - ^3S	1 - 1	S30,E18
Ti XI	115.015	20		3s3p - 3s4s	$^3P^\circ$ - ^3S	2 - 1	S30,E18
Ti XI	123.946	6					S30
Ti XI	125.940	6		3s3d - 3s4f	^3D - $^3F^\circ$	1 - 2	S30,E18
Ti XI	125.979	20		3s3d - 3s4f	^3D - $^3F^\circ$	2 - 3	S30,E18
Ti XI	126.042	35		3s3d - 3s4f	^3D - $^3F^\circ$	3 - 4	S30,E18
Ti XI	135.179	10					S30
Ti XI	292.901	1		3s3d - 3p3d	^1D - $^1P^\circ$?	2 - 1	S30,K8
Ti XI	306.144	1		3s3p - 3s3d	$^3P^\circ$ - ^3D	0 - 1	S30,F4
Ti XI	308.250	10		3s3p - 3s3d	$^3P^\circ$ - ^3D	1 - 2	S30,F22
Ti XI	308.568	35		3s3p - 3s3d	$^3P^\circ$ - ^3D ?	1 - 1	S30,K8
Ti XI	311.659	1		3s3d - 3p3d	^1D - $^3D^\circ$?	2 - 3	S30,K8
Ti XI	313.229	10		3s3p - 3s3d	$^3P^\circ$ - ^3D	2 - 3	S30,F4
Ti XI	313.710	1		3s3p - 3s3d	$^3P^\circ$ - ^3D	2 - 2	S30,F4
Ti XI	315.844	3		3s3d - 3p3d	^1D - $^3P^\circ$?	2 - 2	S30,K8
Ti XI	322.75			$3p^2$ - 3p3d	^3P - $^3D^\circ$	2 - 3	F4
Ti XI	327.192	3		$3p^2$ - 3p3d	^3P - $^3P^\circ$	2 - 2	S30,F4
Ti XI	349.91			$3p^2$ - 3p3d	^1D - $^1D^\circ$	2 - 2	F4
Ti XI	350.732	1		$3p^2$ - 3p3d	^1D - $^3D^\circ$?	2 - 3	S30,K8
Ti XI	370.789	1		3s3p - $3p^2$	$^3P^\circ$ - ^1D ?	1 - 2	S30,K8
Ti XI	374.00			$3p^2$ - 3p3d	^1S - $^1P^\circ$	0 - 1	F4
Ti XI	378.630	1		3s3p - $3p^2$	$^3P^\circ$ - ^1D ?	2 - 2	S30,K8
Ti XI	386.140	3		$3s^2$ - 3s3p	g^1S - $^1P^\circ$	0 - 1	S30,F22
Ti XI	408.28			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 2	F22
Ti XI	415.07			3s3p - $3p^2$	$^3P^\circ$ - ^3P	0 - 1	F22
Ti XI	417.85			3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 2	F22
Ti XI	419.45			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 1	F22
Ti XI	425.74			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 0	F22
Ti XI	429.60			3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 1	F22
Ti XI	434.94			3s3d - 3p3d	^3D - $^3D^\circ$	3 - 3	F4
Ti XI	446.69			3s3p - $3p^2$	$^1P^\circ$ - ^1S	1 - 0	F4
Ti XI	522.66			3s3d - 3p3d	^3D - $^3F^\circ$	3 - 4	F4
Ti XI	533.55			3s3d - 3p3d	^3D - $^3F^\circ$	2 - 3	F4
Ti XI	543.23			3s3d - 3p3d	^3D - $^3F^\circ$	1 - 2	F4
Ti XI	568.44 ?			$3s^2$ - 3s3p	g^1S - $^3P^\circ$	0 - 1	K8
Ti XI	667.12			3s3p - 3s3d	$^1P^\circ$ - ^1D	1 - 2	F4

TITANIUM XII (Ti^{11+}), Z = 22

Ground State $1s^2 2s^2 2p^6 3s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 2 351 140 cm^{-1}; 291.497 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XII	26.86	0					F27
Ti XII	27.20	20					F27
Ti XII	27.306	20					F27
Ti XII	27.489	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P°$	½ - ½	F27
Ti XII	27.590	20					F27
Ti XII	27.818	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P°$	½ - 3/2	F27
Ti XII	28.000	0					F27
Ti XII	28.120	0					F27
Ti XII	52.896	1					S30
Ti XII	53.140	1					S30
Ti XII	53.433	3		3s - 6p	$g\,^2S - ^2P°$	½ - 3/2	S30,K8
Ti XII	53.457	1		3s - 6p	$g\,^2S - ^2P°$	½ - ½	S30,K8
Ti XII	55.181	1					S30
Ti XII	55.443	3					S30
Ti XII	59.133	6					S30
Ti XII	59.435	10					S30
Ti XII	60.701	10		3s - 5p	$g\,^2S - ^2P°$	½ - 3/2	S30,E16
Ti XII	60.762	3		3s - 5p	$g\,^2S - ^2P°$	½ - ½	S30,E16
Ti XII	60.971	1		3p - 6s	$^2P° - ^2S$	½ - ½	S30,K8
Ti XII	61.286	1		3p - 6s	$^2P° - ^2S$	3/2 - ½	S30,K8
Ti XII	62.433	1					S30
Ti XII	62.470	1					S30
Ti XII	65.540	1					S30
Ti XII	65.577	3					S30
Ti XII	67.171	10		3p - 5d	$^2P° - ^2D$	½ - 3/2	S30,E16
Ti XII	67.555	35		3p - 5d	$^2P° - ^2D$	3/2 - 5/2	S30,E16
Ti XII	70.986	3		3d - 6f	$^2D - ^2F°$	5/2 - 7/2	S30,E16
Ti XII	71.031	6					S30
Ti XII	71.545	1					S30
Ti XII	71.987	3					S30
Ti XII	72.234	1		3p - 5s	$^2P° - ^2S$?	3/2 - ½	S30,K8
Ti XII	82.121	90		3s - 4p	$g\,^2S - ^2P°$	½ - 3/2	S30,E16
Ti XII	82.307	6		3d - 5f	$^2D - ^2F°$	3/2 - 5/2	S30,E16
Ti XII	82.344	20		3s - 4p	$g\,^2S - ^2P°$	½ - ½	S30,E16
Ti XII	82.368	6		3d - 5f	$^2D - ^2F°$	5/2 - 7/2	S30,E16
Ti XII	89.844	60		3p - 4d	$^2P° - ^2D$	½ - 3/2	S30,E16
Ti XII	90.512	90		3p - 4d	$^2P° - ^2D$	3/2 - 5/2	S30,E16
Ti XII	90.547	6		3p - 4d	$^2P° - ^2D$	3/2 - 3/2	S30,E16
Ti XII	108.086	10		3p - 4s	$^2P° - ^2S$	½ - ½	S30,E16
Ti XII	109.107	35		3p - 4s	$^2P° - ^2S$	3/2 - ½	S30,E16
Ti XII	116.497	60		3d - 4f	$^2D - ^2F°$	3/2 - 5/2	S30,E16
Ti XII	116.597	90		3d - 4f	$^2D - ^2F°$	5/2 - 7/2	S30,E16
Ti XII	139.884	3		3d - 4p	$^2D - ^2P°$	5/2 - 3/2	S30,K8
Ti XII	140.361	1		3d - 4p	$^2D - ^2P°$	3/2 - ½	S30,K8
Ti XII	253.142	35		4d - 5f	$^2D - ^2F°$?	5/2 - 7/2	S30,K8
Ti XII	260.145	1		4p - 5s	$^2P° - ^2S$?	3/2 - ½	S30,K8
Ti XII	340.66			3p - 3d	$^2P° - ^2D$	½ - 3/2	F22
Ti XII	349.933	1		3p - 3d	$^2P° - ^2D$	3/2 - 5/2	S30,F22
Ti XII	351.06			3p - 3d	$^2P° - ^2D$	3/2 - 3/2	F22
Ti XII	460.69			3s - 3p	$g\,^2S - ^2P°$	½ - 3/2	F22
Ti XII	479.86			3s - 3p	$g\,^2S - ^2P°$	½ - ½	F22

TITANIUM XIII (Ti^{12+}), Z = 22
Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)
Ionization Potential 6 350 400 cm^{-1}; 787.33 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XIII	17.727	100		$2p^6 - 2p^5 5d$	$g\,^1S - ^1P^\circ$	0 - 1	F24
Ti XIII	17.869	50		$2p^6 - 2p^5 5d$	$g\,^1S - ^3D^\circ$	0 - 1	F24
Ti XIII	19.204	250		$2p^6 - 2p^5 4d$	$g\,^1S - ^1P^\circ$	0 - 1	F24
Ti XIII	19.366	200		$2p^6 - 2p^5 4d$	$g\,^1S - ^3D^\circ$	0 - 1	F24
Ti XIII	19.943	50		$2p^6 - 2p^5 4s$	$g\,^1S - ^1P^\circ$	0 - 1	F24
Ti XIII	20.135	50		$2p^6 - 2p^5 4s$	$g\,^1S - ^3P^\circ$	0 - 1	F24
Ti XIII	21.035	350		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^1P^\circ$	0 - 1	F24
Ti XIII	21.127	100		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^3P^\circ$	0 - 1	F24
Ti XIII	23.356			$2p^6 - 2p^5 3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ti XIII	23.698			$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26
Ti XIII	23.991			$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
Ti XIII	26.641			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26
Ti XIII	26.960			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26

TITANIUM XIV (Ti^{13+}), Z = 22
Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential 6 947 300 cm^{-1}; 861.33 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XIV	17.58			$2p^5 - 2p^4 4d$			F5
Ti XIV	17.73			$2p^5 - 2p^4 4d$			F5
Ti XIV	17.80			$2p^5 - 2p^4 4d$			F5
Ti XIV	17.88			$2p^5 - 2p^4 4d$			F5
Ti XIV	22.28	20		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	C10
Ti XIV	24.32	60		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
Ti XIV	24.73	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	C10
Ti XIV	121.994	1		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$?	$\frac{3}{2} - \frac{1}{2}$	S30,F9
Ti XIV	129.384	1		$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$?	$\frac{1}{2} - \frac{1}{2}$	S30,F9

TITANIUM XV (Ti^{14+}), Z = 22
Ground State $1s^2 2s^2 2p^4$ $^3P_2$ (8 electrons)
Ionization Potential 7 584 700 cm^{-1}; 940.36 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XV	20.169	100		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	G13
Ti XV	20.317	300		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	G13
Ti XV	20.422	450		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	G13
Ti XV	20.704	200		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	G13
Ti XV	20.829	300		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	G13

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XV	20.932	150		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	G13
Ti XV	21.094	50		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	G13
Ti XV	22.109	100		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - {}^3P^\circ$	2 - 2	G13
Ti XV	22.471	350		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	2 - 3	G13
Ti XV	22.688	200		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - {}^3D^\circ$	1 - 2	G13
Ti XV	22.936	300		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - {}^1D^\circ$	2 - 2	G13
Ti XV	22.967	200		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	G13
Ti XV	23.040	150		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - {}^1P^\circ$	0 - 1	G13
Ti XV	23.187	200		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	G13
Ti XV	110.072	1		$2s^22p^4 - 2s2p^5$	$g^3P - {}^1P^\circ$?	1 - 1	S30,K8
Ti XV	115.02			$2s^22p^4 - 2s2p^5$	$^1D - {}^1P^\circ$	2 - 1	F5
Ti XV	131.12			$2s^22p^4 - 2s2p^5$	$^1S - {}^1P^\circ$	0 - 1	F5
Ti XV	134.57			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 1	F5
Ti XV	138.33			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 0	F5
Ti XV	140.34			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	2 - 2	F5
Ti XV	142.09			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	F5
Ti XV	142.72			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	0 - 1	F5
Ti XV	148.54			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	F5

TITANIUM XVI (Ti^{15+}), Z = 22

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential [8 404 500] cm^{-1}; [1042] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XVI	19.1			$2s^22p^3 - 2s^22p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F5
Ti XVI	19.26			$2s^22p^3 - 2s^22p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F5
Ti XVI	110.56			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	F5
Ti XVI	116.21			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	3/2 - 3/2	F5
Ti XVI	118.21			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F5
Ti XVI	124.82			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 1/2	F5
Ti XVI	128.42			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	1/2 - 3/2	F5
Ti XVI	129.07			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	3/2 - 1/2	F5
Ti XVI	132.04			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2P$	3/2 - 3/2	F5
Ti XVI	138.76			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2S$	3/2 - 1/2	F5
Ti XVI	138.79			$2s2p^4 - 2p^5$	$^2D - {}^2P^\circ$	5/2 - 3/2	F5
Ti XVI	143.42			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	F5
Ti XVI	145.62			$2s^22p^3 - 2s2p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	F5
Ti XVI	157.81			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F5
Ti XVI	161.17			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F5
Ti XVI	162.51			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	1/2 - 3/2	F5
Ti XVI	167.22			$2s^22p^3 - 2s2p^4$	$^2P^\circ - {}^2D$	3/2 - 5/2	F5
Ti XVI	169.74			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F5
Ti XVI	178.23			$2s2p^4 - 2p^5$	$^2P - {}^2P^\circ$	3/2 - 3/2	F5

TITANIUM XVII (Ti^{16+}), Z = 22

Ground State $1s^22s^22p^2\ ^3P_0$ (6 electrons)

Ionization Potential [9 122 400] cm^{-1}; [1131] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XVII	18.091	80		$2s^22p^2 - 2s^22p3d$	$g^3P - {}^3P^\circ$	1 - 2	G14
Ti XVII	18.154	60		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	G14
Ti XVII	18.172	40		$2s^22p^2 - 2s^22p3d$	$g^3P - {}^3P^\circ$	2 - 2	G14
Ti XVII	18.215	40		$2s^22p^2 - 2s^22p3d$	$g^3P - {}^3D^\circ$	2 - 3	G14
Ti XVII	18.268	100		$2s^22p^2 - 2s^22p3d$	${}^1D - {}^1F^\circ$	2 - 3	G14
Ti XVII	18.387	60		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3F$	3 - 4	G14
Ti XVII	18.665	20		$2s^22p^2 - 2s^22p3d$	${}^1S - {}^1P^\circ$	0 - 1	G14
Ti XVII	18.939	20		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	2 - 3	G14
Ti XVII	19.369	180		$2s^22p^2 - 2s^22p3s$	$g^3P - {}^3P^\circ$	1 - 2	G14
Ti XVII	19.415	40		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	G14
Ti XVII	19.459	60		$2s^22p^2 - 2s^22p3s$	$g^3P - {}^3P^\circ$	2 - 2	G14
Ti XVII	19.501	40		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3D^\circ - {}^3D$	2 - 2	G14
Ti XVII	19.651	20		$2s^22p^2 - 2s^22p3s$	$g^3P - {}^3P^\circ$	2 - 1	G14
Ti XVII	19.718	40		$2s^22p^2 - 2s^22p3s$	${}^1D - {}^1P^\circ$	2 - 1	G14
Ti XVII	20.183	20		$2s^22p^2 - 2s^22p3s$	${}^1S - {}^1P^\circ$	0 - 1	G14
Ti XVII	130.87 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	K8
Ti XVII	137.31 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	K8
Ti XVII	147.78 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	K8
Ti XVII	149.66 ?			$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	K8
Ti XVII	170.48 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	K8
Ti XVII	178.57 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	K8
Ti XVII	181.65 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	K8
Ti XVII	215.31 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	K8

TITANIUM XVIII (Ti^{17+}), Z = 22

Ground State $1s^22s^22p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [9 840 200] cm^{-1}; [1220] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XVIII	13.45 ?			2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ti XVIII	17.37 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
Ti XVIII	18.38 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ti XVIII	153.64 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
Ti XVIII	168.13 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

TITANIUM XIX (Ti^{18+}), Z = 22

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [10 824 000] cm^{-1}; [1342] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XIX	10.85 ?			$2s^2 - 2s5p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Ti XIX	12.07 ?			$2s^2 - 2s4p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
Ti XIX	15.18 ?			$2s^2 - 2p3s$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Ti XIX	179.31 ?			$2s^2 - 2s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
Ti XIX	342.82 ?			$2s^2 - 2s2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

TITANIUM XX (Ti^{19+}), Z = 22

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [11 494 000] cm^{-1}; [1425] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XX	10.04 P			2p - 6d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ti XX	10.11 P			2p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ti XX	10.27 P			2s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	G15
Ti XX	10.62 P			2p - 5d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ti XX	10.68 P			2p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ti XX	11.45 P			2s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	G15
Ti XX	11.87 P			2p - 4d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ti XX	11.94 P			2p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ti XX	15.217	200		2s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	G15
Ti XX	15.252	200		2s - 3p	$g\,^2S - ^2P^\circ$	½ - ½	G15
Ti XX	15.914	200		2p - 3d	$^2P^\circ - ^2D$	½ - 3/2	G15
Ti XX	16.059	300		2p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	G15
Ti XX	16.218			2p - 3s	$^2P^\circ - ^2S$	½ - ½	G15
Ti XX	16.379			2p - 3s	$^2P^\circ - ^2S$	3/2 - ½	G15
Ti XX	254.01 P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8
Ti XX	303.75 P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - ½	K8

TITANIUM XXI (Ti^{20+}), Z = 22

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [50 403 000] cm^{-1}; [6249] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XXI	2.23			$1s^2 - 1s3p$	$g\,^1S - ^1P^\circ$	0 - 1	C11
Ti XXI	2.62 P			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8,C11
Ti XXI	2.63 P			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8,C11
Ti XXI	2.66 ?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

TITANIUM XXII (Ti^{21+}), Z = 22
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential [53 443 400] cm^{-1}; [6625.6] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ti XXII	2.50 P			1s - 2p	g^2S - $^2P^\circ$	½ - 3/2	K8

VANADIUM, Z = 23

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V	239.44	300					F11
V	241.14	200					F11
V	245.89	200					F11
V	251.87	100					F11
V	612.99	10h					I1
V	951.35	50					I1
V	953.70	25					I1
V	955.20	5					I1
V	1623.73	15					I1
V	1625.92	50					I1
V	1666.76	10					I1
V	1675.75	100					I1
V	1681.91	10					I1
V	1702.01	10					I1
V	1713.40	50					I1
V	1740.30	100					I1
V	1742.72	150					I1
V	1747.84	400					I1
V	1755.30	100					I1
V	1756.57	10					I1
V	1769.13	15					I1
V	1803.76	75					I1
V	1807.74	50					I1
V	1814.05	5					I1
V	1821.33	10					I1
V	1838.10	10					I1
V	1895.44	5					I1
V	1898.42	10					I1

VANADIUM I (V^{0+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^3 4s^2$ $^4F_{3/2}$ (23 electrons)

Ionization Potential 54 400 cm^{-1}; 6.74 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V I	1872.66	25					M24
V I	1890.82	15					M24
V I	1894.47	40					M24
V I	1897.90	10					M24
V I	1898.78	25					M24
V I	1900.00	30					M24
V I	1957.90	250	55	$3d^3 4s^2$ -	ga^4F - $m^4D°$	5/2 - 5/2	M24
V I	1958.18	60	55	$3d^3 4s^2$ -	ga^4F - $m^4D°$	3/2 - 3/2	M24
V I	1958.60	0		$3d^3 4s^2$ -	ga^4F - 31°	5/2 - 3/2	M24
V I	1959.12	150	59	$3d^3 4s^2$ -	ga^4F - $n^4F°$	7/2 - 9/2	M24
V I	1959.36	150	54	$3d^3 4s^2$ -	ga^4F - $n^4F°$	5/2 - 7/2	M24
V I	1959.97	200	54	$3d^3 4s^2$ -	ga^4F - $n^4F°$	3/2 - 5/2	M24
V I	1961.69	300	55	$3d^3 4s^2$ -	ga^4F - $m^4D°$	3/2 - 1/2	M24
V I	1963.47	350	55	$3d^3 4s^2$ -	ga^4F - $m^4D°$	5/2 - 3/2	M24
V I	1964.27	300	54	$3d^3 4s^2$ -	ga^4F - $n^4F°$	3/2 - 3/2	M24

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V I	1965.07	300	55	$3d^34s^2$ -	ga^4F - $m^4D°$	7/2 - 5/2	M24
V I	1965.26	300	54	$3d^34s^2$ -	ga^4F - $n^4F°$	5/2 - 5/2	M24
V I	1966.52	300	54	$3d^34s^2$ -	ga^4F - $n^4F°$	7/2 - 7/2	M24
V I	1966.76	300	55	$3d^34s^2$ -	ga^4F - $m^4D°$	9/2 - 7/2	M24
V I	1967.98	400	54	$3d^34s^2$ -	ga^4F - $n^4F°$	9/2 - 9/2	M24
V I	1969.57	75	54	$3d^34s^2$ -	ga^4F - $n^4F°$	5/2 - 3/2	M24
V I	1972.48	75	54	$3d^34s^2$ -	ga^4F - $n^4F°$	7/2 - 5/2	M24
V I	1975.42	100	54	$3d^34s^2$ -	ga^4F - $n^4F°$	9/2 - 7/2	M24
V I	1981.85	5		$3d^34s^2$ -	ga^4F - 30°	5/2 - 7/2	M24
V I	1982.06	200	53	$3d^34s^2$ -	ga^4F - $p^4G°$	3/2 - 5/2	M24
V I	1982.45	200	53	$3d^34s^2$ -	ga^4F - $p^4G°$	5/2 - 7/2	M24
V I	1983.37	250	53	$3d^34s^2$ -	ga^4F - $p^4G°$	7/2 - 9/2	M24
V I	1984.43	30		$3d^34s^2$ -	ga^4F - 29°	5/2 - 7/2	M24
V I	1984.91	250	53	$3d^34s^2$ -	ga^4F - $p^4G°$	9/2 - 11/2	M24
V I?	1987.25	100					M24
V I	1989.17	1		$3d^34s^2$ -	ga^4F - 30°	7/2 - 7/2	M24
V I	1989.82	60	53	$3d^34s^2$ -	ga^4F - $p^4G°$	7/2 - 7/2	M24
V I	1991.31	0		$3d^34s^2$ -	ga^4F - 27°	5/2 - 3/2	M24
V I	1991.75	10		$3d^34s^2$ -	ga^4F - 29°	7/2 - 7/2	M24
V I	1992.46	1	53	$3d^34s^2$ -	ga^4F - $p^4G°$	9/2 - 9/2	M24
V I	1995.43	1		$3d^34s^2$ -	ga^4F - 28°	7/2 - 7/2	M24

VANADIUM II (V^{1+}), Z = 23

Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)

Ionization Potential 118 200 cm^{-1}; 14.65 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1313.82	5		$3d^4$ -	ga^5D - $u^3F°$	2 - 2	M7
V II	1358.44	50b		$3d^3(a^4F)4s$ -	a^5F - $u^3F°$	1 - 2	M7
V II	1358.769	0		$3d^3(a^4F)4s$ -	a^5F - 2°	3 - 3	V3
V II	1360.896	3		$3d^3(a^4F)4s$ -	a^5F - $u^3F°$	5 - 4	V3
V II	1372.115	2		$3d^3(a^4F)4s$ - $3d^3(c^2D)4p$	a^5F - $t^3D°$	4 - 3	V3
V II	1372.547	3		$3d^3(a^4F)4s$ -	a^5F - 5°	4 - 5	V3
V II	1374.279	10		$3d^3(a^4F)4s$ -	a^5F - 4°	3 - 4	V3
V II	1376.220	15		$3d^3(a^4F)4s$ -	a^5F - 5°	5 - 5	V3
V II	1377.295	10		$3d^3(a^4F)4s$ -	a^5F - 4°	4 - 4	V3
V II	1449.262	5		$3d^3(a^4F)4s$ -	a^3F - $^1D°$	2 - 2	V3
V II	1453.515	2		$3d^3(a^4F)4s$ -	a^3F - $^1D°$	3 - 2	V3
V II	1474.876	0		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	3 - 4	V3
V II	1476.116	0		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	2 - 3	V3
V II	1479.720	5		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	2 - 2	V3
V II	1480.487	10		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	4 - 4	V3
V II	1484.135	1		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	3 - 2	V3
V II	1486.153	1		$3d^3(a^4F)4s$ -	a^3F - $u^3F°$	4 - 3	V3
V II	1489.620	10		$3d^4$ -	a^3P - $^1F°$	2 - 3	V3
V II	1490.837	4h		$3d^3(a^4F)4s$ - $3d^3(c^2D)4p$	a^3F - $t^3D°$	2 - 1	V3
V II	1498.114	6		$3d^3(a^4F)4s$ - $3d^3(c^2D)4p$	a^3F - $t^3D°$	4 - 3	V3
V II	1498.604	4h		$3d^3(a^4F)4s$ -	a^3F - 5°	4 - 5	V3
V II?	1508.078	10					V3
V II	1511.606	2		$3d^3(a^4F)4s$ - $3d^24s(b^4F)4p$	a^5F - $u^3D°$	1 - 1	V3
V II	1512.018	2		$3d^3(a^4F)4s$ - $3d^24s(b^4F)4p$	a^5F - $u^3D°$	3 - 3	V3
V II	1515.675	1		$3d^3(a^4F)4s$ - $3d^24s(b^4F)4p$	a^5F - $u^3D°$	4 - 3	V3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1520.241	1		$3d^4 - 3d^24s(b^4F)4p$	$ga^5D - x^5D^\circ$	2 - 2	V3
V II	1531.405	2		$3d^3(a^4P)4s -$	$a^5P - {}^1F^\circ$	3 - 3	V3
V II	1538.818	4		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - v^3F^\circ$	5 - 4	V3
V II	1547.20	150	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	5 - 6	M7
V II	1550.47	5		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - v^3D^\circ$	2 - 3	M7
V II	1550.858	3		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - x^1D^\circ$	2 - 2	V3
V II	1552.268	1h		$3d^4 - 3d^3(c^2D)4p$	$a^3P - t^3D^\circ$	0 - 1	V3
V II	1553.09	150	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	4 - 5	M7
V II	1556.05	5		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - v^3D^\circ$	4 - 3	M7
V II	1556.561	2		$3d^4 - 3d^3(c^2D)4p$	$a^3P - t^3D^\circ$	1 - 2	V3
V II	1557.569	1		$3d^4 - 3d^3(c^2D)4p$	$a^3P - t^3D^\circ$	1 - 1	V3
V II	1558.76	150	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	3 - 4	M7
V II	1559.347	2		$3d^3(a^4P)4s -$	$a^5P - {}^1D^\circ$	1 - 2	V3
V II	1562.98	100	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	2 - 3	M7
V II	1563.954	2		$3d^4 - 3d^3(c^2D)4p$	$a^3P - t^3D^\circ$	2 - 3	V3
V II	1564.999	2h		$3d^3(a^4P)4s -$	$a^5P - {}^1D^\circ$	3 - 2	V3
V II	1565.98	80	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	3 - 3	M7
V II	1566.166	1h		$3d^4 - 3d^3(c^2D)4p$	$a^3P - t^3D^\circ$	2 - 2	V3
V II	1571.74	20	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	1 - 2	M7
V II	1573.78	5	20	$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	2 - 2	M7
V II	1576.805	0		$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^5F - y^5G^\circ$	3 - 2	V3
V II	1578.542	4		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	3 - 4	V3
V II	1579.550	4		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	2 - 3	V3
V II	1580.261	5		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	1 - 2	V3
V II	1581.99	80	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	1 - 1	M7
V II	1582.32	80	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	2 - 2	M7
V II	1582.57	150	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	3 - 3	M7
V II	1582.80	80	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	1 - 0	M7
V II	1584.06	150	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	2 - 1	M7
V II	1585.361	300	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	3 - 2	M7
V II	1586.58	400	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	4 - 3	M7
V II	1587.40	500	19	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - x^5D^\circ$	5 - 4	M7
V II	1589.761	3		$3d^3(a^4P)4s -$	$a^5P - u^3F^\circ$	3 - 4	V3
V II	1594.129	1h		$3d^4 -$	$b^3F - u^3F^\circ$	2 - 2	V3
V II	1606.685	6		$3d^4 - 3d^3(c^2D)4p$	$b^3F - t^3D^\circ$	4 - 3	V3
V II	1607.046	4		$3d^4 - 3d^3(c^2D)4p$	$b^3F - t^3D^\circ$	2 - 1	V3
V II	1607.294	5		$3d^4 - 3d^3(c^2D)4p$	$b^3F - t^3D^\circ$	3 - 2	V3
V II	1610.487	2		$3d^3(a^4F)4s -$	$a^3F - {}^1F^\circ$	3 - 3	V3
V II	1610.615	2		$3d^4 -$	$a^3G - u^3F^\circ$	4 - 4	V3
V II	1613.016	0		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - v^3D^\circ$	3 - 2	V3
V II	1613.20	150	99	$3d^4 -$	$a^3G - u^3F^\circ$	5 - 4	M7
V II	1613.40	5		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - w^3F^\circ$	2 - 2	M7,K8
V II	1614.871	5		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - w^3F^\circ$	3 - 3	V3
V II	1617.35	100	99	$3d^4 -$	$a^3G - u^3F^\circ$	4 - 3	M7
V II	1619.18	100	99	$3d^4 -$	$a^3G - u^3F^\circ$	3 - 2	M7
V II	1622.432	3		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - v^3D^\circ$	4 - 3	V3
V II	1630.717	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$	3 - 4	V3
V II	1630.82	200	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	4 - 5	M7
V II	1632.135	0		$3d^4 -$	$a^3G - 5^\circ$	4 - 5	V3
V II	1632.343	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$	4 - 5	V3
V II	1633.51	250	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	3 - 4	M7
V II	1634.783	6		$3d^4 -$	$a^3G - 5^\circ$	5 - 5	V3
V II	1634.98	0		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$	4 - 4	M7
V II	1635.86	200	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	2 - 3	M7
V II	1636.02	400	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	5 - 5	M7
V II	1637.439	10		$3d^3(a^4F)4s - 3d^24s(b^4G)4p$	$a^3F - v^3G^\circ$	3 - 4	V3
V II	1637.55	50		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$	5 - 5	M7
V II	1637.77	500	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	4 - 4	M7
V II	1637.93	100	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	1 - 2	M7
V II	1638.858	3h		$3d^4 -$	$a^3G - 4^\circ$	4 - 4	V3
V II	1639.13	400	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	3 - 3	M7
V II	1640.15	350	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	2 - 2	M7
V II	1640.86	300	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	1 - 1	M7
V II	1643.03	300b	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	5 - 4	M7
V II	1643.43	300	18	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^5F - y^5F^\circ$	3 - 2	M7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1644.334	4		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3G^\circ$	4 - 4	V3
V II	1644.665	5		$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3G^\circ$	3 - 3	V3
V II	1660.53	80	109	$3d^3(a^2G)4s -$	$b^3G - u^3F^\circ$	4 - 4	M7
V II?	1661.27	600					M7
V II	1662.28	5	34	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - u^3D^\circ$	2 - 2	M7
V II	1663.34	30	34	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - u^3D^\circ$	2 - 1	M7
V II	1663.60	150	109	$3d^3(a^2G)4s -$	$b^3G - u^3F^\circ$	5 - 4	M7
V II	1664.87	5		$3d^3(a^2G)4s -$	$b^3G - 2^\circ$	3 - 3	M7
V II	1667.084	1		$3d^3(a^2G)4s -$	$b^3G - 2^\circ$	4 - 3	V3
V II	1667.66	100	109	$3d^3(a^2G)4s -$	$b^3G - u^3F^\circ$	4 - 3	M7
V II	1667.88	50	34	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - u^3D^\circ$	3 - 2	M7
V II	1668.03	300b	17	$3d^3(a^4F)4s -$	$a^5F - 1^\circ$	3 - 4	I1,K8
V II	1670.01	100	109	$3d^3(a^2G)4s -$	$b^3G - u^3F^\circ$	3 - 2	M7
V II	1670.90	50	34	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - u^3D^\circ$	4 - 3	M7
V II	1672.44	150	17	$3d^3(a^4F)4s -$	$a^5F - 1^\circ$	4 - 4	M7
V II?	1674.09	80					M7
V II	1677.88	30	17	$3d^3(a^4F)4s -$	$a^5F - 1^\circ$	5 - 4	M7
V II	1681.22	50		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3F^\circ$	1 - 2	M7
V II	1682.17	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3F^\circ$	2 - 3	M7
V II	1682.997	2		$3d^3(a^2G)4s - 3d^3(c^2D)4p$	$b^3G - t^3D^\circ$	3 - 2	V3
V II	1683.392	1		$3d^3(a^2G)4s -$	$b^3G - 5^\circ$	4 - 5	V3
V II	1683.548	2		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3F^\circ$	2 - 2	V3
V II	1685.014	5		$3d^4 -$	$a^3D - {}^1D^\circ$	2 - 2	V3
V II	1686.19	10	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	3 - 4	M7
V II	1686.550	10		$3d^3(a^2G)4s -$	$b^3G - 5^\circ$	5 - 5	V3
V II	1686.748	15		$3d^4 -$	$a^3D - {}^1D^\circ$	3 - 2	V3
V II	1687.40	25b	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	2 - 3	M7
V II	1692.11	100	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	2 - 2	M7
V II	1693.09	100	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	3 - 3	M7
V II	1693.49	120	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	4 - 4	M7
V II	1693.756	15		$3d^3(a^2G)4s -$	$b^3G - 4^\circ$	5 - 4	V3
V II	1697.90	20	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	3 - 2	M7
V II	1700.47	30	33	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - v^3F^\circ$	4 - 3	M7
V II	1710.147	2		$3d^4 -$	$a^1G - u^3F^\circ$	4 - 3	V3
V II	1715.57	20		$3d^4 -$	$a^3D - u^3F^\circ$	3 - 4	M7
V II	1721.422	3		$3d^4 -$	$a^3D - u^3F^\circ$	2 - 3	V3
V II	1722.62	200b	129	$3d^4 -$	$a^3D - 2^\circ$	3 - 3	M7
V II	1725.597	3		$3d^4 -$	$a^3D - u^3F^\circ$	1 - 2	V3
V II	1729.74	100b	182	$3d^4 -$	$a^1D - w^1D^\circ$	2 - 2	M7
V II	1732.035 *	3		$3d^4 - 3d^24s(b^2G)4p$	$a^3G - w^1G^\circ$	4 - 4	V3
V II	1736.498	0		$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^3F - y^5G^\circ$	2 - 2	V3
V II	1737.02	5h		$3d^3(a^4F)4s - 3d^24s(b^2F)4p$	$a^3F - y^5G^\circ$	4 - 3	M7
V II	1737.479	10		$3d^4 - 3d^3(c^2D)4p$	$a^3D - t^3D^\circ$	2 - 3	V3
V II	1737.577	10		$3d^3(a^4P)4s -$	$c^3P - {}^1D^\circ$	1 - 2	V3
V II	1739.25	150b	128	$3d^4 - 3d^3(c^2D)4p$	$a^3D - t^3D^\circ$	3 - 3	M7
V II?	1740.024	10h					V3
V II	1740.291	3h		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - x^1F^\circ$	3 - 3	V3
V II	1740.741	4		$3d^4 - 3d^3(c^2D)4p$	$a^3D - t^3D^\circ$	1 - 1	V3
V II	1742.334	4h		$3d^4 -$	$b^3F - {}^1F^\circ$	3 - 3	V3
V II	1745.264			$3d^3(a^4P)4s -$	$c^3P - {}^1D^\circ$	2 - 2	V3
V II	1747.640	2		$3d^4 -$	$a^3D - 4^\circ$	3 - 4	V3
V II	1748.99	50	32	$3d^3(a^4F)4s - 3d^24s(b^4F)4p$	$a^3F - x^5D^\circ$	2 - 1	M7
V II	1753.665	8		$3d^3(a^2D)4s -$	$b^3D - {}^1D^\circ$	2 - 2	V3
V II	1753.852	8		$3d^3(a^2D)4s -$	$b^3D - {}^1D^\circ$	3 - 2	V3
V II	1763.20	5		$3d^3(a^2P)4s - 3d^3(c^2D)4p$	$b^3P - t^3D^\circ$	2 - 3	M7
V II	1764.916	4		$3d^4 -$	$a^1D - {}^1D^\circ$	2 - 2	V3
V II	1767.02	5		$3d^3(a^2P)4s - 3d^3(c^2D)4p$	$b^3P - t^3D^\circ$	1 - 2	M7
V II	1768.175	2		$3d^3(a^2P)4s - 3d^3(c^2D)4p$	$b^3P - t^3D^\circ$	0 - 1	V3
V II	1768.334	3		$3d^3(a^2P)4s - 3d^3(c^2D)4p$	$b^3P - t^3D^\circ$	1 - 1	V3
V II	1770.698	3		$3d^4 -$	$a^3G - {}^1F^\circ$	3 - 3	V3
V II	1773.985	2		$3d^4 - 3d^24s(b^2G)4p$	$a^3D - w^1F^\circ$	2 - 3	V3
V II	1774.209	3h		$3d^3(a^2H)4s -$	$b^3H - u^3F^\circ$	5 - 4	V3
V II	1776.104	3		$3d^4 - 3d^24s(b^4F)4p$	$b^3F - v^3G^\circ$	4 - 4	V3
V II	1776.48	0		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - v^3D^\circ$	2 - 1	M7
V II	1780.52	100b		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - v^3D^\circ$	2 - 2	M7

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1780.829	2		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3G^\circ$	2 - 3	V3
V II	1782.454	3		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3G^\circ$	3 - 3	V3
V II	1783.744	10		$3d^3(a^4P)4s -$	$c^3P - 2^\circ$	2 - 3	V3
V II	1784.128	8		$3d^3(a^4P)4s - 3d^2 4s(b^4F)4p$	$a^5P - v^3G^\circ$	2 - 3	V3
V II	1785.07	50	175	$3d^3(a^2D)4s -$	$b^3D - u^3F^\circ$	3 - 4	M7
V II	1786.91	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - v^3D^\circ$	3 - 2	M7,M23
V II	1789.62	75b		$3d^3(a^4P)4s -$	$c^3P - u^3F^\circ$	2 - 2	M7
V II	1792.49	50	176	$3d^3(a^2D)4s -$	$b^3D - 2^\circ$	2 - 3	M7
V II	1793.13	30	175	$3d^3(a^2D)4s -$	$b^3D - u^3F^\circ$	2 - 3	M7
V II	1795.38	5	175	$3d^3(a^2D)4s -$	$b^3D - u^3F^\circ$	1 - 2	M7
V II	1796.26	5	98	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3G^\circ$	4 - 5	M7
V II	1796.52	30h		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^3S^\circ$	0 - 1	M7
V II	1799.47	120	98	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3G^\circ$	5 - 5	M7
V II	1799.97	30		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^3S^\circ$	2 - 1	M7
V II	1800.962	0		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3H - v^3F^\circ$	5 - 4	V3
V II	1801.61	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - v^3D^\circ$	4 - 3	M7
V II	1803.279	1		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - u^3D^\circ$	2 - 3	V3
V II	1803.401	4		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3G^\circ$	3 - 4	V3
V II	1804.979	2		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - u^3D^\circ$	3 - 3	V3
V II	1805.932	20		$3d^3(a^4P)4s - 3d^3(c^2D)4p$	$c^3P - t^3D^\circ$	2 - 1	V3
V II	1806.49	80h	98	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3G^\circ$	4 - 4	M7
V II	1807.15	10	76	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - u^3D^\circ$	4 - 3	M7
V II	1808.097	3h		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - u^3D^\circ$	2 - 2	V3
V II	1808.66	5	31	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	3 - 4	M7
V II	1809.81	80d	76	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - u^3D^\circ$	3 - 2	M7
V II	1810.60	60b	174	$3d^3(a^2D)4s - 3d^3(c^2D)4p$	$b^3D - t^3D^\circ$	2 - 3	M7
V II	1811.51	0		$3d^3(a^4P)4s - 3d^2 4s(b^4F)4p$	$a^5P - u^3D^\circ$	2 - 2	M7
V II	1812.195	100b		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3G^\circ$	3 - 3	V3
V II	1813.87	80	31	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	4 - 5	M7
V II	1814.900	10		$3d^3(a^2D)4s - 3d^3(c^2D)4p$	$b^3D - t^3D^\circ$	2 - 1	V3
V II	1817.09	0	31	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	4 - 4	M7
V II	1822.593	10		$3d^4 - 3d^3(c^2D)4p$	$a^1D - t^3D^\circ$	2 - 3	V3
V II	1824.328	6		$3d^3(a^4F)4s - 3d^2 4s(b^4F)4p$	$a^3F - y^5F^\circ$	3 - 2	V3
V II	1825.571	8		$3d^4 - 3d^3(c^2D)4p$	$a^1D - t^3D^\circ$	2 - 2	V3
V II	1828.84	500b		$3d^4 - 3d^3(a^2D)4p$	$ga^5D - x^3P^\circ$?	1 - 2	M7
V II	1831.349	2		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	3 - 4	V3
V II	1833.58	100	75	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	4 - 4	M7
V II	1834.165	0		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3P - x^5D^\circ$	0 - 1	V3
V II	1834.371	0		$3d^3(a^2G)4s - 3d^2 4s(b^2G)4p$	$b^3G - x^1H^\circ$	4 - 5	V3
V II	1837.76	0	75	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	2 - 3	M7
V II	1838.606	0		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - u^3D^\circ$	4 - 3	V3
V II	1838.86	250	117	$3d^4 - 3d^2 4s(b^2G)4p$	$a^1G - w^1G^\circ$	4 - 4	M7
V II	1839.54	200	75	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	3 - 3	M7
V II	1840.438	10h		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - u^3D^\circ$	3 - 2	V3
V II	1841.781	100b		$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	4 - 3	V3
V II	1843.43	50	75	$3d^4 - 3d^2 4s(b^4F)4p$	$b^3F - v^3F^\circ$	2 - 2	M7
V II	1846.268	1		$3d^3(a^4P)4s - 3d^2 4s(b^4F)4p$	$a^5P - v^3F^\circ$	3 - 3	V3
V II	1846.965	0		$3d^3(a^4P)4s - 3d^2 4s(b^4F)4p$	$a^5P - v^3F^\circ$	2 - 2	V3
V II	1848.80	5		$3d^4 - 3d^2 4s(b^4F)4p$	$a^3P - x^5D^\circ$	2 - 3	M7
V II	1852.017	75b		$3d^3(a^4P)4s - 3d^2 4s(b^4F)4p$	$a^5P - v^3F^\circ$	3 - 2	V3
V II	1854.064	2h		$3d^4 - 3d^3(a^2H)4p$	$ga^5D - y^1G^\circ$	3 - 4	V3
V II	1858.50	20	108	$3d^3(a^2G)4s - 3d^2 4s(b^4F)4p$	$b^3G - v^3G^\circ$	4 - 5	M7
V II	1862.37	300	108	$3d^3(a^2G)4s - 3d^2 4s(b^4F)4p$	$b^3G - v^3G^\circ$	5 - 5	M7
V II	1862.76	250	181	$3d^4 - 3d^2 4s(b^2G)4p$	$a^1D - w^1F^\circ$	2 - 3	M7
V II	1863.44	5		$3d^3(a^4F)4s -$	$a^3F - 1^\circ$?	4 - 4	I1,K8
V II	1865.68	20h		$3d^3(a^2D)4s -$	$b^1D - w^1D^\circ$	2 - 2	M7
V II	1865.99	30	97	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3F^\circ$	4 - 4	M7
V II	1866.080	1		$3d^4 - 3d^3(a^2D)4p$	$ga^5D - w^3D^\circ$	4 - 3	V3
V II	1866.68	50	108	$3d^3(a^2G)4s - 3d^2 4s(b^4F)4p$	$b^3G - v^3G^\circ$	3 - 4	M7
V II?	1867.47	200					M7
V II	1869.47	500	97	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3F^\circ$	5 - 4	M7
V II	1871.08	120	30	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	2 - 2	M7
V II	1873.39	100	108	$3d^3(a^2G)4s - 3d^2 4s(b^4F)4p$	$b^3G - v^3G^\circ$	5 - 4	M7
V II	1874.45	120	97	$3d^4 - 3d^2 4s(b^4F)4p$	$a^3G - v^3F^\circ$	4 - 3	M7
V II	1874.97	10	30	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 4	M7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1876.06	200	108	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3G°$	3 - 3	M7
V II	1876.47	100	30	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F°$	3 - 3	M7
V II	1877.00	100	97	$3d^4 - 3d^24s(b^4F)4p$	$a^3G - v^3F°$	3 - 2	M7
V II	1877.85	0		$3d^3(a^2H)4s$ -	$a^1H - u^3F°$	5 - 4	M7
V II	1878.19	5	30	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F°$	3 - 2	M7
V II	1878.90	100	108	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3G°$	4 - 3	M7
V II	1880.811	1h		$3d^4 - 3d^3(a^2F)4p$	$a^3H - x^1G°$	5 - 4	V3
V II	1883.98	200	30	$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F°$	4 - 4	M7
V II	1884.254	5h		$3d^4 - 3d^3(a^2F)4p$	$a^3P - x^1D°$	1 - 2	V3
V II	1885.520	3		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^3F - w^3F°$	4 - 3	V3
V II	1885.90	100	116	$3d^4 - 3d^24s(b^2G)4p$	$a^1G - x^1H°$	4 - 5	M7
V II	1890.50	20		$3d^4 - 3d^3(a^2F)4p$	$a^3P - v^3D°$?	2 - 2	M24,K8
V II	1897.70	10		$3d^4 - 3d^3(a^2F)4p$	$a^3P - v^3D°$	2 - 3	M7
V II	1904.54	0		$3d^4 - 3d^24s(b^4F)4p$	$b^3F - x^5D°$	2 - 3	M7
V II	1906.451	1		$3d^4 - 3d^24s(b^4F)4p$	$b^3F - x^5D°$	3 - 3	V3
V II	1906.618	1		$3d^4 - 3d^3(a^2D)4p$	$ga^5D - x^3F°$	3 - 4	V3
V II	1907.361	1d		$3d^4 - 3d^3(a^2P)4p$	$ga^5D - x^3D°$	4 - 3	V3
V II	1907.80	300b	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	3 - 4	M7
V II	1908.32	400h	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	2 - 3	M7
V II	1909.36	400	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	1 - 2	M7
V II	1911.108	4		$3d^4 - 3d^24s(b^4F)4p$	$b^3F - x^5D°$	2 - 1	V3
V II	1911.88	400	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	1 - 1	M7
V II	1912.39	400	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	2 - 2	M7
V II	1913.10	200	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	1 - 0	M7
V II	1913.70	350b	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	3 - 3	M7
V II	1914.295	1h		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - x^3G°$	4 - 5	V3
V II	1914.91	150	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	2 - 1	M7
V II	1915.71	0		$3d^4$ -	$a^1F - 3°$	3 - 3	M7
V II	1916.404	0		$3d^4 - 3d^3(a^2F)4p$	$b^3F - x^1G°$	4 - 4	V3
V II	1917.79	150	80	$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - x^5D°$	3 - 2	M7
V II?	1919.35	200					M7
V II	1924.87	300	195	$3d^4$ -	$a^1F - w^1D°$	3 - 2	M7
V II	1929.61	600	139	$3d^3(a^2G)4s - 3d^24s(b^2G)4p$	$b^1G - x^1H°$	4 - 5	M7
V II	1932.55	5h		$3d^4 - 3d^24s(b^2G)4p$	$a^1I - x^1H°$	6 - 5	M7
V II	1932.99	30		$3d^4 - 3d^24s(b^4F)4p$	$a^1G - v^3G°$	4 - 3	M7
V II	1933.28	100	106	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3F°$	4 - 4	M7
V II	1935.531	1		$3d^4 - 3d^24s(b^4F)4p$	$a^3H - y^5F°$	5 - 5	V3
V II	1937.44	600	106	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3F°$	5 - 4	M7
V II	1937.68	70	59	$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G°$	5 - 5	M7
V II	1938.50	100	59	$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G°$	4 - 4	M7
V II	1938.70	80	58	$3d^4 - 3d^24s(b^4F)4p$	$a^3H - y^5F°$	6 - 5	M7
V II	1939.32	80	106	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3F°$	3 - 3	M7
V II	1940.86	400	59	$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G°$	6 - 5	M7
V II	1941.27	300	59	$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G°$	4 - 3	M7
V II	1941.40	300	59	$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G°$	5 - 4	M7
V II	1942.35	400	106	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3F°$	4 - 3	M7
V II	1943.99	0		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D°$	2 - 1	M7
V II	1945.35	300	58	$3d^4 - 3d^24s(b^4F)4p$	$a^3H - y^5F°$	5 - 4	M7
V II	1945.64	300	106	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^3G - v^3F°$	3 - 2	M7
V II	1950.77	5		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D°$	3 - 2	M7
V II	1954.061	2h		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - y^1G°$	4 - 4	V3
V II	1958.446	1		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D°$	3 - 3	V3
V II	1960.137	3		$3d^4 - 3d^3(a^2P)4p$	$ga^5D - y^3P°$	2 - 2	V3
V II	1960.445	0		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$a^5P - v^3D°$	2 - 3	V3
V II	1960.98	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D°$	4 - 3	M7
V II	1964.091	1		$3d^4 - 3d^3(a^2P)4p$	$ga^5D - y^3P°$	3 - 2	V3
V II	1966.752	3h		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$a^5P - x^1D°$	3 - 2	V3
V II	1967.185	4		$3d^3(a^4P)4s$ -	$c^3P - {}^1D$	1 - 2	V3
V II	1970.877	0		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^3D°$	1 - 2	V3
V II	1972.278	1		$3d^4 - 3d^3(a^2P)4p$	$ga^5D - y^3P°$	1 - 1	V3
V II	1972.62	200	163	$3d^3(a^2H)4s - 3d^24s(b^2G)4p$	$b^3H - x^1H°$	4 - 5	M7
V II	1974.278	1		$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	2 - 3	V3
V II	1975.021	1		$3d^4 - 3d^3(a^2P)4p$	$ga^5D - y^3P°$	2 - 1	V3
V II	1975.489	1		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G°$	4 - 5	V3
V II	1976.62	600	127	$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	3 - 3	M7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V II	1977.60	5		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G°$	2 - 3	M7
V II	1978.96	200	138	$3d^3(a^2G)4s - 3d^24s(b^4F)4p$	$b^1G - v^3G°$	4 - 3	M7
V II	1979.087	5		$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	1 - 2	V3
V II	1979.618	1		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G°$	3 - 3	V3
V II	1980.04	400	127	$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	2 - 2	M7
V II	1980.59	250	127	$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	1 - 1	M7
V II	1981.245	0		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^3D°$	0 - 1	V3
V II	1981.53	80	127	$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	2 - 1	M7
V II	1982.21	5		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G°$	4 - 3	M7
V II	1982.41	80	127	$3d^4 - 3d^24s(b^4F)4p$	$a^3D - u^3D°$	3 - 2	M7
V II	1984.05	100b		$3d^3(a^2D)4s -$	$b^3D - {}^1D$	1 - 2	V3
V II	1987.314	10		$3d^3(a^2D)4s -$	$b^3D - {}^1F°$	2 - 3	V3
V II	1987.547	4		$3d^3(a^2D)4s -$	$b^3D - {}^1F°$	3 - 3	V3
V II	1987.82	3		$3d^3(a^2D)4s -$	$b^3D - {}^1D$	2 - 2	V3
V II	1988.031	8		$3d^3(a^2D)4s -$	$b^3D - {}^1D°$	3 - 2	V3
V II	1988.674	0		$3d^3(a^4P)4s - 3d^24s(b^4F)4p$	$a^5P - y^5F°$	3 - 4	V3
V II	1991.31	0		$3d^4 -$	$a^3H - 1°$?	4 - 4	M24,K8
V II	1994.34	100		$3d^4 -$	$a^3H - 1°$?	5 - 4	M24,K8
V II	1995.02	5		$3d^4 - 3d^3(a^2F)4p$	$a^3G - x^1D°$	3 - 2	M7

VANADIUM III (V^{2+}), Z = 23

Ground State $1s^22s^22p^63s^23p^63d^3\ {}^4F_{3/2}$ (21 electrons)

Ionization Potential 236 411 cm^{-1}; 29.310 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	612.85	10h		$3d^3 - 3d^2(^3P)5p$	$a^4P - y^4P°$?	5/2 - 5/2	I1,I3
V III	614.63	0		$3d^3 - 3d^2(^3F)4f$	$a^4P - {}^4P°$	5/2 - 5/2	I3
V III	614.94	0		$3d^3 - 3d^2(^3F)4f$	$a^4P - 56°$	3/2 - 3/2	I3
V III	615.48	0		$3d^3 - 3d^2(^3F)4f$	$a^4P - 55°$	3/2 - 3/2	I3
V III	615.90	0		$3d^3 - 3d^2(^3F)4f$	$a^4P - 53°$	3/2 - 5/2	I3
V III	616.09	25		$3d^3 - 3d^2(^3F)4f$	$a^2G - {}^2H°$	9/2 - 11/2	I3
V III	617.05	10		$3d^3 - 3d^2(^3F)4f$	$a^2G - {}^4G°$	9/2 - 11/2	I3
V III	617.34	0		$3d^3 - 3d^2(^3F)4f$	$a^2G - {}^2H°$	9/2 - 9/2	I3
V III	618.02	0		$3d^3 - 3d^2(^3F)5p$	$ga^4F - w^4D°$	9/2 - 7/2	I3
V III	618.41	0		$3d^3 - 3d^2(^3F)4f$	$a^2G - {}^2G°$	7/2 - 9/2	I3
V III	618.89	0		$3d^3 - 3d^2(^3F)5p$	$ga^4F - w^4D°$	7/2 - 5/2	I3
V III	619.29	5		$3d^3 - 3d^2(^3F)4f$	$a^2G - {}^2G°$	9/2 - 9/2	I3
V III	620.17	5		$3d^3 - 3d^2(^1G)5p$	$a^2H - w^2G°$	9/2 - 7/2	I3
V III	620.69	0		$3d^3 - 3d^2(^1G)5p$	$a^2H - w^2G°$	11/2 - 9/2	I3
V III	622.92	0		$3d^3 - 3d^2(^3F)5p$	$ga^4F - y^4F°$	5/2 - 7/2	I3
V III	623.27	5		$3d^3 - 3d^2(^3F)5p$	$ga^4F - y^4F°$	9/2 - 9/2	I1,I3
V III	623.67	5		$3d^3 - 3d^2(^3F)5p$	$ga^4F - y^4F°$	7/2 - 7/2	I1,I3
V III	624.08	0		$3d^3 - 3d^2(^3F)5p$	$ga^4F - y^4F°$	5/2 - 5/2	I1,I3
V III	624.42	0		$3d^3 - 3d^2(^3F)5p$	$ga^4F - y^4F°$	3/2 - 3/2	I3
V III	627.90	10		$3d^3 - 3d^2(^3P)4f$	$a^2F - {}^2G°$?	7/2 - 9/2	I1,I3
V III	628.86	5		$3d^3 - 3d^2(^3P)4f$	$a^2F - {}^2G°$?	5/2 - 7/2	I1,I3
V III	633.37	0		$3d^3 - 3d^2(^3F)4f$	$a^2D - 57°$	5/2 - 7/2	I3
V III	633.94	50		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^2I°$	11/2 - 13/2	I3
V III	634.16	5		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^2H°$	9/2 - 11/2	I3
V III	634.81	25		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^2H°$	11/2 - 11/2	I3
V III	635.22	10		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^4G°$	9/2 - 11/2	I3
V III	635.41	40		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^2I°$	9/2 - 11/2	I3
V III	635.97	0		$3d^3 - 3d^2(^3F)4f$	$a^2D - {}^4G°$	3/2 - 5/2	I3
V III	636.21	0		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^4G°$	9/2 - 9/2	I3
V III	637.08	0		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^4I°$	9/2 - 11/2	I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	637.49	5		$3d^3 - 3d^2(^1D)4f$	$a^2F - {}^2G^\circ$	7/2 - 9/2	I3
V III	637.73	0		$3d^3 - 3d^2(^3F)4f$	$a^2H - {}^4H^\circ$	11/2 - 13/2	I3
V III	638.13	10		$3d^3 - 3d^2(^1D)4f$	$a^2F - {}^2G^\circ$	5/2 - 7/2	I3
V III	641.91	0		$3d^3 - 3d^2(^1D)5p$	$a^2D - v^2D^\circ$	3/2 - 5/2	I3
V III	663.15	0		$3d^3 - 3d^2(^3F)5p$	$a^2G - x^2G^\circ$	7/2 - 9/2	I3
V III	664.12	0		$3d^3 - 3d^2(^3F)5p$	$a^2G - x^2G^\circ$	9/2 - 9/2	I3
V III	665.00	0		$3d^3 - 3d^2(^3F)5p$	$a^2G - x^2G^\circ$	7/2 - 7/2	I3
V III	669.33	5		$3d^3 - 3d^2(^3F)5p$	$a^2G - w^2F^\circ$	9/2 - 7/2	I3
V III	670.25	5		$3d^3 - 3d^2(^3F)5p$	$a^2G - w^2F^\circ$	7/2 - 5/2	I3
V III	685.96	5		$3d^3 - 3d^2(^3F)5p$	$a^2H - x^2G^\circ$	11/2 - 9/2	I3
V III	849.15	15		$3d^2(^3P)4s - 3d^2(^3P)5p$	$b^4P - y^4P^\circ$?	5/2 - 3/2	I1,I3
V III	849.32	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - w^4D^\circ$	9/2 - 7/2	I3
V III	850.49	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - w^4D^\circ$	7/2 - 5/2	I3
V III	851.36	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - w^4D^\circ$	5/2 - 3/2	I3
V III	859.24	15		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - y^4F^\circ$	9/2 - 9/2	I1,I3
V III	859.57	5		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - y^4F^\circ$	7/2 - 7/2	I1,I3
V III	860.06	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - y^4F^\circ$	5/2 - 5/2	I1,I3
V III	860.55	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - y^4F^\circ$	3/2 - 3/2	I1,I3
V III	861.81	40b		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^4F - y^4F^\circ$	7/2 - 5/2	I1,I3
V III	862.02	15		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	7/2 - 7/2	I1,I3
V III	862.92	25		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	5/2 - 5/2	I1,I3
V III	863.22	10		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	3/2 - 3/2	I1,I3
V III	863.99	25		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	3/2 - 1/2	I1,I3
V III	864.27	100		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	9/2 - 7/2	I1,I3
V III	864.47	40		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	5/2 - 3/2	I1,I3
V III	864.68	50		$3d^2(^3F)4s - 3d4s(^3D)4p$	$b^4F - x^4D^\circ$	7/2 - 5/2	I1,I3
V III	879.76	0		$3d^3 - 3d^2(^1S)4p$	$a^2D - x^2P^\circ$	3/2 - 3/2	I3
V III	880.08	50		$3d^3 - 3d^2(^1S)4p$	$a^2D - x^2P^\circ$	5/2 - 3/2	I3
V III	884.42	0		$3d^3 - 3d^2(^1S)4p$	$a^2D - x^2P^\circ$	3/2 - 1/2	I3
V III	894.13	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^2F - w^2F^\circ$	5/2 - 5/2	I1,I3
V III	894.59	0		$3d^2(^3F)4s - 3d^2(^3F)5p$	$b^2F - w^2F^\circ$	7/2 - 7/2	I1,I3
V III	895.88	5		$3d^2(^1G)4s - 3d^2(^3P)5p$	$b^2G - y^4P^\circ$?	7/2 - 5/2	I1,I3
V III	899.18	5		$3d^2(^3F)4p - 3d^2(^3F)5g$	$z^4G^\circ - 4$?	7/2 - 9/2	I1,I3
V III	948.84	75		$3d^2(^3P)4s - 3d^2(^3F)5p$	$b^4P - w^2D^\circ$?	5/2 - 5/2	I1,I3
V III	967.81	0		$3d^2(^3P)4s - 3d4s(^3D)4p$	$b^4P - x^4D^\circ$	3/2 - 5/2	I1,I3
V III	968.41	0		$3d^2(^3P)4s - 3d4s(^3D)4p$	$b^4P - x^4D^\circ$	1/2 - 3/2	I1,I3
V III	969.77	0		$3d^2(^3P)4s - 3d4s(^3D)4p$	$b^4P - x^4D^\circ$	3/2 - 3/2	I1,I3
V III	1003.42	25		$3d^3 - 3d^2(^1D)4p$	$ga^4F - y^2D^\circ$	5/2 - 5/2	I1,I3
V III	1004.02	50		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	I1,I3
V III	1004.96	10		$3d^3 - 3d^2(^1D)4p$	$ga^4F - y^2D^\circ$	3/2 - 3/2	I1,I3
V III	1005.41	40		$3d^3 - 3d^2(^1D)4p$	$ga^4F - y^2D^\circ$	7/2 - 5/2	I1,I3
V III	1005.64	0		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 5/2	I1,I3
V III	1006.46	500		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	I1,I3
V III	1007.10	50		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 5/2	I1,I3
V III	1008.26	40		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 3/2	I1,I3
V III	1009.10	100		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	I1,I3
V III	1009.36	50		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 1/2	I1,I3
V III	1009.73	75		$3d^3 - 3d^2(^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	I1,I3
V III	1015.40	5		$3d^3 - 3d^2(^1D)4p$	$ga^4F - y^2F^\circ$	7/2 - 7/2	I1,I3
V III	1018.18	50		$3d^3 - 3d^2(^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	I3
V III	1019.97	10		$3d^3 - 3d^2(^1D)4p$	$ga^4F - y^2F^\circ$	7/2 - 5/2	I1,I3
V III	1023.87	50		$3d^3 - 3d^2(^1G)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	I1,I3
V III	1040.04	0h		$3d^2(^3F)4p - 3d^2(^3F)6s$	$z^2F^\circ - j^2F$	7/2 - 7/2	I1,I3
V III	1040.37	0h		$3d^2(^3F)4p - 3d^2(^3F)6s$	$z^2F^\circ - j^2F$	5/2 - 5/2	I1,I3
V III	1044.19	0h		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^4G^\circ - f^4H$	9/2 - 11/2	I1,I3
V III	1044.60	0		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^4G^\circ - f^4G$	9/2 - 9/2	I3
V III	1045.64	5h		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^4G^\circ - f^4H$	11/2 - 13/2	I1,I3
V III	1048.83	0		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^4G^\circ - f^4H$	9/2 - 7/2	I3
V III	1055.79	50		$3d^3 - 3d^2(^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	I1,I3
V III	1056.76	5		$3d^2(^3F)4p - 3d^2(^3F)6s$	$z^4D^\circ - h^4F$?	7/2 - 9/2	I1,I3
V III	1058.48	50		$3d^3 - 3d^2(^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	I1,I3
V III	1065.51	10		$3d^3 - 3d^2(^1G)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	I1,I3
V III	1069.74	50		$3d^3 - 3d^2(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	I1,I3
V III	1074.76	0		$3d^3 - 3d^2(^1G)4p$	$a^2H - x^2F^\circ$	9/2 - 7/2	I1,I3
V III	1079.72	5		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^4D^\circ - f^4G$	7/2 - 9/2	I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1081.98	0		$3d^2(^3F)4p - 3d^2(^3F)6s$	$z^2G^\circ - j^2F$	9/2 - 7/2	I3
V III	1086.53	0		$3d^2(^3F)4p - 3d^2(^3F)5d$	$z^2G^\circ - i^2G$	9/2 - 9/2	I3
V III	1091.53	5		$3d^3 - 3d^2(^3P)4p$	$a^2P - y^2P^\circ$	1/2 - 3/2	I1,I3
V III	1091.86	5		$3d^3 - 3d^2(^3P)4p$	$a^2P - y^2P^\circ$	3/2 - 3/2	I1,I3
V III	1093.15	0		$3d^3 - 3d^2(^3P)4p$	$a^2P - y^2P^\circ$	3/2 - 1/2	I1,I3
V III	1098.96	75		$3d^3 - 3d^2(^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	I1,I3
V III	1100.75	100		$3d^3 - 3d^2(^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	I1,I3
V III	1100.87	5		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 3/2	I1,I3
V III	1101.42	25		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^2P^\circ$	5/2 - 3/2	I1,I3
V III	1102.19	5		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 1/2	I1,I3
V III	1105.17	25		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	I1,I3
V III	1107.36	100		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	I1,I3
V III	1107.76	25		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	I1,I3
V III	1108.71	5		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	I1,I3
V III	1109.49	5		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	I1,I3
V III	1110.45	25		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	I1,I3
V III	1110.92	25		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	I1,I3
V III	1112.03	100		$3d^3 - 3d^2(^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	I1,I3
V III	1115.71	50		$3d^3 - 3d^2(^1G)4p$	$a^2H - z^2H^\circ$	9/2 - 9/2	I1,I3
V III	1117.78	5		$3d^3 - 3d^2(^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 9/2	I1,I3
V III	1119.66	50	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 5/2	I1,I3
V III	1121.16	15	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	3/2 - 3/2	I1,I3
V III	1122.13	75		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 5/2	I1,I3
V III	1122.62	5	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 7/2	I1,I3
V III	1123.00	75	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 3/2	I1,I3
V III	1123.53	50	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	3/2 - 1/2	I1,I3
V III	1124.76	5		$3d^3 - 3d^2(^3P)4p$	$a^2D - x^2D^\circ$	5/2 - 5/2	I3
V III	1125.70	200	3	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4D^\circ$	9/2 - 7/2	I1,I3
V III	1126.13	0		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 5/2	I1,I3
V III	1128.63	75		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2D^\circ$	7/2 - 5/2	I1,I3
V III	1131.05	60		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 3/2	I1,I3
V III	1134.16	50		$3d^3 - 3d^2(^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	I1,I3
V III	1135.92	0		$3d^3 - 3d^2(^1D)4p$	$a^4P - y^2D^\circ$	5/2 - 5/2	I1,I3
V III	1136.54	0		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 7/2	I1,I3
V III	1138.32	15		$3d^3 - 3d^2(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	I1,I3
V III	1139.54	15		$3d^3 - 3d^2(^3P)4p$	$a^2G - y^4D^\circ$	9/2 - 7/2	I1,I3
V III	1139.67	25		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2F^\circ$	9/2 - 7/2	I1,I3
V III	1139.85	75		$3d^3 - 3d^2(^1S)4p$	$b^2D - x^2P^\circ$	5/2 - 3/2	I3
V III	1140.66	10		$3d^3 - 3d^2(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	I1,I3
V III	1141.20	5		$3d^3 - 3d^2(^1S)4p$	$b^2D - x^2P^\circ$	3/2 - 3/2	I3
V III	1141.68	25		$3d^3 - 3d^2(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 3/2	I3
V III	1142.08	5		$3d^3 - 3d^2(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 1/2	I1,I3
V III	1142.34	10		$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 5/2	I1,I3
V III	1143.19	15		$3d^3 - 3d^2(^3P)4p$	$a^2G - y^4D^\circ$	7/2 - 5/2	I1,I3
V III	1146.75	75	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 9/2	I1,I3
V III	1148.46	100	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 7/2	I1,I3
V III	1149.08	25		$3d^3 - 3d^2(^1S)4p$	$b^2D - x^2P^\circ$	3/2 - 1/2	I3
V III	1149.94	500	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 9/2	I1,I3
V III	1150.25	60	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 5/2	I1,I3
V III	1151.05	150	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 7/2	I1,I3
V III	1151.30	25		$3d^3 - 3d^2(^1D)4p$	$a^2G - y^2F^\circ$	7/2 - 7/2	I3
V III	1152.17	150	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 5/2	I1,I3
V III	1153.18	25	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 3/2	I1,I3
V III	1154.23	250	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 7/2	I1,I3
V III	1154.77	75	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 5/2	I1,I3
V III	1155.11	75	2	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	I1,I3
V III	1155.41	5		$3d^3 - 3d^2(^1D)4p$	$a^4P - z^2P^\circ$	1/2 - 3/2	I1,I3
V III	1156.47	15		$3d^3 - 3d^2(^1D)4p$	$a^4P - z^2P^\circ$	3/2 - 3/2	I1,I3
V III	1157.18	400		$3d^3 - 3d^2(^1D)4p$	$a^2G - y^2F^\circ$	7/2 - 5/2	I1,I3
V III	1158.86	50		$3d^3 - 3d^2(^1D)4p$	$a^4P - z^2P^\circ$	5/2 - 3/2	I1,I3
V III	1159.75	200	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 11/2	I1,I3
V III	1160.77	300		$3d^3 - 3d^2(^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	I1,I3
V III	1162.02	250		$3d^3 - 3d^2(^1G)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	I1,I3
V III	1162.81	50		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4S^\circ$	1/2 - 3/2	I1,I3
V III	1163.26	75	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 9/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1163.87	60		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4S^\circ$	3/2 - 3/2	I1,I3
V III	1166.29	75		$3d^3 - 3d^2(^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	I1,I3
V III	1166.45	75	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 7/2	I1,I3
V III	1166.58	75	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 9/2	W4,I3
V III	1166.86	0		$3d^3 - 3d^2(^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 5/2	I1,I3
V III	1169.11	75	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 7/2	W4,I3
V III	1169.26	100	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	3/2 - 5/2	I1,I3
V III	1171.27	20	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 5/2	W4,I3
V III	1172.47	5	1	$3d^3 - 3d^2(^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 7/2	W4,I3
V III	1186.89	25		$3d^2(^3P)4p - 3d^2(^3F)6s$	$y^4D^\circ - h^4F$	5/2 - 7/2	I1,I3
V III	1191.07	0		$3d^3 - 3d^2(^1D)4p$	$a^2P - y^2D^\circ$	1/2 - 3/2	I1,I3
V III	1191.50	0		$3d^3 - 3d^2(^1D)4p$	$a^2P - y^2D^\circ$	3/2 - 3/2	I1,I3
V III	1196.63	0		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 7/2	I3
V III	1198.61	100		$3d^3 - 3d^2(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 5/2	I1,I3
V III	1202.25	50		$3d^3 - 3d^2(^1D)4p$	$a^2D - y^2D^\circ$	3/2 - 3/2	I1,I3
V III	1202.87	5		$3d^3 - 3d^2(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 3/2	I1,I3
V III	1203.86	0		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 5/2	I1,I3
V III	1206.99	200		$3d^3 - 3d^2(^1D)4p$	$a^2P - z^2P^\circ$	1/2 - 1/2	I1,I3
V III	1207.45	100		$3d^3 - 3d^2(^1D)4p$	$a^2P - z^2P^\circ$	3/2 - 1/2	I1,I3
V III	1207.63	50		$3d^3 - 3d^2(^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 3/2	I3
V III	1212.38	100		$3d^3 - 3d^2(^1D)4p$	$a^2P - z^2P^\circ$	3/2 - 3/2	I1,I3
V III	1212.82	10		$3d^3 - 3d^2(^1G)4p$	$a^2F - x^2F^\circ$	7/2 - 5/2	I1,I3
V III	1214.56	100		$3d^3 - 3d^2(^1G)4p$	$a^2F - x^2F^\circ$	5/2 - 5/2	I1,I3
V III	1217.64	150		$3d^3 - 3d^2(^1G)4p$	$a^2F - x^2F^\circ$	7/2 - 7/2	I1,I3
V III	1218.50	125		$3d^3 - 3d^2(^1D)4p$	$a^2D - z^2P^\circ$	3/2 - 1/2	I1,I3
V III	1219.38	5		$3d^3 - 3d^2(^1G)4p$	$a^2F - x^2F^\circ$	5/2 - 7/2	I1,I3
V III	1220.09	15		$3d^3 - 3d^2(^3P)4p$	$a^2P - z^4S^\circ$	1/2 - 3/2	I1,I3
V III	1220.54	0		$3d^3 - 3d^2(^3P)4p$	$a^2P - z^4S^\circ$	3/2 - 3/2	I1,I3
V III	1224.19	125		$3d^3 - 3d^2(^1D)4p$	$a^2D - z^2P^\circ$	5/2 - 3/2	I1,I3
V III	1232.49	50		$3d^3 - 3d^2(^3P)4p$	$a^2D - z^4S^\circ$	5/2 - 3/2	I1,I3
V III	1248.65	10	7	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 9/2	I1,I3
V III	1252.11	500	7	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	I1,I3
V III	1254.01	400	7	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	I1,I3
V III	1257.50	75	7	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	I1,I3
V III	1263.20	150		$3d^3 - 3d^2(^3P)4p$	$a^2P - z^2S^\circ$	1/2 - 1/2	I1,I3
V III	1263.68	125		$3d^3 - 3d^2(^3P)4p$	$a^2P - z^2S^\circ$	3/2 - 1/2	I1,I3
V III	1275.78	75		$3d^3 - 3d^2(^3P)4p$	$a^2D - z^2S^\circ$	3/2 - 1/2	I1,I3
V III	1284.27	150	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	I1,I3
V III	1287.19	50	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	I1,I3
V III	1287.34	75	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	I1,I3
V III	1287.87	500	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	I1,I3
V III	1288.63	100	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	I1,I3
V III	1289.42	400		$3d^3 - 3d^2(^3P)4p$	$a^2F - x^2D^\circ$	7/2 - 5/2	I1,I3
V III	1290.46	100	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	I1,I3
V III	1290.77	300		$3d^3 - 3d^2(^3P)4p$	$a^2F - x^2D^\circ$	5/2 - 3/2	I1,I3
V III	1291.40	15		$3d^3 - 3d^2(^3P)4p$	$a^2F - x^2D^\circ$	5/2 - 5/2	I1,I3
V III	1291.59	5	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 3/2	I1,I3
V III	1291.76	25	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 1/2	I1,I3
V III	1292.79	250	5	$3d^3 - 3d^2(^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 5/2	I1,I3
V III	1294.82	50		$3d^3 - 3d^2(^3F)4p$	$a^2G - z^4D^\circ$	9/2 - 7/2	I1,I3
V III	1295.76	150		$3d^3 - 3d^2(^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 5/2	I1,I3
V III	1297.94	50		$3d^3 - 3d^2(^3F)4p$	$a^4P - z^2D^\circ$	1/2 - 3/2	I1,I3
V III	1299.07	50		$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2D^\circ$	7/2 - 5/2	I1,I3
V III	1299.25	50		$3d^3 - 3d^2(^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 3/2	I1,I3
V III	1306.21	50		$3d^3 - 3d^2(^3F)4p$	$a^4P - z^2F^\circ$	5/2 - 7/2	I1,I3
V III	1313.35	400	6	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	I1,I3
V III	1317.27	300	6	$3d^3 - 3d^2(^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	I1,I3
V III	1327.87	150		$3d^3 - 3d^2(^1G)4p$	$a^2F - y^2G^\circ$	7/2 - 9/2	I1,I3
V III	1329.05	25	9	$3d^3 - 3d^2(^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 9/2	I1,I3
V III	1331.30	100		$3d^3 - 3d^2(^1G)4p$	$a^2F - y^2G^\circ$	5/2 - 7/2	I1,I3
V III	1331.99	500	9	$3d^3 - 3d^2(^3F)4p$	$a^2H - z^2G^\circ$	11/2 - 9/2	I1,I3
V III	1335.12	500	9	$3d^3 - 3d^2(^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 7/2	I1,I3
V III	1353.05	100		$3d^2(^1G)4p - 3d^2(^3F)5d$	$x^2F^\circ - i^2G$	7/2 - 7/2	I1,I3
V III	1357.90	40		$3d^3 - 3d^2(^3F)4p$	$a^2P - z^4D^\circ$	1/2 - 3/2	I1,I3
V III	1358.44	50b		$3d^3 - 3d^2(^3F)4p$	$a^2P - z^4D^\circ$	3/2 - 3/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1359.45	5		$3d^3 - 3d^2(^3F)4p$	$a^2G - z^4G^\circ$	7/2 - 5/2	I1,I3
V III	1362.51	50	4	$3d^3 - 3d^2(^3F)4p$	$a^2P - z^2D^\circ$	3/2 - 5/2	I1,I3
V III	1367.48	100		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	3/2 - 5/2	I1,I3
V III	1368.31	100		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 5/2	I1,I3
V III	1369.06	50		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 7/2	I1,I3
V III	1369.70	100	4	$3d^3 - 3d^2(^3F)4p$	$a^2P - z^2D^\circ$	1/2 - 3/2	I1,I3
V III	1370.26	100	4	$3d^3 - 3d^2(^3F)4p$	$a^2P - z^2D^\circ$	3/2 - 3/2	I1,I3
V III	1372.43	10		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	3/2 - 3/2	I1,I3
V III	1373.34	5d		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 3/2	I1,I3
V III	1375.98	5		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^4D^\circ$	3/2 - 1/2	I1,I3
V III	1377.15	125		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 5/2	I1,I3
V III	1377.99	100		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	I1,I3
V III	1382.45	100		$3d^2(^1G)4p - 3d^2(^3F)5d$	$x^2F^\circ - j^2F$?	5/2 - 7/2	I1,I3
V III	1384.49	75		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 3/2	I1,I3
V III	1385.34	15		$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 3/2	I1,I3
V III	1387.40	15		$3d^3 - 3d^2(^1D)4p$	$a^2F - y^2D^\circ$	7/2 - 5/2	I1,I3
V III	1389.79	200	8	$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	I1,I3
V III	1394.46	5		$3d^3 - 3d^2(^3P)4p$	$a^2F - y^4D^\circ$	7/2 - 5/2	I1,I3
V III	1395.44	0		$3d^3 - 3d^2(^1D)4p$	$a^2F - y^2D^\circ$	5/2 - 3/2	I1,I3
V III	1397.62	60	8	$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	I1,I3
V III	1398.47	75	8	$3d^3 - 3d^2(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 5/2	I1,I3
V III	1401.38	10		$3d^3 - 3d^2(^3F)4p$	$a^2P - z^4F^\circ$?	3/2 - 5/2	I1,I3
V III	1405.14	5		$3d^3 - 3d^2(^3F)4p$	$a^2P - z^4F^\circ$	1/2 - 3/2	I1,I3
V III	1405.74	5		$3d^3 - 3d^2(^3F)4p$	$a^2P - z^4F^\circ$	3/2 - 3/2	I1,I3
V III	1406.52	50		$3d^3 - 3d^2(^1D)4p$	$a^2F - y^2F^\circ$	7/2 - 7/2	I1,I3
V III	1417.71	50		$3d^3 - 3d^2(^1D)4p$	$a^2F - y^2F^\circ$	5/2 - 5/2	I1,I3
V III	1442.85	5		$3d^2(^3F)4p - 3d^2(^1G)4d$	$z^2G^\circ - g^2G$	7/2 - 7/2	I1,I3
V III	1448.58	10		$3d^2(^3F)4p - 3d^2(^1G)4d$	$z^2G^\circ - g^2G$	9/2 - 9/2	I1,I3
V III	1453.00	5		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^4D^\circ - f^4P$	7/2 - 5/2	I3
V III	1460.64	15		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2F^\circ - f^2D$	5/2 - 3/2	I1,I3
V III	1463.21	5		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2F^\circ - f^2D$	7/2 - 5/2	I1,I3
V III	1472.45	5		$3d^3 - 3d^2(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 5/2	I1,I3
V III	1474.71	125		$3d^3 - 3d^2(^1G)4p$	$b^2D - x^2F^\circ$	3/2 - 5/2	I1,I3
V III	1479.57	150		$3d^3 - 3d^2(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 7/2	I1,I3
V III	1498.39	10		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^2D^\circ - g^4F$	5/2 - 7/2	I3
V III	1503.95	0		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^4D^\circ - g^4F$	1/2 - 3/2	I3
V III	1505.02	25		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^4D^\circ - g^4F$	7/2 - 9/2	I3
V III	1506.57	15		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^4D^\circ - g^4F$	3/2 - 5/2	I3
V III	1510.02	15		$3d^2(^3F)4p - 3d^2(^3P)4d$	$z^4D^\circ - g^4F$	5/2 - 7/2	I3
V III	1524.52	60		$3d^2(^3P)4p - 3d^2(^3P)5s$	$z^2S^\circ - h^2P$	1/2 - 3/2	I3
V III	1537.07	0		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2F^\circ - g^2F$	5/2 - 5/2	I3
V III	1540.87	250		$3d^3 - 3d^2(^3P)4p$	$b^2D - y^2P^\circ$	5/2 - 3/2	I1,I3
V III	1543.33	25		$3d^3 - 3d^2(^3P)4p$	$b^2D - y^2P^\circ$	3/2 - 3/2	I1,I3
V III	1545.86	150		$3d^3 - 3d^2(^3P)4p$	$b^2D - y^2P^\circ$	3/2 - 1/2	I1,I3
V III	1553.25	0		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2D^\circ - g^2F$	3/2 - 5/2	I3
V III	1554.61	0		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2G^\circ$	7/2 - 9/2	I1,I3
V III	1556.17	75		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^4D^\circ - f^2P$	1/2 - 1/2	I3
V III	1558.40	10		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2D^\circ - g^2F$	5/2 - 7/2	I3
V III	1570.96	10		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^4D^\circ - g^2F$	5/2 - 7/2	I3
V III	1585.97	25		$3d^3 - 3d^2(^3P)4p$	$b^2D - x^2D^\circ$	5/2 - 3/2	I1,I3
V III	1586.92	250		$3d^3 - 3d^2(^3P)4p$	$b^2D - x^2D^\circ$	5/2 - 5/2	I1,I3
V III	1588.59	150		$3d^3 - 3d^2(^3P)4p$	$b^2D - x^2D^\circ$	3/2 - 3/2	I1,I3
V III	1589.53	15		$3d^3 - 3d^2(^3P)4p$	$b^2D - x^2D^\circ$	3/2 - 5/2	I1,I3
V III	1590.77	10		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2G^\circ - f^2G$	7/2 - 7/2	I3
V III	1596.58	15		$3d^2(^1D)4p - 3d^2(^1G)4d$	$y^2F^\circ - g^2G$	5/2 - 7/2	I1,I3
V III	1600.11	10		$3d^2(^3F)4p - 3d^2(^1D)4d$	$z^2G^\circ - f^2G$	9/2 - 9/2	I3
V III	1604.99	50		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - i^2F$	7/2 - 5/2	I3
V III	1606.17	25		$3d^2(^1D)4p - 3d^2(^1G)4d$	$y^2F^\circ - g^2G$	7/2 - 9/2	I1,I3
V III	1608.39	60		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - i^2F$	9/2 - 7/2	I3
V III	1619.95	5		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^4D^\circ$	7/2 - 5/2	I1,I3
V III	1621.01	40		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^4D^\circ$	7/2 - 7/2	I1,I3
V III	1622.45	10		$3d^2(^3P)4p - 3d^2(^3P)5s$	$z^4S^\circ - g^4P$	3/2 - 5/2	I1,I3
V III	1624.53	0		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4S^\circ - h^2D$	3/2 - 5/2	I3
V III	1627.67	150		$3d^2(^1G)4p - 3d^2(^1G)5s$	$y^2G^\circ - h^2G$	7/2 - 7/2	I1,I3
V III	1629.64	125		$3d^2(^1G)4p - 3d^2(^1G)5s$	$y^2G^\circ - h^2G$	9/2 - 9/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1630.72	10		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - f^4F$	5/2 - 3/2	I1,I3
V III	1636.45	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - f^4F$	7/2 - 5/2	I1,I3
V III	1636.72	25		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2D^\circ$?	5/2 - 5/2	I1,I3
V III	1636.77	5		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - f^4F$?	9/2 - 9/2	I1,I3
V III	1637.05	10		$3d^2(^1D)4p - 3d^2(^3P)5s$	$z^2P^\circ - g^4P$	3/2 - 5/2	I1,I3
V III	1641.64	50		$3d^2(^1D)4p - 3d^2(^3P)4d$	$z^2P^\circ - g^2P$	3/2 - 3/2	I3
V III	1643.03	1000b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - f^4F$	9/2 - 7/2	I1,I3
V III	1646.69	200		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4S^\circ - f^4P$	3/2 - 5/2	I1,I3
V III	1648.10	75		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4S^\circ - f^4P$	3/2 - 1/2	I1,I3
V III	1648.99	100		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4S^\circ - f^4P$	3/2 - 3/2	I1,I3
V III	1650.14	1000		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 7/2	I1,I3
V III	1650.40	75		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - f^4F$	11/2 - 9/2	I1,I3
V III	1653.41	25		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 7/2	I1,I3
V III	1654.14	25		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4G^\circ - e^4F$	5/2 - 5/2	I1,I3
V III	1658.42	200		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4G^\circ - e^4F$	5/2 - 3/2	I1,I3
V III	1659.27	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	3/2 - 5/2	I1,I3
V III	1659.94	25		$3d^2(^3F)4p - 3d^2(^2F)5s$	$z^4G^\circ - e^4F$	9/2 - 9/2	I1,I3
V III	1660.25	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	5/2 - 7/2	I1,I3
V III	1661.62	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	7/2 - 9/2	I1,I3
V III	1661.73	15		$3d^2(^1D)4p - 3d^2(^3P)4d$	$z^2P^\circ - f^4P$	3/2 - 5/2	I3
V III	1662.41	15		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 5/2	I1,I3
V III	1663.07	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	3/2 - 3/2	I1,I3
V III	1663.82	150		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4G^\circ - e^4F$	7/2 - 5/2	I1,I3
V III	1665.40	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	5/2 - 5/2	I1,I3
V III	1665.71	250		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 5/2	I1,I3
V III	1668.03	300b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	7/2 - 7/2	I1,I3
V III	1668.72	50		$3d^2(^3P)4p - 3d^2(^1G)4d$	$x^2D^\circ - i^2F$	5/2 - 7/2	I3
V III	1668.98	100		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4G^\circ - e^4F$	9/2 - 7/2	I1,I3
V III	1669.20	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	5/2 - 3/2	I1,I3
V III	1670.66	300		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	9/2 - 9/2	I1,I3
V III	1673.23	10		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	7/2 - 5/2	I1,I3
V III	1673.91	150		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4G^\circ - e^4F$	11/2 - 9/2	I1,I3
V III	1674.85	10		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^4D^\circ - g^4P$	5/2 - 5/2	I1,I3
V III	1676.08	5		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^4D^\circ - g^4P$	3/2 - 1/2	I3
V III	1677.18	25d		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - f^4F$	9/2 - 7/2	I1,I3
V III	1679.19	300		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - f^2H$	7/2 - 9/2	I1,I3
V III	1679.64	5		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^2P$	5/2 - 3/2	I3
V III	1680.44	250		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - f^2H$	9/2 - 11/2	I1,I3
V III	1681.05	5		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^4D^\circ - g^4P$	5/2 - 3/2	I3
V III	1681.56	5		$3d^2(^1D)4p - 3d^2(^3P)4d$	$y^2D^\circ - g^2P$	3/2 - 3/2	I3
V III	1685.47	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	7/2 - 9/2	I1,I3
V III	1686.74	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	5/2 - 7/2	I1,I3
V III	1686.95	150		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2F^\circ - f^2F$	7/2 - 7/2	I1,I3
V III	1687.40	25b		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	3/2 - 5/2	I1,I3
V III	1687.87	200		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2F^\circ - f^2F$	5/2 - 5/2	I1,I3
V III	1689.04	150		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^4D^\circ - g^4P$	7/2 - 5/2	I1,I3
V III	1690.35	15		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^4S^\circ - f^2D$	3/2 - 5/2	I1,I3
V III	1691.90	75		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	3/2 - 3/2	I1,I3
V III	1692.82	10		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - f^4F$	7/2 - 9/2	I1,I3
V III	1693.76	75		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	5/2 - 5/2	I1,I3
V III	1694.78	1000b		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	9/2 - 9/2	I1,I3
V III	1698.24	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	5/2 - 3/2	I1,I3
V III	1698.68	10		$3d^3 - 3d^2(^3F)4p$	$a^2F - z^4F^\circ$?	5/2 - 3/2	I1,I3
V III	1699.75	5		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^4S^\circ - f^2D$	3/2 - 3/2	I1,I3
V III	1701.86	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	7/2 - 5/2	I1,I3
V III	1703.12	5		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4P$	5/2 - 3/2	I1,I3
V III	1703.70	50		$3d^2(^1D)4p - 3d^2(^1D)5s$	$y^2F^\circ - g^2D$	5/2 - 3/2	I3
V III	1704.17	100d		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4F^\circ - e^4F$	9/2 - 7/2	I1,I3
V III	1704.68	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2D^\circ - f^2F$	5/2 - 7/2	I1,I3
V III	1705.19	40		$3d^2(^1D)4p - 3d^2(^3P)4d$	$y^2F^\circ - h^2F$	5/2 - 5/2	I3
V III	1706.22	100		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2D$	3/2 - 5/2	I1,I3
V III	1707.43	150		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2D^\circ - f^2F$	3/2 - 5/2	I1,I3
V III	1707.89	150		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^2S^\circ - f^2P$	1/2 - 1/2	I1,I3
V III	1711.61	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - f^4F$	3/2 - 5/2	I1,I3
V III	1714.04	50		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4S^\circ - f^4D$	3/2 - 5/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1715.32	15		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4P$	7/2 - 5/2	I1,I3
V III	1715.79	25		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2D$	3/2 - 3/2	I1,I3
V III	1716.47	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2D$	5/2 - 5/2	I1,I3
V III	1717.01	150		$3d^2(^1D)4p - 3d^2(^1D)5s$	$y^2F^\circ - g^2D$	7/2 - 5/2	I3
V III	1717.47	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - f^4F$	5/2 - 7/2	I1,I3
V III	1719.77	100		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^2S^\circ - f^2P$?	1/2 - 3/2	I1,I3
V III	1721.98	400		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2D$	5/2 - 3/2	I3
V III	1722.46	150		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - g^2G$	7/2 - 7/2	I1,I3
V III	1722.62	200b		$3d^2(^1G)4p - 3d^2(^1G)4d$	$y^2G^\circ - g^2G$	9/2 - 9/2	I1,I3
V III	1724.63	300		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	7/2 - 9/2	I1,I3
V III	1725.37	200		$3d^2(^1G)4p - 3d^2(^1G)5s$	$z^2H^\circ - h^2G$	9/2 - 7/2	I1,I3
V III	1725.78	15		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2D$	1/2 - 3/2	I1,I3
V III	1726.11	10		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - f^2F$	3/2 - 5/2	I1,I3
V III	1728.66	15		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2F^\circ - f^2D$?	7/2 - 5/2	I1,I3
V III	1728.87	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	1/2 - 3/2	I1,I3
V III	1729.74	100b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2D$	7/2 - 5/2	I1,I3
V III	1730.40	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	3/2 - 5/2	I1,I3
V III	1731.54	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	7/2 - 7/2	I1,I3
V III	1732.75	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	5/2 - 7/2	I1,I3
V III	1734.52	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	3/2 - 3/2	I1,I3
V III	1736.99	40		$3d^2(^1D)4p - 3d^2(^1D)5s$	$y^2D^\circ - g^2D$	3/2 - 3/2	I3
V III	1738.00	25		$3d^3 - 3d^2(^1D)4p$	$b^2D - y^2D^\circ$	5/2 - 5/2	I1,I3
V III	1738.33	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - f^4F$	5/2 - 5/2	I1,I3
V III	1738.93	25		$3d^2(^1D)4p - 3d^2(^3P)4d$	$z^2P^\circ - g^4F$	3/2 - 5/2	I3
V III	1739.25	150b		$3d^2(^1G)4p - 3d^2(^1G)5s$	$z^2H^\circ - h^2G$	11/2 - 9/2	I1,I3
V III	1742.15	25		$3d^2(^1D)4p - 3d^2(^3P)4d$	$z^2P^\circ - f^4D$?	1/2 - 3/2	I1,I3
V III	1742.35	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2D$	3/2 - 3/2	I3
V III	1746.36	25		$3d^2(^1D)4p - 3d^2(^1D)5s$	$y^2D^\circ - g^2D$	5/2 - 5/2	I3
V III	1747.31	10		$3d^2(^3P)4p - 3d^2(^1D)4d$	$y^4D^\circ - f^2D$	5/2 - 5/2	I1,I3
V III	1748.39	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2D$	5/2 - 5/2	I1,I3
V III	1749.39	5		$3d^2(^3P)4p - 3d^2(^1D)4d$	$y^4D^\circ - f^2D$	3/2 - 3/2	I1,I3
V III	1750.17	50		$3d^3 - 3d^2(^1D)4p$	$b^2D - y^2D^\circ$	3/2 - 3/2	I1,I3
V III	1750.34	100		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	7/2 - 9/2	I1,I3
V III	1751.68	500d		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - h^2F$	7/2 - 5/2	I1,I3
V III	1752.19	50		$3d^2(^3P)4p - 3d^2(^3P)5s$	$z^4P^\circ - g^4P$	5/2 - 5/2	I1,I3
V III	1752.62	10		$3d^2(^3P)4p - 3d^2(^3P)5s$	$z^4P^\circ - g^4P$	3/2 - 1/2	I3
V III	1754.11	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2D$	5/2 - 3/2	I3
V III	1756.02	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2D$	3/2 - 5/2	I3
V III	1757.73	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2G$	5/2 - 7/2	I1,I3
V III	1758.50	150		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - f^2D$	5/2 - 5/2	I1,I3
V III	1758.96	50		$3d^2(^3P)4p - 3d^2(^3P)5s$	$z^4P^\circ - g^4P$	5/2 - 3/2	I3
V III	1759.46	100		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - f^2D$	3/2 - 3/2	I1,I3
V III	1760.07	1000		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2G$	7/2 - 9/2	I1,I3
V III	1760.41	10		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	7/2 - 7/2	I1,I3
V III	1761.04	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	3/2 - 5/2	I1,I3
V III	1761.63	50		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	5/2 - 7/2	I1,I3
V III	1761.84	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2D$	3/2 - 3/2	I3
V III	1762.27	75		$3d^2(^1D)4p - 3d^2(^3P)4d$	$y^2F^\circ - g^4F$	7/2 - 5/2	I3
V III	1762.78	10		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	1/2 - 3/2	I1,I3
V III	1762.99	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2D$	7/2 - 5/2	I1,I3
V III	1763.59	10d		$3d^3 - 3d^2(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 1/2	I1,I3
V III	1764.23	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2D$	5/2 - 5/2	I1,I3
V III	1765.28	15		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	3/2 - 1/2	I3
V III	1765.92	15		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	3/2 - 3/2	I1,I3
V III	1766.16	50		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	3/2 - 3/2	I1,I3
V III	1768.09	100		$3d^3 - 3d^2(^1D)4p$	$b^2D - y^2F^\circ$	5/2 - 7/2	I1,I3
V III	1768.66	5		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - f^2D$	5/2 - 3/2	I1,I3
V III	1769.22	10		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^4D^\circ - e^4F$	5/2 - 5/2	I1,I3
V III	1769.60	25		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	1/2 - 3/2	I1,I3
V III	1770.06	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2D$	5/2 - 3/2	I3
V III	1771.35	75		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	3/2 - 5/2	I1,I3
V III	1771.67	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2G$	7/2 - 7/2	I1,I3
V III	1772.31	200		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	1/2 - 3/2	I1,I3
V III	1772.63	100		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	5/2 - 5/2	I1,I3
V III	1772.99	50		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	3/2 - 1/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1773.43	300		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	3/2 - 5/2	I1,I3
V III	1774.02	10		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	3/2 - 3/2	I1,I3
V III	1774.25	25		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	5/2 - 3/2	I1,I3
V III	1775.72	75		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	3/2 - 3/2	I1,I3
V III	1777.18	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4P$	3/2 - 3/2	I3
V III	1778.02	400		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	5/2 - 7/2	I1,I3
V III	1779.72	500		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2F^\circ - f^2G$	5/2 - 7/2	I3
V III	1780.48	100b		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	5/2 - 5/2	I1,I3
V III	1781.61	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4P$	5/2 - 5/2	I1,I3
V III	1782.04	5		$3d^3 - 3d^2(^1D)4p$	$b^2D - y^2F^\circ$	5/2 - 5/2	I1,I3
V III	1783.16	20		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4P$	5/2 - 3/2	I1,I3
V III	1783.41	200		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - f^2H$	9/2 - 9/2	I1,I3
V III	1783.77	50		$3d^2(^1D)4p - 3d^2(^3P)4d$	$y^2D^\circ - g^4F$	3/2 - 5/2	I3
V III	1784.44	400		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - f^4D$	7/2 - 7/2	I1,I3
V III	1785.33	50		$3d^3 - 3d^2(^1D)4p$	$b^2D - y^2F^\circ$	3/2 - 5/2	I1,I3
V III	1785.97	150		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^2F - x^2D^\circ$	5/2 - 3/2	I1,I3
V III	1787.15	15		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^2F - x^2D^\circ$	5/2 - 5/2	I1,I3
V III	1788.26	1000		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	7/2 - 9/2	I3
V III	1789.47	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4P$	5/2 - 3/2	I3
V III	1789.62	100b		$3d^2(^1D)4p - 3d^2(^3P)4d$	$y^2D^\circ - g^4F$	5/2 - 7/2	I3
V III	1791.23	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2G$	5/2 - 7/2	I1,I3
V III	1793.82	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	5/2 - 7/2	I1,I3
V III	1794.00	250		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$	7/2 - 7/2	I1,I3
V III	1794.60	1000		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2F^\circ - f^2G$	7/2 - 9/2	I3
V III	1796.77	300		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4P$	7/2 - 5/2	I3
V III	1797.28	100		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - f^2H$	11/2 - 11/2	I1,I3
V III	1797.44	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4P$	3/2 - 3/2	I3
V III	1797.63	100		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^4D^\circ - g^4F$?	7/2 - 5/2	I1,I3
V III	1798.15	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	7/2 - 9/2	I1,I3
V III	1800.07	100		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2G^\circ - f^2F$	9/2 - 7/2	I1,I3
V III	1802.55	300		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^2F - x^2D^\circ$	7/2 - 5/2	I1,I3
V III	1803.15	25		$3d^2(^3F)4s - 3d^2(^1D)4p$	$b^4F - y^2D^\circ$	7/2 - 5/2	I1,I3
V III	1804.13	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	9/2 - 11/2	I1,I3
V III	1804.52	75		$3d^2(^3F)4p - 3d^2(^3F)5s$	$z^2G^\circ - f^2F$	7/2 - 5/2	I1,I3
V III	1804.76	75		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	5/2 - 7/2	I1,I3
V III	1805.23	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	7/2 - 7/2	I1,I3
V III	1806.55	10		$3d^2(^1G)4p - 3d^2(^1G)4d$	$x^2F^\circ - i^2F$	7/2 - 7/2	I3
V III	1806.71	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - f^4F$	9/2 - 9/2	I3
V III	1807.35	50		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^4F - y^4D^\circ$	5/2 - 5/2	I1,I3
V III	1808.51	100		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^4F - y^4D^\circ$	9/2 - 7/2	I1,I3
V III	1809.36	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	7/2 - 9/2	I1,I3
V III	1810.31	0		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^4F - y^4D^\circ$?	3/2 - 3/2	M7,I3
V III	1810.71	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	5/2 - 5/2	I1,I3
V III	1812.19	1000b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	11/2 - 13/2	I1,I3
V III	1814.95	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	9/2 - 11/2	I1,I3
V III	1815.11	50		$3d^2(^3F)4s - 3d^2(^3P)4p$	$b^4F - y^4D^\circ$	7/2 - 5/2	I3
V III	1815.35	100		$3d^2(^1G)4p - 3d^2(^1G)4d$	$x^2F^\circ - i^2F$	5/2 - 5/2	I3
V III	1816.30	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	7/2 - 7/2	I1,I3
V III	1820.65	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$	11/2 - 11/2	I1,I3
V III	1821.99	10		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^4P^\circ - f^2D$	3/2 - 5/2	I3
V III	1822.21	15		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - g^2F$?	3/2 - 5/2	I1,I3
V III	1822.31	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	7/2 - 5/2	I1,I3
V III	1822.61	50		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2P$	1/2 - 1/2	I1,I3
V III	1823.57	200d		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	9/2 - 9/2	I1,I3
V III	1824.34	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$?	3/2 - 3/2	I1,I3
V III	1824.88	75		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2P$	3/2 - 3/2	I3
V III	1825.60	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$	5/2 - 5/2	I1,I3
V III	1827.96	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$	3/2 - 1/2	I3
V III	1828.84	500b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4H$?	11/2 - 9/2	M7,I3
V III	1830.61	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	9/2 - 7/2	I1,I3
V III	1831.15	400		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - e^2I$	9/2 - 11/2	I3
V III	1831.64	400		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	11/2 - 11/2	I1,I3
V III	1831.74	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$	5/2 - 3/2	I1,I3
V III	1832.29	25		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - g^2G$	9/2 - 7/2	I1,I3
V III	1832.99	150		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2F^\circ - g^2F$	5/2 - 5/2	I1,I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1833.42	25		$3d^2(^1G)4p - 3d^2(^1G)5s$	$x^2F^\circ - h^2G$	7/2 - 9/2	I1,I3
V III	1835.01	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$	7/2 - 5/2	I1,I3
V III	1835.56	25		$3d^2(^3F)4s - 3d^2(^1D)4p$	$b^4F - y^2F^\circ$?	7/2 - 7/2	I1,I3
V III	1836.17	10		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - f^2P$	1/2 - 3/2	I3
V III	1836.78	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4D$	9/2 - 7/2	I1,I3
V III	1840.45	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4G^\circ - e^4G$	11/2 - 9/2	I1,I3
V III	1841.80	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2H$	9/2 - 11/2	I1,I3
V III	1842.06	150		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2F^\circ - g^2F$	7/2 - 7/2	I1,I3
V III	1842.66	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4H$	7/2 - 9/2	I1,I3
V III	1843.16	100		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - e^2S$	3/2 - 1/2	I3
V III	1844.43	50		$3d^2(^1G)4p - 3d^2(^1G)5s$	$x^2F^\circ - h^2G$	5/2 - 7/2	I1,I3
V III	1845.07	300		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - e^2I$	11/2 - 13/2	I3
V III	1845.29	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2H$	7/2 - 9/2	I1,I3
V III	1845.60	25		$3d^2(^1G)4p - 3d^2(^1G)4d$	$z^2H^\circ - g^2G$	11/2 - 9/2	I1,I3
V III	1846.51	75		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4D$	1/2 - 3/2	I1,I3
V III	1848.97	10		$3d^2(^3P)4p - 3d^2(^1D)4d$	$y^4D^\circ - f^2P$	3/2 - 1/2	I1,I3
V III	1849.55	250		$3d^2(^1G)4p - 3d^2(^3P)4d$	$y^2G^\circ - h^2F$	7/2 - 5/2	I1,I3
V III	1850.69	300		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$	3/2 - 5/2	I1,I3
V III	1851.32	150		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4D$	3/2 - 3/2	I1,I3
V III	1852.01	400		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$	5/2 - 7/2	I1,I3
V III	1852.70	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2P$	3/2 - 1/2	I3
V III	1853.12	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^2F$	9/2 - 7/2	I1,I3
V III	1854.42	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$	7/2 - 9/2	I1,I3
V III	1854.71	5		$3d^2(^1D)4p - 3d^2(^1D)4d$	$z^2P^\circ - e^2S$	1/2 - 1/2	I3
V III	1855.06	300		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4D$	5/2 - 7/2	I1,I3
V III	1856.64	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$	9/2 - 11/2	I1,I3
V III	1857.00	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2H$	9/2 - 9/2	I1,I3
V III	1858.32	75		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$	5/2 - 5/2	I1,I3
V III	1859.29	50		$3d^2(^3P)4p - 3d^2(^3P)4d$	$x^2D^\circ - h^2D$	5/2 - 5/2	I3
V III	1859.49	50		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - f^4D$	5/2 - 5/2	I1,I3
V III	1860.22	75		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - f^2P$	3/2 - 1/2	I1,I3
V III	1863.14	100		$3d^2(^3P)4p - 3d^2(^1D)4d$	$y^4D^\circ - g^2F$	5/2 - 7/2	I3
V III	1864.51	300		$3d^2(^3F)4s - 3d^2(^1G)4p$	$b^2F - y^2G^\circ$	5/2 - 7/2	I1,I3
V III	1864.74	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2F$	5/2 - 7/2	I1,I3
V III	1865.41	10		$3d^2(^3P)4p - 3d^2(^3P)4d$	$z^4P^\circ - g^4F$	5/2 - 7/2	I1,I3
V III	1871.58	200		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - g^2F$	3/2 - 5/2	I1,I3
V III	1873.01	5		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4F^\circ - e^4G$?	9/2 - 7/2	I1,I3
V III	1875.62	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2F$	5/2 - 5/2	I1,I3
V III	1875.88	250		$3d^2(^1D)4p - 3d^2(^1D)4d$	$y^2D^\circ - g^2F$	5/2 - 7/2	I1,I3
V III	1878.68	300		$3d^2(^3F)4s - 3d^2(^1G)4p$	$b^2F - y^2G^\circ$	7/2 - 9/2	I1,I3
V III	1880.41	400		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2F$	7/2 - 7/2	I1,I3
V III	1881.28	25		$3d^2(^3F)4s - 3d^2(^1G)4p$	$b^2F - y^2G^\circ$	7/2 - 7/2	I1,I3
V III	1881.75	10		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^2P^\circ - h^2P$	3/2 - 3/2	I3
V III	1883.57	250		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2G$	9/2 - 9/2	I1,I3
V III	1884.61	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2G$	7/2 - 7/2	I1,I3
V III	1885.26	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4D$	5/2 - 7/2	I1,I3
V III	1887.79	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4D$	3/2 - 3/2	I3
V III	1889.22	40		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^2P^\circ - h^2P$	3/2 - 1/2	I3
V III	1891.47	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2F^\circ - e^2F$	7/2 - 5/2	I1,I3
V III	1891.71	10		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4D$	3/2 - 1/2	I3
V III	1895.01	300		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4D$	5/2 - 5/2	I3
V III	1896.84	10		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2G^\circ - e^2G$	9/2 - 7/2	I1,I3
V III	1899.81	400		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2F$	3/2 - 5/2	I1,I3
V III	1901.63	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^4D$	5/2 - 3/2	I3
V III	1902.23	500		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	7/2 - 7/2	I1,I3
V III	1902.48	150		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^2D^\circ - e^2F$	5/2 - 7/2	I1,I3
V III	1903.68	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	5/2 - 7/2	I1,I3
V III	1903.83	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	1/2 - 3/2	I1,I3
V III	1904.01	75		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	3/2 - 5/2	I1,I3
V III	1907.80	300b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	1/2 - 1/2	I1,I3
V III	1910.68	200		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	3/2 - 3/2	I1,I3
V III	1912.17	50		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	7/2 - 5/2	I1,I3
V III	1913.62	350b		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	5/2 - 5/2	I1,I3
V III	1914.68	15		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	3/2 - 1/2	I1,I3
V III	1916.09	25		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^2P^\circ - h^2D$	1/2 - 3/2	I3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V III	1920.38	75		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^4D$	5/2 - 3/2	I1,I3
V III	1921.24	100		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2F$	5/2 - 7/2	I1,I3
V III	1922.98	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2F$	3/2 - 5/2	I1,I3
V III	1926.23	25		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^2P^\circ - g^2P$	1/2 - 3/2	I3
V III	1926.75	200		$3d^2(^3P)4p - 3d^2(^3P)4d$	$y^2P^\circ - h^2D$	3/2 - 5/2	I3
V III	1928.05	15		$3d^2(^3P)4p - 3d^2(^3P)5s$	$y^2P^\circ - g^4P$	1/2 - 3/2	I3
V III	1931.09	250		$3d^2(^3P)4p - 3d^2(^3P)4d$	$x^2D^\circ - h^2F$	5/2 - 7/2	I3
V III	1932.59	10		$3d^2(^3P)4p - 3d^2(^3P)4d$	$x^2D^\circ - h^2F$	5/2 - 5/2	I3
V III	1932.82	25		$3d^2(^3F)4p - 3d^2(^3F)4d$	$z^4D^\circ - e^2F$	5/2 - 5/2	I3
V III	1934.00	300		$3d^2(^3P)4p - 3d^2(^3P)4d$	$x^2D^\circ - h^2F$	3/2 - 5/2	I3
V III	1937.17	25		$3d^2(^3P)4p - 3d^2(^1D)4d$	$z^4P^\circ - f^2P$?	1/2 - 1/2	I1,I3
V III	1947.37	20		$3d^2(^3P)4p - 3d^2(^1D)4d$	$x^2D^\circ - f^2D$?	3/2 - 5/2	M24,I3
V III	1952.00	150		$3d^2(^1G)4p - 3d^2(^1G)4d$	$x^2F^\circ - g^2G$	7/2 - 9/2	I1,I3
V III	1967.11	150		$3d^2(^1G)4p - 3d^2(^1G)4d$	$x^2F^\circ - g^2G$	5/2 - 7/2	I1,I3
V III	1968.37	5		$3d^2(^1D)4s - 3d^2(^3P)4p$	$c^2D - y^2P^\circ$	3/2 - 1/2	I1,I3
V III	1990.33	0		$3d^2(^3P)4s - 3d^2(^3P)4p$	$b^4P - y^2P^\circ$	5/2 - 3/2	I1,I3
V III	1992.83	100		$3d^2(^3F)4s - 3d^2(^1D)4p$	$b^2F - y^2D^\circ$	5/2 - 3/2	I1,I3
V III	1994.57	25		$3d^2(^3F)4d - 3d^2(^1G)4f$	$e^2F - {}^2G^\circ$	7/2 - 9/2	I1,I3

VANADIUM IV (V^{3+}), Z = 23

Ground State $1s^22s^22p^63s^23p^63d^2\ ^3F_2$ (20 electrons)

Ionization Potential 376 730 cm^{-1}; 46.707 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V IV	675.469	30		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 4	I2
V IV	677.345	200		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	4 - 4	I2
V IV	678.740	60		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 3	I2
V IV	679.647	50		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	2 - 2	I2
V IV	680.632	40		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	4 - 3	I2
V IV	681.145	40		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 2	I2
V IV	682.455	40		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	3 - 3	I2
V IV	682.923	40		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	2 - 2	I2
V IV	684.368	500		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	4 - 3	I2
V IV	684.450	100		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	3 - 2	I2
V IV	691.530	100		$3d^2 - 3d4p$	$a^1D - z^1P^\circ$	2 - 1	I2
V IV	693.128	50		$3d^2 - 3d4p$	$ga^3F - z^1D^\circ$	2 - 2	I2
V IV	699.497	30		$3d^2 - 3d4p$	$a^1D - z^1F^\circ$	2 - 3	I2
V IV	702.035	1		$3d^2 - 3d4p$	$a^3P - z^1P^\circ$	0 - 1	I2
V IV	711.911	20		$3d^2 - 3d4p$	$a^1D - z^3P^\circ$	2 - 1	I2
V IV	722.912	40		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 2	I2
V IV	723.045	40		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	0 - 1	I2
V IV	723.537	40		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 0	I2
V IV	723.652	40		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 1	I2
V IV	724.068	40		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 2	I2
V IV	724.809	5		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 1	I2
V IV	734.344	20		$3d^2 - 3d4p$	$a^1D - z^3F^\circ$	2 - 2	I2
V IV	737.854	400		$3d^2 - 3d4p$	$a^1G - z^1F^\circ$	4 - 3	I2
V IV	745.165	20		$3d^2 - 3d4p$	$a^3P - z^3F^\circ$	2 - 3	I2
V IV	749.641	40		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 3	I2
V IV	750.110	150		$3d^2 - 3d4p$	$a^1D - z^1D^\circ$	2 - 2	I2
V IV	750.809	40		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 2	I2
V IV	751.908	30		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	0 - 1	I2
V IV	752.038	30		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 2	I2
V IV	752.568	20		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 1	I2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V IV	778.433	0		$3d^2$ - 3d4p	a^1G - $z^3D°$	4 - 3	I2
V IV	884.146	30		$3d^2$ - 3d4p	^1S - $z^1P°$	0 - 1	I2
V IV	1071.054	20		3d4p - 3d5s	$z^1D°$ - ^1D	2 - 2	I2
V IV	1086.382	5		3d4p - 3d5s	$z^1D°$ - ^3D	2 - 2	I2
V IV	1096.375	2		3d4p - 3d5s	$z^3D°$ - ^1D	2 - 2	I2
V IV	1110.720	2		3d4p - 3d5s	$z^3D°$ - ^3D	1 - 1	I2
V IV	1112.199	5		3d4p - 3d5s	$z^3D°$ - ^3D	3 - 3	I2
V IV	1112.436	5		3d4p - 3d5s	$z^3D°$ - ^3D	2 - 2	I2
V IV	1127.836	20		3d4p - 3d5s	$z^3F°$ - ^3D	3 - 2	I2
V IV	1131.255	20		3d4p - 3d5s	$z^3F°$ - ^3D	4 - 3	I2
V IV	1194.462	20		3d4p - 3d5s	$z^1F°$ - ^1D	3 - 2	I2
V IV	1226.523	60		3d4p - 3d4d	$z^1D°$ - ^1D	2 - 2	I2
V IV	1242.248	3		3d4p - 3d4d	$z^3D°$ - ^3P	1 - 1	I2
V IV	1243.718	10		3d4p - 3d4d	$z^3D°$ - ^3P	1 - 0	I2
V IV	1244.287	2		3d4p - 3d4d	$z^3D°$ - ^3P	2 - 2	I2
V IV	1247.069	30		3d4p - 3d4d	$z^3D°$ - ^3P	2 - 1	I2
V IV	1250.918	20		3d4p - 3d4d	$z^3D°$ - ^3P	3 - 2	I2
V IV	1271.153	2		3d4p - 3d4d	$z^3F°$ - ^1D	2 - 2	I2
V IV	1272.972	30		3d4p - 3d4d	$z^1P°$ - ^1S	1 - 0	I2
V IV	1273.529	10		3d4p - 3d4d	$z^1D°$ - e^3F	2 - 2	I2
V IV	1304.173	30		3d4p - 3d4d	$z^3D°$ - e^3F	1 - 2	I2
V IV	1305.420	40		3d4p - 3d4d	$z^3D°$ - e^3F	2 - 3	I2
V IV	1308.061	50		3d4p - 3d4d	$z^3D°$ - e^3F	3 - 4	I2
V IV	1309.502	10		3d4p - 3d4d	$z^3D°$ - e^3F	2 - 2	I2
V IV	1312.717	20		3d4p - 3d4d	$z^3D°$ - e^3F	3 - 3	I2
V IV	1317.566	5		3d4p - 3d4d	$z^3F°$ - e^3F	2 - 3	I2
V IV	1321.719	10		3d4p - 3d4d	$z^3F°$ - e^3F	2 - 2	I2
V IV	1321.917	10		3d4p - 3d4d	$z^3F°$ - e^3F	3 - 4	I2
V IV	1326.666	5		3d4p - 3d4d	$z^3F°$ - e^3F	3 - 3	I2
V IV	1326.807	5		3d4p - 3d4d	$z^3P°$ - ^3P	1 - 2	I2
V IV	1329.288	10		3d4p - 3d4d	$z^3P°$ - ^3P	2 - 2	I2
V IV	1329.968	10		3d4p - 3d4d	$z^3P°$ - ^3P	1 - 1	I2
V IV	1330.355	10		3d4p - 3d4d	$z^3P°$ - ^3P	0 - 1	I2
V IV	1331.665	0		3d4p - 3d4d	$z^3P°$ - ^3P	1 - 0	I2
V IV	1332.459	3		3d4p - 3d4d	$z^3P°$ - ^3P	2 - 1	I2
V IV	1334.493			3d4p - 3d4d	$z^3F°$ - e^3F	4 - 4	I2
V IV	1339.335	5		3d4p - 3d4d	$z^3F°$ - e^3F	4 - 3	I2
V IV	1344.493	0		3d4p - 3d4d	$z^3P°$ - ^1D	1 - 2	I2
V IV	1347.030	1		3d4p - 3d4d	$z^3P°$ - ^1D	2 - 2	I2
V IV	1355.131	80		3d4p - 3d4d	$z^1F°$ - ^1G	3 - 4	I2
V IV	1356.529	10		3d4p - 3d4d	$z^1D°$ - ^1P	2 - 1	I2
V IV	1391.105	20		3d4p - 3d4d	$z^1F°$ - ^1D	3 - 2	I2
V IV	1395.001	60		3d4p - 3d4d	$z^1D°$ - ^1F	2 - 3	I2
V IV	1400.416	5		3d4p - 3d4d	$z^3D°$ - e^3G	2 - 3	I2
V IV	1403.618	8		3d4p - 3d4d	$z^3D°$ - e^3G	3 - 4	I2
V IV	1408.639	8		3d4p - 3d4d	$z^3D°$ - ^3D	1 - 2	I2
V IV	1410.018	8		3d4p - 3d4d	$z^3D°$ - ^3D	2 - 3	I2
V IV	1412.686	20		3d4p - 3d4d	$z^3D°$ - ^3D	1 - 1	I2
V IV	1414.409	50		3d4p - 3d4d	$z^3F°$ - e^3G	2 - 3	I2
V IV	1414.842	20		3d4p - 3d4d	$z^3D°$ - ^3D	2 - 2	I2
V IV	1418.533	30		3d4p - 3d4d	$z^3D°$ - ^3D	3 - 3	I2
V IV	1418.921	10		3d4p - 3d4d	$z^3D°$ - ^3D	2 - 1	I2
V IV	1419.580	80		3d4p - 3d4d	$z^3F°$ - e^3G	3 - 4	I2
V IV	1423.420	10		3d4p - 3d4d	$z^3D°$ - ^3D	3 - 2	I2
V IV	1423.719	30		3d4p - 3d4d	$z^1P°$ - ^1D	1 - 2	I2
V IV	1424.197	0		3d4p - 3d4d	$z^3F°$ - ^3D	2 - 3	I2
V IV	1424.916	10		3d4p - 3d4d	$z^3F°$ - e^3G	3 - 3	I2
V IV	1426.654	100		3d4p - 3d4d	$z^3F°$ - e^3G	4 - 5	I2
V IV	1429.114	10		3d4p - 3d4d	$z^3F°$ - ^3D	2 - 2	I2
V IV	1433.276	1		3d4p - 3d4d	$z^3F°$ - ^3D	2 - 1	I2
V IV	1434.092	15		3d4p - 3d4d	$z^3F°$ - e^3G	4 - 4	I2
V IV	1434.842	15		3d4p - 3d4d	$z^3F°$ - ^3D	3 - 3	I2
V IV	1439.834	1		3d4p - 3d4d	$z^3F°$ - ^3D	3 - 2	I2
V IV	1447.120	0		3d4p - 3d4d	$z^3D°$ - ^1F	3 - 3	I2
V IV	1449.681	20		3d4p - 3d4d	$z^3F°$ - ^3D	4 - 3	I2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V IV	1451.042	30		3d4p - 3d4d	$z^3P^\circ - {}^3S$	1 - 1	I2
V IV	1451.496	10		3d4p - 3d4d	$z^3P^\circ - {}^3S$	0 - 1	I2
V IV	1454.000	40		3d4p - 3d4d	$z^3P^\circ - {}^3S$	2 - 1	I2
V IV	1520.142	60		3d4p - 3d4d	$z^3P^\circ - {}^3D$	2 - 3	I2
V IV	1522.493	40		3d4p - 3d4d	$z^3P^\circ - {}^3D$	1 - 2	I2
V IV	1525.756	10		3d4p - 3d4d	$z^3P^\circ - {}^3D$	2 - 2	I2
V IV	1527.223	15		3d4p - 3d4d	$z^3P^\circ - {}^3D$	1 - 1	I2
V IV	1527.721	15		3d4p - 3d4d	$z^3P^\circ - {}^3D$	0 - 1	I2
V IV	1601.915	80		3d4p - 3d4d	$z^1P^\circ - {}^1P$	1 - 1	I2
V IV	1611.879	80		3d4p - 3d4d	$z^1F^\circ - {}^1F$	3 - 3	I2
V IV	1806.184	80		3d4s - 3d4p	$b^1D - z^1P^\circ$	2 - 1	I2
V IV	1809.854	60		3d4s - 3d4p	$a^3D - z^3P^\circ$	1 - 0	I2
V IV	1810.566	30		3d4s - 3d4p	$a^3D - z^3P^\circ$	1 - 1	I2
V IV	1813.050	50		3d4s - 3d4p	$a^3D - z^3P^\circ$	2 - 2	I2
V IV	1817.676	100		3d4s - 3d4p	$a^3D - z^3P^\circ$	2 - 1	I2
V IV	1825.836	200		3d4s - 3d4p	$a^3D - z^3P^\circ$	3 - 2	I2
V IV	1861.558	300		3d4s - 3d4p	$b^1D - z^1F^\circ$	2 - 3	I2
V IV	1939.065	500		3d4s - 3d4p	$a^3D - z^3F^\circ$	3 - 4	I2
V IV	1946.772	5		3d4s - 3d4p	$b^1D - z^3P^\circ$	2 - 2	I2
V IV	1951.432	400		3d4s - 3d4p	$a^3D - z^3F^\circ$	2 - 3	I2
V IV	1963.103	300		3d4s - 3d4p	$a^3D - z^3F^\circ$	1 - 2	I2
V IV	1966.244	20		3d4s - 3d4p	$a^3D - z^3F^\circ$	3 - 3	I2
V IV	1971.471	40		3d4s - 3d4p	$a^3D - z^3F^\circ$	2 - 2	I2
V IV	1982.422	15		3d4s - 3d4p	$a^3D - z^3D^\circ$	2 - 3	I2
V IV	1990.712	40		3d4s - 3d4p	$a^3D - z^3D^\circ$	1 - 2	I2
V IV	1997.722	500		3d4s - 3d4p	$a^3D - z^3D^\circ$	3 - 3	I2
V IV	1999.320	200		3d4s - 3d4p	$a^3D - z^3D^\circ$	2 - 2	I2

VANADIUM V (V^{4+}), Z = 23

Ground State $1s^22s^22p^63s^23p^63d\ {}^2D_{3/2}$ (19 electrons)

Ionization Potential [526 100] cm^{-1}; [65.23] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V V	224.90	30		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	3/2 - 3/2	G1,F11
V V	225.48	30		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G1,F11
V V	251.60	20		$3p^63d - 3p^53d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G1,F11
V V	252.40	20		$3p^63d - 3p^53d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G1,F11
V V	286.36			3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	G6
V V	286.88			3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	G6
V V	481.657	2		3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 3/2	G6,G7
V V	483.099	25		3d - 4p	$g^2D - {}^2P^\circ$	5/2 - 3/2	G6,G7
V V	484.621	10		3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 1/2	G6,G7
V V	506.11			4p - 6s	${}^2P^\circ - {}^2S$	1/2 - 1/2	G6
V V	509.38			4p - 6s	${}^2P^\circ - {}^2S$	3/2 - 1/2	G6
V V	820.866	15		4p - 5s	${}^2P^\circ - {}^2S$	1/2 - 1/2	I2
V V	829.483	20		4p - 5s	${}^2P^\circ - {}^2S$	3/2 - 1/2	I2
V V	1142.741	40		4p - 4d	${}^2P^\circ - {}^2D$	1/2 - 3/2	I2
V V	1157.577	50		4p - 4d	${}^2P^\circ - {}^2D$	3/2 - 5/2	I2
V V	1159.520	10		4p - 4d	${}^2P^\circ - {}^2D$	3/2 - 3/2	I2
V V	1680.199	100		4s - 4p	${}^2S - {}^2P^\circ$	1/2 - 3/2	I2
V V	1716.722	50		4s - 4p	${}^2S - {}^2P^\circ$	1/2 - 1/2	I2
V V	1811.388	40h		4d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	I2

VANADIUM VI (V^{5+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential 1 033 400 cm^{-1}; 128.12 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V VI	117.7	60		$3p^6 - 3p^5(^2P^\circ)5d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	F23
V VI	118.7	70		$3p^6 - 3p^5(^2P^\circ)5d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	F23
V VI	119.3	60		$3p^6 - 3p^5(^2P^\circ)5d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	F23
V VI	128.382	100		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K27,M22
V VI	129.574	200		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K27,M22
V VI	138.26	60		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (\frac{1}{2},\frac{3}{2})^\circ$	0 - 1	A1
V VI	139.55	70		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (\frac{3}{2},\frac{5}{2})^\circ$	0 - 1	A1
V VI	179.323	1000		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	K27,M22
V VI	182.050	750		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	K27,M22
V VI	213.04	20		$3p^5 3d - 3p^5 4f$	$^3P^\circ - ^3D$	0 - 1	W1
V VI	213.32	30		$3p^5 3d - 3p^5 4f$	$^3P^\circ - ^3D$	1 - 2	W1
V VI	213.61	10		$3p^5 3d - 3p^5 4f$	$^3P^\circ - ^3D$	1 - 1	W1
V VI	213.87	60		$3p^5 3d - 3p^5 4f$	$^3P^\circ - ^3D$	2 - 3	W1
V VI	214.50	10		$3p^5 3d - 3p^5 4f$	$^3P^\circ - ^3D$	2 - 2	W1
V VI	218.09	90		$3p^5 3d - 3p^5 4f$	$^3F^\circ - ^3G$	4 - 5	W1
V VI	218.64	60		$3p^5 3d - 3p^5 4f$	$^3F^\circ - ^3G$	3 - 4	W1
V VI	219.00	30		$3p^5 3d - 3p^5 4f$	$^3F^\circ - ^3G$	2 - 3	W1
V VI	223.30	100		$3p^5 3d - 3p^5 4f$	$^1D^\circ - ^1F$	2 - 3	W1
V VI	224.50	900		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	G1,F11
V VI	224.59	90		$3p^5 3d - 3p^5 4f$	$^3D^\circ - ^3F$	2 - 3	W1
V VI	225.90	70		$3p^5 3d - 3p^5 4f$	$^1F^\circ - ^3F$	3 - 4	W1
V VI	226.66	60		$3p^5 3d - 3p^5 4f$	$^3D^\circ - ^1G$	3 - 4	W1

VANADIUM VII (V^{6+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5$ $^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 1 211 200 cm^{-1}; 150.17 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V VII	108.3			$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	117.2	150		$3p^5 - 3p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	121.80			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	F23
V VII	121.93	300		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	122.56	250		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	F23
V VII	122.95	200		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	F23
V VII	123.13			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	F23
V VII	123.72			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	F23
V VII	124.30			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	F23
V VII	125.19			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	125.62			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^4F$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	125.87			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	F23
V VII	125.98	400		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	F23
V VII	127.11	200		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	F23
V VII	148.903	300		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	E20
V VII	150.625	200		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	E20
V VII	156.608	700		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	E20
V VII	158.467	600		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	E20
V VII	159.855	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	E20
V VII	161.122	600		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	E20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V VII	161.836	400		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	½ - ½	E20
V VII	163.135	200		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^2P$	½ - 3/2	E20
V VII	163.182	400		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	E20
V VII	164.302	100		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	E20
V VII	164.523	50		$3p^5 - 3p^4(^3P)4s$	$g^2P^\circ - {}^4P$	½ - ½	E20
V VII	221.95	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	F13,F11
V VII	225.16	800		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F13,F11
V VII	225.79	500		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2D$	½ - 3/2	F13,F11
V VII	227.88	400		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - ½	F13,F11
V VII	229.38	600		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F13,F11
V VII	231.99	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	½ - ½	F13,F11
V VII	233.47	700		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2P$	½ - 3/2	F13,F11
V VII	237.50	300		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - ½	F13,F11
V VII	241.91	200		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	½ - ½	F13,F11
V VII	456.29			$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	3/2 - ½	K23
V VII	472.80			$3s^23p^5 - 3s3p^6$	$g^2P^\circ - {}^2S$	½ - ½	K23

VANADIUM VIII (V^{7+}), Z = 23

Ground State $1s^22s^22p^63s^23p^4\ {}^3P_2$ (16 electrons)

Ionization Potential 1 401 000 cm^{-1}; 173.7 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V VIII	135.751	200		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 2	E19
V VIII	136.078	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	2 - 1	E19
V VIII	136.867	120		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 2	E19
V VIII	137.194	50		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 1	E19
V VIII	137.316	100		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	1 - 0	E19
V VIII	137.491	120		$3p^4 - 3p^3(^2P^\circ)4s$	$g^3P - {}^3P^\circ$	0 - 1	E19
V VIII	139.188	50		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^1D^\circ$	2 - 2	E19
V VIII	139.730	200		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^1P^\circ$	2 - 1	E19
V VIII	140.451	600		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 3	E19
V VIII	140.665	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	2 - 2	E19
V VIII	140.934	50		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1D - {}^3P^\circ$	2 - 2	E19
V VIII	141.864	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 2	E19
V VIII	141.924	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	1 - 1	E19
V VIII	142.247	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g^3P - {}^3D^\circ$	0 - 1	E19
V VIII	144.653	600		$3p^4 - 3p^3(^2D^\circ)4s$	${}^1D - {}^1D^\circ$	2 - 2	E19
V VIII	145.507	400		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	2 - 1	E19
V VIII	146.613	180		$3p^4 - 3p^3(^2P^\circ)4s$	${}^1S - {}^1P^\circ$	0 - 1	E19
V VIII	146.789	200		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	1 - 1	E19
V VIII	147.126	100		$3p^4 - 3p^3(^4S^\circ)4s$	$g^3P - {}^3S^\circ$	0 - 1	E19
V VIII	228.15			$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	G1
V VIII	228.67	400		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^1F^\circ$	2 - 3	G1,F11
V VIII	230.00			$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 1	G1
V VIII	230.12	500		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	G1,F11
V VIII	230.82	200		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	G1,F11
V VIII	231.33			$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	G1
V VIII	236.01	300		$3p^4 - 3p^3(^2P^\circ)3d$	${}^1D - {}^1D^\circ$	2 - 2	F13,F11
V VIII	240.22	300		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F13,F11
V VIII	243.69	100		$3p^4 - 3p^3(^2P^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	F13,F11
V VIII	398.26			$3s^23p^4 - 3s3p^5$	${}^1D - {}^1P^\circ$	2 - 1	F4
V VIII	449.74			$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	2 - 1	F4

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V VIII	457.0			$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 0	K8
V VIII	459.82			$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	2 - 2	F4
V VIII	462.11			$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 1	F4
V VIII	465.55			$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	0 - 1	F4
V VIII	472.91			$3s^2 3p^4 - 3s 3p^5$	$g^3P - {}^3P^\circ$	1 - 2	F2
V VIII	1830.6	f		$3p^4 - 3p^4$	$g^3P - {}^1S$	1 - 0	S28

VANADIUM IX (V^{8+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3\ {}^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [1 645 000] cm^{-1}; [204] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V IX	125.420	600		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	K22
V IX	126.152	400		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	K22
V IX	126.732	250		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	K22
V IX	126.765	250		$3p^3 - 3p^2(^1D)4s$	${}^2D^\circ - {}^2D$	3/2 - 3/2	K22
V IX	126.810	20		$3p^3 - 3p^2(^1D)4s$	${}^2D^\circ - {}^2D$	3/2 - 5/2	K22
V IX	127.068	500		$3p^3 - 3p^2(^1D)4s$	${}^2D^\circ - {}^2D$	5/2 - 5/2	K22
V IX	235.72	400		$3p^3 - 3p^2(^1D)3d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	G1,F11
V IX	237.66			$3p^3 - 3p^2(^3P)3d$	${}^2P^\circ - {}^2P$	1/2 - 1/2	F7
V IX	240.30			$3p^3 - 3p^2(^3P)3d$	${}^2P^\circ - {}^2P$	3/2 - 3/2	F7
V IX	243.58			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F17
V IX	244.46	100		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F17,F11
V IX	244.89			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F17
V IX	247.70			$3p^3 - 3p^2(^1D)3d$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F7
V IX	248.91			$3p^3 - 3p^2(^1D)3d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F7
V IX	251.61			$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	1/2 - 3/2	F7
V IX	252.96			$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	3/2 - 3/2	F7
V IX	253.90			$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	1/2 - 1/2	F7
V IX	270.38			$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F7
V IX	276.08			$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F7
V IX	364.18			$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^2P$	3/2 - 1/2	F2
V IX	371.38			$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^2P$	5/2 - 3/2	F2
V IX	433.97			$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F2
V IX	435.80			$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F2
V IX	453.33			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F4
V IX	456.96			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F4
V IX	467.19			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F4
V IX	1633.3	f		$3p^3 - 3p^3$	$g^4S^\circ - {}^2P^\circ$	3/2 - 3/2	S28

VANADIUM X (V^{9+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ $^3P_0$ (14 electrons)

Ionization Potential [1 855 100] cm^{-1}; [230] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V X	245.35	100		$3p^2 - 3p3d$	$^1D - ^1F°$	2 - 3	F17,F11
V X	252.17	100		$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 2	F17,F11
V X	253.53			$3p^2 - 3p3d$	$g^3P - ^3D°$	1 - 1	F17
V X	255.24			$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 3	F17
V X	255.54			$3p^2 - 3p3d$	$g^3P - ^3P°$	0 - 1	F7
V X	255.54			$3p^2 - 3p3d$	$g^3P - ^3D°$	2 - 2	F17
V X	257.00			$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 0	F7
V X	258.28			$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 1	F7
V X	260.93			$3p^2 - 3p3d$	$^1S - ^1P°$	0 - 1	F7
V X	262.04			$3p^2 - 3p3d$	$g^3P - ^3P°$	1 - 2	F7
V X	265.70			$3p^2 - 3p3d$	$g^3P - ^3P°$	2 - 2	F7
V X	308.90			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3S°$	1 - 1	F4
V X	314.00			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3S°$	2 - 1	F4
V X	322.74			$3s^2 3p^2 - 3s3p^3$	$^1D - ^1P°$	2 - 1	K8
V X	364.18			$3s^2 3p^2 - 3s3p^3$	$^1S - ^1P°$	0 - 1	F4
V X	393.16			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3P°$	0 - 1	K8
V X	399.74			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3P°$	1 - 1	F4
V X	405.15			$3s^2 3p^2 - 3s3p^3$	$^1D - ^1D°$	2 - 2	F7
V X	408.38			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3P°$	2 - 2	F2
V X	457.29			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3D°$	0 - 1	F4
V X	461.04			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3D°$	1 - 2	F4
V X	470.25			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3D°$	2 - 3	F4
V X	1573.1	f		$3p^2 - 3p^2$	$g^3P - ^1S$	1 - 0	S28

VANADIUM XI (V^{10+}), Z = 23

Ground State $1s^2 2s^2 2p^6 3s^2 3p$ $^2P°_{1/2}$ (13 electrons)

Ionization Potential 2 057 100 cm^{-1}; 255.04 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XI	87.166	600		$3p - 4d$	$g^2P° - ^2D$	½ - 3/2	E18
V XI	87.868	800		$3p - 4d$	$g^2P° - ^2D$	3/2 - 5/2	E18
V XI	104.74			$3s3p^2 - 3s3p4s$	$^4P - ^4P°$	3/2 - 5/2	F10
V XI	105.08			$3s3p^2 - 3s3p4s$	$^4P - ^4P°$	½ - 3/2	F10
V XI	105.34			$3s3p^2 - 3s3p4s$	$^4P - ^4P°$	5/2 - 5/2	F10
V XI	106.00			$3s3p^2 - 3s3p4s$	$^4P - ^4P°$	5/2 - 3/2	F10
V XI	106.42			$3p - 4s$	$g^2P° - ^2S$	½ - ½	F10
V XI	107.57			$3p - 4s$	$g^2P° - ^2S$	3/2 - ½	F10
V XI	112.34			$3s3p3d - 3s3p4f$	$^4F° - ^4G$	9/2 - 11/2	F10
V XI	112.63			$3s3p3d - 3s3p4f$	$^4F° - ^4G$	5/2 - 7/2	F10
V XI	112.76			$3s3p3d - 3s3p4f$	$^4F° - ^4G$	7/2 - 9/2	F10
V XI	119.28			$3d - 4f$	$^2D - ^2F°$	5/2 - 7/2	F10
V XI	119.36			$3d - 4f$	$^2D - ^2F°$	3/2 - 5/2	F10
V XI	265.31			$3p - 3d$	$g^2P° - ^2D$	½ - 3/2	G1
V XI	271.75			$3p - 3d$	$g^2P° - ^2D$	3/2 - 5/2	G1
V XI	320.60			$3s^2 3p - 3s3p^2$	$g^2P° - ^2P$	½ - 3/2	F4
V XI	325.97			$3s^2 3p - 3s3p^2$	$g^2P° - ^2P$	½ - ½	F4
V XI	330.94			$3s^2 3p - 3s3p^2$	$g^2P° - ^2P$	3/2 - 3/2	F4
V XI	336.68			$3s^2 3p - 3s3p^2$	$g^2P° - ^2P$	3/2 - ½	F4
V XI	346.11			$3s^2 3p - 3s3p^2$	$g^2P° - ^2S$	½ - ½	F4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XI	352.43			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F4
V XI	358.23			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	F4
V XI	358.89			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	F4
V XI	429.29			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	F4
V XI	446.32			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	F4

VANADIUM XII (V^{11+}), Z = 23

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential 2 486 300 cm^{-1}; 308.25 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XII	61.455	50		3s3p - 3s5d	$^3P^\circ - ^3D$	1 - 2	E18
V XII	61.717	100		3s3p - 3s5d	$^3P^\circ - ^3D$	2 - 3	E18
V XII	76.307	300		$3s^2$ - 3s4p	$g^1S - ^1P^\circ$	0 - 1	E18
V XII	76.960	50		3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	E18
V XII	80.896	100		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	E18
V XII	81.077	200		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	E18
V XII	81.098	50		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 1	E18
V XII	81.513	400		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	E18
V XII	81.550	50		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 2	E18
V XII	87.36			3s3p - 3s 4d	$^1P^\circ - ^1D$	1 - 2	F10
V XII	97.642	50		3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	E18
V XII	97.938	200		3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	E18
V XII	98.630	300		3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	E18
V XII	104.45			3p3d - 3p4f	$^3F^\circ - ^3G$	4 - 5	F10
V XII	104.58			3p3d - 3p4f	$^3F^\circ - ^3G$	2 - 3	F10
V XII	104.66			3p3d - 3p4f	$^3F^\circ - ^3G$	3 - 4	F10
V XII	105.49			3p3d - 3p4f	$^1D^\circ - ^3F$	2 - 3	F10
V XII	106.781	200		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	E18
V XII	106.820	300		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	E18
V XII	106.885	400		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	E18
V XII	107.25			3p3d - 3p4f	$^3P^\circ - ^3D$	0 - 1	F10
V XII	107.83			3p3d - 3p4f	$^3D^\circ - ^3D$	3 - 3	F10
V XII	108.93			3p3d - 3p4f	$^3D^\circ - ^3F$	3 - 4	F10
V XII	113.39			3p3d - 3p4f	$^1P^\circ - ^1D$	1 - 2	F10
V XII	113.78			3p3d - 3p4f	$^1F^\circ - ^1G$	3 - 4	F10
V XII	283.28			3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	F4
V XII	288.69			3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	F4
V XII	297.77			$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 3	F4
V XII	301.50			$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 2	F4
V XII	321.9			$3p^2$ - 3p3d	$^1D - ^1D^\circ$	2 - 2	F4
V XII	343.12			$3p^2$ - 3p3d	$^1S - ^1P^\circ$	0 - 1	F4
V XII	355.11			$3s^2$ - 3s3p	$g^1S - ^1P^\circ$	0 - 1	F22
V XII	373.20			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	F22
V XII	380.87			$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	F22
V XII	383.63			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	F22
V XII	385.54			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 1	F22
V XII	392.60			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 0	F22
V XII	396.61			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	F22
V XII	399.76			3s3d - 3p3d	$^3D - ^3D^\circ$	3 - 3	F4
V XII	411.12			$3s3p - 3p^2$	$^1P^\circ - ^1S$	1 - 0	F4
V XII	476.85			3s3d - 3p3d	$^3D - ^3F^\circ$	3 - 4	F4
V XII	488.53			3s3d - 3p3d	$^3D - ^3F^\circ$	2 - 3	F4
V XII	499.41			3s3d - 3p3d	$^3D - ^3F^\circ$	1 - 2	F4
V XII	521.10 ?			$3s^2$ - 3s3p	$g^1S - ^3P^\circ$	0 - 1	K8
V XII	577.93 ?			$3s3p - 3p^2$	$^1P^\circ - ^1D$	1 - 2	K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XII	609.24			3s3p - 3s3d	$^1P^\circ - ^1D$	1 - 2	F4

VANADIUM XIII (V^{12+}), Z = 23
Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)
Ionization Potential 2 712 250 cm^{-1}; 336.267 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XIII	23.678	0					F27
V XIII	23.96	20					F27
V XIII	24.083	20					F27
V XIII	24.202	-A		$2p^63s - 2p^53s^2$	$g\,^2S - ^2P^\circ$	½ - ½	F27
V XIII	24.330	30					F27
V XIII	24.440	0					F27
V XIII	24.517	-A		$2p^63s - 2p^53s^2$	$g\,^2S - ^2P^\circ$	½ - 3/2	F27
V XIII	24.654	0					F27
V XIII	24.758	0					F27
V XIII	52.870			3s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	E16
V XIII	52.928			3s - 5p	$g\,^2S - ^2P^\circ$	½ - ½	E16
V XIII	58.116			3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	E16
V XIII	58.482			3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	E16
V XIII	70.262			3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	E16
V XIII	70.323			3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	E16
V XIII	71.799			3s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	E16
V XIII	72.025			3s - 4p	$g\,^2S - ^2P^\circ$	½ - ½	E16
V XIII	78.101			3p - 4d	$^2P^\circ - ^2D$	½ - 3/2	E16
V XIII	78.746			3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	E16
V XIII	78.783			3p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	E16
V XIII	93.025			3p - 4s	$^2P^\circ - ^2S$	½ - ½	E16
V XIII	93.994			3p - 4s	$^2P^\circ - ^2S$	3/2 - ½	E16
V XIII	99.523			3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	E16
V XIII	99.625			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	E16
V XIII	118.08			3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	F10
V XIII	118.50			3d - 4p	$^2D - ^2P^\circ$	3/2 - ½	F10
V XIII	313.38			3p - 3d	$^2P^\circ - ^2D$	½ - 3/2	F22
V XIII	323.23			3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	F22
V XIII	324.58			3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	F22
V XIII	422.81			3s - 3p	$g\,^2S - ^2P^\circ$	½ - 3/2	F22
V XIII	443.48			3s - 3p	$g\,^2S - ^2P^\circ$	½ - ½	F22

VANADIUM XIV (V^{13+}), Z = 23

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 7 223 500 cm^{-1}; 895.58 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XIV	15.748	100		$2p^6 - 2p^5 5d$	$g\,^1S - ^3D^\circ$	0 - 1	F24
V XIV	16.939	500		$2p^6 - 2p^5 4d$	$g\,^1S - ^1P^\circ$	0 - 1	F24
V XIV	17.094	400		$2p^6 - 2p^5 4d$	$g\,^1S - ^3D^\circ$	0 - 1	F24
V XIV	17.26	200		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	F8
V XIV	17.575	100		$2p^6 - 2p^5 4s$	$g\,^1S - ^1P^\circ$	0 - 1	F24
V XIV	17.754	100		$2p^6 - 2p^5 4s$	$g\,^1S - ^3P^\circ$	0 - 1	F24
V XIV	18.782	700		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^1P^\circ$	0 - 1	F24
V XIV	18.870	300		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^3P^\circ$	0 - 1	F24
V XIV	20.716			$2p^6 - 2p^5 3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	E26,M22
V XIV	21.018			$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26,M22
V XIV	21.294	1000		$2p^6 - 2p^5 3d$	$g\,^1S - ^3P^\circ$	0 - 1	F24
V XIV	23.490			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	E26,M22
V XIV	23.794			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	E26,M22

VANADIUM XV (V^{14+}), Z = 23

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential 7 856 200 cm^{-1}; 974.02 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XV	15.87			$2p^5 - 2p^4 4d$			F5
V XV	19.04	40		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
V XV	19.21	60		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	C10
V XV	19.38	80		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	19.45	60		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	C10
V XV	19.53	70		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
V XV	19.66	60b		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
V XV	19.69			$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2S$?	$\frac{1}{2} - \frac{1}{2}$	C10
V XV	19.74	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	19.79	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	19.86	70		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	C10
V XV	19.91	40b		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	20.00	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	C10
V XV	20.03	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	C10
V XV	21.58	60		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
V XV	21.83	50		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	C10
V XV	21.92	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	22.09	60		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{3}{2}$	C10
V XV	22.20	30		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	C10
V XV	22.38	20		$2s 2p^6 - 2s 2p^5 3s$	$^2S - ^2P^\circ$	$\frac{1}{2} - \frac{3}{2}$	C10
V XV	113.87			$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	F5
V XV	121.97			$2s^2 2p^5 - 2s 2p^6$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	F5

VANADIUM XVI (V^{15+}), Z = 23
Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)
Ionization Potential [8 533 600] cm^{-1}; [1058] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XVI	18.076	200		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	G13
V XVI	18.223	50		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	G13
V XVI	18.344	400		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - ^3P^\circ$	2 - 2	G13
V XVI	18.529	400		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	G13
V XVI	18.630	600		$2p^4 - 2p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	G13
V XVI	18.713	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	2 - 3	G13
V XVI	18.890	200		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - ^3D^\circ$	1 - 2	G13
V XVI	19.730	300		$2p^4 - 2p^3(^2P^\circ)3s$	$g^3P - ^3P^\circ$	2 - 2	G13
V XVI	20.082	600		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	2 - 3	G13
V XVI	20.282	400		$2p^4 - 2p^3(^2D^\circ)3s$	$g^3P - ^3D^\circ$	1 - 2	G13
V XVI	20.447	600		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	2 - 1	G13
V XVI	20.516	400		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^1P^\circ$	0 - 1	G13
V XVI	20.663	250		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - ^3S^\circ$	1 - 1	G13
V XVI	108.15			$2s^2 2p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	F5
V XVI	123.72			$2s^2 2p^4 - 2s2p^5$	$^1S - ^1P^\circ$	0 - 1	F5
V XVI	125.11			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 1	F5
V XVI	129.16			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 0	F5
V XVI	131.22			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	2 - 2	F5
V XVI	133.29			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 1	F5
V XVI	133.48			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	0 - 1	F5
V XVI	140.25			$2s^2 2p^4 - 2s2p^5$	$g^3P - ^3P^\circ$	1 - 2	F5

VANADIUM XVII (V^{16+}), Z = 23
Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [9 396 600] cm^{-1}; [1165] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XVII	17.27			$2s^2 2p^3 - 2s^2 2p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F5
V XVII	17.6			$2s^2 2p^3 - 2s^2 2p^2(^1D)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F5
V XVII	102.84			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	F5
V XVII	111.27			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F5
V XVII	117.23			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	3/2 - 1/2	F5
V XVII	120.82			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2P$	1/2 - 3/2	F5
V XVII	126.71			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	F5
V XVII	130.91			$2s^2 2p^3 - 2s2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	F5
V XVII	134.01			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F5
V XVII	136.45			$2s^2 2p^3 - 2s2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F5
V XVII	150.03			$2s^2 2p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	F5
V XVII	159.30			$2s^2 2p^3 - 2s2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	F5

VANADIUM XVIII (V^{17+}), Z = 23

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential [10 155 000] cm^{-1}; [1259] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XVIII	16.321	100		$2s^2 2p^2 - 2s^2 2p3d$	$g^3P - {}^3P^\circ$	1 - 2	G14
V XVIII	16.341	100		$2s2p^3 - 2s2p^2(^4P)3d$	${}^5S^\circ - {}^5P$	2 - 3	G14
V XVIII	16.378	100		$2s^2 2p^2 - 2s^2 2p3d$	$g^3P - {}^3P^\circ$	2 - 2	G14
V XVIII	16.423	40		$2s^2 2p^2 - 2s^2 2p3d$	$g^3P - {}^3D^\circ$	2 - 3	G14
V XVIII	16.467	160		$2s^2 2p^2 - 2s^2 2p3d$	${}^1D - {}^1F^\circ$	2 - 3	G14
V XVIII	16.558	140		$2s2p^3 - 2s2p^2(^2D)3d$	${}^3D^\circ - {}^3F$	3 - 4	G14
V XVIII	16.816	60		$2s^2 2p^2 - 2s^2 2p3d$	${}^1S - {}^1P^\circ$	0 - 1	G14
V XVIII	17.018	40		$2s2p^3 - 2s2p^2(^4P)3d$	${}^3D^\circ - {}^3F$	2 - 3	G14
V XVIII	17.400	180		$2s^2 2p^2 - 2s^2 2p3s$	$g^3P - {}^3P^\circ$	1 - 2	G14
V XVIII	17.442	80		$2s2p^3 - 2s2p^2(^4P)3s$	${}^5S^\circ - {}^5P$	2 - 3	G14
V XVIII	17.482	160		$2s^2 2p^2 - 2s^2 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	G14
V XVIII	17.545	40		$2s2p^3 - 2s2p^2(^2D)3s$	${}^3D^\circ - {}^3D$	2 - 2	G14
V XVIII	17.678	80		$2s^2 2p^2 - 2s^2 2p3s$	$g^3P - {}^3P^\circ$	2 - 1	G14
V XVIII	17.717	20		$2s^2 2p^2 - 2s^2 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	G14
V XVIII	18.12 P			$2s^2 2p^2 - 2s^2 2p3s$	${}^1S - {}^1P^\circ$	0 - 1	G14
V XVIII	124.94 ?			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	K8
V XVIII	132.00 ?			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	K8
V XVIII	141.15 ?			$2s^2 2p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	K8
V XVIII	142.23 ?			$2s^2 2p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	K8
V XVIII	163.29 ?			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	K8
V XVIII	172.10 ?			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	K8
V XVIII	175.16 ?			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	K8
V XVIII	208.22 ?			$2s^2 2p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	K8

VANADIUM XIX (V^{18+}), Z = 23

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [10 913 000] cm^{-1}; [1353] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XIX	12.14 ?			2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
V XIX	15.70 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
V XIX	16.59 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
V XIX	145.54 ?			$2s^2 2p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
V XIX	161.61 ?			$2s^2 2p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

VANADIUM XX (V^{19+}), Z = 23

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [11 953 000] cm^{-1}; [1482] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XX	9.84 ?			$2s^2 - 2s5p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
V XX	10.95 ?			$2s^2 - 2s4p$	$g\,^1S - ^3P^\circ$	0 - 1	K8
V XX	13.82 ?			$2s^2 - 2p3s$	$g\,^1S - ^1P^\circ$	0 - 1	K8
V XX	170.58 ?			$2s^2 - 2s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8
V XX	326.07 ?			$2s^2 - 2s2p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

VANADIUM XXI (V^{20+}), Z = 23

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [12 655 000] cm^{-1}; [1569] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XXI	234.49 P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8
V XXI	287.25 P			2s - 2p	$g\,^2S - ^2P^\circ$	½ - ½	K8

VANADIUM XXII (V^{21+}), Z = 23

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [55 258 000] cm^{-1}; [6851] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XXII	2.04			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
V XXII	2.39 P			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8,C11
V XXII	2.40			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
V XXII	2.43 ?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

VANADIUM XXIII (V^{22+}), Z = 23
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential [58 443 600] cm^{-1}; [7245.9] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
V XXIII	2.29 P			1s - 2p	$g^2S - {}^2P^\circ$	½ - 3/2	K8

CHROMIUM, Z = 24

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr	12.201	0					S31
Cr	12.329	0					S31
Cr	12.435	0					S31
Cr	12.589	0					S31
Cr	12.778	0					S31
Cr	12.909	10					S31
Cr	13.217	10					S31
Cr	13.652	10					S31
Cr	13.760	0					S31
Cr	14.024	10					S31
Cr	14.039	10					S31
Cr	14.205	10					S31
Cr	14.641	0					S31
Cr	206.53	100					F11
Cr	215.38	300					F11
Cr	217.19	300					F11
Cr	217.55	200					F11
Cr	217.61	200					F11
Cr	218.15	100					F11
Cr	219.29	400					F11
Cr	219.94	200					F11

CHROMIUM I (Cr^{0+}), Z = 24

Ground State $1s^22s^22p^63s^23p^63d^54s\ ^7S_3$ (24 electrons)

Ionization Potential 54 570 cm^{-1}; 6.766 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr I	1880.39	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - r^5P^\circ$	2 - 2	K12
Cr I	1881.87	250		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - r^5P^\circ$	2 - 1	K12
Cr I	1883.11	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - r^5P^\circ$	3 - 3	K12
Cr I	1886.34	500		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - r^5P^\circ$	3 - 2	K12
Cr I	1887.60	150		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	2 - 3	K12
Cr I	1887.85	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	1 - 2	K12
Cr I	1888.17	150		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	3 - 4	K12
Cr I	1889.20	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	0 - 1	K12
Cr I	1890.78	300		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	4 - 5	K12
Cr I	1892.01	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	2 - 2	K12
Cr I	1893.59	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	3 - 3	K12
Cr I	1895.78	50		$3d^44s^2 - 3d^44s(a^4D)6p$	$a^5D - o^5F^\circ$	4 - 4	K12
Cr I	1902.43	150		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	1 - 2	K12
Cr I	1903.30	50		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	0 - 1	K12
Cr I	1903.57	50		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	3 - 4	K12
Cr I	1906.67	100		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	2 - 2	K12
Cr I	1907.28	100		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	1 - 0	K12
Cr I	1908.46	200		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	3 - 3	K12
Cr I	1909.72	100		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	2 - 1	K12
Cr I	1911.30	350		$3d^44s^2 - 3d^44s(a^6D)6p$	$a^5D - q^5D^\circ$	4 - 4	K12

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr I	1912.79	200		$3d^4 4s^2 - 3d^4 4s(a^6D)6p$	$a^5D - q^5D^\circ$	3 - 2	K12
Cr I	1916.23	100		$3d^4 4s^2 - 3d^4 4s(a^6D)6p$	$a^5D - q^5D^\circ$	4 - 3	K12
Cr I	1989.00	200	49	$3d^4 4s^2 - 3d^5(a^2D)4p$	$a^5D - s^3F^\circ$	2 - 3	K12
Cr I	1989.92	750	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	1 - 2	K12
Cr I	1990.27	400	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	0 - 1	K12
Cr I	1991.22	750	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	2 - 3	K12
Cr I	1992.12	300	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	3 - 4	K12
Cr I	1992.65	250	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	1 - 1	K12
Cr I	1994.10	400	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	1 - 0	K12
Cr I	1994.55	750	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	2 - 2	K12
Cr I	1995.69	250	49	$3d^4 4s^2 - 3d^5(a^2D)4p$	$a^5D - s^3F^\circ$	3 - 3	K12
Cr I	1997.09	250	49	$3d^4 4s^2 - 3d^5(a^2D)4p$	$a^5D - s^3F^\circ$	3 - 4	K12
Cr I	1997.30	500b	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	2 - 1	K12
Cr I	1997.90	600	48	$3d^4 4s^2 - 3d^4 4s(a^4D)5p$	$a^5D - r^5D^\circ$	3 - 3	K12

CHROMIUM II (Cr^{1+}), Z = 24

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5\ {}^6S_{5/2}$ (23 electrons)

Ionization Potential 133 060 cm^{-1}; 16.50 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr II	1786.07	40	224	$3d^4(a^3F)4s - 3d^4(b^3F)4p$	$b^2F - u^2D^\circ$	5/2 - 3/2	K11
Cr II	1791.51	40	224	$3d^4(a^3F)4s - 3d^4(b^3F)4p$	$b^2F - u^2D^\circ$	7/2 - 5/2	K11
Cr II	1808.66	60	18	$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	3/2 - 1/2	K11
Cr II	1810.08	100		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$a^6D - y^4F^\circ$	5/2 - 7/2	K11
Cr II	1812.95	20		$3d^5 - 3d^4(a^1F)4p$	$a^2D - v^2D^\circ$	5/2 - 5/2	K11
Cr II	1813.50	20		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$a^6D - y^4F^\circ$	7/2 - 9/2	K11
Cr II	1815.32	60		$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	3/2 - 3/2	K11
Cr II	1818.89	20		$3d^5 - 3d^4(a^1F)4p$	$a^2D - v^2D^\circ$	3/2 - 3/2	K11
Cr II	1819.81	100		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$a^6D - y^4F^\circ$	9/2 - 9/2	K11
Cr II	1820.84	80	18	$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	5/2 - 3/2	K11
Cr II	1821.58	160		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$a^6D - y^4F^\circ$	9/2 - 7/2	K11
Cr II	1823.07	20		$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	3/2 - 5/2	K11
Cr II	1825.34	60	4	$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^4D^\circ$	5/2 - 7/2	K11
Cr II	1828.62	60		$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	5/2 - 5/2	K11
Cr II	1830.61	100	4	$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^4D^\circ$	5/2 - 5/2	K11
Cr II	1836.23	240	18	$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - x^4P^\circ$	7/2 - 5/2	K11
Cr II	1852.13	500	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	11/2 - 9/2	K11
Cr II	1852.37	60	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	9/2 - 9/2	K11
Cr II	1854.46	20		$3d^5 - 3d^4(a^3D)4p$	$a^4G - x^2F^\circ$	5/2 - 5/2	K11
Cr II	1854.68	60		$3d^5 - 3d^4(a^3D)4p$	$a^4G - x^2F^\circ$	7/2 - 5/2	K11
Cr II	1855.14	400	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	9/2 - 7/2	K11
Cr II	1858.54	400	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	5/2 - 5/2	K11
Cr II	1858.72	300	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	7/2 - 5/2	K11
Cr II	1860.12	240	33	$3d^5 - 3d^4(a^3D)4p$	$a^4G - w^4F^\circ$	5/2 - 3/2	K11
Cr II	1865.80	20		$3d^5 - 3d^4(a^3D)4p$	$a^4G - x^2F^\circ$	9/2 - 7/2	K11
Cr II	1866.22	300	156	$3d^5 - 3d^4(a^1F)4p$	$a^2F - v^2G^\circ$	7/2 - 9/2	K11
Cr II	1870.46	20		$3d^4(a^5D)4s - 3d^4(a^3D)4p$	$a^4D - w^4D^\circ$	7/2 - 7/2	K11
Cr II	1875.22	60		$3d^5 - 3d^4(a^1F)4p$	$a^2D - u^2F^\circ$	5/2 - 7/2	K11
Cr II	1879.05	200	156	$3d^5 - 3d^4(a^1F)4p$	$a^2F - v^2G^\circ$	7/2 - 7/2	K11
Cr II	1881.06	120		$3d^5 - 3d^4(a^3D)4p$	$a^4P - y^2P^\circ$	5/2 - 3/2	K11
Cr II	1883.35	200	40	$3d^5 - 3d^4(a^3D)4p$	$a^4P - x^4P^\circ$	1/2 - 1/2	K11
Cr II	1884.12	20		$3d^5 - 3d^4(a^1F)4p$	$a^2D - u^2F^\circ$	3/2 - 5/2	K11
Cr II	1887.96	120	156	$3d^5 - 3d^4(a^1F)4p$	$a^2F - v^2G^\circ$	5/2 - 7/2	K11
Cr II	1890.55	600	40	$3d^5 - 3d^4(a^3D)4p$	$a^4P - x^4P^\circ$	3/2 - 3/2	K11
Cr II	1898.92	700	40	$3d^5 - 3d^4(a^3D)4p$	$a^4P - x^4P^\circ$	5/2 - 5/2	K11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr II	1907.36	60		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$a^6D - y^4D^\circ$	9/2 - 7/2	K11
Cr II	1911.36	140	155	$3d^5 - 3d^4(a^1F)4p$	$a^2F - u^2F^\circ$	7/2 - 7/2	K11
Cr II	1918.30	80		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^2G^\circ$	9/2 - 7/2	K11
Cr II	1923.02	160	155	$3d^5 - 3d^4(a^1F)4p$	$a^2F - u^2F^\circ$	5/2 - 5/2	K11
Cr II	1929.96	240	285	$3d^5 - 3d^4(b^3F)4p$	$c^2F - u^2D^\circ$	5/2 - 3/2	K11
Cr II	1932.64	100	273	$3d^4(a^3G)4s - 3d^4(b^3F)4p$	$c^2G - u^2D^\circ$	7/2 - 5/2	K11
Cr II	1935.58	500	39	$3d^5 - 3d^4(a^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 7/2	K11
Cr II	1937.56	400	39	$3d^5 - 3d^4(a^3D)4p$	$a^4P - w^4D^\circ$	3/2 - 5/2	K11
Cr II	1938.42	60	39	$3d^5 - 3d^4(a^3D)4p$	$a^4P - w^4D^\circ$	1/2 - 3/2	K11
Cr II	1939.15	120	136	$3d^5 - 3d^4(a^1D)4p$	$a^2D - w^2P^\circ$	5/2 - 3/2	K11
Cr II	1939.90	100	285	$3d^5 - 3d^4(b^3F)4p$	$c^2F - u^2D^\circ$	7/2 - 5/2	K11
Cr II	1945.98	200	136	$3d^5 - 3d^4(a^1D)4p$	$a^2D - w^2P^\circ$	3/2 - 3/2	K11
Cr II	1948.51	200	136	$3d^5 - 3d^4(a^1D)4p$	$a^2D - w^2P^\circ$	3/2 - 1/2	K11
Cr II	1949.00	800	205	$3d^4(a^3H)4s - 3d^4(a^1F)4p$	$a^2H - v^2G^\circ$	9/2 - 9/2	K11
Cr II	1949.22	700	272	$3d^4(a^3G)4s - 3d^4(b^3F)4p$	$c^2G - u^2G^\circ$	7/2 - 7/2	K11
Cr II	1950.06	1000	272	$3d^4(a^3G)4s - 3d^4(b^3F)4p$	$c^2G - u^2G^\circ$	9/2 - 9/2	K11
Cr II	1955.93	300	205	$3d^4(a^3H)4s - 3d^4(a^1F)4p$	$a^2H - v^2G^\circ$	11/2 - 9/2	K11
Cr II	1963.00	300	205	$3d^4(a^3H)4s - 3d^4(a^1F)4p$	$a^2H - v^2G^\circ$	9/2 - 7/2	K11
Cr II	1985.42 P	440	31	$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	11/2 - 11/2	K11
Cr II	1985.67	240	31	$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 11/2	K11
Cr II	1987.43	100	154	$3d^5 - 3d^4(a^1D)4p$	$a^2F - w^2P^\circ$	5/2 - 3/2	K11
Cr II	1990.79	200	236	$3d^5 - 3d^4(a^1F)4p$	$b^2H - v^2G^\circ$	11/2 - 9/2	K11
Cr II	1993.37	300	31	$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	11/2 - 9/2	K11
Cr II	1993.63	500	31	$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	7/2 - 9/2	K11
Cr II	1996.62	60		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$a^4D - y^2G^\circ$	7/2 - 9/2	K11
Cr II	1998.14	40	204	$3d^4(a^3H)4s - 3d^4(a^1F)4p$	$a^2H - u^2F^\circ$	9/2 - 7/2	K11

CHROMIUM III (Cr^{2+}), Z = 24

Ground State $1s^22s^22p^63s^23p^63d^4\ ^5D_0$ (22 electrons)

Ionization Potential 249 700 cm^{-1}; 30.96 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	735.89	200					M25
Cr III	748.35	80					M25
Cr III	755.69	10					M25
Cr III	756.59	10					M25
Cr III	767.30	10					M25
Cr III	767.61	10		$3d^4 - 3d^3(b^2D)4p$	$a^3G - v^3F^\circ$	3 - 3	M25
Cr III	767.83	20					M25
Cr III	768.21	20					M25
Cr III	768.51	30		$3d^4 - 3d^3(b^2D)4p$	$a^3G - v^3F^\circ$?	4 - 3	M25
Cr III	769.20	40					M25
Cr III	769.66	30					M25
Cr III	777.38	30					M25
Cr III	777.86	10		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - w^3F^\circ$?	2 - 2	M25
Cr III	777.97	10					M25
Cr III	778.12	10					M25
Cr III	778.29	10		$3d^4 - 3d^3(a^2F)4p$	$ga^5D - w^3F^\circ$?	3 - 4	M25
Cr III	778.40	10					M25
Cr III	779.43	10					M25
Cr III	780.87	50					M25
Cr III	781.42	40					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	781.88	30					M25
Cr III	782.26	20					M25
Cr III	782.45	10					M25
Cr III	788.05	20					M25
Cr III	788.90	30					M25
Cr III	789.59	10					M25
Cr III	789.81	10					M25
Cr III	790.65	10					M25
Cr III	796.03	10					M25
Cr III	798.31	10					M25
Cr III	801.04	30					M25
Cr III	814.71	10					M25
Cr III	814.90	10					M25
Cr III	815.40	10					M25
Cr III	815.99	10					M25
Cr III	816.57	10					M25
Cr III	817.25	10					M25
Cr III	817.87	10					M25
Cr III	820.88	10					M25
Cr III	821.74	20		$3d^4 - 3d^3(a^2F)4p$	$a^3H - v^3D^\circ$?	4 - 3	M25
Cr III	823.93	10					M25
Cr III	843.37	10					M25
Cr III	845.90	10					M25
Cr III	866.19	10					M25
Cr III	875.05	20					M25
Cr III	876.79	10		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	5 - 5	M25
Cr III	877.81	100		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	6 - 5	M25
Cr III	878.20	100		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	5 - 4	M25
Cr III	878.39	100		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	4 - 3	M25
Cr III	883.00	50		$3d^4 - 3d^3(a^2F)4p$	$a^3D - v^3D^\circ$	3 - 3	M25
Cr III	884.18	20					M25
Cr III	886.84	10		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	3 - 4	M25
Cr III	887.57	10		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	2 - 3	M25
Cr III	888.25	10		$3d^4 - 3d^3(a^2F)4p$	$a^3D - v^3D^\circ$?	2 - 2	M25
Cr III	888.54	10		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$?	4 - 3	M25
Cr III	889.33	80					M25
Cr III	892.09	10					M25
Cr III	894.86	10					M25
Cr III	895.19	10					M25
Cr III	896.82	50		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3F^\circ$?	4 - 3	M25
Cr III	905.35	50		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3G^\circ$	5 - 5	M25
Cr III	905.66	100		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3G^\circ$	4 - 4	M25
Cr III	905.92	10					M25
Cr III	906.29	10		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 4	M25
Cr III	906.59	80		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	2 - 2	M25
Cr III	906.90	150		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	4 - 4	M25
Cr III	910.75	50		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	3 - 4	M25
Cr III	911.17	50					M25
Cr III	912.26	10					M25
Cr III	912.57	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	4 - 4	M25
Cr III	912.83	10		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$?	2 - 3	M25
Cr III	913.18	10		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^3P^\circ$?	1 - 2	M25
Cr III	913.75	30					M25
Cr III	914.08	80		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^3P^\circ$?	2 - 2	M25
Cr III	914.67	10					M25
Cr III	915.02	20					M25
Cr III	916.21	20		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	4 - 3	M25
Cr III	917.40	10					M25
Cr III	917.75	20		$3d^4 - 3d^3(a^2G)4p$	$ga^5D - z^3H^\circ$?	4 - 4	M25
Cr III	918.18	10					M25
Cr III	918.50	10					M25
Cr III	919.19	30					M25
Cr III	920.73	30	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 3	M25
Cr III	922.19	50	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 3	M25
Cr III	922.47	100	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 2	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	923.55	200	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 2	M25
Cr III	923.81	100	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	0 - 1	M25
Cr III	924.07	200	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	4 - 3	M25
Cr III	924.32	200	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 1	M25
Cr III	925.03	200	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 2	M25
Cr III	925.35	150	4	$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 1	M25
Cr III	925.49	150	27	$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	3 - 2	M25
Cr III	926.52	150	27	$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	4 - 3	M25
Cr III	927.16	200	27	$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	5 - 4	M25
Cr III	930.78	10					M25
Cr III	934.91	10					M25
Cr III	937.06	40h					M25
Cr III	939.93	10					M25
Cr III	940.39	40					M25
Cr III	942.86	10					M25
Cr III	953.94	100					M25
Cr III	954.07	100					M25
Cr III	963.34	200					M25
Cr III	964.80	60					M25
Cr III	966.28	80	11	$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	M25
Cr III	967.59	100	11	$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	M25
Cr III	968.06	5	11	$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	M25
Cr III	969.26	200	11	$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	M25
Cr III	969.70	20		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	3 - 4	M25
Cr III	970.86	10		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	2 - 3	M25
Cr III	971.78	10		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	1 - 2	M25
Cr III	974.96	40					M25
Cr III	977.82	50					M25
Cr III	984.54	10		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3F^\circ$?	2 - 3	M25
Cr III	984.95	10		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3F^\circ$?	4 - 4	M25
Cr III	985.12	10		$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^1H^\circ$?	6 - 5	M25
Cr III	987.58	20		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	1 - 2	M25
Cr III	992.59	50		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	2 - 3	M25
Cr III	994.08	20					M25
Cr III	994.31	40		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	2 - 2	M25
Cr III	996.09	100		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	6 - 7	M25
Cr III	999.08	150		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	5 - 6	M25
Cr III	999.37	200	26	$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	M25
Cr III	999.52	10	26	$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 4	M25
Cr III	999.84	200	19	$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	4 - 3	M25
Cr III	1000.28	10	19	$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	2 - 2	M25
Cr III	1000.86	400	19	$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	3 - 2	M25
Cr III	1001.04	400	26	$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	M25
Cr III	1001.28	100		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	4 - 5	M25
Cr III	1001.52	20	26	$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 5	M25
Cr III	1002.96	300	26	$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	M25
Cr III	1002.99	200		$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^1G^\circ$	5 - 4	M25
Cr III	1003.37	90		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3G^\circ$?	2 - 3	B25
Cr III	1007.23	100					M25
Cr III	1014.02	10					M25
Cr III	1014.20	100		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^1H^\circ$?	4 - 5	M25
Cr III	1015.03	30		$3d^4 - 3d^3(a^2H)4p$	$a^3F - y^1G^\circ$	4 - 4	M25
Cr III	1015.77	20	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	5 - 6	M25
Cr III	1016.29	40	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	4 - 5	M25
Cr III	1016.41	100	18	$3d^4 - 3d^3(a^2D)4p$	$a^3F - x^3F^\circ$	4 - 4	M25
Cr III	1017.14	500	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	6 - 6	M25
Cr III	1017.31	500	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	4 - 4	M25
Cr III	1017.57	500	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	5 - 5	M25
Cr III	1018.58	5	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	5 - 4	M25
Cr III	1018.90	10	9	$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	6 - 5	M25
Cr III	1019.60	10		$3d^4 - 3d^3(a^2D)4p$	$a^3F - x^3F^\circ$	2 - 3	M25
Cr III	1020.24	30		$3d^4 - 3d^3(a^4P)4p$	$a^3P - y^3D^\circ$	1 - 2	M25
Cr III	1020.94	200	18	$3d^4 - 3d^3(a^2D)4p$	$a^3F - x^3F^\circ$	4 - 3	M25
Cr III	1021.64	150	18	$3d^4 - 3d^3(a^2D)4p$	$a^3F - x^3F^\circ$	3 - 2	M25
Cr III	1023.47	20		$3d^4 - 3d^3(a^4P)4p$	$a^3P - y^3D^\circ$	2 - 3	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1025.58	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$?	2 - 3	B25
Cr III	1027.46	100	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	3 - 3	M25
Cr III	1028.33	300	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 2	M25
Cr III	1029.57	100	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 2	M25
Cr III	1029.78	50		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	4 - 3	M25
Cr III	1030.10	200	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	0 - 1	M25
Cr III	1030.47	600	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 5	M25
Cr III	1030.74	20	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 1	M25
Cr III	1030.89	300	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 4	M25
Cr III	1031.23	50		$3d^4 - 3d^3(a^4P)4p$	$a^3F - y^3D^\circ$	4 - 3	M25
Cr III	1031.46	80		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	3 - 2	M25
Cr III	1031.60	10	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 3	M25
Cr III	1032.05	10	3	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 3	M25
Cr III	1032.42	50	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 2	M25
Cr III	1033.23	500	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 4	M25
Cr III	1033.45	500	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 3	M25
Cr III	1033.69	1000b	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 4	M25
Cr III	1033.99	200	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 1	M25
Cr III	1034.20	150					M25
Cr III	1034.44	150		$3d^4 - 3d^3(a^4P)4p$	$a^3F - y^3D^\circ$	3 - 2	M25
Cr III	1034.86	200					M25
Cr III	1035.29	250	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 1	M25
Cr III	1035.57	250	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 2	M25
Cr III	1035.77	200	2	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 3	M25
Cr III	1035.93	500	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 3	M25
Cr III	1036.03	1000	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 4	M25
Cr III	1037.80	200	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 3	M25
Cr III	1038.06	5		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^1H^\circ$	4 - 5	M25
Cr III	1038.80	50		$3d^4 - 3d^3(a^4P)4p$	$a^3F - y^3D^\circ$	2 - 1	M25
Cr III	1038.97	30	25	$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^1G^\circ$	4 - 4	M25
Cr III	1039.40	20	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$?	2 - 2	B25
Cr III	1040.05	200	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	0 - 1	M25
Cr III	1040.17	300	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 3	M25
Cr III	1040.41	250	24	$3d^4 - 3d^3(a^2D)4p$	$a^3G - x^3F^\circ$	4 - 4	M25
Cr III	1040.53	400	25	$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^1G^\circ$	5 - 4	M25
Cr III	1040.70	50	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 1	M25
Cr III	1040.79	50					M25
Cr III	1041.34	150	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 2	M25
Cr III	1042.02	10	1	$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 1	M25
Cr III	1042.58	20					M25
Cr III	1042.87	30					M25
Cr III	1043.39	20		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^1G^\circ$?	3 - 4	M25
Cr III	1044.74	40		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$?	1 - 0	M25
Cr III	1045.06	400	24	$3d^4 - 3d^3(a^2D)4p$	$a^3G - x^3F^\circ$	3 - 2	M25
Cr III	1045.14	400	24	$3d^4 - 3d^3(a^2D)4p$	$a^3G - x^3F^\circ$	4 - 3	M25
Cr III	1045.71	30					M25
Cr III	1047.04	5		$3d^4 - 3d^3(a^4P)4p$	$a^3P - z^5S^\circ$	2 - 2	M25
Cr III	1050.50	70		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3F^\circ$	4 - 3	M25
Cr III	1051.92	50		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D^\circ$?	2 - 2	M25
Cr III	1052.36	30		$3d^4 - 3d^3(a^2H)4p$	$a^3D - x^3G^\circ$?	3 - 4	M25
Cr III	1052.89	20		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3F^\circ$	5 - 4	M25
Cr III	1054.10	70		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	3 - 4	M25
Cr III	1054.32	100		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	5 - 6	M25
Cr III	1054.66	150		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	4 - 5	M25
Cr III	1056.11	100					M25
Cr III	1056.97	30		$3d^4 - 3d^3(a^2G)4p$	$a^3P - y^3F^\circ$?	2 - 3	M25
Cr III	1057.30	5	8	$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 5	M25
Cr III	1058.63	3	8	$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$?	5 - 5	B25
Cr III	1059.13	600					M25
Cr III	1060.15	600	8	$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	6 - 5	M25
Cr III	1060.68	30					M25
Cr III	1061.04	600	8	$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 4	M25
Cr III	1062.68	500	8	$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 3	M25
Cr III	1063.63	10	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	2 - 3	M25
Cr III	1064.32	300	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	3 - 3	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1064.43	300	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	2 - 2	M25
Cr III	1065.12	150	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	4 - 3	M25
Cr III	1065.40	30	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	3 - 4	M25
Cr III	1066.23	500	17	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	4 - 4	M25
Cr III	1066.55	50					M25
Cr III	1067.16	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5G^\circ$?	1 - 2	M25
Cr III	1067.25	200					M25
Cr III	1067.92	200					M25
Cr III	1068.41	800					M25
Cr III	1069.45	20		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^1G^\circ$?	4 - 4	M25
Cr III	1070.55	30b		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5G^\circ$	3 - 2	M25
Cr III	1072.13	200	16	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 5	M25
Cr III	1073.74	200	16	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 4	M25
Cr III	1074.56	50	16	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 4	M25
Cr III	1076.15	200	16	$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	2 - 3	M25
Cr III	1076.74	200	32	$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	3 - 3	M25
Cr III	1077.29	10		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 3	M25
Cr III	1078.80	30	32	$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	3 - 2	M25
Cr III	1079.43	150	32	$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 2	M25
Cr III	1079.97	10					M25
Cr III	1080.21	20	32	$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	1 - 2	M25
Cr III	1082.10	50		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$	6 - 5	M25
Cr III	1083.72	20	32	$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 1	M25
Cr III	1084.26	20					M25
Cr III	1084.84	20					M25
Cr III	1085.27	20		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$?	5 - 4	M25
Cr III	1085.96	20					M25
Cr III	1087.70	10					M25
Cr III	1088.28	10					M25
Cr III	1089.30	10					M25
Cr III	1089.76	40		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	3 - 3	M25
Cr III	1090.27	20		$3d^4 - 3d^3(a^4P)4p$	$a^3P - z^3P^\circ$	2 - 2	M25
Cr III	1090.54	10		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	3 - 2	M25
Cr III	1091.54	10		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	4 - 3	M25
Cr III	1092.65	30		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	4 - 4	M25
Cr III	1093.17	50h		$3d^4 - 3d^3(a^4P)4p$	$a^3P - z^5P^\circ$	0 - 1	M25
Cr III	1094.38	200		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	5 - 4	M25
Cr III	1094.53	5		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^3H^\circ$	4 - 5	M25
Cr III	1095.96	50	31	$3d^4 - 3d^3(a^2D)4p$	$a^3D - x^3F^\circ$	3 - 4	M25
Cr III	1096.90	30					M25
Cr III	1097.25	100		$3d^4 - 3d^3(a^4P)4p$	$a^3F - y^5D^\circ$?	4 - 3	M25
Cr III	1097.45	30		$3d^4 - 3d^3(a^4P)4p$	$a^3F - z^3P^\circ$?	2 - 2	M25
Cr III	1098.21	100		$3d^4 - 3d^3(a^4P)4p$	$a^3F - z^3P^\circ$?	3 - 2	M25
Cr III	1098.61	100		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^3H^\circ$	3 - 4	M25
Cr III	1098.86	100	23	$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 5	M25
Cr III	1098.95	50					M25
Cr III	1099.46	100		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^3H^\circ$	4 - 4	M25
Cr III	1099.82	10		$3d^4 - 3d^3(a^4P)4p$	$a^3F - y^5D^\circ$	3 - 2	M25
Cr III	1100.61	300	23	$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	M25
Cr III	1101.26	50	31	$3d^4 - 3d^3(a^2D)4p$	$a^3D - x^3F^\circ$	3 - 3	M25
Cr III	1101.43	300	23	$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	M25
Cr III	1101.91	150	31	$3d^4 - 3d^3(a^2D)4p$	$a^3D - x^3F^\circ$	2 - 3	M25
Cr III	1102.88	300	23	$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	M25
Cr III	1103.57	10		$3d^4 - 3d^3(a^2D)4p$	$a^3D - x^3F^\circ$?	2 - 2	M25
Cr III	1103.68	30		$3d^4 - 3d^3(a^4P)4p$	$a^3P - z^5P^\circ$?	2 - 2	M25
Cr III	1104.44	150	31	$3d^4 - 3d^3(a^2D)4p$	$a^3D - x^3F^\circ$	1 - 2	M25
Cr III	1104.69	30	23	$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 3	M25
Cr III	1105.80	70					M25
Cr III	1108.11	100					M25
Cr III	1112.60	10					M25
Cr III	1113.26	100	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	3 - 3	M25
Cr III?	1116.46	10					M25
Cr III	1117.19	300	22	$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	5 - 6	M25
Cr III	1117.88	20	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	3 - 2	M25
Cr III	1118.55	200	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	2 - 2	M25

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1119.40	5	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	1 - 2	M25
Cr III	1121.35	30					M25
Cr III	1122.43	150	22	$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	4 - 5	M25
Cr III	1123.37	30		$3d^4 - 3d^3(a^4P)4p$	$a^3G - y^5D^\circ$?	3 - 3	M25
Cr III	1123.59	150					M25
Cr III	1124.43	5	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	2 - 1	M25
Cr III	1125.27	100	30	$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^3D^\circ$	1 - 1	M25
Cr III	1125.73	200	22	$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	3 - 4	M25
Cr III	1125.90	20					M25
Cr III?	1126.35	10					M25
Cr III	1127.71	150		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$?	4 - 4	M25
Cr III	1128.78	10					M25
Cr III	1128.88	30					M25
Cr III	1131.90	150					M25
Cr III	1132.75	300					M25
Cr III	1133.91	50					M25
Cr III	1136.67	500		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$?	4 - 4	M25
Cr III	1136.91	10					M25
Cr III	1137.08	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$	3 - 4	M25
Cr III	1138.76	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$	2 - 3	M25
Cr III	1141.17	5		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^5S^\circ$	3 - 2	M25
Cr III	1143.63	150					M25
Cr III	1144.10	100					M25
Cr III	1146.34	250					M25
Cr III	1152.82	10	29	$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$?	3 - 3	M25
Cr III	1153.60	150	29	$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	2 - 3	M25
Cr III	1154.12	150	29	$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	3 - 4	M25
Cr III	1154.43	10	29	$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$?	2 - 2	M25
Cr III	1155.39	150	29	$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	1 - 2	M25
Cr III	1161.43	500					M25
Cr III	1162.60	10					M25
Cr III	1166.23	10					M25
Cr III	1168.32	100		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3G^\circ$	2 - 3	M25
Cr III	1168.73	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	4 - 4	M25
Cr III	1169.25	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$?	3 - 4	M25
Cr III	1170.10	30		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	3 - 3	M25
Cr III	1170.64	30					M25
Cr III	1173.19	40					M25
Cr III	1173.34	50					M25
Cr III	1173.77	100					M25
Cr III	1174.82	150					M25
Cr III	1178.55	30					M25
Cr III	1178.80	20		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3F^\circ$?	4 - 4	M25
Cr III	1178.99	10					M25
Cr III	1179.68	30					M25
Cr III	1180.81	60					M25
Cr III	1181.03	10					M25
Cr III	1181.45	10					M25
Cr III	1181.63	50					M25
Cr III	1186.24	20					M25
Cr III	1187.36	200					M25
Cr III	1187.65	300					M25
Cr III	1192.69	50		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^3P^\circ$?	3 - 2	M25
Cr III	1193.47	70		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^3P^\circ$?	2 - 2	M25
Cr III?	1193.89	10					M25
Cr III	1194.44	30		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^3P^\circ$?	1 - 2	M25
Cr III	1194.96	30					M25
Cr III	1195.42	10		$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^5D^\circ$	2 - 2	M25
Cr III	1196.04	30					M25
Cr III	1196.32	50	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 4	M25
Cr III	1197.37	200	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 4	M25
Cr III	1197.60	10					M25
Cr III	1198.31	70		$3d^4 - 3d^3(a^4P)4p$	$a^3D - y^5D^\circ$?	2 - 1	M25
Cr III	1200.91	50					M25
Cr III	1201.00	50					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1201.25	100					M25
Cr III	1201.42	150	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 3	M25
Cr III	1202.02	10					M25
Cr III	1202.45	100	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 3	M25
Cr III	1203.59	120					M25
Cr III	1203.95	20					M25
Cr III	1204.46	50	7	$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$?	5 - 5	M25
Cr III	1204.59	10		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^5P^\circ$?	2 - 3	M25
Cr III	1204.93	200	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 2	M25
Cr III	1205.15	10					M25
Cr III	1205.78	100	15	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 2	M25
Cr III	1206.12	10					M25
Cr III	1206.38	600	7	$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	6 - 5	M25
Cr III	1206.70	30					M25
Cr III	1206.99	20					M25
Cr III	1207.13	100					M25
Cr III	1207.36	40	7	$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 4	M25
Cr III	1209.13	800	7	$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 4	M25
Cr III	1209.42	10		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^5P^\circ$?	2 - 2	M25
Cr III	1209.66	10					M25
Cr III	1211.12	800	7	$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 3	M25
Cr III	1211.84	10					M25
Cr III	1212.98	50					M25
Cr III	1213.51	50		$3d^4 - 3d^3(a^4P)4p$	$a^3D - z^5P^\circ$?	1 - 1	M25
Cr III	1213.82	10					M25
Cr III	1218.60	100					M25
Cr III	1218.89	50					M25
Cr III	1219.55	50					M25
Cr III	1220.14	200					M25
Cr III	1221.07	400					M25
Cr III	1221.45	10					M25
Cr III	1221.90	400	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 5	M25
Cr III	1223.28	10					M25
Cr III	1224.43	30					M25
Cr III	1225.02	100					M25
Cr III	1225.27	150					M25
Cr III	1225.32	150					M25
Cr III	1225.65	300	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 4	M25
Cr III	1226.18	10		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - v^3D^\circ$?	4 - 3	M25
Cr III	1226.72	200	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 4	M25
Cr III	1227.11	20		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$	2 - 3	M25
Cr III	1228.03	10					M25
Cr III	1228.37	10					M25
Cr III	1228.65	300	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	2 - 3	M25
Cr III	1229.53	150	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 3	M25
Cr III	1230.35	10					M25
Cr III	1230.63 P	10	14	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 3	M25
Cr III	1230.80	200	21	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 4	M25
Cr III	1231.88	300		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$?	4 - 4	M25
Cr III	1232.96	500	21	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	5 - 4	M25
Cr III	1233.28	10					M25
Cr III	1233.92	200	21	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 3	M25
Cr III	1236.20	400	21	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 3	M25
Cr III	1236.51	10					M25
Cr III	1236.71	10		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3G^\circ$?	5 - 4	M25
Cr III	1238.51	400	21	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 2	M25
Cr III	1241.32	20					M25
Cr III	1242.08	10h					M25
Cr III	1243.43	20					M25
Cr III	1243.60	20		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3D^\circ$?	4 - 3	M25
Cr III	1243.97	40					M25
Cr III	1244.41	10		$3d^4 - 3d^3(a^2F)4p$	$b^1G - w^3G^\circ$?	4 - 5	M25
Cr III	1244.58	100		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5F^\circ$?	4 - 5	M25
Cr III	1245.09	50					M25
Cr III	1245.23	150	6	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	M25

Element	Wavelength		Intensity	Multiplet	Configuration	Term		J - J	References
Cr III	1246.83		100						M25
Cr III	1247.86		200	6	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$		1 - 2	M25
Cr III	1248.61		120		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5F^\circ$		6 - 5	M25
Cr III	1250.33		20						M25
Cr III	1250.57		20		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5F^\circ$		5 - 4	M25
Cr III	1251.42		150	6	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$		1 - 1	M25
Cr III	1252.61		500	6	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$		2 - 3	M25
Cr III	1253.87		5		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$		1 - 2	M25
Cr III	1256.18	P	20		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	?	1 - 1	B25
Cr III	1256.73		80	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		4 - 5	M25
Cr III	1258.55		200	6	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$		2 - 2	M25
Cr III	1259.02		400	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		5 - 5	M25
Cr III	1259.49		100	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		3 - 4	M25
Cr III	1259.80		200	5	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$		0 - 1	M25
Cr III	1261.09		10		$3d^3(a^2H)4s - 3d^3(b^2D)4p$	$b^3H - v^3F^\circ$	?	4 - 3	M25
Cr III	1261.53		20		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	?	2 - 3	M25
Cr III	1261.86		400	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		4 - 4	M25
Cr III	1262.34		300	5	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$		1 - 2	M25
Cr III	1263.06		50	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$		3 - 3	M25
Cr III	1263.61		350	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		3 - 3	M25
Cr III	1264.21		350	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$		4 - 3	M25
Cr III	1264.75		10		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	?	2 - 2	B25
Cr III	1265.22		5		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$		4 - 5	M25
Cr III	1266.01		20	20	$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$		4 - 3	M25
Cr III	1266.14		150	5	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$		1 - 1	M25
Cr III	1266.53		20		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$a^5F - w^3F^\circ$		3 - 3	M25
Cr III	1268.01		250	5	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$		2 - 3	M25
Cr III	1268.15		20	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$		2 - 2	M25
Cr III	1269.11		250	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$		3 - 2	M25
Cr III	1271.85		200	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$		2 - 1	M25
Cr III	1273.31		150	5	$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$		2 - 2	M25
Cr III	1275.34		150		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	?	3 - 2	B25
Cr III	1276.76		200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	?	2 - 1	B25
Cr III	1277.23		30		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	?	2 - 1	M25
Cr III	1278.71		20	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$		3 - 3	M25
Cr III	1279.91		200	12	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$		4 - 3	M25
Cr III	1281.98		200						M25
Cr III	1283.12		50	13	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$		2 - 2	M25
Cr III	1284.09		200	12	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$		3 - 2	M25
Cr III	1284.46		10						M25
Cr III	1285.90		10						M25
Cr III	1287.05		400	12	$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$		2 - 1	M25
Cr III	1289.81		200		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5G^\circ$	?	4 - 5	M25
Cr III	1290.93		200	37	$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$		2 - 3	M25
Cr III	1291.25		20	37	$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$		3 - 3	M25
Cr III	1291.53		250	37	$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$		3 - 4	M25
Cr III	1291.77		250	37	$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$		4 - 5	M25
Cr III	1293.57		100						M25
Cr III	1296.01		40						M25
Cr III	1299.56		40						M25
Cr III	1302.45		20						M25
Cr III	1302.85		5		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5G^\circ$		4 - 3	M25
Cr III	1303.47		40						M25
Cr III	1306.16		60						M25
Cr III	1307.24		100						M25
Cr III	1307.47		10						M25
Cr III	1307.64		60		$3d^3(a^4F)4p - 3d^3(a^2H)4d$	$z^5D^\circ - g^3H$	?	4 - 5	M25
Cr III	1308.27		150						M25
Cr III	1309.34		200	28	$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$		3 - 4	M25
Cr III	1310.18		30						M25
Cr III	1315.00		100b	33	$3d^4 - 3d^3(a^2H)4p$	$a^1F - y^1G^\circ$		3 - 4	M25
Cr III	1315.44		20	28	$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$		3 - 3	M25
Cr III	1316.16		200						M25
Cr III	1316.40		200	28	$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$		2 - 3	M25
Cr III	1321.65		30	28	$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$		2 - 2	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1322.83	100	28	$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$	1 - 2	M25
Cr III	1323.22	10		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5G^\circ$?	2 - 3	M25
Cr III	1327.17	10					M25
Cr III	1327.79	100		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$	4 - 3	M25
Cr III	1328.37	10		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$?	3 - 3	M25
Cr III	1328.78	10		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5G^\circ$?	3 - 2	M25
Cr III	1329.29	20					M25
Cr III	1331.56	50		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$	3 - 2	M25
Cr III	1341.17	10					M25
Cr III	1342.24	40		$3d^4 - 3d^3(a^4P)4p$	$a^1F - y^3D^\circ$?	3 - 3	M25
Cr III?	1345.12	100					M25
Cr III?	1345.46	70					M25
Cr III	1351.94	10					M25
Cr III	1354.16	10		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - w^3G^\circ$	4 - 4	M25
Cr III	1354.75	50		$3d^4 - 3d^3(a^2H)4p$	$b^3F - y^1G^\circ$	4 - 4	M25
Cr III	1356.25	10					M25
Cr III	1356.86	20		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - w^3G^\circ$?	4 - 3	M25
Cr III	1357.20	150	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	4 - 4	M25
Cr III	1357.69	20					M25
Cr III	1357.85	5	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	3 - 4	M25
Cr III	1358.65	30					M25
Cr III	1358.75	20					M25
Cr III	1360.40	60		$3d^3(a^4F)4p - 3d^3(a^2H)4d$	$z^3G^\circ - g^3H$?	5 - 6	M25
Cr III	1360.56	20					M25
Cr III	1360.97	10					M25
Cr III	1361.15	200		$3d^3(a^4F)4p - 3d^3(a^2H)4d$	$z^3G^\circ - g^3H$?	4 - 5	M25
Cr III	1361.30	200					M25
Cr III	1362.85	50		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^5G^\circ$?	5 - 4	M25
Cr III	1363.73	20		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^5G^\circ$?	3 - 3	M25
Cr III	1364.26	50		$3d^4 - 3d^3(a^2G)4p$	$a^1F - z^1G^\circ$?	3 - 4	M25
Cr III	1365.06	40					M25
Cr III	1365.29	200	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	4 - 3	M25
Cr III	1365.94	70	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	3 - 3	M25
Cr III	1366.06	70					M25
Cr III	1366.63	120		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^5G^\circ$	4 - 3	M25
Cr III	1366.88	20					M25
Cr III	1367.13	40		$3d^3(a^4F)4p - 3d^3(a^2H)4d$	$z^3G^\circ - g^3H$?	5 - 5	M25
Cr III	1368.23	20	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	2 - 2	M25
Cr III	1368.60	150	36	$3d^4 - 3d^3(a^2D)4p$	$b^3F - x^3F^\circ$	3 - 2	M25
Cr III	1370.20	20					M25
Cr III	1370.74	20					M25
Cr III	1372.27	60					M25
Cr III	1374.91	10					M25
Cr III	1376.90	10					M25
Cr III	1381.67	30					M25
Cr III	1382.19	100					M25
Cr III	1383.79	250	35	$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^3D^\circ$	4 - 3	M25
Cr III	1384.44	10	35	$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^3D^\circ$	3 - 3	M25
Cr III?	1385.07	10					M25
Cr III	1388.13	40					M25
Cr III	1388.24	20					M25
Cr III	1389.55	70					M25
Cr III	1389.73	150		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	3 - 3	M25
Cr III	1390.77	40		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	2 - 3	M25
Cr III	1391.26	20	35	$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^3D^\circ$	2 - 2	M25
Cr III	1391.61	150	35	$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^3D^\circ$	3 - 2	M25
Cr III	1391.78	10					M25
Cr III	1392.40	100					M25
Cr III	1392.83	10		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$c^3P - v^3D^\circ$?	2 - 3	M25
Cr III	1393.00	10h		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - w^3F^\circ$	3 - 3	M25
Cr III	1393.22	10					M25
Cr III	1393.98	10					M25
Cr III	1394.33	100					M25
Cr III	1394.58	70					M25
Cr III	1396.26	10					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1396.42	100					M25
Cr III	1396.63	30					M25
Cr III	1396.96	30h		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	3 - 2	M25
Cr III	1397.40	30					M25
Cr III	1397.69	10					M25
Cr III	1397.90	30					M25
Cr III	1398.12	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	2 - 2	M25
Cr III	1399.05	100					M25
Cr III	1399.42	10		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	1 - 2	M25
Cr III	1400.02	5		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - w^3F^\circ$	4 - 4	M25
Cr III	1400.34	150	35	$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^3D^\circ$	2 - 1	M25
Cr III	1400.62	10		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5F^\circ$?	3 - 3	M25
Cr III	1400.72	10					M25
Cr III	1401.55	100h		$3d^4 - 3d^3(a^2G)4p$	$a^1F - y^3F^\circ$?	3 - 2	M25
Cr III	1402.07	30		$3d^4 - 3d^3(a^2G)4p$	$a^1F - y^3F^\circ$?	3 - 4	M25
Cr III	1402.62	40		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	2 - 1	M25
Cr III	1402.99	10					M25
Cr III	1403.42	70					M25
Cr III	1403.92	30		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	1 - 1	M25
Cr III	1404.50	10		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5F^\circ$?	3 - 2	M25
Cr III	1405.37	30					M25
Cr III	1405.72	20		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - x^3G^\circ$	2 - 3	M25
Cr III	1406.31	40					M25
Cr III	1406.90	100					M25
Cr III	1407.22	10					M25
Cr III	1407.89	40		$3d^4 - 3d^3(a^2G)4p$	$b^3F - z^1G^\circ$?	3 - 4	M25
Cr III	1408.71	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	3 - 3	M25
Cr III	1409.10	10		$3d^3(a^4F)4p - 3d^3(a^2G)4d$	$z^5F^\circ - f^3H$	5 - 6	M25
Cr III	1409.81	20		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	2 - 3	M25
Cr III	1410.03	20		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - x^3G^\circ$	3 - 4	M25
Cr III	1410.82	20					M25
Cr III	1411.53	10					M25
Cr III	1412.67	30					M25
Cr III	1413.32	10					M25
Cr III	1413.77	40					M25
Cr III	1414.62	50					M25
Cr III	1414.79	10					M25
Cr III	1415.25	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	3 - 2	M25
Cr III	1415.81	10					M25
Cr III	1416.33	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	2 - 2	M25
Cr III	1417.13	70					M25
Cr III	1417.67	10		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	1 - 2	M25
Cr III	1419.25	70					M25
Cr III	1420.81	100					M25
Cr III	1421.20	50h		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$?	2 - 1	M25
Cr III	1421.80	10					M25
Cr III	1422.47	40		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	1 - 1	M25
Cr III	1422.58	20		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - x^3G^\circ$?	5 - 5	M25
Cr III	1425.30	10					M25
Cr III	1427.00	150					M25
Cr III	1427.20	10					M25
Cr III	1428.46	10					M25
Cr III	1429.04	50					M25
Cr III	1429.17	50					M25
Cr III	1430.02	40		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$?	1 - 0	M25
Cr III	1430.15	30					M25
Cr III	1430.42	50					M25
Cr III	1433.26	50					M25
Cr III	1434.19	10					M25
Cr III	1436.65	20		$3d^4 - 3d^3(a^2H)4p$	$b^1G - x^3G^\circ$?	4 - 5	M25
Cr III	1437.17	70					M25
Cr III	1437.76	20					M25
Cr III	1438.03	10					M25
Cr III	1438.90	5		$3d^4 - 3d^3(a^2D)4p$	$b^3P - w^3D^\circ$	1 - 2	M25
Cr III	1441.06	60					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1441.90	50					M25
Cr III	1442.78	10		$3d^3(a^2F)4s - 3d^3(b^2D)4p$	$d^3F - v^3F^\circ$?	3 - 3	M25
Cr III	1443.08	20		$3d^4 - 3d^3(a^2D)4p$	$b^3P - w^3D^\circ$	0 - 1	M25
Cr III	1443.82	60					M25
Cr III	1444.84	20					M25
Cr III	1446.27	20		$3d^4 - 3d^3(a^2G)4p$	$b^3F - y^3F^\circ$	3 - 3	M25
Cr III	1446.52	150		$3d^4 - 3d^3(a^2D)4p$	$b^3P - w^3D^\circ$	2 - 3	M25
Cr III	1446.70	80					M25
Cr III	1447.31	20		$3d^4 - 3d^3(a^2G)4p$	$b^3F - y^3F^\circ$	2 - 2	M25
Cr III	1447.50	20		$3d^4 - 3d^3(a^2G)4p$	$b^3F - y^3F^\circ$	4 - 4	M25
Cr III	1449.89	20		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$a^5F - w^3D^\circ$	2 - 3	M25
Cr III	1450.22	5		$3d^4 - 3d^3(a^2D)4p$	$b^3P - w^3D^\circ$	2 - 2	M25
Cr III	1450.52	10					M25
Cr III	1451.95	80					M25
Cr III	1454.00	50					M25
Cr III	1455.27	300		$3d^3(a^2F)4s - 3d^3(b^2D)4p$	$d^3F - v^3F^\circ$?	4 - 3	W3,K8
Cr III	1457.22	30					M25
Cr III	1458.17	10		$3d^3(a^2P)4s - 3d^3(a^2F)4p$	$d^3P - v^3D^\circ$?	1 - 2	M25
Cr III	1458.41	80		$3d^4 - 3d^3(a^2G)4p$	$b^3F - y^3G^\circ$	4 - 5	M25
Cr III	1462.12	30h					M25
Cr III	1463.87	10					M25
Cr III?	1465.00	30					M25
Cr III	1467.04	20		$3d^3(a^4F)4p - 3d^3(a^2G)4d$	$z^3G^\circ - f^3H$?	5 - 6	M25
Cr III	1467.68	50					M25
Cr III	1468.05	50					M25
Cr III	1469.55	50					M25
Cr III	1470.60	10					M25
Cr III	1472.45	20		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5G^\circ$?	1 - 2	M25
Cr III	1473.32	30					M25
Cr III	1473.82	10		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$a^5P - w^3G^\circ$?	3 - 4	M25
Cr III	1476.04	50					M25
Cr III	1477.49	10					M25
Cr III	1478.08	20		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - v^3D^\circ$?	3 - 3	M25
Cr III	1478.64	20					M25
Cr III	1480.16	100					M25
Cr III	1483.11	20					M25
Cr III	1483.45	10		$3d^4 - 3d^3(a^4P)4p$	$a^1F - z^5P^\circ$?	3 - 2	M25
Cr III	1483.75	50					M25
Cr III	1484.39	10					M25
Cr III?	1486.02	10					M25
Cr III	1486.54	10		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - y^1G^\circ$?	3 - 4	M25
Cr III	1487.03	40					M25
Cr III	1487.86	10					M25
Cr III	1488.72	20					M25
Cr III	1489.10	20					M25
Cr III	1489.35	20		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$a^5F - x^3F^\circ$?	3 - 4	M25
Cr III	1489.93	40					M25
Cr III	1491.50	20					M25
Cr III	1492.05	40					M25
Cr III	1492.23	40		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - y^1G^\circ$?	4 - 4	M25
Cr III	1492.98	50					M25
Cr III	1493.68	10					M25
Cr III	1494.45	50					M25
Cr III	1495.01	20					M25
Cr III	1495.21	20		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$a^5F - x^3F^\circ$?	4 - 4	M25
Cr III	1495.36	20					M25
Cr III	1496.47	10					M25
Cr III	1501.38	30					M25
Cr III	1502.87	30					M25
Cr III	1503.65	30					M25
Cr III	1504.16	20					M25
Cr III	1505.76	100					M25
Cr III	1506.82	10					M25
Cr III	1506.95	10					M25
Cr III	1507.93	30h					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1508.14	100					M25
Cr III	1508.71	50					M25
Cr III	1509.31	30h		$3d^4 - 3d^3(a^4P)4p$	$b^3P - y^3D^\circ$?	1 - 2	M25
Cr III	1510.05	10					M25
Cr III	1510.62	10					M25
Cr III	1511.78	80					M25
Cr III	1512.22	100		$3d^4 - 3d^3(a^4P)4p$	$b^3F - y^5D^\circ$?	2 - 2	M25
Cr III	1513.18	10		$3d^4 - 3d^3(a^4P)4p$	$b^3P - y^3D^\circ$	2 - 3	M25
Cr III	1513.39	10					M25
Cr III	1515.01	20		$3d^4 - 3d^3(a^2H)4p$	$b^1G - y^1G^\circ$?	4 - 4	M25
Cr III	1515.44	80					M25
Cr III	1517.43	20					M25
Cr III	1517.85	20					M25
Cr III	1518.48	40					M25
Cr III	1519.66	10					M25
Cr III	1520.01	70		$3d^4 - 3d^3(a^4P)4p$	$b^3P - y^3D^\circ$?	1 - 1	M25
Cr III	1520.79	40					M25
Cr III	1521.29	10					M25
Cr III	1521.59	30		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^3D^\circ$?	3 - 3	M25
Cr III	1522.29	5		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^3D^\circ$	1 - 2	M25
Cr III	1523.12	50					M25
Cr III	1523.21	80					M25
Cr III	1524.65	20					M25
Cr III	1525.27	10					M25
Cr III	1525.42	5		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^3D^\circ$	2 - 2	M25
Cr III	1525.78	10					M25
Cr III	1528.38	30		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$a^5P - w^3F^\circ$	3 - 4	M25
Cr III	1528.52	40		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	4 - 5	M25
Cr III	1528.91	20					M25
Cr III	1529.16	20					M25
Cr III	1530.59	5		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$a^5P - w^3F^\circ$	3 - 2	M25
Cr III	1532.09	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^3F$?	2 - 2	M25
Cr III	1532.54	10		$3d^4 - 3d^3(a^4P)4p$	$b^3P - y^3D^\circ$?	2 - 1	M25
Cr III	1533.12	70	92	$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	5 - 5	M25
Cr III	1534.09	80					M25
Cr III	1534.40	10					M25
Cr III	1535.66	10					M25
Cr III	1537.14	40					M25
Cr III	1538.04	10					M25
Cr III	1538.43	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^3F$?	4 - 3	M25
Cr III	1539.70	30		$3d^4 - 3d^3(a^4P)4p$	$b^3F - z^5P^\circ$?	2 - 1	M25
Cr III	1541.57	10					M25
Cr III	1542.52	10					M25
Cr III	1545.03	30					M25
Cr III	1546.34	30					M25
Cr III	1546.55	30					M25
Cr III	1547.05	30					M25
Cr III	1548.86	20		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^3F$?	2 - 2	M25
Cr III	1550.09	20					M25
Cr III	1550.94	10		$3d^4 - 3d^3(a^2H)4p$	$b^1G - y^3H^\circ$?	4 - 4	M25
Cr III	1551.43	50		$3d^4 - 3d^3(a^4P)4p$	$b^1G - y^3D^\circ$?	4 - 3	M25
Cr III	1552.31	40					M25
Cr III	1552.95	10					M25
Cr III	1553.30	40					M25
Cr III	1553.38	50					M25
Cr III	1554.71	30					M25
Cr III	1555.94	30					M25
Cr III	1557.01	30					M25
Cr III	1558.14	30					M25
Cr III	1559.67	10		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	2 - 3	M25
Cr III	1561.72	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^3H^\circ - g^3H$?	4 - 5	M25
Cr III	1564.07	10		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$c^3P - w^3G^\circ$	2 - 3	M25
Cr III	1564.32	10					M25
Cr III	1565.40	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$?	3 - 4	M25
Cr III	1565.54	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$?	2 - 3	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1567.41	80					M25
Cr III	1567.80	10					M25
Cr III	1568.48	20		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	3 - 4	M25
Cr III	1569.07	30		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - z^5S^\circ$?	2 - 2	M25
Cr III	1569.36	20		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^3H^\circ - f^3I$?	5 - 6	M25
Cr III	1569.51	50					M25
Cr III	1570.67	40	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	2 - 2	M25
Cr III	1571.04	100					M25
Cr III	1571.38	20					M25
Cr III	1571.98	50					M25
Cr III	1572.13	20	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	3 - 3	M25
Cr III	1572.54	10					M25
Cr III	1572.89	20					M25
Cr III	1573.34	10					M25
Cr III	1573.87	70	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	2 - 1	M25
Cr III	1574.00	40	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	4 - 4	M25
Cr III	1574.63	20					M25
Cr III	1576.24	20	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	5 - 5	M25
Cr III	1577.14	100	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	3 - 2	M25
Cr III	1577.36	50					M25
Cr III	1578.01	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^3H^\circ - f^3I$?	6 - 7	M25
Cr III	1578.39	10					M25
Cr III	1578.61	40		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$?	4 - 3	M25
Cr III	1580.20	10					M25
Cr III	1580.34	10		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	4 - 5	M25
Cr III	1580.73	200	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	4 - 3	M25
Cr III	1581.15	100					M25
Cr III	1581.57	20					M25
Cr III	1582.62	250					M25
Cr III	1582.93	200					M25
Cr III	1583.70	20					M25
Cr III	1584.09	10					M25
Cr III	1584.60	400	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	5 - 4	M25
Cr III	1584.84	30					M25
Cr III	1585.01	30		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^3F$?	3 - 4	M25
Cr III	1586.35	150					M25
Cr III	1587.35	10		$3d^4 - 3d^3(a^2G)4p$	$b^3P - y^3F^\circ$	2 - 3	M25
Cr III	1587.54	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^3F$?	2 - 3	M25
Cr III	1588.00	20					M25
Cr III	1588.42	150		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3F^\circ$?	3 - 4	M25
Cr III	1588.87	200	73	$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5G^\circ - f^5F$	6 - 5	M25
Cr III	1589.91	20					M25
Cr III	1590.49	20		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$c^1G - w^3G^\circ$?	4 - 5	M25
Cr III	1590.77	10		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3F^\circ$	3 - 2	M25
Cr III	1591.09	50					M25
Cr III	1592.39	100					M25
Cr III	1593.16	40		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3F^\circ$?	2 - 2	M25
Cr III	1593.38	40					M25
Cr III	1593.71	10					M25
Cr III	1594.03	80					M25
Cr III	1594.45	20					M25
Cr III	1595.86	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^3F$?	3 - 3	M25
Cr III	1596.06	10					M25
Cr III	1596.52	150		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3F^\circ$?	3 - 3	M25
Cr III	1596.76	10		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3F^\circ$	5 - 4	M25
Cr III	1597.46	120					M25
Cr III	1597.86	10					M25
Cr III	1598.05	50					M25
Cr III	1598.48	30					M25
Cr III	1599.01	30					M25
Cr III	1600.02	70					M25
Cr III	1600.21	50					M25
Cr III	1601.57	40					M25
Cr III	1602.17	100					M25
Cr III	1602.79	100					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Cr III	1603.19	300		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3F^\circ$	?	4 - 3	M25
Cr III	1603.93	10						M25
Cr III	1604.34	10						M25
Cr III	1604.82	20						M25
Cr III	1605.18	20						M25
Cr III	1606.19	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^3F$		3 - 3	M25
Cr III	1606.53	80						M25
Cr III	1606.67	20						M25
Cr III	1607.57	10						M25
Cr III	1607.78	20						M25
Cr III	1607.92	30						M25
Cr III	1608.19	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^3F$	?	5 - 4	M25
Cr III	1609.01	30		$3d^3(a^4P)4s - 3d^3(a^2F)4p$	$c^3P - w^3F^\circ$		1 - 2	M25
Cr III	1609.35	200						M25
Cr III	1609.79	150		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^3F$	?	3 - 4	M25
Cr III	1609.91	200						M25
Cr III	1610.10	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^3F$	?	2 - 2	M25
Cr III	1610.56	40						M25
Cr III	1610.88	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^3F$	?	2 - 3	M25
Cr III	1611.08	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^3F$	?	2 - 3	M25
Cr III	1611.57	10						M25
Cr III	1612.07	30						M25
Cr III	1612.57	10						M25
Cr III	1613.02	10						M25
Cr III	1613.14	20						M25
Cr III	1614.04	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^3F$	?	1 - 2	M25
Cr III	1614.17	80		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - w^3D^\circ$	?	2 - 3	M25
Cr III	1615.21	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^3F$	?	3 - 2	M25
Cr III	1617.23	20						M25
Cr III	1617.49	10						M25
Cr III	1617.72	5		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3G^\circ$		3 - 4	M25
Cr III	1617.90	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$y^3G^\circ - f^3I$	?	5 - 6	M25
Cr III	1619.94	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^3G$	?	3 - 4	M25
Cr III	1620.44	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$y^3G^\circ - g^3H$	?	5 - 5	M25
Cr III	1620.76	10						M25
Cr III	1621.10	30						M25
Cr III	1621.60	10						M25
Cr III	1621.87	30						M25
Cr III	1622.61	20						M25
Cr III	1623.01	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^3F$	?	3 - 2	M25
Cr III	1625.32	30		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^3F$	?	4 - 4	M25
Cr III	1625.78	10						M25
Cr III	1626.33	100d						M25
Cr III	1626.85	50						M25
Cr III	1627.25	30						M25
Cr III	1627.80	20		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - w^3D^\circ$		3 - 2	M25
Cr III	1628.39	120		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^3F$	?	2 - 2	M25
Cr III	1628.58	10		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - w^3D^\circ$		2 - 1	M25
Cr III	1628.98	100						M25
Cr III	1629.56	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^3F$	?	4 - 3	M25
Cr III	1631.49	20						M25
Cr III	1631.68	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$	?	1 - 2	M25
Cr III	1631.89	20		$3d^4 - 3d^3(a^2G)4p$	$b^1G - y^3F^\circ$	?	4 - 4	M25
Cr III	1632.62	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$	?	2 - 3	M25
Cr III	1632.85	20						M25
Cr III	1633.17	20						M25
Cr III	1633.60	20						M25
Cr III	1634.12	120		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$	?	3 - 4	M25
Cr III	1634.61	10		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - w^3D^\circ$		4 - 3	M25
Cr III	1635.10	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^3F$	?	2 - 3	M25
Cr III	1635.48	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$	?	4 - 5	M25
Cr III	1636.35	200						M25
Cr III	1636.69	10						M25
Cr III	1637.53	100h						M25
Cr III	1637.90	100						M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1638.10	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$?	2 - 2	M25
Cr III	1638.78	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^3F$?	2 - 2	M25
Cr III	1639.46	10					M25
Cr III	1639.90	20					M25
Cr III	1640.94	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^3F$?	3 - 4	M25
Cr III	1641.09	50					M25
Cr III	1641.56	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5D^\circ - f^5F$?	2 - 1	M25
Cr III	1641.83	10					M25
Cr III	1642.16	100					M25
Cr III	1643.07	70					M25
Cr III	1643.20	100					M25
Cr III	1643.34	80					M25
Cr III	1643.86	50		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$y^3F^\circ - f^3I$?	4 - 5	M25
Cr III	1645.16	50		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	3 - 4	M25
Cr III	1646.15	70					M25
Cr III	1646.56	20					M25
Cr III	1647.71	5		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - f^5D$?	4 - 4	W3,K8
Cr III	1648.36	50					M25
Cr III	1648.58	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	1 - 2	M25
Cr III	1649.13	50					M25
Cr III	1649.51	150		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	5 - 5	M25
Cr III	1649.93	40					M25
Cr III	1651.32	10					M25
Cr III	1651.56	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	4 - 4	M25
Cr III	1651.92	20					M25
Cr III	1652.08	50		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	1 - 1	M25
Cr III	1652.46	150h		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	3 - 3	M25
Cr III	1653.06	10					M25
Cr III	1654.23	10					M25
Cr III	1654.79	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	3 - 4	M25
Cr III	1655.48	70					M25
Cr III	1657.18	10					M25
Cr III	1657.45	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	2 - 3	M25
Cr III	1657.71	40		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 4	M25
Cr III	1658.30	20					M25
Cr III	1658.63	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	5 - 4	M25
Cr III	1658.93	120h		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^5F^\circ - f^5F$?	4 - 3	M25
Cr III	1659.26	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5D$?	5 - 4	M25
Cr III	1659.82	30					M25
Cr III	1660.24	80					M25
Cr III	1660.44	10		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	3 - 4	M25
Cr III	1660.70	150					M25
Cr III	1661.02	10		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$c^1G - w^3F^\circ$?	4 - 3	M25
Cr III	1661.58	20					M25
Cr III	1661.93	40h					M25
Cr III	1663.01	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	2 - 2	M25
Cr III	1663.75	40		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - y^1G^\circ$?	3 - 4	M25
Cr III	1663.94	30		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - z^3H^\circ$	5 - 6	M25
Cr III	1664.35	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	4 - 4	M25
Cr III	1664.90	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 4	M25
Cr III	1665.18	20		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	5 - 5	M25
Cr III	1665.53	70		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$a^1H - w^3G^\circ$	5 - 5	M25
Cr III	1665.62	50					M25
Cr III	1665.98	20					M25
Cr III	1666.66	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	2 - 1	M25
Cr III	1667.32	20		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - x^3F^\circ$	3 - 4	M25
Cr III	1667.44	30					M25
Cr III	1667.63	120		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	2 - 1	M25
Cr III	1667.92	20		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	3 - 3	M25
Cr III	1668.24	100		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	1 - 2	M25
Cr III	1668.33	80		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - z^3P^\circ$?	2 - 2	M25
Cr III	1668.96	70					M25
Cr III	1669.58	20		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 3	M25
Cr III	1669.97	150		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - x^3F^\circ$	2 - 3	M25
Cr III	1670.27	50					M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1670.45	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	3 - 2	M25
Cr III	1670.80	20		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - z^3H^\circ$?	4 - 5	M25
Cr III	1671.40	10					M25
Cr III	1671.85	30					M25
Cr III	1672.03	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	2 - 2	M25
Cr III	1672.64	200					M25
Cr III	1673.00	20		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	4 - 5	M25
Cr III	1673.58	50		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3D^\circ - f^5F$?	3 - 2	M25
Cr III	1673.77	100d		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	5 - 4	M25
Cr III	1674.73	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$	4 - 3	M25
Cr III	1675.72	200		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - y^1G^\circ$	4 - 4	M25
Cr III	1676.20	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$?	5 - 4	M25
Cr III	1676.96	100		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 3	M25
Cr III	1677.54	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	2 - 1	M25
Cr III	1677.68	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 2	M25
Cr III	1678.41	100		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	6 - 5	M25
Cr III	1679.25	300	72	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5G$	6 - 6	M25
Cr III	1679.38	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5F$	6 - 5	M25
Cr III	1679.53	120		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - x^3F^\circ$	3 - 3	M25
Cr III	1679.83	100		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	5 - 4	M25
Cr III	1682.36	60		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	4 - 3	M25
Cr III	1683.50	40		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - x^3F^\circ$	3 - 2	M25
Cr III	1684.02	150		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3G^\circ - f^3F$?	5 - 4	M25
Cr III	1684.14	100					M25
Cr III	1685.38	10					M25
Cr III	1685.85	150					M25
Cr III	1686.44	40					M25
Cr III	1687.03	150		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3G^\circ - f^3F$?	4 - 3	M25
Cr III	1687.56	70					M25
Cr III	1688.15	10					M25
Cr III	1688.39	40					M25
Cr III	1689.14	10					M25
Cr III	1689.46	100		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3G^\circ - f^3F$?	3 - 2	M25
Cr III	1689.77	80					M25
Cr III	1690.00	30					M25
Cr III	1690.28	300	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	2 - 3	M25
Cr III	1690.52	20					M25
Cr III	1690.72	10					M25
Cr III	1691.09	50					M25
Cr III	1691.64	50					M25
Cr III	1691.76	40		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - x^3F^\circ$	4 - 3	M25
Cr III	1692.31	30					M25
Cr III	1692.63	20					M25
Cr III	1692.89	600	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	3 - 4	M25
Cr III	1693.43	30					M25
Cr III	1693.72	20					M25
Cr III	1694.53	70					M25
Cr III	1694.92	70					M25
Cr III	1695.77	70		$3d^3(a^2P)4s - 3d^3(a^2F)4p$	$d^3P - w^3F^\circ$?	1 - 2	M25
Cr III	1696.27	70					M25
Cr III	1696.64	600	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	4 - 5	M25
Cr III	1696.85	20					M25
Cr III	1697.43	60					M25
Cr III	1697.84	40	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	3 - 3	M25
Cr III	1698.03	40					M25
Cr III	1698.55	30					M25
Cr III	1698.75	200					M25
Cr III	1699.35	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^1G^\circ - f^3I$?	4 - 5	M25
Cr III	1699.84	20		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - z^5P^\circ$?	2 - 2	M25
Cr III	1700.12	20					M25
Cr III	1700.29	200	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	4 - 4	M25
Cr III	1701.05	30		$3d^4 - 3d^3(a^4F)4p$	$a^1F - z^3G^\circ$?	3 - 3	M25
Cr III	1701.32	20	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$?	3 - 4	M25
Cr III	1701.48	600	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	5 - 6	M25
Cr III	1702.89	80	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	4 - 4	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1703.73	40					M25
Cr III	1704.79	10					M25
Cr III	1705.36	10		$3d^3(a^2G)4p - 3d^3(a^2G)4d$	$z^3H^\circ - f^3H$?	5 - 6	M25
Cr III	1705.76	10h		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3F$?	3 - 3	M25
Cr III	1705.96	80					M25
Cr III	1706.15	50					M25
Cr III	1707.27	30					M25
Cr III	1707.43	800	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	6 - 7	M25
Cr III	1707.78	400		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	4 - 3	M25
Cr III	1708.51	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^3D^\circ$	2 - 2	M25
Cr III	1708.98	60	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	5 - 5	M25
Cr III	1710.10	30					M25
Cr III	1710.60	20	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	4 - 3	M25
Cr III	1711.02	200					M25
Cr III	1711.12 P	5	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 3	M25
Cr III	1711.63	200	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 3	M25
Cr III	1712.24	20					M25
Cr III	1712.52	10					M25
Cr III	1712.85	10					M25
Cr III	1713.43	50		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3F$?	4 - 3	M25
Cr III	1714.01	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3G$?	4 - 4	M25
Cr III	1714.26	10					M25
Cr III	1714.63	40					M25
Cr III	1715.17	30					M25
Cr III	1715.65	20h					M25
Cr III	1716.21	40	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	6 - 6	M25
Cr III	1716.33	40					M25
Cr III	1716.50	40		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - g^3H$?	5 - 6	M25
Cr III	1717.43	200		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3G$?	3 - 3	M25
Cr III	1717.65	40					M25
Cr III	1717.92	40					M25
Cr III	1718.16	40		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3F$?	5 - 4	M25
Cr III	1719.78	5		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - y^3H^\circ$	4 - 4	M25
Cr III	1720.00	80	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 2	M25
Cr III	1720.25	80		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^3D^\circ$	4 - 3	M25
Cr III	1720.51	20h	34	$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 2	M25
Cr III	1721.18	150					M25
Cr III	1721.43	10					M25
Cr III	1721.67	200		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - g^3H$?	6 - 6	M25
Cr III	1721.84	70h		$3d^3(a^2G)4p - 3d^3(a^2G)4d$	$z^3H^\circ - f^3H$?	6 - 6	M25
Cr III	1722.19	70		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^3D^\circ$	2 - 1	M25
Cr III	1722.38	70		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3F^\circ - f^3F$?	3 - 4	M25
Cr III	1723.16	100		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - f^3I$?	6 - 7	M25
Cr III	1723.50	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3G$?	5 - 4	M25
Cr III	1723.83	10	71	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	6 - 5	M25
Cr III	1724.32	120		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - f^3I$?	5 - 6	M25
Cr III	1725.12	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3G$?	4 - 3	M25
Cr III	1725.29	150					M25
Cr III	1725.60	40		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$?	0 - 1	M25
Cr III	1726.00	20					M25
Cr III	1726.61	20					M25
Cr III	1727.11	70					M25
Cr III	1727.51	10					M25
Cr III	1727.78	10					M25
Cr III	1727.97	10					M25
Cr III	1728.24	20					M25
Cr III	1728.34	80					M25
Cr III	1729.79	40		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3G^\circ - f^5F$?	4 - 4	M25
Cr III	1730.34	10					M25
Cr III	1730.92	5		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - w^3F^\circ$	1 - 2	M25
Cr III	1731.53	20		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$?	4 - 5	M25
Cr III	1731.76	90b		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$?	3 - 4	M25
Cr III?	1732.06	200					M25
Cr III	1732.85	50		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5D$?	4 - 4	M25
Cr III	1733.00	200		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3F^\circ - f^3F$?	4 - 4	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Cr III	1733.13	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	2 - 3	M25
Cr III	1734.83	70						M25
Cr III	1735.20	70		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - f^3I$	?	4 - 5	M25
Cr III	1735.61	10		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - w^3F^\circ$		2 - 3	M25
Cr III	1735.76	10						M25
Cr III	1736.49	30		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - w^3F^\circ$		2 - 2	M25
Cr III	1736.63	200		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	1 - 1	M25
Cr III	1737.47	30						M25
Cr III	1738.23	120		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - w^3F^\circ$		3 - 4	M25
Cr III	1738.90	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	2 - 2	M25
Cr III	1740.06	10						M25
Cr III	1740.31	20		$3d^3(a^2D)4s - 3d^3(a^2F)4p$	$b^3D - w^3F^\circ$		3 - 3	M25
Cr III	1740.78	60		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5D$	?	5 - 4	M25
Cr III	1742.19	150						M25
Cr III	1742.52	20						M25
Cr III	1742.96	70		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	3 - 3	M25
Cr III	1743.44	100		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^3H^\circ - f^3I$	?	6 - 5	M25
Cr III	1743.65	30						M25
Cr III	1743.87	30		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	2 - 1	M25
Cr III	1744.07	20		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	3 - 4	M25
Cr III	1744.81	30		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - v^3D^\circ$	?	3 - 3	M25
Cr III	1745.04	40						M25
Cr III	1745.55	80h		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3F^\circ - f^3F$	?	3 - 2	M25
Cr III	1746.48	10						M25
Cr III	1746.77	200		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^3H$	?	5 - 6	M25
Cr III	1747.14	300		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5G$	?	5 - 6	M25
Cr III	1747.30	70		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	5 - 5	M25
Cr III	1748.74	80						M25
Cr III	1748.87	40		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	3 - 2	M25
Cr III	1749.67	70						M25
Cr III	1749.88	10						M25
Cr III	1750.27	20		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$		4 - 5	M25
Cr III	1750.98	10		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3F^\circ$	?	5 - 4	M25
Cr III	1751.34	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	4 - 4	M25
Cr III	1752.47	80						M25
Cr III	1753.23	30						M25
Cr III	1753.60	30						M25
Cr III	1754.36	20						M25
Cr III	1754.76	300		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5F$	?	4 - 3	M25
Cr III	1754.94	20						M25
Cr III	1755.24	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	2 - 2	M25
Cr III	1755.46	200		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	3 - 3	M25
Cr III	1755.78	100		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	1 - 1	M25
Cr III	1756.29	30						M25
Cr III	1756.58	10						M25
Cr III	1756.97	10						M25
Cr III	1757.45	10						M25
Cr III	1757.95	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3F$	?	2 - 2	M25
Cr III	1758.20	50		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3F$	?	3 - 4	M25
Cr III	1759.19	30						M25
Cr III	1759.34	20		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	5 - 4	M25
Cr III	1759.50	50						M25
Cr III	1760.31	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	2 - 1	M25
Cr III	1761.38	40h		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5F$	?	3 - 2	M25
Cr III	1761.73	20						M25
Cr III	1762.52	30b		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^1H^\circ - g^3H$	?	5 - 6	M25
Cr III	1762.81	450		$3d^3(a^2G)4p - 3d^3(a^2G)4d$	$y^3G^\circ - f^3H$	?	5 - 6	M25
Cr III	1763.13	70		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3F$	?	3 - 3	M25
Cr III	1763.77	150		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3G$	?	3 - 4	M25
Cr III	1764.16	10						M25
Cr III	1765.06	120		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^5F$	?	1 - 1	M25
Cr III	1765.53	10						M25
Cr III	1765.93	10		$3d^4 - 3d^3(a^4F)4p$	$a^1F - z^3D^\circ$	?	3 - 3	M25
Cr III	1766.08	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3G$	?	2 - 3	M25
Cr III	1766.58	60						M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Cr III	1766.92	300						M25
Cr III	1767.18	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^5F$	?	2 - 2	M25
Cr III	1768.32	40						M25
Cr III	1768.50	40						M25
Cr III	1768.78	50		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$		2 - 3	M25
Cr III	1769.03	100						M25
Cr III	1769.17	300		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3F$	?	4 - 4	M25
Cr III	1770.10	30						M25
Cr III	1770.35	20						M25
Cr III	1770.66	20		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^1H^\circ - f^3I$	?	5 - 6	M25
Cr III	1770.96	30h		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^1G^\circ - g^3H$	?	4 - 5	M25
Cr III	1772.46	40		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$z^3I^\circ - g^3H$	?	5 - 5	M25
Cr III	1772.60	50						M25
Cr III	1773.32	20h		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$z^3I^\circ - f^3I$	?	6 - 7	M25
Cr III	1773.70	10		$3d^3(a^2G)4p - 3d^3(a^2H)4d$	$z^1H^\circ - g^3H$	?	5 - 5	M25
Cr III	1774.51	20						M25
Cr III	1774.89	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^3G$	?	4 - 4	M25
Cr III	1775.06	30						M25
Cr III	1777.27	40						M25
Cr III	1777.49	10						M25
Cr III	1778.93	200		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5D^\circ - e^5H$		3 - 3	M25
Cr III	1779.91	40						M25
Cr III	1779.99	40						M25
Cr III	1780.14	50		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$z^3I^\circ - f^3I$	?	6 - 6	M25
Cr III	1781.45	20						M25
Cr III	1781.73	10						M25
Cr III	1782.07	100						M25
Cr III	1782.99	250						M25
Cr III	1783.95	200		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$z^3I^\circ - f^3I$	?	5 - 5	M25
Cr III	1784.43	150						M25
Cr III	1784.72	50						M25
Cr III	1785.53	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5H$		2 - 3	M25
Cr III	1787.18	120b		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5H$		5 - 6	M25
Cr III	1789.24	30		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3F^\circ - f^5F$	?	3 - 3	M25
Cr III	1789.77	40						M25
Cr III	1790.48	40						M25
Cr III	1790.71	10						M25
Cr III	1792.73	80						M25
Cr III	1793.60	10						M25
Cr III	1793.75	50		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$		2 - 2	M25
Cr III	1793.95	80		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5F^\circ - e^5H$		4 - 4	M25
Cr III	1794.47	10						M25
Cr III	1795.58	30		$3d^3(a^4F)4p - 3d^3(a^4F)5s$	$z^3F^\circ - f^5F$	?	3 - 2	M25
Cr III	1796.37	10						M25
Cr III	1796.89	10						M25
Cr III	1798.33	50						M25
Cr III	1798.97	20						M25
Cr III	1799.40	10						M25
Cr III	1800.84	10						M25
Cr III	1801.46	10						M25
Cr III	1802.60	120		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$		3 - 3	M25
Cr III	1803.47	10h						M25
Cr III	1804.85	10		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$		3 - 2	M25
Cr III	1807.45	10						M25
Cr III	1809.58	10h						M25
Cr III	1810.14	30		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3D^\circ - e^5H$		3 - 3	M25
Cr III	1810.77	30		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5D$	?	3 - 4	M25
Cr III	1810.92	40						M25
Cr III	1812.24	40		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$a^5P - w^3D^\circ$	?	3 - 3	M25
Cr III	1815.49	80						M25
Cr III	1816.09	10						M25
Cr III	1817.16	100						M25
Cr III	1817.79	20						M25
Cr III	1818.28	40						M25
Cr III	1819.79	30		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$	?	4 - 4	M25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr III	1821.08	20					M25
Cr III	1822.26	20		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - x^3G^\circ$	3 - 3	M25
Cr III	1825.66	10					M25
Cr III	1827.26	300	46	$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	2 - 3	M25
Cr III	1829.39	20					M25
Cr III	1829.72	100	46	$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	3 - 4	M25
Cr III	1831.15	100					M25
Cr III	1831.60	10					M25
Cr III	1832.34	10					M25
Cr III	1832.87	40					M25
Cr III	1833.00	10					M25
Cr III	1834.68	10					M25
Cr III	1837.05	100	46	$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5G$	5 - 6	M25
Cr III	1838.34	30h		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	4 - 3	M25
Cr III	1839.72	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5F$?	4 - 4	M25
Cr III	1840.48	10		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^5F^\circ$?	4 - 5	M25
Cr III	1840.69	10					M25
Cr III	1843.40	100d		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5F$?	3 - 3	M25
Cr III	1844.99	100d					M25
Cr III	1846.45	80		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$y^1H^\circ - f^3I$?	5 - 5	M25
Cr III	1846.71	10					M25
Cr III	1848.56	100					M25
Cr III	1848.96	30					M25
Cr III	1849.76	10					M25
Cr III	1849.99	30h		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5F$?	3 - 2	M25
Cr III	1850.45	10					M25
Cr III	1852.31	30		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3G^\circ - e^5F$	4 - 3	M25
Cr III	1853.36	10					M25
Cr III	1856.20	10					M25
Cr III	1857.59	20		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^5F^\circ$?	4 - 3	M25
Cr III	1858.03	10h					M25
Cr III	1866.12	10					M25
Cr III	1866.63	20					M25
Cr III	1867.52	10		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$a^5P - x^3F^\circ$	3 - 4	M25
Cr III	1871.00	20					M25
Cr III	1875.52	10		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^5D$?	3 - 4	M25
Cr III	1877.93	10					M25
Cr III	1878.77	20		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$x^3G^\circ - g^3H$?	5 - 6	M25
Cr III	1878.99	20		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$a^5P - x^3F^\circ$	2 - 2	M25
Cr III	1881.02	20h		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^5D^\circ$	3 - 4	M25
Cr III	1881.33	20					M25
Cr III	1881.73	20					M25
Cr III	1884.30	5		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^5D^\circ$	2 - 3	M25
Cr III	1884.49	5		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^5D^\circ$	3 - 2	M25
Cr III	1885.50	50					M25
Cr III	1887.83	5		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$a^5P - x^3F^\circ$	3 - 2	M25
Cr III	1888.83	10					M25
Cr III	1893.30	10		$3d^3(a^2H)4p - 3d^3(a^2H)4d$	$x^3G^\circ - g^3H$?	4 - 5	M25
Cr III	1894.05	20					M25
Cr III	1896.09	30		$3d^3(a^2H)4p - 3d^3(a^2G)4d$	$y^3H^\circ - f^3H$?	6 - 6	M25
Cr III	1896.39	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^5D^\circ$	4 - 4	M25
Cr III	1899.15	10					M25
Cr III	1899.56	20h		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^5F$?	2 - 3	M25
Cr III	1900.02	20h					M25
Cr III	1900.66	30h					M25
Cr III	1902.19	20h		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - w^3D^\circ$	4 - 3	M25
Cr III	1902.59	20h					M25
Cr III	1903.29	5		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - z^3H^\circ$	3 - 4	M25
Cr III	1903.98	5		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - z^3H^\circ$	4 - 5	M25
Cr III	1904.84	30h					M25
Cr III	1906.12	40					M25
Cr III	1910.33	50					M25
Cr III	1911.66	80					M25
Cr III	1912.50	40		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F^\circ - e^5F$?	2 - 1	M25
Cr III	1913.85	20					M25

Cr III

Element	Wavelength		Intensity	Multiplet	Configuration	Term		J - J	References
Cr III	1914.87		30h						M25
Cr III	1917.52		10		$3d^3(a^4P)4s - 3d^3(a^2H)4p$	$a^5P - y^3H°$	?	3 - 4	M25
Cr III	1918.27		40		$3d^3(a^4P)4s - 3d^3(a^4P)4p$	$a^5P - y^3D°$	?	3 - 3	M25
Cr III	1918.51		5		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$c^1G - x^3G°$		4 - 5	M25
Cr III	1918.61		40		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3F°$	?	2 - 3	M25
Cr III	1919.05		30		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - z^3H°$		4 - 4	M25
Cr III	1922.72		20		$3d^3(a^4P)4s - 3d^3(a^4P)4p$	$a^5P - y^3D°$		2 - 2	M25
Cr III	1923.41		10						M25
Cr III	1925.26		10						M25
Cr III	1926.64		40						M25
Cr III	1928.61		10						M25
Cr III	1929.72	P	10		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$c^3P - w^3D°$		1 - 2	M25
Cr III	1930.39		20		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - z^5P°$	?	3 - 3	M25
Cr III	1934.58		10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3F°$		5 - 4	M25
Cr III	1937.84		30						M25
Cr III	1939.44		20						M25
Cr III	1942.30		50		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^3F° - e^5H$	?	2 - 3	M25
Cr III	1942.73		10						M25
Cr III	1944.94		5		$3d^3(a^4P)4s - 3d^3(a^2D)4p$	$c^3P - w^3D°$		2 - 3	M25
Cr III	1953.26		50						M25
Cr III	1956.36		40h		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - z^3I°$	?	4 - 5	M25
Cr III	1956.93		50						M25
Cr III	1957.88		10		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - x^3F°$		3 - 4	M25
Cr III	1958.05		10		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^1G°$		4 - 4	M25
Cr III	1960.18		10h						M25
Cr III	1960.69		10						M25
Cr III	1961.93		10						M25
Cr III	1962.16		5		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^1H°$		5 - 5	M25
Cr III	1962.37		10						M25
Cr III	1963.15		80		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - x^3F°$		4 - 4	M25
Cr III	1965.56		200		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^1G°$		5 - 4	M25
Cr III	1966.57		10						M25
Cr III	1971.11		20						M25
Cr III	1972.45		100						M25
Cr III	1973.20		70						M25
Cr III	1974.03		50		$3d^3(a^2H)4p - 3d^3(a^2G)4d$	$z^3I° - f^3H$	?	7 - 6	M25
Cr III	1974.43		60						M25
Cr III	1974.70		10		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - x^3F°$		3 - 3	M25
Cr III	1975.56		100						M25
Cr III	1975.90		10						M25
Cr III	1976.07		30						M25
Cr III	1978.91		40						M25
Cr III	1980.09		100		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - x^3F°$		4 - 3	M25
Cr III	1980.24		100		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$b^3G - x^3F°$		3 - 2	M25
Cr III	1981.61		40		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$c^1G - y^1H°$	?	4 - 5	M25
Cr III	1981.82		20						M25
Cr III	1986.54		50						M25
Cr III	1986.82		10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G°$		4 - 5	M25
Cr III	1987.00		10						M25
Cr III	1987.19		10						M25
Cr III	1987.42		30h	49	$3d^3(a^4P)4s - 3d^3(a^4P)4p$	$a^5P - z^5S°$		1 - 2	M25
Cr III	1987.62		150						M25
Cr III	1989.18	P	60		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G°$		3 - 4	M25,B25
Cr III	1989.64		10						M25
Cr III	1991.17		40						M25
Cr III	1992.57		100						M25
Cr III	1992.72		250	49	$3d^3(a^4P)4s - 3d^3(a^4P)4p$	$a^5P - z^5S°$		2 - 2	M25
Cr III	1995.09		50						M25
Cr III	1996.03		10						M25
Cr III	1996.70		20h		$3d^3(a^4P)4p - 3d^3(a^4F)5s$	$y^5D° - f^3F$	?	3 - 4	M25
Cr III	1997.12		10						M25
Cr III	1999.12		20		$3d^3(a^2G)4s - 3d^3(a^2D)4p$	$c^1G - w^3D°$	?	4 - 3	M25
Cr III	1999.47		60		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G°$		5 - 5	M25

525-206 O - 73 - 25

Cr IV

CHROMIUM IV (Cr^{3+}), Z = 24

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^3$ $^4F_{3/2}$ (21 electrons)

Ionization Potential [396 000] cm^{-1}; [49.1] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Cr IV	573.82		100		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	B25
Cr IV	575.11		250		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	B25
Cr IV	575.88		50		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 3/2	B25
Cr IV	576.30		150		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	B25
Cr IV	576.68		150		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	B25
Cr IV	595.09		150		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	B25
Cr IV	612.70		250		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4P^\circ$	3/2 - 5/2	B25
Cr IV	613.76		200		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4P^\circ$	5/2 - 5/2	B25
Cr IV	614.09		200		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	B25
Cr IV	614.51		20		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4P^\circ$	3/2 - 3/2	B25
Cr IV	614.95		200		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	B25
Cr IV	615.36		150		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 7/2	B25
Cr IV	615.68		150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4P^\circ$	5/2 - 3/2	B25
Cr IV	616.82		250		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	B25
Cr IV	617.05		100	4	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 5/2	M23
Cr IV	617.94	P	20	3	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 7/2	M22,W4
Cr IV	618.22		200	4	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	7/2 - 5/2	M23
Cr IV	619.12		200	4	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 3/2	M23
Cr IV	620.65		500	3	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	9/2 - 7/2	M23
Cr IV	621.33		300	3	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 5/2	M23
Cr IV	622.07		200	3	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 3/2	M23
Cr IV	623.59		150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	B25
Cr IV	625.08		200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	9/2 - 7/2	B25
Cr IV	625.40		100		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	B25
Cr IV	625.95		200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 5/2	B25
Cr IV	626.58		50		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	B25
Cr IV	627.70		50	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 9/2	M23
Cr IV	628.46		100	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 7/2	M23
Cr IV	629.26	P	500	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 9/2	M23
Cr IV	629.32	P	80	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 5/2	M23,W4
Cr IV	629.73		250	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 7/2	M23
Cr IV	630.28		400	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 5/2	M23
Cr IV	630.77		100	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 3/2	M23
Cr IV	630.92		50	1	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 11/2	M23
Cr IV	631.30	P	40	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 7/2	M22,W4
Cr IV	631.55	P	40	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 5/2	M22,W4
Cr IV	631.74	P	40	2	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	M22,W4
Cr IV	632.60		150	1	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 9/2	M23
Cr IV	634.13		100	1	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 7/2	M23
Cr IV	635.45		50	1	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	3/2 - 5/2	M23
Cr IV	636.44	P	1	1	$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 5/2	M22,W4
Cr IV	636.92		100		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4S^\circ$	1/2 - 3/2	B25
Cr IV	637.40		150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4S^\circ$	3/2 - 3/2	B25
Cr IV	637.54		250	10	$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	M23
Cr IV	638.12		250	10	$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	M23
Cr IV	638.61		150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4S^\circ$	5/2 - 3/2	B25
Cr IV	665.00		30	7	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 9/2	M22,W4
Cr IV	666.55		500	7	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	M23
Cr IV	667.31		375	7	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	M23
Cr IV	668.87		80	7	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	M22,W4
Cr IV	675.14		150		$3d^3 - 3d^2(a^3F)4p$	$a^2P - z^2D^\circ$	3/2 - 5/2	B25
Cr IV	676.47		100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 5/2	B25
Cr IV	677.54		200	5	$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	M23
Cr IV	678.91		100	5	$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	M23
Cr IV	679.19		20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2D^\circ$	7/2 - 5/2	B25
Cr IV	680.15		100	5	$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	M23
Cr IV	680.62		40	5	$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	M23
Cr IV	681.20		100	5	$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	B25
Cr IV	681.88		150		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	9/2 - 7/2	B25
Cr IV	682.82		200		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	7/2 - 5/2	B25

Cr IV

Element	Wavelength		Intensity	Multiplet	Configuration	Term		J - J	References
Cr IV	684.35		50		$3d^3 - 3d^2(a^3F)4p$	$a^2P - z^2F^\circ$		3/2 - 5/2	B25
Cr IV	687.13		200	6	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$		9/2 - 7/2	M23
Cr IV	688.47		250	6	$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$		7/2 - 5/2	M23
Cr IV	692.70	P	60	9	$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$		9/2 - 9/2	M22,W4
Cr IV	693.93		500	9	$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$		11/2 - 9/2	M23
Cr IV	695.22		250	9	$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$		9/2 - 7/2	M23
Cr IV	706.00		250	8	$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$		5/2 - 5/2	M23
Cr IV	712.91		150		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	?	5/2 - 7/2	M25,K8
Cr IV	816.92		10		$3d^3 - 3d^2(a^3F)4p$	$a^2F - z^4F^\circ$	?	7/2 - 5/2	M25,K8
Cr IV	996.50		10		$3d^2(a^3F)4p - 3d^2(a^1G)4d$	$z^4G^\circ - e^2H$	?	11/2 - 11/2	M25,K8
Cr IV	1002.39		30		$3d^2(a^3F)4p - 3d^2(a^1G)4d$	$z^4G^\circ - e^2H$	?	9/2 - 9/2	M25,K8
Cr IV	1010.82		10		$3d^2(a^3F)4p - 3d^2(a^1G)4d$	$z^4G^\circ - e^2H$	?	11/2 - 9/2	M25,K8
Cr IV	1026.38		100		$3d^2(a^3F)4p - 3d^2(a^1G)4d$	$z^4D^\circ - f^2G$	?	7/2 - 9/2	M25,K8
Cr IV	1049.14		10		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4G^\circ - f^4F$	?	5/2 - 7/2	M25,K8
Cr IV	1055.43		10		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4G^\circ - f^4F$	?	7/2 - 7/2	M25,K8
Cr IV	1055.89		400		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4G^\circ - f^4F$	?	5/2 - 3/2	M25,K8
Cr IV	1057.85		300		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4F^\circ - f^2F$	?	5/2 - 5/2	M25,K8
Cr IV	1066.36		50		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4F^\circ - f^4F$	?	3/2 - 5/2	M25,K8
Cr IV	1070.55		30b		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4F^\circ - f^4F$	?	5/2 - 5/2	M25,K8
Cr IV	1090.97		30		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^2D^\circ - f^2F$	?	3/2 - 5/2	M25,K8
Cr IV	1092.23		10		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4D^\circ - f^4F$	?	1/2 - 3/2	M25,K8
Cr IV	1098.06		10		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^4D^\circ - f^4F$	?	3/2 - 3/2	M25,K8
Cr IV	1111.17		10		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^2D^\circ - f^4F$	?	5/2 - 5/2	M25,K8
Cr IV	1122.87		30		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^2G^\circ - f^2F$	?	7/2 - 7/2	M25,K8
Cr IV	1144.31		70		$3d^2(a^3F)4p - 3d^2(a^3F)5s$	$z^2G^\circ - f^4F$	?	7/2 - 5/2	M25,K8
Cr IV	1207.58		100		$3d^2(a^1D)4p - 3d^2(a^3F)5s$	$y^2D^\circ - f^4F$	?	5/2 - 3/2	M25,K8
Cr IV	1227.43		10		$3d^2(a^1G)4p - 3d^2(a^1G)4d$	$y^2G^\circ - f^2G$	?	9/2 - 9/2	M25,K8
Cr IV	1315.00		100b		$3d^2(a^1G)4p - 3d^2(a^1G)4d$	$z^2H^\circ - f^2G$	?	11/2 - 9/2	M25,K8
Cr IV	1315.86	P	125		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		5/2 - 7/2	M22,W4
Cr IV	1319.68	P	150		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		7/2 - 9/2	M22,W4
Cr IV	1320.85		40		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^2F$	?	7/2 - 7/2	M25,K8
Cr IV	1325.03	P	200		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		9/2 - 11/2	M22,W4
Cr IV	1325.86	P	50		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		7/2 - 7/2	M22,W4
Cr IV	1331.91	P	50		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		9/2 - 9/2	M22,W4
Cr IV	1332.44	P	250		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		11/2 - 13/2	M22,W4
Cr IV	1338.20	P	10		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		9/2 - 7/2	M22,W4
Cr IV	1339.84	P	50		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4F$		11/2 - 9/2	M22,W4
Cr IV	1346.62	P	10		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4G^\circ - e^4H$		11/2 - 9/2	M22,W4
Cr IV	1348.44		20		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4F^\circ - e^2G$	?	7/2 - 9/2	M25,K8
Cr IV	1351.63		40		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2F^\circ - e^2G$	?	5/2 - 7/2	M25,K8
Cr IV	1359.93		10		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4F^\circ - e^2G$	?	7/2 - 7/2	M25,K8
Cr IV	1364.49		10		$3d^2(a^3F)4s - 3d^2(a^1G)4p$	$b^4F - y^2G^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1367.39		150		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2F^\circ - e^2F$	?	5/2 - 5/2	M25,K8
Cr IV	1369.58		20		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4F^\circ - e^2G$	?	9/2 - 7/2	M25,K8
Cr IV	1373.46		20		$3d^2(a^3F)4s - 3d^2(a^1G)4p$	$b^4F - y^2G^\circ$	?	9/2 - 7/2	M25,K8
Cr IV	1375.56		200		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2F^\circ - e^2F$	?	7/2 - 7/2	M25,K8
Cr IV	1383.24		10		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2F^\circ - e^4G$	?	7/2 - 9/2	M25,K8
Cr IV	1388.49		20		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4D^\circ - e^4F$	?	7/2 - 9/2	M25,K8
Cr IV	1395.83		30h		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4D^\circ - e^4H$	?	7/2 - 9/2	M25,K8
Cr IV	1399.50		10		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^4D^\circ - e^2G$	?	7/2 - 9/2	M25,K8
Cr IV	1401.81		30		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2D^\circ - e^2F$	?	5/2 - 7/2	M25,K8
Cr IV	1410.37		20		$3d^2(a^3F)4s - 3d^2(a^1D)4p$	$b^4F - y^2F^\circ$	?	5/2 - 7/2	M25,K8
Cr IV	1412.24		30		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2D^\circ - e^4G$	?	3/2 - 5/2	M25,K8
Cr IV	1423.16		100		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2D^\circ - e^4G$	?	5/2 - 5/2	M25,K8
Cr IV	1424.62		100		$3d^2(a^1S)4p - 3d^2(a^3F)5s$	$x^2P^\circ - f^4F$	?	3/2 - 5/2	M25,K8
Cr IV	1426.58		10		$3d^2(a^3F)4s - 3d^2(a^3P)4p$	$b^4F - y^4D^\circ$	?	3/2 - 5/2	M25,K8
Cr IV	1427.71		10		$3d^2(a^1S)4p - 3d^2(a^3F)5s$	$x^2P^\circ - f^4F$	?	1/2 - 3/2	M25,K8
Cr IV	1429.41		10		$3d^2(a^1S)4p - 3d^2(a^3F)5s$	$x^2P^\circ - f^4F$	?	3/2 - 3/2	M25,K8
Cr IV	1447.03		10		$3d^2(a^1G)4p - 3d^2(a^3F)5s$	$x^2F^\circ - f^2F$	?	7/2 - 7/2	M25,K8
Cr IV	1461.04		20		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2G^\circ - e^4H$	?	7/2 - 7/2	M25,K8
Cr IV	1466.14		20		$3d^2(a^3F)4p - 3d^2(a^3F)4d$	$z^2G^\circ - e^2F$	?	9/2 - 7/2	M25,K8
Cr IV	1475.10		10		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^4G - y^4G^\circ$	?	5/2 - 7/2	M25,K8
Cr IV	1482.07		20		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^2G - y^4G^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1482.36		20		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^4G - y^4G^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1485.04		150		$3d^2(a^3F)4s - 3d^2(a^1G)4p$	$b^2F - y^2G^\circ$	?	7/2 - 9/2	M25,K8

Element	Wavelength		Intensity	Multiplet	Configuration	Term		J - J	References
Cr IV	1500.46		10		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^4H - y^4G^\circ$	?	9/2 - 7/2	M25,K8
Cr IV	1508.89		120		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^4F - y^4G^\circ$	?	9/2 - 7/2	M25,K8
Cr IV	1509.85		10		$3d^2(a^3F)4d - 3d^2(a^3F)4f$	$e^4H - y^4G^\circ$	?	11/2 - 11/2	M25,K8
Cr IV	1533.42		20		$3d^2(a^3F)4s - 3d^2(a^1D)4p$	$b^2F - y^2F^\circ$	?	5/2 - 7/2	M25,K8
Cr IV	1551.20		10		$3d^2(a^3F)4s - 3d^2(a^1D)4p$	$b^2F - y^2F^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1553.09		10		$3d^2(a^1D)4p - 3d^2(a^3F)4d$	$y^2D^\circ - e^2F$	?	5/2 - 7/2	M25,K8
Cr IV	1644.63		50		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2G^\circ$	?	7/2 - 9/2	M25,K8
Cr IV	1685.02		40		$3d^2(a^3P)4p - 3d^2(a^3F)4d$	$y^4D^\circ - e^2F$	?	5/2 - 5/2	M25,K8
Cr IV	1704.48		10		$3d^2(a^3P)4p - 3d^2(a^3F)4d$	$x^2D^\circ - e^2F$	?	5/2 - 7/2	M25,K8
Cr IV	1704.57		10		$3d^2(a^3P)4p - 3d^2(a^3F)4d$	$y^4D^\circ - e^2G$	?	7/2 - 9/2	M25,K8
Cr IV	1706.65		30h		$3d^2(a^3P)4p - 3d^2(a^3F)4d$	$y^4D^\circ - e^2F$	?	7/2 - 5/2	M25,K8
Cr IV	1709.89		50		$3d^2(a^1D)4p - 3d^2(a^3F)4d$	$y^2F^\circ - e^2F$	?	7/2 - 7/2	M25,K8
Cr IV	1713.69		50		$3d^2(a^1D)4p - 3d^2(a^3F)4d$	$y^2F^\circ - e^2G$	?	7/2 - 9/2	M25,K8
Cr IV	1715.04		30		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2D^\circ$	?	3/2 - 5/2	M25,K8
Cr IV	1722.84		100	14	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2D^\circ$		5/2 - 5/2	B25
Cr IV	1726.82		30		$3d^2(a^3P)4p - 3d^2(a^3F)4d$	$x^2D^\circ - e^2G$	?	5/2 - 7/2	M25,K8
Cr IV	1729.93		50		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$	?	5/2 - 7/2	M25,K8
Cr IV	1731.22		100	14	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2D^\circ$		3/2 - 3/2	M23
Cr IV	1733.93		200	14	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2D^\circ$		7/2 - 5/2	B25
Cr IV	1734.12	P	100		$3d^2(a^1G)4s - 3d^2(a^1G)4p$	$b^2G - x^2F^\circ$		9/2 - 7/2	M22,W4
Cr IV	1734.68		60		$3d^2(a^1G)4s - 3d^2(a^1G)4p$	$b^2G - x^2F^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1739.22		250	14	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2D^\circ$		5/2 - 3/2	M23
Cr IV	1741.10	P	75	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		7/2 - 7/2	M22,W4
Cr IV	1741.93		30		$3d^2(a^1D)4p - 3d^2(a^3F)4d$	$y^2F^\circ - e^4G$	?	7/2 - 5/2	M25,K8
Cr IV	1746.94		350	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		5/2 - 5/2	B25
Cr IV	1754.51	P	250	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		3/2 - 3/2	B25
Cr IV	1755.65		100	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		9/2 - 7/2	M23
Cr IV	1758.47		100	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		7/2 - 5/2	B25
Cr IV	1762.61	P	250	13	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$		5/2 - 3/2	B25
Cr IV	1775.90		70		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2F^\circ$	?	7/2 - 7/2	M25,K8
Cr IV	1784.18	P	150		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2F^\circ$		5/2 - 5/2	B25
Cr IV	1791.04		200		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2F^\circ$		9/2 - 7/2	B25
Cr IV	1796.09		50		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2F^\circ$		7/2 - 5/2	B25
Cr IV	1797.92		20		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$y^2G^\circ - e^4G$	?	9/2 - 11/2	M25,K8
Cr IV	1802.30		30		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$y^2G^\circ - e^2G$	?	9/2 - 9/2	M25,K8
Cr IV	1810.46	P	150	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		7/2 - 9/2	M22,W4
Cr IV	1815.05	P	150	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		5/2 - 7/2	M22,W4
Cr IV	1818.90		10b		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$y^2G^\circ - e^4G$	?	7/2 - 7/2	M25,K8
Cr IV	1819.18		300	16	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2G^\circ$		5/2 - 7/2	M23
Cr IV	1821.56	P	100	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		3/2 - 5/2	M22,W4
Cr IV	1822.49		20		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$y^2G^\circ - e^4G$	?	9/2 - 7/2	M25,K8
Cr IV	1826.16		150	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		9/2 - 9/2	M23
Cr IV	1826.81		150	16	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2G^\circ$		7/2 - 9/2	M23
Cr IV	1827.39		50	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		7/2 - 7/2	M23
Cr IV	1830.29		50	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		5/2 - 5/2	M23
Cr IV	1833.79		75	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		3/2 - 3/2	M23
Cr IV	1840.10		500	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		9/2 - 11/2	M23
Cr IV	1842.84	P	125	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		7/2 - 5/2	M22,W4
Cr IV	1843.42	P	75	12	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$		9/2 - 7/2	M22,W4
Cr IV	1844.34	P	30	16	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2G^\circ$		7/2 - 7/2	M22,W4
Cr IV	1851.82		250	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		7/2 - 9/2	M23
Cr IV	1862.99		500	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		5/2 - 7/2	M23
Cr IV	1868.29	P	50	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		9/2 - 9/2	M22,W4
Cr IV	1873.86		125	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		3/2 - 5/2	M23
Cr IV	1876.00	P	60	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		7/2 - 7/2	M22,W4
Cr IV	1883.10	P	175	11	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$		5/2 - 5/2	M22,W4
Cr IV	1909.86	P	50		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2D^\circ$		5/2 - 5/2	M22,W4
Cr IV	1918.59		20		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^4D^\circ$		5/2 - 7/2	B25
Cr IV	1934.13		20		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$z^2H^\circ - e^4F$	?	9/2 - 9/2	M25,K8
Cr IV	1937.65		200		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2D^\circ$		7/2 - 5/2	B25
Cr IV	1939.64	P	100		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^4D^\circ$		5/2 - 5/2	M22,B25
Cr IV	1946.59		150		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^4D^\circ$		7/2 - 7/2	B25
Cr IV	1948.28		20		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$z^2H^\circ - e^4H$	?	9/2 - 9/2	M25,K8
Cr IV	1951.00		40		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$z^2H^\circ - e^2F$	?	9/2 - 7/2	M25,K8
Cr IV	1968.27	P	150		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^4D^\circ$		7/2 - 5/2	M22,B25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr IV	1985.58	75	15	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2F^\circ$	5/2 - 5/2	M23
Cr IV	1990.22	200	15	$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2F^\circ$	7/2 - 7/2	M23
Cr IV	1997.35	20		$3d^2(a^1G)4p - 3d^2(a^3F)4d$	$z^2H^\circ - e^2G$?	11/2 - 9/2	M25,K8

CHROMIUM V (Cr^{4+}), Z = 24

Ground State $1s^22s^22p^63s^23p^63d^2\ ^3F_2$ (20 electrons)

Ionization Potential [523 000] cm^{-1}; [71] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr V	433.13	50		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 4	W3,M22
Cr V	434.22			$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$?	2 - 3	W3,M22
Cr V	434.33	400		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$?	4 - 4	W3,M22
Cr V	435.16	300		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 3	W3,M22
Cr V	435.66	250		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	2 - 2	W3,M22
Cr V	436.37	250		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	4 - 3	W3,M22
Cr V	436.61	200		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 2	W3,M22
Cr V	437.43	200		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	3 - 3	W3,M22
Cr V	437.69	200		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	2 - 2	W3,M22
Cr V	438.62	300		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	2 - 1	W3,M22
Cr V	438.65	400		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	3 - 2	W3,M22
Cr V	438.66	500		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	4 - 3	W3,M22
Cr V	441.11	400		$3d^2 - 3d4p$	$a^1D - z^1P^\circ$	2 - 1	W3,M22
Cr V	446.71	50		$3d^2 - 3d4p$	$a^3P - z^1P^\circ$	2 - 1	W3,M22
Cr V	456.31	200		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 2	W3,M22
Cr V	456.36	100		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	0 - 1	W3,M22
Cr V	456.68	150		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 0	W3,M22
Cr V	456.79	150		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 1	W3,M22
Cr V	457.08	400		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 2	W3,M22
Cr V	457.56	150		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 1	W3,M22
Cr V	462.26	50		$3d^2 - 3d4p$	$a^1D - z^3F^\circ$	2 - 2	W3,M22
Cr V	464.03	1000		$3d^2 - 3d4p$	$a^1G - z^1F^\circ$	4 - 3	W3,M22
Cr V	469.34	300		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 3	W3,M22
Cr V	469.65	300		$3d^2 - 3d4p$	$a^1D - z^1D^\circ$	2 - 2	W3,M22
Cr V	469.95	200		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 2	W3,M22
Cr V	470.56	100		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	0 - 1	W3,M22
Cr V	470.75	50		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 2	W3,M22
Cr V	471.03	40		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 1	W3,M22
Cr V	1112.47	60		$3d4p - 3d4d$	$z^3F^\circ - e^3G$	2 - 3	W3,M22
Cr V	1117.55	80		$3d4p - 3d4d$	$z^3F^\circ - e^3G$	3 - 4	W3,M22
Cr V	1121.98	5		$3d4p - 3d4d$	$z^3F^\circ - e^3G$	3 - 3	W3,M22
Cr V	1123.62	100		$3d4p - 3d4d$	$z^3F^\circ - e^3G$	4 - 5	W3,M22
Cr V	1131.16	20		$3d4p - 3d4d$	$z^3F^\circ - e^3G$	4 - 4	W3,M22
Cr V	1481.69	300		$3d4s - 3d4p$	$a^3D - z^3P^\circ$	1 - 0	W3,M22
Cr V	1482.89	250		$3d4s - 3d4p$	$a^3D - z^3P^\circ$	1 - 1	W3,M22
Cr V	1484.67	150		$3d4s - 3d4p$	$a^3D - z^3P^\circ$	2 - 2	W3,M22
Cr V	1489.75	500		$3d4s - 3d4p$	$a^3D - z^3P^\circ$	2 - 1	W3,M22
Cr V	1498.02	700		$3d4s - 3d4p$	$a^3D - z^3P^\circ$	3 - 2	W3,M22
Cr V	1519.02	700		$3d4s - 3d4p$	$b^1D - z^1F^\circ$	2 - 3	W3,M22
Cr V	1579.67	800		$3d4s - 3d4p$	$a^3D - z^3F^\circ$	3 - 4	W3,M22
Cr V	1591.70	700		$3d4s - 3d4p$	$a^3D - z^3F^\circ$	2 - 3	W3,M22
Cr V	1603.17	600		$3d4s - 3d4p$	$a^3D - z^3F^\circ$	1 - 2	W3,M22
Cr V	1607.04	5		$3d4s - 3d4p$	$a^3D - z^3F^\circ$	3 - 3	W3,M22
Cr V	1611.27	5		$3d4s - 3d4p$	$a^3D - z^3F^\circ$	2 - 2	W3,M22
Cr V	1622.53	20		$3d4s - 3d4p$	$a^3D - z^3D^\circ$	2 - 3	W3,M22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr V	1630.91	100		3d4s - 3d4p	$a^3D - z^3D^\circ$	1 - 2	W3,M22
Cr V	1638.42	700		3d4s - 3d4p	$a^3D - z^3D^\circ$	3 - 3	W3,M22
Cr V	1639.35	500		3d4s - 3d4p	$a^3D - z^3D^\circ$	2 - 2	W3,M22
Cr V	1644.00	400		3d4s - 3d4p	$a^3D - z^3D^\circ$	1 - 1	W3,M22
Cr V	1652.52	200		3d4s - 3d4p	$a^3D - z^3D^\circ$	2 - 1	W3,M22
Cr V	1655.55	250		3d4s - 3d4p	$a^3D - z^3D^\circ$	3 - 2	W3,M22
Cr V?	1820.28	600					W3

CHROMIUM VI (Cr^{5+}), Z = 24

Ground State $1s^22s^22p^63s^23p^63d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 730 400 cm^{-1}; 90.56 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr VI	144.81	100		3d - 10f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	145.01	200		3d - 10f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	146.82	200		3d - 9f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	147.02	300		3d - 9f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	149.72	300		3d - 8f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	149.93	400		3d - 8f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	154.19	400		3d - 7f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	154.41	500		3d - 7f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	161.65	600		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^2D^\circ$	3/2 - 5/2	F31,C16
Cr VI	161.68	600		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^2D^\circ$	3/2 - 3/2	F31,C16
Cr VI	161.90	200		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^2D^\circ$	5/2 - 5/2	F31,C16
Cr VI	161.93	100		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^2D^\circ$	5/2 - 3/2	F31,C16
Cr VI	162.76	400		3d - 6f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	163.01	500		3d - 6f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	163.80	400		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^4D^\circ$?	3/2 - 3/2	F31,C16
Cr VI	164.30	100		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^4D^\circ$	3/2 - 5/2	F31,C16
Cr VI	164.56	300		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^4D^\circ$	5/2 - 5/2	F31,C16
Cr VI	164.84	300		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - ^4D^\circ$	5/2 - 7/2	F31,C16
Cr VI	168.09	700		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - ^2F^\circ$	3/2 - 5/2	F31,C16
Cr VI	168.35	300		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - ^2F^\circ$	5/2 - 5/2	F31,C16
Cr VI	169.44	800		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - ^2F^\circ$	5/2 - 7/2	F31,C16
Cr VI	170.57	200		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - ^4F^\circ$	3/2 - 5/2	F31,C16
Cr VI	171.39	400		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - ^4F^\circ$	5/2 - 7/2	F31,C16
Cr VI	172.20	200		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - ^2P^\circ$	3/2 - 3/2	F31,C16
Cr VI	172.48	600		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - ^2P^\circ$	5/2 - 3/2	F31,C16
Cr VI	172.83	500		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - ^2P^\circ$	3/2 - 1/2	F31,C16
Cr VI	174.17	300		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - ^4P^\circ$?	5/2 - 3/2	F31,C16
Cr VI	175.75	600		3d - 5f	$g^2D - ^2F^\circ$	3/2 - 5/2	A1
Cr VI	176.04	800		3d - 5f	$g^2D - ^2F^\circ$	5/2 - 7/2	A1
Cr VI	200.94	600		$3p^63d - 3p^53d^2$	$g^2D - ^2D^\circ$	3/2 - 3/2	G1,F11
Cr VI	201.15	300		$3p^63d - 3p^53d^2$	$g^2D - ^2D^\circ$	3/2 - 5/2	G1,F11
Cr VI	201.33	300		$3p^63d - 3p^53d^2$	$g^2D - ^2D^\circ$	5/2 - 3/2	G1,F11
Cr VI	201.54	600		$3p^63d - 3p^53d^2$	$g^2D - ^2D^\circ$	5/2 - 5/2	G1,F11
Cr VI	207.44	200		3d - 4f	$g^2D - ^2F^\circ$	3/2 - 5/2	G1,K28
Cr VI	207.61	300		3d - 4f	$g^2D - ^2F^\circ$	5/2 - 7/2	G1,K28
Cr VI	226.20	500		$3p^63d - 3p^53d^2$	$g^2D - ^2F^\circ$	5/2 - 7/2	G1,F11
Cr VI	227.20	400		$3p^63d - 3p^53d^2$	$g^2D - ^2F^\circ$	3/2 - 5/2	G1,F11
Cr VI	335.20			3d - 4p	$g^2D - ^2P^\circ$	3/2 - 3/2	G6
Cr VI	336.30			3d - 4p	$g^2D - ^2P^\circ$	5/2 - 3/2	G6
Cr VI	337.28			3d - 4p	$g^2D - ^2P^\circ$	3/2 - 1/2	G6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr VI	942.75			4p - 4d	$^2P^\circ - ^2D$	½ - 3/2	F4
Cr VI	957.01			4p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F4

CHROMIUM VII (Cr^{6+}), Z = 24

Ground State $1s^22s^22p^63s^23p^6\ ^1S_0$ (18 electrons)

Ionization Potential 1 299 700 cm^{-1}; 161.1 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr VII	104.13	40		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - ½[½]^\circ$	0 - 1	K27,M22
Cr VII	105.14	160		$3p^6 - 3p^5(^2P^\circ)5s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	K27,M22
Cr VII	114.22	60		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (½, 3/2)^\circ$	0 - 1	A1
Cr VII	115.40	70		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (3/2, 5/2)^\circ$	0 - 1	A1
Cr VII	146.532	1000		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - ½[½]^\circ$	0 - 1	K27,M22
Cr VII	148.736	600		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	K27,M22
Cr VII	166.49	50		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	0 - 1	W1
Cr VII	166.57	70		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	1 - 2	W1
Cr VII	166.95	50		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	1 - 1	W1
Cr VII	167.03	80		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	2 - 3	W1
Cr VII	167.50	70		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	2 - 2	W1
Cr VII	170.39	100		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	4 - 5	W1
Cr VII	170.85	80		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	3 - 4	W1
Cr VII	170.98	70		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	2 - 3	W1
Cr VII	174.28	80		$3p^53d - 3p^54f$	$^1D^\circ - ^1F$	2 - 3	W1
Cr VII	175.31	80		$3p^53d - 3p^54f$	$^3D^\circ - ^3F$	2 - 3	W1
Cr VII	175.81	80		$3p^53d - 3p^54f$	$^1F^\circ - ^3F$	3 - 4	W1
Cr VII	176.61	100		$3p^53d - 3p^54f$	$^3D^\circ - ^1G$	3 - 4	W1
Cr VII	202.78	900		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	G1,F11
Cr VII	259.18			$3p^6 - 3p^53d$	$g\,^1S - ^3D^\circ$	0 - 1	F2

CHROMIUM VIII (Cr^{7+}), Z = 24

Ground State $1s^22s^22p^63s^23p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential [1 485 700] cm^{-1}; [184.2] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr VIII	124.184	200		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	3/2 - ½	E20
Cr VIII	125.728	100		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	½ - ½	E20
Cr VIII	129.998	700		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E20
Cr VIII	131.638	600		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	½ - 3/2	E20
Cr VIII	132.321	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - ½	E20
Cr VIII	133.395	600		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E20
Cr VIII	134.076	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	½ - ½	E20
Cr VIII	134.942	400		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E20
Cr VIII	135.185	100		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	½ - 3/2	E20
Cr VIII	135.892	50		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	E20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr VIII	201.54			$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F13
Cr VIII	205.01	700		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F13,F11
Cr VIII	205.65	400		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F13,F11
Cr VIII	207.07	300		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F13,F11
Cr VIII	208.63	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F13,F11
Cr VIII	211.42	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F13,F11
Cr VIII	213.03	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F13,F11
Cr VIII	216.67			$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F13
Cr VIII	221.41	200		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F13,F11
Cr VIII	412.99			$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F4
Cr VIII	430.60			$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F4

CHROMIUM IX (Cr^{8+}), Z = 24

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4\ ^3P_2$ (16 electrons)

Ionization Potential 1 691 000 cm^{-1}; 209.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr IX	117.435	200		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	E19
Cr IX	117.942	600		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 3	E19
Cr IX	118.165	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 2	E19
Cr IX	119.269	400		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 2	E19
Cr IX	119.320	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 1	E19
Cr IX	119.569	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	0 - 1	E19
Cr IX	121.293	600		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	E19
Cr IX	121.781	400		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	2 - 1	E19
Cr IX	122.720	200		$3p^4 - 3p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	E19
Cr IX	122.964	200		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	1 - 1	E19
Cr IX	123.226	50		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	0 - 1	E19
Cr IX	208.53			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 2	F7
Cr IX	209.44	200		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F7,F11
Cr IX	210.62			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F7
Cr IX	211.32			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	0 - 1	F7
Cr IX	211.97			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F7
Cr IX	215.04			$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	F7
Cr IX	215.97			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	F7
Cr IX	220.02			$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F7
Cr IX	223.87			$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	1 - 2	F7
Cr IX	363.26			$3s^2 3p^4 - 3s\,3p^5$	$^1D - ^1P^\circ$	2 - 1	F7
Cr IX	407.50			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	2 - 1	F4
Cr IX	414.47			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 0	F4
Cr IX	418.15			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	2 - 2	F4
Cr IX	420.94			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 1	F4
Cr IX	424.03			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	0 - 1	F4
Cr IX	432.33			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 2	F4
Cr IX	1694.4	f		$3p^4 - 3p^4$	$g\,^3P - ^1S$	1 - 0	S28

CHROMIUM X (Cr^{9+}), Z = 24

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3$ $^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [1 952 000] cm^{-1}; [242] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr X	216.72	400		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F7,F11
Cr X	218.88			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F7
Cr X	220.42			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	F7
Cr X	221.18			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F7
Cr X	223.86			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	F7
Cr X	224.74			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F7
Cr X	226.24			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F7
Cr X	227.42			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	F7
Cr X	228.71			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F7
Cr X	231.21			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	F7
Cr X	232.96			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	F7
Cr X	233.80			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	F7
Cr X	247.67			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	F7
Cr X	252.62			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 3/2	F7
Cr X	254.15			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	F7
Cr X	332.97			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	F4
Cr X	340.05			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F4
Cr X	353.22			$3s^2 3p^3 - 3s3p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	F4
Cr X	354.96			$3s^2 3p^3 - 3s3p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	F4
Cr X	395.92			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F4
Cr X	398.09			$3s^2 3p^3 - 3s3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F4
Cr X	416.62			$3s^2 3p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	F4
Cr X	427.51			$3s^2 3p^3 - 3s3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	F4
Cr X	1488.9	f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 3/2	S28
Cr X	1564.1	f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 1/2	S28

CHROMIUM XI (Cr^{10+}), Z = 24

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ $^3P_0$ (14 electrons)

Ionization Potential [2 177 800] cm^{-1}; [270] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XI	220.42			$3p^2 - 3p3d$	$^1D - ^1P^\circ$	2 - 1	F7
Cr XI	226.45			$3p^2 - 3p3d$	$^1D - ^1F^\circ$	2 - 3	F17
Cr XI	230.29			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	0 - 1	F7
Cr XI	232.18			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 2	F7
Cr XI	233.26			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 1	F7
Cr XI	234.68			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	0 - 1	F7
Cr XI	235.52			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 3	F17
Cr XI	235.74			$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 2	F7
Cr XI	236.26			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 0	F7
Cr XI	237.24			$3p^2 - 3p3d$	$g^3P - ^1D^\circ$	1 - 2	F7
Cr XI	237.79			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 1	F7
Cr XI	240.56			$3p^2 - 3p3d$	$^1S - ^1P^\circ$	0 - 1	F2
Cr XI	241.48			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 1	F7
Cr XI	241.87			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 2	F7
Cr XI	245.70			$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 2	F7
Cr XI	256.32			$3p^2 - 3p3d$	$^1D - ^1D^\circ$	2 - 2	F7
Cr XI	284.97			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3S^\circ$	1 - 1	F7
Cr XI	290.27			$3s^2 3p^2 - 3s3p^3$	$g^3P - ^3S^\circ$	2 - 1	F7
Cr XI	298.03			$3s^2 3p^2 - 3s3p^3$	$^1D - ^1P^\circ$	2 - 1	F7
Cr XI	336.06			$3s^2 3p^2 - 3s3p^3$	$^1S - ^1P^\circ$	0 - 1	K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XI	370.87			$3s^23p^2 - 3s3p^3$	$^1D - ^1D^\circ$	2 - 2	F7
Cr XI	374.90			$3s^23p^2 \cdot 3s3p^3$	$g^3P - ^3P^\circ$	2 - 2	F7
Cr XI	421.99			$3s^23p^2 - 3s3p^3$	$g^3P - ^3D^\circ$	1 - 2	F7
Cr XI	431.07			$3s^23p^2 - 3s3p^3$	$g^3P - ^3D^\circ$	2 - 3	F7
Cr XI	1440.4	f		$3p^2 - 3p^2$	$g^3P - ^1S$	1 - 0	S28

CHROMIUM XII (Cr^{11+}), Z = 24

Ground State $1s^22s^22p^63s^23p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential [2 395 600] cm^{-1}; [297] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XII	75.815	200		3p - 4d	$g^2P^\circ - ^2D$	½ - 3/2	E18
Cr XII	76.488	300		3p - 4d	$g^2P^\circ - ^2D$	3/2 - 5/2	E18
Cr XII	90.86			$3s3p^2 - 3s3p4s$	$^4P - ^4P^\circ$	5/2 - 5/2	F10
Cr XII	96.11			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	9/2 - 11/2	F10
Cr XII	96.35			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	5/2 - 7/2	F10
Cr XII	96.50			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	7/2 - 9/2	F10
Cr XII	101.39			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F10
Cr XII	101.46			3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	F10
Cr XII	244.70			3p - 3d	$g^2P^\circ - ^2D$	½ - 3/2	F7
Cr XII	251.52			3p - 3d	$g^2P^\circ - ^2D$	3/2 - 5/2	F7
Cr XII	294.63			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	½ - 3/2	F4
Cr XII	299.95			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	½ - ½	F4
Cr XII	305.81			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	F4
Cr XII	311.55			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2P$	3/2 - ½	F4
Cr XII	318.82			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	½ - ½	F4
Cr XII	320.20			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	½ - 3/2	F4
Cr XII	325.13			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F4
Cr XII	331.95			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2S$	3/2 - ½	F4
Cr XII	332.06			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	F4
Cr XII	392.94			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	½ - 3/2	F4
Cr XII	410.88			$3s^23p - 3s3p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	F4

CHROMIUM XIII (Cr^{12+}), Z = 24

Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)

Ionization Potential [2 855 000] cm^{-1}; [354] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XIII	53.506	50		3s3p - 3s5d	$^3P^\circ - ^3D$	1 - 2	E18
Cr XIII	53.765	100		3s3p - 3s5d	$^3P^\circ - ^3D$	2 - 3	E18
Cr XIII	65.968	50		3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	E18
Cr XIII	66.983	200		$3s^2 - 3s4p$	$g^1S - ^1P^\circ$	0 - 1	E18
Cr XIII	70.792	100		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	E18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XIII	70.973	300d		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	E18
Cr XIII	71.398	300		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	E18
Cr XIII	71.435	50		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 2	E18
Cr XIII	76.15			3s3p - 3s4d	$^1P^\circ - ^1D$	1 - 2	F10
Cr XIII	84.616	50		3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	E18
Cr XIII	84.898	200		3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	E18
Cr XIII	85.566	300		3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	E18
Cr XIII	89.99			3p3d - 3p4f	$^3F^\circ - ^3G$	4 - 5	F10
Cr XIII	90.07			3p3d - 3p4f	$^3F^\circ - ^3G$	2 - 3	F10
Cr XIII	90.17			3p3d - 3p4f	$^3F^\circ - ^3G$	3 - 4	F10
Cr XIII	90.85			3p3d - 3p4f	$^1D^\circ - ^3F$	2 - 3	F10
Cr XIII	91.749	200		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	E18
Cr XIII	91.792	300		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	E18
Cr XIII	91.855	400b		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	E18
Cr XIII	92.01			3p3d - 3p4f	$^3P^\circ - ^3D$	0 - 1	F10
Cr XIII	92.16			3p3d - 3p4f	$^3P^\circ - ^3D$	1 - 1	F10
Cr XIII	92.54			3p3d - 3p4f	$^3D^\circ - ^3D$	2 - 2	F10
Cr XIII	92.61			3p3d - 3p4f	$^3D^\circ - ^3D$	3 - 3	F10
Cr XIII	93.42			3p3d - 3p4f	$^3D^\circ - ^3F$	3 - 4	F10
Cr XIII	96.86			3p3d - 3p4f	$^1P^\circ - ^1D$	1 - 2	F10
Cr XIII	97.25			3p3d - 3p4f	$^1F^\circ - ^1G$	3 - 4	F10
Cr XIII	259.59			3s3p - 3s3d	$^3P^\circ - ^3D$	0 - 1	F17
Cr XIII	261.83			3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	F17
Cr XIII	262.22			3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 1	F17
Cr XIII	267.65			3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	F4
Cr XIII	276.5			$3p^2$ - 3p3d	$^3P - ^3D^\circ$	2 - 3	F4
Cr XIII	279.32			$3p^2$ - 3p3d	$^3P - ^3P^\circ$	2 - 2	F4
Cr XIII	297.6			$3p^2$ - 3p3d	$^1D - ^1D^\circ$	2 - 2	F4
Cr XIII	316.6			$3p^2$ - 3p3d	$^1S - ^1P^\circ$	0 - 1	F4
Cr XIII	328.29			$3s^2$ - 3s3p	$g^1S - ^1P^\circ$	0 - 1	F22
Cr XIII	342.69			3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 2	F22
Cr XIII	351.14			3s3p - $3p^2$	$^3P^\circ - ^3P$	0 - 1	F22
Cr XIII	353.81			3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 2	F22
Cr XIII	356.12			3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 1	F22
Cr XIII	363.96			3s3p - $3p^2$	$^3P^\circ - ^3P$	1 - 0	F22
Cr XIII	368.06			3s3p - $3p^2$	$^3P^\circ - ^3P$	2 - 1	F22
Cr XIII	369.13			3s3d - 3p3d	$^3D - ^3D^\circ$	3 - 3	F4
Cr XIII	377.60			3s3p - $3p^2$	$^1P^\circ - ^1S$	1 - 0	F4
Cr XIII	437.05			3s3d - 3p3d	$^3D - ^3F^\circ$	3 - 4	F4
Cr XIII	449.76			3s3d - 3p3d	$^3D - ^3F^\circ$	2 - 3	F4
Cr XIII	461.60			3s3d - 3p3d	$^3D - ^3F^\circ$	1 - 2	F4
Cr XIII	480.82 ?			$3s^2$ - 3s3p	$g^1S - ^3P^\circ$	0 - 1	K8
Cr XIII	560.11			3s3p - 3s3d	$^1P^\circ - ^1D$	1 - 2	F4

CHROMIUM XIV (Cr^{13+}), Z = 24

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 3 099 630 cm^{-1}; 384.30 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XIV	21.467	-A		$2p^63s$ - $2p^53s^2$	$g^2S - ^2P^\circ$	½ - ½	F27
Cr XIV	21.770	-A		$2p^63s$ - $2p^53s^2$	$g^2S - ^2P^\circ$	½ - 3/2	F27
Cr XIV	46.468			3s - 5p	$g^2S - ^2P^\circ$	½ - 3/2	E16
Cr XIV	46.527			3s - 5p	$g^2S - ^2P^\circ$	½ - ½	E16
Cr XIV	50.812			3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	E16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XIV	51.162			3p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	E16
Cr XIV	52.363			3d - 6f	^2D - $^2F^\circ$	5/2 - 7/2	E16
Cr XIV	60.699			3d - 5f	^2D - $^2F^\circ$	3/2 - 5/2	E16
Cr XIV	60.756			3d - 5f	^2D - $^2F^\circ$	5/2 - 7/2	E16
Cr XIV	63.309			3s - 4p	g^2S - $^2P^\circ$	1/2 - 3/2	E16
Cr XIV	63.525			3s - 4p	g^2S - $^2P^\circ$	1/2 - 1/2	E16
Cr XIV	68.565			3p - 4d	$^2P^\circ$ - ^2D	1/2 - 3/2	E16
Cr XIV	69.183			3p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	E16
Cr XIV	69.221			3p - 4d	$^2P^\circ$ - ^2D	3/2 - 3/2	E16
Cr XIV	80.916			3p - 4s	$^2P^\circ$ - ^2S	1/2 - 1/2	E16
Cr XIV	81.838			3p - 4s	$^2P^\circ$ - ^2S	3/2 - 1/2	E16
Cr XIV	86.057			3d - 4f	^2D - $^2F^\circ$	3/2 - 5/2	E16
Cr XIV	86.164			3d - 4f	^2D - $^2F^\circ$	5/2 - 7/2	E16
Cr XIV	101.05			3d - 4p	^2D - $^2P^\circ$	5/2 - 3/2	F10
Cr XIV	101.42			3d - 4p	^2D - $^2P^\circ$	3/2 - 1/2	F10
Cr XIV	222.16	200		4d - 5p	^2D - $^2P^\circ$?	5/2 - 3/2	F11,K8
Cr XIV	289.70			3p - 3d	$^2P^\circ$ - ^2D	1/2 - 3/2	F22
Cr XIV	300.23			3p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	F22
Cr XIV	301.78			3p - 3d	$^2P^\circ$ - ^2D	3/2 - 3/2	F22
Cr XIV	389.81			3s - 3p	g^2S - $^2P^\circ$	1/2 - 3/2	F22
Cr XIV	411.99			3s - 3p	g^2S - $^2P^\circ$	1/2 - 1/2	F22

CHROMIUM XV (Cr^{14+}), Z = 24

Ground State $1s^22s^22p^6$ $^1S_0$ (10 electrons)

Ionization Potential 8 151 600 cm^{-1}; 1010.64 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XV	13.294	10		$2p^6$ - $2p^56d$	g^1S - $^1P^\circ$	0 - 1	S31
Cr XV	13.416	10		$2p^6$ - $2p^56d$	g^1S - $^3D^\circ$	0 - 1	S31
Cr XV	13.862	20		$2p^6$ - $2p^55d$	g^1S - $^1P^\circ$	0 - 1	S31
Cr XV	13.991	20		$2p^6$ - $2p^55d$	g^1S - $^3D^\circ$	0 - 1	S31
Cr XV	15.06	50		$2p^6$ - $2p^54d$	g^1S - 1/2[3/2]°	0 - 1	T14
Cr XV	15.21	50		$2p^6$ - $2p^54d$	g^1S - 3/2[3/2]°	0 - 1	T14
Cr XV	15.509	10		$2p^6$ - $2p^54s$	g^1S - $^1P^\circ$	0 - 1	S31
Cr XV	15.788	20		$2p^6$ - $2p^54s$	g^1S - $^3P^\circ$	0 - 1	S31
Cr XV	16.889	100		$2s^22p^6$ - $2s2p^63p$	g^1S - $^1P^\circ$	0 - 1	T14
Cr XV	16.965	50		$2s^22p^6$ - $2s2p^63p$	g^1S - $^3P^\circ$	0 - 1	T14
Cr XV	18.497	400		$2p^6$ - $2p^53d$	g^1S - 1/2[3/2]°	0 - 1	T14
Cr XV	18.782	200		$2p^6$ - $2p^53d$	g^1S - 3/2[3/2]°	0 - 1	T14
Cr XV	19.015	50		$2p^6$ - $2p^53d$	g^1S - 3/2[1/2]°	0 - 1	T14
Cr XV	20.863	400		$2p^6$ - $2p^53s$	g^1S - 1/2[1/2]°	0 - 1	T14
Cr XV	21.153	300		$2p^6$ - $2p^53s$	g^1S - 3/2[3/2]°	0 - 1	T14

CHROMIUM XVI (Cr^{15+}), Z = 24

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [8 816 000] cm^{-1}; [1093] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XVI	13.556	10		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$		S31
Cr XVI	13.953	10		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$		S31
Cr XVI	14.084	20		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$		S31
Cr XVI	17.09	10		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C10
Cr XVI	17.27	20		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	C10
Cr XVI	17.38	50		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	C10
Cr XVI	17.46	20		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	C10
Cr XVI	17.54	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C10
Cr XVI	17.62	40b		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C10
Cr XVI	17.69	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	C10
Cr XVI	17.75	0		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	C10
Cr XVI	17.81	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	C10
Cr XVI	17.86	20		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	3/2 - 3/2	C10
Cr XVI	17.96	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	C10
Cr XVI	18.01	0		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	C10
Cr XVI	19.27	40		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C10
Cr XVI	19.46	0		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	C10
Cr XVI	19.53	40		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	C10
Cr XVI	19.55	40		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	C10
Cr XVI	19.72	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	C10
Cr XVI	19.82	40		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	C10
Cr XVI	19.96	10		$2s\,2p^6 - 2s\,2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	C10
Cr XVI	106.60			$2s^2 2p^5 - 2s\,2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F5
Cr XVI	115.27			$2s^2 2p^5 - 2s\,2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F5

CHROMIUM XVII (Cr^{16+}), Z = 24

Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)

Ionization Potential [9 533 700] cm^{-1}; [1182] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XVII?	13.143	0					S31
Cr XVII	16.455	90		$2s^2 2p^4 - 2s^2 2p^3 3d$	$g\,^3P - ^3P^\circ$	2 - 2	S31
Cr XVII	18.34 ?			$2s^2 2p^4 - 2s^2 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	2 - 1	K8
Cr XVII	18.54 ?			$2s^2 2p^4 - 2s^2 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	1 - 1	K8
Cr XVII	101.91			$2s^2 2p^4 - 2s\,2p^5$	$^1D - ^1P^\circ$	2 - 1	F5
Cr XVII	116.53			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	2 - 1	F5
Cr XVII	117.72 ?			$2s^2 2p^4 - 2s\,2p^5$	$^1S - ^1P^\circ$	0 - 1	K8
Cr XVII	120.84			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 0	F5
Cr XVII	122.91			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	2 - 2	F5
Cr XVII	125.00			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	0 - 1	F5
Cr XVII	125.35			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 1	F5
Cr XVII	132.76			$2s^2 2p^4 - 2s\,2p^5$	$g\,^3P - ^3P^\circ$	1 - 2	F5

CHROMIUM XVIII (Cr^{17+}), Z = 24

Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential [10 445 000] cm^{-1}; [1295] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
							S31
Cr XVIII?	13.000			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	F5
Cr XVIII	95.76			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F5
Cr XVIII	104.94			$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2S$	1/2 - 1/2	K8
Cr XVIII	123.60 ?			$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - ^2S$	3/2 - 1/2	K8
Cr XVIII	124.38 ?						
Cr XVIII	125.44			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F5
Cr XVIII	128.10			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F5
Cr XVIII	152.74 ?			$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	K8

CHROMIUM XIX (Cr^{18+}), Z = 24

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential [11 244 000] cm^{-1}; [1394] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XIX	14.775	10		$2p^2 - 2p3d$	$g^3P - ^1P^\circ$?	2 - 1	S31,K8
Cr XIX	14.845	10		$2p^2 - 2p3d$	$^1D - ^1P^\circ$	2 - 1	S31,K8
Cr XIX	14.925	0		$2p^2 - 2p3d$	$^1D - ^1F^\circ$	2 - 3	S31,K8
Cr XIX	14.99 ?			$2p^2 - 2p3d$	$g^3P - ^3P^\circ$	2 - 2	K8
Cr XIX	15.00 ?			$2p^2 - 2p3d$	$g^3P - ^3D^\circ$	2 - 3	K8
Cr XIX	15.08 ?			$2p^2 - 2p3d$	$^1S - ^1P^\circ$	0 - 1	K8
Cr XIX	15.23 ?			$2p^2 - 2p3d$	$^1D - ^1D^\circ$	2 - 2	K8
Cr XIX?	15.587	20					S31
Cr XIX	15.680	10		$2p^2 - 2p3s$	$g^3P - ^1P^\circ$	0 - 1	S31,K8
Cr XIX	15.888	30		$2p^2 - 2p3s$	$g^3P - ^3P^\circ$	2 - 2	S31,K8
Cr XIX	16.00 ?			$2p^2 - 2p3s$	$^1D - ^1P^\circ$	2 - 1	K8
Cr XIX	119.67 ?			$2s^2 2p^2 - 2s 2p^3$	$^1D - ^1P^\circ$	2 - 1	K8
Cr XIX	127.41 ?			$2s^2 2p^2 - 2s 2p^3$	$g^3P - ^3S^\circ$	2 - 1	K8
Cr XIX	135.27 ?			$2s^2 2p^2 - 2s 2p^3$	$^1D - ^1D^\circ$	2 - 2	K8
Cr XIX	135.51 ?			$2s^2 2p^2 - 2s 2p^3$	$^1S - ^1P^\circ$	0 - 1	K8
Cr XIX	157.08 ?			$2s^2 2p^2 - 2s 2p^3$	$g^3P - ^3P^\circ$	1 - 2	K8
Cr XIX	166.67 ?			$2s^2 2p^2 - 2s 2p^3$	$g^3P - ^3P^\circ$	2 - 2	K8
Cr XIX	169.72 ?			$2s^2 2p^2 - 2s 2p^3$	$g^3P - ^3P^\circ$	2 - 1	K8
Cr XIX	202.42 ?			$2s^2 2p^2 - 2s 2p^3$	$g^3P - ^3D^\circ$	2 - 3	K8

CHROMIUM XX (Cr^{19+}), Z = 24

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [12 042 000] cm^{-1}; [1493] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XX	11.01 ?			2p - 4s	$g\,^2P^\circ$ - ^2S	3/2 - 1/2	K8
Cr XX	14.26 ?			2p - 3d	$g\,^2P^\circ$ - ^2D	3/2 - 5/2	K8
Cr XX	15.06 ?			2p - 3s	$g\,^2P^\circ$ - ^2S	3/2 - 1/2	K8
Cr XX	138.21 ?			$2s^2 2p$ - $2s\,2p^2$	$g\,^2P^\circ$ - ^2S	1/2 - 1/2	K8
Cr XX	156.01 ?			$2s^2 2p$ - $2s\,2p^2$	$g\,^2P^\circ$ - ^2S	3/2 - 1/2	K8

CHROMIUM XXI (Cr^{20+}), Z = 24

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [13 123 000] cm^{-1}; [1627] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XXI	8.96 ?			$2s^2$ - 2s 5p	$g\,^1S$ - $^3P^\circ$	0 - 1	K8
Cr XXI	9.98 ?			$2s^2$ - 2s 4p	$g\,^1S$ - $^3P^\circ$	0 - 1	K8
Cr XXI	12.63 ?			$2s^2$ - 2p 3s	$g\,^1S$ - $^1P^\circ$	0 - 1	K8
Cr XXI	162.67 ?			$2s^2$ - 2s 2p	$g\,^1S$ - $^1P^\circ$	0 - 1	K8
Cr XXI	310.90 ?			$2s^2$ - 2s 2p	$g\,^1S$ - $^3P^\circ$	0 - 1	K8

CHROMIUM XXII (Cr^{21+}), Z = 24

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [13 873 000] cm^{-1}; [1720] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XXII	8.29 P			2p - 6d	$^2P^\circ$ - ^2D	1/2 - 3/2	G15
Cr XXII	8.36 P			2p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Cr XXII	8.51 P			2s - 5p	$g\,^2S$ - $^2P^\circ$	1/2 - 3/2	G15
Cr XXII	8.77 P			2p - 5d	$^2P^\circ$ - ^2D	1/2 - 3/2	G15
Cr XXII	8.84 P			2p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Cr XXII	9.48 P			2s - 4p	$g\,^2S$ - $^2P^\circ$	1/2 - 3/2	G15
Cr XXII	9.80 P			2p - 4d	$^2P^\circ$ - ^2D	1/2 - 3/2	G15
Cr XXII	9.88 P			2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Cr XXII	12.620	100		2s - 3p	$g\,^2S$ - $^2P^\circ$	1/2 - 3/2	G15
Cr XXII	12.662	200		2s - 3p	$g\,^2S$ - $^2P^\circ$	1/2 - 1/2	G15
Cr XXII	13.147	200		2p - 3d	$^2P^\circ$ - ^2D	1/2 - 3/2	G15
Cr XXII	13.294	200		2p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Cr XXII	13.393	20		2p - 3s	$^2P^\circ$ - ^2S	1/2 - 1/2	G15
Cr XXII	13.549	200		2p - 3s	$^2P^\circ$ - ^2S	3/2 - 1/2	G15
Cr XXII	216.51 P			2s - 2p	$g\,^2S$ - $^2P^\circ$	1/2 - 3/2	K8
Cr XXII	272.06 P			2s - 2p	$g\,^2S$ - $^2P^\circ$	1/2 - 1/2	K8

CHROMIUM XXIII (Cr^{22+}), Z = 24

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [60 348 000] cm^{-1}; [7482] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XXIII	1.87			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Cr XXIII	2.18 P			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	K8,C11
Cr XXIII	2.19			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Cr XXIII	2.22 ?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

CHROMIUM XXIV (Cr^{23+}), Z = 24

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential [64 401 000] cm^{-1}; [7894.5] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cr XXIV	2.10 P			1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8

MANGANESE, Z = 25

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn	12.742	30					S31
Mn	13.134	0					S31
Mn	13.814	10					S31
Mn	13.950	10					S31
Mn	14.816	30					S31
Mn	15.024	50					S31
Mn	181.37	300					F11
Mn	183.72	600					F11
Mn	184.19	700					F11
Mn	186.35	500					F11
Mn	187.45	500					F11
Mn	187.63	400					F11
Mn	187.76	500					F11
Mn	187.96	500					F11
Mn	188.09	500					F11
Mn	188.19	600					F11
Mn	188.67	600					F11
Mn	189.06	800					F11
Mn	189.49	500					F11
Mn	189.82	400					F11
Mn	190.73	600					F11
Mn	192.22	600					F11
Mn	192.42	500					F11
Mn	193.59	500					F11
Mn	194.88	600					F11
Mn	196.54	500					F11
Mn	197.64	500					F11
Mn	198.23	400					F11
Mn	205.27	900					F11

MANGANESE I (Mn^{0+}), Z = 25

Ground State $1s^22s^22p^63s^23p^63d^54s^2\ ^6S_{5/2}$ (25 electrons)

Ionization Potential 59 970 cm^{-1}; 7.435 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn I	1785.355	7h		$3d^54s^2 - 3d^54s(a^5S)5p$	$ga^6S - s^6P^\circ$	5/2 - 7/2	C5
Mn I	1785.465	5		$3d^54s^2 - 3d^54s(a^5S)5p$	$ga^6S - s^6P^\circ$	5/2 - 5/2	C5
Mn I	1785.829	6h		$3d^54s^2 - 3d^54s(a^5S)5p$	$ga^6S - s^6P^\circ$	5/2 - 3/2	C5
Mn I	1788.152	2h		$3d^54s^2 -$	$ga^6S - x1^\circ$	5/2 - 5/2	C5
Mn I	1875.727	10r		$3d^54s^2 - 3d^54s(a^7S)6p$	$ga^6S - t^6P^\circ$	5/2 - 3/2	C5
Mn I	1876.445	15r		$3d^54s^2 - 3d^54s(a^7S)6p$	$ga^6S - t^6P^\circ$	5/2 - 5/2	C5
Mn I	1877.518	20r		$3d^54s^2 - 3d^54s(a^7S)6p$	$ga^6S - t^6P^\circ$	5/2 - 7/2	C5
Mn I	1882.366	3		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - y^4D^\circ$	5/2 - 7/2	C5
Mn I	1882.900	1		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - y^4D^\circ$	5/2 - 5/2	C5
Mn I	1883.085	0		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - y^4D^\circ$	5/2 - 3/2	C5
Mn I	1890.962	1		$3d^54s^2 - 3d^54s(b^5D)4p$	$ga^6S - x^6D^\circ$	5/2 - 5/2	C5
Mn I	1891.414	3		$3d^54s^2 - 3d^54s(b^5D)4p$	$ga^6S - x^6D^\circ$	5/2 - 7/2	C5
Mn I	1913.752	15		$3d^54s^2 - 3d^54s(b^5D)4p$	$ga^6S - u^6P^\circ$	5/2 - 7/2	C5
Mn I	1918.328	15		$3d^54s^2 - 3d^54s(b^5D)4p$	$ga^6S - u^6P^\circ$	5/2 - 5/2	C5
Mn I	1922.516	12		$3d^54s^2 - 3d^54s(b^5D)4p$	$ga^6S - u^6P^\circ$	5/2 - 3/2	C5

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn I	1949.100	3		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - x^4P^o$	5/2 - 5/2	C5
Mn I	1996.056	50r		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - v^6P^o$	5/2 - 3/2	C5
Mn I	1999.511	100r		$3d^54s^2 - 3d^54s(a^5P)4p$	$ga^6S - v^6P^o$	5/2 - 5/2	C5

MANGANESE II (Mn^{1+}), Z = 25

Ground State $1s^22s^22p^63s^23p^63d^54s\ ^7S_3$ (24 electrons)

Ionization Potential 126 145.0 cm^{-1}; 15.640 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	953.04	1		$3d^6 - 3d^5(a^6S)8f$	$a^5D - {}^5F^o$	4 - 5	I4
Mn II	955.48	0		$3d^6 - 3d^5(a^6S)8f$	$a^5D - {}^5F^o$	3 - 4	I4
Mn II	957.20	0		$3d^6 - 3d^5(a^6S)8f$	$a^5D - {}^5F^o$	2 - 3	I4
Mn II	972.55	10		$3d^6 - 3d^5(a^6S)7f$	$a^5D - {}^5F^o$	4 - 5	I4
Mn II	975.19	8		$3d^6 - 3d^5(a^6S)7f$	$a^5D - {}^5F^o$	3 - 4	I4
Mn II	976.96	7		$3d^6 - 3d^5(a^6S)7f$	$a^5D - {}^5F^o$	2 - 3	I4
Mn II	978.11	5		$3d^6 - 3d^5(a^6S)7f$	$a^5D - {}^5F^o$	1 - 2	I4
Mn II	978.70	0		$3d^6 - 3d^5(a^6S)7f$	$a^5D - {}^5F^o$	0 - 1	I4
Mn II	982.90	25	9	$3d^5(a^6S)4s -$	$a^5S - s^5P^o$	2 - 3	I4
Mn II	983.24	20	9	$3d^5(a^6S)4s -$	$a^5S - s^5P^o$	2 - 2	I4
Mn II	983.40	15	9	$3d^5(a^6S)4s -$	$a^5S - s^5P^o$	2 - 1	I4
Mn II	1000.96	25	8	$3d^5(a^6S)4s -$	$a^5S - t^5P^o$	2 - 3	I4
Mn II	1003.00	22	17	$3d^6 - 3d^5(a^6S)6f$	$a^5D - {}^5F^o$	4 - 5	I4
Mn II	1005.02	20	8	$3d^5(a^6S)4s -$	$a^5S - t^5P^o$	2 - 2	I4
Mn II	1005.70	22	17	$3d^6 - 3d^5(a^6S)6f$	$a^5D - {}^5F^o$	3 - 4	I4
Mn II	1006.72	7		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - s^5F^o$	4 - 5	I4
Mn II	1007.53	15	8	$3d^5(a^6S)4s -$	$a^5S - t^5P^o$	2 - 1	I4
Mn II	1007.61	15	17	$3d^6 - 3d^5(a^6S)6f$	$a^5D - {}^5F^o$	2 - 3	I4
Mn II	1008.85	12	17	$3d^6 - 3d^5(a^6S)6f$	$a^5D - {}^5F^o$	1 - 2	I4
Mn II	1009.45	10	17	$3d^6 - 3d^5(a^6S)6f$	$a^5D - {}^5F^o$	0 - 1	I4
Mn II	1009.56	6		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - s^5F^o$	3 - 4	I4
Mn II	1011.51	5		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - s^5F^o$	2 - 3	I4
Mn II	1012.71	4		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - s^5F^o$	1 - 2	I4
Mn II	1013.35	0		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - s^5F^o$	0 - 1	I4
Mn II	1023.55	20	7	$3d^5(a^6S)4s - 3d^44s(b^4D)4p$	$a^5S - u^5P^o$	2 - 3	I4
Mn II	1027.99	18	7	$3d^5(a^6S)4s - 3d^44s(b^4D)4p$	$a^5S - u^5P^o$	2 - 2	I4
Mn II	1030.87	10	7	$3d^5(a^6S)4s - 3d^44s(b^4D)4p$	$a^5S - u^5P^o$	2 - 1	I4
Mn II	1032.69	2		$3d^6 -$	$a^5D - t^5F^o$	4 - 5	I4
Mn II	1040.54	8		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	4 - 4	I4
Mn II	1042.98	3		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	4 - 3	I4
Mn II	1043.46	3		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	3 - 4	I4
Mn II	1045.89	4		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	3 - 3	I4
Mn II	1047.40	1		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	3 - 2	I4
Mn II	1047.95	4		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	2 - 3	I4
Mn II	1050.78	2h		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	1 - 2	I4
Mn II	1052.04	5		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5D^o$	1 - 0	I4
Mn II	1052.60	5		$3d^6 -$	$a^5D - u^5F^o$	4 - 5	I4
Mn II	1056.80	4		$3d^6 -$	$a^5D - u^5F^o$	3 - 4	I4
Mn II	1059.53	1		$3d^6 -$	$a^5D - t^5P^o$	3 - 2	I4
Mn II	1059.98	1		$3d^6 -$	$a^5D - u^5F^o$	2 - 3	I4
Mn II	1061.64	1		$3d^6 -$	$a^5D - t^5P^o$	2 - 2	I4
Mn II	1062.51	30	16	$3d^6 - 3d^5(a^6S)5f$	$a^5D - {}^5F^o$	4 - 5	I4
Mn II	1063.43	1		$3d^6 -$	$a^5D - u^5F^o$	0 - 1	I4
Mn II	1065.56	25	16	$3d^6 - 3d^5(a^6S)5f$	$a^5D - {}^5F^o$	3 - 4	I4
Mn II	1067.73	25	16	$3d^6 - 3d^5(a^6S)5f$	$a^5D - {}^5F^o$	2 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1069.11	20	16	$3d^6 - 3d^5(a^6S)5f$	$a^5D - {}^5F^\circ$	1 - 2	I4
Mn II	1069.77	10	16	$3d^6 - 3d^5(a^6S)5f$	$a^5D - {}^5F^\circ$	0 - 1	I4
Mn II	1077.02	3		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - u^5P^\circ$	4 - 3	I4
Mn II	1080.29	5		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - v^5F^\circ$	4 - 5	I4
Mn II	1085.62	2		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - v^5F^\circ$	3 - 4	I4
Mn II	1089.98	1		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - v^5F^\circ$	2 - 3	I4
Mn II	1093.22	0		$3d^6 - 3d^44s(b^4D)4p$	$a^5D - v^5F^\circ$	1 - 2	I4
Mn II	1111.90	10	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	6 - 5	I4
Mn II	1112.19	0	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	5 - 5	I4
Mn II	1113.23	9	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	5 - 4	I4
Mn II	1113.39	0	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	4 - 4	I4
Mn II	1114.44	8	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	4 - 3	I4
Mn II	1114.50	0	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	3 - 3	I4
Mn II	1115.53	6	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	3 - 2	I4
Mn II	1116.37	6	31	$3d^5(a^4G)4s -$	$a^5G - r^5F^\circ$	2 - 1	I4
Mn II	1156.34	30	30	$3d^5(a^4G)4s - 3d^5(a^6S)6f$	$a^5G - {}^5F^\circ$	6 - 5	I4
Mn II	1156.66	25	30	$3d^5(a^4G)4s - 3d^5(a^6S)6f$	$a^5G - {}^5F^\circ$	5 - 4	I4
Mn II	1156.83	20	30	$3d^5(a^4G)4s - 3d^5(a^6S)6f$	$a^5G - {}^5F^\circ$	4 - 3	I4
Mn II	1156.92	20	30	$3d^5(a^4G)4s - 3d^5(a^6S)6f$	$a^5G - {}^5F^\circ$	3 - 2	I4
Mn II	1161.29	20	29	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - s^5F^\circ$	6 - 5	I4
Mn II	1161.61	3	29	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - s^5F^\circ$	5 - 5	I4
Mn II	1161.76	20	29	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - s^5F^\circ$	5 - 4	I4
Mn II	1162.02	50b	4	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$ga^7S - x^7P^\circ$	3 - 4	I4
Mn II	1162.02	50b	29	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - s^5F^\circ$	3 - 2	I4
Mn II	1163.32	40	4	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$ga^7S - x^7P^\circ$	3 - 3	I4
Mn II	1164.21	30	4	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$ga^7S - x^7P^\circ$	3 - 2	I4
Mn II	1165.82	25	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	6 - 6	I4
Mn II	1166.16	10	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	5 - 6	I4
Mn II	1166.81	8	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	6 - 5	I4
Mn II	1167.13	20	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	5 - 5	I4
Mn II	1167.31	9	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	4 - 5	I4
Mn II	1168.07	5	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	5 - 4	I4
Mn II	1168.25	15	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	4 - 4	I4
Mn II	1169.28	15	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	3 - 3	I4
Mn II	1169.53	15	28	$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - v^5G^\circ$	2 - 2	I4
Mn II	1177.52	20		$3d^5(a^4G)4s - 3d^44s4p$	$a^5G - w^5G^\circ$	6 - 6	I4
Mn II	1177.89	18		$3d^5(a^4G)4s - 3d^44s4p$	$a^5G - w^5G^\circ$	5 - 5	I4
Mn II	1178.14	15		$3d^5(a^4G)4s - 3d^44s4p$	$a^5G - w^5G^\circ$	4 - 4	I4
Mn II	1178.34	12		$3d^5(a^4G)4s - 3d^44s4p$	$a^5G - w^5G^\circ$	3 - 3	I4
Mn II	1178.76	5		$3d^5(a^4G)4s - 3d^44s4p$	$a^5G - w^5G^\circ$	2 - 2	I4
Mn II	1180.69	1		$3d^5(a^4D)4s -$	$b^5D - r^5F^\circ$	4 - 5	I4
Mn II	1188.502	50	15	$3d^6 - 3d^5(a^6S)4f$	$a^5D - {}^5F^\circ$	4 - 5	I4
Mn II	1192.313	40	15	$3d^6 - 3d^5(a^6S)4f$	$a^5D - {}^5F^\circ$	3 - 4	I4
Mn II	1195.00	30		$3d^6 - 3d^5(a^6S)4f$	$a^5D - {}^5F^\circ$	2 - 3	I4
Mn II	1195.97	30	27	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	6 - 5	I4
Mn II	1196.33	25	27	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	5 - 4	I4
Mn II	1196.52	20	27	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	4 - 4	I4
Mn II	1196.724	25	15	$3d^6 - 3d^5(a^6S)4f$	$a^5D - {}^5F^\circ$	1 - 2	I4
Mn II	1197.17	40b	3	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	4 - 3	I4
Mn II	1197.17	40b	27	$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$ga^7S - y^7P^\circ$	3 - 4	I4
Mn II	1197.57	10	15	$3d^6 - 3d^5(a^6S)4f$	$a^5D - {}^5F^\circ$	0 - 1	I4
Mn II	1198.00	10	27	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	3 - 2	I4
Mn II	1198.63	10	27	$3d^5(a^4G)4s -$	$a^5G - t^5F^\circ$	2 - 1	I4
Mn II	1199.34	30	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	6 - 7	I4
Mn II	1199.38	50	3	$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$ga^7S - y^7P^\circ$	3 - 3	I4
Mn II	1201.124	20	3	$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$ga^7S - y^7P^\circ$	3 - 2	I4
Mn II	1201.23	5	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	6 - 6	I4
Mn II	1201.57	40	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	5 - 6	I4
Mn II	1203.07	8	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	5 - 5	I4
Mn II	1203.25	30	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	4 - 5	I4
Mn II	1204.62	25	2	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	3 - 4	I4
Mn II	1204.95	15		$3d^6 - 3d^44s4p$	$a^3H - t^3G^\circ$	6 - 5	I4
Mn II	1205.42	20	26	$3d^5(a^4G)4s -$	$a^5G - y^5H^\circ$	2 - 3	I4
Mn II	1206.55	10		$3d^6 - 3d^44s4p$	$a^3H - t^3G^\circ$	5 - 4	I4
Mn II	1206.87	5		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	5 - 4	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1207.05	2		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	4 - 4	I4
Mn II	1207.12	2		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	3 - 4	I4
Mn II	1208.83	8		$3d^6 - 3d^44s4p$	$a^3H - t^3G^\circ$	4 - 3	I4
Mn II	1210.33	5		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	4 - 3	I4
Mn II	1212.40	5		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	3 - 2	I4
Mn II	1213.50	0		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^5G - u^5D^\circ$	2 - 1	I4
Mn II	1218.94	8		$3d^5(a^4G)4s -$	$a^5G - v^5D^\circ$	5 - 4	I4
Mn II	1219.50	0		$3d^6 - 3d^44s4p$	$a^3F - t^3G^\circ$	4 - 5	I4
Mn II	1221.11	6		$3d^5(a^4G)4s -$	$a^5G - v^5D^\circ$	4 - 3	I4
Mn II	1222.785	30		$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	6 - 5	I4
Mn II	1223.15	8	25	$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	5 - 5	I4
Mn II	1224.733	30	25	$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	5 - 4	I4
Mn II	1224.928	6	25	$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	4 - 4	I4
Mn II	1226.40	25	25	$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	4 - 3	I4
Mn II	1227.638	23	25	$3d^5(a^4G)4s -$	$a^5G - u^5F^\circ$	3 - 2	I4
Mn II	1228.423	20	25	$3d^6 - 3d^5(a^6S)8f$	$a^3D - {}^5F^\circ$	2 - 1	I4
Mn II	1229.65	25	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	3 - 3	I4
Mn II	1230.11	20	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	2 - 3	I4
Mn II	1230.15	15	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	3 - 2	I4
Mn II	1230.46	1		$3d^5(a^4P)4s -$	$a^5P - t^5F^\circ$	3 - 4	I4
Mn II	1230.62	1	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	2 - 2	I4
Mn II	1230.87	10	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	2 - 1	I4
Mn II	1231.10	8	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	1 - 2	I4
Mn II	1231.35	5	43	$3d^5(a^4P)4s -$	$a^5P - s^5P^\circ$	1 - 1	I4
Mn II	1233.952	30	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	6 - 6	I4
Mn II	1234.30	5	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	5 - 6	I4
Mn II	1234.51	8	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	6 - 5	I4
Mn II	1234.871	25	34	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	5 - 5	I4
Mn II	1235.06	8	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	4 - 5	I4
Mn II	1235.27	10	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	5 - 4	I4
Mn II	1235.46	25		$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	4 - 4	I4
Mn II	1235.79	10	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	4 - 3	I4
Mn II	1235.87	25	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	3 - 3	I4
Mn II	1236.15	25b	24	$3d^5(a^4G)4s -$	$a^5G - x^5G^\circ$	2 - 2	I4
Mn II	1236.15	25b	23	$3d^5(a^4G)4s - 3d^5(a^6S)5f$	$a^5G - {}^5F^\circ$	6 - 5	I4
Mn II	1236.54	15	23	$3d^5(a^4G)4s - 3d^5(a^6S)5f$	$a^5G - {}^5F^\circ$	5 - 4	I4
Mn II	1236.77	20	23	$3d^5(a^4G)4s - 3d^5(a^6S)5f$	$a^5G - {}^5F^\circ$	4 - 3	I4
Mn II	1236.87	20	23	$3d^5(a^4G)4s - 3d^5(a^6S)5f$	$a^5G - {}^5F^\circ$	3 - 2	I4
Mn II	1237.59	2		$3d^6 - 3d^44s(b^4P)4p$	$a^3P - y^3S^\circ$	2 - 1	I4
Mn II	1237.78	1		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - s^5F^\circ$	3 - 4	I4
Mn II	1237.95	1		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - s^5F^\circ$	2 - 3	I4
Mn II	1238.35	5		$3d^5(a^4P)4s - 3d^44s(b^4P)4p$	$a^5P - y^3S^\circ$	2 - 1	I4
Mn II	1238.84	7		$3d^5(a^4P)4s - 3d^44s(b^4P)4p$	$a^5P - y^3S^\circ$	1 - 1	I4
Mn II	1239.51	1		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - s^3G^\circ$	4 - 4	I4
Mn II	1240.04	0		$3d^5(a^6S)4p - 3d^5(a^6S)10s$	$z^7P^\circ - {}^7S$	3 - 3	I4
Mn II	1241.63	10	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	3 - 4	I4
Mn II	1244.10	0		$3d^5(a^6S)4p - 3d^5(a^6S)10s$	$z^7P^\circ - {}^7S$	4 - 3	I4
Mn II	1244.28	15		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - t^3G^\circ$	5 - 5	I4
Mn II	1245.14	20		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - t^3G^\circ$	4 - 4	I4
Mn II	1245.55	15	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	2 - 3	I4
Mn II	1246.24	12		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - t^3G^\circ$	3 - 3	I4
Mn II	1247.66	15	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	2 - 2	I4
Mn II	1248.15	5	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	1 - 2	I4
Mn II	1248.83	4	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	2 - 1	I4
Mn II	1249.31	6	42	$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5D^\circ$	1 - 1	I4
Mn II	1250.22	1		$3d^6 - 3d^44s(b^4P)4p$	$a^3P - y^3S^\circ$	1 - 1	I4
Mn II	1250.681	7		$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$a^5S - v^5P^\circ$	2 - 3	I4
Mn II	1252.91	15		$3d^5(a^4P)4s - 3d^44s(b^4P)4p$	$a^5P - y^5S^\circ$	3 - 2	I4
Mn II	1253.37	15		$3d^5(a^4P)4s - 3d^44s(b^4P)4p$	$a^5P - y^5S^\circ$	2 - 2	I4
Mn II	1253.880	15		$3d^5(a^4P)4s - 3d^44s(b^4P)4p$	$a^5P - y^5S^\circ$	1 - 2	I4
Mn II	1254.20	10		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - q^3F^\circ$	5 - 4	I4
Mn II	1254.410	15	41	$3d^5(a^4P)4s -$	$a^5P - v^5D^\circ$	3 - 4	I4
Mn II	1255.01	1		$3d^5(a^4D)4s - 3d^44s4p$	$b^5D - w^5G^\circ$	4 - 5	I4
Mn II	1256.18	6		$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$a^5S - v^5P^\circ$	2 - 2	I4
Mn II	1256.47	8	41	$3d^5(a^4P)4s -$	$a^5P - v^5D^\circ$	3 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1256.96	10	41	$3d^5(a^4P)4s$ -	$a^5P - v^5D^\circ$	2 - 3	I4
Mn II	1258.028	15	40	$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	3 - 3	I4
Mn II	1258.51	15	40	$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	2 - 3	I4
Mn II	1259.05	12		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - q^3F^\circ$	4 - 3	I4
Mn II	1259.56	8	41	$3d^5(a^4P)4s$ -	$a^5P - v^5D^\circ$	1 - 2	I4
Mn II	1259.97	6		$3d^5(a^6S)4s - 3d^44s(a^6D)4p$	$a^5S - v^5P^\circ$	2 - 1	I4
Mn II	1260.52	1		$3d^6 - 3d^44s4p$	$b^3G - s^3G^\circ$	5 - 5	I4
Mn II	1260.77	1	41	$3d^5(a^4P)4s$ -	$a^5P - v^5D^\circ$	2 - 1	I4
Mn II	1261.27	8		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - q^3F^\circ$	3 - 2	I4
Mn II	1262.35	4	41	$3d^5(a^4P)4s$ -	$a^5P - v^5D^\circ$	1 - 0	I4
Mn II	1262.57	4		$3d^5(a^4P)4s$ -	$a^5P - u^5F^\circ$	2 - 3	I4
Mn II	1263.79	1		$3d^5(a^4P)4s$ -	$a^5P - u^5F^\circ$	2 - 2	I4
Mn II	1264.45	12		$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	3 - 2	I4
Mn II	1265.39	10	40	$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	1 - 2	I4
Mn II	1265.57	2		$3d^6 - 3d^44s4p$	$b^3G - s^3G^\circ$	4 - 4	I4
Mn II	1266.13	8		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - u^3H^\circ$	5 - 6	I4
Mn II	1268.90	10	40	$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	2 - 1	I4
Mn II	1269.42	5	40	$3d^5(a^4P)4s$ -	$a^5P - t^5P^\circ$	1 - 1	I4
Mn II	1269.54	0		$3d^6 - 3d^44s4p$	$b^3G - s^3G^\circ$	3 - 3	I4
Mn II	1271.22	2		$3d^5(a^6S)4p - 3d^5(a^6S)9s$	$z^7P^\circ - {}^7S$	2 - 3	I4
Mn II	1272.18	6		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - u^3H^\circ$	4 - 5	I4
Mn II	1274.08	2		$3d^5(a^6S)4p - 3d^5(a^6S)9s$	$z^7P^\circ - {}^7S$	3 - 3	I4
Mn II	1274.84	2		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - u^3H^\circ$	3 - 4	I4
Mn II	1275.10	20	59	$3d^5(a^4D)4s$ -	$b^5D - s^5P^\circ$	4 - 3	I4
Mn II	1275.97	40	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	4 - 5	I4
Mn II	1276.24	20	59	$3d^5(a^4D)4s$ -	$b^5D - s^5P^\circ$	2 - 3	I4
Mn II	1276.45	8	59	$3d^5(a^4D)4s$ -	$b^5D - s^5P^\circ$	1 - 2	I4
Mn II	1276.77	10	59	$3d^5(a^4D)4s$ -	$b^5D - s^5P^\circ$	3 - 2	I4
Mn II	1277.12	20b	59	$3d^5(a^4D)4s$ -	$b^5D - s^5P^\circ$	2 - 1	I4
Mn II	1277.12	20b	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	3 - 4	I4
Mn II	1277.82	20	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	2 - 3	I4
Mn II	1278.369	10		$3d^5(a^6S)4p - 3d^5(a^6S)9s$	$z^7P^\circ - {}^7S$	4 - 3	I4
Mn II	1278.75	15	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	2 - 2	I4
Mn II	1278.90	2		$3d^5(a^4G)4s - 3d^44s(a^4H)4p$	$a^3G - x^3I^\circ$	5 - 6	I4
Mn II	1279.09	10	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	1 - 1	I4
Mn II	1279.44	2	58	$3d^5(a^4D)4s$ -	$b^5D - t^5F^\circ$	2 - 1	I4
Mn II	1280.11	10		$3d^6 - 3d^44s4p$	$b^3G - q^3F^\circ$	5 - 4	I4
Mn II	1284.76	2		$3d^5(a^4G)4s - 3d^44s(a^4H)4p$	$a^3G - x^3I^\circ$	4 - 5	I4
Mn II	1285.95	8		$3d^6 - 3d^44s4p$	$b^3G - q^3F^\circ$	4 - 3	I4
Mn II	1287.978	15	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	4 - 4	I4
Mn II	1289.13	15	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	3 - 4	I4
Mn II	1289.35	8		$3d^6 - 3d^44s4p$	$b^3G - q^3F^\circ$	3 - 2	I4
Mn II	1290.52	8	6	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$a^5S - w^5P^\circ$	2 - 1	I4
Mn II	1290.93	10	6	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$a^5S - w^5P^\circ$	2 - 2	I4
Mn II	1291.58	10	6	$3d^5(a^6S)4s - 3d^5(a^6S)5p$	$a^5S - w^5P^\circ$	2 - 3	I4
Mn II	1291.70	10		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	4 - 3	I4
Mn II	1292.57	10		$3d^6 - 3d^44s4p$	$b^3G - u^3H^\circ$	5 - 6	I4
Mn II	1292.87	15	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	3 - 3	I4
Mn II	1293.92	1		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5P^\circ$	3 - 3	I4
Mn II	1294.437	2		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5P^\circ$	2 - 3	I4
Mn II	1294.803	10	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	1 - 2	I4
Mn II	1295.15	10	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	3 - 2	I4
Mn II	1295.74	6	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	0 - 1	I4
Mn II	1296.03	3	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	1 - 1	I4
Mn II	1296.43	6	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	2 - 1	I4
Mn II	1296.67	5	57	$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^5D - u^5D^\circ$	1 - 0	I4
Mn II	1298.800	6		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - r^3F^\circ$	5 - 4	I4
Mn II	1299.09	5		$3d^5(a^4P)4s - 3d^44s4p$	$b^3P - s^3D^\circ$	2 - 3	I4
Mn II	1299.66	5		$3d^6 - 3d^44s4p$	$b^3G - u^3H^\circ$	4 - 5	I4
Mn II	1300.52	1		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - r^3F^\circ$	4 - 4	I4
Mn II	1301.06	4		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5P^\circ$	3 - 2	I4
Mn II	1301.31	3		$3d^5(a^4D)4s - 3d^44s(b^4P)4p$	$b^5D - y^5S^\circ$	2 - 2	I4
Mn II	1302.12	1		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$a^5P - u^5P^\circ$	1 - 2	I4
Mn II	1302.61	9		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - r^3F^\circ$	4 - 3	I4
Mn II	1303.12	1		$3d^5(a^4G)4s - 3d^44s4p$	$a^3G - r^3F^\circ$	3 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1303.52	4		$3d^6 - 3d^4 4s 4p$	$b^3G - u^3H^\circ$	3 - 4	I4
Mn II	1305.136	10		$3d^5(a^4G)4s - 3d^4 4s 4p$	$a^3G - r^3F^\circ$	3 - 2	I4
Mn II	1305.63	15	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	4 - 3	I4
Mn II	1305.87	5		$3d^6 - 3d^4 4s(a^4H)4p$	$b^3G - x^3I^\circ$	5 - 6	I4
Mn II	1306.17	5		$3d^5(a^4P)4s - 3d^4 4s(b^4D)4p$	$a^5P - u^5P^\circ$	2 - 1	I4
Mn II	1306.81	10		$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	3 - 3	I4
Mn II	1307.41	1		$3d^5(a^4D)4s -$	$b^5D - v^5D^\circ$	3 - 2	I4
Mn II	1308.16	1		$3d^5(a^4P)4s - 3d^4 4s 4p$	$b^3P - s^3D^\circ$	2 - 2	I4
Mn II	1309.29	1		$3d^5(a^4D)4s -$	$b^5D - v^5D^\circ$	2 - 1	I4
Mn II	1309.72	3		$3d^5(a^4P)4s - 3d^4 4s 4p$	$b^3P - s^3D^\circ$	1 - 2	I4
Mn II	1312.80	2		$3d^6 - 3d^4 4s(a^4H)4p$	$b^3G - x^3I^\circ$	4 - 5	I4
Mn II	1313.41	2	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	1 - 2	I4
Mn II	1313.77	10	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	3 - 2	I4
Mn II	1316.16	9	80	$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^7P^\circ - {}^7D$	2 - 3	I4
Mn II	1317.39	3	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	0 - 1	I4
Mn II	1317.70	4	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	1 - 1	I4
Mn II	1318.09	3	56	$3d^5(a^4D)4s -$	$b^5D - t^5P^\circ$	2 - 1	I4
Mn II	1319.21	10	80	$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^7P^\circ - {}^7D$	3 - 4	I4
Mn II	1323.76	15	80	$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^7P^\circ - {}^7D$	4 - 5	I4
Mn II	1323.78 P		80	$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^7P^\circ - {}^7D$	4 - 4	I4
Mn II	1323.81 P		80	$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^7P^\circ - {}^7D$	4 - 3	I4
Mn II	1326.63	10		$3d^6 - 3d^4 4s 4p$	$b^3G - r^3F^\circ$	5 - 4	I4
Mn II	1327.48	12	79	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^7P^\circ - {}^7S$	2 - 3	I4
Mn II	1329.25	1		$3d^6 - 3d^4 4s 4p$	$b^3G - r^3F^\circ$	4 - 4	I4
Mn II	1330.61	12	79	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^7P^\circ - {}^7S$	3 - 3	I4
Mn II	1331.42	8		$3d^6 - 3d^4 4s 4p$	$b^3G - r^3F^\circ$	4 - 3	I4
Mn II	1335.27	25	79	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^7P^\circ - {}^7S$	4 - 3	I4
Mn II	1344.14	50		$3d^5(a^4P)4s - 3d^4 4s(b^4P)4p$	$b^3P - y^3S^\circ$	2 - 1	I4
Mn II	1344.35	6		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - u^5P^\circ$	4 - 3	I4
Mn II	1345.62	2		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - u^5P^\circ$	3 - 3	I4
Mn II	1345.77	15		$3d^5(a^4P)4s - 3d^4 4s(b^4P)4p$	$b^3P - y^3S^\circ$	1 - 1	I4
Mn II	1346.94	1		$3d^5(a^4P)4s - 3d^4 4s(b^4P)4p$	$b^3P - y^3S^\circ$	0 - 1	I4
Mn II	1349.41	5		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	4 - 5	I4
Mn II	1352.17	4		$3d^5(a^4F)4s -$	$a^5F - r^5F^\circ$	5 - 5	I4
Mn II	1352.83	1		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	4 - 4	I4
Mn II	1353.33	6		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - u^5P^\circ$	3 - 2	I4
Mn II	1353.90	1		$3d^5(a^4F)4s -$	$a^5F - r^5F^\circ$	4 - 4	I4
Mn II	1354.08	5		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	3 - 4	I4
Mn II	1355.90	1		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - t^3G^\circ$	3 - 4	I4
Mn II	1356.74	1		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - t^3G^\circ$	2 - 3	I4
Mn II	1357.45	5		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	2 - 3	I4
Mn II	1357.91	1		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - u^5P^\circ$	1 - 1	I4
Mn II	1358.32	1		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - u^5P^\circ$	2 - 1	I4
Mn II	1359.86	2		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	1 - 2	I4
Mn II	1360.24	0		$3d^5(a^4D)4s - 3d^4 4s(b^4D)4p$	$b^5D - v^5F^\circ$	2 - 2	I4
Mn II	1361.60	2		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - s^3D^\circ$	3 - 3	I4
Mn II	1368.53	2		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - q^3F^\circ$	3 - 4	I4
Mn II	1371.73	5		$3d^5(a^2I)4s - 3d^4 4s 4p$	$a^3I - s^3G^\circ$	6 - 5	I4
Mn II	1372.48	2		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - q^3F^\circ$	2 - 3	I4
Mn II	1373.17	2		$3d^6 - 3d^4 4s(b^4P)4p$	$a^3D - y^3S^\circ$	2 - 1	I4
Mn II	1374.81	1		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - q^3F^\circ$	1 - 2	I4
Mn II	1375.11	4		$3d^5(a^2I)4s - 3d^4 4s 4p$	$a^3I - s^3G^\circ$	5 - 4	I4
Mn II	1377.94	15	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	4 - 3	I4
Mn II	1380.32	1		$3d^5(a^4D)4s - 3d^4 4s 4p$	$b^3D - s^3D^\circ$?	1 - 1	I4
Mn II	1382.30	10	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	3 - 2	I4
Mn II	1383.05	4	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	3 - 3	I4
Mn II	1385.43	4	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	2 - 1	I4
Mn II	1385.89	10	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	2 - 2	I4
Mn II	1387.75	6	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	1 - 1	I4
Mn II	1388.21	2	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	1 - 2	I4
Mn II	1388.87	3	14	$3d^6 - 3d^5(a^6S)5p$	$a^5D - w^5P^\circ$	0 - 1	I4
Mn II	1397.17	3		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	3 - 3	I4
Mn II	1397.39	6		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	3 - 4	I4
Mn II	1399.15	2		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	2 - 1	I4
Mn II	1399.24	3		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	2 - 2	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1399.39	4		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	2 - 3	I4
Mn II	1400.54	2		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	1 - 0	I4
Mn II	1400.57	3		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	1 - 1	I4
Mn II	1400.66	2		$3d^5(a^6S)4p - 3d^5(a^6S)7d$	$z^5P^\circ - {}^5D$	1 - 2	I4
Mn II	1409.51	25		$3d^5(a^2I)4s - 3d^44s4p$	$a^3I - u^3H^\circ$	7 - 6	I4
Mn II	1409.69	5		$3d^5(a^2I)4s - 3d^44s4p$	$a^3I - u^3H^\circ$	6 - 6	I4
Mn II	1410.913	25b	78	$3d^5(a^6S)4p - 3d^5(a^6S)6d$	$z^7P^\circ - {}^7D$	2 - 3	I4
Mn II	1411.28	4		$3d^5(a^4D)4s - 3d^44s(b^4P)4p$	$b^3D - y^3S^\circ$	2 - 1	I4
Mn II	1411.55	4		$3d^5(a^4D)4s - 3d^44s(b^4P)4p$	$b^3D - y^3S^\circ$	1 - 1	I4
Mn II	1414.18	4	88	$3d^5(a^4F)4s - 3d^5(a^6S)6f$	$a^5F - {}^5F^\circ$	1 - 1	I4
Mn II	1414.40	30	78	$3d^5(a^6S)4p - 3d^5(a^6S)6d$	$z^7P^\circ - {}^7D$	3 - 4	I4
Mn II	1414.73	6		$3d^5(a^2D)4s - 3d^5(a^6S)6f$	$c^3D - {}^5F^\circ$	2 - 2	I4
Mn II	1415.15	30		$3d^5(a^2I)4s - 3d^44s4p$	$a^3I - u^3H^\circ$	6 - 5	I4
Mn II	1415.43	6		$3d^5(a^2I)4s - 3d^44s4p$	$a^3I - u^3H^\circ$	5 - 5	I4
Mn II	1415.75	35		$3d^5(a^2I)4s - 3d^44s(a^4H)4p$	$a^3I - x^3I^\circ$	7 - 7	I4
Mn II	1417.95	10	93	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^5P^\circ - {}^5S$	3 - 2	I4
Mn II	1418.13	18		$3d^5(a^2I)4s - 3d^44s4p$	$a^3I - u^3H^\circ$	5 - 4	I4
Mn II	1418.48	15	88	$3d^5(a^4F)4s - 3d^5(a^6S)6f$	$a^5F - {}^5F^\circ$	5 - 5	I4
Mn II	1418.63	12	88	$3d^5(a^4F)4s - 3d^5(a^6S)6f$	$a^5F - {}^5F^\circ$	4 - 4	I4
Mn II	1419.61	40	78	$3d^5(a^6S)4p - 3d^5(a^6S)6d$	$z^7P^\circ - {}^7D$	4 - 5	I4
Mn II	1420.24	8	93	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^5P^\circ - {}^5S$	2 - 2	I4
Mn II	1421.71	5	93	$3d^5(a^6S)4p - 3d^5(a^6S)8s$	$z^5P^\circ - {}^5S$	1 - 2	I4
Mn II	1421.77	2		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	1 - 1	I4
Mn II	1421.87	3		$3d^5(a^4F)4s - 3d^5(a^6S)6f$	$a^5F - {}^5F^\circ$	3 - 3	I4
Mn II	1422.36	3		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - s^5F^\circ$	2 - 2	I4
Mn II	1422.42	2		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - s^5F^\circ$	2 - 3	I4
Mn II	1423.48	2		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - s^5F^\circ$	3 - 2	I4
Mn II	1423.55	4		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - s^5F^\circ$	3 - 3	I4
Mn II?	1424.49	5					I4
Mn II	1425.03	3		$3d^5(a^4F)4s - 3d^5(a^6S)6f$	$a^5F - {}^5F^\circ$	2 - 2	I4
Mn II	1425.40	12		$3d^5(a^2I)4s - 3d^44s(a^4H)4p$	$a^3I - x^3I^\circ$	7 - 6	I4
Mn II	1425.544	20		$3d^5(a^2I)4s - 3d^44s(a^4H)4p$	$a^3I - x^3I^\circ$	6 - 6	I4
Mn II	1425.93	12	87	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	5 - 5	I4
Mn II	1426.15	1	87	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	5 - 4	I4
Mn II	1426.32	10	87	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	4 - 4	I4
Mn II	1426.43	3	87	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	4 - 3	I4
Mn II	1428.19	0					I4
Mn II	1428.85	2		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - t^3G^\circ$	5 - 5	I4
Mn II	1429.02	2		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - t^3G^\circ$	4 - 5	I4
Mn II	1429.60	1		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$?	3 - 4	I4
Mn II	1429.66	2		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - s^5F^\circ$	3 - 3	I4
Mn II	1430.37	0		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - s^3D^\circ$	2 - 3	I4
Mn II	1430.77	10		$3d^5(a^2I)4s - 3d^44s(a^4H)4p$	$a^3I - x^3I^\circ$	6 - 5	I4
Mn II	1431.046	20		$3d^5(a^2I)4s - 3d^44s(a^4H)4p$	$a^3I - x^3I^\circ$	5 - 5	I4
Mn II	1431.36	3		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - t^3G^\circ$	3 - 4	I4
Mn II	1431.52	2		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - s^3D^\circ$	3 - 3	I4
Mn II	1432.18	1		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - t^3G^\circ$	3 - 3	I4
Mn II	1432.78	40	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	5 - 6	I4
Mn II	1432.95	5		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - v^5G^\circ$	3 - 4	I4
Mn II	1433.08	4	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	1 - 2	I4
Mn II	1433.27	4		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - v^5G^\circ$	2 - 3	I4
Mn II	1433.50	15	77	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^7P^\circ - {}^7S$	2 - 3	I4
Mn II	1433.63	6		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - v^5G^\circ$	2 - 2	I4
Mn II	1434.26	10	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	5 - 5	I4
Mn II	1434.44	30	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	4 - 5	I4
Mn II	1434.79	1h	86	$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - v^5G^\circ$	3 - 2	I4
Mn II	1435.68	1h	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	5 - 4	I4
Mn II	1435.87	4	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	4 - 4	I4
Mn II	1437.13	15	77	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^7P^\circ - {}^7S$	3 - 3	I4
Mn II	1437.32	1	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	4 - 3	I4
Mn II	1437.42	4		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3G^\circ$	4 - 5	I4
Mn II	1437.70	3		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - s^3D^\circ$	3 - 3	I4
Mn II	1438.71	1		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - s^5F^\circ$	1 - 2	I4
Mn II	1439.16	15	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	3 - 4	I4
Mn II	1440.63	8	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	3 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1440.81	0		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3G^\circ$	4 - 4	I4
Mn II	1440.96	1	86	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	3 - 2	I4
Mn II	1441.37	1		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - s^3D^\circ$	2 - 2	I4
Mn II	1442.28	10		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - q^3F^\circ$	2 - 3	I4
Mn II	1442.594	25	77	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^7P^\circ - {}^7S$	4 - 3	I4
Mn II	1443.46	7		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - q^3F^\circ$	3 - 3	I4
Mn II	1443.85	10		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	2 - 3	I4
Mn II	1444.01	6		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3G^\circ$	4 - 3	I4
Mn II	1444.19	6		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - v^5G^\circ$	2 - 2	I4
Mn II	1444.58	3		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - q^3F^\circ$	2 - 2	I4
Mn II	1445.43	2		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - q^3F^\circ$	3 - 4	I4
Mn II	1446.908	20		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	1 - 2	I4
Mn II	1447.49	15		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - w^5G^\circ$	2 - 2	I4
Mn II	1447.86	10		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - w^5G^\circ$	3 - 4	I4
Mn II	1448.08	15		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - w^5G^\circ$	3 - 3	I4
Mn II	1448.47	4		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - t^3G^\circ$	4 - 4	I4
Mn II	1448.714	15		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3G^\circ$	3 - 4	I4
Mn II	1448.83	12		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - s^3D^\circ$	3 - 2	I4
Mn II	1449.74	4		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - q^3F^\circ$	3 - 3	I4
Mn II	1450.23	10		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - v^5G^\circ$?	1 - 2	I4
Mn II	1450.46	12		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	5 - 6	I4
Mn II	1450.71	15		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	4 - 5	I4
Mn II	1450.82	4		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	4 - 4	I4
Mn II	1452.05	6		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - s^3D^\circ$	2 - 2	I4
Mn II	1452.99	3		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - q^3F^\circ$	2 - 3	I4
Mn II	1454.03	6		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - t^3G^\circ$	2 - 3	I4
Mn II	1454.18	6		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	3 - 4	I4
Mn II	1454.40	1		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	3 - 3	I4
Mn II	1454.97	20		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3D^\circ$	4 - 3	I4
Mn II	1455.33	5		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - q^3F^\circ$	2 - 2	I4
Mn II	1456.45	2		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - t^3G^\circ$	3 - 4	I4
Mn II	1457.30	5		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - t^3G^\circ$	3 - 3	I4
Mn II	1457.67	7		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - w^5G^\circ$	2 - 3	I4
Mn II	1458.18	3		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - s^3D^\circ$	1 - 2	I4
Mn II	1459.72	2h		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3D^\circ$	2 - 3	I4
Mn II	1461.48	5		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - q^3F^\circ$	1 - 2	I4
Mn II	1462.27	3		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	4 - 3	I4
Mn II	1462.87	5		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - q^3F^\circ$	4 - 4	I4
Mn II	1463.02	8		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3D^\circ$	3 - 3	I4
Mn II	1464.572	30		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	4 - 4	I4
Mn II	1467.31	1		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - q^3F^\circ$	4 - 3	I4
Mn II	1467.53	10		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	3 - 2	I4
Mn II	1468.03	20		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	3 - 3	I4
Mn II	1470.33	0		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	3 - 4	I4
Mn II	1470.73	8		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	2 - 1	I4
Mn II	1471.024	5		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - q^3F^\circ$	3 - 4	I4
Mn II	1471.19	7		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3D^\circ$	2 - 2	I4
Mn II	1471.586	8		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	2 - 2	I4
Mn II	1471.93	2		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	1 - 0	I4
Mn II	1472.08	2		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	2 - 3	I4
Mn II	1472.62	3		$3d^6 - 3d^5(a^2F)4p$	$a^5D - y^3G^\circ$	4 - 5	I4
Mn II	1473.32	0		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	1 - 1	I4
Mn II	1474.18	1		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5D^\circ$	1 - 2	I4
Mn II	1474.54	10		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - q^3F^\circ$	2 - 2	I4
Mn II	1475.11	3		$3d^6 - 3d^5(a^4F)4p$	$a^5D - y^5G^\circ$	4 - 5	I4
Mn II	1475.46	6		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - q^3F^\circ$	3 - 3	I4
Mn II	1475.72	5		$3d^5(a^2D)4s -$	$c^3D - t^5F^\circ$	3 - 4	I4
Mn II	1476.04	12	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	1 - 2	I4
Mn II	1476.64	12		$3d^5(a^2D)4s -$	$c^3D - t^5F^\circ$	2 - 2	I4
Mn II	1476.98	5	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	1 - 1	I4
Mn II	1477.61	3		$3d^5(a^2D)4s -$	$c^3D - t^5F^\circ$	2 - 1	I4
Mn II	1477.83	5h		$3d^5(a^2D)4s -$	$c^3D - t^5F^\circ$	3 - 2	I4
Mn II	1478.59	25	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	5 - 5	I4
Mn II	1478.79	20	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	4 - 4	I4
Mn II	1479.76	1	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	4 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1480.16	2		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	4 - 5	I4
Mn II	1480.85	10		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - s^3D^\circ$	2 - 1	I4
Mn II	1481.35	5		$3d^6 - 3d^5(a^2F)4p$	$a^5D - y^3G^\circ$?	3 - 4	I4
Mn II	1482.40	0h		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	3 - 3	I4
Mn II	1483.25	3	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	3 - 3	I4
Mn II	1483.685	10		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	3 - 4	I4
Mn II	1484.45	0	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	3 - 2	I4
Mn II	1486.068	8		$3d^6 - 3d^5(a^4F)4p$	$a^5D - y^5G^\circ$	1 - 2	I4
Mn II	1486.40	1		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	0 - 1	I4
Mn II	1486.55	12		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	2 - 3	I4
Mn II	1486.66	3	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	2 - 3	I4
Mn II	1487.86	50	85	$3d^5(a^4F)4s -$	$a^5F - t^5F^\circ$	2 - 2	I4
Mn II	1489.13	12		$3d^6 - 3d^5(a^4F)4p$	$a^5D - x^5F^\circ$	1 - 2	I4
Mn II	1494.754	20	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	5 - 4	I4
Mn II	1494.97	7		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	4 - 4	I4
Mn II	1495.26	1		$3d^6 - 3d^5(a^2D)4p$	$a^5D - x^3D^\circ$	2 - 3	I4
Mn II	1496.78	4		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	3 - 3	I4
Mn II	1498.60	8		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	2 - 2	I4
Mn II	1499.61	1	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	1 - 1	I4
Mn II	1499.84	8		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	3 - 2	I4
Mn II	1499.95	20	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	4 - 3	I4
Mn II	1500.26	5		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	2 - 1	I4
Mn II	1500.41	0	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	1 - 0	I4
Mn II	1500.99	4		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - r^3F^\circ$	3 - 3	I4
Mn II	1501.44	0		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - r^3F^\circ$	4 - 4	I4
Mn II	1502.38	1		$3d^5(a^2D)4s - 3d^44s4p$	$c^3D - r^3F^\circ$	2 - 2	I4
Mn II	1503.02	3		$3d^5(a^2D)4s - 3d^44s(b^4P)4p$	$c^3D - y^3S^\circ$	1 - 1	I4
Mn II	1503.54	1	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	3 - 3	I4
Mn II	1504.99	1		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - r^3F^\circ$	3 - 4	I4
Mn II	1506.63	7	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	3 - 2	I4
Mn II	1507.78	4		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - r^3F^\circ$	3 - 3	I4
Mn II	1510.14	0	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	2 - 2	I4
Mn II	1511.84	4	84	$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$a^5F - u^5D^\circ$	2 - 1	I4
Mn II	1513.32	2		$3d^5(a^4F)4s -$	$a^5F - v^5D^\circ$	5 - 4	I4
Mn II	1514.03	1		$3d^5(a^4F)4s - 3d^44s4p$	$a^5F - r^3F^\circ$	2 - 2	I4
Mn II	1516.36	5		$3d^5(a^2D)4s -$	$c^3D - v^5D^\circ$?	3 - 2	I4
Mn II	1516.75	8		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	1 - 2	I4
Mn II	1518.48	0		$3d^5(a^2D)4s - 3d^44s(b^4D)4p$	$c^3D - u^5D^\circ$	1 - 1	I4
Mn II	1519.79	5		$3d^5(a^4F)4s -$	$a^5F - u^5F^\circ$	5 - 5	I4
Mn II	1521.42	2		$3d^5(a^2D)4s -$	$c^3D - u^5F^\circ$	3 - 3	I4
Mn II	1522.420	3		$3d^5(a^4F)4s -$	$a^5F - u^5F^\circ$	4 - 4	I4
Mn II	1523.14	12		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - s^3G^\circ$	6 - 5	I4
Mn II	1523.92	10		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - r^3F^\circ$	4 - 4	I4
Mn II	1524.55	10		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - s^3G^\circ$	5 - 4	I4
Mn II	1524.71	4		$3d^5(a^4F)4s -$	$a^5F - u^5F^\circ$	4 - 3	I4
Mn II	1527.76	7		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - s^3G^\circ$	4 - 3	I4
Mn II	1531.01	8		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	3 - 4	I4
Mn II	1533.10	2		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - t^3G^\circ$	5 - 4	I4
Mn II	1533.68	5		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - t^3G^\circ$	4 - 3	I4
Mn II	1534.34	0		$3d^5(a^4F)4s -$	$a^5F - x^5G^\circ$	1 - 2	I4
Mn II	1534.58	0		$3d^5(a^2D)4s -$	$c^3D - x^5G^\circ$	2 - 3	I4
Mn II	1534.80	5		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - r^3F^\circ$	2 - 2	I4
Mn II	1535.42	1		$3d^5(a^2D)4s -$	$c^3D - x^5G^\circ$	3 - 4	I4
Mn II	1535.66	6		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - r^3F^\circ$	3 - 3	I4
Mn II	1535.91	0		$3d^5(a^2D)4s -$	$c^3D - x^5G^\circ$	3 - 3	I4
Mn II	1536.10	3		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	3 - 3	I4
Mn II	1536.63	7	92	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^5P^\circ - {}^5S$	3 - 2	I4
Mn II	1536.808	3		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	2 - 3	I4
Mn II	1537.070	1		$3d^5(a^4F)4s -$	$a^5F - x^5G^\circ$	5 - 6	I4
Mn II	1537.56	2		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - t^3D^\circ$	2 - 3	I4
Mn II	1538.14	1		$3d^5(a^4F)4s -$	$a^5F - x^5G^\circ$	4 - 5	I4
Mn II	1538.43	0		$3d^5(a^2F)4s - 3d^44s4p$	$b^3F - r^3F^\circ$	3 - 2	I4
Mn II	1539.24	3		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	2 - 2	I4
Mn II	1539.33	5	92	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^5P^\circ - {}^5S$	2 - 2	I4
Mn II	1539.99	0		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	1 - 2	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1540.47	0		$3d^5(a^4F)4s - 3d^5(a^6S)5f$	$a^5F - {}^5F^\circ$	5 - 5	I4
Mn II	1541.06	4	92	$3d^5(a^6S)4p - 3d^5(a^6S)7s$	$z^5P^\circ - {}^5S$	1 - 2	I4
Mn II	1541.39	0		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	2 - 1	I4
Mn II	1542.16	1		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	1 - 1	I4
Mn II	1542.52	1		$3d^5(a^4F)4s -$	$a^5F - x^5G^\circ$	3 - 4	I4
Mn II	1542.98	0		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - t^3D^\circ$	2 - 2	I4
Mn II	1543.28	0		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - w^5D^\circ$	1 - 0	I4
Mn II	1545.13	1		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - t^3D^\circ$	1 - 2	I4
Mn II	1546.22	8		$3d^6 - 3d^5(a^2D)4p$	$a^5D - x^3F^\circ$?	2 - 2	I4
Mn II	1546.87	4		$3d^6 - 3d^44s4p$	$a^1F - u^3H^\circ$	3 - 4	I4
Mn II	1548.634	4		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - s^3G^\circ$	5 - 5	I4
Mn II	1549.25	0		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - q^3F^\circ$	5 - 4	I4
Mn II	1550.41	4		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - s^3G^\circ$	4 - 4	I4
Mn II	1550.82	2		$3d^5(a^2F)4s - 3d^44s4p$	$b^1F - s^3G^\circ$	3 - 3	I4
Mn II	1552.60	2		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - s^3G^\circ$	5 - 4	I4
Mn II	1553.85	0		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - q^3F^\circ$	4 - 3	I4
Mn II	1555.01	1		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - s^3G^\circ$	3 - 3	I4
Mn II	1556.94	2		$3d^5(a^2F)4s - 3d^44s4p$	$b^1F - t^3G^\circ$	3 - 3	I4
Mn II	1557.43	1		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - s^3G^\circ$	4 - 5	I4
Mn II	1559.24	3		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - t^3G^\circ$	4 - 4	I4
Mn II	1561.17	4		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - t^3G^\circ$	3 - 3	I4
Mn II	1561.61	4		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - s^3G^\circ$	3 - 4	I4
Mn II	1562.57	1		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - t^3G^\circ$	5 - 5	I4
Mn II	1563.61	6		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - s^3G^\circ$	2 - 3	I4
Mn II	1564.897	30		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^3G - s^3F^\circ$	5 - 4	I4
Mn II	1566.47	40		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	6 - 5	I4
Mn II	1567.06	2		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	5 - 5	I4
Mn II	1568.51	20		$3d^5(a^4G)4s - 3d^5(b^2F)4p$	$a^5G - u^3G^\circ$	6 - 5	I4
Mn II	1569.08	1		$3d^5(a^4G)4s - 3d^5(b^2F)4p$	$a^5G - u^3G^\circ$	5 - 5	I4
Mn II	1570.05	7		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - u^3H^\circ$	6 - 6	I4
Mn II	1572.13	1		$3d^5(a^4G)4s - 3d^5(b^2F)4p$	$a^5G - u^3G^\circ$	5 - 4	I4
Mn II	1573.53	30		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^3G - s^3F^\circ$	4 - 3	I4
Mn II	1574.276	6		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - u^3H^\circ$	5 - 5	I4
Mn II	1575.642	40		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	5 - 4	I4
Mn II	1575.75	3		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - t^3D^\circ$	3 - 3	I4
Mn II	1575.94	10		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	4 - 4	I4
Mn II	1577.22	3		$3d^5(a^2H)4s - 3d^44s4p$	$b^3H - u^3H^\circ$	4 - 4	I4
Mn II	1577.774	10		$3d^5(a^2H)4s - 3d^44s(a^4H)4p$	$b^3H - x^3I^\circ$	6 - 7	I4
Mn II	1578.90	20		$3d^5(a^4G)4s - 3d^44s(b^4D)4p$	$a^3G - s^3F^\circ$	3 - 2	I4
Mn II	1581.39	3		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - t^3D^\circ$	2 - 2	I4
Mn II	1582.23	40		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	4 - 3	I4
Mn II	1582.35	10		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	3 - 3	I4
Mn II	1584.38	1		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - t^3D^\circ$	1 - 1	I4
Mn II	1585.30	1		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - t^3D^\circ$	2 - 1	I4
Mn II	1587.11	50		$3d^5(a^4G)4s - 3d^5(b^2F)4p$	$a^5G - x^1D^\circ$	3 - 2	I4
Mn II	1587.15	7		$3d^5(a^2H)4s - 3d^44s(a^4H)4p$	$b^3H - x^3I^\circ$	5 - 6	I4
Mn II	1587.38	1		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - q^3F^\circ$	4 - 4	I4
Mn II	1587.46	15		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	3 - 2	I4
Mn II	1589.74	1		$3d^5(a^2H)4s - 3d^44s(a^4H)4p$	$b^3H - x^3I^\circ$	6 - 6	I4
Mn II	1590.569	20		$3d^5(a^4G)4s - 3d^44s(a^6D)4p$	$a^5G - w^5F^\circ$	2 - 1	I4
Mn II	1592.76	0		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - q^3F^\circ$	3 - 3	I4
Mn II	1593.224	5		$3d^5(a^2H)4s - 3d^44s(a^4H)4p$	$b^3H - x^3I^\circ$	4 - 5	I4
Mn II	1593.61	0		$3d^5(a^2H)4s - 3d^44s(a^4H)4p$	$b^3H - x^3I^\circ$	5 - 5	I4
Mn II	1597.18	2		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - u^3H^\circ$	5 - 6	I4
Mn II	1601.84	5		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - u^3H^\circ$	4 - 5	I4
Mn II	1602.10	30		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	4 - 4	I4
Mn II	1603.87	5		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	3 - 4	I4
Mn II	1604.19	0		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - u^3H^\circ$	5 - 5	I4
Mn II	1605.33	0		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - u^3H^\circ$	4 - 4	I4
Mn II	1605.467	60		$3d^6 - 3d^44s(b^4D)4p$	$b^3G - s^3F^\circ$	5 - 4	I4
Mn II	1607.37	2		$3d^6 - 3d^5(b^2F)4p$	$a^3P - u^3D^\circ$	2 - 3	I4
Mn II	1607.67	5		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	4 - 3	I4
Mn II	1609.50	30		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	2 - 3	I4
Mn II	1611.61	5		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	1 - 2	I4
Mn II	1612.15	10		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D^\circ$	3 - 2	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1613.50	1		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D°$	0 - 1	I4
Mn II	1613.62	3		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - u^3H°$	4 - 5	I4
Mn II	1614.56	5		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D°$	2 - 1	I4
Mn II	1615.050	2		$3d^5(a^6S)4s - 3d^5(a^4D)4p$	$a^5S - x^5P°$	2 - 3	I4
Mn II	1615.22	1		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5D°$	1 - 0	I4
Mn II	1615.79	60		$3d^6 - 3d^44s(b^4D)4p$	$b^3G - s^3F°$	4 - 3	I4
Mn II	1616.79	5		$3d^5(a^6S)4s - 3d^5(a^4D)4p$	$a^5S - x^5P°$	2 - 2	I4
Mn II	1617.34	4		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - u^3H°$	3 - 4	I4
Mn II	1618.34	2h		$3d^5(a^6S)4s - 3d^5(a^4D)4p$	$a^5S - x^5P°$	2 - 1	I4
Mn II	1623.14	40		$3d^6 - 3d^44s(b^4D)4p$	$b^3G - s^3F°$	3 - 2	I4
Mn II	1625.28	10	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	2 - 3	I4
Mn II	1625.35	20	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	2 - 1	I4
Mn II	1625.89	10		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - t^3D°$	3 - 3	I4
Mn II	1629.84	20	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	3 - 4	I4
Mn II	1629.94	10	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	3 - 3	I4
Mn II	1630.00	7	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	3 - 2	I4
Mn II	1632.10	2		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - t^3D°$	2 - 2	I4
Mn II	1636.75	25	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	4 - 5	I4
Mn II	1636.87	15	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	4 - 4	I4
Mn II	1636.96	6	76	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^7P° - {}^7D$	4 - 3	I4
Mn II	1642.90	1		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - s^3D°$	4 - 3	I4
Mn II	1643.08	2		$3d^6 - 3d^44s(a^6D)4p$	$a^3H - w^5F°$	6 - 5	I4
Mn II	1645.32	10		$3d^6 - 3d^5(b^2F)4p$	$a^3H - u^3G°$	6 - 5	I4
Mn II	1647.07	1		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - r^3F°$	4 - 4	I4
Mn II	1649.52	1		$3d^5(a^2G)4s - 3d^44s4p$	$c^3G - r^3F°$	5 - 4	I4
Mn II	1651.02	30		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D°$	4 - 3	I4
Mn II	1652.91	10		$3d^6 - 3d^5(b^2F)4p$	$a^3H - u^3G°$	5 - 4	I4
Mn II	1653.00	2		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - q^3F°$	4 - 4	I4
Mn II	1655.04	1		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D°$	3 - 3	I4
Mn II	1658.37	3		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D°$	2 - 1	I4
Mn II	1659.50	0		$3d^5(a^4F)4s - 3d^44s4p$	$c^3F - r^3F°$	4 - 4	I4
Mn II	1660.06	10		$3d^6 - 3d^44s(a^6D)4p$	$a^3H - w^5F°$?	4 - 4	I4
Mn II	1660.516	10		$3d^6 - 3d^5(b^2F)4p$	$a^3H - u^3G°$	4 - 3	I4
Mn II	1661.576	0		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - q^3F°$	2 - 2	I4
Mn II	1663.653	3		$3d^5(a^2H)4s - 3d^5(a^6S)5f$	$b^3H - {}^5F°$?	5 - 4	I4
Mn II	1678.63	2		$3d^5(a^6S)4s - 3d^5(a^4P)4p$	$a^5S - z^3P°$	2 - 2	I4
Mn II	1679.55	60	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	3 - 3	I4
Mn II	1680.401	40	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	2 - 3	I4
Mn II	1684.58	10	75	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^7P° - {}^7S$	2 - 3	I4
Mn II	1684.71	10		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3G°$	3 - 3	I4
Mn II	1688.13	2		$3d^6 - 3d^5(a^2H)4p$	$a^3H - x^1H°$	6 - 5	I4
Mn II	1689.25	2		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - s^3F°$	3 - 4	I4
Mn II	1689.48	50	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	3 - 2	I4
Mn II	1689.611	15	75	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^7P° - {}^7S$	3 - 3	I4
Mn II	1689.84	4	102	$3d^44s^2 - 3d^5(a^6S)6f$	$c^5D - {}^5F°$	0 - 1	I4
Mn II	1690.32	0	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	2 - 2	I4
Mn II	1691.248	40	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	1 - 2	I4
Mn II	1691.45	1		$3d^6 - 3d^44s4p$	$c^3P - s^3D°$	2 - 2	I4
Mn II	1692.34	2		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^3F°$	3 - 4	I4
Mn II	1692.46	10	102	$3d^44s^2 - 3d^5(a^6S)6f$	$c^5D - {}^5F°$	1 - 2	I4
Mn II	1694.24	50		$3d^5(a^6S)4s - 3d^5(a^4P)4p$	$a^5S - y^5P°$	2 - 1	I4
Mn II	1696.51	60		$3d^5(a^6S)4s - 3d^5(a^4P)4p$	$a^5S - y^5P°$	2 - 2	I4
Mn II	1697.19	80b	75	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^7P° - {}^7S$	4 - 3	I4
Mn II	1697.19	80b	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	2 - 1	I4
Mn II	1697.53	12	102	$3d^44s^2 - 3d^5(a^6S)6f$	$c^5D - {}^5F°$	2 - 3	I4
Mn II	1698.127	10	39	$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - v^5P°$	1 - 1	I4
Mn II	1700.34	100		$3d^5(a^6S)4s - 3d^5(a^4P)4p$	$a^5S - y^5P°$	2 - 3	I4
Mn II	1700.60	1		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - s^3F°$	1 - 2	I4
Mn II	1700.69	3	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F°$	0 - 1	I4
Mn II	1703.37	5	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F°$	1 - 2	I4
Mn II	1704.87	15	102	$3d^44s^2 - 3d^5(a^6S)6f$	$c^5D - {}^5F°$	3 - 4	I4
Mn II	1706.57	10		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5F°$	4 - 5	I4
Mn II	1708.267	100		$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G°$	6 - 5	I4
Mn II	1708.55	4	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F°$	2 - 2	I4
Mn II	1708.65	6	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F°$	2 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1711.83	100		$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G^\circ$	5 - 4	I4
Mn II	1714.38	100	102	$3d^44s^2 - 3d^5(a^6S)6f$	$c^5D - {}^5F^\circ$	4 - 5	I4
Mn II	1715.25	1		$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G^\circ$	4 - 4	I4
Mn II	1715.69	10		$3d^6 - 3d^5(b^2F)4p$	$a^3F - t^3F^\circ$	4 - 4	I4
Mn II	1715.98	12	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F^\circ$	3 - 4	I4
Mn II	1716.14	12	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F^\circ$	3 - 3	I4
Mn II	1716.78	80		$3d^6 - 3d^5(a^2G)4p$	$a^3H - y^1H^\circ$	6 - 5	I4
Mn II	1718.56	2		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - v^3F^\circ$	5 - 4	I4
Mn II	1718.79	15		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5F^\circ$	3 - 4	I4
Mn II	1725.29	15	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F^\circ$	4 - 5	I4
Mn II	1725.441	20		$3d^5(a^4P)4s - 3d^5(a^2S)4p$	$b^3P - v^3P^\circ$	2 - 2	I4
Mn II	1725.61	10	101	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - s^5F^\circ$	4 - 4	I4
Mn II	1726.29	10		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5F^\circ$	2 - 3	I4
Mn II	1726.47	200	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	4 - 3	I4
Mn II	1726.81	30		$3d^6 - 3d^5(b^2F)4p$	$a^3F - t^3F^\circ$	3 - 3	I4
Mn II	1728.12	1		$3d^5(a^4P)4s - 3d^5(a^2S)4p$	$b^3P - v^3P^\circ$	1 - 2	I4
Mn II	1729.57	5		$3d^6 - 3d^44s(a^6D)4p$	$a^3P - v^5P^\circ$	0 - 1	I4
Mn II	1731.36	40		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - r^3F^\circ$	4 - 4	I4
Mn II	1731.73	0		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - w^5F^\circ$	1 - 2	I4
Mn II	1732.702	300	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	3 - 2	I4
Mn II	1733.55	500	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	4 - 4	I4
Mn II	1733.87	30		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3H^\circ$	6 - 6	I4
Mn II	1734.49	400	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	3 - 3	I4
Mn II	1734.72	30		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - r^3F^\circ$	3 - 3	I4
Mn II	1737.43	5		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - w^3P^\circ$	1 - 2	I4
Mn II	1737.929	300	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	2 - 1	I4
Mn II	1738.347	100	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	2 - 2	I4
Mn II	1738.51	10		$3d^5(b^2F)4s - 3d^44s4p$	$d^3F - r^3F^\circ$	2 - 2	I4
Mn II	1740.156	200	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	2 - 3	I4
Mn II	1741.50	40	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	1 - 0	I4
Mn II	1741.65	50	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	3 - 4	I4
Mn II	1742.00	200	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	1 - 2	I4
Mn II	1743.347	100	13	$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5D^\circ$	0 - 1	I4
Mn II	1744.54	2	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	3 - 2	I4
Mn II	1744.69	20		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3H^\circ$	5 - 5	I4
Mn II	1744.86	10	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	3 - 4	I4
Mn II	1746.99	10		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - s^3F^\circ$	3 - 4	I4
Mn II	1747.92	2h	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	2 - 1	I4
Mn II	1747.995	2h	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	2 - 2	I4
Mn II	1748.13	10h	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	2 - 3	I4
Mn II	1749.93	40		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3H^\circ$	4 - 4	I4
Mn II	1750.18	8h	91	$3d^5(a^6S)4p - 3d^5(a^6S)5d$	$z^5P^\circ - {}^5D$	1 - 2	I4
Mn II	1751.60	20b		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - w^3P^\circ$	2 - 1	I4
Mn II	1752.40	8		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	4 - 3	I4
Mn II	1752.92	0		$3d^5(a^4P)4s - 3d^5(a^6S)5p$	$a^5P - w^5P^\circ$	3 - 2	I4
Mn II	1754.12	1		$3d^5(a^4P)4s - 3d^5(a^6S)5p$	$a^5P - w^5P^\circ$	3 - 3	I4
Mn II	1754.34	5		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - w^3P^\circ$	1 - 1	I4
Mn II	1754.65	0		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - s^3F^\circ$	3 - 3	I4
Mn II	1754.81	8		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - s^3F^\circ$	2 - 3	I4
Mn II	1755.04	0		$3d^5(a^4P)4s - 3d^5(a^6S)5p$	$a^5P - w^5P^\circ$	2 - 3	I4
Mn II	1756.30	10		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - w^3P^\circ$	0 - 1	I4
Mn II	1756.80	1		$3d^6 - 3d^5(a^2G)4p$	$a^3H - u^3F^\circ$	4 - 3	I4
Mn II	1757.44	2		$3d^6 - 3d^5(a^2G)4p$	$a^3H - u^3F^\circ$	5 - 4	I4
Mn II	1760.678	100		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	3 - 3	I4
Mn II	1760.96	5		$3d^5(a^4D)4s - 3d^44s(b^4D)4p$	$b^3D - s^3F^\circ$	1 - 2	I4
Mn II	1762.75	10		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	3 - 2	I4
Mn II	1763.94	15		$3d^5(a^4P)4s - 3d^44s(b^4D)4p$	$b^3P - w^3P^\circ$	1 - 0	I4
Mn II	1765.502	100		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	4 - 3	I4
Mn II	1766.50	50		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	2 - 3	I4
Mn II	1767.67	60		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	3 - 3	I4
Mn II	1768.596	80		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	2 - 2	I4
Mn II	1769.08	8		$3d^6 - 3d^5(b^2D)4p$	$a^1F - w^1D^\circ$	3 - 2	I4
Mn II	1770.444	10		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	2 - 1	I4
Mn II	1772.00	2		$3d^6 - 3d^5(a^4F)4p$	$a^3P - v^3D^\circ$	2 - 3	I4
Mn II	1772.35	30		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	1 - 2	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1772.45	5		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3D^\circ$	4 - 3	I4
Mn II	1773.70	2		$3d^6 - 3d^5(a^2S)4p$	$a^3D - v^3P^\circ$	3 - 2	I4
Mn II	1774.21	50		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	1 - 1	I4
Mn II	1774.75	15		$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^1I^\circ$	6 - 6	I4
Mn II	1775.21	50d		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	4 - 5	I4
Mn II	1775.52	0		$3d^6 - 3d^5(a^4F)4p$	$a^3P - v^3D^\circ$	2 - 2	I4
Mn II	1775.69	6		$3d^44s^2 -$	$c^5D - s^5P^\circ$	0 - 1	I4
Mn II	1776.06	20		$3d^6 - 3d^5(a^4D)4p$	$a^5D - x^5P^\circ$	0 - 1	I4
Mn II	1777.23	0		$3d^6 - 3d^5(b^2F)4p$	$b^3G - u^3G^\circ$	4 - 4	I4
Mn II	1778.01	10		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	1 - 2	I4
Mn II	1778.09	6		$3d^44s^2 -$	$c^5D - s^5P^\circ$	1 - 2	I4
Mn II	1778.59	20	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	1 - 1	I4
Mn II	1778.692	100		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	3 - 2	I4
Mn II	1779.308	20		$3d^6 - 3d^44s4p$	$e^3F - r^3F^\circ$	2 - 2	I4
Mn II	1779.59	1		$3d^6 - 3d^5(a^2F)4p$	$a^3P - y^1F^\circ$	2 - 3	I4
Mn II	1780.25	8		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	4 - 4	I4
Mn II	1781.82	1		$3d^44s^2 -$	$c^5D - t^5F^\circ$	1 - 2	I4
Mn II	1781.93	1		$3d^6 - 3d^44s4p$	$e^3F - r^3F^\circ$	3 - 2	I4
Mn II	1782.626	8		$3d^6 - 3d^5(a^2G)4p$	$a^3F - u^3F^\circ$	2 - 2	I4
Mn II	1783.06	1		$3d^6 - 3d^5(a^4F)4p$	$a^3P - v^3F^\circ$	2 - 3	I4
Mn II	1783.18	0		$3d^44s^2 -$	$c^5D - t^5F^\circ$	1 - 1	I4
Mn II	1783.38	2		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - w^3P^\circ$	2 - 2	I4
Mn II	1783.51	15		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - w^3P^\circ$	3 - 2	I4
Mn II	1783.63	10		$3d^6 - 3d^5(a^2G)4p$	$a^3F - u^3F^\circ$	4 - 4	I4
Mn II	1783.72	20	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	2 - 2	I4
Mn II	1783.94	10		$3d^6 - 3d^5(a^2G)4p$	$a^3F - u^3F^\circ$	3 - 3	I4
Mn II	1784.24	15	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	2 - 1	I4
Mn II	1784.46	10		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3D^\circ$	1 - 2	I4
Mn II	1785.032	20		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	0 - 1	I4
Mn II	1785.31	1h		$3d^6 - 3d^5(b^2F)4p$	$b^3G - u^3G^\circ$	3 - 3	I4
Mn II	1785.618	20		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	1 - 1	I4
Mn II	1785.73	1		$3d^44s^2 -$	$c^5D - t^5F^\circ$	2 - 3	I4
Mn II	1786.31	20		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^5D - v^5P^\circ$	2 - 1	I4
Mn II	1786.86	10		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3D^\circ$	2 - 3	I4
Mn II	1786.97	3		$3d^5(b^2F)4s - 3d^44s4p$	$c^1F - u^3H^\circ$	3 - 4	I4
Mn II	1787.23	2		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3G^\circ$	3 - 4	I4
Mn II	1787.36	3		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	5 - 4	I4
Mn II	1787.48	2		$3d^44s^2 -$	$c^5D - t^5F^\circ$	2 - 2	I4
Mn II	1788.43	40h		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	5 - 5	I4
Mn II	1788.786	40h		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	3 - 4	I4
Mn II	1789.63	8		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 3	I4
Mn II	1790.60	80		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 4	I4
Mn II	1790.79	20	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	3 - 3	I4
Mn II	1791.54	1		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	3 - 4	I4
Mn II	1791.67	2		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 5	I4
Mn II	1791.88	25	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	3 - 2	I4
Mn II	1792.52	0		$3d^44s^2 -$	$c^5D - t^5F^\circ$	3 - 4	I4
Mn II	1793.753	30		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	3 - 3	I4
Mn II	1793.89	1		$3d^44s^2 -$	$c^5D - t^5F^\circ$	3 - 3	I4
Mn II	1797.35	2		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	3 - 2	I4
Mn II	1797.76	20		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - y^1H^\circ$	5 - 5	I4
Mn II	1799.81	40		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	2 - 3	I4
Mn II	1800.959	2		$3d^6 -$	$c^3P - u^5F^\circ$?	2 - 3	I4
Mn II	1801.04	1		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - y^1H^\circ$	4 - 5	I4
Mn II	1801.23	10		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - w^3P^\circ$	2 - 1	I4
Mn II	1801.27	50	100	$3d^44s^2 -$	$c^5D - s^5P^\circ$	4 - 3	I4
Mn II	1801.63	8		$3d^6 - 3d^5(a^4F)4p$	$a^3P - v^3D^\circ$	1 - 2	I4
Mn II	1803.00	10		$3d^44s^2 -$	$c^5D - t^5F^\circ$	4 - 5	I4
Mn II	1803.43	20		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	2 - 2	I4
Mn II	1804.446			$3d^44s^2 -$	$c^5D - t^5F^\circ$?	4 - 3	C20,I4
Mn II	1807.34	30		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	1 - 2	I4
Mn II	1808.72	40		$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	6 - 7	I4
Mn II	1808.96	40		$3d^6 - 3d^5(b^2F)4p$	$a^1G - w^1F^\circ$	4 - 3	I4
Mn II	1809.43	30		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^1F^\circ$	4 - 3	I4
Mn II	1809.97	30		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	1 - 1	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1810.12	2		$3d^6 - 3d^44s(b^4D)4p$	$a^3D - w^3P^\circ$	1 - 0	I4
Mn II	1811.89	10		$3d^6 - 3d^5(a^4D)4p$	$a^5D - y^5F^\circ$	0 - 1	I4
Mn II	1812.04	2		$3d^6 - 3d^5(a^4F)4p$	$a^3P - v^3D^\circ$	0 - 1	I4
Mn II	1813.03	10		$3d^6 - 3d^5(a^4F)4p$	$a^3H - v^3F^\circ$	4 - 3	I4
Mn II	1813.283	8	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	0 - 1	I4
Mn II	1813.866	30	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	1 - 2	I4
Mn II	1814.47	25		$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	6 - 6	I4
Mn II	1815.24	40	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	2 - 3	I4
Mn II	1815.57	5h		$3d^5(a^4D)4s - 3d^44s(a^6D)4p$	$b^3D - w^5D^\circ$	3 - 2	I4
Mn II	1816.284	25	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	3 - 4	I4
Mn II	1816.52	25		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	5 - 6	I4
Mn II	1816.87	10	90	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^5P^\circ - {}^5S$	3 - 2	I4
Mn II	1816.91	10		$3d^6 - 3d^5(b^2F)4p$	$b^3G - t^3F^\circ$	5 - 4	I4
Mn II	1817.53	150d	99	$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3G^\circ$	6 - 5	I4
Mn II	1818.38	100		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3G^\circ$	5 - 4	I4
Mn II	1819.62	15		$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	5 - 6	I4
Mn II	1819.75	9	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	2 - 2	I4
Mn II	1820.22	50		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3G^\circ$	4 - 3	I4
Mn II	1820.65	9	90	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^5P^\circ - {}^5S$	2 - 2	I4
Mn II	1822.213	30	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	2 - 1	I4
Mn II	1822.71	10		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3G^\circ$	5 - 5	I4
Mn II	1823.06	8	90	$3d^5(a^6S)4p - 3d^5(a^6S)6s$	$z^5P^\circ - {}^5S$	1 - 2	I4
Mn II	1823.22	1		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	5 - 5	I4
Mn II	1823.69	30	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	3 - 3	I4
Mn II	1825.22	3		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	4 - 3	I4
Mn II	1826.59	20		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	4 - 5	I4
Mn II	1827.076	100	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	4 - 4	I4
Mn II	1828.251	10	99	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	3 - 2	I4
Mn II	1829.43	60		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	3 - 4	I4
Mn II	1829.75	20		$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	4 - 5	I4
Mn II	1830.15	10		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	3 - 3	I4
Mn II	1831.05	10h		$3d^5(a^4F)4s - 3d^5(a^6S)4f$	$a^5F - {}^5F^\circ$	2 - 3	I4
Mn II	1831.66	40		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	6 - 6	I4
Mn II	1832.19	50		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - u^3F^\circ$	3 - 2	I4
Mn II	1832.47	1		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	5 - 6	I4
Mn II	1833.30	20		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	5 - 5	I4
Mn II	1833.47	1		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	2 - 3	I4
Mn II	1833.91	15		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	3 - 2	I4
Mn II	1834.47	15		$3d^5(a^4G)4s - 3d^5(a^2F)4p$	$a^5G - y^3G^\circ$	3 - 4	I4
Mn II	1834.57	30		$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5D^\circ$	4 - 3	I4
Mn II	1835.91	100		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - x^5F^\circ$	4 - 3	I4
Mn II	1836.508	50		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3P^\circ$	3 - 2	I4
Mn II	1836.92	20		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - u^3F^\circ$	3 - 3	I4
Mn II	1837.13	80		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - u^3F^\circ$	5 - 4	I4
Mn II	1837.25	2		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	2 - 2	I4
Mn II	1837.48	60		$3d^5(a^4D)4s - 3d^5(a^2S)4p$	$b^3D - v^3P^\circ$	3 - 2	I4
Mn II	1837.65	10		$3d^5(a^4D)4s - 3d^5(a^2S)4p$	$b^3D - v^3P^\circ$	2 - 2	I4
Mn II	1837.86	1		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - x^5F^\circ$	4 - 4	I4
Mn II	1838.05	10	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	1 - 2	I4
Mn II	1838.25	2		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^1F^\circ$	3 - 3	I4
Mn II	1838.604	30	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	0 - 1	I4
Mn II	1839.59	15	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	2 - 3	I4
Mn II	1840.29	100		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - x^5F^\circ$	6 - 5	I4
Mn II	1840.45	2h		$3d^6 - 3d^5(a^2G)4p$	$b^3G - v^3G^\circ$	5 - 4	I4
Mn II	1840.56	3h		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - u^3F^\circ$	4 - 4	I4
Mn II	1840.91	5		$3d^6 - 3d^5(a^2S)4p$	$a^1S - y^1P^\circ$	0 - 1	I4
Mn II	1841.12	30		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - x^5F^\circ$	5 - 5	I4
Mn II	1841.33	10		$3d^5(a^2F)4s - 3d^5(b^2D)4p$	$b^1F - w^1D^\circ$	3 - 2	I4
Mn II	1841.61	40		$3d^6 - 3d^5(a^2G)4p$	$b^3G - v^3G^\circ$	5 - 5	I4
Mn II	1841.72	3	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	1 - 1	I4
Mn II	1841.947	100		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3F^\circ$	3 - 3	I4
Mn II	1842.33	10		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	4 - 4	I4
Mn II	1842.49	1		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	3 - 4	I4
Mn II	1842.863	50		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3P^\circ$	2 - 2	I4
Mn II	1843.117	20		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3P^\circ$	0 - 1	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1843.505	100		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3F^\circ$	4 - 4	I4
Mn II	1843.78	1	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	3 - 4	I4
Mn II	1843.94	20		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	3 - 3	I4
Mn II	1844.027	6	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$?	2 - 2	C20,I4
Mn II	1844.086	50		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3F^\circ$	2 - 2	I4
Mn II	1844.794	20					I4
Mn II	1845.29	30		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	3 - 3	I4
Mn II	1845.51	40		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$b^3P - w^5F^\circ$	2 - 1	I4
Mn II	1846.66	10		$3d^6 - 3d^5(a^2G)4p$	$b^3G - v^3G^\circ$	4 - 5	I4
Mn II	1846.78	4		$3d^44s^2 -$	$c^5D - u^5F^\circ$	0 - 1	I4
Mn II	1846.93	10		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^3P^\circ$	1 - 2	I4
Mn II	1847.73	150		$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	6 - 6	I4
Mn II	1848.16	10	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	1 - 2	I4
Mn II	1848.26	40	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	3 - 3	I4
Mn II	1848.52	2		$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3F^\circ$	3 - 4	I4
Mn II	1849.94	3	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	1 - 1	I4
Mn II	1850.00	20		$3d^5(a^4D)4s - 3d^5(a^2S)4p$	$b^3D - v^3P^\circ$	2 - 1	I4
Mn II	1850.43	3		$3d^5(a^4D)4s - 3d^5(a^2S)4p$	$b^3D - v^3P^\circ$	1 - 1	I4
Mn II	1850.60	1	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	1 - 2	I4
Mn II	1850.88	100		$3d^6 - 3d^5(a^2H)4p$	$a^3F - w^3G^\circ$	4 - 5	I4
Mn II	1851.44	60		$3d^6 - 3d^5(a^2H)4p$	$a^3F - w^3G^\circ$	3 - 4	I4
Mn II	1851.61	10b	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	2 - 3	I4
Mn II	1851.61	10b	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	3 - 3	I4
Mn II	1852.11	10		$3d^5(b^2F)4s - 3d^44s(b^4D)4p$	$d^3F - v^5F^\circ$?	2 - 2	I4
Mn II	1852.78	60	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	3 - 2	I4
Mn II	1853.05	2		$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	5 - 6	I4
Mn II	1853.272	300	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	4 - 3	I4
Mn II	1854.24	2	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	2 - 2	I4
Mn II	1854.89	40	98	$3d^44s^2 -$	$c^5D - v^5D^\circ$	4 - 4	I4
Mn II	1855.14	8		$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	6 - 5	I4
Mn II	1855.54	8		$3d^5(a^4D)4s - 3d^5(a^2S)4p$	$b^3D - v^3P^\circ$	1 - 0	I4
Mn II	1855.947	5h	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	0 - 1	I4
Mn II	1856.70	12	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	2 - 2	I4
Mn II	1857.01	30h		$3d^44s^2 -$	$c^5D - u^5F^\circ$	3 - 4	I4
Mn II	1857.923	200	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	3 - 2	I4
Mn II	1859.11	10h	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	1 - 1	I4
Mn II	1859.44	8		$3d^44s^2 -$	$c^5D - v^5D^\circ$	4 - 3	I4
Mn II	1860.42	3	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	3 - 3	I4
Mn II	1860.51	100		$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	5 - 5	I4
Mn II	1861.44	1		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - y^1I^\circ$	5 - 6	I4
Mn II	1861.667	100	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	2 - 1	I4
Mn II	1862.515	80	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	3 - 3	I4
Mn II	1862.80	20h	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	4 - 3	I4
Mn II	1863.48	20		$3d^5(a^4D)4s - 3d^5(a^2G)4p$	$b^5D - y^1G^\circ$?	4 - 4	I4
Mn II	1864.400	80	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	2 - 2	I4
Mn II	1864.615	40	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	4 - 5	I4
Mn II	1865.16	5		$3d^6 - 3d^5(a^2H)4p$	$a^1G - w^1G^\circ$	4 - 4	I4
Mn II	1865.30	2h	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	2 - 1	I4
Mn II	1865.52	10h	96	$3d^44s^2 -$	$c^5D - t^5P^\circ$	3 - 2	I4
Mn II	1865.832	150	12	$3d^6 - 3d^5(a^4F)4p$	$a^5D - y^5P^\circ$	1 - 1	I4
Mn II	1866.25	1		$3d^6 - 3d^5(a^2D)4p$	$a^3P - z^1P^\circ$	1 - 1	I4
Mn II	1867.880	80	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	0 - 1	I4
Mn II	1868.28	0	97	$3d^44s^2 -$	$c^5D - u^5F^\circ$	4 - 4	I4
Mn II	1868.58	20	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	1 - 2	I4
Mn II	1868.78	40		$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	4 - 4	I4
Mn II	1869.03	15	12	$3d^6 - 3d^5(a^4P)4p$	$a^5D - y^5P^\circ$	2 - 3	I4
Mn II	1869.55	1		$3d^5(a^4P)4s - 3d^44s(a^6D)4p$	$a^5P - y^7P^\circ$?	3 - 3	I4
Mn II	1871.39	20		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3H^\circ$	5 - 6	I4
Mn II	1873.07	40		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^3G^\circ$	6 - 5	I4
Mn II	1875.59	30		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3H^\circ$	3 - 4	I4
Mn II	1876.11	1		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - y^1G^\circ$	5 - 4	I4
Mn II	1877.16	30		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3F^\circ$	3 - 4	I4
Mn II	1878.52	3h		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^3G^\circ$	5 - 5	I4
Mn II	1879.09	5		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3F^\circ$	3 - 3	I4
Mn II	1879.66	1		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	2 - 2	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1879.85	40		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^3G^\circ$	5 - 4	I4
Mn II	1881.90	30		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^3G^\circ$	4 - 3	I4
Mn II	1883.78	10		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3H^\circ$	4 - 5	I4
Mn II	1883.98	10		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^3G^\circ$	4 - 4	I4
Mn II	1885.05	1		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3F^\circ$	2 - 2	I4
Mn II	1885.70	20		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3F^\circ$	2 - 3	I4
Mn II	1887.31	2		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^3F^\circ$	2 - 2	I4
Mn II	1887.87	10	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	4 - 4	I4
Mn II	1889.05	20		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3H^\circ$	3 - 4	I4
Mn II	1889.88	8		$3d^6 - 3d^5(a^2G)4p$	$a^3F - x^3H^\circ$	4 - 5	I4
Mn II	1890.17	5		$3d^6 - 3d^5(a^4F)4p$	$a^3P - x^5D^\circ$?	2 - 1	I4
Mn II	1891.18	8		$3d^5(a^4D)4s - 3d^5(a^2H)4p$	$b^5D - w^3G^\circ$?	2 - 3	I4
Mn II	1891.55	30h		$3d^6 - 3d^5(a^4F)4p$	$a^3P - x^5D^\circ$	2 - 2	I4
Mn II	1892.02	50		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	3 - 2	I4
Mn II	1892.40	10		$3d^6 - 3d^5(a^4F)4p$	$a^3P - x^5D^\circ$	2 - 3	I4
Mn II	1893.288	60		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	5 - 4	I4
Mn II	1893.49	30		$3d^5(a^4G)4s - 3d^5(a^2F)4p$	$a^3G - y^1F^\circ$	4 - 3	I4
Mn II	1893.70	50		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	4 - 3	I4
Mn II	1894.19	0		$3d^5(a^4P)4s - 3d^5(a^4F)4p$	$a^5P - x^5D^\circ$	2 - 3	I4
Mn II	1897.06	20		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	3 - 3	I4
Mn II	1897.48	100		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	3 - 4	I4
Mn II	1898.12	30		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	4 - 3	I4
Mn II	1898.64	30		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	4 - 4	I4
Mn II	1899.51	10		$3d^6 - 3d^5(a^2G)4p$	$a^3F - x^3H^\circ$	3 - 4	I4
Mn II	1902.04	10		$3d^6 - 3d^5(a^2G)4p$	$b^3G - u^3F^\circ$	3 - 4	I4
Mn II	1902.948	500		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	2 - 3	I4
Mn II	1906.37	20		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3G^\circ$	3 - 3	I4
Mn II	1907.49	20		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3G^\circ$	4 - 4	I4
Mn II	1907.840	200	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	3 - 3	I4
Mn II	1908.47	20		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^3G^\circ$	4 - 5	I4
Mn II	1908.54	20		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$a^3G - w^3G^\circ$	5 - 5	I4
Mn II	1908.91	100		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	1 - 2	I4
Mn II	1909.830	60	10	$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	4 - 3	I4
Mn II	1911.41	300	10	$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	4 - 4	I4
Mn II	1911.76	2h	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	3 - 2	I4
Mn II	1912.15	1		$3d^5(a^2F)4s - 3d^5(b^2D)4p$	$b^1F - u^1F^\circ$	3 - 3	I4
Mn II	1912.96	30		$3d^5(a^4D)4s - 3d^5(b^2F)4p$	$b^3D - u^3D^\circ$	3 - 3	I4
Mn II	1913.73	20		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	1 - 1	I4
Mn II	1914.68	200d	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	2 - 3	I4
Mn II	1915.10	1000	10	$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	4 - 5	I4
Mn II	1915.21	20		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^3G^\circ$	3 - 4	I4
Mn II	1916.34	0		$3d^6 - 3d^44s4p$	$c^1G - u^3H^\circ$	4 - 4	I4
Mn II	1916.71	30		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^3G^\circ$	2 - 3	I4
Mn II	1917.38	3		$3d^6 - 3d^5(a^4F)4p$	$a^3P - x^5D^\circ$	1 - 0	I4
Mn II	1917.61	100		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5S^\circ$	2 - 2	I4
Mn II	1918.643	200	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	2 - 2	I4
Mn II	1918.909	30	11	$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	2 - 1	I4
Mn II	1919.639	300		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	3 - 3	I4
Mn II	1920.03	100		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	3 - 2	I4
Mn II	1920.95	2		$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	2 - 3	I4
Mn II	1921.250	800		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	3 - 4	I4
Mn II	1922.031	100		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5S^\circ$	1 - 2	I4
Mn II	1923.07	200		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	1 - 2	I4
Mn II	1923.34	200		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	1 - 1	I4
Mn II	1924.96	5		$3d^6 - 3d^5(b^2F)4p$	$a^3D - t^3F^\circ$	3 - 4	I4
Mn II	1925.17	5		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3D^\circ$	2 - 2	I4
Mn II	1925.52	300		$3d^6 - 3d^5(a^4P)4p$	$a^5D - z^5D^\circ$	0 - 1	I4
Mn II	1925.728	1h		$3d^5(a^4G)4s - 3d^5(a^2D)4p$	$a^5G - x^3F^\circ$?	4 - 3	I4
Mn II	1926.167	40		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	0 - 1	I4
Mn II	1926.585	500		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	2 - 3	I4
Mn II	1926.948	50		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	2 - 2	I4
Mn II	1927.33	10		$3d^5(a^2G)4s - 3d^44s(b^4D)4p$	$c^3G - t^3D^\circ$	4 - 3	I4
Mn II	1928.15	40		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3D^\circ$	2 - 1	I4
Mn II	1930.06	3h	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	1 - 2	I4
Mn II	1930.45	30		$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	3 - 3	I4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1931.404	300		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	1 - 2	I4
Mn II	1932.27	10		$3d^6 - 3d^5(a^4F)4p$	$a^3P - x^5D^\circ$	0 - 1	I4
Mn II	1932.600	20		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	1 - 1	I4
Mn II	1933.32	15		$3d^6 - 3d^5(b^2F)4p$	$a^3D - t^3F^\circ$	2 - 3	I4
Mn II	1933.93	80b		$3d^6 - 3d^5(b^2F)4p$	$a^3D - t^3F^\circ$	1 - 2	I4
Mn II	1933.93	80b		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^3G^\circ$	6 - 5	I4
Mn II	1934.78	20h		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5F^\circ$	0 - 1	I4
Mn II	1935.068	100		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	5 - 4	I4
Mn II	1935.384	20		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	4 - 4	I4
Mn II	1936.089	1		$3d^5(a^2D)4s - 3d^44s(a^6D)4p$	$c^3D - w^5D^\circ$	2 - 3	I4
Mn II	1936.74	10	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	0 - 1	I4
Mn II	1937.28	2		$3d^6 - 3d^5(a^4F)4p$	$a^3H - y^5G^\circ$	6 - 6	I4
Mn II	1937.46	15		$3d^6 - 3d^5(b^2F)4p$	$a^3D - x^1G^\circ$	3 - 4	I4
Mn II	1938.20	20		$3d^5(a^2D)4s - 3d^44s(a^6D)4p$	$c^3D - w^5D^\circ$	3 - 3	I4
Mn II	1938.27	10		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^3G^\circ$	4 - 3	I4
Mn II	1938.92	1		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	1 - 2	I4
Mn II	1939.77	1		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^3G^\circ$	5 - 5	I4
Mn II	1939.96	20		$3d^5(a^2D)4s - 3d^44s(a^6D)4p$	$c^3D - w^5D^\circ$	2 - 2	I4
Mn II	1940.19	8b	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	1 - 1	I4
Mn II	1941.89	20		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - x^3H^\circ$	5 - 6	I4
Mn II	1942.08	20		$3d^5(a^2D)4s - 3d^44s(a^6D)4p$	$c^3D - w^5D^\circ$	3 - 2	I4
Mn II	1942.35	5		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	1 - 1	I4
Mn II	1942.66	40	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	4 - 3	I4
Mn II	1943.541	100		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	4 - 3	I4
Mn II	1944.16	100	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	1 - 2	I4
Mn II	1944.36	20		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$c^3F - t^3D^\circ$	4 - 3	I4
Mn II	1944.77	40	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	0 - 1	I4
Mn II	1945.15	200	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	2 - 3	I4
Mn II	1945.83	5		$3d^6 - 3d^5(a^4F)4p$	$b^3G - v^3D^\circ$	4 - 3	I4
Mn II	1946.34	30	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	3 - 2	I4
Mn II	1946.94	20	95	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - u^5P^\circ$	2 - 1	I4
Mn II	1947.932	200	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	3 - 4	I4
Mn II	1948.28	10	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	1 - 1	I4
Mn II	1948.72	80		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	4 - 4	I4
Mn II	1949.56	10		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	3 - 3	I4
Mn II	1950.143	200		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	2 - 2	I4
Mn II	1950.31	30		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 3	I4
Mn II	1950.69	2		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$c^3F - t^3D^\circ$	2 - 2	I4
Mn II	1950.922	40	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	2 - 2	I4
Mn II	1952.86	2		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^5F^\circ$	5 - 5	I4
Mn II	1953.23	300	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	4 - 5	I4
Mn II	1953.35	3		$3d^5(a^4F)4s - 3d^44s(b^4D)4p$	$c^3F - t^3D^\circ$	3 - 2	I4
Mn II	1953.51	10		$3d^5(a^4F)4s - 3d^44s(a^6D)4p$	$a^5F - w^5D^\circ$	3 - 2	I4
Mn II	1953.90	10		$3d^5(a^4G)4s - 3d^5(a^2G)4p$	$a^3G - x^3H^\circ$	4 - 5	I4
Mn II	1953.98	5		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3D^\circ$	2 - 1	I4
Mn II	1954.10	5		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	2 - 3	I4
Mn II	1954.32	30		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 4	I4
Mn II	1954.81	200d	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	3 - 3	I4
Mn II	1955.06	1	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	2 - 1	I4
Mn II	1957.98	40		$3d^5(b^2D)4s - 3d^44s(b^4D)4p$	$d^3D - s^5F^\circ$	2 - 2	I4
Mn II	1958.58	5h		$3d^6 - 3d^5(a^2F)4p$	$b^3G - y^1F^\circ$	3 - 3	I4
Mn II	1958.932	80		$3d^6 - 3d^5(a^2G)4p$	$a^1G - x^1F^\circ$	4 - 3	I4
Mn II	1959.246	300		$3d^6 - 3d^5(a^2H)4p$	$a^1I - x^1H^\circ$	6 - 5	I4
Mn II	1959.69	5		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	1 - 0	I4
Mn II	1960.27	10		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5D^\circ$	2 - 1	I4
Mn II	1960.37	10	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	4 - 4	I4
Mn II	1960.67	0	94	$3d^44s^2 - 3d^44s(b^4D)4p$	$c^5D - v^5F^\circ$	3 - 2	I4
Mn II	1960.90	5		$3d^6 - 3d^5(a^4F)4p$	$b^3G - v^3F^\circ$	5 - 4	I4
Mn II	1961.39	20		$3d^6 - 3d^5(a^4F)4p$	$b^3G - v^3F^\circ$	3 - 2	I4
Mn II	1962.80	30		$3d^6 - 3d^5(a^4F)4p$	$b^3G - v^3F^\circ$	3 - 3	I4
Mn II	1964.19	10		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3G^\circ$	5 - 4	I4
Mn II	1964.45	80		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3D^\circ$	4 - 3	I4
Mn II	1964.70	20		$3d^6 - 3d^5(b^2F)4p$	$a^1G - t^3F^\circ$	4 - 4	I4
Mn II	1965.68	60		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	4 - 3	I4
Mn II	1966.04	20		$3d^6 - 3d^5(a^2D)4p$	$a^3H - x^3D^\circ$	4 - 3	I4

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn II	1966.24	2		$3d^6 - 3d^5(a^2H)4p$	$a^1G - x^1H^\circ$	4 - 5	I4
Mn II	1967.59	30		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3G^\circ$	4 - 3	I4
Mn II	1969.24	200		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3G^\circ$	5 - 5	I4
Mn II	1969.87	50		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^3G - x^3G^\circ$	5 - 5	I4
Mn II	1969.95	100		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3G^\circ$	4 - 4	I4
Mn II	1970.16	5		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3D^\circ$	3 - 3	I4
Mn II	1970.947	5		$3d^6 - 3d^5(a^2S)4p$	$a^1D - v^3P^\circ$	2 - 1	I4
Mn II	1971.22	100		$3d^6 - 3d^5(a^2H)4p$	$b^3G - w^3G^\circ$	3 - 3	I4
Mn II	1971.71	20		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	4 - 5	I4
Mn II	1974.10	100b		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^3G - x^3G^\circ$	3 - 3	I4
Mn II	1974.82	80		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	1 - 1	I4
Mn II	1975.24	30		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^3G - x^3G^\circ$	4 - 4	I4
Mn II	1976.002	10		$3d^5(a^2D)4s - 3d^44s(a^6D)4p$	$c^3D - w^5D^\circ$	1 - 0	I4
Mn II	1976.18	2		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	4 - 5	I4
Mn II	1976.27	2		$3d^6 - 3d^5(a^2F)4p$	$a^3H - z^1G^\circ$	5 - 4	I4
Mn II	1976.87	40		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	4 - 4	I4
Mn II	1977.72	40		$3d^6 - 3d^5(b^2F)4p$	$a^1G - x^1G^\circ$	4 - 4	I4
Mn II	1978.75	20		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	4 - 3	I4
Mn II	1980.84	2		$3d^6 - 3d^5(a^2F)4p$	$a^3H - z^1G^\circ$	4 - 4	I4
Mn II	1981.01	10		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	4 - 4	I4
Mn II	1981.16	20		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	2 - 1	I4
Mn II	1981.67	20		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	1 - 2	I4
Mn II	1982.60	10		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	3 - 4	I4
Mn II	1983.17	60		$3d^6 - 3d^5(a^2D)4p$	$a^3H - z^1F^\circ$	4 - 3	I4
Mn II	1984.43	20		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	3 - 2	I4
Mn II	1985.25	2		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	4 - 5	I4
Mn II	1986.40	20		$3d^6 - 3d^5(a^2G)4p$	$a^1I - v^3G^\circ$	6 - 5	I4
Mn II	1988.06	30		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	0 - 1	I4
Mn II	1989.41	50		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	4 - 3	I4
Mn II	1992.30	20		$3d^6 - 3d^5(a^4G)4p$	$a^5D - z^5G^\circ$	4 - 5	I4
Mn II	1993.60	10		$3d^6 - 3d^5(a^2G)4p$	$a^1G - v^3G^\circ$	4 - 5	I4
Mn II	1993.99	100		$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	3 - 2	I4
Mn II	1994.23	300		$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	4 - 3	I4
Mn II	1995.275	1		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	3 - 3	I4
Mn II	1997.94	20		$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	2 - 2	I4
Mn II	1999.92	80		$3d^6 - 3d^5(b^2D)4p$	$c^3P - w^1D^\circ$	2 - 2	I4

MANGANESE III (Mn^{2+}), Z = 25

Ground State $1s^22s^22p^63s^23p^63d^5\ ^6S_{5/2}$ (23 electrons)

Ionization Potential 271 550 cm^{-1}; 33.667 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	594.872	0h		$3d^4(a^5D)4s - 3d^4(a^5D)5f$	$a^6D - y^6H^\circ$	9/2 - 7/2	C4,G3
Mn III	601.035	5h		$3d^5 - 3d^4(a^5D)5p$	$a^4P - v^4D^\circ$?	1/2 - 3/2	C4,G3
Mn III	655.804	0		$3d^5 - 3d^4(a^5D)5p$	$a^2F - v^4D^\circ$	5/2 - 3/2	Y1
Mn III	658.481	0		$3d^5 - 3d^4(a^5D)5p$	$a^2F - v^4F^\circ$	5/2 - 5/2	Y1
Mn III?	661.385	0					C4
Mn III	733.298	20		$3d^5 - 3d^4(b^3F)4p$	$a^4G - v^4F^\circ$	11/2 - 9/2	Y1
Mn III	734.066	10		$3d^5 - 3d^4(b^3F)4p$	$a^4G - v^4F^\circ$	9/2 - 7/2	Y1
Mn III	734.407	0		$3d^5 - 3d^4(b^3F)4p$	$a^4G - v^4F^\circ$	7/2 - 5/2	Y1
Mn III	734.519	0		$3d^5 - 3d^4(b^3F)4p$	$a^4G - v^4F^\circ$	5/2 - 3/2	Y1
Mn III	770.997	0		$3d^4(a^5D)4s - 3d^4(a^5D)5p$	$a^6D - y^6F^\circ$	9/2 - 11/2	Y1

Mn III

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	803.447	0		$3d^5 - 3d^4(b^3F)4p$	$a^2D - t^2F^\circ$	5/2 - 7/2	Y1
Mn III?	805.578	2					C4
Mn III	829.635	2		$3d^4(a^5D)4s - 3d^4(a^5D)5p$	$b^4D - y^6P^\circ$	5/2 - 3/2	C4,G3
Mn III	835.971	40		$3d^5 - 3d^4(b^3F)4p$	$a^4F - v^4F^\circ$	9/2 - 9/2	Y1
Mn III	836.994	20		$3d^5 - 3d^4(b^3F)4p$	$a^4F - v^4F^\circ$	7/2 - 7/2	Y1
Mn III	837.854	0		$3d^5 - 3d^4(b^3F)4p$	$a^4F - v^4F^\circ$	5/2 - 5/2	Y1
Mn III	838.049	0		$3d^5 - 3d^4(b^3F)4p$	$a^4F - v^4F^\circ$	3/2 - 3/2	Y1
Mn III	846.475	0		$3d^5 - 3d^4(^3D)4p$	$a^4G - w^4F^\circ$	11/2 - 9/2	Y1
Mn III	846.667	0		$3d^5 - 3d^4(^3D)4p$	$a^4G - w^4F^\circ$	9/2 - 9/2	Y1
Mn III	847.691	0		$3d^5 - 3d^4(^3D)4p$	$a^4G - w^4F^\circ$	9/2 - 7/2	Y1
Mn III	849.175	0		$3d^5 - 3d^4(^3D)4p$	$a^4G - w^4F^\circ$	5/2 - 3/2	Y1
Mn III	852.691	0		$3d^5 - 3d^4(a^1G)4p$	$a^4G - x^2F^\circ$	9/2 - 7/2	Y1
Mn III	865.276	0		$3d^5 - 3d^4(a^1F)4p$	$a^2D - u^2F^\circ$	5/2 - 7/2	Y1
Mn III	866.471	0		$3d^5 - 3d^4(a^1F)4p$	$a^2F - v^2G^\circ$	7/2 - 9/2	Y1
Mn III	870.169	20		$3d^5 - 3d^4(b^3F)4p$	$b^2F - t^2F^\circ$	5/2 - 5/2	Y1
Mn III	870.596	10		$3d^5 - 3d^4(b^3F)4p$	$b^2F - t^2F^\circ$	7/2 - 5/2	Y1
Mn III	871.851	0		$3d^5 - 3d^4(b^3F)4p$	$b^2F - t^2F^\circ$	5/2 - 7/2	Y1
Mn III	872.261	20		$3d^5 - 3d^4(b^3F)4p$	$b^2F - t^2F^\circ$	7/2 - 7/2	Y1
Mn III	875.627	0		$3d^5 - 3d^4(a^1F)4p$	$a^2F - u^2F^\circ$	7/2 - 7/2	Y1
Mn III	877.561	30		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	11/2 - 11/2	Y1
Mn III	877.777	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 11/2	Y1
Mn III	879.466	10		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 9/2	Y1
Mn III	879.642	0		$3d^5 - 3d^4(^3D)4p$	$a^4D - x^4P^\circ$	5/2 - 3/2	Y1
Mn III	879.693	180		$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^4P^\circ$	5/2 - 5/2	Y1
Mn III	880.648	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^2F^\circ$	9/2 - 7/2	Y1
Mn III	881.553	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	7/2 - 7/2	Y1
Mn III	882.227	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4G^\circ$	5/2 - 5/2	Y1
Mn III	884.301	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^2F^\circ$	7/2 - 5/2	Y1
Mn III	884.341	200		$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^4P^\circ$	5/2 - 3/2	Y1
Mn III	884.697	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^2H^\circ$	11/2 - 9/2	Y1
Mn III	884.978	0		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^2H^\circ$	7/2 - 9/2	Y1
Mn III	887.681	0		$3d^5 - 3d^4(^3D)4p$	$a^4D - w^4F^\circ$	7/2 - 9/2	Y1
Mn III	889.608	20		$3d^5 - 3d^4(a^1G)4p$	$a^4D - x^2F^\circ$	7/2 - 5/2	Y1
Mn III	892.393	20	1	$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^6P^\circ$	5/2 - 7/2	G3
Mn III	893.786	10	1	$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^6P^\circ$	5/2 - 5/2	G3
Mn III	894.586	350		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^4H^\circ$	11/2 - 13/2	Y1
Mn III	894.644	8	1	$3d^5 - 3d^4(a^5D)4p$	$ga^6S - z^6P^\circ$	5/2 - 3/2	G3
Mn III	896.781	40		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4F^\circ$	9/2 - 7/2	Y1
Mn III	896.975	120		$3d^5 - 3d^4(a^3G)4p$	$a^4G - x^4F^\circ$	11/2 - 9/2	Y1
Mn III	897.714	100		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^4H^\circ$	9/2 - 11/2	Y1
Mn III	898.103	0		$3d^5 - 3d^4(a^1F)4p$	$a^2H - v^2G^\circ$	11/2 - 9/2	Y1
Mn III	900.286	120		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^4H^\circ$	7/2 - 9/2	Y1
Mn III	900.594	80		$3d^5 - 3d^4(^3D)4p$	$a^4D - w^4D^\circ$	7/2 - 7/2	Y1
Mn III	902.316	80		$3d^5 - 3d^4(^3D)4p$	$a^4D - w^4D^\circ$	5/2 - 5/2	Y1
Mn III	902.502	150		$3d^5 - 3d^4(a^3G)4p$	$a^4G - y^4H^\circ$	5/2 - 7/2	Y1
Mn III	902.832	60		$3d^5 - 3d^4(^3D)4p$	$a^4D - w^4D^\circ$	3/2 - 3/2	Y1
Mn III	903.901	80		$3d^5 - 3d^4(a^1D)4p$	$a^2D - w^2D^\circ$	5/2 - 5/2	Y1
Mn III	908.607	10		$3d^5 - 3d^4(a^1D)4p$	$a^2D - w^2D^\circ$	3/2 - 3/2	Y1
Mn III	908.826	0		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^2D^\circ$	3/2 - 5/2	Y1
Mn III	909.628	0		$3d^4(a^3P)4s - 3d^4(a^5D)5p$	$b^4P - w^4P^\circ$	1/2 - 1/2	Y1
Mn III	914.199	0		$3d^5 - 3d^4(^1I)4p$	$a^2I - w^2H^\circ$	11/2 - 9/2	G3
Mn III	915.206	0		$3d^5 - 3d^4(a^1D)4p$	$a^2F - w^2D^\circ$	7/2 - 5/2	Y1
Mn III	916.428	4		$3d^5 - 3d^4(a^3F)4p$	$a^4G - y^4F^\circ$	11/2 - 9/2	G3
Mn III	916.649	90		$3d^5 - 3d^4(a^3F)4p$	$a^4G - y^4F^\circ$	9/2 - 9/2	Y1
Mn III	917.175	2		$3d^5 - 3d^4(^1I)4p$	$a^2I - w^2H^\circ$	13/2 - 11/2	G3
Mn III	917.275	4		$3d^5 - 3d^4(a^3F)4p$	$a^4G - y^4F^\circ$	9/2 - 7/2	G3
Mn III	917.334	1		$3d^5 - 3d^4(a^3F)4p$	$a^4G - y^4F^\circ$	7/2 - 7/2	G3
Mn III	917.797	8		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	11/2 - 11/2	G3
Mn III	918.201	0		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	11/2 - 9/2	G3
Mn III	918.43	1		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	9/2 - 9/2	G3
Mn III	918.678	3		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	5/2 - 5/2	G3
Mn III	918.771	0		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	9/2 - 7/2	G3
Mn III	918.849	3		$3d^5 - 3d^4(a^3H)4p$	$a^4G - y^4G^\circ$	7/2 - 7/2	G3
Mn III	919.078	0		$3d^5 - 3d^4(a^1F)4p$	$a^2G - u^2F^\circ$	9/2 - 7/2	Y1
Mn III	919.288	0		$3d^5 - 3d^4(a^1F)4p$	$a^2G - u^2F^\circ$	7/2 - 5/2	Y1

Mn III

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	925.974	50		$3d^5 - 3d^4(^3D)4p$	$a^2D - x^2D^\circ$	5/2 - 5/2	Y1
Mn III	926.183	80		$3d^5 - 3d^4(a^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	Y1
Mn III	928.672	150		$3d^5 - 3d^4(a^3F)4p$	$a^4P - x^4D^\circ$	1/2 - 3/2	Y1
Mn III	928.886	250		$3d^5 - 3d^4(a^3F)4p$	$a^4P - x^4D^\circ$	5/2 - 7/2	Y1
Mn III	933.555	20		$3d^5 - 3d^4(^3D)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	Y1
Mn III	934.594	10		$3d^5 - 3d^4(^3D)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	Y1
Mn III	934.950	20		$3d^5 - 3d^4(a^1F)4p$	$b^2F - v^2G^\circ$	7/2 - 9/2	Y1
Mn III	935.36	1		$3d^5 - 3d^4(a^3F)4p$	$a^4G - z^4G^\circ$	11/2 - 11/2	G3
Mn III	935.563	0		$3d^5 - 3d^4(a^3F)4p$	$a^4G - z^4G^\circ$	9/2 - 11/2	Y1
Mn III	939.396	40		$3d^5 - 3d^4(a^3F)4p$	$a^4G - z^4G^\circ$	11/2 - 9/2	Y1
Mn III	939.543	70		$3d^5 - 3d^4(a^3D)4p$	$a^2F - x^2D^\circ$	5/2 - 3/2	Y1
Mn III	939.618	50		$3d^5 - 3d^4(a^3F)4p$	$a^4G - z^4G^\circ$	9/2 - 9/2	Y1
Mn III	940.690	0		$3d^5 - 3d^4(a^3P)4p$	$a^4D - y^2D^\circ$	3/2 - 3/2	Y1
Mn III	940.922	0		$3d^5 - 3d^4(^1I)4p$	$a^2I - z^2K^\circ$	13/2 - 15/2	G3
Mn III	942.704	50		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4P^\circ$	5/2 - 5/2	Y1
Mn III	942.903	50		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	7/2 - 7/2	Y1
Mn III	943.052	150		$3d^5 - 3d^4(a^3F)4p$	$a^4G - z^4G^\circ$	5/2 - 5/2	Y1
Mn III	943.347	6		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	7/2 - 9/2	G3
Mn III	943.565	3		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	5/2 - 7/2	G3
Mn III	943.796	2		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	3/2 - 5/2	G3
Mn III	944.573	80		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	1/2 - 3/2	Y1
Mn III	944.746	30		$3d^5 - 3d^4(a^3G)4p$	$a^4D - x^4F^\circ$	3/2 - 3/2	Y1
Mn III	944.862	0		$3d^5 - 3d^4(^1I)4p$	$a^2I - z^2K^\circ$	11/2 - 13/2	G3
Mn III	944.906	1		$3d^5 - 3d^4(^1I)4p$	$a^2I - z^2K^\circ$	11/2 - 13/2	G3
Mn III	945.124	0		$3d^5 - 3d^4(a^1F)4p$	$b^2F - u^2F^\circ$	5/2 - 7/2	Y1
Mn III	945.632	200		$3d^5 - 3d^4(^3D)4p$	$a^2F - x^2F^\circ$	7/2 - 7/2	Y1
Mn III	946.050	3		$3d^5 - 3d^4(^1G)4p$	$a^2I - x^2H^\circ$	13/2 - 11/2	G3
Mn III	946.802	120		$3d^5 - 3d^4(a^1F)4p$	$b^2F - u^2F^\circ$	5/2 - 5/2	Y1
Mn III	947.136	30		$3d^5 - 3d^4(a^3P)4p$	$a^4P - z^2P^\circ$	1/2 - 1/2	Y1
Mn III	949.235	2		$3d^5 - 3d^4(^1G)4p$	$a^2I - x^2H^\circ$	11/2 - 9/2	G3
Mn III	949.741	0		$3d^5 - 3d^4(a^3F)4p$	$a^4D - z^2F^\circ$	7/2 - 7/2	G3
Mn III	950.114	20		$3d^5 - 3d^4(^3D)4p$	$a^2F - x^2F^\circ$	5/2 - 7/2	Y1
Mn III	951.140	5		$3d^5 - 3d^4(^1I)4p$	$a^2I - y^2I^\circ$	11/2 - 11/2	G3
Mn III	951.630	3		$3d^5 - 3d^4(^1I)4p$	$a^2I - y^2I^\circ$	13/2 - 13/2	G3
Mn III	953.309	0		$3d^5 - 3d^4(a^3F)4p$	$a^4D - z^2F^\circ$	3/2 - 5/2	G3
Mn III	956.061	3		$3d^5 - 3d^4(a^3H)4p$	$a^4G - z^4H^\circ$	11/2 - 13/2	G3
Mn III	956.316	0		$3d^5 - 3d^4(a^3F)4p$	$a^4D - x^4D^\circ$	1/2 - 1/2	Y1
Mn III	956.906	80		$3d^5 - 3d^4(a^3F)4p$	$a^4D - x^4D^\circ$	3/2 - 3/2	Y1
Mn III	957.488	20		$3d^5 - 3d^4(a^3F)4p$	$a^4D - x^4D^\circ$	5/2 - 7/2	Y1
Mn III	957.748	180		$3d^5 - 3d^4(a^3F)4p$	$a^4D - x^4D^\circ$	3/2 - 5/2	Y1
Mn III	958.387	0		$3d^5 - 3d^4(b^3F)4p$	$b^2D - t^2F^\circ$	3/2 - 5/2	Y1
Mn III	958.794	0		$3d^5 - 3d^4(a^3H)4p$	$a^4G - z^4H^\circ$	11/2 - 11/2	Y1
Mn III	959.021	2		$3d^5 - 3d^4(a^3H)4p$	$a^4G - z^4H^\circ$	9/2 - 11/2	G3
Mn III	959.468	0		$3d^5 - 3d^4(a^3D)4p$	$a^2D - y^2P^\circ$	5/2 - 3/2	Y1
Mn III	959.866	10		$3d^5 - 3d^4(a^1G)4p$	$a^2F - w^2G^\circ$	7/2 - 9/2	Y1
Mn III	960.611	10		$3d^5 - 3d^4(b^3F)4p$	$b^2D - t^2F^\circ$	5/2 - 7/2	Y1
Mn III	961.209	0		$3d^5 - 3d^4(a^3H)4p$	$a^4G - z^4H^\circ$	7/2 - 9/2	G3
Mn III	962.71	0		$3d^5 - 3d^4(a^3H)4p$	$a^4G - z^4H^\circ$	5/2 - 7/2	G3
Mn III	963.353	1		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	G3
Mn III	964.208	0		$3d^5 - 3d^4(a^3D)4p$	$a^2D - y^2P^\circ$	3/2 - 1/2	Y1
Mn III	966.361	0		$3d^5 - 3d^4(a^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 5/2	Y1
Mn III	968.961	0		$3d^5 - 3d^4(a^3F)4p$	$a^4D - z^2D^\circ$	7/2 - 5/2	Y1
Mn III	969.478	10		$3d^5 - 3d^4(a^1G)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	Y1
Mn III	969.661	120		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 5/2	Y1
Mn III	971.903	60		$3d^5 - 3d^4(a^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	Y1
Mn III	973.386	0		$3d^5 - 3d^4(a^3F)4p$	$a^4D - z^2D^\circ$	5/2 - 3/2	Y1
Mn III	975.284	0		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 3/2	Y1
Mn III	975.665	80		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	Y1
Mn III	975.994	30		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 3/2	Y1
Mn III	979.636	40		$3d^5 - 3d^4(a^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 1/2	Y1
Mn III	979.963	500		$3d^5 - 3d^4(^1I)4p$	$a^2H - w^2H^\circ$	9/2 - 9/2	Y1
Mn III	981.462	0		$3d^5 - 3d^4(^1I)4p$	$a^2H - w^2H^\circ$	11/2 - 9/2	Y1
Mn III	983.369	20		$3d^5 - 3d^4(^1I)4p$	$a^2H - w^2H^\circ$	9/2 - 11/2	Y1
Mn III	984.129	450		$3d^5 - 3d^4(a^1G)4p$	$a^2F - x^2F^\circ$	5/2 - 5/2	Y1
Mn III	984.572	0		$3d^5 - 3d^4(^3D)4p$	$a^2F - w^4F^\circ$	5/2 - 5/2	Y1

Mn III

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	984.883	600		$3d^5 - 3d^4(^1I)4p$	$a^2H - w^2H^\circ$	11/2 - 11/2	Y1
Mn III	984.904	6		$3d^4(a^5D)4p - 3d^4(a^5D)5d$	$z^4F^\circ - h^4G$	9/2 - 11/2	G3
Mn III	984.982	5		$3d^4(a^5D)4p - 3d^4(a^5D)5d$	$z^4F^\circ - h^4G$	7/2 - 9/2	G3
Mn III	984.988	750		$3d^5 - 3d^4(a^1G)4p$	$a^2F - x^2F^\circ$	7/2 - 7/2	Y1
Mn III	985.974	2		$3d^4(a^5D)4p - 3d^4(a^5D)5d$	$z^4F^\circ - h^4G$	5/2 - 7/2	G3
Mn III	986.239	0		$3d^4(a^5D)4p - 3d^4(a^5D)5d$	$z^4F^\circ - h^4G$	3/2 - 5/2	G3
Mn III	986.322	60		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4F^\circ$	9/2 - 9/2	Y1
Mn III	987.994	0		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4F^\circ$	7/2 - 7/2	Y1
Mn III	989.414	0		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4F^\circ$	7/2 - 5/2	Y1
Mn III	990.066	10		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4F^\circ$	5/2 - 5/2	Y1
Mn III	991.942	350		$3d^5 - 3d^4(a^1D)4p$	$b^2F - w^2D^\circ$	7/2 - 5/2	Y1
Mn III	992.868	80		$3d^5 - 3d^4(^1I)4p$	$a^2G - w^2H^\circ$	7/2 - 9/2	Y1
Mn III	993.212	120		$3d^5 - 3d^4(a^3G)4p$	$a^2I - y^2H^\circ$	11/2 - 9/2	Y1
Mn III	993.789	150		$3d^5 - 3d^4(a^1D)4p$	$b^2F - w^2D^\circ$	5/2 - 3/2	Y1
Mn III	994.470	400		$3d^5 - 3d^4(a^3G)4p$	$a^2F - x^2G^\circ$	7/2 - 9/2	Y1
Mn III	995.122	50		$3d^5 - 3d^4(a^3G)4p$	$a^2F - x^2G^\circ$	7/2 - 7/2	Y1
Mn III	996.510	80		$3d^5 - 3d^4(^3D)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	Y1
Mn III	997.995	70		$3d^5 - 3d^4(^1I)4p$	$a^2G - w^2H^\circ$	9/2 - 11/2	Y1
Mn III	998.818	700		$3d^5 - 3d^4(a^1G)4p$	$a^2H - w^2G^\circ$	11/2 - 9/2	Y1
Mn III	999.236	600		$3d^5 - 3d^4(a^1G)4p$	$a^2H - w^2G^\circ$	9/2 - 7/2	Y1
Mn III	1000.091	40		$3d^5 - 3d^4(a^3G)4p$	$a^2F - x^2G^\circ$	5/2 - 7/2	Y1
Mn III	1002.279	100		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	9/2 - 7/2	Y1
Mn III	1002.578	0		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	7/2 - 7/2	Y1
Mn III	1003.940	30		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	7/2 - 5/2	Y1
Mn III	1004.605	0		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	5/2 - 5/2	Y1
Mn III	1005.244	10		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	5/2 - 3/2	Y1
Mn III	1005.501	0		$3d^5 - 3d^4(^3D)4p$	$a^4F - w^4D^\circ$	3/2 - 1/2	Y1
Mn III	1008.437	10		$3d^5 - 3d^4(a^3G)4p$	$a^2D - y^2F^\circ$	5/2 - 7/2	Y1
Mn III	1012.324	500		$3d^5 - 3d^4(a^1G)4p$	$a^2G - w^2G^\circ$	9/2 - 9/2	Y1
Mn III	1012.662	100		$3d^5 - 3d^4(a^1G)4p$	$a^2G - w^2G^\circ$	7/2 - 7/2	Y1
Mn III	1012.844	1		$3d^5 - 3d^4(a^3H)4p$	$a^2I - z^2H^\circ$	13/2 - 11/2	G3
Mn III	1014.836	180		$3d^5 - 3d^4(a^3D)4p$	$b^2F - x^2D^\circ$	5/2 - 3/2	Y1
Mn III	1016.518	60		$3d^5 - 3d^4(a^3G)4p$	$a^2D - y^2F^\circ$	3/2 - 5/2	Y1
Mn III	1017.674	2		$3d^5 - 3d^4(a^3H)4p$	$a^2I - z^2H^\circ$	11/2 - 9/2	G3
Mn III	1018.239	300		$3d^5 - 3d^4(^1G)4p$	$a^2H - x^2H^\circ$	11/2 - 11/2	Y1
Mn III	1018.605	250		$3d^5 - 3d^4(^3D)4p$	$b^2F - x^2D^\circ$	7/2 - 5/2	Y1
Mn III	1020.049	350		$3d^5 - 3d^4(a^3P)4p$	$a^2D - y^2D^\circ$	5/2 - 5/2	Y1
Mn III	1020.337	300		$3d^5 - 3d^4(^1G)4p$	$a^2H - x^2H^\circ$	9/2 - 9/2	Y1
Mn III	1022.536	150		$3d^5 - 3d^4(^1I)4p$	$a^2H - y^2I^\circ$	9/2 - 11/2	Y1
Mn III	1023.502	40		$3d^5 - 3d^4(a^3P)4p$	$a^2D - y^2D^\circ$	3/2 - 5/2	Y1
Mn III	1023.797	0		$3d^4(a^3G)4s - 3d^4(a^5D)5p$	$c^2G - y^6F^\circ$	9/2 - 7/2	Y1
Mn III	1024.717	80		$3d^5 - 3d^4(^1I)4p$	$a^2H - y^2I^\circ$	11/2 - 13/2	Y1
Mn III	1024.950	10		$3d^5 - 3d^4(^3D)4p$	$b^2F - x^2F^\circ$	5/2 - 5/2	Y1
Mn III	1026.130	150		$3d^5 - 3d^4(a^3P)4p$	$a^2D - y^2D^\circ$	5/2 - 3/2	Y1
Mn III	1027.063	20		$3d^5 - 3d^4(a^3F)4p$	$a^2F - y^2G^\circ$	7/2 - 9/2	Y1
Mn III	1027.495	0		$3d^5 - 3d^4(a^3H)4p$	$a^2I - z^2I^\circ$	13/2 - 13/2	G3
Mn III	1027.791	20		$3d^5 - 3d^4(^3D)4p$	$b^2F - x^2F^\circ$	7/2 - 7/2	Y1
Mn III	1028.307	0		$3d^5 - 3d^4(a^3H)4p$	$a^2I - z^2I^\circ$	11/2 - 11/2	G3
Mn III	1028.754	650		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4G^\circ$	9/2 - 11/2	Y1
Mn III	1029.627	300		$3d^5 - 3d^4(a^3P)4p$	$a^2D - y^2D^\circ$	3/2 - 3/2	Y1
Mn III	1029.843	0		$3d^5 - 3d^4(a^3G)4p$	$a^2D - x^4F^\circ$	5/2 - 5/2	Y1
Mn III	1030.973	30		$3d^5 - 3d^4(a^3G)4p$	$a^2D - x^4F^\circ$	5/2 - 3/2	Y1
Mn III	1031.404	700		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4G^\circ$	7/2 - 9/2	Y1
Mn III	1032.251	20		$3d^5 - 3d^4(a^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	Y1
Mn III	1034.480	750		$3d^5 - 3d^4(a^3P)4p$	$a^2F - y^2D^\circ$	7/2 - 5/2	Y1
Mn III	1034.698	1		$3d^5 - 3d^4(a^3G)4p$	$a^2H - x^2G^\circ$	9/2 - 9/2	Y1
Mn III	1034.917	650		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4G^\circ$	5/2 - 7/2	Y1
Mn III	1035.392	0		$3d^5 - 3d^4(a^3G)4p$	$a^2H - x^2G^\circ$	9/2 - 7/2	Y1
Mn III	1035.895	700		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4G^\circ$	3/2 - 5/2	Y1
Mn III	1036.081	20		$3d^5 - 3d^4(^1G)4p$	$a^2G - x^2H^\circ$	9/2 - 9/2	Y1
Mn III	1037.360	0		$3d^5 - 3d^4(a^3F)4p$	$a^4F - y^2G^\circ$	9/2 - 9/2	Y1
Mn III	1037.695	200		$3d^5 - 3d^4(a^3F)4p$	$a^4F - y^2G^\circ$	7/2 - 9/2	Y1
Mn III	1037.746	750		$3d^5 - 3d^4(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	Y1
Mn III	1038.752	20		$3d^5 - 3d^4(a^3G)4p$	$a^4F - y^2F^\circ$	3/2 - 5/2	Y1
Mn III	1039.850	250		$3d^5 - 3d^4(a^3P)4p$	$a^2F - y^2D^\circ$	5/2 - 5/2	Y1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1040.323	80		$3d^5 - 3d^4(a^1G)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	Y1
Mn III	1041.191	180		$3d^5 - 3d^4(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 5/2	Y1
Mn III	1044.610	50		$3d^5 - 3d^4(a^1G)4p$	$b^2F - w^2G^\circ$	7/2 - 9/2	Y1
Mn III	1044.790	700		$3d^5 - 3d^4(a^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	Y1
Mn III	1045.240	0		$3d^5 - 3d^4(a^3P)4p$	$a^4F - y^2D^\circ$	7/2 - 5/2	Y1
Mn III	1045.984	30		$3d^5 - 3d^4(a^3P)4p$	$a^4F - y^2D^\circ$	5/2 - 5/2	Y1
Mn III	1046.167	700		$3d^5 - 3d^4(a^3P)4p$	$a^2F - y^2D^\circ$	5/2 - 3/2	Y1
Mn III	1046.473	80		$3d^5 - 3d^4(a^3F)4p$	$a^2D - x^4D^\circ$	5/2 - 5/2	Y1
Mn III	1048.586	10		$3d^5 - 3d^4(a^3F)4p$	$a^2D - x^4D^\circ$	3/2 - 1/2	Y1
Mn III	1049.105	0		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^2G^\circ$	7/2 - 9/2	Y1
Mn III	1049.816	650		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^2G^\circ$	7/2 - 7/2	Y1
Mn III	1050.122	80		$3d^5 - 3d^4(a^3F)4p$	$a^2D - x^4D^\circ$	3/2 - 5/2	Y1
Mn III	1050.354	200		$3d^5 - 3d^4(a^1F)4p$	$b^2D - u^2F^\circ$	5/2 - 7/2	Y1
Mn III	1050.889	650		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^2G^\circ$	9/2 - 9/2	Y1
Mn III	1052.193	100		$3d^5 - 3d^4(a^1F)4p$	$b^2D - u^2F^\circ$	3/2 - 5/2	Y1
Mn III	1052.431	30		$3d^5 - 3d^4(a^1F)4p$	$b^2D - u^2F^\circ$	5/2 - 5/2	Y1
Mn III	1052.718	450		$3d^5 - 3d^4(a^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 7/2	Y1
Mn III	1055.289	80		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4F^\circ$	7/2 - 7/2	Y1
Mn III	1055.523	350		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4F^\circ$	9/2 - 9/2	Y1
Mn III	1055.839	0		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4F^\circ$	7/2 - 9/2	Y1
Mn III	1056.271	30		$3d^5 - 3d^4(a^3G)4p$	$a^4F - x^4F^\circ$	5/2 - 5/2	Y1
Mn III	1058.270	120		$3d^5 - 3d^4(a^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 7/2	Y1
Mn III	1060.565	0		$3d^5 - 3d^4(a^3F)4p$	$a^2D - y^4F^\circ$	3/2 - 5/2	Y1
Mn III	1060.760	300		$3d^5 - 3d^4(a^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	Y1
Mn III	1061.383	90		$3d^5 - 3d^4(a^3F)4p$	$a^2F - x^4D^\circ$	7/2 - 7/2	Y1
Mn III	1061.825	150		$3d^5 - 3d^4(a^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 5/2	Y1
Mn III	1063.745	20		$3d^5 - 3d^4(a^3P)4p$	$a^2D - y^4P^\circ$	5/2 - 5/2	Y1
Mn III	1066.287	10		$3d^5 - 3d^4(a^3F)4p$	$a^2F - x^4D^\circ$	5/2 - 3/2	Y1
Mn III	1067.049	150		$3d^5 - 3d^4(a^1G)4p$	$b^2F - x^2F^\circ$	5/2 - 5/2	Y1
Mn III	1067.343	0		$3d^5 - 3d^4(a^3F)4p$	$a^2F - x^4D^\circ$	5/2 - 5/2	Y1
Mn III	1068.980	450		$3d^5 - 3d^4(a^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 3/2	Y1
Mn III	1070.011	450		$3d^5 - 3d^4(a^3F)4p$	$a^2H - y^2G^\circ$	9/2 - 9/2	Y1
Mn III	1071.331	700		$3d^5 - 3d^4(a^3G)4p$	$a^2H - y^2H^\circ$	9/2 - 9/2	Y1
Mn III	1071.803	700		$3d^5 - 3d^4(a^3F)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	Y1
Mn III	1072.372	120		$3d^5 - 3d^4(a^3F)4p$	$a^4F - x^4D^\circ$	9/2 - 7/2	Y1
Mn III	1072.598	400		$3d^5 - 3d^4(a^3G)4p$	$a^2H - y^2H^\circ$	11/2 - 11/2	Y1
Mn III	1072.727	50		$3d^5 - 3d^4(a^3F)4p$	$a^4F - x^4D^\circ$	5/2 - 3/2	Y1
Mn III	1073.027	30		$3d^5 - 3d^4(a^3F)4p$	$a^4F - x^4D^\circ$	7/2 - 5/2	Y1
Mn III	1073.789	800		$3d^5 - 3d^4(a^3F)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	Y1
Mn III	1074.460	80		$3d^5 - 3d^4(a^1G)4p$	$b^2F - x^2F^\circ$	7/2 - 7/2	Y1
Mn III	1077.920	250		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^4G^\circ$	9/2 - 11/2	Y1
Mn III	1078.572	20		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^4G^\circ$	7/2 - 9/2	Y1
Mn III	1080.386	100		$3d^5 - 3d^4(a^3G)4p$	$a^2G - y^2F^\circ$	7/2 - 7/2	Y1
Mn III	1080.445	100		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^4G^\circ$	9/2 - 9/2	Y1
Mn III	1081.636	0		$3d^5 - 3d^4(a^3G)4p$	$a^2G - x^4G^\circ$	7/2 - 7/2	Y1
Mn III	1082.300	800		$3d^5 - 3d^4(a^3G)4p$	$a^2G - y^2F^\circ$	9/2 - 7/2	Y1
Mn III	1082.588	650		$3d^5 - 3d^4(a^3F)4p$	$a^4F - y^4F^\circ$	9/2 - 9/2	Y1
Mn III	1083.276	1		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	G3
Mn III	1083.795	300		$3d^5 - 3d^4(a^3F)4p$	$a^4F - y^4F^\circ$	7/2 - 7/2	Y1
Mn III	1084.485	450		$3d^5 - 3d^4(a^3H)4p$	$a^4F - y^4G^\circ$	9/2 - 11/2	Y1
Mn III	1085.423	600		$3d^5 - 3d^4(a^3H)4p$	$a^4F - y^4G^\circ$	7/2 - 9/2	Y1
Mn III	1085.772	850		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	Y1
Mn III	1086.533	90		$3d^5 - 3d^4(a^3H)4p$	$a^4F - y^4G^\circ$	3/2 - 5/2	Y1
Mn III	1086.688	400		$3d^5 - 3d^4(a^3H)4p$	$a^4F - y^4G^\circ$	5/2 - 7/2	Y1
Mn III	1086.751	400		$3d^5 - 3d^4(a^3G)4p$	$a^2G - y^2H^\circ$	7/2 - 9/2	Y1
Mn III	1087.368	50		$3d^5 - 3d^4(a^3F)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	Y1
Mn III	1087.699	40		$3d^5 - 3d^4(a^3G)4p$	$a^2H - y^4H^\circ$	11/2 - 13/2	Y1
Mn III	1087.862	0		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 3/2	Y1
Mn III	1088.185	650		$3d^5 - 3d^4(a^3G)4p$	$a^2G - y^2H^\circ$	9/2 - 11/2	Y1
Mn III	1088.324	350		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	Y1
Mn III	1088.724	550		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	Y1
Mn III	1089.313	250		$3d^5 - 3d^4(a^3F)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	Y1
Mn III	1089.715	50		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	Y1
Mn III	1090.126	250		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4D^\circ$	3/2 - 1/2	Y1
Mn III	1091.233	40		$3d^5 - 3d^4(a^3F)4p$	$a^2G - y^2G^\circ$	9/2 - 7/2	Y1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1092.002	300		$3d^5 - 3d^4(a^3G)4p$	$a^2H - y^4H^\circ$	11/2 - 11/2	Y1
Mn III	1093.844	70		$3d^5 - 3d^4(a^3G)4p$	$a^2H - y^4H^\circ$	9/2 - 9/2	Y1
Mn III	1094.203	10		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2H^\circ$	9/2 - 11/2	Y1
Mn III	1094.773	750		$3d^5 - 3d^4(a^3H)4p$	$a^2F - z^2G^\circ$	7/2 - 9/2	Y1
Mn III	1096.033	750		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	Y1
Mn III	1097.158	0		$3d^5 - 3d^4(a^3H)4p$	$a^2F - z^2G^\circ$	7/2 - 7/2	Y1
Mn III	1099.858	750		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2H^\circ$	9/2 - 9/2	Y1
Mn III	1103.190	650		$3d^5 - 3d^4(a^3H)4p$	$a^2F - z^2G^\circ$	5/2 - 7/2	Y1
Mn III	1107.517	0		$3d^5 - 3d^4(a^3F)4p$	$a^2F - z^4G^\circ$	7/2 - 5/2	Y1
Mn III	1107.814	350		$3d^5 - 3d^4(a^1D)4p$	$b^2D - w^2D^\circ$	5/2 - 5/2	Y1
Mn III	1108.164	20	2	$3d^5 - 3d^4(a^5D)4p$	$a^4G - z^4F^\circ$	11/2 - 9/2	G3
Mn III	1108.482	750		$3d^5 - 3d^4(a^5D)4p$	$a^4G - z^4F^\circ$	9/2 - 9/2	Y1
Mn III	1109.073	300		$3d^5 - 3d^4(a^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 11/2	Y1
Mn III	1110.508	150		$3d^5 - 3d^4(a^1D)4p$	$b^2D - w^2D^\circ$	3/2 - 3/2	Y1
Mn III	1111.105	10	2	$3d^5 - 3d^4(a^5D)4p$	$a^4G - z^4F^\circ$	9/2 - 7/2	G3
Mn III	1112.284	750		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2I^\circ$	9/2 - 11/2	Y1
Mn III	1113.18	5	2	$3d^5 - 3d^4(a^5D)4p$	$a^4G - z^4F^\circ$	7/2 - 5/2	G3
Mn III	1113.193	900		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2I^\circ$	11/2 - 13/2	Y1
Mn III	1113.677	20		$3d^5 - 3d^4(a^3F)4p$	$a^2F - z^4G^\circ$	5/2 - 5/2	Y1
Mn III	1114.53	1h		$3d^5 - 3d^4(a^5D)4p$	$a^4G - z^4F^\circ$	5/2 - 3/2	G3
Mn III	1115.147	90		$3d^5 - 3d^4(a^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 9/2	Y1
Mn III	1116.151	350		$3d^5 - 3d^4(a^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	Y1
Mn III	1118.068	0		$3d^5 - 3d^4(a^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	Y1
Mn III	1118.674	80		$3d^5 - 3d^4(a^3F)4p$	$a^4F - z^4G^\circ$	5/2 - 7/2	Y1
Mn III	1119.303	300		$3d^5 - 3d^4(a^3G)4p$	$b^2F - y^2F^\circ$	7/2 - 7/2	Y1
Mn III	1120.768	0		$3d^5 - 3d^4(a^3F)4p$	$a^4F - z^4G^\circ$	3/2 - 5/2	Y1
Mn III	1121.413	1		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 7/2	G3
Mn III	1122.113	0		$3d^5 - 3d^4(a^1F)4p$	$b^2G - v^2G^\circ$	9/2 - 9/2	Y1
Mn III	1122.397	450		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 7/2	Y1
Mn III	1124.109	400		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 5/2	Y1
Mn III	1124.333	80		$3d^5 - 3d^4(a^3G)4p$	$b^2F - y^2F^\circ$	5/2 - 5/2	Y1
Mn III	1125.065	0		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 5/2	G3
Mn III	1127.093	150		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 3/2	Y1
Mn III	1127.314	650		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 3/2	Y1
Mn III	1128.577	120		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 1/2	Y1
Mn III	1128.825	120		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 1/2	Y1
Mn III	1133.613	500		$3d^5 - 3d^4(a^3P)4p$	$b^2F - y^2D^\circ$	7/2 - 5/2	Y1
Mn III	1136.867	80		$3d^5 - 3d^4(a^3D)4p$	$b^2D - x^2D^\circ$	3/2 - 3/2	Y1
Mn III	1137.518	0		$3d^5 - 3d^4(a^1F)4p$	$b^2G - u^2F^\circ$	9/2 - 7/2	Y1
Mn III	1140.396	200		$3d^5 - 3d^4(a^3P)4p$	$b^2F - y^2D^\circ$	5/2 - 3/2	Y1
Mn III	1140.856	0		$3d^5 - 3d^4(^3D)4p$	$b^2D - x^2D^\circ$	3/2 - 5/2	Y1
Mn III	1141.171	150		$3d^5 - 3d^4(^3D)4p$	$b^2D - x^2D^\circ$	5/2 - 5/2	Y1
Mn III	1145.744	0		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2G^\circ$	11/2 - 9/2	Y1
Mn III	1146.335	30		$3d^5 - 3d^4(a^3H)4p$	$a^2H - z^2G^\circ$	9/2 - 7/2	Y1
Mn III	1149.572	550		$3d^5 - 3d^4(^3D)4p$	$b^2D - x^2F^\circ$	3/2 - 5/2	Y1
Mn III	1152.716	700		$3d^5 - 3d^4(^3D)4p$	$b^2D - x^2F^\circ$	5/2 - 7/2	Y1
Mn III	1155.544	300		$3d^5 - 3d^4(a^3F)4p$	$b^2F - z^2F^\circ$	7/2 - 7/2	Y1
Mn III	1159.022	150		$3d^5 - 3d^4(a^3F)4p$	$b^2F - z^2F^\circ$	5/2 - 5/2	Y1
Mn III	1164.019	60		$3d^5 - 3d^4(a^3H)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	Y1
Mn III	1172.721	20		$3d^5 - 3d^4(a^3F)4p$	$a^2G - z^4G^\circ$	9/2 - 9/2	Y1
Mn III	1174.810	10		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6D^\circ$	5/2 - 5/2	G3
Mn III	1177.484	6		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6D^\circ$	5/2 - 3/2	G3
Mn III	1178.031	40		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6D^\circ$	1/2 - 3/2	Y1
Mn III	1178.51	2		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6D^\circ$	3/2 - 3/2	G3
Mn III	1179.467	4		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6D^\circ$	1/2 - 1/2	G3
Mn III	1179.85	20	7	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 9/2	G3
Mn III	1182.825	350		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 7/2	Y1
Mn III	1183.304	30	4	$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	G3
Mn III	1183.860	25w	7	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 7/2	G3
Mn III	1185.045	0		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 5/2	Y1
Mn III	1186.14	10w	7	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 5/2	G3
Mn III	1187.735	250		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 3/2	Y1
Mn III	1191.730	15	4	$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	G3
Mn III	1192.78	8	4	$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	G3
Mn III	1198.493	30		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1198.994	400		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	Y1
Mn III	1202.807	0		$3d^5 - 3d^4(a^1G)4p$	$b^2D - x^2F^\circ$	3/2 - 5/2	Y1
Mn III	1206.425	20		$3d^4(a^3F)4p - 3d^4(a^5D)6s$	$z^2D^\circ - g^4D$	5/2 - 7/2	C4,G3
Mn III	1208.476	800		$3d^5 - 3d^4(a^3H)4p$	$b^2F - z^2G^\circ$	5/2 - 7/2	Y1
Mn III	1210.523	40		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6P^\circ$	5/2 - 3/2	Y1
Mn III	1211.582	150		$3d^5 - 3d^4(a^5D)4p$	$a^4P - z^6P^\circ$	3/2 - 3/2	Y1
Mn III	1211.725	40		$3d^5 - 3d^4(a^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 7/2	Y1
Mn III	1216.639	20		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6D^\circ$	7/2 - 9/2	Y1
Mn III	1219.801	30	6	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6D^\circ$	7/2 - 5/2	G3
Mn III	1220.940	750		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6D^\circ$	5/2 - 5/2	Y1
Mn III	1223.83	20w	6	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6D^\circ$	5/2 - 3/2	G3
Mn III	1225.133	350		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6D^\circ$	1/2 - 1/2	Y1
Mn III	1228.972	100	5	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4P^\circ$	7/2 - 5/2	G3
Mn III	1230.12	20w	5	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 5/2	G3
Mn III	1239.24	50w	5	$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 3/2	G3
Mn III	1245.673	750		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4P^\circ$	1/2 - 1/2	Y1
Mn III	1245.975	700		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 1/2	Y1
Mn III	1249.529	0		$3d^5 - 3d^4(a^5D)4p$	$a^2D - z^4D^\circ$	5/2 - 5/2	Y1
Mn III	1252.289	30		$3d^5 - 3d^4(a^5D)4p$	$a^2D - z^4D^\circ$	5/2 - 3/2	Y1
Mn III	1255.078	10		$3d^5 - 3d^4(^3D)4p$	$b^2G - x^2F^\circ$	7/2 - 5/2	G3
Mn III	1255.21	20		$3d^5 - 3d^4(^1I)4p$	$b^2G - w^2H^\circ$	7/2 - 9/2	G3
Mn III	1257.885	0		$3d^5 - 3d^4(a^5D)4p$	$a^4D - z^6P^\circ$	3/2 - 5/2	Y1
Mn III	1258.55	30		$3d^5 - 3d^4(^3D)4p$	$b^2G - x^2F^\circ$	9/2 - 7/2	G3
Mn III	1260.907	40		$3d^5 - 3d^4(^1I)4p$	$b^2G - w^2H^\circ$	9/2 - 11/2	G3
Mn III	1269.104	800		$3d^5 - 3d^4(a^3G)4p$	$b^2D - y^2F^\circ$	5/2 - 7/2	Y1
Mn III	1276.092	700		$3d^5 - 3d^4(a^3G)4p$	$b^2D - y^2F^\circ$	3/2 - 5/2	Y1
Mn III	1276.467	50		$3d^5 - 3d^4(a^3G)4p$	$b^2D - y^2F^\circ$	5/2 - 5/2	Y1
Mn III	1283.581	500	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	9/2 - 7/2	G3
Mn III	1284.058	30	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	7/2 - 7/2	G3
Mn III	1287.589	400	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	7/2 - 5/2	G3
Mn III	1288.682	50	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	5/2 - 5/2	G3
Mn III	1291.618	300	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	5/2 - 3/2	G3
Mn III	1291.714	600	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	3/2 - 3/2	Y1
Mn III	1293.661	200	9	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4D^\circ$	3/2 - 1/2	G3
Mn III	1316.091	80		$3d^5 - 3d^4(^1G)4p$	$b^2G - x^2H^\circ$	9/2 - 11/2	Y1
Mn III	1322.186	40		$3d^5 - 3d^4(^1G)4p$	$b^2G - x^2H^\circ$	7/2 - 9/2	Y1
Mn III	1346.58	100		$3d^5 - 3d^4(a^3G)4p$	$b^2G - x^2G^\circ$	9/2 - 9/2	G3
Mn III	1346.854	50		$3d^5 - 3d^4(a^5D)4p$	$a^2F - z^4F^\circ$	7/2 - 7/2	Y1
Mn III	1347.087	0		$3d^4(a^5D)4s - 3d^4(^3D)4p$	$b^4D - x^4P^\circ$	5/2 - 3/2	Y1
Mn III	1347.62	80		$3d^5 - 3d^4(a^3G)4p$	$b^2G - x^2G^\circ$	7/2 - 7/2	G3
Mn III	1349.782	0		$3d^5 - 3d^4(a^5D)4p$	$a^2F - z^4F^\circ$	7/2 - 5/2	Y1
Mn III	1352.599	30		$3d^5 - 3d^4(a^3F)4p$	$b^2D - z^2D^\circ$	3/2 - 5/2	Y1
Mn III	1353.027	30		$3d^5 - 3d^4(a^3F)4p$	$b^2D - z^2D^\circ$	5/2 - 5/2	Y1
Mn III	1355.959	20		$3d^5 - 3d^4(a^5D)4p$	$a^2F - z^4F^\circ$	5/2 - 7/2	Y1
Mn III	1358.958	40		$3d^5 - 3d^4(a^5D)4p$	$a^2F - z^4F^\circ$	5/2 - 5/2	Y1
Mn III	1360.718	1000	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	9/2 - 9/2	G3
Mn III	1361.032	10		$3d^5 - 3d^4(a^5D)4p$	$a^2F - z^4F^\circ$	5/2 - 3/2	Y1
Mn III	1361.26	1		$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	7/2 - 9/2	G3
Mn III	1364.65	5	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	9/2 - 7/2	G3
Mn III	1365.199	800	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	7/2 - 7/2	G3
Mn III	1366.46	4		$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	5/2 - 7/2	G3
Mn III	1368.20	20	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	7/2 - 5/2	G3
Mn III	1369.430	400	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	5/2 - 5/2	G3
Mn III	1369.535	700		$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	3/2 - 5/2	Y1
Mn III	1371.647	300	8	$3d^5 - 3d^4(a^5D)4p$	$a^4F - z^4F^\circ$	3/2 - 3/2	G3
Mn III	1386.833	0		$3d^5 - 3d^4(a^5D)4p$	$a^2D - z^4P^\circ$	3/2 - 5/2	Y1
Mn III	1394.051	10		$3d^4(a^5D)4s - 3d^4(^3D)4p$	$b^4D - w^4D^\circ$	1/2 - 1/2	Y1
Mn III	1400.955	40		$3d^4(a^5D)4s - 3d^4(^3D)4p$	$b^4D - w^4D^\circ$	5/2 - 5/2	Y1
Mn III	1405.244	40		$3d^4(a^5D)4s - 3d^4(^3D)4p$	$b^4D - w^4D^\circ$	7/2 - 7/2	Y1
Mn III	1406.957	0		$3d^5 - 3d^4(a^3F)4p$	$b^2G - y^2G^\circ$	9/2 - 9/2	Y1
Mn III	1408.350	30		$3d^5 - 3d^4(a^3G)4p$	$b^2G - y^2H^\circ$	9/2 - 11/2	Y1
Mn III	1413.387	0		$3d^5 - 3d^4(a^3F)4p$	$b^2G - y^2G^\circ$	7/2 - 7/2	Y1
Mn III	1425.05	2h	22	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6S$	3/2 - 5/2	G3
Mn III	1427.238	6	22	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6S$	5/2 - 5/2	G3
Mn III	1430.784	20	22	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6S$	7/2 - 5/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1446.467	5		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$a^6D - y^4D^\circ$	3/2 - 3/2	G3
Mn III	1449.07	20		$3d^5 - 3d^4(a^3H)4p$	$b^2G - z^2H^\circ$	9/2 - 11/2	G3
Mn III	1458.90	10		$3d^5 - 3d^4(a^3H)4p$	$b^2G - z^2H^\circ$	7/2 - 9/2	G3
Mn III	1462.243	60		$3d^5 - 3d^4(a^3F)4p$	$b^2G - z^2F^\circ$	7/2 - 5/2	Y1
Mn III	1486.494	300		$3d^4(a^3H)4s - 3d^4(a^1F)4p$	$b^2H - v^2G^\circ$	11/2 - 9/2	Y1
Mn III	1489.669	10		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^2D^\circ$	3/2 - 3/2	Y1
Mn III	1503.066	5		$3d^4(a^5D)4s - 3d^4(a^3G)4p$	$b^4D - x^4F^\circ$	5/2 - 7/2	G3
Mn III	1512.177	5		$3d^4(a^5D)4s - 3d^4(a^3G)4p$	$b^4D - x^4F^\circ$	7/2 - 9/2	G3
Mn III	1513.635	10		$3d^4(a^3F)4s - 3d^4(a^1F)4p$	$c^2F - v^2G^\circ$	7/2 - 9/2	Y1
Mn III	1513.67	1h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	1/2 - 1/2	G3
Mn III	1515.34	1		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	5/2 - 5/2	G3
Mn III	1516.76	5h	20	$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	7/2 - 7/2	G3
Mn III	1519.51	5h	20	$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	5/2 - 3/2	G3
Mn III	1522.577	8h	20	$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	7/2 - 5/2	G3
Mn III	1526.05	10h	20	$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	9/2 - 7/2	G3
Mn III	1528.64	2h		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$b^4D - z^2F^\circ$	7/2 - 7/2	G3
Mn III	1529.40	6h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^4D$	5/2 - 3/2	G3
Mn III	1530.364	30h	20	$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6F^\circ - f^6D$	11/2 - 9/2	G3
Mn III	1541.15	15h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6P^\circ - f^6D$	7/2 - 9/2	G3
Mn III	1541.744	30		$3d^4(a^3F)4s - 3d^4(a^1F)4p$	$c^2F - u^2F^\circ$	7/2 - 7/2	Y1
Mn III	1544.25	10h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6P^\circ - f^6D$	5/2 - 7/2	G3
Mn III	1545.251	20		$3d^4(a^3F)4s - 3d^4(a^1F)4p$	$c^2F - u^2F^\circ$	5/2 - 5/2	Y1
Mn III	1546.197	0		$3d^4(a^3F)4s - 3d^4(a^1F)4p$	$c^2F - u^2F^\circ$	7/2 - 5/2	Y1
Mn III	1547.45	1h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4P^\circ - e^4D$	1/2 - 3/2	G3
Mn III	1547.68	1h		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$b^4D - x^4D^\circ$	7/2 - 5/2	G3
Mn III	1548.371	1w		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6P^\circ - f^6D$	7/2 - 7/2	G3
Mn III	1550.20	2h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6P^\circ - f^6D$	5/2 - 5/2	G3
Mn III	1555.299	3h		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$b^4D - y^4F^\circ$	3/2 - 5/2	G3
Mn III	1555.343	0		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$b^4D - y^4F^\circ$	3/2 - 5/2	Y1
Mn III	1555.40	1		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4H^\circ - f^4G$	11/2 - 9/2	G3
Mn III	1556.121	8		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4H^\circ - f^4G$	13/2 - 11/2	G3
Mn III	1558.182	5	19	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6F$	5/2 - 7/2	G3
Mn III	1558.602	10		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6F$	3/2 - 3/2	G3
Mn III	1561.570	20		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6F$	5/2 - 5/2	G3
Mn III	1561.681	40		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4I$	13/2 - 15/2	Y1
Mn III	1562.033	20		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4I$	11/2 - 13/2	Y1
Mn III	1562.212	2h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4P^\circ - e^4D$	5/2 - 7/2	G3
Mn III	1562.493	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4I$	9/2 - 11/2	Y1
Mn III	1565.830	30h	19	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6F$	7/2 - 7/2	G3
Mn III	1566.198	40		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4H$	9/2 - 9/2	Y1
Mn III	1566.762	20		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4H$	7/2 - 7/2	Y1
Mn III	1567.772	15h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4H^\circ - e^4H$	11/2 - 11/2	G3
Mn III	1568.325	10	19	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6F$	9/2 - 9/2	G3
Mn III	1569.304	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4I$	13/2 - 13/2	Y1
Mn III	1569.516	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4H^\circ - e^4I$	7/2 - 9/2	Y1
Mn III	1570.169	0		$3d^4(a^5D)4s - 3d^4(a^3F)4p$	$b^4D - y^4F^\circ$	7/2 - 7/2	Y1
Mn III	1571.06	2h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6D$	5/2 - 5/2	G3
Mn III	1571.920	20h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4H^\circ - e^4H$	13/2 - 13/2	G3
Mn III	1575.33	1		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^4D$	7/2 - 7/2	G3
Mn III	1576.924	10		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4P^\circ$	5/2 - 5/2	Y1
Mn III	1577.939	100	19	$3d^4(a^3H)4s - 3d^4(^3D)4p$	$a^4H - x^2F^\circ$	7/2 - 7/2	G3
Mn III	1578.467	20		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6D$	9/2 - 7/2	G3
Mn III	1579.567	0		$3d^4(a^3G)4s - 3d^4(a^1F)4p$	$c^2G - v^2G^\circ$	9/2 - 9/2	Y1
Mn III	1585.714	150		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4P^\circ$	7/2 - 5/2	Y1
Mn III	1591.942	5		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6F$	7/2 - 9/2	G3
Mn III	1592.187	5		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4P^\circ$	5/2 - 3/2	G3
Mn III	1593.97	3h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	7/2 - 9/2	G3
Mn III	1594.312	5h		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4P^\circ$	3/2 - 1/2	G3
Mn III	1595.081	100		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6F$	5/2 - 7/2	G3
Mn III	1595.35	80		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4F$	7/2 - 7/2	G3
Mn III	1596.211	80h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4F$	5/2 - 5/2	G3
Mn III	1596.948	300		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4F$	9/2 - 9/2	G3
Mn III	1598.651	50		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6F$	5/2 - 5/2	G3
Mn III	1599.50	5		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6F$	7/2 - 7/2	G3
Mn III	1600.770	10h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4F$	9/2 - 7/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1601.045	5h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^4F^\circ - f^4D$	5/2 - 7/2	G3
Mn III	1601.42	5h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	9/2 - 9/2	G3
Mn III	1602.17	20	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	1/2 - 3/2	G3
Mn III	1602.38	20		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6D$	7/2 - 7/2	G3
Mn III	1603.203	30h	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	3/2 - 5/2	G3
Mn III	1603.598	2		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6D$	5/2 - 7/2	G3
Mn III	1604.407	2h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - f^4G$	9/2 - 9/2	G3
Mn III	1605.107	4h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^4F^\circ - f^4D$	7/2 - 7/2	G3
Mn III	1605.22	3h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	3/2 - 5/2	G3
Mn III	1605.545	40h	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	5/2 - 7/2	C4,G3
Mn III	1605.67	20	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	3/2 - 3/2	G3
Mn III	1606.755	1		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^4F^\circ - f^4D$	3/2 - 5/2	G3
Mn III	1607.003	20h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - f^4G$	11/2 - 11/2	G3
Mn III	1607.884	30h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^4G$	9/2 - 9/2	G3
Mn III	1608.18	3h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	7/2 - 5/2	G3
Mn III	1609.02	20h	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	5/2 - 5/2	G3
Mn III	1609.172	500h	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	7/2 - 9/2	G3
Mn III	1610.05	3h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	1/2 - 1/2	G3
Mn III	1610.228	20h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	5/2 - 5/2	G3
Mn III	1612.78	2h		$3d^4(a^5D)4p - 3d^4(a^5D)5s$	$z^6D^\circ - f^6D$	3/2 - 1/2	G3
Mn III	1613.656	20	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	7/2 - 7/2	G3
Mn III	1614.144	800	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	9/2 - 11/2	G3
Mn III	1617.163	5	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	7/2 - 5/2	G3
Mn III	1617.760	200		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4K$	9/2 - 11/2	G3
Mn III	1618.689	1		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$b^4F - x^2F^\circ$	7/2 - 7/2	G3
Mn III	1619.62	40h	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	9/2 - 9/2	G3
Mn III	1620.602	1000	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	11/2 - 13/2	G3
Mn III	1621.284	1h		$3d^4(a^3F)4p - 3d^4(^3H)4d$	$z^4G^\circ - f^4G$	11/2 - 9/2	G3
Mn III	1623.122	10		$3d^4(a^3H)4s - 3d^4(a^1G)4p$	$a^4H - w^2G^\circ$	7/2 - 7/2	Y1
Mn III	1623.911	300		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4K$	11/2 - 13/2	G3
Mn III	1626.885	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4H$	9/2 - 7/2	Y1
Mn III	1626.99	6	18	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6F^\circ - e^6G$	11/2 - 11/2	G3
Mn III	1627.200	3h		$3d^4(a^3P)4s - 3d^4(^3D)4p$	$b^4P - x^4P^\circ$	1/2 - 3/2	G3
Mn III	1627.743	20		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4I$	11/2 - 11/2	Y1
Mn III	1629.117	400		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4K$	13/2 - 15/2	G3
Mn III	1629.715	20		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4I$	9/2 - 9/2	Y1
Mn III	1630.362	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4I$	13/2 - 13/2	Y1
Mn III	1630.768	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4I$	15/2 - 15/2	Y1
Mn III	1631.638	0		$3d^4(a^3H)4p - 3d^4(a^3H)4d$	$z^4I^\circ - e^4H$	11/2 - 9/2	Y1
Mn III	1633.51	20h		$3d^4(a^3P)4s - 3d^4(^3D)4p$	$b^4P - x^4P^\circ$	3/2 - 1/2	G3
Mn III	1633.800	500		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4K$	15/2 - 17/2	G3
Mn III	1636.559	3		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4H$	13/2 - 11/2	G3
Mn III	1637.974	2h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$z^4I^\circ - e^4K$	15/2 - 15/2	G3
Mn III	1642.054	10		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4P^\circ - e^6F$	5/2 - 7/2	G3
Mn III	1642.78	30	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	5/2 - 7/2	G3
Mn III	1643.702	30h	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	3/2 - 5/2	G3
Mn III	1644.96	10h	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	3/2 - 3/2	G3
Mn III	1645.03	15h		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4D^\circ$	7/2 - 7/2	G3
Mn III	1646.59	2h	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	5/2 - 5/2	G3
Mn III	1647.46	250	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	7/2 - 7/2	G3
Mn III	1647.827	30	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	5/2 - 3/2	G3
Mn III	1648.375	100h	25	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	7/2 - 9/2	G3
Mn III	1649.50	150w		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4D$	9/2 - 7/2	G3
Mn III	1651.35	80	21	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6P^\circ - e^6P$	7/2 - 5/2	G3
Mn III	1653.57	400	25	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	9/2 - 11/2	G3
Mn III	1653.823	50		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4D^\circ$	5/2 - 5/2	G3
Mn III	1656.510	3		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	7/2 - 7/2	G3
Mn III	1657.20	10		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	3/2 - 5/2	G3
Mn III	1658.68	6w	25	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	5/2 - 7/2	G3
Mn III	1659.602	100	24	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6D$	7/2 - 7/2	G3
Mn III	1662.533	3		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6F$	5/2 - 5/2	G3
Mn III	1662.827	0		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4D^\circ$	3/2 - 3/2	Y1
Mn III	1662.943	0		$3d^4(a^1G)4s - 3d^4(a^1F)4p$	$d^2G - u^2F^\circ$	7/2 - 5/2	Y1
Mn III	1665.701	15	24	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6D$	7/2 - 7/2	G3
Mn III	1666.255	10h		$3d^4(a^3P)4s - 3d^4(^3D)4p$	$b^4P - x^4P^\circ$	5/2 - 3/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1667.698	20h	24	$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6D$	9/2 - 7/2	G3
Mn III	1668.047	1h		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$y^4G^\circ - f^4G$	9/2 - 11/2	G3
Mn III	1668.799	0		$3d^4(a^3F)4s - 3d^4(a^1D)4p$	$c^2F - w^2D^\circ$	7/2 - 5/2	Y1
Mn III	1669.032	200		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4G$?	9/2 - 11/2	G3
Mn III	1669.404	200		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$y^4G^\circ - f^4G$	11/2 - 11/2	G3
Mn III	1669.691	2		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4D^\circ$	1/2 - 1/2	G3
Mn III	1670.315	3		$3d^4(a^5D)4s - 3d^4(a^3P)4p$	$b^4D - y^4D^\circ$	5/2 - 3/2	G3
Mn III	1671.015	200		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4G$	7/2 - 9/2	G3
Mn III	1671.474	30		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6D$	3/2 - 3/2	G3
Mn III	1672.009	10		$3d^4(a^3H)4s - 3d^4(^1I)4p$	$a^4H - z^2K^\circ$	11/2 - 13/2	G3
Mn III	1672.974	200		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4G$	5/2 - 7/2	G3
Mn III	1674.408	3h		$3d^4(a^3P)4s - 3d^4(^1S)4p$	$b^2P - x^2P^\circ$	1/2 - 1/2	G3
Mn III	1675.329	3		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4G$	3/2 - 5/2	G3
Mn III	1675.52	200		$3d^4(a^3H)4p - 3d^4(^3H)4d$	$y^4G^\circ - f^4G$	9/2 - 9/2	G3
Mn III	1676.147	3		$3d^4(a^3H)4s - 3d^4(^1I)4p$	$a^4H - z^2K^\circ$	13/2 - 13/2	G3
Mn III	1676.95	30		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^4G$	9/2 - 9/2	G3
Mn III	1678.08	1h		$3d^4(a^3P)4s - 3d^4(^3D)4p$	$b^4P - x^4P^\circ$	5/2 - 5/2	G3
Mn III	1705.497	3		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4D^\circ$	1/2 - 3/2	G3
Mn III	1707.157	2		$3d^4(a^3P)4s - 3d^4(^1S)4p$	$b^2P - x^2P^\circ$	3/2 - 3/2	G3
Mn III	1707.995	2		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6P$	7/2 - 7/2	G3
Mn III	1708.804	0		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6P$	3/2 - 5/2	Y1
Mn III	1710.138	2		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6P$	3/2 - 3/2	G3
Mn III	1712.134	1		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4D^\circ$	3/2 - 1/2	G3
Mn III	1716.569	5		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^6D^\circ - e^6P$	9/2 - 7/2	G3
Mn III	1717.053	3		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$b^4F - w^4F^\circ$	7/2 - 7/2	G3
Mn III	1721.61	2		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^2G^\circ$	9/2 - 9/2	G3
Mn III	1735.073	30		$3d^4(a^3F)4s - 3d^4(a^3D)4p$	$c^2F - x^2D^\circ$	5/2 - 3/2	Y1
Mn III	1742.15	50w		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^6D$	9/2 - 7/2	G3
Mn III	1743.96	3h		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^6D$	3/2 - 3/2	G3
Mn III	1744.35	2h		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$c^2F - x^2D^\circ$	5/2 - 5/2	G3
Mn III	1745.625	5		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$c^2F - x^2D^\circ$	7/2 - 5/2	G3
Mn III	1747.38	5		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^6D$	5/2 - 3/2	G3
Mn III	1748.888	10		$3d^4(a^5D)4p - 3d^4(a^5D)4d$	$z^4F^\circ - e^6D$	9/2 - 7/2	G3
Mn III	1749.17	1h		$3d^4(a^3G)4p - 3d^4(^3H)4d$	$y^4H^\circ - f^4G$	11/2 - 9/2	G3
Mn III	1751.253	0		$3d^4(a^3D)4s - 3d^4(a^1D)4p$	$c^4D - w^2D^\circ$	5/2 - 5/2	Y1
Mn III	1764.841	3		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$c^2F - x^2F^\circ$	5/2 - 5/2	G3
Mn III	1772.824	5		$3d^4(a^3F)4s - 3d^4(^3D)4p$	$c^2F - x^2F^\circ$	7/2 - 7/2	G3
Mn III	1784.394	20		$3d^4(a^3H)4s - 3d^4(a^1G)4p$	$b^2H - w^2G^\circ$	11/2 - 9/2	Y1
Mn III	1792.38	5		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	5/2 - 5/2	G3
Mn III	1793.242	10		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	7/2 - 7/2	G3
Mn III	1793.560	10		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	9/2 - 9/2	G3
Mn III	1794.09	5		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	5/2 - 3/2	G3
Mn III	1796.864	100		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	11/2 - 9/2	G3
Mn III	1797.919	25		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	7/2 - 5/2	G3
Mn III	1798.130	80		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$b^4G - w^4F^\circ$	9/2 - 7/2	G3
Mn III	1798.545	1		$3d^4(a^5D)4d - 3d^4(a^5D)5f$	$e^4G - w^6F^\circ$	7/2 - 5/2	G3
Mn III	1799.346	2		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	7/2 - 9/2	G3
Mn III	1799.56	2		$3d^4(a^5D)4d - 3d^4(a^5D)5f$	$e^4G - w^6F^\circ$	9/2 - 7/2	G3
Mn III	1802.450	1		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	9/2 - 9/2	G3
Mn III	1804.065	400		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	13/2 - 11/2	G3
Mn III	1806.473	300		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	11/2 - 9/2	G3
Mn III	1807.926	3		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	7/2 - 7/2	G3
Mn III	1810.767	200		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	7/2 - 5/2	G3
Mn III	1811.025	300		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - x^4G^\circ$	9/2 - 7/2	G3
Mn III	1819.410	5		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^2F^\circ$	7/2 - 5/2	G3
Mn III	1823.477	40		$3d^4(a^3F)4s - 3d^4(a^1G)4p$	$c^2F - w^2G^\circ$	7/2 - 9/2	Y1
Mn III	1828.647	40		$3d^4(a^3F)4s - 3d^4(a^1G)4p$	$c^2F - w^2G^\circ$	5/2 - 7/2	Y1
Mn III	1833.019	20		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^2H^\circ$	13/2 - 11/2	G3
Mn III	1839.01	2		$3d^4(a^3H)4s - 3d^4(^3D)4p$	$b^2H - w^4F^\circ$	9/2 - 7/2	G3
Mn III	1846.001	3		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$c^2G - x^2F^\circ$	7/2 - 5/2	G3
Mn III	1846.278	3		$3d^4(a^3G)4s - 3d^4(^1I)4p$	$c^2G - w^2H^\circ$	7/2 - 9/2	G3
Mn III	1847.268	30		$3d^4(a^3H)4s - 3d^4(^1G)4p$	$b^2H - x^2H^\circ$	11/2 - 11/2	G3
Mn III	1849.049	15		$3d^4(a^3H)4s - 3d^4(^1G)4p$	$b^2H - x^2H^\circ$	9/2 - 9/2	G3
Mn III	1852.579	3		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4G^\circ$	7/2 - 9/2	G3
Mn III	1853.77	1		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4F^\circ$	5/2 - 5/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1856.316	3		$3d^4(a^3H)4s - 3d^4(^1I)4p$	$b^2H - y^2I^\circ$	9/2 - 11/2	G3
Mn III	1856.580	1		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4F^\circ$	7/2 - 7/2	G3
Mn III	1859.46	25		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4F^\circ$	9/2 - 9/2	G3
Mn III	1859.65	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4G^\circ$	5/2 - 7/2	G3
Mn III	1863.975	3		$3d^4(a^3G)4s - 3d^4(^3D)4p$	$c^2G - x^2F^\circ$	9/2 - 7/2	G3
Mn III	1866.828	5h		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4F^\circ$	9/2 - 7/2	G3
Mn III	1869.164	6h		$3d^4(a^3G)4s - 3d^4(^1I)4p$	$c^2G - w^2H^\circ$	9/2 - 11/2	G3
Mn III	1877.616	400		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	13/2 - 13/2	G3
Mn III	1878.018	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - y^2H^\circ$	9/2 - 11/2	G3
Mn III	1880.818	3		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	9/2 - 11/2	G3
Mn III	1885.207	300		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	11/2 - 11/2	G3
Mn III	1888.438	1		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	7/2 - 9/2	G3
Mn III	1890.42	2		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	13/2 - 11/2	G3
Mn III	1891.846	200		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	9/2 - 9/2	G3
Mn III	1893.485	70		$3d^4(a^3F)4s - 3d^4(a^1G)4p$	$c^2F - x^2F^\circ$	5/2 - 5/2	Y1
Mn III	1896.293	3		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	11/2 - 9/2	G3
Mn III	1897.28	1		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - z^2H^\circ$	11/2 - 11/2	G3
Mn III	1898.301	200		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	7/2 - 7/2	G3
Mn III	1899.097	150		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$b^2H - x^2G^\circ$	9/2 - 7/2	G3
Mn III	1901.754	1		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$a^4H - y^4H^\circ$	9/2 - 7/2	G3
Mn III	1902.069	100		$3d^4(a^3F)4s - 3d^4(^1G)4p$	$c^2F - x^2H^\circ$	7/2 - 9/2	G3
Mn III	1907.83	200b		$3d^4(a^3H)4s - 3d^4(a^3G)4p$	$b^2H - x^2G^\circ$	11/2 - 9/2	G3
Mn III	1908.670	0		$3d^4(a^3G)4s - 3d^4(a^1G)4p$	$c^2G - w^2G^\circ$	7/2 - 9/2	Y1
Mn III	1910.649	40		$3d^4(a^1D)4s - 3d^4(a^1F)4p$	$e^2D - u^2F^\circ$	5/2 - 7/2	Y1
Mn III	1915.907	150		$3d^4(a^3G)4s - 3d^4(a^1G)4p$	$c^2G - w^2G^\circ$	7/2 - 7/2	Y1
Mn III	1916.385	20		$3d^4(a^3F)4s - 3d^4(a^1G)4p$	$c^2F - x^2F^\circ$	7/2 - 7/2	Y1
Mn III	1918.198	0		$3d^4(a^1G)4s - 3d^4(^1I)4p$	$d^2G - w^2H^\circ$	9/2 - 9/2	Y1
Mn III	1919.162	20		$3d^4(a^1D)4s - 3d^4(a^1F)4p$	$e^2D - u^2F^\circ$	3/2 - 5/2	Y1
Mn III	1920.065	300		$3d^4(a^3G)4s - 3d^4(a^1G)4p$	$c^2G - w^2G^\circ$	9/2 - 9/2	Y1
Mn III	1920.390	70		$3d^4(a^1G)4s - 3d^4(^1I)4p$	$d^2G - w^2H^\circ$	7/2 - 9/2	Y1
Mn III	1924.422	20		$3d^4(a^3P)4s - 3d^4(a^3P)4p$	$b^4P - z^4S^\circ$	3/2 - 3/2	G3
Mn III	1925.851	20		$3d^4(a^1G)4s - 3d^4(^3D)4p$	$d^2G - x^2F^\circ$	9/2 - 7/2	Y1
Mn III	1927.337	0		$3d^4(a^3G)4s - 3d^4(a^1G)4p$	$c^2G - w^2G^\circ$	9/2 - 7/2	Y1
Mn III	1927.889	80		$3d^4(a^3D)4s - 3d^4(a^1D)4p$	$d^2D - w^2D^\circ$	5/2 - 5/2	Y1
Mn III	1928.479	1w		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	3/2 - 5/2	G3
Mn III	1928.925	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	5/2 - 7/2	G3
Mn III	1929.752	3		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	5/2 - 5/2	G3
Mn III	1931.06	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	7/2 - 7/2	G3
Mn III	1931.394	300		$3d^4(a^1G)4s - 3d^4(^1I)4p$	$d^2G - w^2H^\circ$	9/2 - 11/2	Y1
Mn III	1931.92	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	7/2 - 5/2	G3
Mn III	1932.44	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	3/2 - 3/2	G3
Mn III	1932.92	1w		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	7/2 - 9/2	G3
Mn III	1933.483	100	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 5/2	G3
Mn III	1935.770	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - x^4F^\circ$	9/2 - 9/2	G3
Mn III	1936.559	200	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 3/2	G3
Mn III	1937.121	4		$3d^4(a^3P)4s - 3d^4(a^3F)4p$	$b^4P - x^4D^\circ$	3/2 - 5/2	G3
Mn III	1940.056	100		$3d^4(a^3D)4s - 3d^4(a^1D)4p$	$d^2D - w^2D^\circ$	3/2 - 3/2	Y1
Mn III	1940.224	6h	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 5/2	G3
Mn III	1940.458	15	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 1/2	G3
Mn III	1940.74	2	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 3/2	G3
Mn III	1941.282	500	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 9/2	G3
Mn III	1941.59	1h		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	7/2 - 9/2	G3
Mn III	1942.886	250w		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	11/2 - 11/2	G3
Mn III	1943.209	800	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 7/2	G3
Mn III	1944.640	150	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 1/2	G3
Mn III	1947.320	150		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	9/2 - 9/2	G3
Mn III	1947.516	200	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 3/2	G3
Mn III	1948.282	200		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	5/2 - 5/2	G3
Mn III	1949.354	200	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 5/2	G3
Mn III	1949.53	30		$3d^4(a^3D)4s - 3d^4(^3D)4p$	$c^4D - x^4P^\circ$	5/2 - 3/2	G3
Mn III	1949.744	150		$3d^4(^1I)4s - 3d^4(^1I)4p$	$b^2I - w^2H^\circ$	11/2 - 9/2	G3
Mn III	1951.24	1		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	11/2 - 9/2	G3
Mn III	1951.504	200		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - x^4G^\circ$	7/2 - 7/2	G3
Mn III	1952.361	500	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 7/2	G3
Mn III	1952.525	1000	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 9/2	G3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn III	1955.4	2		$3d^4(a^3F)4s - 3d^4(a^3G)4p$	$b^4F - y^4H^\circ$	5/2 - 7/2	G3
Mn III	1956.614	300	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	3/2 - 5/2	G3
Mn III	1957.472	10		$3d^4(a^3P)4s - 3d^4(a^3P)4p$	$b^4P - z^4S^\circ$	5/2 - 3/2	G3
Mn III	1958.310	8		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - y^2F^\circ$	5/2 - 5/2	G3
Mn III	1959.98	2		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - z^2F^\circ$	7/2 - 7/2	G3
Mn III	1962.042	250		$3d^4(^1I)4s - 3d^4(^1I)4p$	$b^2I - w^2H^\circ$	13/2 - 11/2	G3
Mn III	1962.878	100		$3d^4(a^3D)4s - 3d^4(^3D)4p$	$c^4D - x^4P^\circ$	7/2 - 5/2	G3
Mn III	1963.27	1h		$3d^4(^1I)4s - 3d^4(^1I)4p$	$b^2I - w^2H^\circ$	11/2 - 11/2	G3
Mn III	1963.514	100	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	5/2 - 5/2	G3
Mn III	1963.719	200	13	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 7/2	G3
Mn III	1967.080	10h		$3d^4(a^3P)4s - 3d^4(a^3F)4p$	$b^4P - x^4D^\circ$	5/2 - 3/2	G3
Mn III	1968.776	4		$3d^4(a^3D)4s - 3d^4(^3D)4p$	$c^4D - x^4P^\circ$	3/2 - 5/2	G3
Mn III	1969.576	50		$3d^4(a^3P)4s - 3d^4(a^3F)4p$	$b^4P - x^4D^\circ$	5/2 - 7/2	G3
Mn III	1970.639	2		$3d^4(a^3P)4s - 3d^4(a^3F)4p$	$b^4P - x^4D^\circ$	5/2 - 5/2	G3
Mn III	1971.28	100		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	7/2 - 5/2	G3
Mn III	1971.976	8b		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	7/2 - 7/2	G3
Mn III	1972.218	5		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	9/2 - 11/2	G3
Mn III	1972.471	3w		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - y^2H^\circ$	9/2 - 11/2	G3
Mn III	1972.861	100	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	7/2 - 5/2	G3
Mn III	1974.10	20b		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	9/2 - 9/2	G3
Mn III	1975.439	100	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	1/2 - 3/2	G3
Mn III	1975.690	200		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	9/2 - 7/2	G3
Mn III	1976.490	30		$3d^4(a^3G)4s - 3d^4(a^3G)4p$	$b^4G - y^2H^\circ$	11/2 - 11/2	G3
Mn III	1977.044	4		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	11/2 - 11/2	G3
Mn III	1978.953	500		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	11/2 - 9/2	G3
Mn III	1979.790	1	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	3/2 - 3/2	G3
Mn III	1982.212	20		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 1/2	G3
Mn III	1982.76	400		$3d^4(a^3H)4s - 3d^4(a^3H)4p$	$a^4H - y^4G^\circ$	13/2 - 11/2	G3
Mn III	1984.052	2		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 3/2	G3
Mn III	1985.398	20		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	5/2 - 3/2	G3
Mn III	1985.717	300		$3d^4(b^3F)4p - 3d^4(a^5D)5d$	$t^2F^\circ - g^6D$?	7/2 - 5/2	C4,K8
Mn III	1985.797	750		$3d^4(a^1G)4s - 3d^4(a^1G)4p$	$d^2G - w^2G^\circ$	9/2 - 9/2	Y1
Mn III	1986.839	100	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	5/2 - 3/2	G3
Mn III	1987.70	1h		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 5/2	G3
Mn III	1989.038	8		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	5/2 - 5/2	G3
Mn III	1989.587	400		$3d^4(a^3D)4s - 3d^4(^3D)4p$	$c^4D - w^4F^\circ$	7/2 - 9/2	G3
Mn III	1990.219	3	12	$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	7/2 - 7/2	G3
Mn III	1991.290	50		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	7/2 - 5/2	G3
Mn III	1992.492	2	12	$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	1/2 - 1/2	G3
Mn III	1992.889	10		$3d^4(a^3P)4s - 3d^4(a^3P)4p$	$b^4P - z^2P^\circ$	1/2 - 1/2	G3
Mn III	1993.222	80		$3d^4(a^3F)4s - 3d^4(a^3F)4p$	$b^4F - x^4D^\circ$	9/2 - 7/2	G3
Mn III	1993.550	20		$3d^4(a^1G)4s - 3d^4(a^1G)4p$	$d^2G - w^2G^\circ$	9/2 - 7/2	Y1
Mn III	1995.02	3		$3d^4(a^3G)4s - 3d^4(^1G)4p$	$c^2G - x^2H^\circ$	7/2 - 9/2	G3
Mn III	1995.838	700		$3d^4(a^1G)4s - 3d^4(a^1G)4p$	$d^2G - w^2G^\circ$	7/2 - 7/2	Y1
Mn III	1996.905	15		$3d^4(a^5D)4s - 3d^4(a^5D)4p$	$a^6D - z^4P^\circ$	3/2 - 1/2	G3
Mn III	1997.109	20		$3d^4(a^3P)4s - 3d^4(a^3P)4p$	$b^4P - y^4P^\circ$	3/2 - 5/2	G3
Mn III	1998.127	100		$3d^4(a^3D)4s - 3d^4(^3D)4p$	$c^4D - w^4F^\circ$	5/2 - 7/2	G3
Mn III	1998.883	20		$3d^4(a^3P)4s - 3d^4(a^3P)4p$	$b^4P - y^4P^\circ$	1/2 - 3/2	G3

Mn IV

MANGANESE IV (Mn^{3+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^4$ $^5D_0$ (22 electrons)

Ionization Potential [427 000] cm^{-1}; [53] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	522.780	120		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	6 - 5	Y2
Mn IV	523.036	80		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	5 - 4	Y2
Mn IV	523.234	70		$3d^4 - 3d^3(a^2F)4p$	$a^3H - w^3G^\circ$	4 - 3	Y2
Mn IV	526.293	20		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	4 - 5	Y2
Mn IV	526.858	0		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	3 - 4	Y2
Mn IV	527.402	0		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3G^\circ$	2 - 3	Y2
Mn IV	534.396	0		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	3 - 4	Y2
Mn IV	534.504	90		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3G^\circ$	5 - 5	Y2
Mn IV	534.780	60		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3G^\circ$	4 - 4	Y2
Mn IV	534.876	40		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3G^\circ$	3 - 3	Y2
Mn IV	535.352	150		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	4 - 4	Y2
Mn IV	535.562	20		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - y^5D^\circ$	2 - 3	Y2
Mn IV	536.324	70		$3d^4 - 3d^3(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 3	Y2
Mn IV	540.103	50		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 3	Y2
Mn IV	540.882	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 3	Y2
Mn IV	541.117	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 2	Y2
Mn IV	541.667	350		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 2	Y2
Mn IV	541.814	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	0 - 1	Y2
Mn IV	541.858	400		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	4 - 3	Y2
Mn IV	542.101	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 1	Y2
Mn IV	542.454	400		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 2	Y2
Mn IV	542.653	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 1	Y2
Mn IV	544.016	300		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	3 - 2	Y2
Mn IV	544.533	350		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	4 - 3	Y2
Mn IV	544.752	350		$3d^4 - 3d^3(a^2F)4p$	$a^3G - w^3F^\circ$	5 - 4	Y2
Mn IV	558.495	300		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	Y2
Mn IV	558.624	0		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 4	Y2
Mn IV	559.231	350		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	Y2
Mn IV	559.544	0		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	Y2
Mn IV	560.181	300		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	Y2
Mn IV	561.598	90		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	3 - 4	Y2
Mn IV	562.288	80		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	2 - 3	Y2
Mn IV	562.806	50		$3d^4 - 3d^3(a^2F)4p$	$a^3D - w^3F^\circ$	1 - 2	Y2
Mn IV	566.757	30		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	0 - 1	Y2
Mn IV	567.295	80		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	1 - 2	Y2
Mn IV	568.774	30		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	1 - 1	Y2
Mn IV	569.614	200		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	2 - 3	Y2
Mn IV	569.781	300		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	6 - 7	Y2
Mn IV	570.675	50		$3d^4 - 3d^3(a^2D)4p$	$a^3P - w^3D^\circ$	2 - 2	Y2
Mn IV	571.352	250		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	5 - 6	Y2
Mn IV	571.696	350		$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	4 - 3	Y2
Mn IV	571.774	350		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	Y2
Mn IV	571.923	20		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 4	Y2
Mn IV	572.021	30		$3d^4 - 3d^3(a^2H)4p$	$a^3H - z^3I^\circ$	6 - 6	Y2
Mn IV	572.203	40		$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	2 - 2	Y2
Mn IV	572.433	400		$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	3 - 2	Y2
Mn IV	572.671	350		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	Y2
Mn IV	572.992	40		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 5	Y2
Mn IV	573.352	80		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 4	Y2
Mn IV	573.677	500		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	Y2
Mn IV	573.706	200		$3d^4 - 3d^3(a^2D)4p$	$a^3F - w^3D^\circ$	2 - 1	Y2
Mn IV	579.155	450		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 3	Y2
Mn IV	579.787	600		$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	6 - 6	Y2
Mn IV	580.026	500		$3d^4 - 3d^3(a^2H)4p$	$a^3H - y^3H^\circ$	5 - 5	Y2
Mn IV	580.298	30		$3d^4 - 3d^3(a^2P)4p$	$a^3P - y^3D^\circ$	0 - 1	Y2
Mn IV	580.383	350		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 2	Y2
Mn IV	581.099	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	0 - 1	B25,Y2
Mn IV	581.442	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 5	Y2
Mn IV	581.650	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 4	Y2
Mn IV	581.914	40		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	3 - 2	Y2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	582.089	80		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 3	Y2
Mn IV	582.400	30		$3d^4 - 3d^3(a^2P)4p$	$a^3P - y^3D^\circ$	1 - 1	Y2
Mn IV	582.785	450		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 4	Y2
Mn IV	582.993	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 3	Y2
Mn IV	583.390	450		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 2	Y2
Mn IV	583.480	350		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	0 - 1	Y2
Mn IV	583.618	40		$3d^4 - 3d^3(a^2P)4p$	$a^3F - y^3D^\circ$	3 - 3	Y2
Mn IV	583.824	150		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 1	Y2
Mn IV	583.945	100		$3d^4 - 3d^3(a^2P)4p$	$a^3F - y^3D^\circ$	4 - 3	Y2
Mn IV	584.063	150		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 4	Y2
Mn IV	584.124	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 3	B25,Y2
Mn IV	584.296	150		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 2	B25,Y2
Mn IV	584.443	550		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 1	B25,Y2
Mn IV	584.835	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 3	Y2
Mn IV	585.208	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 4	Y2
Mn IV	585.586	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 2	Y2
Mn IV	585.736	450		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 3	Y2
Mn IV	586.245	350		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	0 - 1	Y2
Mn IV	586.590	30		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 1	Y2
Mn IV	586.873	450		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 3	Y2
Mn IV	587.157	350		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 2	Y2
Mn IV	587.232	350		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 1	Y2
Mn IV	587.574	200		$3d^4 - 3d^3(a^2P)4p$	$a^3F - y^3D^\circ$	2 - 1	Y2
Mn IV	591.707	150		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3F^\circ$	4 - 3	Y2
Mn IV	592.230	0		$3d^4 - 3d^3(a^2G)4p$	$a^3P - y^3F^\circ$	1 - 2	Y2
Mn IV	592.599	120		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3F^\circ$	4 - 4	Y2
Mn IV	593.279	100		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3F^\circ$	5 - 4	Y2
Mn IV	593.329	80		$3d^4 - 3d^3(a^2P)4p$	$a^3G - y^3D^\circ$	4 - 3	Y2
Mn IV	594.106	120		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	3 - 4	Y2
Mn IV	594.260	120		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	5 - 6	Y2
Mn IV	594.503	350		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	4 - 5	Y2
Mn IV	594.959	500		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 5	Y2
Mn IV	595.223	60		$3d^4 - 3d^3(a^2H)4p$	$a^3G - y^3H^\circ$	5 - 5	Y2
Mn IV	595.392	0		$3d^4 - 3d^3(a^2G)4p$	$a^3P - y^3F^\circ$	2 - 3	Y2
Mn IV	595.684	550		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	6 - 5	Y2
Mn IV	596.174	450		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 4	Y2
Mn IV	597.107	400		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 3	Y2
Mn IV	597.298	450		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	3 - 3	Y2
Mn IV	597.577	500		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	2 - 2	Y2
Mn IV	597.644	450		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	4 - 3	Y2
Mn IV	597.820	150		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	3 - 2	Y2
Mn IV	598.526	500		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3F^\circ$	4 - 4	Y2
Mn IV	599.848	40		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$	5 - 6	Y2
Mn IV	600.257	350		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 5	Y2
Mn IV	600.614	100		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	3 - 3	Y2
Mn IV	600.917	40		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 3	Y2
Mn IV	601.153	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 4	Y2
Mn IV	601.499	70		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 4	Y2
Mn IV	601.788	10		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	3 - 2	Y2
Mn IV	602.115	80		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 2	Y2
Mn IV	602.535	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	2 - 3	Y2
Mn IV	602.798	40		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 3	Y2
Mn IV	603.129	0		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$	5 - 5	Y2
Mn IV	603.788	10		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	2 - 1	Y2
Mn IV	603.863	100		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$	6 - 5	Y2
Mn IV	604.177	40		$3d^4 - 3d^3(a^2D)4p$	$a^3D - w^3D^\circ$	1 - 1	Y2
Mn IV	605.377	50		$3d^4 - 3d^3(a^2G)4p$	$a^3H - z^3H^\circ$	5 - 4	Y2
Mn IV	606.648	80		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	3 - 3	Y2
Mn IV	607.478	200		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	4 - 3	Y2
Mn IV	608.577	50		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^3H^\circ$	4 - 5	Y2
Mn IV	609.188	0		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3F^\circ$	5 - 4	Y2
Mn IV	610.509	10		$3d^4 - 3d^3(a^2G)4p$	$a^3F - z^3H^\circ$	3 - 4	Y2
Mn IV	610.967	450		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	Y2
Mn IV	611.461	450		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	Y2
Mn IV	612.292	500		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	Y2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	613.162	10		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 3	B25,Y2
Mn IV	614.153	400		$3d^4 - 3d^3(a^2P)4p$	$a^3D - y^3D^\circ$	3 - 3	Y2
Mn IV	615.947	40		$3d^4 - 3d^3(a^2P)4p$	$a^3D - y^3D^\circ$	3 - 2	Y2
Mn IV	616.111	300		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	5 - 6	Y2
Mn IV	616.277	300		$3d^4 - 3d^3(a^2P)4p$	$a^3D - y^3D^\circ$	2 - 2	Y2
Mn IV	618.780	250		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	4 - 5	Y2
Mn IV	619.173	10		$3d^4 - 3d^3(a^2P)4p$	$a^3D - y^3D^\circ$	2 - 1	Y2
Mn IV	619.580	90		$3d^4 - 3d^3(a^2P)4p$	$a^3D - y^3D^\circ$	1 - 1	Y2
Mn IV	620.275	200		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	3 - 4	Y2
Mn IV	621.176	70		$3d^4 - 3d^3(a^2G)4p$	$a^3G - z^3H^\circ$	4 - 4	Y2
Mn IV	621.964	80		$3d^4 - 3d^3(a^2F)4p$	$b^3F - v^3D^\circ$	3 - 2	Y2
Mn IV	625.961	90		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$	4 - 5	Y2
Mn IV	627.432	50		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$	3 - 4	Y2
Mn IV	628.380	30		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3G^\circ$	2 - 3	Y2
Mn IV	629.341	0		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	3 - 3	Y2
Mn IV	629.685	180		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	2 - 3	Y2
Mn IV	630.329	150		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	3 - 4	Y2
Mn IV	630.695	100		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3F^\circ$	1 - 2	Y2
Mn IV	633.607	10		$3d^4 - 3d^3(a^2G)4p$	$a^3D - y^3G^\circ$	3 - 4	Y2
Mn IV	640.069	80		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	4 - 4	Y2
Mn IV	640.909	30		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	3 - 3	Y2
Mn IV	641.021	20		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	2 - 2	Y2
Mn IV	641.132	100		$3d^4 - 3d^3(a^2F)4p$	$b^3F - w^3F^\circ$	3 - 2	Y2
Mn IV	642.195	40		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 4	Y2
Mn IV	642.588	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 4	Y2
Mn IV	643.983	50		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 3	Y2
Mn IV	644.273	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 3	Y2
Mn IV	644.679	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 3	Y2
Mn IV	645.832	250		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 2	Y2
Mn IV	645.931	10		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 5	Y2
Mn IV	646.133	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 2	Y2
Mn IV	646.794	500		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	6 - 5	Y2
Mn IV	647.102	40		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 4	Y2
Mn IV	647.921	450		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 4	Y2
Mn IV	648.692	450		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 3	Y2
Mn IV	652.195	250		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 5	Y2
Mn IV	653.018	0		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 4	Y2
Mn IV	653.811	180		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 4	Y2
Mn IV	653.988	150		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 4	Y2
Mn IV	654.222	90		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 4	Y2
Mn IV	654.870	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	5 - 4	Y2
Mn IV	655.122	250		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	2 - 3	Y2
Mn IV	655.156	200		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 3	Y2
Mn IV	655.424	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 3	Y2
Mn IV	656.148	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 3	Y2
Mn IV	657.077	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 2	Y2
Mn IV	660.344	80		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	Y2
Mn IV	661.726	300		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 2	Y2
Mn IV	662.234	0		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^5F^\circ$	5 - 4	Y2
Mn IV	663.085	80		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 1	Y2
Mn IV	663.429	10		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	0 - 1	Y2
Mn IV	663.884	450		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 3	Y2
Mn IV	664.838	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 5	Y2
Mn IV	665.015	40		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 4	Y2
Mn IV	666.035	350		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 4	Y2
Mn IV	666.255	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 3	Y2
Mn IV	666.332	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 2	Y2
Mn IV	666.694	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	4 - 3	Y2
Mn IV	667.004	120		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	0 - 1	Y2
Mn IV	667.706	0		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 1	Y2
Mn IV	668.433	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 2	B25,Y2
Mn IV	668.498	120		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	1 - 2	Y2
Mn IV	668.736	180		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 2	Y2
Mn IV	669.486	60		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	2 - 2	B25,Y2
Mn IV	669.792	150		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 1	Y2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	670.607	10		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	4 - 3	B25,Y2
Mn IV	671.353	80		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	2 - 3	Y2
Mn IV	671.891	10		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	3 - 2	B25,Y2
Mn IV	673.208	40		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	2 - 2	Y2
Mn IV	673.449	0		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	2 - 3	B25,Y2
Mn IV	673.804	0		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	3 - 3	B25,Y2
Mn IV	674.236	60		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	4 - 3	Y2
Mn IV	675.654	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	3 - 2	Y2
Mn IV	676.647	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	2 - 1	Y2
Mn IV	679.374	150		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$	3 - 4	Y2
Mn IV	679.939	200		$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$	2 - 3	Y2
Mn IV	680.265	300		$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$	3 - 4	Y2
Mn IV	680.362	350		$3d^4 - 3d^3(a^2H)4p$	$b^3F - x^3G^\circ$	4 - 5	Y2
Mn IV	682.120	80		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$	2 - 3	Y2
Mn IV	684.183	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$	2 - 2	Y2
Mn IV	684.707	50		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3F^\circ$	1 - 2	Y2
Mn IV	691.252	50		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$	4 - 3	Y2
Mn IV	693.163	40		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$	3 - 2	Y2
Mn IV	695.248	20		$3d^4 - 3d^3(a^2D)4p$	$b^3F - w^3D^\circ$	2 - 1	Y2
Mn IV	706.383	60		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	3 - 3	Y2
Mn IV	709.244	90		$3d^4 - 3d^3(a^2P)4p$	$b^3F - y^3D^\circ$	4 - 3	Y2
Mn IV	709.586	10		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^3D^\circ$	2 - 2	Y2
Mn IV	709.627	40		$3d^4 - 3d^3(a^2P)4p$	$b^3F - y^3D^\circ$	3 - 3	Y2
Mn IV	711.978	30		$3d^4 - 3d^3(a^2P)4p$	$b^3F - y^3D^\circ$	3 - 2	Y2
Mn IV	715.715	0		$3d^4 - 3d^3(a^2P)4p$	$b^3F - y^3D^\circ$	2 - 1	Y2
Mn IV	717.945	150		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	1 - 2	Y2
Mn IV	718.893	0		$3d^4 - 3d^3(a^4F)4p$	$a^3D - z^5D^\circ$	2 - 1	Y2
Mn IV	730.873	0		$3d^4 - 3d^3(a^2G)4p$	$b^3F - y^3F^\circ$	4 - 4	Y2
Mn IV	797.657	40		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	4 - 4	Y2
Mn IV	798.121	40		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 4	Y2
Mn IV	801.194	0		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 3	Y2
Mn IV	801.355	30		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 3	Y2
Mn IV	804.052	10		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 2	Y2
Mn IV	812.499	40		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	4 - 5	Y2
Mn IV	818.468	0		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	2 - 3	Y2
Mn IV	835.657	0		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	3 - 3	Y2
Mn IV	839.514	0		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	3 - 2	Y2
Mn IV	841.536	0		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	2 - 1	Y2
Mn IV	864.850	100		$3d^4 - 3d^3(a^4F)4p$	$b^3F - z^5G^\circ$	4 - 4	Y2
Mn IV	1082.645	100		$3d^3(a^4F)4s - 3d^3(a^2F)4p$	$c^3F - w^3G^\circ$	4 - 5	Y2
Mn IV	1145.361	120		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$a^5F - x^3G^\circ$	5 - 5	Y2
Mn IV	1216.062	0		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$a^5F - y^3D^\circ$	1 - 2	Y2
Mn IV	1219.018	0		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$a^5F - y^3D^\circ$	2 - 2	Y2
Mn IV	1222.489	70		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$a^5F - y^3D^\circ$	4 - 3	Y2
Mn IV	1222.579	80		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	4 - 5	Y2
Mn IV	1223.561	20		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$a^5F - y^3D^\circ$	3 - 2	Y2
Mn IV	1226.966	50		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	5 - 5	Y2
Mn IV	1227.093	30		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	4 - 4	Y2
Mn IV	1231.099	30		$3d^3(a^2G)4s - 3d^3(a^2F)4p$	$b^3G - w^3G^\circ$	4 - 3	Y2
Mn IV	1236.238	70		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	2 - 3	Y2
Mn IV	1242.246	900		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	2 - 3	Y2
Mn IV	1244.242	80		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	3 - 3	Y2
Mn IV	1244.327 P	900		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	3 - 4	Y2
Mn IV	1244.876	0		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	3 - 4	Y2
Mn IV	1247.726	850		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	4 - 5	Y2
Mn IV	1248.638	300		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	3 - 3	Y2
Mn IV	1251.933	950		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	5 - 6	Y2
Mn IV	1252.736 P	450		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	4 - 4	Y2
Mn IV	1256.457	40		$3d^3(a^4F)4s - 3d^3(a^2H)4p$	$c^3F - x^3G^\circ$	4 - 5	Y2
Mn IV	1257.277	950		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	6 - 7	Y2
Mn IV	1258.131	750		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	5 - 5	Y2
Mn IV	1264.412	900		$3d^3(a^4F)4p - 3d^3(a^4F)4d$	$z^5G^\circ - e^5H$	6 - 6	Y2
Mn IV	1277.628	100		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3F^\circ$	3 - 3	Y2
Mn IV	1281.727	30		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3F^\circ$	3 - 4	Y2
Mn IV	1293.930	150		$3d^3(a^4F)4s - 3d^3(a^2D)4p$	$c^3F - w^3D^\circ$	4 - 3	Y2

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	1297.947	0		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - y^3G^\circ$	2 - 3	Y2
Mn IV	1321.588	20		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 4	Y2
Mn IV	1328.564	0		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 4	Y2
Mn IV	1332.660	20		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	5 - 5	Y2
Mn IV	1333.561	10		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 3	Y2
Mn IV	1336.123	450		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	6 - 5	Y2
Mn IV	1336.918	400		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	5 - 4	Y2
Mn IV	1338.061	350		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	5 - 4	Y2
Mn IV	1340.617	250		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 3	Y2
Mn IV	1341.461	300		$3d^3(a^2H)4s - 3d^3(a^2F)4p$	$b^3H - w^3G^\circ$	4 - 3	Y2
Mn IV	1346.014	0		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$c^3F - y^3D^\circ$	2 - 2	Y2
Mn IV	1346.865	0		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$c^3F - y^3D^\circ$	3 - 3	Y2
Mn IV	1355.441	250		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$a^5F - z^3H^\circ$	5 - 4	Y2
Mn IV	1356.436	0		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - z^5P^\circ$	2 - 3	Y2
Mn IV	1358.594	450		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$c^3F - y^3D^\circ$	4 - 3	Y2
Mn IV	1359.890	350		$3d^3(a^4F)4s - 3d^3(a^2P)4p$	$c^3F - y^3D^\circ$	2 - 1	Y2
Mn IV	1361.996	0		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$a^5F - z^5P^\circ$	3 - 3	Y2
Mn IV	1414.596	10		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$	2 - 2	Y2
Mn IV	1422.038	10		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$	3 - 3	Y2
Mn IV	1440.324	70		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3F^\circ$	4 - 4	Y2
Mn IV	1442.807	80		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	2 - 3	Y2
Mn IV	1444.078	100		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	3 - 4	Y2
Mn IV	1446.740	60		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - x^3G^\circ$	4 - 4	Y2
Mn IV	1448.789	120		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - x^3G^\circ$	4 - 5	Y2
Mn IV	1450.315	120		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	4 - 5	Y2
Mn IV	1452.893	200		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - x^3G^\circ$	5 - 4	Y2
Mn IV	1453.626	20		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	3 - 3	Y2
Mn IV	1454.961	60		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - x^3G^\circ$	5 - 5	Y2
Mn IV	1457.560 P	80		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - y^3G^\circ$	4 - 4	Y2
Mn IV	1476.740	0		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^5D^\circ$	3 - 4	Y2
Mn IV	1491.579	0		$3d^3(a^4F)4s - 3d^3(a^4P)4p$	$c^3F - y^5D^\circ$	3 - 3	Y2
Mn IV	1499.769	0		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - z^3H^\circ$	4 - 5	Y2
Mn IV	1513.635	20		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3F^\circ$	3 - 3	Y2
Mn IV	1513.867	0		$3d^3(a^4F)4s - 3d^3(a^2G)4p$	$c^3F - z^3H^\circ$	4 - 4	Y2
Mn IV	1522.805	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3F^\circ$	4 - 3	Y2
Mn IV	1567.380	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G^\circ$	3 - 4	Y2
Mn IV	1577.185	350		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G^\circ$	4 - 4	Y2
Mn IV	1586.638	30		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G^\circ$	4 - 3	Y2
Mn IV	1592.536	300		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	3 - 4	Y2
Mn IV	1594.659	500		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	4 - 5	Y2
Mn IV	1595.081	500		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	5 - 6	Y2
Mn IV	1597.656	0		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	4 - 4	Y2
Mn IV	1600.549	550		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	4 - 3	Y2
Mn IV	1601.550	80		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	4 - 4	Y2
Mn IV	1602.138	100		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	5 - 5	Y2
Mn IV	1603.604	700		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	5 - 4	Y2
Mn IV	1604.038	0		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	4 - 5	Y2
Mn IV	1605.202	40		$3d^3(a^2G)4s - 3d^3(a^2H)4p$	$b^3G - y^3H^\circ$	5 - 4	Y2
Mn IV	1606.108	150		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	5 - 5	Y2
Mn IV	1611.105	700		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - x^3G^\circ$	6 - 5	Y2
Mn IV	1642.249	40		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	1 - 2	Y2
Mn IV	1647.773	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	2 - 2	Y2
Mn IV	1650.573	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	1 - 1	Y2
Mn IV	1651.685	350		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	4 - 3	Y2
Mn IV	1653.833	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	3 - 4	Y2
Mn IV	1656.046	450		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	3 - 2	Y2
Mn IV	1656.166	550		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	2 - 1	Y2
Mn IV	1656.388	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	2 - 3	Y2
Mn IV	1659.249	700		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3G^\circ$	4 - 5	Y2
Mn IV	1661.324	350		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	1 - 2	Y2
Mn IV	1664.733	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	4 - 4	Y2
Mn IV	1666.995	800w		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	5 - 5	Y2
Mn IV	1667.651	100		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3G^\circ$	4 - 4	Y2
Mn IV	1670.078	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	1 - 1	Y2
Mn IV	1671.995	600		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3G^\circ$	3 - 4	Y2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	1673.653	10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	3 - 4	Y2
Mn IV	1675.472	250		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	3 - 2	Y2
Mn IV	1675.776	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	2 - 1	Y2
Mn IV	1678.018	30		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	5 - 4	Y2
Mn IV	1678.827	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	2 - 3	Y2
Mn IV	1683.115	450		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3G^\circ$	2 - 3	Y2
Mn IV	1684.604	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	1 - 2	Y2
Mn IV	1684.809	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	4 - 4	Y2
Mn IV	1685.967	300		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3F^\circ$	3 - 3	Y2
Mn IV	1690.125	500		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3F^\circ$	3 - 2	Y2
Mn IV	1691.684	750		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3F^\circ$	4 - 3	Y2
Mn IV	1692.829	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	1 - 1	Y2
Mn IV	1693.150	750		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - z^3I^\circ$	6 - 7	Y2
Mn IV	1698.298	800		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	5 - 4	Y2
Mn IV	1698.695	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	4 - 3	Y2
Mn IV	1698.911	400		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3F^\circ$	4 - 4	Y2
Mn IV	1699.062	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	3 - 2	Y2
Mn IV?	1705.11	100					B25
Mn IV	1705.631	20		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	2 - 3	Y2
Mn IV	1705.931	10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	3 - 4	Y2
Mn IV	1707.428	750		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - z^3I^\circ$	5 - 6	Y2
Mn IV	1712.776	200		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	4 - 5	Y2
Mn IV	1717.043	100		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	3 - 4	Y2
Mn IV?	1718.29	400b					B25
Mn IV	1718.669	650		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	2 - 2	Y2
Mn IV	1720.521	750w		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - z^3I^\circ$	4 - 5	Y2
Mn IV	1720.739	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	3 - 3	Y2
Mn IV	1721.406	750		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	5 - 5	Y2
Mn IV	1722.944	650		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	4 - 4	Y2
Mn IV	1724.827	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	4 - 4	Y2
Mn IV	1730.553	600		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	3 - 3	Y2
Mn IV	1731.684	200		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	5 - 4	Y2
Mn IV	1734.041	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	3 - 2	Y2
Mn IV	1736.516	300		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - y^3G^\circ$	4 - 3	Y2
Mn IV	1740.022	250		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3F^\circ$	4 - 3	Y2
Mn IV	1742.105	850w		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	5 - 6	Y2
Mn IV	1751.587	850		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	4 - 5	Y2
Mn IV	1759.815	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	3 - 4	Y2
Mn IV	1762.168	700		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3F^\circ$	4 - 4	Y2
Mn IV	1762.942	750		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	5 - 6	Y2
Mn IV	1766.273	850		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	5 - 5	Y2
Mn IV	1766.344	400		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3F^\circ$	4 - 3	Y2
Mn IV	1767.087	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	2 - 3	Y2
Mn IV	1771.244	450		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3F^\circ$	3 - 3	Y2
Mn IV	1772.112	650		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	4 - 4	Y2
Mn IV	1773.065	300		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3F^\circ$	3 - 2	Y2
Mn IV	1773.509	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	1 - 2	Y2
Mn IV	1776.593	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	3 - 3	Y2
Mn IV	1777.023	300		$3d^3(a^2F)4s - 3d^3(a^2F)4p$	$d^3F - w^3F^\circ$	2 - 2	Y2
Mn IV	1779.976	450		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	2 - 2	Y2
Mn IV	1782.212	750		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	4 - 5	Y2
Mn IV	1784.636	600		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	6 - 6	Y2
Mn IV	1784.889	200		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	4 - 5	Y2
Mn IV	1786.025	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3G^\circ$	2 - 3	Y2
Mn IV	1787.040	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	5 - 4	Y2
Mn IV	1787.375	750		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	5 - 5	Y2
Mn IV	1788.641	750		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	4 - 4	Y2
Mn IV	1789.226	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	4 - 3	Y2
Mn IV	1789.619	10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	3 - 2	Y2
Mn IV	1790.442	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3G^\circ$	3 - 4	Y2
Mn IV	1791.096	10		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	5 - 4	Y2
Mn IV	1791.584	350		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	5 - 5	Y2
Mn IV	1793.537	80w		$3d^3(a^2H)4s - 3d^3(a^2H)4p$	$b^3H - y^3H^\circ$	6 - 5	Y2
Mn IV	1795.650	800		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	3 - 4	Y2
Mn IV	1795.786	800		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3G^\circ$	4 - 5	Y2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IV	1802.090	150		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	4 - 4	Y2
Mn IV	1802.632	10		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3G^\circ$	3 - 3	Y2
Mn IV	1811.284	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3G^\circ$	4 - 4	Y2
Mn IV	1811.613	0		$3d^3(a^2G)4s - 3d^3(a^2G)4p$	$b^3G - z^3H^\circ$	5 - 4	Y2
Mn IV	1887.151	350		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3D^\circ$	3 - 3	Y2
Mn IV	1888.454	40		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3D^\circ$	2 - 2	Y2
Mn IV	1899.483	350		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3D^\circ$	2 - 1	Y2
Mn IV	1899.878	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	2 - 3	Y2
Mn IV	1907.028	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3D^\circ$	3 - 2	Y2
Mn IV	1910.251	750		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^3D^\circ$	4 - 3	Y2
Mn IV	1913.202 P	20		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	4 - 5	Y2
Mn IV	1913.822	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	2 - 2	Y2
Mn IV	1918.61	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	3 - 3	B25,Y2
Mn IV	1925.406	40		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	2 - 1	Y2
Mn IV	1927.776	20		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	4 - 4	Y2
Mn IV?	1928.95	200					B25
Mn IV	1932.847	30		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	3 - 2	Y2
Mn IV	1942.602	0		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5F^\circ$	4 - 3	Y2
Mn IV?	1944.23	200					B25
Mn IV	1948.75	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5D^\circ$	3 - 3	B25,Y2
Mn IV	1954.580 P	50		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5D^\circ$	4 - 4	Y2
Mn IV	1955.663	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5D^\circ$	2 - 1	Y2
Mn IV	1964.451 P	250		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5D^\circ$	3 - 2	Y2
Mn IV	1973.414	80		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$c^3F - z^5D^\circ$	4 - 3	Y2
Mn IV	1997.545	650		$3d^3(a^2H)4s - 3d^3(a^2G)4p$	$b^3H - z^3H^\circ$	6 - 6	Y2

MANGANESE V (Mn^{4+}), Z = 25

Ground State $1s^22s^22p^63s^23p^63d^3\ ^4F_{3/2}$ (21 electrons)

Ionization Potential [589 000] cm^{-1}; [73] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn V	382.061	100		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	B24
Mn V	382.907	600		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	B24
Mn V	382.980	100		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 5/2	B24
Mn V	383.422	200		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 3/2	B24
Mn V	383.681	400		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	B24
Mn V	383.939	500		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	B24
Mn V	393.324	300		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	B24
Mn V	394.322	100		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	B24
Mn V	398.604	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	7/2 - 9/2	B24
Mn V	399.538	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	9/2 - 9/2	B24
Mn V	401.787	300		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	B24
Mn V	402.525	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	B24
Mn V	402.754	300		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	B24
Mn V	403.007	50		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	B24
Mn V	403.281	50		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	B24
Mn V	403.552	300		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	B24
Mn V	403.680	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 5/2	B24
Mn V	403.754	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	B24
Mn V	404.358	800		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	B24
Mn V	404.455	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	7/2 - 5/2	B24
Mn V	405.094	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 7/2	B24
Mn V	405.654	800		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	9/2 - 9/2	B24
Mn V	406.037	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	9/2 - 7/2	B24
Mn V	406.240	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	3/2 - 3/2	B24
Mn V	406.417	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 5/2	B24

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn V	406.845	600		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 3/2	B24
Mn V	407.301	200		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	B24
Mn V	408.322	600		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	9/2 - 7/2	B24
Mn V	408.390	100		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	B24
Mn V	408.733	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 5/2	B24
Mn V	409.217	100		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	B24
Mn V	409.335	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 9/2	B24
Mn V	409.546	300		$3d^3 - 3d^2(a^3P)4p$	$a^2G - y^4D^\circ$	9/2 - 7/2	B24
Mn V	409.795	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 7/2	B24
Mn V	410.311	800		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 9/2	B24
Mn V	410.459	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 11/2	B24
Mn V	410.611	800		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 7/2	B24
Mn V	410.990	800		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 5/2	B24
Mn V	411.329	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 3/2	B24
Mn V	411.585	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 9/2	B24
Mn V	411.789	300		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 5/2	B24
Mn V	411.920	300		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	B24
Mn V	412.534	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 7/2	B24
Mn V	413.384	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	3/2 - 5/2	B24
Mn V	414.933	300		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	1/2 - 3/2	B24
Mn V	415.207	500		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	3/2 - 3/2	B24
Mn V	415.336	50		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 9/2	B24
Mn V	415.622	700		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	B24
Mn V	415.980	800		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	B24
Mn V	422.228	100		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 5/2	B24
Mn V	428.600	500		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	B24
Mn V	429.054	500		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	B24
Mn V	429.984	100		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	B24
Mn V	431.973	50b		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 5/2	B24
Mn V	433.558	700		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	B24
Mn V	434.210	300		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	B24
Mn V	434.403	50		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2D^\circ$	7/2 - 5/2	B24
Mn V	434.575	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	B24
Mn V	435.069	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	B24
Mn V	435.291	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	B24
Mn V	435.594	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	B24
Mn V	436.093	200		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	9/2 - 7/2	B24
Mn V	436.174	800		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F^\circ$	5/2 - 7/2	B24
Mn V	436.660	100		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	7/2 - 5/2	B24
Mn V	436.857	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F^\circ$	3/2 - 5/2	B24
Mn V	438.735	500		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	B24
Mn V	439.352	500		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	B24
Mn V	441.008	100		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 9/2	B24
Mn V	441.725	700		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	11/2 - 9/2	B24
Mn V	442.495	700		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 7/2	B24
Mn V	447.498	400		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	B24
Mn V	448.262	300		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 7/2	B24
Mn V	451.065	300		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	B24
Mn V	452.758	200		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	B24
Mn V	1431.98	12		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$	7/2 - 7/2	W4,B24
Mn V	1446.49	60		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4D^\circ$	9/2 - 7/2	W4,B24
Mn V	1476.02	30		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^2F^\circ$	9/2 - 7/2	W4,B24
Mn V	1483.09	160		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2G^\circ$	5/2 - 7/2	W4,B24
Mn V	1486.74	30		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	7/2 - 9/2	W4,B24
Mn V	1490.68	160		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2G^\circ$	7/2 - 9/2	W4,B24
Mn V	1491.30	30		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	5/2 - 7/2	W4,B24
Mn V	1498.50 P	8		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	3/2 - 5/2	W4,B24
Mn V	1502.36	120		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	9/2 - 9/2	W4,B24
Mn V	1503.59	80		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	7/2 - 7/2	W4,B24
Mn V	1504.38	200		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	9/2 - 11/2	W4,B24
Mn V	1507.11	40		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	5/2 - 5/2	W4,B24
Mn V?	1509.02	4					W4
Mn V	1511.15	40		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	3/2 - 3/2	W4,B24
Mn V	1516.78	160		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	7/2 - 9/2	W4,B24
Mn V	1519.62	40		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	9/2 - 7/2	W4,B24

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn V	1519.83	40		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4F^\circ$	5/2 - 3/2	W4,B24
Mn V	1528.13	120		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	5/2 - 7/2	W4,B24
Mn V	1533.07	40		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	9/2 - 9/2	W4,B24
Mn V	1539.40	80		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	3/2 - 5/2	W4,B24
Mn V	1541.08	60		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	7/2 - 7/2	W4,B24
Mn V	1548.44 P	0		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^4F - z^4G^\circ$	5/2 - 5/2	W4,B24
Mn V	1614.01 P	120		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2F^\circ$	5/2 - 5/2	W4,B24
Mn V	1621.00 P	160		$3d^2(a^3F)4s - 3d^2(a^3F)4p$	$b^2F - z^2F^\circ$	7/2 - 7/2	W4,B24

MANGANESE VI (Mn^{5+}), Z = 25

Ground State $1s^22s^22p^63s^23p^63d^2\ ^3F_2$ (20 electrons)

Ionization Potential [782 000] cm^{-1}; [97] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn VI	307.109	100		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 4	C1,M22
Mn VI	307.842	60		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	2 - 3	C1,M22
Mn VI	307.999	400		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	4 - 4	C1,M22
Mn VI	308.560	400		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 3	C1,M22
Mn VI	308.853	300		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	2 - 2	C1,M22
Mn VI	309.440	240		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	4 - 3	C1,M22
Mn VI	309.579	200		$3d^2 - 3d4p$	$ga^3F - z^3F^\circ$	3 - 2	C1,M22
Mn VI	310.058	200		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	3 - 3	C1,M22
Mn VI	310.182	180		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	2 - 2	C1,M22
Mn VI	310.908	800b		$3d^2 - 3d4p$	$ga^3F - z^3D^\circ$	4 - 3	C1,M22
Mn VI	311.748	200		$3d^2 - 3d4p$	$a^1D - z^1P^\circ$	2 - 1	C1,M22
Mn VI	312.692	160		$3d^2 - 3d4p$	$ga^3F - z^1D^\circ$	2 - 2	C1,M22
Mn VI	314.979	120		$3d^2 - 3d4p$	$a^3P - z^1P^\circ$	2 - 1	C1,M22
Mn VI?	320.146	120					C1
Mn VI	320.598	180		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 2	C1,M22
Mn VI	320.681	180		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	0 - 1	C1,M22
Mn VI	320.874	180		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 0	C1,M22
Mn VI	320.979	180		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 1	C1,M22
Mn VI	321.176	220		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 2	C1,M22
Mn VI	321.541	180		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 1	C1,M22
Mn VI	325.146	400		$3d^2 - 3d4p$	$a^1G - z^1F^\circ$	4 - 3	C1,M22
Mn VI	326.571	40		$3d^2 - 3d4p$	$a^3P - z^3F^\circ$	2 - 3	C1,M22
Mn VI	327.131	20		$3d^2 - 3d4p$	$a^3P - z^3F^\circ$	1 - 2	C1,M22
Mn VI?	328.129	40					C1
Mn VI	328.232	200		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 3	C1,M22
Mn VI	328.431	400		$3d^2 - 3d4p$	$a^1D - z^1D^\circ$	2 - 2	C1,M22
Mn VI	328.558	180		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 2	C1,M22
Mn VI	329.043	100		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	0 - 1	C1,M22
Mn VI	329.177	40		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 2	C1,M22
Mn VI	329.320	100		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 1	C1,M22

Mn VII

MANGANESE VII (Mn^{6+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 962 001 cm^{-1}; 119.27 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn VII	111.889	20		3d - 9f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	112.060	10		3d - 9f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	114.216	10		3d - 8f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	114.393	20		3d - 8f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	117.808	30		3d - 7f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	117.992	50		3d - 7f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	123.799	100		3d - 6f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	124.005	150		3d - 6f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	133.43	100		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 5/2	F31,C16
Mn VII	133.66	300		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 3/2	F31,C16
Mn VII	133.68	400		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 5/2	F31,C16
Mn VII	133.90	100		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 3/2	F31,C16
Mn VII	134.21	250		$3p^6 3d - 3p^5 3d(^1F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	F31,C16
Mn VII	135.177	200		3d - 5f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	135.393	250		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	135.425	20		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 5/2	K28
Mn VII	135.93	200		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 5/2	F31,C16
Mn VII	136.21	250		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 7/2	F31,C16
Mn VII	138.49	450		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	3/2 - 5/2	F31,C16
Mn VII	138.74	100		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 5/2	F31,C16
Mn VII	139.65	500		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	F31,C16
Mn VII	140.38	250		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	3/2 - 5/2	F31,C16
Mn VII	141.17	50		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	5/2 - 7/2	F31,C16
Mn VII	141.81	200		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 3/2	F31,C16
Mn VII	142.68	200		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 1/2	F31,C16
Mn VII	143.87	20		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^4P^\circ$?	5/2 - 3/2	F31,C16
Mn VII	162.349	800		3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Mn VII	162.667	600		3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Mn VII	162.707	300		3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 5/2	K28
Mn VII	182.50	700		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 3/2	G1,F11
Mn VII	182.69	600		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 5/2	G1,F11
Mn VII	182.96	600		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 3/2	G1,F11
Mn VII	183.15	700		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G1,F11
Mn VII	202.86	900b		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G1,F11
Mn VII	204.13	900		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G1,F11
Mn VII	249.929	20		3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 3/2	K28
Mn VII	250.771	40		3d - 4p	$g^2D - {}^2P^\circ$	5/2 - 3/2	K28
Mn VII	251.479	10		3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 1/2	K28
Mn VII	282.095	30		4p - 6s	$^2P^\circ - {}^2S$	1/2 - 1/2	K28
Mn VII	284.059	100		4p - 6s	$^2P^\circ - {}^2S$	3/2 - 1/2	K28
Mn VII	462.363	150		4p - 5s	$^2P^\circ - {}^2S$	1/2 - 1/2	K28
Mn VII	467.662	300		4p - 5s	$^2P^\circ - {}^2S$	3/2 - 1/2	K28

MANGANESE VIII (Mn^{7+}), Z = 25

Ground State $1s^22s^22p^63s^23p^6\ ^1S_0$ (18 electrons)

Ionization Potential [1 582 500] cm^{-1}; [196.2] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn VIII	96.33	60		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (1/2, 3/2)^\circ$	0 - 1	A1
Mn VIII	97.41	70		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (3/2, 5/2)^\circ$	0 - 1	A1
Mn VIII	122.168	150		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	K29
Mn VIII	124.055	100		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	K29
Mn VIII	134.69	20		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	0 - 1	W1
Mn VIII	134.79	40		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	1 - 2	W1
Mn VIII	135.06	30		$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	1 - 1	W1
Mn VIII	135.15			$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	2 - 3	W1
Mn VIII	135.48			$3p^53d - 3p^54f$	$^3P^\circ - ^3D$	2 - 2	W1
Mn VIII	137.50	100		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	4 - 5	W1
Mn VIII	137.82	70		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	3 - 4	W1
Mn VIII	137.92	60		$3p^53d - 3p^54f$	$^3F^\circ - ^3G$	2 - 3	W1
Mn VIII	139.93	50		$3p^53d - 3p^54f$	$^1D^\circ - ^1F$	2 - 3	W1
Mn VIII	140.73	50		$3p^53d - 3p^54f$	$^3D^\circ - ^3F$	2 - 3	W1
Mn VIII	141.29	70		$3p^53d - 3p^54f$	$^1F^\circ - ^3F$	3 - 4	W1
Mn VIII	141.76	100		$3p^53d - 3p^54f$	$^3D^\circ - ^1G$	3 - 4	W1
Mn VIII	185.46	900		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	G1,F11

MANGANESE IX (Mn^{8+}), Z = 25

Ground State $1s^22s^22p^63s^23p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential [1 785 800] cm^{-1}; [221.4] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IX	73.8 P			$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F23
Mn IX	87.24	150		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F23
Mn IX	87.52	200		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F23
Mn IX	87.79	100		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F23
Mn IX	87.94	300		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F23
Mn IX	88.23	250		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F23
Mn IX	88.40	300		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F23
Mn IX	88.74	200		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F23
Mn IX	88.89	200		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F23
Mn IX	89.39 P			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F23
Mn IX	89.77	200		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	F23
Mn IX	89.89	200		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^4F$	3/2 - 5/2	F23
Mn IX	89.99	400		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F23
Mn IX	90.08	450		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F23
Mn IX	90.60			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F10
Mn IX	91.02	400		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F23
Mn IX	105.256	50		$3p^5 - 3p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	E20
Mn IX	109.783	500		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E20
Mn IX	111.262	400		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E20
Mn IX	111.500	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	E20
Mn IX	112.415	500		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E20
Mn IX	113.080	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	E20
Mn IX	113.627	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E20
Mn IX	114.023	50		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	E20
Mn IX	114.472	50		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	E20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn IX	121.351			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	9/2 - 11/2	F10
Mn IX	121.442			$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - ^2H^\circ$	9/2 - 11/2	F10
Mn IX	121.633			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	7/2 - 9/2	F10
Mn IX	184.80			$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F13
Mn IX	188.48	900		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F13,F11
Mn IX	189.16	800		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F13,F11
Mn IX	189.98			$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F13
Mn IX	191.60	700		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F13,F11
Mn IX	194.61	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F13,F11
Mn IX	196.38	500		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F13,F11
Mn IX	199.32	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F13,F11
Mn IX	204.43	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F13,F11
Mn IX	376.86			$3s^23p^5 - 3s3p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F22
Mn IX	395.47			$3s^23p^5 - 3s3p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F22

MANGANESE X (Mn^{9+}), Z = 25

Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)

Ionization Potential [2 004 300] cm^{-1}; [248.5] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn X	82.78	400		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	F23
Mn X	83.03	200		$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	F23
Mn X	83.48	350		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	F23
Mn X	84.2 P			$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	0 - 1	F23
Mn X	84.28	200		$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 2	F23
Mn X	100.173	100		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	E19
Mn X	100.585	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 3	E19
Mn X	100.787	100		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 2	E19
Mn X	101.808	50		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 2	E19
Mn X	101.854	50		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 1	E19
Mn X	102.030	50		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	0 - 1	E19
Mn X	103.269	300		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	E19
Mn X	103.521	200		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	2 - 1	E19
Mn X	104.310	50		$3p^4 - 3p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	E19
Mn X	104.608	100		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	1 - 1	E19
Mn X	104.806	50		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	0 - 1	E19
Mn X	107.34			$3p^33d - 3p^34f$	$^5D^\circ - ^5F$	2 - 3	F10
Mn X	107.36			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	4 - 5	F10
Mn X	107.39			$3p^33d - 3p^34f$	$^5D^\circ - ^5F$	3 - 4	F10
Mn X	107.472			$3p^33d - 3p^34f$	$^5D^\circ - ^5F$	4 - 5	F10
Mn X	108.93			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	4 - 5	F10
Mn X	108.97			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	3 - 4	F10
Mn X	192.09	600		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 2	F11,F2
Mn X	193.43	600		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	G1,F11
Mn X	194.30	600		$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	G1,F11
Mn X	194.37			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 1	F2
Mn X	195.03	600		$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	0 - 1	G1,F11
Mn X	195.85	500		$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	G1,F11
Mn X	198.42			$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	F7
Mn X	199.08	800		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	F13,F11
Mn X	202.86	900b		$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F13,F11
Mn X	207.06			$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	1 - 1	F13
Mn X	207.98	400		$3p^4 - 3p^3(^2P^\circ)3d$	$^1D - ^3D^\circ$	2 - 3	F11,K8
Mn X	217.88			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^3P^\circ$	2 - 2	F7
Mn X	218.11			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^3P^\circ$	2 - 1	F7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn X	333.73			$3s^2 3p^4 - 3s 3p^5$	$^1D - ^1P^\circ$	2 - 1	F7
Mn X	371.88			$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 1	F7
Mn X	383.00			$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	2 - 2	F7
Mn X	386.27			$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 1	F7
Mn X	388.91			$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	0 - 1	F7
Mn X	398.28			$3s^2 3p^4 - 3s 3p^5$	$g^3P - ^3P^\circ$	1 - 2	F7
Mn X	1574.9	f		$3p^4 - 3p^4$	$g^3P - ^1S$	1 - 0	S28

MANGANESE XI (Mn^{10+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [2 283 000] cm^{-1}; [283] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XI	75.059			$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F10
Mn XI	75.227			$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4F$	3/2 - 5/2	F10
Mn XI	75.477			$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F10
Mn XI	75.819			$3p^3 - 3p^2(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 5/2	F10
Mn XI	75.879			$3p^3 - 3p^2(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	F10
Mn XI	76.380			$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2D$	3/2 - 5/2	F10
Mn XI	76.763			$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^4D$	5/2 - 7/2	F10
Mn XI	76.858			$3p^3 - 3p^2(^1D)4d$	$^2P^\circ - ^2S$	3/2 - 1/2	F10
Mn XI	77.270			$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	F10
Mn XI	77.402			$3p^3 - 3p^2(^3P)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	F10
Mn XI	77.556			$3p^3 - 3p^2(^1D)4d$	$^2P^\circ - ^2D$	3/2 - 5/2	F10
Mn XI	78.056			$3p^3 - 3p^2(^3P)4d$	$^2P^\circ - ^2D$	1/2 - 3/2	F10
Mn XI	91.646			$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 5/2	F10
Mn XI	92.240			$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - ^4P$	3/2 - 3/2	F10
Mn XI	92.640			$3p^3 - 3p^2(^1D)4s$	$^2D^\circ - ^2D$	3/2 - 3/2	F10
Mn XI	94.327			$3p^3 - 3p^2(^1P)4s$	$^2D^\circ - ^2P$	5/2 - 3/2	F10
Mn XI	95.299			$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 3/2	F10
Mn XI	95.390			$3p^3 - 3p^2(^1D)4s$	$^2P^\circ - ^2D$	3/2 - 5/2	F10
Mn XI	98.023			$3p^2(^3P)3d - 3p^2(^3P)4f$	$^4F - ^4G^\circ$	7/2 - 9/2	F10
Mn XI	98.064			$3p^2(^3P)3d - 3p^2(^3P)4f$	$^4F - ^4G^\circ$	9/2 - 11/2	F10
Mn XI	98.477			$3p^2(^3P)3d - 3p^2(^3P)4f$	$^4D - ^4F^\circ$	7/2 - 9/2	F10
Mn XI	98.538			$3p^2(^3P)3d - 3p^2(^3P)4f$	$^4D - ^4F^\circ$	5/2 - 7/2	F10
Mn XI	99.02			$3p^2(^1D)3d - 3p^2(^3P)4f$	$^2F - ^2G^\circ$	7/2 - 9/2	F10
Mn XI	99.356			$3p^2(^1D)3d - 3p^2(^1D)4f$	$^2G - ^2H^\circ$	9/2 - 11/2	F10
Mn XI	200.67	600		$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2F$	5/2 - 7/2	F7,F11
Mn XI	202.38			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	1/2 - 3/2	F7
Mn XI	204.29			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 3/2	F7
Mn XI	204.98			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - ^2D$	3/2 - 5/2	F7
Mn XI	207.02			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 1/2	F7
Mn XI	208.02			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 3/2	F7
Mn XI	209.57			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - ^4P$	3/2 - 5/2	F7
Mn XI	210.16			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	3/2 - 3/2	F7
Mn XI	211.54			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - ^2D$	5/2 - 5/2	F7
Mn XI	213.75			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 3/2	F7
Mn XI	215.86			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	3/2 - 3/2	F7
Mn XI	216.60			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - ^2P$	1/2 - 1/2	F7
Mn XI	228.52			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	3/2 - 1/2	F7
Mn XI	235.55			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - ^2P$	5/2 - 3/2	F7
Mn XI	306.46			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	3/2 - 1/2	F7
Mn XI	310.61			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	3/2 - 3/2	F7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XI	313.80			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F7
Mn XI	363.46			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F7
Mn XI	366.01			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F7
Mn XI	376.81			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	F7
Mn XI	382.07			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	F7
Mn XI	393.69			$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	F7
Mn XI	1359.5	f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 3/2	S28
Mn XI	1450.5	f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 1/2	S28

MANGANESE XII (Mn^{11+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2\ ^3P_0$ (14 electrons)

Ionization Potential [2 524 600] cm^{-1}; [313] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XII	90.373			$3p 3d - 3p 4f$	$^3F^\circ - ^3G$	4 - 5	F10
Mn XII	90.701			$3p 3d - 3p 4f$	$^3F^\circ - ^3G$	3 - 4	F10
Mn XII	204.92			$3p^2 - 3p 3d$	$^1S - ^1P^\circ$	0 - 1	K8
Mn XII	210.34			$3p^2 - 3p 3d$	$^1D - ^1F^\circ$	2 - 3	F17
Mn XII	212.81			$3p^2 - 3p 3d$	$g^3P - ^3D^\circ$	0 - 1	F7
Mn XII	215.03			$3p^2 - 3p 3d$	$g^3P - ^3D^\circ$	1 - 2	F7
Mn XII	216.12			$3p^2 - 3p 3d$	$g^3P - ^3D^\circ$	1 - 1	F7
Mn XII	217.10			$3p^2 - 3p 3d$	$g^3P - ^3P^\circ$	0 - 1	F7
Mn XII	218.56			$3p^2 - 3p 3d$	$g^3P - ^3D^\circ$	2 - 3	F17
Mn XII	218.70			$3p^2 - 3p 3d$	$g^3P - ^3D^\circ$	2 - 2	F7
Mn XII	219.54			$3p^2 - 3p 3d$	$g^3P - ^1D^\circ$	1 - 2	F7
Mn XII	223.56			$3p^2 - 3p 3d$	$^1S - ^1P^\circ$	0 - 1	F7
Mn XII	224.62			$3p^2 - 3p 3d$	$g^3P - ^3P^\circ$	1 - 2	F7
Mn XII	228.61			$3p^2 - 3p 3d$	$g^3P - ^3P^\circ$	2 - 2	F7
Mn XII	237.78			$3p^2 - 3p 3d$	$^1D - ^1D^\circ$	2 - 2	F7
Mn XII	259.33			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3S^\circ$	0 - 1	F7
Mn XII	264.26			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3S^\circ$	1 - 1	F7
Mn XII	269.82			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3S^\circ$	2 - 1	F7
Mn XII	275.78			$3s^2 3p^2 - 3s 3p^3$	$^1D - ^1P^\circ$	2 - 1	F7
Mn XII	310.63			$3s^2 3p^2 - 3s 3p^3$	$^1S - ^1P^\circ$	0 - 1	K8
Mn XII	329.28			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3P^\circ$	0 - 1	F7
Mn XII	337.29			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3P^\circ$	1 - 1	F7
Mn XII	342.67			$3s^2 3p^2 - 3s 3p^3$	$^1D - ^1D^\circ$	2 - 2	F7
Mn XII	346.04			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3P^\circ$	2 - 2	F7
Mn XII	386.27			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3D^\circ$	0 - 1	F7
Mn XII	388.91			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3D^\circ$	1 - 2	F7
Mn XII	397.46			$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3D^\circ$	2 - 3	F7
Mn XII	1322.8	f		$3p^2 - 3p^2$	$g^3P - ^1S$	1 - 0	S28

MANGANESE XIII (Mn^{12+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential [2 758 500] cm^{-1}; [342] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XIII	66.574	100		3p - 4d	$g\,^2P^\circ - ^2D$	½ - 3/2	E18
Mn XIII	67.215	200		3p - 4d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E18
Mn XIII	79.16			$3s3p^2 - 3s3p4s$	$^4P - ^4P^\circ$	5/2 - 5/2	F10
Mn XIII	83.23			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	9/2 - 11/2	F10
Mn XIII	83.41			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	5/2 - 7/2	F10
Mn XIII	83.52			3s3p3d - 3s3p4f	$^4F^\circ - ^4G$	7/2 - 9/2	F10
Mn XIII	87.30			3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	F10
Mn XIII	87.40			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F10
Mn XIII	226.91			3p - 3d	$g\,^2P^\circ - ^2D$	½ - 3/2	F17
Mn XIII	232.12			$3s3p^2 - 3s3p3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F7
Mn XIII	233.73			$3s3p^2 - 3s3p3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F7
Mn XIII	234.24			3p - 3d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F17
Mn XIII	235.08			3p - 3d	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F7
Mn XIII	272.09			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2P$	½ - 3/2	F7
Mn XIII	277.42			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2P$	½ - ½	F7
Mn XIII	283.91			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F7
Mn XIII	289.74			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2P$	3/2 - ½	F7
Mn XIII	294.95			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2S$	½ - ½	F7
Mn XIII	308.75			$3s3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	F7
Mn XIII	308.92			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2S$	3/2 - ½	F7
Mn XIII	361.57			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2D$	½ - 3/2	F7
Mn XIII	380.42			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F7
Mn XIII	382.76			$3s^23p - 3s3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F7

MANGANESE XIV (Mn^{13+}), Z = 25

Ground State $1s^2 2s^2 2p^6 3s^2\ ^1S_0$ (12 electrons)

Ionization Potential [3 259 000] cm^{-1}; [404] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XIV	57.224	20		3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	E18
Mn XIV	59.325	100		$3s^2 - 3s4p$	$g\,^1S - ^1P^\circ$	0 - 1	E18
Mn XIV	62.526	50		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	E18
Mn XIV	62.694	100		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	E18
Mn XIV	62.713	20		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 1	E18
Mn XIV	63.109	200		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	E18
Mn XIV	63.146	20		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 2	E18
Mn XIV	67.02			3s3p - 3s4d	$^1P^\circ - ^1D$	1 - 2	F10
Mn XIV	74.063	20		3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	E18
Mn XIV	74.327	50		3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	E18
Mn XIV	74.961	100		3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	E18
Mn XIV	78.35			3p3d - 3p4f	$^3F^\circ - ^3G$	4 - 5	F10
Mn XIV	78.42			3p3d - 3p4f	$^3F^\circ - ^3G$	2 - 3	F10
Mn XIV	78.54			3p3d - 3p4f	$^3F^\circ - ^3G$	3 - 4	F10
Mn XIV	79.10			3p3d - 3p4f	$^1D^\circ - ^3F$	2 - 3	F10
Mn XIV	79.720	100		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	E18
Mn XIV	79.761	200		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	E18
Mn XIV	79.826	300		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	E18
Mn XIV	80.06			3p3d - 3p4f	$^3P^\circ - ^3D$	0 - 1	F10
Mn XIV	80.38			3p3d - 3p4f	$^3D^\circ - ^3D$	2 - 2	F10

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XIV	80.46			3p3d - 3p4f	$^3D^\circ$ - ^3D	3 - 3	F10
Mn XIV	81.05			3p3d - 3p4f	$^3D^\circ$ - ^3F	3 - 4	F10
Mn XIV	83.78			3p3d - 3p4f	$^1P^\circ$ - ^1D	1 - 2	F10
Mn XIV	84.09			3p3d - 3p4f	$^1F^\circ$ - ^1G	3 - 4	F10
Mn XIV	241.07			3s3p - 3s3d	$^3P^\circ$ - ^3D	0 - 1	F17
Mn XIV	243.45			3s3p - 3s3d	$^3P^\circ$ - ^3D	1 - 2	F17
Mn XIV	243.88			3s3p - 3s3d	$^3P^\circ$ - ^3D	1 - 1	F17
Mn XIV	249.64			3s3p - 3s3d	$^3P^\circ$ - ^3D	2 - 3	F17
Mn XIV	260.41			$3p^2$ - 3p3d	^3P - $^3P^\circ$	2 - 2	F4
Mn XIV	304.85			$3s^2$ - 3s3p	g^1S - $^1P^\circ$	0 - 1	F7
Mn XIV	315.88			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 2	F7
Mn XIV	325.34			3s3p - $3p^2$	$^3P^\circ$ - ^3P	0 - 1	F7
Mn XIV	327.84			3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 2	F7
Mn XIV	330.49			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 1	F7
Mn XIV	339.19			3s3p - $3p^2$	$^3P^\circ$ - ^3P	1 - 0	F7
Mn XIV	342.56			3s3d - 3p3d	^3D - $^3D^\circ$	3 - 3	F4
Mn XIV	343.60			3s3p - $3p^2$	$^3P^\circ$ - ^3P	2 - 1	F7
Mn XIV	349.64			3s3p - $3p^2$	$^1P^\circ$ - ^1S	1 - 0	F4
Mn XIV	402.99			3s3d - 3p3d	^3D - $^3F^\circ$	3 - 4	F4
Mn XIV	416.42			3s3d - 3p3d	^3D - $^3F^\circ$	2 - 3	F4
Mn XIV	429.24			3s3d - 3p3d	^3D - $^3F^\circ$	1 - 2	F4
Mn XIV	446.07 ?			$3s^2$ - 3s3p	g^1S - $^3P^\circ$	0 - 1	K8
Mn XIV	518.16			3s3p - 3s3d	$^1P^\circ$ - ^1D	1 - 2	F4

MANGANESE XV (Mn^{14+}), Z = 25

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 3 511 210 cm^{-1}; 435.3 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XV	19.155 P	-A		$2p^63s$ - $2p^53s^2$	g^2S - $^2P^\circ$	½ - ½	F27
Mn XV	19.450 P	-A		$2p^63s$ - $2p^53s^2$	g^2S - $^2P^\circ$	½ - 3/2	F27
Mn XV	45.137			3p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	E16
Mn XV	52.977			3d - 5f	^2D - $^2F^\circ$	3/2 - 5/2	E16
Mn XV	53.032			3d - 5f	^2D - $^2F^\circ$	5/2 - 7/2	E16
Mn XV	56.270			3s - 4p	g^2S - $^2P^\circ$	½ - 3/2	E16
Mn XV	56.484			3s - 4p	g^2S - $^2P^\circ$	½ - ½	E16
Mn XV	60.720			3p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	E16
Mn XV	61.319			3p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	E16
Mn XV	61.361			3p - 4d	$^2P^\circ$ - ^2D	3/2 - 3/2	E16
Mn XV	71.038			3p - 4s	$^2P^\circ$ - ^2S	½ - ½	E16
Mn XV	71.927			3p - 4s	$^2P^\circ$ - ^2S	3/2 - ½	E16
Mn XV	75.182			3d - 4f	^2D - $^2F^\circ$	3/2 - 5/2	E16
Mn XV	75.286			3d - 4f	^2D - $^2F^\circ$	5/2 - 7/2	E16
Mn XV	87.47			3d - 4p	^2D - $^2P^\circ$	5/2 - 3/2	F10
Mn XV	87.80			3d - 4p	^2D - $^2P^\circ$	3/2 - ½	F10
Mn XV	269.11			3p - 3d	$^2P^\circ$ - ^2D	½ - 3/2	F22
Mn XV	280.35			3p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	F22
Mn XV	282.18			3p - 3d	$^2P^\circ$ - ^2D	3/2 - 3/2	F22
Mn XV	360.97			3s - 3p	g^2S - $^2P^\circ$	½ - 3/2	F22
Mn XV	384.74			3s - 3p	g^2S - $^2P^\circ$	½ - ½	F22

MANGANESE XVI (Mn^{15+}), Z = 25

Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)

Ionization Potential 9 164 300 cm^{-1}; 1136.2 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XVI	11.853	20		$2p^6 - 2p^5 6d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Mn XVI	11.971	10		$2p^6 - 2p^5 6d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Mn XVI	12.373	20		$2p^6 - 2p^5 5d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Mn XVI	12.510	50		$2p^6 - 2p^5 5d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Mn XVI	13.46	60		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	T14,S31,M22
Mn XVI	13.61	50		$2p^6 - 2p^5 4d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	T14,S31,M22
Mn XVI	14.098	30		$2p^6 - 2p^5 4s$	$g\,^1S - ^3P^\circ$	0 - 1	S31
Mn XVI	15.238	20		$2s^2 2p^6 - 2s\,2p^6 3p$	$g\,^1S - ^1P^\circ$	0 - 1	T14,S31,M22
Mn XVI	15.312	20		$2s^2 2p^6 - 2s\,2p^6 3p$	$g\,^1S - ^3P^\circ$	0 - 1	T14,S31,M22
Mn XVI	16.616	100		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{1}{2}[\frac{3}{2}]^\circ$	0 - 1	T14,S31,M22
Mn XVI	16.882	80		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	T14,S31,M22
Mn XVI	17.095	40		$2p^6 - 2p^5 3d$	$g\,^1S - \frac{3}{2}[\frac{1}{2}]^\circ$	0 - 1	T14,S31,M22
Mn XVI	18.654			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{1}{2}[\frac{1}{2}]^\circ$	0 - 1	T14,M22
Mn XVI	18.935			$2p^6 - 2p^5 3s$	$g\,^1S - \frac{3}{2}[\frac{3}{2}]^\circ$	0 - 1	T14,M22

MANGANESE XVII (Mn^{16+}), Z = 25

Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [9 840 300] cm^{-1}; [1220] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XVII	12.181	20		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$		S31
Mn XVII	12.643	40		$2p^5 - 2p^4(^3P)4d$			S31
Mn XVII	15.403	20		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S31
Mn XVII	15.584	80		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	S31
Mn XVII	15.675	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	S31
Mn XVII	15.738	50		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{1}{2}$	S31
Mn XVII	15.822	100		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S31
Mn XVII	15.881	20		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	S31
Mn XVII	15.936	50		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	S31,K8
Mn XVII	15.98 P			$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	C10
Mn XVII	16.048	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{3}{2}$	S31
Mn XVII	16.121	20		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	$\frac{3}{2} - \frac{3}{2}$	S31
Mn XVII	16.20	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{3}{2}$	C10
Mn XVII	16.28	0		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	$\frac{1}{2} - \frac{1}{2}$	C10
Mn XVII	17.29	20		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{3}{2} - \frac{5}{2}$	C10
Mn XVII	17.50			$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	$\frac{1}{2} - \frac{3}{2}$	C10
Mn XVII	17.59			$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	$\frac{3}{2} - \frac{3}{2}$	F17,C10
Mn XVII	17.72	30		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{3}{2}$	C10
Mn XVII	17.80			$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	$\frac{3}{2} - \frac{5}{2}$	C10
Mn XVII	17.90 ?			$2s\,2p^6 - 2s\,2p^5 3s$	$^2S - ^2P^\circ$	$\frac{1}{2} - \frac{3}{2}$	K8
Mn XVII	100.00			$2s^2 2p^5 - 2s\,2p^6$	$g\,^2P^\circ - ^2S$	$\frac{3}{2} - \frac{1}{2}$	F5
Mn XVII	109.35			$2s^2 2p^5 - 2s\,2p^6$	$g\,^2P^\circ - ^2S$	$\frac{1}{2} - \frac{1}{2}$	F5

MANGANESE XVIII (Mn^{17+}), Z = 25
Ground State $1s^2 2s^2 2p^4\ ^3P_2$ (8 electrons)
Ionization Potential [10 590 000] cm^{-1}; [1313] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XVIII	14.877	70		$2p^4 - 2p^3 3d$	$g^3P - {}^3P^\circ$	2 - 2	S31
Mn XVIII	16.53 ?			$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	K8
Mn XVIII	16.73 ?			$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	K8
Mn XVIII	96.22			$2s^2 2p^4 - 2s 2p^5$	$^1D - {}^1P^\circ$	2 - 1	F5
Mn XVIII	108.70			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	2 - 1	F5
Mn XVIII	111.93 ?			$2s^2 2p^4 - 2s 2p^5$	$^1S - {}^1P^\circ$	0 - 1	K8
Mn XVIII	113.3			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	1 - 0	F5
Mn XVIII	115.33			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	2 - 2	F5
Mn XVIII	117.2			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	0 - 1	F5
Mn XVIII	118.2			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	1 - 1	F5
Mn XVIII	126.0			$2s^2 2p^4 - 2s 2p^5$	$g^3P - {}^3P^\circ$	1 - 2	F5

MANGANESE XIX (Mn^{18+}), Z = 25
Ground State $1s^2 2s^2 2p^3\ ^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [11 542 000] cm^{-1}; [1431] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XIX	14.205	20		$2p^3 - 2p^2 3d$	$^2P^\circ - {}^2D$	½ - 3/2	S31
Mn XIX	14.752	40		$2p^3 - 2p^2 3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	S31
Mn XIX	89.3			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - {}^2P$	3/2 - ½	F5
Mn XIX	99.1			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F5
Mn XIX	117.6			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - {}^2D$	3/2 - 3/2	F5
Mn XIX	118.41 ?			$2s^2 2p^3 - 2s 2p^4$	$^2P^\circ - {}^2S$	3/2 - ½	K8
Mn XIX	120.5			$2s^2 2p^3 - 2s 2p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	F5
Mn XIX	144.86 ?			$2s^2 2p^3 - 2s 2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	K8

MANGANESE XX (Mn^{19+}), Z = 25
Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)
Ionization Potential [12 389 000] cm^{-1}; [1536] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XX	13.53 ?			$2p^2 - 2p 3d$	$^1D - {}^1P^\circ$	2 - 1	K8
Mn XX	13.67 ?			$2p^2 - 2p 3d$	$g^3P - {}^3P^\circ$	2 - 2	K8
Mn XX	13.68 ?			$2p^2 - 2p 3d$	$g^3P - {}^3D^\circ$	2 - 3	K8
Mn XX	13.71 ?			$2p^2 - 2p 3d$	$^1S - {}^1P^\circ$	0 - 1	K8
Mn XX	13.86 ?			$2p^2 - 2p 3d$	$^1D - {}^1D^\circ$	2 - 2	K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XX	14.325	20		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$	1 - 1	S31
Mn XX	14.47 ?			$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	K8
Mn XX	14.53 ?			$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$	2 - 1	K8
Mn XX	14.650	20		$2p^2 - 2p3s$	${}^1D - {}^3P^\circ$?	2 - 1	S31,K8
Mn XX	14.698	20		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$?	0 - 1	S31,K8
Mn XX	114.98 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	K8
Mn XX	123.48 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	K8
Mn XX	129.42 ?			$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	K8
Mn XX	130.06 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	K8
Mn XX	151.74 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	K8
Mn XX	162.16 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	K8
Mn XX	165.22 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	K8
Mn XX	197.82 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	K8

MANGANESE XXI (Mn^{20+}), Z = 25

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [13 228 000] cm^{-1}; [1640] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XXI	10.04 ?			2p - 4s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Mn XXI	13.01 ?			2p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K8
Mn XXI	13.73 ?			2p - 3s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Mn XXI	131.55 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8
Mn XXI	151.21 ?			$2s^22p - 2s2p^2$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8

MANGANESE XXII (Mn^{21+}), Z = 25

Ground State $1s^22s^2\ {}^1S_0$ (4 electrons)

Ionization Potential [14 357 000] cm^{-1}; [1780] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Mn XXII	8.19 ?			$2s^2 - 2s5p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Mn XXII	9.13 ?			$2s^2 - 2s4p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Mn XXII	11.59 ?			$2s^2 - 2p3s$	$g^1S - {}^1P^\circ$	0 - 1	K8
Mn XXII	155.46 ?			$2s^2 - 2s2p$	$g^1S - {}^1P^\circ$	0 - 1	K8
Mn XXII	297.07 ?			$2s^2 - 2s2p$	$g^1S - {}^3P^\circ$	0 - 1	K8

MANGANESE XXIII (Mn^{22+}), Z = 25
Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [15 156 000] cm^{-1}; [1879] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Mn XXIII	7.59	P			2p - 6d	$^2P^\circ$ - ^2D	½ - 3/2	G15
Mn XXIII	7.65	P			2p - 6d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Mn XXIII	7.79	P			2s - 5p	g^2S - $^2P^\circ$	½ - 3/2	G15
Mn XXIII	8.02	P			2p - 5d	$^2P^\circ$ - ^2D	½ - 3/2	G15
Mn XXIII	8.09	P			2p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Mn XXIII	8.68	P			2s - 4p	g^2S - $^2P^\circ$	½ - 3/2	G15
Mn XXIII	8.96	P			2p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	G15
Mn XXIII	9.00	P			2p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Mn XXIII	11.55	P			2s - 3p	g^2S - $^2P^\circ$	½ - 3/2	G15
Mn XXIII	11.60	P			2s - 3p	g^2S - $^2P^\circ$	½ - ½	G15
Mn XXIII	12.01	P			2p - 3d	$^2P^\circ$ - ^2D	½ - 3/2	G15
Mn XXIII	12.158		20		2p - 3d	$^2P^\circ$ - ^2D	3/2 - 5/2	G15
Mn XXIII	12.222		20		2p - 3s	$^2P^\circ$ - ^2S	½ - ½	G15
Mn XXIII	12.385		200		2p - 3s	$^2P^\circ$ - ^2S	3/2 - ½	G15
Mn XXIII	199.93	P			2s - 2p	g^2S - $^2P^\circ$	½ - 3/2	K8
Mn XXIII	258.02	P			2s - 2p	g^2S - $^2P^\circ$	½ - ½	K8

MANGANESE XXIV (Mn^{23+}), Z = 25
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [65 663 000] cm^{-1}; [8141] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Mn XXIV	1.72				$1s^2$ - 1s3p	g^1S - $^3P^\circ$	0 - 1	C11
Mn XXIV	2.01	P			$1s^2$ - 1s2p	g^1S - $^1P^\circ$	0 - 1	K8,C11
Mn XXIV	2.02				$1s^2$ - 1s2p	g^1S - $^3P^\circ$	0 - 1	C11
Mn XXIV	2.05	?	f		$1s^2$ - 1s2s	g^1S - ^3S	0 - 1	K8

MANGANESE XXV (Mn^{24+}), Z = 25
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [69 135 600] cm^{-1}; [8571.5] eV

Element	Wavelength		Intensity	Multiplet	Configuration	Term	J - J	References
Mn XXV	1.94	P			1s - 2p	g^2S - $^2P^\circ$	½ - 3/2	K8

525-206 O - 73 - 29

IRON, Z = 26

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe ?	9.25	0					C9
Fe	9.507	0					S31
Fe	9.990	10					S31
Fe	10.501	20					C8
Fe	10.530	10					C8
Fe ?	10.623						C8
Fe ?	10.741						C8
Fe	10.811	20					S31
Fe	10.873	10					S31
Fe ?	10.905						C8
Fe	10.926	10					S31
Fe	10.97	0					S31
Fe	11.074	0					S31
Fe	11.360						S31
Fe	11.480	10					S31
Fe	11.521	40					S31
Fe	11.698	10					C9
Fe	11.772	10					C9
Fe	11.994	10					C9
Fe	12.016	20					C9
Fe	12.076	10					C9
Fe	12.454	10					C9
Fe	12.780	20					S31
Fe	12.882	20					C9
Fe	12.915	10					C9
Fe	13.793	30					C9
Fe	14.609	20					C9
Fe	14.733	10					C9
Fe	14.750	20					C9
Fe	14.870	20					C9
Fe	14.908	20					C9
Fe	15.042	50					C9
Fe	15.558	10					C9
Fe	16.303	10					C9
Fe	16.336	20					C9
Fe	16.506	10					S31
Fe	16.892	20					C9
Fe	17.127	20					C9
Fe	17.162	10					C8
Fe	17.367	20					C9
Fe	17.402	20					C8
Fe	17.450	20					C9
Fe	17.469	20					C9
Fe	17.548	10					C9
Fe	17.597	10					C9
Fe	17.622	20					C9
Fe	155.78						H9
Fe	155.81						H9
Fe	163.52						H9
Fe	165.47	500					F11
Fe	166.35	600					F11
Fe	169.88	600					F11
Fe	176.32	400					F11
Fe	178.15	600					F11
Fe	179.00	500					F11
Fe	179.23	400					F11
Fe	188.86	500					F11
Fe	190.45						H9
Fe	194.31						H9
Fe	200.37						H9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe	204.77	400					F11
Fe	205.31						H9
Fe	208.44	200					F11
Fe	209.75	300					F11
Fe	210.40	300					F11

IRON I (Fe^{0+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^6 4s^2$ $^5D_4$ (26 electrons)

Ionization Potential 63 480 cm^{-1}; 7.870 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe I	1737.63	0		$3d^6 4s^2$ -	ga^5D - $t^3F°$?	4 - 4	J6,K8
Fe I	1749.77	1		$3d^6 4s^2$ -	ga^5D - 24° ?	3 - 3	J6,K8
Fe I	1761.08	0		$3d^6 4s^2$ - $3d^7(a^2D)4p$	ga^5D - $u^3F°$?	4 - 3	J6,K8
Fe I	1839.65	0		$3d^6 4s^2$ -	ga^5D - 23° ?	4 - 3	J6,K8
Fe I	1839.80	3		$3d^7(a^4F)4s$ -	a^5F - 26° ?	3 - 2	J6,K8
Fe I	1842.05	0		$3d^6 4s^2$ -	ga^5D - 22° ?	4 - 3	J6,K8
Fe I	1851.39	0		$3d^6 4s^2$ -	ga^5D - 12° ?	4 - 5	J6,K8
Fe I	1855.58	100	41	$3d^6 4s^2$ -	ga^5D - 10°	4 - 3	R27
Fe I	1856.23	0		$3d^6 4s^2$ -	ga^5D - 22° ?	3 - 3	J6,K8
Fe I	1859.26	40		$3d^6 4s^2$ -	ga^5D - 20°	4 - 3	K14
Fe I	1862.318	100	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	3 - 2	G22
Fe I	1863.54	10	40	$3d^6 4s^2$ -	ga^5D - $y^1F°$	4 - 3	R27
Fe I	1865.30	300		$3d^6 4s^2$ -	ga^5D - 17°	4 - 4	K14
Fe I	1866.07	80	42	$3d^6 4s^2$ -	ga^5D - 11°	3 - 3	R27
Fe I	1866.815	40	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	2 - 1	G22
Fe I	1870.36	0		$3d^6 4s^2$ -	ga^5D - 21° ?	3 - 4	J6,K8
Fe I	1872.359	160	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	2 - 2	G22
Fe I	1873.052	160	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	4 - 3	G22
Fe I	1873.259	100	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	1 - 1	G22
Fe I	1874.58	3		$3d^6 4s^2$ -	ga^5D - $x^1F°$?	3 - 3	J6,K8
Fe I	1875.14	0		$3d^6 4s^2$ -	ga^5D - 9° ?	4 - 4	J6,K8
Fe I	1876.419	40	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	0 - 1	G22
Fe I	1878.06	1		$3d^6 4s^2$ -	ga^5D - $y^1F°$?	3 - 3	J6,K8
Fe I	1878.20	0		$3d^7(a^4F)4s$ -	a^5F - $r^3G°$?	5 - 4	J6,K8
Fe I	1878.849	20	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	1 - 2	G22
Fe I	1879.86	2		$3d^6 4s^2$ -	ga^5D - 17° ?	3 - 4	J6,K8
Fe I	1880.14	35	41	$3d^6 4s^2$ -	ga^5D - 10°	2 - 3	R27
Fe I	1883.06	0		$3d^6 4s^2$ - $3d^7(a^2P)4p$	ga^5D - $v^3P°$?	2 - 1	J6,K8
Fe I	1883.91	40		$3d^6 4s^2$ -	ga^5D - 20°	2 - 3	K14
Fe I	1884.73	2		$3d^6 4s^2$ -	ga^5D - $x^1F°$?	2 - 3	J6,K8
Fe I	1887.761	300	39	$3d^6 4s^2$ - $3d^6 4s(b^4D)4p$	ga^5D - $t^5P°$	3 - 3	G22
Fe I	1888.32	80	40	$3d^6 4s^2$ -	ga^5D - $y^1F°$	2 - 3	R27
Fe I	1891.74	200		$3d^6 4s^2$ -	ga^5D - 19°	1 - 2	K14
Fe I	1899.21	20		$3d^6 4s^2$ -	ga^5D - 16°	2 - 3	K14
Fe I	1903.37	20b	38	$3d^6 4s^2$ -	ga^5D - $s^3D°$	3 - 3	R27
Fe I	1910.53	0		$3d^6 4s^2$ - $3d^7(a^2P)4p$	ga^5D - $z^1P°$?	1 - 1	J6,K8
Fe I	1934.528	500	37	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5P°$	4 - 3	G22
Fe I	1937.274	500	35	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5F°$	4 - 3	G22
Fe I	1940.649	500	37	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5P°$	3 - 2	G22
Fe I	1945.070	200	35	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5F°$	3 - 2	G22
Fe I	1945.294	400	37	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5P°$	2 - 1	G22
Fe I	1946.219	40	35	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5F°$	4 - 4	G22
Fe I	1946.983	600	36	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $t^5D°$	4 - 3	W9,G22
Fe I	1950.223	500	37	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5P°$	3 - 3	G22
Fe I	1951.556	500	37	$3d^6 4s^2$ - $3d^6 4s(a^6D)5p$	ga^5D - $u^5P°$	2 - 2	G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe I	1952.262	500	37	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5P^\circ$	1 - 1	G22
Fe I	1952.579	500	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	3 - 2	W9,G22
Fe I	1953.001	500	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	3 - 3	W9,G22
Fe I	1955.690	400	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	2 - 1	G22
Fe I	1956.026	500	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	2 - 2	G22
Fe I	1957.838	600	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	4 - 4	W9,G22
Fe I	1958.598	600	37	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5P^\circ$	1 - 2	G22
Fe I	1958.739	300	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	1 - 0	G22
Fe I	1958.84	0		$3d^64s^2$ -	$ga^5D - 7^\circ$?	2 - 2	J6,K8
Fe I	1960.139	600	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	4 - 5	W9,G22
Fe I	1961.236	500		$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5P^\circ$	2 - 3	G22
Fe I	1962.031	500	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	0 - 1	G22
Fe I	1962.107	600	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	3 - 4	G22
Fe I	1962.746	10	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	1 - 1	G22
Fe I	1962.871	400	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	3 - 3	G22
Fe I	1963.110	500b	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	1 - 2	G22
Fe I	1963.629	200	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	2 - 2	G22
Fe I	1964.043	400	35	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - u^5F^\circ$	2 - 3	G22
Fe I	1970.771	10	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	1 - 2	G22
Fe I	1973.911	20	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	3 - 4	G22
Fe I	1974.059	20	36	$3d^64s^2 - 3d^64s(a^6D)5p$	$ga^5D - t^5D^\circ$	2 - 3	G22

IRON II (Fe^{1+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d^64s\ ^6D_{9/2}$ (25 electrons)

Ionization Potential 130 524 cm^{-1}; 16.18 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	896.504	20	31	$3d^6(a^5D)4s$ -	$ga^6D - 29^\circ$	7/2 - 5/2	G22
Fe II	898.776	10	31	$3d^6(a^5D)4s$ -	$ga^6D - 29^\circ$	5/2 - 5/2	G22
Fe II	900.360	100	31	$3d^6(a^5D)4s$ -	$ga^6D - 29^\circ$	3/2 - 5/2	G22
Fe II	918.118	20		$3d^6(a^5D)4s$ -	$ga^6D - 28^\circ$	3/2 - 3/2	G22
Fe II	919.095	10		$3d^6(a^5D)4s$ -	$ga^6D - 28^\circ$	1/2 - 3/2	G22
Fe II	923.884	200	28	$3d^6(a^5D)4s$ -	$ga^6D - 24^\circ$	9/2 - 7/2	G22
Fe II	924.970	100	30	$3d^6(a^5D)4s$ -	$ga^6D - 27^\circ$	5/2 - 3/2	G22
Fe II	926.220	400	25	$3d^6(a^5D)4s$ -	$ga^6D - 21^\circ$	9/2 - 9/2	G22
Fe II	926.618	60	30	$3d^6(a^5D)4s$ -	$ga^6D - 27^\circ$	3/2 - 3/2	G22
Fe II	926.900	160	24	$3d^6(a^5D)4s$ -	$ga^6D - 20^\circ$	9/2 - 7/2	G22
Fe II	927.176	40	28	$3d^6(a^5D)4s$ -	$ga^6D - 24^\circ$	7/2 - 7/2	G22
Fe II	927.632	60	30	$3d^6(a^5D)4s$ -	$ga^6D - 27^\circ$	1/2 - 3/2	G22
Fe II	928.107	200	26	$3d^6(a^5D)4s$ -	$ga^6D - 22^\circ$	7/2 - 5/2	G22
Fe II	928.470	140b	29	$3d^6(a^5D)4s$ -	$ga^6D - 25^\circ$	5/2 - 3/2	G22
Fe II	929.538	200	25	$3d^6(a^5D)4s$ -	$ga^6D - 21^\circ$	7/2 - 9/2	G22
Fe II	929.612	200	28	$3d^6(a^5D)4s$ -	$ga^6D - 24^\circ$	5/2 - 7/2	G22
Fe II	930.030	200	27	$3d^6(a^5D)4s$ -	$ga^6D - 23^\circ$	5/2 - 3/2	G22
Fe II	930.165	200	29	$3d^6(a^5D)4s$ -	$ga^6D - 25^\circ$	3/2 - 3/2	G22
Fe II	930.219	200	24	$3d^6(a^5D)4s$ -	$ga^6D - 20^\circ$	7/2 - 7/2	G22
Fe II	930.558	200	26	$3d^6(a^5D)4s$ -	$ga^6D - 22^\circ$	5/2 - 5/2	G22
Fe II	931.142	160	29	$3d^6(a^5D)4s$ -	$ga^6D - 25^\circ$	1/2 - 3/2	G22
Fe II	931.709	60	27	$3d^6(a^5D)4s$ -	$ga^6D - 23^\circ$	3/2 - 3/2	G22
Fe II	932.244	200	26	$3d^6(a^5D)4s$ -	$ga^6D - 22^\circ$	3/2 - 5/2	G22
Fe II	932.687	200	27	$3d^6(a^5D)4s$ -	$ga^6D - 23^\circ$	1/2 - 3/2	G22
Fe II	935.783	10	22	$3d^6(a^5D)4s$ -	$ga^6D - 16^\circ$	9/2 - 7/2	G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	936.484	60	23	$3d^6(a^5D)4s$ -	ga^6D - 17°	7/2 - 7/2	G22
Fe II	938.967	70	58	$3d^7$ -	a^4F - 26°	9/2 - 7/2	G22
Fe II	939.159	140	22	$3d^6(a^5D)4s$ -	ga^6D - 16°	7/2 - 7/2	G22
Fe II	941.660	80	22	$3d^6(a^5D)4s$ -	ga^6D - 16°	5/2 - 7/2	G22
Fe II	942.589	40	56	$3d^7$ -	a^4F - 21°	9/2 - 9/2	G22
Fe II	943.267	80	55	$3d^7$ -	a^4F - 20°	9/2 - 7/2	G22
Fe II	943.910	100	58	$3d^7$ -	a^4F - 27°	5/2 - 3/2	G22
Fe II	945.095	160	57	$3d^7$ -	a^4F - 24°	7/2 - 7/2	G22
Fe II	946.051	10b		$3d^7$ -	a^4F - 22°	7/2 - 5/2	G22
Fe II	947.564	20		$3d^7$ -	a^4F - 25°	5/2 - 3/2	G22
Fe II	952.470	60	53	$3d^7$ -	a^4F - 16°	9/2 - 7/2	G22
Fe II	954.496	20		$3d^7$ -	a^4F - 18°	7/2 - 5/2	G22
Fe II	954.786	40		$3d^7$ -	a^4F - 17°	7/2 - 7/2	G22
Fe II	995.829	60	77	$3d^6(a^5D)4s$ -	a^4D - 26°	7/2 - 7/2	G22
Fe II	999.003	20		$3d^6(a^5D)4s$ -	a^4D - 27°	3/2 - 3/2	G22
Fe II	1000.183	40	77	$3d^6(a^5D)4s$ -	a^4D - 26°	5/2 - 7/2	G22
Fe II	1000.665	20		$3d^6(a^5D)4s$ -	a^4D - 27°	1/2 - 3/2	G22
Fe II	1005.082	20		$3d^6(a^5D)4s$ -	a^4D - 20°	5/2 - 7/2	G22
Fe II	1007.657	140	76	$3d^6(a^5D)4s$ -	a^4D - 18°	7/2 - 5/2	G22
Fe II	1007.975	160	75	$3d^6(a^5D)4s$ -	a^4D - 17°	7/2 - 7/2	G22
Fe II	1011.037	160	74	$3d^6(a^5D)4s$ -	a^4D - 16°	7/2 - 7/2	G22
Fe II	1012.088	140	76	$3d^6(a^5D)4s$ -	a^4D - 18°	5/2 - 5/2	G22
Fe II	1012.417	160	75	$3d^6(a^5D)4s$ -	a^4D - 17°	5/2 - 7/2	G22
Fe II	1015.083	60	76	$3d^6(a^5D)4s$ -	a^4D - 18°	3/2 - 5/2	G22
Fe II	1015.520	140	74	$3d^6(a^5D)4s$ -	a^4D - 16°	5/2 - 7/2	G22
Fe II	1038.370	20		$3d^7$ -	a^4P - 28°	5/2 - 3/2	G22
Fe II	1055.269	500	21	$3d^6(a^5D)4s$ -	ga^6D - 15°	9/2 - 7/2	G22
Fe II	1059.571	400	21	$3d^6(a^5D)4s$ -	ga^6D - 15°	7/2 - 7/2	G22
Fe II	1062.758	400	21	$3d^6(a^5D)4s$ -	ga^6D - 15°	5/2 - 7/2	G22
Fe II	1062.982	300	19	$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	ga^6D - $w^4G°$	9/2 - 7/2	G22
Fe II	1068.356	600	19	$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	ga^6D - $w^4G°$	7/2 - 5/2	G22
Fe II	1069.038	300	20	$3d^6(a^5D)4s$ -	ga^6D - 14°	5/2 - 5/2	G22
Fe II	1071.260	100	20	$3d^6(a^5D)4s$ -	ga^6D - 14°	3/2 - 5/2	G22
Fe II	1071.596	600	19	$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	ga^6D - $w^4G°$	5/2 - 5/2	G22
Fe II	1076.556	40	52	$3d^7$ -	a^4F - 15°	9/2 - 7/2	G22
Fe II	1096.616	400b	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	7/2 - 5/2	G22
Fe II	1096.793	400	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	5/2 - 3/2	G22
Fe II	1096.886	600	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	9/2 - 7/2	G22
Fe II	1097.782	40	51	$3d^7$ -	a^4F - 14°	3/2 - 5/2	G22
Fe II	1098.26	0		$3d^7$ - $3d^6(b^3F)4p$	a^4F - $u^4F°$?	7/2 - 9/2	J6,K8
Fe II	1099.117	500h	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	3/2 - 3/2	G22
Fe II	1100.026	400	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	5/2 - 5/2	G22
Fe II	1100.525	400	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	1/2 - 3/2	G22
Fe II	1101.538	400	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	7/2 - 7/2	G22
Fe II	1102.385	160	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	3/2 - 5/2	G22
Fe II	1102.758	20	17	$3d^6(a^5D)4s$ -	ga^6D - 11°	7/2 - 5/2	G22
Fe II	1104.978	20	18	$3d^6(a^5D)4s$ -	ga^6D - $w^6P°$	5/2 - 7/2	G22
Fe II	1106.215	300	17	$3d^6(a^5D)4s$ -	ga^6D - 11°	5/2 - 5/2	G22
Fe II	1106.362	100	15	$3d^6(a^5D)4s$ -	ga^6D - 6°	9/2 - 9/2	G22
Fe II	1111.114	300	15	$3d^6(a^5D)4s$ -	ga^6D - 6°	7/2 - 9/2	G22
Fe II	1112.086	700	16	$3d^6(a^5D)4s$ -	ga^6D - 9°	1/2 - 3/2	M23
Fe II	1121.987	500	12	$3d^6(a^5D)4s$ -	ga^6D - 2°	9/2 - 7/2	G22
Fe II	1122.858	500	13	$3d^6(a^5D)4s$ -	ga^6D - 3°	7/2 - 5/2	G22
Fe II	1124.134	400	14	$3d^6(a^5D)4s$ -	ga^6D - 4°	5/2 - 3/2	G22
Fe II	1126.425	400	13	$3d^6(a^5D)4s$ -	ga^6D - 3°	5/2 - 5/2	G22
Fe II	1126.603	400	14	$3d^6(a^5D)4s$ -	ga^6D - 4°	3/2 - 3/2	G22
Fe II	1126.850	400	12	$3d^6(a^5D)4s$ -	ga^6D - 2°	7/2 - 7/2	G22
Fe II	1128.074	500	14	$3d^6(a^5D)4s$ -	ga^6D - 4°	1/2 - 3/2	G22
Fe II	1128.180	100	50	$3d^7$ -	a^4F - 11°	7/2 - 5/2	G22
Fe II	1128.530	200h	194	$3d^54s^2$ -	a^6S - 29°	5/2 - 5/2	G22
Fe II	1128.909	400	13	$3d^6(a^5D)4s$ -	ga^6D - 3°	3/2 - 5/2	G22
Fe II	1129.777	240	49	$3d^7$ -	a^4F - 6°	9/2 - 9/2	G22
Fe II	1130.428	500w	12	$3d^6(a^5D)4s$ -	ga^6D - 2°	5/2 - 7/2	G22
Fe II	1130.874	40	48	$3d^7$ -	a^4F - 5°	9/2 - 7/2	G22
Fe II	1133.413	500	50	$3d^7$ -	a^4F - 11°	5/2 - 5/2	G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1133.678	500	11	$3d^6(a^5D)4s$ -	ga^6D - 1°	9/2 - 7/2	G22
Fe II	1138.039	100	48	$3d^7$ -	a^4F - 5°	7/2 - 7/2	G22
Fe II	1138.642	500	11	$3d^6(a^5D)4s$ -	ga^6D - 1°	7/2 - 7/2	G22
Fe II	1142.334	500	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	9/2 - 7/2	G22
Fe II	1143.235	500	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	9/2 - 9/2	G22
Fe II	1144.052	100	156	$3d^6(a^3P)4s$ -	b^4P - 24°	5/2 - 7/2	M23
Fe II	1144.946	700w	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	9/2 - 11/2	G22
Fe II	1146.963	300	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	7/2 - 5/2	G22
Fe II	1147.413	500	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	7/2 - 7/2	G22
Fe II	1148.295	600	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	7/2 - 9/2	G22
Fe II	1148.693	160	155	$3d^6(a^3P)4s$ -	b^4P - 20°	5/2 - 7/2	M23
Fe II	1150.292	400	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	5/2 - 3/2	G22
Fe II	1150.689	400	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	5/2 - 5/2	G22
Fe II	1151.163	500	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	5/2 - 7/2	G22
Fe II	1152.440	300	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	3/2 - 1/2	G22
Fe II	1152.882	400	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	3/2 - 3/2	G22
Fe II	1153.281	400	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	3/2 - 5/2	G22
Fe II	1153.955	300	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	1/2 - 1/2	G22
Fe II	1154.401	400	10	$3d^6(a^5D)4s$ - $3d^6(a^5D)5p$	ga^6D - y^6F°	1/2 - 3/2	G22
Fe II	1155.273	40	157	$3d^6(a^3P)4s$ -	b^4P - 25°	3/2 - 3/2	M23
Fe II	1156.575	40		$3d^54s^2$ -	a^6S - 28°	5/2 - 3/2	G22
Fe II	1159.347	400	73	$3d^6(a^5D)4s$ -	a^4D - 14°	7/2 - 5/2	G22
Fe II	1162.351	40	153	$3d^6(a^3P)4s$ -	b^4P - 16°	5/2 - 7/2	G22,M23
Fe II	1164.48	1		$3d^6(a^5D)4s$ - $3d^6(b^3P)4p$	ga^6D - v^4D° ?	5/2 - 3/2	J6,K8
Fe II	1165.269	240	73	$3d^6(a^5D)4s$ -	a^4D - 14°	5/2 - 5/2	G22
Fe II	1169.19	0		$3d^6(a^5D)4s$ - $3d^6(b^3F)4p$	a^4D - u^4F° ?	7/2 - 9/2	J6,K8
Fe II	1171.606	160	154	$3d^6(a^3P)4s$ -	b^4P - 17°	3/2 - 5/2	M23
Fe II	1175.699	20		$3d^54s^2$ -	a^6S - 26°	5/2 - 7/2	G22
Fe II	1183.83	1		$3d^6(a^5D)4s$ - $3d^6(b^3F)4p$	a^4D - u^2G° ?	7/2 - 9/2	J6,K8
Fe II	1187.41	0		$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	a^4D - v^4F° ?	7/2 - 9/2	J6,K8
Fe II	1192.02	2		$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	a^4D - v^4F° ?	5/2 - 7/2	J6,K8
Fe II	1195.46	1		$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	a^4D - v^4F° ?	3/2 - 5/2	J6,K8
Fe II	1197.43	0		$3d^6(a^5D)4s$ - $3d^54s(a^5G)4p$	a^4D - v^4F° ?	1/2 - 3/2	J6,K8
Fe II	1199.24	1		$3d^6(a^5D)4s$ - $3d^6(a^1F)4p$	ga^6D - v^2D° ?	1/2 - 3/2	J6,K8
Fe II	1213.149	400	71	$3d^6(a^5D)4s$ -	a^4D - 6°	7/2 - 9/2	G22
Fe II	1213.764	400	72	$3d^6(a^5D)4s$ -	a^4D - 11°	3/2 - 5/2	G22
Fe II	1214.409	200	70	$3d^6(a^5D)4s$ -	a^4D - 5°	7/2 - 7/2	G22
Fe II	1219.81	3		$3d^6(a^5D)4s$ -	a^4D - 8° ?	1/2 - 3/2	J6,K8
Fe II	1220.882	100	70	$3d^6(a^5D)4s$ -	a^4D - 5°	5/2 - 7/2	G22
Fe II	1230.93	2		$3d^7$ - $3d^6(a^1F)4p$	a^4F - v^2D° ?	3/2 - 3/2	J6,K8
Fe II	1233.660	160	275	$3d^6(a^3F)4s$ -	a^2F - 26°	7/2 - 7/2	M23
Fe II	1236.34	0		$3d^6(a^3G)4s$ -	a^4G - 16° ?	7/2 - 7/2	J6,K8
Fe II	1237.93	0		$3d^6(a^5D)4s$ -	a^4D - 4° ?	1/2 - 3/2	J6,K8
Fe II	1255.41	0		$3d^7$ - $3d^6(b^3F)4p$	a^4P - u^4F° ?	3/2 - 3/2	J6,K8
Fe II	1257.18	0		$3d^6(a^3F)4s$ -	a^2F - 17° ?	5/2 - 5/2	J6,K8
Fe II	1259.06	1		$3d^7$ - $3d^6(b^3F)4p$	a^4P - u^4F° ?	1/2 - 3/2	J6,K8
Fe II	1260.542	400	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	9/2 - 7/2	G22
Fe II	1266.24	2		$3d^6(a^5D)4s$ - $3d^6(b^3P)4p$	a^4D - v^4D° ?	7/2 - 7/2	J6,K8
Fe II	1266.694	400	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	7/2 - 7/2	G22
Fe II	1267.437	500	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	7/2 - 5/2	G22
Fe II	1269.96	0		$3d^7$ - $3d^6(b^3F)4p$	a^4P - u^2D° ?	5/2 - 3/2	J6,K8
Fe II	1271.235	20	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	5/2 - 7/2	G22
Fe II	1271.37	1		$3d^7$ - $3d^54s(a^5G)4p$	a^4P - v^4F° ?	3/2 - 5/2	J6,K8
Fe II	1272.001	500w	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	5/2 - 5/2	G22
Fe II	1272.638	300	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	5/2 - 3/2	G22
Fe II	1275.154	300	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	3/2 - 5/2	G22
Fe II	1275.801	400	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	3/2 - 3/2	G22
Fe II	1277.667	10	9	$3d^6(a^5D)4s$ - $3d^54s(a^5S)4p$	ga^6D - x^6P°	1/2 - 3/2	S1
Fe II	1289.09	1		$3d^6(a^3G)4s$ -	b^2G - 21° ?	9/2 - 7/2	J6,K8
Fe II	1290.204	300	88	$3d^7$ -	a^4P - 10°	5/2 - 5/2	G22
Fe II	1290.78	0		$3d^6(a^3G)4s$ -	b^2G - 24° ?	7/2 - 7/2	J6,K8
Fe II	1291.594	300	87	$3d^7$ -	a^4P - 9°	5/2 - 3/2	G22
Fe II	1293.543	10	88	$3d^7$ -	a^4P - 10°	3/2 - 5/2	G22
Fe II	1294.914	240	87	$3d^7$ -	a^4P - 9°	3/2 - 3/2	G22
Fe II	1296.088	400	86	$3d^7$ -	a^4P - 8°	3/2 - 1/2	G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1298.815	40	87	$3d^7$ -	a^4P - 9°	½ - 3/2	G22
Fe II	1299.984	10	86	$3d^7$ -	a^4P - 8°	½ - ½	G22
Fe II	1303.04	0		$3d^6(a^3D)4s$ -	b^4D - 22° ?	5/2 - 5/2	J6,K8
Fe II	1307.24	0		$3d^6(a^3D)4s$ -	b^4D - 20° ?	5/2 - 7/2	J6,K8
Fe II	1316.49	1		$3d^7$ - $3d^54s(a^5G)4p$	a^2G - $v^4F°$?	7/2 - 5/2	J6,K8
Fe II	1324.25	0		$3d^6(a^5D)4s$ - $3d^6(a^1F)4p$	a^4D - $v^2D°$?	½ - 3/2	J6,K8
Fe II	1325.61	2		$3d^7$ - $3d^54s(a^3G)4p$	a^2H - $v^2H°$?	9/2 - 9/2	J6,K8
Fe II	1327.10	0		$3d^7$ -	b^2F - 17° ?	5/2 - 5/2	J6,K8
Fe II	1330.05	1		$3d^6(a^5D)4s$ - $3d^6(a^1F)4p$	a^4D - $v^2D°$?	3/2 - 5/2	J6,K8
Fe II	1340.22	0		$3d^7$ -	a^2G - 10° ?	7/2 - 5/2	J6,K8
Fe II	1347.29	1		$3d^6(a^5D)4s$ - $3d^6(a^3D)4p$	ga^6D - $x^2D°$?	7/2 - 5/2	J6,K8
Fe II	1349.60	0		$3d^7$ - $3d^6(a^5D)5p$	a^4P - $y^6F°$?	5/2 - 5/2	J6,K8
Fe II	1354.03	0		$3d^7$ - $3d^6(b^3F)4p$	a^2P - $u^2D°$?	3/2 - 3/2	J6,K8
Fe II	1354.87	0		$3d^7$ - $3d^54s(a^5G)4p$	a^2H - $w^4G°$?	11/2 - 9/2	J6,K8
Fe II	1356.48	0		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $t^2F°$?	9/2 - 7/2	J6,K8
Fe II	1360.17	0		$3d^6(a^5D)4s$ - $3d^6(a^3D)4p$	ga^6D - $x^2D°$?	½ - 3/2	J6,K8
Fe II	1360.870	100	111	$3d^7$ -	a^2P - $w^6P°$	3/2 - 3/2	M23
Fe II	1361.372	85		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$	5/2 - 7/2	E6,M22
Fe II	1362.771	400	152	$3d^6(a^3P)4s$ -	b^4P - 14°	5/2 - 5/2	M23
Fe II	1364.38	0		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$?	5/2 - 5/2	J6,K8
Fe II	1364.575	240	103	$3d^7$ -	a^2G - 2°	9/2 - 7/2	E6,M22
Fe II	1366.720	85		$3d^7$ -	a^4F - $w^2F°$?	7/2 - 7/2	E6,M22
Fe II	1368.098	50		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$	3/2 - 5/2	E6,M22
Fe II	1368.57	1		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$?	5/2 - 3/2	J6,K8
Fe II	1371.024	500		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $w^4G°$	13/2 - 11/2	E6,M22
Fe II	1372.29	1		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$?	3/2 - 3/2	J6,K8
Fe II	1373.717	120		$3d^7$ -	a^4F - $w^2F°$?	3/2 - 5/2	E6,M22
Fe II	1374.41 P		103	$3d^7$ -	a^2G - 2°	7/2 - 7/2	M22
Fe II	1375.172	200		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $w^4G°$	11/2 - 9/2	E6,M22
Fe II	1376.672	10		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$	½ - 3/2	E6,M22
Fe II	1377.99	2		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $w^4G°$?	9/2 - 9/2	J6,K8
Fe II	1379.466	40		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $w^4G°$	9/2 - 7/2	E6,S1,M22
Fe II	1379.61	0		$3d^7$ - $3d^6(b^3P)4p$	a^4P - $v^4D°$?	½ - ½	J6,K8
Fe II	1381.250	200h	152	$3d^6(a^3P)4s$ -	b^4P - 14°	3/2 - 5/2	M23
Fe II	1382.71	0		$3d^6(a^5D)4s$ - $3d^6(a^3D)4p$	ga^6D - $y^2P°$?	3/2 - ½	J6,K8
Fe II	1383.578	20		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $w^4G°$	7/2 - 5/2	E6,S1,M22
Fe II	1386.47	0		$3d^6(a^3F)4s$ -	b^4F - 15° ?	9/2 - 7/2	J6,K8
Fe II	1387.22	4		$3d^7$ - $3d^6(b^3F)4p$	a^2H - $u^2G°$?	11/2 - 9/2	J6,K8
Fe II	1387.87	0		$3d^6(a^3H)4s$ - $3d^6(b^3F)4p$	a^4H - $u^4F°$?	11/2 - 9/2	J6,K8
Fe II	1392.14	3		$3d^7$ - $3d^54s(a^5G)4p$	a^2H - $v^4F°$?	11/2 - 9/2	J6,K8
Fe II	1392.82	4		$3d^7$ - $3d^6(b^3F)4p$	a^2H - $u^2G°$?	9/2 - 7/2	J6,K8
Fe II	1393.49	1		$3d^7$ - $3d^54s(a^5G)4p$	a^2D - $v^4F°$?	5/2 - 7/2	J6,K8
Fe II	1397.572	10	350	$3d^6(a^1S)4s$ -	a^2S - 27°	½ - 3/2	E6,S1,M22
Fe II	1398.38	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$?	9/2 - 9/2	J6,K8
Fe II	1401.772	4		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$	7/2 - 9/2	E6,S1,M22
Fe II	1403.246	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$	7/2 - 7/2	S1
Fe II	1405.604	2		$3d^7$ - $3d^6(a^3D)4p$	a^4F - $x^2F°$	9/2 - 7/2	E6,M22
Fe II	1405.797	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$	5/2 - 7/2	E6,S1,M22
Fe II	1407.46	0		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$?	5/2 - 5/2	J6,K8
Fe II	1408.478	80		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $x^4H°$	13/2 - 13/2	E6,S1,M22
Fe II	1409.277	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $w^4G°$	3/2 - 5/2	S1
Fe II	1411.47	1		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^4F°$?	9/2 - 9/2	J6,K8
Fe II	1412.834	70	47	$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4D°$	9/2 - 7/2	M23
Fe II	1413.699	70		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $x^4H°$	11/2 - 11/2	E6,S1,M22
Fe II	1414.89	1		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^4F°$?	7/2 - 7/2	J6,K8
Fe II	1415.75	1		$3d^6(a^3G)4s$ - $3d^54s(a^3G)4p$	a^4G - $v^2H°$?	11/2 - 11/2	J6,K8
Fe II	1416.62	0		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $v^4F°$?	9/2 - 9/2	J6,K8
Fe II	1416.73	0		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^4F°$?	7/2 - 5/2	J6,K8
Fe II	1417.727	30		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $x^4H°$	9/2 - 9/2	E6,S1,M22
Fe II	1417.744	400	143	$3d^7$ -	a^2D - $w^6P°$	3/2 - 3/2	M23
Fe II	1418.855	10		$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4F°$	9/2 - 7/2	E6,M22
Fe II	1419.31	0		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^4F°$?	5/2 - 5/2	J6,K8
Fe II	1420.911	30		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	a^4H - $x^4H°$	7/2 - 7/2	E6,S1,M22
Fe II	1422.53	0		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^4F°$?	3/2 - 3/2	J6,K8
Fe II	1424.047	50	47	$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4D°$	7/2 - 7/2	M23

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Fe II	1424.31	0		$3d^6(a^1D)4s$ -	c^2D - 26°	?	5/2 - 7/2	J6,K8
Fe II	1424.716	70	47	$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4D°$		7/2 - 5/2	E6,M22
Fe II	1428.69	0		$3d^6(a^5D)4s$ - $3d^6(a^1D)4p$	a^4D - $w^2P°$	?	1/2 - 1/2	J6,K8
Fe II	1430.12	0		$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4F°$	?	7/2 - 7/2	J6,K8
Fe II	1430.780	200		$3d^6(a^3H)4s$ - $3d^54s(a^3G)4p$	b^2H - $v^2H°$		11/2 - 11/2	E6,M22
Fe II	1430.895	120		$3d^6(a^3H)4s$ - $3d^54s(a^3G)4p$	b^2H - $v^2H°$		9/2 - 9/2	E6,M22
Fe II	1432.87	2		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^2G°$	?	9/2 - 9/2	J6,K8
Fe II	1434.994	40		$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4D°$		5/2 - 3/2	E6,M22
Fe II	1435.85	0		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	9/2 - 7/2	J6,K8
Fe II	1438.13	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	9/2 - 9/2	J6,K8
Fe II	1438.44	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	7/2 - 5/2	J6,K8
Fe II	1439.42	2		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	7/2 - 7/2	J6,K8
Fe II	1440.52	0		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	5/2 - 3/2	J6,K8
Fe II	1441.11	2		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	5/2 - 5/2	J6,K8
Fe II	1442.10	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	5/2 - 7/2	J6,K8
Fe II	1442.42	2		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	3/2 - 3/2	J6,K8
Fe II	1442.746	20		$3d^7$ - $3d^6(a^3D)4p$	a^4F - $w^4D°$		3/2 - 1/2	E6,M22
Fe II	1443.01	1		$3d^6(a^3F)4s$ - $3d^54s(a^5G)4p$	b^4F - $v^4F°$	?	3/2 - 5/2	J6,K8
Fe II	1443.73	1		$3d^6(a^5D)4s$ - $3d^6(a^3G)4p$	ga^6D - $y^2F°$	?	7/2 - 5/2	J6,K8
Fe II	1445.39	0		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	b^4F - $u^2D°$	?	3/2 - 3/2	J6,K8
Fe II	1448.393	70		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	a^2F - $t^2F°$		7/2 - 7/2	E6,M22
Fe II	1454.308	20		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $w^4G°$		11/2 - 11/2	E6,S1,M22
Fe II	1456.47	1		$3d^6(a^3F)4s$ - $3d^6(b^3F)4p$	a^2F - $t^2F°$	?	5/2 - 5/2	J6,K8
Fe II	1459.311	300	193	$3d^54s^2$ -	a^6S - $w^6P°$		5/2 - 3/2	G22
Fe II	1463.198	6		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $w^4G°$		9/2 - 9/2	E6,S1,M22
Fe II	1465.043	400	193	$3d^54s^2$ -	a^6S - $w^6P°$		5/2 - 5/2	G22
Fe II	1468.605	4d		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $w^4G°$		7/2 - 7/2	S1
Fe II	1469.38	0		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^4F°$	?	11/2 - 9/2	J6,K8
Fe II	1469.68	0		$3d^6(a^3F)4s$ -	b^4F - 10°	?	5/2 - 5/2	J6,K8
Fe II	1472.023	4		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $w^4G°$		5/2 - 5/2	S1
Fe II	1473.834	400	193	$3d^54s^2$ -	a^6S - $w^6P°$		5/2 - 7/2	G22
Fe II	1475.686	0		$3d^7$ - $3d^6(a^1D)4p$	a^4P - $^2P°$	?	3/2 - 3/2	S1,K8
Fe II	1476.054	200	192	$3d^6(a^3F)4s$ -	b^4F - 6°	?	9/2 - 9/2	G22,M22
Fe II	1477.50	0		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^4F°$	?	9/2 - 7/2	J6,K8
Fe II	1477.55	0		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^4F°$	?	9/2 - 9/2	J6,K8
Fe II	1480.437	0		$3d^7$ - $3d^6(a^1D)4p$	a^4P - $^2P°$	?	3/2 - 1/2	S1,K8
Fe II	1483.38	0		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^4F°$	?	7/2 - 5/2	J6,K8
Fe II	1491.37	1		$3d^7$ - $3d^6(a^5D)5p$	a^2D - $y^6F°$	?	5/2 - 5/2	J6,K8
Fe II	1492.04	0		$3d^7$ - $3d^6(a^5D)5p$	a^2D - $y^6F°$	?	5/2 - 7/2	J6,K8
Fe II	1492.56	2		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^2G°$	?	11/2 - 9/2	J6,K8
Fe II	1494.59	4		$3d^6(a^3P)4s$ - $3d^6(b^3F)4p$	b^2P - $u^2D°$	?	3/2 - 5/2	J6,K8
Fe II	1496.523	40		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $x^4H°$		11/2 - 13/2	E6,S1,M22
Fe II	1498.28	1		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	11/2 - 9/2	J6,K8
Fe II	1501.01	0		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	a^4G - $u^2G°$	?	9/2 - 9/2	J6,K8
Fe II	1504.27	3		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	9/2 - 7/2	J6,K8
Fe II	1505.43	0		$3d^6(a^3P)4s$ - $3d^6(b^3F)4p$	b^2P - $u^2D°$	?	3/2 - 3/2	J6,K8
Fe II	1506.53	1		$3d^6(a^5D)4s$ - $3d^6(a^3G)4p$	ga^6D - $x^4F°$	?	9/2 - 7/2	J6,K8
Fe II	1506.898	6		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $x^4H°$		9/2 - 11/2	E6,S1,M22
Fe II	1507.19	2		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	7/2 - 5/2	J6,K8
Fe II	1508.22	0		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	5/2 - 3/2	J6,K8
Fe II	1508.27	2		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	7/2 - 7/2	J6,K8
Fe II	1508.87	1		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $v^4F°$	?	5/2 - 5/2	J6,K8
Fe II	1509.27	0		$3d^6(a^3H)4s$ - $3d^6(b^3F)4p$	b^2H - $u^2G°$	?	11/2 - 9/2	J6,K8
Fe II	1512.053	4		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $x^4H°$		7/2 - 9/2	E6,S1,M22
Fe II	1512.24	1		$3d^54s^2$ -	a^6S - 3°	?	5/2 - 5/2	J6,K8
Fe II	1513.31	1		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	b^2H - $x^4H°$	?	11/2 - 13/2	J6,K8
Fe II	1514.339	1		$3d^6(a^3G)4s$ - $3d^54s(a^5G)4p$	a^4G - $x^4H°$		5/2 - 7/2	S1
Fe II	1515.89	1		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	b^2G - $t^2F°$	?	9/2 - 7/2	J6,K8
Fe II	1515.93	1		$3d^7$ - $3d^6(a^1F)4p$	a^2D - $u^2F°$	?	5/2 - 7/2	J6,K8
Fe II	1519.43	0		$3d^6(a^3H)4s$ - $3d^54s(a^5G)4p$	b^2H - $x^4H°$	?	9/2 - 11/2	J6,K8
Fe II	1519.50	2		$3d^7$ - $3d^54s(a^5S)4p$	a^4P - $x^6P°$	?	5/2 - 5/2	J6,K8
Fe II	1520.87	2		$3d^6(a^5D)4s$ - $3d^6(a^3G)4p$	ga^6D - $x^4F°$	?	3/2 - 3/2	J6,K8
Fe II	1522.69	2		$3d^6(a^3G)4s$ - $3d^54s(a^3G)4p$	b^2G - $v^2H°$	?	9/2 - 11/2	J6,K8
Fe II	1526.37	1		$3d^6(a^3G)4s$ - $3d^6(b^3F)4p$	b^2G - $t^2F°$	?	7/2 - 5/2	J6,K8
Fe II	1526.517	20		$3d^7$ - $3d^6(a^1F)4p$	a^2P - $v^2D°$		3/2 - 5/2	S1

Element	Wavelength	Intensity	Multiplet	Configuration	Term		J - J	References
Fe II	1527.296	20		$3d^6(a^3G)4s - 3d^54s(a^3G)4p$	$b^2G - v^2H°$		7/2 - 9/2	S1
Fe II	1531.62	1		$3d^6(a^3F)4s - 3d^6(b^3F)4p$	$a^2F - u^2G°$	?	7/2 - 7/2	J6,K8
Fe II	1532.82	0		$3d^7 - 3d^6(a^1F)4p$	$a^2D - u^2F°$	?	3/2 - 5/2	J6,K8
Fe II	1541.011	10		$3d^54s^2$ -	$a^6S - 1°$		5/2 - 7/2	G22
Fe II	1544.78	1		$3d^6(a^3P)4s - 3d^6(b^3P)4p$	$b^4P - v^4D°$	?	3/2 - 3/2	J6,K8
Fe II	1548.42	1		$3d^7 - 3d^6(a^1D)4p$	$a^4P - w^2D°$	?	1/2 - 3/2	J6,K8
Fe II	1548.692	1d	46	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^2D°$		7/2 - 5/2	E6,S1,M22
Fe II	1550.260	20	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		9/2 - 7/2	G22
Fe II	1550.52	1		$3d^6(a^3G)4s$ -	$a^4G - 5°$	?	9/2 - 7/2	J6,K8
Fe II	1551.17	0		$3d^7 - 3d^6(b^3F)4p$	$b^2F - t^2F°$	?	5/2 - 5/2	J6,K8
Fe II	1551.933	20		$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^2D°$		5/2 - 3/2	E6,M22
Fe II	1553.82	0		$3d^7 - 3d^6(b^3F)4p$	$b^2F - t^2F°$	?	7/2 - 7/2	J6,K8
Fe II	1554.13	1		$3d^6(a^5D)4s - 3d^6(a^3D)4p$	$a^4D - y^2P°$	?	1/2 - 3/2	J6,K8
Fe II	1558.542	200	46	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^2D°$		5/2 - 5/2	E6,G22
Fe II	1558.690	200	46	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^2D°$		3/2 - 3/2	E6,G22
Fe II	1559.084	400	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		9/2 - 9/2	E6,G22
Fe II	1560.260	40	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		7/2 - 5/2	S1
Fe II	1563.788	500	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		7/2 - 7/2	E6,G22
Fe II	1565.374	4	46	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^2D°$		3/2 - 5/2	S1
Fe II	1566.819	400	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		9/2 - 9/2	E6,G22
Fe II	1568.016	160	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		5/2 - 3/2	E6,G22
Fe II	1569.674	240	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		9/2 - 11/2	E6,G22
Fe II	1570.242	400	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		5/2 - 5/2	E6,G22
Fe II	1570.50	0		$3d^6(a^3F)4s - 3d^6(a^1F)4p$	$b^4F - u^2F°$	?	7/2 - 7/2	J6,K8
Fe II	1571.01	0		$3d^6(a^5D)4s - 3d^6(a^3D)4p$	$a^4D - w^4P°$	?	5/2 - 3/2	J6,K8
Fe II	1572.26	1		$3d^6(a^3F)4s - 3d^6(b^3P)4p$	$b^4F - v^4D°$	?	5/2 - 3/2	J6,K8
Fe II	1572.750	20	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		7/2 - 9/2	E6,G22
Fe II	1573.825	100	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		5/2 - 7/2	E6,G22
Fe II	1574.12	0		$3d^6(a^3P)4s - 3d^6(a^1F)4p$	$b^4P - v^2D°$	?	5/2 - 3/2	J6,K8
Fe II	1574.39	1		$3d^6(a^3F)4s - 3d^6(a^1F)4p$	$b^4F - u^2F°$	?	3/2 - 5/2	J6,K8
Fe II	1574.768	10	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		7/2 - 7/2	E6,G22
Fe II	1574.923	400	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		3/2 - 3/2	E6,G22
Fe II	1575.80	1		$3d^6(a^1F)4s$ -	$c^2F - 26°$	?	7/2 - 7/2	J6,K8
Fe II	1577.166	20	45	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4F°$		3/2 - 5/2	E6,G22
Fe II	1578.497	30		$3d^7 - 3d^6(a^1F)4p$	$a^2D - v^2D°$		5/2 - 5/2	S1
Fe II	1579.25	1		$3d^6(a^5D)4s - 3d^6(a^3D)4p$	$a^4D - w^4F°$	?	1/2 - 3/2	J6,K8
Fe II	1580.625	500	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		7/2 - 9/2	E6,G22
Fe II	1581.274	160	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		5/2 - 5/2	E6,G22
Fe II	1584.949	300	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		5/2 - 7/2	E6,G22
Fe II	1585.985	30		$3d^7 - 3d^6(a^1F)4p$	$a^2D - v^2D°$		3/2 - 3/2	S1
Fe II	1588.286	200	44	$3d^7 - 3d^6(a^3G)4p$	$a^4F - x^4G°$		3/2 - 5/2	E6,G22
Fe II	1596.64	2		$3d^6(a^3G)4s - 3d^6(b^3F)4p$	$b^2G - u^4F°$	?	7/2 - 5/2	J6,K8
Fe II	1596.82	1		$3d^6(a^3D)4s - 3d^54s(a^5G)4p$	$b^4D - w^4G°$	?	3/2 - 5/2	J6,K8
Fe II	1600.02	2		$3d^7 - 3d^6(a^1F)4p$	$a^2H - v^2G°$	?	9/2 - 7/2	J6,K8
Fe II	1602.228	1d		$3d^7 - 3d^6(a^3F)4p$	$a^4F - z^2F°$		9/2 - 7/2	S1
Fe II	1602.588	240	316	$3d^7$ -	$b^2F - 14°$		5/2 - 5/2	M23
Fe II	1605.318	20		$3d^7 - 3d^6(a^1D)4p$	$a^2G - v^2F°$		9/2 - 7/2	S1
Fe II	1605.44	1		$3d^6(a^3H)4s - 3d^6(a^1F)4p$	$a^4H - v^2G°$	?	9/2 - 9/2	J6,K8
Fe II	1608.456	700	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P°$		9/2 - 7/2	E6,G22
Fe II	1610.921	300h	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G°$		9/2 - 9/2	E6,G22
Fe II	1611.21	1		$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$ga^6D - y^4F°$	?	9/2 - 7/2	J6,K8
Fe II	1612.802	400	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G°$		9/2 - 11/2	E6,G22
Fe II	1613.183	2		$3d^7 - 3d^54s(a^5G)4p$	$b^2F - w^4G°$	?	7/2 - 5/2	J6,K8
Fe II	1613.25	1		$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$ga^6D - y^4D°$	?	1/2 - 3/2	J6,K8
Fe II	1616.65	0		$3d^7 - 3d^6(a^3F)4p$	$a^4F - z^2F°$	?	7/2 - 7/2	J6,K8
Fe II	1618.470	500	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P°$		7/2 - 7/2	E6,G22
Fe II	1619.52	1		$3d^6(a^5D)4p - 3d^6(a^3G)5s$	$z^6F° - e^2G$	?	7/2 - 7/2	J6,K8
Fe II	1620.15	0		$3d^6(a^3H)4s - 3d^6(a^1F)4p$	$a^4H - v^2G°$	?	9/2 - 7/2	J6,K8
Fe II	1621.685	600	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P°$		7/2 - 5/2	E6,G22
Fe II	1623.091	160	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G°$		7/2 - 7/2	E6,G22
Fe II	1623.715	1d		$3d^7 - 3d^6(a^3F)4p$	$a^4F - z^2F°$		5/2 - 5/2	S1
Fe II	1625.520	400	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G°$		7/2 - 9/2	E6,G22
Fe II	1625.909	300	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P°$		5/2 - 7/2	E6,G22
Fe II	1627.401	4		$3d^7 - 3d^6(a^3F)4p$	$a^4F - z^2F°$		5/2 - 7/2	S1
Fe II	1629.154	600	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P°$		5/2 - 5/2	E6,G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1629.376	40		$3d^7 - 3d^6(a^1D)4p$	$a^2G - v^2F^\circ$	7/2 - 5/2	S1
Fe II	1630.19	1		$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$ga^6D - y^4D^\circ$?	7/2 - 7/2	J6,K8
Fe II	1631.120	600	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P^\circ$	5/2 - 3/2	E6,G22
Fe II	1632.668	20	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G^\circ$	5/2 - 5/2	E6,G22
Fe II	1633.908	300	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G^\circ$	5/2 - 7/2	E6,G22
Fe II	1634.345	400	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P^\circ$	3/2 - 5/2	E6,G22
Fe II	1635.398	700	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	7/2 - 5/2	E6,G22
Fe II	1636.321	600	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P^\circ$	3/2 - 3/2	E6,G22
Fe II	1637.397	300	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	9/2 - 7/2	E6,G22
Fe II	1639.403	600	8	$3d^6(a^5D)4s - 3d^6(a^5S)4p$	$ga^6D - y^6P^\circ$	1/2 - 3/2	G22
Fe II	1639.62	2		$3d^6(a^3D)4s - 3d^54s(a^5G)4p$	$b^4D - v^4F^\circ$?	1/2 - 3/2	J6,K8
Fe II	1640.150	240	43	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4G^\circ$	3/2 - 5/2	E6,G22
Fe II	1641.759	500	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	5/2 - 3/2	E6,G22
Fe II	1642.187	100	274	$3d^6(a^3D)4s - 3d^54s(a^5G)4p$	$b^4D - v^4F^\circ$?	5/2 - 7/2	M23
Fe II	1642.43	2		$3d^7 - 3d^54s(a^5S)4p$	$a^2P - x^6P^\circ$?	3/2 - 3/2	J6,K8
Fe II	1642.50	2		$3d^7 - 3d^6(a^1D)4p$	$a^2P - w^2P^\circ$?	3/2 - 3/2	J6,K8
Fe II	1643.576	300	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	7/2 - 5/2	E6,G22
Fe II	1644.76	1		$3d^6(a^3D)4s - 3d^54s(a^5G)4p$	$b^4D - v^4F^\circ$?	7/2 - 7/2	J6,K8
Fe II	1646.182	400	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	3/2 - 1/2	E6,G22
Fe II	1647.159	500	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	5/2 - 5/2	E6,G22
Fe II	1647.55	2		$3d^7 - 3d^6(b^3F)4p$	$b^2F - u^2D^\circ$?	7/2 - 5/2	J6,K8
Fe II	1647.76	2		$3d^6(a^3D)4s - 3d^54s(a^5G)4p$	$b^4D - v^4F^\circ$?	7/2 - 9/2	J6,K8
Fe II	1649.423	300	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	5/2 - 3/2	E6,G22
Fe II	1649.572	400	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	3/2 - 3/2	E6,G22
Fe II	1650.704	400	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	1/2 - 1/2	E6,G22
Fe II	1651.61	4		$3d^7 - 3d^54s(a^5G)4p$	$b^2F - v^4F^\circ$?	5/2 - 3/2	J6,K8
Fe II	1652.44	0		$3d^7$ -	$d^2D - 23^\circ$?	3/2 - 3/2	J6,K8
Fe II	1652.489	10	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	7/2 - 7/2	G22
Fe II	1653.40	0		$3d^7 - 3d^6(a^1D)4p$	$a^2P - w^2P^\circ$?	3/2 - 1/2	J6,K8
Fe II	1654.06	1		$3d^7$ -	$d^2D - 22^\circ$?	3/2 - 5/2	J6,K8
Fe II	1654.111	100	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	1/2 - 3/2	E6,G22
Fe II	1654.476	100	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	3/2 - 1/2	E6,G22
Fe II	1654.91	0		$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$ga^6D - z^2D^\circ$?	5/2 - 5/2	J6,K8
Fe II	1655.042	20	68	$3d^6(a^5D)4s - 3d^54s(a^5S)4p$	$a^4D - x^4P^\circ$	3/2 - 5/2	G22
Fe II	1655.50	3		$3d^7 - 3d^6(b^3F)4p$	$b^2F - u^2D^\circ$?	5/2 - 3/2	J6,K8
Fe II	1656.73	4		$3d^7 - 3d^54s(a^5S)4p$	$a^2P - x^6P^\circ$?	1/2 - 3/2	J6,K8
Fe II	1657.049	4	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	3/2 - 3/2	S1
Fe II	1657.531	30		$3d^7 - 3d^6(a^1D)4p$	$a^2P - w^2D^\circ$	3/2 - 5/2	S1
Fe II	1658.771	300	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	9/2 - 9/2	E6,G22
Fe II	1659.483	400	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	7/2 - 5/2	E6,G22
Fe II	1660.88	1		$3d^6(a^3D)4s$ -	$b^4D - w^6P^\circ$?	3/2 - 5/2	J6,K8
Fe II	1661.347	1	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	9/2 - 7/2	S1
Fe II	1662.369	10	42	$3d^7 - 3d^6(a^3F)4p$	$a^4F - x^4D^\circ$	3/2 - 5/2	G22
Fe II	1662.43	1		$3d^6(a^3D)4s - 3d^6(b^3F)4p$	$b^2D - t^2F^\circ$?	3/2 - 5/2	J6,K8
Fe II	1663.221	300	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	5/2 - 3/2	E6,G22
Fe II	1663.79	2		$3d^6(a^3D)4s - 3d^6(b^3F)4p$	$b^2D - t^2F^\circ$?	5/2 - 7/2	J6,K8
Fe II	1666.06	0		$3d^6(a^1G)4s - 3d^6(b^3F)4p$	$c^2G - u^4F^\circ$?	9/2 - 7/2	J6,K8
Fe II	1667.91	1		$3d^7 - 3d^6(a^1D)4p$	$a^2P - w^2P^\circ$?	1/2 - 1/2	J6,K8
Fe II	1668.99	2		$3d^6(a^3F)4s - 3d^6(a^5D)5p$	$a^2F - y^6F^\circ$?	5/2 - 7/2	J6,K8
Fe II	1670.742	500	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	9/2 - 7/2	E6,G22
Fe II	1671.010	20	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	3/2 - 3/2	G22
Fe II	1673.462	300	102	$3d^7$ -	$a^2G - w^2F^\circ$	9/2 - 7/2	E6,G22
Fe II	1674.254	40	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	7/2 - 9/2	E6,G22
Fe II	1674.716	80	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	3/2 - 1/2	E6,S1,M22
Fe II	1676.853	20	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	7/2 - 7/2	E6,G22
Fe II	1677.847	10		$3d^7 - 3d^6(a^1D)4p$	$a^2P - w^2D^\circ$	1/2 - 3/2	S1
Fe II	1679.381	300	102	$3d^7$ -	$a^2G - w^2F^\circ$	7/2 - 5/2	E6,G22
Fe II	1680.41	1		$3d^6(a^3D)4s$ -	$b^4D - 9^\circ$?	5/2 - 3/2	J6,K8
Fe II	1681.12	1		$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^2G^\circ$?	5/2 - 7/2	J6,K8
Fe II	1684.005	2		$3d^7 - 3d^6(a^1D)4p$	$a^2P - v^2F^\circ$	3/2 - 5/2	S1
Fe II	1685.954	100	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	5/2 - 5/2	E6,G22
Fe II	1686.455	160	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	7/2 - 7/2	E6,G22
Fe II	1686.692	40	39	$3d^7 - 3d^6(a^3P)4p$	$a^4F - z^2D^\circ$	5/2 - 3/2	E6,G22
Fe II	1688.280	2	102	$3d^7$ -	$a^2G - w^2F^\circ$	7/2 - 7/2	S1
Fe II	1688.401	8	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	5/2 - 7/2	S1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1689.828	200w	85	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 7/2	E6,G22
Fe II	1690.45	0		$3d^7 -$	$d^2D - 18^\circ$?	5/2 - 5/2	J6,K8
Fe II	1690.759	160	85	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 5/2	E6,G22
Fe II	1691.271	160	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	3/2 - 3/2	E6,G22
Fe II	1692.516	1	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	9/2 - 7/2	S1
Fe II	1693.477	10	85	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 3/2	G22
Fe II	1693.61	0		$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - y^2D^\circ$?	7/2 - 5/2	J6,K8
Fe II	1693.936	10	41	$3d^7 - 3d^6(a^3F)4p$	$a^4F - y^4F^\circ$	3/2 - 5/2	E6,G22
Fe II	1696.463	10	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	3/2 - 5/2	S1
Fe II	1696.794	160	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	9/2 - 9/2	E6,G22
Fe II	1697.13	0		$3d^6(a^3F)4p - 3d^6(a^1F)5s$	$y^4F^\circ - f^2F$?	9/2 - 7/2	J6,K8
Fe II	1697.43	1		$3d^6(a^3D)4s -$	$b^4D - 5^\circ$?	5/2 - 7/2	J6,K8
Fe II	1698.190	10	40	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4D^\circ$	5/2 - 7/2	G22
Fe II	1698.43	0		$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4F^\circ$?	5/2 - 7/2	J6,K8
Fe II	1699.193	40	85	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	3/2 - 3/2	E6,G22
Fe II	1701.952	40	85	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4D^\circ$	3/2 - 1/2	G22
Fe II	1702.043	500	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	9/2 - 11/2	E6,G22
Fe II	1702.74	3		$3d^7 - 3d^54s(a^5S)4p$	$a^2D - x^6P^\circ$?	5/2 - 3/2	J6,K8
Fe II	1702.81	3		$3d^7 - 3d^6(a^1D)4p$	$a^2D - w^2P^\circ$?	5/2 - 3/2	J6,K8
Fe II	1704.652	10	39	$3d^7 - 3d^6(a^3P)4p$	$a^4F - z^2D^\circ$	7/2 - 5/2	S1
Fe II	1706.142	20	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	7/2 - 5/2	E6,G22
Fe II	1707.399	40	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	5/2 - 3/2	S1
Fe II	1708.250	20	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	3/2 - 1/2	S1
Fe II	1708.621	160	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	7/2 - 7/2	E6,G22
Fe II	1709.560	10	37	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4P^\circ$	5/2 - 3/2	G22
Fe II	1709.670	300	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	5/2 - 5/2	S1
Fe II	1711.658	1		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4F^\circ$	7/2 - 7/2	S1
Fe II	1712.997	400	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	7/2 - 9/2	E6,G22
Fe II	1713.20	1		$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$?	3/2 - 3/2	J6,K8
Fe II	1715.032	10	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	1/2 - 1/2	S1
Fe II	1715.503	240	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	3/2 - 5/2	S1
Fe II	1716.577	40	39	$3d^7 - 3d^6(a^3P)4p$	$a^4F - z^2D^\circ$	5/2 - 5/2	E6,G22
Fe II	1718.123	40	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	5/2 - 5/2	G22
Fe II	1718.986	20		$3d^7 - 3d^6(a^1D)4p$	$a^2D - w^2D^\circ$	5/2 - 5/2	S1
Fe II	1720.042	200	84	$3d^7 - 3d^6(a^3D)4p$	$a^4P - w^4P^\circ$	1/2 - 3/2	M23,S1
Fe II	1720.616	400	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	5/2 - 7/2	E6,G22
Fe II	1722.425	10		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4F^\circ$	7/2 - 9/2	S1
Fe II	1722.70	1		$3d^6(b^3F)4s -$	$c^4F - 23^\circ$?	5/2 - 3/2	J6,K8
Fe II	1724.572	20		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4F^\circ$	5/2 - 7/2	S1
Fe II	1724.854	160	39	$3d^7 - 3d^6(a^3P)4p$	$a^4F - z^2D^\circ$	3/2 - 5/2	E6,G22
Fe II	1724.966	160	37	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4P^\circ$	7/2 - 5/2	E6,G22
Fe II	1725.402	100	346	$3d^6(a^3D)4s -$	$b^2D - 14^\circ$	5/2 - 5/2	M23
Fe II	1726.391	240	38	$3d^7 - 3d^6(a^3H)4p$	$a^4F - z^4G^\circ$	3/2 - 5/2	E6,G22
Fe II	1726.900	1		$3d^7 -$	$a^2G - w^2H^\circ$	9/2 - 9/2	S1
Fe II	1728.275	1		$3d^6(a^3P)4s - 3d^6(a^1D)4p$	$b^4P - w^2D^\circ$	5/2 - 5/2	S1
Fe II	1728.845	4		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4F^\circ$	3/2 - 5/2	S1
Fe II	1731.038	200	110	$3d^7 - 3d^6(a^1S)4p$	$a^2P - x^2P^\circ$	3/2 - 3/2	M23,S1
Fe II	1731.18	1		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4F^\circ$?	1/2 - 3/2	J6,K8
Fe II	1731.373	20		$3d^7 -$	$a^2G - w^2H^\circ$	9/2 - 11/2	E6,G22
Fe II	1731.891	10		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4G^\circ$	7/2 - 9/2	S1
Fe II	1732.253	300	420	$3d^6(b^3F)4s -$	$c^4F - 20^\circ$	9/2 - 7/2	M23
Fe II	1733.375	4	110	$3d^7 - 3d^6(a^1S)4p$	$a^2P - x^2P^\circ$	1/2 - 1/2	S1
Fe II	1733.87	4		$3d^6(b^3P)4s -$	$c^4P - 20^\circ$?	5/2 - 7/2	J6,K8
Fe II	1735.503	10		$3d^7 - 3d^6(a^1D)4p$	$a^2D - v^2F^\circ$	5/2 - 7/2	S1
Fe II	1736.60	2		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^6F^\circ - f^4F$?	5/2 - 3/2	J6,K8
Fe II	1737.192	6	37	$3d^7 - 3d^6(a^3P)4p$	$a^4F - y^4P^\circ$	5/2 - 5/2	S1
Fe II	1737.943	1d		$3d^6(a^5D)4s - 3d^6(a^3G)4p$	$a^4D - x^4G^\circ$	5/2 - 7/2	S1
Fe II	1744.52	3		$3d^6(a^3G)4s - 3d^6(a^1F)4p$	$a^4G - v^2G^\circ$?	7/2 - 7/2	J6,K8
Fe II	1744.99	0		$3d^6(a^3P)4s - 3d^6(a^1D)4p$	$b^4P - v^2F^\circ$?	5/2 - 7/2	J6,K8
Fe II	1746.818	300	101	$3d^7 - 3d^6(a^1G)4p$	$a^2G - w^2G^\circ$	9/2 - 9/2	S1
Fe II	1748.910	6		$3d^7 - 3d^6(a^1D)4p$	$a^2D - w^2D^\circ$	3/2 - 3/2	S1
Fe II	1749.136	20		$3d^7 - 3d^6(a^3D)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	G22
Fe II	1749.60	2		$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - y^2G^\circ$?	7/2 - 7/2	J6,K8
Fe II	1760.350	1d		$3d^7 - 3d^6(a^3D)4p$	$a^2G - w^4D^\circ$?	9/2 - 7/2	S1
Fe II	1760.415	400	100	$3d^7 - 3d^6(a^3D)4p$	$a^2G - w^4F^\circ$	9/2 - 9/2	M23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1761.379	500	101	$3d^7 - 3d^6(a^1G)4p$	$a^2G - w^2G^\circ$	7/2 - 7/2	M23,S1
Fe II	1764.117	20		$3d^7 - 3d^6(a^3D)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	E6,G22
Fe II	1765.325	10		$3d^7 - 3d^6(a^3D)4p$	$a^2G - x^2F^\circ$	7/2 - 7/2	G22
Fe II	1767.71	1		$3d^6(a^3D)4s - 3d^6(b^3F)4p$	$b^2D - u^2D^\circ$?	3/2 - 5/2	J6,K8
Fe II	1769.667	20	100	$3d^7 - 3d^6(a^3D)4p$	$a^2G - w^4F^\circ$	9/2 - 7/2	M23
Fe II	1771.93	0		$3d^7 - 3d^6(a^1D)4p$	$a^2D - v^2F^\circ$?	3/2 - 5/2	J6,K8
Fe II	1772.509	300	99	$3d^7$ -	$a^2G - x^2H^\circ$	9/2 - 11/2	E6,G22
Fe II	1773.17	2		$3d^7$ -	$b^2F - 1^\circ$?	5/2 - 7/2	J6,K8
Fe II	1776.661	20	99	$3d^7$ -	$a^2G - x^2H^\circ$	9/2 - 9/2	G22
Fe II	1777.45	0		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4F^\circ - e^2F$?	9/2 - 7/2	J6,K8
Fe II	1777.900	4		$3d^7 - 3d^6(a^3D)4p$	$a^2P - x^2D^\circ$	3/2 - 5/2	S1
Fe II	1780.99	2		$3d^6(a^3D)4s - 3d^6(a^5D)5p$	$b^4D - y^6F^\circ$?	5/2 - 7/2	J6,K8
Fe II	1781.336	4		$3d^7 - 3d^6(a^3D)4p$	$a^2P - x^2D^\circ$	3/2 - 3/2	S1
Fe II	1781.529	20		$3d^7 - 3d^6(a^3G)4p$	$a^4P - y^2F^\circ$?	5/2 - 7/2	G22
Fe II	1781.702	40	67	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - z^2P^\circ$	3/2 - 1/2	M23
Fe II	1785.262	800	191	$3d^54s^2 - 3d^54s(a^5S)4p$	$a^6S - x^6P^\circ$	5/2 - 7/2	G22
Fe II	1786.448	20		$3d^7 - 3d^6(a^3G)4p$	$a^4P - y^2F^\circ$	3/2 - 5/2	G22
Fe II	1786.738	800	191	$3d^54s^2 - 3d^54s(a^5S)4p$	$a^6S - x^6P^\circ$	5/2 - 5/2	G22
Fe II	1788.072	700	191	$3d^54s^2 - 3d^54s(a^5S)4p$	$a^6S - x^6P^\circ$	5/2 - 3/2	E6,G22
Fe II	1789.83	2		$3d^7 - 3d^6(a^3D)4p$	$a^2G - w^4F^\circ$?	7/2 - 5/2	J6,K8
Fe II	1793.367	200	99	$3d^7$ -	$a^2G - x^2H^\circ$	7/2 - 9/2	E6,G22
Fe II	1794.77	1		$3d^6(a^3G)4s - 3d^6(a^1F)4p$	$b^2G - u^2F^\circ$?	7/2 - 7/2	J6,K8
Fe II	1795.11	2		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4D^\circ - e^2F$?	5/2 - 7/2	J6,K8
Fe II	1796.931	40		$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - y^4G^\circ$?	5/2 - 7/2	S1,M22
Fe II	1798.156	200	142	$3d^7 - 3d^6(a^1S)4p$	$a^2D - x^2P^\circ$	5/2 - 3/2	S1
Fe II	1800.45	0		$3d^6(a^3D)4s - 3d^6(b^3P)4p$	$b^4D - v^4D^\circ$?	5/2 - 7/2	J6,K8
Fe II	1801.13	1		$3d^7 - 3d^54s(a^5S)4p$	$a^4P - x^4P^\circ$?	1/2 - 1/2	J6,K8
Fe II	1804.17	2		$3d^7 - 3d^54s(a^5S)4p$	$a^4P - x^4P^\circ$?	3/2 - 5/2	J6,K8
Fe II	1804.65	1		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4F^\circ - e^2F$?	5/2 - 7/2	J6,K8
Fe II	1804.98	1		$3d^6(a^3D)4s - 3d^6(b^3P)4p$	$b^4D - v^4D^\circ$?	3/2 - 5/2	J6,K8
Fe II	1807.746	10	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	7/2 - 5/2	S1
Fe II	1809.316	200	142	$3d^7 - 3d^6(a^1S)4p$	$a^2D - x^2P^\circ$	3/2 - 1/2	M23,S1
Fe II	1810.53	3		$3d^6(a^1D)4s - 3d^6(b^3F)4p$	$c^2D - u^4F^\circ$?	5/2 - 5/2	J6,K8
Fe II	1813.99	1		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4D^\circ - f^4F$?	7/2 - 9/2	J6,K8
Fe II	1815.406	10		$3d^7$ -	$a^2D - w^2F^\circ$	5/2 - 7/2	G22
Fe II	1815.761	4	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	5/2 - 3/2	S1
Fe II	1815.87	0		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4F^\circ - f^4F$?	7/2 - 5/2	J6,K8
Fe II	1818.509	40	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	7/2 - 7/2	G22
Fe II	1819.65	0		$3d^7 - 3d^6(b^3P)4p$	$b^2F - v^4D^\circ$?	5/2 - 5/2	J6,K8
Fe II	1822.150	20	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	5/2 - 5/2	G22
Fe II	1823.888	20		$3d^7 - 3d^6(a^3D)4p$	$a^2P - y^2P^\circ$	3/2 - 3/2	G22
Fe II	1824.98	0		$3d^7$ -	$a^2H - w^2F^\circ$?	9/2 - 7/2	J6,K8
Fe II	1825.316	8	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	3/2 - 3/2	S1
Fe II	1826.991	20	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	7/2 - 5/2	G22
Fe II	1827.736	4	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	1/2 - 1/2	S1
Fe II	1830.47	3		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4F^\circ - f^4F$?	3/2 - 3/2	J6,K8
Fe II	1830.861	4	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	1/2 - 3/2	S1
Fe II	1831.261	20		$3d^7$ -	$a^2D - w^2F^\circ$	3/2 - 5/2	G22
Fe II	1831.724	20	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	3/2 - 5/2	G22
Fe II	1832.494	6	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	5/2 - 3/2	S1
Fe II	1833.071	10	66	$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - x^4D^\circ$	5/2 - 7/2	G22
Fe II	1833.27	1		$3d^7 - 3d^6(a^1F)4p$	$b^2F - u^2F^\circ$?	7/2 - 5/2	J6,K8
Fe II	1833.64	6		$3d^6(a^5D)4p - 3d^6(a^3F)5s$	$z^4F^\circ - f^4F$?	3/2 - 5/2	J6,K8
Fe II	1835.42	2		$3d^7 - 3d^6(a^1F)4p$	$b^2F - u^2F^\circ$?	7/2 - 7/2	J6,K8
Fe II	1835.874	300	98	$3d^7 - 3d^6(a^3G)4p$	$a^2G - x^2G^\circ$	9/2 - 9/2	E6,G22
Fe II	1841.60	0		$3d^7 - 3d^6(a^3D)4p$	$a^2P - y^2P^\circ$?	1/2 - 1/2	J6,K8
Fe II	1841.701	200h	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	5/2 - 5/2	E6,G22
Fe II	1841.988	20w		$3d^6(a^3P)4s - 3d^6(a^1D)4p$	$b^2P - 2^\circ$?	1/2 - 1/2	S1,K8
Fe II	1842.256	10	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	3/2 - 3/2	G22
Fe II	1844.590	100h	397	$3d^6(a^5D)4p - 3d^6(a^3H)5s$	$z^4F^\circ - e^4H$	9/2 - 9/2	M23
Fe II	1846.27	4		$3d^7 - 3d^6(a^3D)4p$	$a^2P - w^4D^\circ$?	3/2 - 3/2	J6,K8
Fe II	1846.573	240	98	$3d^7 - 3d^6(a^3G)4p$	$a^2G - x^2G^\circ$	7/2 - 7/2	E6,G22
Fe II	1847.893	10	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	1/2 - 3/2	S1
Fe II	1848.231	100	7	$3d^6(a^5D)4s - 3d^54s(a^7S)4p$	$ga^6D - z^8P^\circ$	7/2 - 5/2	M23
Fe II	1848.771	240	141	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2D^\circ$	5/2 - 5/2	E6,G22

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1851.517	20	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	3/2 - 5/2	G22
Fe II	1852.458	10d	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	1/2 - 1/2	S1
Fe II	1853.754	6		$3d^7 - 3d^6(a^3G)4p$	$a^2G - x^2G^\circ$	7/2 - 9/2	S1
Fe II	1856.928	1		$3d^7 - 3d^6(a^3D)4p$	$a^2P - w^4P^\circ$	3/2 - 1/2	S1
Fe II	1857.935	240	7	$3d^6(a^5D)4s - 3d^54s(a^7S)4p$	$ga^6D - z^8P^\circ$	5/2 - 5/2	M23
Fe II	1859.741	300	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	7/2 - 7/2	E6,G22
Fe II	1860.055	400	97	$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2F^\circ$	9/2 - 7/2	E6,G22
Fe II	1862.774	8		$3d^7 - 3d^6(a^3D)4p$	$a^2P - w^4P^\circ$	3/2 - 3/2	S1
Fe II	1864.656	40	126	$3d^7 - 3d^6(a^1I)4p$	$a^2H - y^2I^\circ$	11/2 - 11/2	M23
Fe II	1864.743	400	126	$3d^7 - 3d^6(a^1I)4p$	$a^2H - y^2I^\circ$	11/2 - 13/2	M23
Fe II	1869.56	3		$3d^6(a^5D)4p - 3d^6(a^3H)5s$	$z^4F^\circ - e^4H$?	5/2 - 7/2	J6,K8
Fe II	1870.72	1		$3d^6(a^3P)4s - 3d^6(a^1D)4p$	$b^2P - w^2P^\circ$?	3/2 - 3/2	J6,K8
Fe II	1872.65	2		$3d^6(a^5D)4s - 3d^6(a^3F)4p$	$a^4D - y^4F^\circ$?	1/2 - 3/2	J6,K8
Fe II	1874.931	10	65	$3d^6(a^5D)4s - 3d^6(a^3P)4p$	$a^4D - y^4D^\circ$	5/2 - 7/2	G22
Fe II	1875.43	0		$3d^6(b^3F)4s -$	$d^2F - 23^\circ$?	5/2 - 3/2	J6,K8
Fe II	1875.536	300	345	$3d^6(a^3D)4s -$	$b^2D - 3^\circ$	3/2 - 5/2	M23
Fe II	1876.181	160h	141	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2D^\circ$	3/2 - 5/2	E6,G22
Fe II	1876.838	300	97	$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2F^\circ$	7/2 - 5/2	E6,G22
Fe II	1877.467	400	125	$3d^7 -$	$a^2H - w^2H^\circ$	11/2 - 11/2	E6,G22
Fe II	1878.39	0		$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2F^\circ$?	7/2 - 7/2	J6,K8
Fe II	1880.046	40	141	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2D^\circ$	3/2 - 3/2	G22
Fe II	1880.976	400	126	$3d^7 - 3d^6(a^1I)4p$	$a^2H - y^2I^\circ$	9/2 - 11/2	M23
Fe II	1888.733	400	125	$3d^7 -$	$a^2H - w^2H^\circ$	9/2 - 9/2	E6,G22
Fe II	1894.006	200w	125	$3d^7 -$	$a^2H - w^2H^\circ$	9/2 - 11/2	G22
Fe II	1895.675	200	124	$3d^7 - 3d^6(a^1G)4p$	$a^2H - w^2G^\circ$	11/2 - 9/2	M23
Fe II	1898.538	200	140	$3d^7 - 3d^6(a^3D)4p$	$a^2D - y^2P^\circ$	5/2 - 3/2	G22
Fe II	1900.667	10	362	$3d^6(a^1D)4s -$	$c^2D - 8^\circ$	3/2 - 3/2	M23
Fe II	1903.370	20b	139	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2F^\circ$	5/2 - 5/2	G22
Fe II	1904.784	300	139	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	E6,G22
Fe II	1909.95	1		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - y^2P^\circ$?	5/2 - 3/2	J6,K8
Fe II	1910.150	20		$3d^6(a^3H)4s -$	$a^4H - w^2H^\circ$	13/2 - 11/2	G22
Fe II	1910.669	160	124	$3d^7 - 3d^6(a^1G)4p$	$a^2H - w^2G^\circ$	9/2 - 7/2	M23
Fe II	1912.582	2	124	$3d^7 - 3d^6(a^1G)4p$	$a^2H - w^2G^\circ$	9/2 - 9/2	S1
Fe II	1917.337	300w	96	$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2H^\circ$	9/2 - 9/2	G22
Fe II	1918.114	40	138	$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4D^\circ$	5/2 - 7/2	G22
Fe II	1922.234	10		$3d^6(a^3H)4s -$	$a^4H - w^2H^\circ$	9/2 - 11/2	G22
Fe II	1922.797	400w	138	$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4D^\circ$	5/2 - 3/2	G22
Fe II	1925.983	400w	123	$3d^7 -$	$a^2H - x^2H^\circ$	11/2 - 11/2	E6,G22
Fe II	1927.481	20w	140	$3d^7 - 3d^6(a^3D)4p$	$a^2D - y^2P^\circ$	3/2 - 3/2	G22
Fe II	1929.194	20		$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4F^\circ$	5/2 - 7/2	G22
Fe II	1930.888	20b		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - w^4D^\circ$	5/2 - 5/2	S1
Fe II	1932.477	300	139	$3d^7 - 3d^6(a^3D)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	G22
Fe II	1933.451	10d		$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4F^\circ$	5/2 - 5/2	S1
Fe II	1934.475	1d		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - w^4D^\circ$	5/2 - 3/2	S1
Fe II	1935.296	300	96	$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2H^\circ$	9/2 - 11/2	G22
Fe II	1935.45	0		$3d^6(a^3F)4s - 3d^6(a^3D)4p$	$b^4F - x^2D^\circ$?	5/2 - 5/2	J6,K8
Fe II	1936.799	400	96	$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^2H^\circ$	7/2 - 9/2	E6,G22
Fe II	1938.899	160b	188	$3d^6(a^3F)4s - 3d^6(a^3D)4p$	$b^4F - x^2D^\circ$	3/2 - 5/2	G22
Fe II	1941.99	2		$3d^7 - 3d^6(a^1F)4p$	$b^2F - v^2G^\circ$?	5/2 - 7/2	J6,K8
Fe II	1946.429	2		$3d^6(a^3F)4s - 3d^6(a^1D)4p$	$a^2F - w^2D^\circ$	7/2 - 5/2	S1
Fe II	1946.85	2		$3d^6(a^1F)4s - 3d^6(b^3F)4p$	$c^2F - t^2F^\circ$?	7/2 - 5/2	J6,K8
Fe II	1948.372	200w	123	$3d^7 -$	$a^2H - x^2H^\circ$	9/2 - 9/2	G22
Fe II	1955.639	20		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - w^4P^\circ$	5/2 - 5/2	S1
Fe II	1956.085	10d	138	$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4D^\circ$	3/2 - 1/2	S1
Fe II	1958.086	5		$3d^6(a^3F)4s - 3d^6(a^1D)4p$	$a^2F - w^2D^\circ$	5/2 - 5/2	S1
Fe II	1958.121	100	170	$3d^6(a^3H)4s - 3d^6(a^3D)4p$	$a^4H - w^4D^\circ$	9/2 - 7/2	G22
Fe II	1962.071	1		$3d^6(a^3F)4s -$	$b^4F - w^2H^\circ$	9/2 - 11/2	S1
Fe II	1963.110	500b	170	$3d^6(a^3H)4s - 3d^6(a^3D)4p$	$a^4H - w^4D^\circ$	7/2 - 7/2	G22
Fe II	1964.342	240	170	$3d^6(a^3H)4s - 3d^6(a^3D)4p$	$a^4H - w^4D^\circ$	7/2 - 5/2	E6,G22
Fe II	1967.670	1		$3d^6(a^3F)4s - 3d^6(a^1D)4p$	$a^2F - v^2F^\circ$	7/2 - 7/2	S1
Fe II	1968.060	20		$3d^7 - 3d^6(a^3F)4p$	$a^4P - z^2F^\circ$	5/2 - 7/2	S1
Fe II	1968.210	1		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - w^4D^\circ$	3/2 - 5/2	S1
Fe II	1968.872	20d		$3d^6(a^3P)4s - 3d^6(a^1S)4p$	$b^2P - x^2P^\circ$	3/2 - 1/2	S1
Fe II	1970.329	2		$3d^7 - 3d^6(a^3F)4p$	$a^4P - z^2F^\circ$	3/2 - 5/2	S1
Fe II	1970.680	20		$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^4H^\circ$	9/2 - 9/2	S1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe II	1970.989	1d		$3d^7 - 3d^6(a^3D)4p$	$a^2D - w^4P^\circ$	3/2 - 3/2	S1
Fe II	1974.489	1		$3d^7 - 3d^6(a^1I)4p$	$a^2H - z^2K^\circ$	11/2 - 13/2	S1
Fe II	1975.542	20		$3d^7 - 3d^6(a^3G)4p$	$a^2G - y^4H^\circ$	9/2 - 11/2	G22
Fe II	1983.05	0		$3d^6(a^3F)4s - 3d^6(a^1D)4p$	$a^2F - v^2F^\circ$?	7/2 - 5/2	J6,K8
Fe II	1984.94	0		$3d^6(a^3F)4s - 3d^6(a^3D)4p$	$b^4F - x^2F^\circ$?	9/2 - 7/2	J6,K8
Fe II	1986.423	40		$3d^6(a^3P)4s - 3d^6(a^1S)4p$	$b^2P - x^2P^\circ$	3/2 - 3/2	S1
Fe II	1990.805	1		$3d^6(a^3P)4s - 3d^6(a^3D)4p$	$b^4P - w^4P^\circ$	3/2 - 3/2	S1
Fe II	1993.289	160w	95	$3d^7 - 3d^6(a^3G)4p$	$a^2G - x^4F^\circ$	9/2 - 9/2	G22
Fe II	1994.857	400	228	$3d^6(a^3P)4s -$	$b^2P - w^2F^\circ$?	3/2 - 5/2	G22
Fe II	1997.034	4d		$3d^6(a^3G)4s - 3d^6(a^1S)4p$	$a^4G - x^2P^\circ$	5/2 - 3/2	S1
Fe II	1999.430	200	187	$3d^6(a^3F)4s - 3d^6(a^3D)4p$	$b^4F - w^4D^\circ$	9/2 - 7/2	G22
Fe II	1999.462	150	186	$3d^6(a^3F)4s - 3d^6(a^3D)4p$	$b^4F - w^4F^\circ$	9/2 - 9/2	G22,J6
Fe II	1999.727	20		$3d^7 - 3d^6(a^3G)4p$	$a^2D - x^2G^\circ$	5/2 - 7/2	G22

IRON III (Fe^{2+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d^6\ ^5D_4$ (24 electrons)

Ionization Potential 247 221 cm^{-1}; 30.651 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	679.129	200		$3d^6 - 3d^5(b^2G)4p$	$a^3H - t^3G^\circ$	6 - 5	E25
Fe III	680.700	150		$3d^6 - 3d^5(b^2G)4p$	$a^3H - t^3G^\circ$	5 - 4	E25
Fe III	682.10	150		$3d^6 - 3d^5(b^2G)4p$	$a^3H - t^3G^\circ$	4 - 3	E25
Fe III	684.28	70		$3d^6 - 3d^5(b^2G)4p$	$a^3H - v^3H^\circ$	6 - 6	E25
Fe III	684.858	70		$3d^6 - 3d^5(b^2G)4p$	$a^3H - r^3F^\circ$	4 - 3	E25
Fe III	686.63	70		$3d^6 - 3d^5(b^2G)4p$	$a^3H - v^3H^\circ$	5 - 5	E25
Fe III	688.53	20		$3d^6 - 3d^5(b^2G)4p$	$a^3H - v^3H^\circ$	4 - 4	E25
Fe III	700.575	70		$3d^6 - 3d^5(b^2G)4p$	$a^3G - t^3G^\circ$	5 - 5	E25
Fe III	703.506	70		$3d^6 - 3d^5(b^2G)4p$	$a^3G - t^3G^\circ$	4 - 3	E25
Fe III	704.923	70		$3d^6 - 3d^5(b^2G)4p$	$a^3G - r^3F^\circ$	3 - 2	E25
Fe III	705.892	150		$3d^6 - 3d^5(b^2G)4p$	$a^3G - r^3F^\circ$	5 - 4	E25
Fe III	707.444	70		$3d^6 - 3d^5(b^2G)4p$	$a^3G - r^3F^\circ$	3 - 3	E25
Fe III	722.419	250		$3d^6 - 3d^5(b^2G)4p$	$a^1I - w^1H^\circ$	6 - 5	E25
Fe III	727.681	200	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	4 - 3	E25
Fe III	728.52	70		$3d^6 - 3d^5(b^2D)4p$	$a^3F - t^3D^\circ$	4 - 3	E25
Fe III	728.810	400	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	4 - 4	E25
Fe III	729.349	200	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	3 - 2	E25
Fe III	729.996	300	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	3 - 3	E25
Fe III	730.96	150	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	2 - 2	E25
Fe III	731.130	70	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	3 - 4	E25
Fe III	731.443	70		$3d^6 - 3d^5(b^2D)4p$	$a^3F - t^3D^\circ$	3 - 2	E25
Fe III	731.612	150	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	2 - 3	E25
Fe III	731.846	150	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	1 - 0	E25
Fe III	731.90	70	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	1 - 1	E25
Fe III	732.004	200	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	1 - 2	E25
Fe III	732.425	150	8	$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5D^\circ$	0 - 1	E25
Fe III	733.13	70		$3d^6 - 3d^5(b^2D)4p$	$a^3F - t^3D^\circ$	2 - 1	E25
Fe III	734.296	250		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	4 - 5	E25
Fe III	735.338	70		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	4 - 4	E25
Fe III	736.47	20		$3d^6 - 3d^5(b^2G)4p$	$a^3D - r^3F^\circ$	2 - 3	E25
Fe III	737.708	300		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	3 - 4	E25
Fe III	738.742	70		$3d^6 - 3d^5(b^2G)4p$	$a^3D - r^3F^\circ$	3 - 4	E25
Fe III	739.264	300		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	2 - 3	E25
Fe III	739.594	150		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	0 - 1	E25
Fe III	739.724	250		$3d^6 - 3d^5(a^4F)4p$	$ga^5D - x^5F^\circ$	1 - 2	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	746.247	200		$3d^6 - 3d^5(b^2D)4p$	$a^3G - s^3F^\circ$	5 - 4	E25
Fe III	751.427	150					E25
Fe III	751.648	150		$3d^6 - 3d^5(b^2D)4p$	$a^3G - s^3F^\circ$	4 - 3	E25
Fe III	754.478	150		$3d^6 - 3d^5(b^2D)4p$	$a^3G - s^3F^\circ$	3 - 2	E25
Fe III	757.167	150		$3d^6 - 3d^5(a^2D)4p$	$ga^5D - x^3F^\circ$?	4 - 3	E25
Fe III	757.279	150					E25
Fe III	776.097	150		$3d^6 - 3d^5(a^2S)4p$	$a^3P - w^3P^\circ$?	1 - 2	E25
Fe III	782.035	200		$3d^6 - 3d^5(b^2D)4p$	$a^3D - t^3D^\circ$	3 - 3	E25
Fe III	783.069	200		$3d^6 - 3d^5(b^2D)4p$	$a^3D - s^3F^\circ$	3 - 4	E25
Fe III	785.76	70		$3d^6 - 3d^5(b^2D)4p$	$a^3D - s^3F^\circ$	2 - 3	E25
Fe III	792.559	200		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D^\circ$	4 - 3	E25
Fe III	794.01	70		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3G^\circ$	4 - 5	E25
Fe III	794.19	150		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D^\circ$	3 - 2	E25
Fe III	795.550	150		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3D^\circ$	2 - 1	E25
Fe III	797.055	150		$3d^6 - 3d^5(b^2F)4p$	$a^3F - u^3G^\circ$	3 - 4	E25
Fe III	797.16	150		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^3F^\circ$	4 - 4	E25
Fe III	801.32	70		$3d^6 - 3d^5(a^2H)4p$	$a^3H - x^1H^\circ$	6 - 5	E25
Fe III	807.547	600	19	$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G^\circ$	6 - 5	E25
Fe III	807.855	550	19	$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G^\circ$	5 - 4	E25
Fe III	808.079	300	7	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	4 - 3	E25
Fe III	808.840	550	19	$3d^6 - 3d^5(a^2G)4p$	$a^3H - v^3G^\circ$	4 - 3	E25
Fe III	809.675	200		$3d^6 - 3d^5(a^2H)4p$	$a^3F - x^1G^\circ$	4 - 4	E25
Fe III	810.940	450	7	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	3 - 3	E25
Fe III	811.246	250		$3d^6 - 3d^5(a^2H)4p$	$a^3F - x^1G^\circ$	3 - 4	E25
Fe III	811.284	550	7	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	3 - 2	E25
Fe III	812.931	300		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	2 - 3	E25
Fe III	813.288	250	7	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	2 - 2	E25
Fe III	813.382	650	6	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	4 - 4	E25
Fe III	813.862	300		$3d^6 - 3d^5(b^2F)4p$	$a^3F - t^3F^\circ$	4 - 4	E25
Fe III	814.148	70		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	4 - 3	E25
Fe III	814.242	400	7	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	2 - 1	E25
Fe III	814.565	300		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	1 - 2	E25
Fe III	815.363	200		$3d^6 - 3d^5(b^2F)4p$	$a^3F - t^3F^\circ$	2 - 2	E25
Fe III	815.52	70		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - x^5P^\circ$	1 - 1	E25
Fe III	815.612	200		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3H^\circ$	5 - 5	E25
Fe III	816.163	400	6	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	1 - 0	E25
Fe III	816.273	400	6	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	3 - 4	E25
Fe III	817.038	450	6	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	3 - 3	E25
Fe III	817.166	200		$3d^6 - 3d^5(a^2H)4p$	$a^3H - w^3H^\circ$	4 - 4	E25
Fe III	817.348	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	4 - 3	E25
Fe III	818.383	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	3 - 2	E25
Fe III	818.598	250	6	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	2 - 2	E25
Fe III	818.981	70		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	2 - 1	E25
Fe III	819.066	250		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	2 - 3	E25
Fe III	819.742	70		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	1 - 1	E25
Fe III	819.898	200		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5D^\circ$	1 - 2	E25
Fe III	820.271	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	3 - 3	E25
Fe III	820.409	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	2 - 2	E25
Fe III	820.915	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	0 - 1	E25
Fe III	821.723	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	1 - 2	E25
Fe III	822.314	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3D^\circ$	2 - 3	E25
Fe III	823.257	400	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	4 - 5	E25
Fe III	824.800	200	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	4 - 4	E25
Fe III	827.777	400	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	3 - 4	E25
Fe III	829.375	250	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	3 - 3	E25
Fe III	830.500	70		$3d^6 - 3d^5(a^2H)4p$	$a^3G - x^1G^\circ$	5 - 4	E25
Fe III	831.464	300	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	2 - 3	E25
Fe III	832.328	300	18	$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	6 - 7	E25
Fe III	833.532	150		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^1F^\circ$	4 - 3	E25
Fe III	834.067	250	5	$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	1 - 2	E25
Fe III	834.944	400	43	$3d^6 - 3d^5(b^2F)4p$	$a^1G - w^1F^\circ$	4 - 3	E25
Fe III	835.627	150		$3d^6 - 3d^5(a^4D)4p$	$ga^5D - y^5F^\circ$	0 - 1	E25
Fe III	835.917	150		$3d^6 - 3d^5(b^2F)4p$	$a^3G - t^3F^\circ$	4 - 3	E25
Fe III	836.521	450	18	$3d^6 - 3d^5(a^4F)4p$	$a^3F - v^3D^\circ$	2 - 2	E25
Fe III	836.628	200	33	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	5 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	837.439	450	17	$3d^6 - 3d^5(a^4F)4p$	$a^3H - w^3G^\circ$	6 - 5	E25
Fe III	837.803	200		$3d^6 - 3d^5(b^2F)4p$	$a^3G - t^3F^\circ$	3 - 2	E25
Fe III	838.048	550	17	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	5 - 5	E25
Fe III	838.498	150		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3P^\circ$	3 - 2	E25
Fe III	838.869	150	18	$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	5 - 5	E25
Fe III	838.936	300	17	$3d^6 - 3d^5(a^4F)4p$	$a^3H - w^3G^\circ$	4 - 3	E25
Fe III	838.997	250		$3d^6 - 3d^5(b^2F)4p$	$a^3G - t^3F^\circ$?	3 - 4	E25
Fe III	839.092	150	33	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 3	E25
Fe III	839.195	150	17	$3d^6 - 3d^5(a^4F)4p$	$a^3H - w^3G^\circ$	5 - 5	E25
Fe III	839.319	300	17	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 4	E25
Fe III	839.981	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3P^\circ$	1 - 1	E25
Fe III	840.141	250	18	$3d^6 - 3d^5(a^2H)4p$	$a^3H - y^3I^\circ$	4 - 5	E25
Fe III	840.381	300	25	$3d^6 - 3d^5(a^2G)4p$	$a^3F - v^3F^\circ$	3 - 3	E25
Fe III	840.518	250	33	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	3 - 3	E25
Fe III	840.629	200		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^3P^\circ$	2 - 2	E25
Fe III	840.741	150	33	$3d^6 - 3d^5(a^2G)4p$	$a^3G - v^3G^\circ$	4 - 5	E25
Fe III	841.088	300	25	$3d^6 - 3d^5(a^2G)4p$	$a^3F - v^3F^\circ$	2 - 2	E25
Fe III	841.688	150		$3d^6 - 3d^5(a^2S)4p$	$a^3D - w^3P^\circ$	2 - 2	E25
Fe III	842.020	400	32	$3d^6 - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	5 - 6	E25
Fe III	842.09	300		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^1F^\circ$	3 - 3	E25
Fe III	842.686	300		$3d^6 - 3d^5(a^2S)4p$	$a^3D - w^3P^\circ$	3 - 2	E25
Fe III	844.284	650	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	4 - 3	E25
Fe III	844.838	250		$3d^6 - 3d^5(a^2G)4p$	$a^3F - y^1G^\circ$	4 - 4	E25
Fe III	844.954	150	32	$3d^6 - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	5 - 5	E25
Fe III	845.408	600	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	3 - 2	E25
Fe III	845.686	70		$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^3F^\circ$	4 - 3	E25
Fe III	845.925	450	16	$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	6 - 6	E25
Fe III	846.035	200		$3d^6 - 3d^5(a^2S)4p$	$a^3D - w^3P^\circ$	2 - 1	E25
Fe III	846.089	150		$3d^6 - 3d^5(a^2S)4p$	$a^3D - w^3P^\circ$	1 - 1	E25
Fe III	846.534	400	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	2 - 1	E25
Fe III	847.425	550		$3d^6 - 3d^5(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	E25
Fe III	847.578	450	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	2 - 2	E25
Fe III	847.700	400	32	$3d^6 - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	4 - 5	E25
Fe III	847.924	400	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	1 - 1	E25
Fe III	847.984	300		$3d^6 - 3d^5(a^4F)4p$	$a^3F - w^3G^\circ$	3 - 4	E25
Fe III	848.07	70	32	$3d^6 - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	4 - 4	E25
Fe III	848.601	250	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	0 - 1	E25
Fe III	848.729	250		$3d^6 - 3d^5(a^4F)4p$	$a^3F - w^3G^\circ$	2 - 3	E25
Fe III	848.977	200	4	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - y^5P^\circ$	1 - 2	E25
Fe III	849.524	300	32	$3d^6 - 3d^5(a^2H)4p$	$a^3G - w^3H^\circ$	3 - 4	E25
Fe III	849.569	250		$3d^6 - 3d^5(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	E25
Fe III	851.150	450	31	$3d^6 - 3d^5(a^4F)4p$	$a^3G - u^3F^\circ$	5 - 4	E25
Fe III	851.332	450	16	$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	5 - 5	E25
Fe III	851.842	400	31	$3d^6 - 3d^5(a^4F)4p$	$a^3G - u^3F^\circ$	3 - 2	E25
Fe III	851.992	400	31	$3d^6 - 3d^5(a^4F)4p$	$a^3G - u^3F^\circ$	4 - 3	E25
Fe III	852.644	150	16	$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	4 - 5	E25
Fe III	853.045	70	16	$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	5 - 4	E25
Fe III	853.456	70	31	$3d^6 - 3d^5(a^4F)4p$	$a^3G - u^3F^\circ$	3 - 3	E25
Fe III	854.073	300	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	3 - 4	E25
Fe III	854.205	70	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	4 - 3	E25
Fe III	854.367	400	16	$3d^6 - 3d^5(a^2G)4p$	$a^3H - x^3H^\circ$	4 - 4	E25
Fe III	854.532	150		$3d^6 - 3d^5(b^2G)4p$	$b^3F - t^3G^\circ$	4 - 5	E25
Fe III	855.336	70		$3d^6 - 3d^5(b^2G)4p$	$b^3F - t^3G^\circ$	3 - 4	E25
Fe III	855.441	200		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	2 - 2	E25
Fe III	855.879	150		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	2 - 1	E25
Fe III	855.935	150		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	1 - 1	E25
Fe III	856.039	150		$3d^6 - 3d^5(b^2G)4p$	$b^3F - r^3F^\circ$	2 - 2	E25
Fe III	856.244	70		$3d^6 - 3d^5(b^2G)4p$	$b^3F - t^3G^\circ$	3 - 3	E25
Fe III	856.325	300		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	3 - 3	E25
Fe III	856.480	70		$3d^6 - 3d^5(b^2F)4p$	$a^3D - u^3D^\circ$	3 - 2	E25
Fe III	857.392	300	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	3 - 3	E25
Fe III	857.690	300		$3d^6 - 3d^5(a^2H)4p$	$a^3F - x^3G^\circ$	4 - 5	E25
Fe III	858.565	250	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	4 - 3	E25
Fe III	858.602	400	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	4 - 4	E25
Fe III	859.086	200		$3d^6 - 3d^5(a^2H)4p$	$a^3F - x^3G^\circ$	3 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	859.626	400	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	2 - 3	E25
Fe III	859.721	550	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	4 - 5	E25
Fe III	859.838	400	11	$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	2 - 3	E25
Fe III	860.315	300	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	2 - 2	E25
Fe III	860.565	150		$3d^6 - 3d^5(b^2G)4p$	$b^3F - r^3F^\circ$	3 - 3	E25
Fe III	860.889	150		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5S^\circ$	2 - 2	E25
Fe III	861.087	150		$3d^6 - 3d^5(a^4F)4p$	$a^3H - x^5F^\circ$	6 - 5	E25
Fe III	861.284	250	11	$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	1 - 2	E25
Fe III	861.761	550	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	1 - 2	E25
Fe III	861.832	650	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	3 - 4	E25
Fe III	862.028	300	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	1 - 1	E25
Fe III	862.191	150	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	3 - 2	E25
Fe III	862.326	150		$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5S^\circ$	1 - 2	E25
Fe III	862.468	200		$3d^6 - 3d^5(b^2G)4p$	$b^3F - r^3F^\circ$	4 - 4	E25
Fe III	862.735	300	2	$3d^6 - 3d^5(a^4G)4p$	$ga^5D - z^5F^\circ$	0 - 1	E25
Fe III	863.004	70		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3D^\circ$	2 - 2	E25
Fe III	863.232	250		$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3F^\circ$	1 - 2	E25
Fe III	863.302	250		$3d^6 - 3d^5(a^2S)4p$	$a^1D - y^1P^\circ$	2 - 1	E25
Fe III	863.730	70	11	$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	1 - 1	E25
Fe III	864.034	400	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	2 - 3	E25
Fe III	864.375	150		$3d^6 - 3d^5(a^4F)4p$	$a^3H - y^5G^\circ$	6 - 6	E25
Fe III	864.425	250	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	2 - 2	E25
Fe III	865.267	70		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3D^\circ$	2 - 3	E25
Fe III	865.896	250	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	1 - 2	E25
Fe III	866.905	70	3	$3d^6 - 3d^5(a^4P)4p$	$ga^5D - z^5D^\circ$	0 - 1	E25
Fe III	867.639	300	11	$3d^6 - 3d^5(a^2F)4p$	$a^3P - w^3D^\circ$	0 - 1	E25
Fe III	868.450	250		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	4 - 4	E25
Fe III	868.836	300		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 3	E25
Fe III	870.041	200		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3D^\circ$	2 - 2	E25
Fe III	870.235	150		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	3 - 4	E25
Fe III	870.274	150		$3d^6 - 3d^5(a^4F)4p$	$a^3G - w^3G^\circ$	5 - 5	E25
Fe III	870.621	300		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	2 - 2	E25
Fe III	871.552	150		$3d^6 - 3d^5(a^2D)4p$	$a^3F - z^1F^\circ$	4 - 3	E25
Fe III	871.968	250		$3d^6 - 3d^5(a^4F)4p$	$a^3G - w^3G^\circ$	4 - 4	E25
Fe III	872.027	250		$3d^6 - 3d^5(a^2F)4p$	$a^3F - w^3F^\circ$	2 - 2	E25
Fe III	873.080	200		$3d^6 - 3d^5(a^4F)4p$	$a^3G - w^3G^\circ$	3 - 3	E25
Fe III	873.130	150		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	4 - 4	E25
Fe III	873.462	550	38	$3d^6 - 3d^5(a^2H)4p$	$a^1I - x^1H^\circ$	6 - 5	E25
Fe III	873.988	70		$3d^6 - 3d^5(a^4F)4p$	$a^3F - x^5F^\circ$	3 - 2	E25
Fe III	874.129	150		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	1 - 0	E25
Fe III	874.560	70		$3d^6 - 3d^5(a^2D)4p$	$a^3F - z^1F^\circ$	2 - 3	E25
Fe III	875.090	150		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	4 - 5	E25
Fe III	875.423	300		$3d^6 - 3d^5(a^2G)4p$	$a^1I - y^1H^\circ$	6 - 5	E25
Fe III	876.021	300		$3d^6 - 3d^5(a^2G)4p$	$a^1G - x^1F^\circ$	4 - 3	E25
Fe III	876.483	200		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	4 - 4	E25
Fe III	876.564	200		$3d^6 - 3d^5(a^2H)4p$	$a^1G - x^1G^\circ$	4 - 4	E25
Fe III	876.679	200		$3d^6 - 3d^5(a^2F)4p$	$a^3H - y^3G^\circ$	4 - 3	E25
Fe III	878.287	250		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	4 - 5	E25
Fe III	879.505	250		$3d^6 - 3d^5(a^2G)4p$	$a^1G - y^1H^\circ$	4 - 5	E25
Fe III	880.008	300		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	4 - 3	E25
Fe III	880.447	400	24	$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	3 - 2	E25
Fe III	880.949	400	24	$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	4 - 3	E25
Fe III	881.088	450	30	$3d^6 - 3d^5(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	E25
Fe III	881.477	200		$3d^6 - 3d^5(b^2F)4p$	$a^1G - t^3F^\circ$	4 - 4	E25
Fe III	882.147	250	24	$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3D^\circ$	2 - 1	E25
Fe III	882.295	70		$3d^6 - 3d^5(a^2D)4p$	$a^3P - x^3P^\circ$	0 - 1	E25
Fe III	883.090	200		$3d^6 - 3d^5(a^4F)4p$	$a^3F - y^5G^\circ$	2 - 3	E25
Fe III	883.688	400	30	$3d^6 - 3d^5(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	E25
Fe III	884.263	250		$3d^6 - 3d^5(b^2G)4p$	$b^1G - u^1F^\circ$	4 - 3	E25
Fe III	884.600	300	30	$3d^6 - 3d^5(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	E25
Fe III	886.138	70		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	3 - 3	E25
Fe III	887.372	200		$3d^6 - 3d^5(a^2F)4p$	$a^3F - y^3G^\circ$	2 - 3	E25
Fe III	888.777	150	15	$3d^6 - 3d^5(a^2I)4p$	$a^3H - y^3H^\circ$	6 - 5	E25
Fe III	890.008	150	15	$3d^6 - 3d^5(a^2I)4p$	$a^3H - y^3H^\circ$	5 - 4	E25
Fe III	890.755	600	15	$3d^6 - 3d^5(a^2I)4p$	$a^3H - y^3H^\circ$	5 - 5	E25

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	891.172	650	15	$3d^6 - 3d^5(a^2I)4p$	$a^3H - y^3H^\circ$	6 - 6	E25
Fe III	891.442	550	15	$3d^6 - 3d^5(a^2I)4p$	$a^3H - y^3H^\circ$	4 - 4	E25
Fe III	892.417	400		$3d^6 - 3d^5(a^2F)4p$	$a^3G - w^3F^\circ$	5 - 4	E25
Fe III	894.008	250		$3d^6 - 3d^5(a^2F)4p$	$a^3G - w^3F^\circ$	4 - 3	E25
Fe III	896.072	70		$3d^6 - 3d^5(a^4F)4p$	$a^3D - u^3F^\circ$	2 - 3	E25
Fe III	896.380	70		$3d^6 - 3d^5(b^2G)4p$	$b^1G - w^1H^\circ$	4 - 5	E25
Fe III	897.580	70		$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^1H^\circ$	5 - 5	E25
Fe III	897.747	150		$3d^6 - 3d^5(a^2F)4p$	$a^3G - w^3F^\circ$	3 - 2	E25
Fe III	898.805	70		$3d^6 - 3d^5(a^2D)4p$	$a^3G - z^1F^\circ$	4 - 3	E25
Fe III	899.052	70		$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^1H^\circ$	4 - 5	E25
Fe III	899.417	550	37	$3d^6 - 3d^5(a^2H)4p$	$a^1I - y^1I^\circ$	6 - 6	E25
Fe III	900.432	150		$3d^6 - 3d^5(a^2D)4p$	$a^3G - z^1F^\circ$	3 - 3	E25
Fe III	900.940	200		$3d^6 - 3d^5(a^2F)4p$	$a^3G - y^3G^\circ$	5 - 4	E25
Fe III	901.034	300	14	$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^3K^\circ$	6 - 7	E25
Fe III	902.869	200		$3d^6 - 3d^5(a^4F)4p$	$a^3G - y^5G^\circ$	5 - 5	E25
Fe III	904.320	200		$3d^6 - 3d^5(a^4F)4p$	$a^1G - v^3D^\circ$	4 - 3	E25
Fe III	905.338	450	14	$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^3K^\circ$	5 - 6	E25
Fe III	905.964	70		$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3F^\circ$	3 - 3	E25
Fe III	907.041	70		$3d^6 - 3d^5(a^2D)4p$	$a^3F - x^3F^\circ$	2 - 2	E25
Fe III	907.891	250		$3d^6 - 3d^5(a^2G)4p$	$a^3D - v^3F^\circ$	3 - 4	E25
Fe III	908.131	300		$3d^6 - 3d^5(a^2G)4p$	$a^1G - v^3F^\circ$	4 - 4	E25
Fe III	908.800	70		$3d^6 - 3d^5(a^2G)4p$	$a^3D - v^3F^\circ$	2 - 2	E25
Fe III	908.885	150		$3d^6 - 3d^5(a^2G)4p$	$a^3D - v^3F^\circ$	1 - 2	E25
Fe III	909.178	250		$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^3I^\circ$	6 - 7	E25
Fe III	909.279	150		$3d^6 - 3d^5(a^2G)4p$	$a^3D - v^3F^\circ$	2 - 3	E25
Fe III	910.639	200		$3d^6 - 3d^5(b^2F)4p$	$a^1D - x^1D^\circ$	2 - 2	E25
Fe III	910.693	250		$3d^6 - 3d^5(a^2G)4p$	$a^1G - v^3F^\circ$	4 - 3	E25
Fe III	910.961	400		$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^3I^\circ$	4 - 5	E25
Fe III	911.205	70		$3d^6 - 3d^5(a^2D)4p$	$a^3F - z^1D^\circ$	3 - 2	E25
Fe III	911.265	150		$3d^6 - 3d^5(a^2F)4p$	$a^3D - y^1F^\circ$	2 - 3	E25
Fe III	912.197	150		$3d^6 - 3d^5(b^2D)4p$	$b^3P - v^3P^\circ$	2 - 2	E25
Fe III	912.683	300		$3d^6 - 3d^5(a^2F)4p$	$a^1G - y^1F^\circ$	4 - 3	E25
Fe III	912.794	200		$3d^6 - 3d^5(a^2I)4p$	$a^3H - z^3I^\circ$	5 - 6	E25
Fe III	913.132	70		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3P^\circ$	2 - 2	E25
Fe III	913.324	70		$3d^6 - 3d^5(a^2H)4p$	$a^1I - y^3I^\circ$	6 - 6	E25
Fe III	913.919	150		$3d^6 - 3d^5(a^2F)4p$	$a^3G - z^1G^\circ$	4 - 4	E25
Fe III	915.455	200		$3d^6 - 3d^5(a^2G)4p$	$a^1D - x^1F^\circ$	2 - 3	E25
Fe III	917.684	150		$3d^6 - 3d^5(a^2G)4p$	$a^3D - y^1G^\circ$	3 - 4	E25
Fe III	917.932	250		$3d^6 - 3d^5(a^2G)4p$	$a^1G - y^1G^\circ$	4 - 4	E25
Fe III	918.800	70		$3d^6 - 3d^5(b^2D)4p$	$b^3P - t^3D^\circ$	1 - 2	E25
Fe III	923.215	70		$3d^6 - 3d^5(b^2D)4p$	$b^3P - t^3D^\circ$	2 - 3	E25
Fe III	928.004	250		$3d^6 - 3d^5(b^2F)4p$	$a^1F - w^1F^\circ$	3 - 3	E25
Fe III	928.474	300b		$3d^6 - 3d^5(a^2I)4p$	$a^3G - y^3H^\circ$	5 - 6	E25
Fe III	929.163	300		$3d^6 - 3d^5(a^2I)4p$	$a^3G - y^3H^\circ$	4 - 5	E25
Fe III	931.086	250		$3d^6 - 3d^5(a^2G)4p$	$a^1I - x^3H^\circ$	6 - 5	E25
Fe III	931.124	70		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3P^\circ$	0 - 1	E25
Fe III	934.703	450	10	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3S^\circ$	2 - 1	E25
Fe III	942.363	150		$3d^6 - 3d^5(b^2F)4p$	$a^1F - w^1G^\circ$	3 - 4	E25
Fe III	946.056	400b	10	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3S^\circ$	1 - 1	E25
Fe III	948.322	300		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3D^\circ$	2 - 3	E25
Fe III	948.918	250		$3d^6 - 3d^5(a^4F)4p$	$a^1I - y^5G^\circ$	6 - 6	E25
Fe III	950.334	650	36	$3d^6 - 3d^5(a^2I)4p$	$a^1I - z^1I^\circ$	6 - 6	E25
Fe III	950.722	200	10	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3S^\circ$	0 - 1	E25
Fe III	953.383	200		$3d^6 - 3d^5(a^2G)4p$	$a^1D - v^3F^\circ$	2 - 3	E25
Fe III	955.141	150		$3d^6 - 3d^5(a^2F)4p$	$a^3D - y^3G^\circ$	3 - 4	E25
Fe III	955.572	300	46	$3d^6 - 3d^5(a^2F)4p$	$a^1D - y^1F^\circ$	2 - 3	E25
Fe III	956.355	70		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3D^\circ$	2 - 2	E25
Fe III	959.070	70		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3D^\circ$	1 - 1	E25
Fe III	959.329	70		$3d^6 - 3d^5(a^4F)4p$	$a^3D - y^5G^\circ$	3 - 3	E25
Fe III	959.552	250		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3D^\circ$	1 - 2	E25
Fe III	960.454	70		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3D^\circ$	3 - 3	E25
Fe III	961.709	150		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3F^\circ$	4 - 4	E25
Fe III	961.901	450	45	$3d^6 - 3d^5(a^2F)4p$	$a^1D - y^1D^\circ$	2 - 2	E25
Fe III	962.108	70		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3F^\circ$	3 - 3	E25
Fe III	962.655	300	44	$3d^6 - 3d^5(a^2D)4p$	$a^1S - z^1P^\circ$	0 - 1	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	963.197	150		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3P^\circ$	1 - 1	E25
Fe III	963.880	200		$3d^6 - 3d^5(a^4D)4p$	$a^3P - y^3D^\circ$	0 - 1	E25
Fe III	965.717	70		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3P^\circ$	2 - 2	E25
Fe III	967.197	400	23	$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3D^\circ$	4 - 3	E25
Fe III	968.955	250	23	$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3D^\circ$	3 - 2	E25
Fe III	969.423	150		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3D^\circ$	3 - 3	E25
Fe III	969.954	200	23	$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3D^\circ$	2 - 1	E25
Fe III?	970.381	150					E25
Fe III	970.435	150		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^3D^\circ$	2 - 2	E25
Fe III	971.929	200		$3d^6 - 3d^5(a^2D)4p$	$a^1D - z^1P^\circ$	2 - 1	E25
Fe III	973.505	250		$3d^6 - 3d^5(b^2F)4p$	$a^1F - x^1D^\circ$	3 - 2	E25
Fe III	977.790	150		$3d^6 - 3d^5(b^2D)4p$	$b^1G - v^1F^\circ$	4 - 3	E25
Fe III	979.032	300		$3d^6 - 3d^5(a^2G)4p$	$a^1F - x^1F^\circ$	3 - 3	E25
Fe III	979.704	150		$3d^6 - 3d^5(a^2H)4p$	$a^1F - x^1G^\circ$	3 - 4	E25
Fe III	980.416	70		$3d^6 - 3d^5(a^4D)4p$	$a^3F - x^5P^\circ$	3 - 2	E25
Fe III	981.084	70		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3F^\circ$	3 - 4	E25
Fe III	981.373	650	13	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3G^\circ$	6 - 5	E25
Fe III	983.510	150		$3d^6 - 3d^5(a^2I)4p$	$a^1G - y^3H^\circ$	4 - 5	E25
Fe III	983.877	650w	13	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3G^\circ$	5 - 4	E25
Fe III	985.824	550	13	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3G^\circ$	4 - 3	E25
Fe III	986.514	250		$3d^6 - 3d^5(a^2D)4p$	$a^3D - x^3F^\circ$	2 - 3	E25
Fe III	986.637	300		$3d^6 - 3d^5(a^2I)4p$	$a^1I - z^1H^\circ$	6 - 5	E25
Fe III	988.148	150		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^5D^\circ$	3 - 2	E25
Fe III	989.467	250		$3d^6 - 3d^5(a^4D)4p$	$a^3F - y^5D^\circ$	2 - 1	E25
Fe III	990.235	250	22	$3d^6 - 3d^5(a^4P)4p$	$a^3F - z^3D^\circ$	2 - 1	E25
Fe III	990.800	400	22	$3d^6 - 3d^5(a^4P)4p$	$a^3F - z^3D^\circ$	3 - 2	E25
Fe III	991.232	600	22	$3d^6 - 3d^5(a^4P)4p$	$a^3F - z^3D^\circ$	4 - 3	E25
Fe III	991.829	400	42	$3d^6 - 3d^5(a^2I)4p$	$a^1G - z^1H^\circ$	4 - 5	E25
Fe III	992.337	150	22	$3d^6 - 3d^5(a^4P)4p$	$a^3F - z^3D^\circ$	2 - 2	E25
Fe III	993.080	450	29	$3d^6 - 3d^5(a^4D)4p$	$a^3G - y^3F^\circ$	4 - 3	E25
Fe III	994.257	200	9	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	2 - 1	E25
Fe III	994.724	400	29	$3d^6 - 3d^5(a^4D)4p$	$a^3G - y^3F^\circ$	3 - 2	E25
Fe III	995.150	400	21	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3G^\circ$	4 - 5	E25
Fe III	995.223	150	21	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3G^\circ$	4 - 4	E25
Fe III	997.081	450	9	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	2 - 2	E25
Fe III	997.599	400	21	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3G^\circ$	3 - 4	E25
Fe III	997.794	70	21	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3G^\circ$	3 - 3	E25
Fe III	999.376	300	21	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3G^\circ$	2 - 3	E25
Fe III	1005.106	150		$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	1 - 0	E25
Fe III	1006.341	150		$3d^6 - 3d^5(a^2I)4p$	$a^1G - z^3I^\circ$	4 - 5	E25
Fe III	1007.113	200	9	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	1 - 1	E25
Fe III	1010.005	250	9	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	1 - 2	E25
Fe III	1012.411	200	9	$3d^6 - 3d^5(a^4P)4p$	$a^3P - z^3P^\circ$	0 - 1	E25
Fe III	1017.254	600	12	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3H^\circ$	6 - 6	E25
Fe III	1017.745	550	12	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3H^\circ$	5 - 5	E25
Fe III	1018.286	550	12	$3d^6 - 3d^5(a^4G)4p$	$a^3H - z^3H^\circ$	4 - 4	E25
Fe III	1019.789	400	41	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3P^\circ$	3 - 2	E25
Fe III	1020.022	150		$3d^6 - 3d^5(b^2F)4p$	$b^3P - u^3D^\circ$	1 - 2	E25
Fe III	1021.561	250	41	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3P^\circ$	2 - 1	E25
Fe III	1024.108	200	41	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3P^\circ$	1 - 0	E25
Fe III	1026.790	400	28	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3G^\circ$	5 - 5	E25
Fe III	1029.551	150		$3d^6 - 3d^5(b^2F)4p$	$b^3F - u^3G^\circ$	4 - 5	E25
Fe III	1030.844	150	28	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3G^\circ$	4 - 5	E25
Fe III	1030.924	400	28	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3G^\circ$	4 - 4	E25
Fe III	1032.123	550	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	4 - 4	E25
Fe III	1032.342	250		$3d^6 - 3d^5(b^2F)4p$	$b^3F - u^3G^\circ$	3 - 4	E25
Fe III	1033.079	70	28	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3G^\circ$	3 - 4	E25
Fe III	1033.225 P	150	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	4 - 3	E25
Fe III	1033.298	300	28	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3G^\circ$	3 - 3	E25
Fe III	1034.054	150		$3d^6 - 3d^5(b^2F)4p$	$b^3F - u^3G^\circ$	2 - 3	E25
Fe III	1034.654	150	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	3 - 4	E25
Fe III	1035.768	400	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	3 - 3	E25
Fe III	1036.659	150	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	3 - 2	E25
Fe III	1037.462	70	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	2 - 3	E25
Fe III	1038.355	400	20	$3d^6 - 3d^5(a^4G)4p$	$a^3F - z^3F^\circ$	2 - 2	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1060.258	250		$3d^6 - 3d^5(b^2F)4p$	$b^3F - t^3F^\circ$	2 - 2	E25
Fe III	1060.723	250		$3d^6 - 3d^5(b^2F)4p$	$b^3F - t^3F^\circ$	3 - 3	E25
Fe III	1061.127	250		$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	2 - 1	E25
Fe III	1061.245	300	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	1 - 1	E25
Fe III	1061.708	400	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	2 - 2	E25
Fe III	1061.827	250	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	1 - 2	E25
Fe III	1062.272	200	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	2 - 3	E25
Fe III	1063.188	250		$3d^6 - 3d^5(b^2F)4p$	$b^3F - t^3F^\circ$	4 - 4	E25
Fe III	1063.309	200	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	3 - 2	E25
Fe III	1063.872	550	40	$3d^6 - 3d^5(a^4D)4p$	$a^3D - y^3D^\circ$	3 - 3	E25
Fe III	1064.611	70		$3d^6 - 3d^5(a^2G)4p$	$b^3F - v^3G^\circ$	2 - 3	E25
Fe III	1066.143	350	27	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3H^\circ$	5 - 6	E25
Fe III	1066.181	300	26	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3F^\circ$	5 - 4	E25
Fe III	1068.190	300	27	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3H^\circ$	4 - 5	E25
Fe III	1068.299	200		$3d^6 - 3d^5(a^2G)4p$	$b^3F - v^3G^\circ$	4 - 5	E25
Fe III	1069.019	300	27	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3H^\circ$	3 - 4	E25
Fe III	1070.284	250		$3d^6 - 3d^5(b^2F)4p$	$b^1G - w^1F^\circ$	4 - 3	E25
Fe III	1070.556	200	26	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3F^\circ$	4 - 4	E25
Fe III	1071.746	300	26	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3F^\circ$	4 - 3	E25
Fe III	1072.217	250					E25
Fe III	1074.061	70	26	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3F^\circ$	3 - 3	E25
Fe III	1075.024	250	26	$3d^6 - 3d^5(a^4G)4p$	$a^3G - z^3F^\circ$	3 - 2	E25
Fe III	1082.838	250		$3d^6 - 3d^5(a^4F)4p$	$b^3F - u^3F^\circ$	2 - 2	E25
Fe III	1083.176	150		$3d^6 - 3d^5(a^4F)4p$	$b^3P - v^3D^\circ$	0 - 1	E25
Fe III	1086.748	300		$3d^6 - 3d^5(a^4F)4p$	$b^3F - u^3F^\circ$	3 - 3	E25
Fe III	1088.224	70		$3d^6 - 3d^5(a^4F)4p$	$b^3P - v^3D^\circ$	1 - 1	E25
Fe III	1089.061	200		$3d^6 - 3d^5(a^4F)4p$	$b^3P - v^3D^\circ$	1 - 2	E25
Fe III	1089.416	250		$3d^6 - 3d^5(b^2F)4p$	$b^1G - w^1G^\circ$	4 - 4	E25
Fe III	1089.671	250		$3d^6 - 3d^5(a^4F)4p$	$b^3F - u^3F^\circ$	4 - 4	E25
Fe III	1093.332 P	150		$3d^6 - 3d^5(a^2F)4p$	$a^1F - z^1G^\circ$	3 - 4	E25
Fe III	1095.476 P	300		$3d^6 - 3d^5(a^4F)4p$	$b^3F - v^3D^\circ$	2 - 1	E25
Fe III	1096.606 P	200		$3d^6 - 3d^5(a^4F)4p$	$b^3F - v^3D^\circ$	4 - 3	E25
Fe III	1097.649 P	70		$3d^6 - 3d^5(a^4F)4p$	$b^3F - v^3D^\circ$	3 - 2	E25
Fe III	1098.247 P	300		$3d^6 - 3d^5(a^4F)4p$	$b^3P - v^3D^\circ$	2 - 3	E25
Fe III	1099.061 P	150		$3d^6 - 3d^5(a^4F)4p$	$b^3P - v^3D^\circ$	2 - 2	E25
Fe III	1122.526	600	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	4 - 3	E25
Fe III	1124.883	600	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	3 - 2	E25
Fe III	1126.728 P	400	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	2 - 1	E25
Fe III	1128.050 P	550	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	3 - 3	E25
Fe III	1128.723 P	450	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	2 - 2	E25
Fe III	1129.190 P	450	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	1 - 1	E25
Fe III	1130.404	300	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	0 - 1	E25
Fe III	1131.194	450	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	1 - 2	E25
Fe III	1131.914	200	1	$3d^6 - 3d^5(a^6S)4p$	$ga^5D - z^5P^\circ$	2 - 3	E25
Fe III	1141.272	200		$3d^6 - 3d^5(a^2H)4p$	$b^1G - x^1H^\circ$	4 - 5	E25
Fe III	1142.464	250	39	$3d^6 - 3d^5(a^4G)4p$	$a^3D - z^3F^\circ$	2 - 3	E25
Fe III	1142.955	300	39	$3d^6 - 3d^5(a^4G)4p$	$a^3D - z^3F^\circ$	3 - 4	E25
Fe III	1143.545 P	70	39	$3d^6 - 3d^5(a^4G)4p$	$a^3D - z^3F^\circ$	2 - 2	E25
Fe III	1143.671 P	200	39	$3d^6 - 3d^5(a^4G)4p$	$a^3D - z^3F^\circ$	1 - 2	E25
Fe III	1382.857	70		$3d^5(a^4G)4s - 3d^5(a^4F)4p$	$a^5G - y^5G^\circ$	6 - 6	E25
Fe III	1394.024	70		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3G^\circ$	2 - 3	E25
Fe III	1395.213	200		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3G^\circ$	4 - 5	E25
Fe III	1395.382	20		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3G^\circ$	4 - 4	E25
Fe III	1395.750	150		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3G^\circ$	3 - 4	E25
Fe III	1465.309	200h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	2 - 3	G11
Fe III	1465.763	200h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	3 - 3	G11
Fe III	1465.820	20h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	3 - 4	G11
Fe III	1466.492	250h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	4 - 4	G11
Fe III	1467.751	250h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	5 - 5	G11
Fe III	1468.526	20h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	5 - 6	G11
Fe III	1468.986	150		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3F^\circ$	4 - 4	E25
Fe III	1469.881	400h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5G^\circ - f^5G$	6 - 6	G11
Fe III	1471.051	20		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3F^\circ$	2 - 2	E25
Fe III	1471.638	70		$3d^6 - 3d^5(a^4G)4p$	$b^3F - z^3F^\circ$	3 - 3	E25
Fe III	1481.169	150		$3d^5(a^4D)4s - 3d^5(a^4F)4p$	$b^5D - x^5D^\circ$	4 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1484.241	20		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$b^3G - x^3G^\circ$	4 - 4	E25
Fe III	1484.546	70		$3d^5(a^4G)4s - 3d^5(a^2H)4p$	$b^3G - x^3G^\circ$	5 - 5	E25
Fe III	1486.265	450h	85	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^7P^\circ - e^7S$	2 - 3	E25
Fe III	1493.640	600h	85	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^7P^\circ - e^7S$	3 - 3	E25
Fe III	1495.210	70h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5H^\circ - f^5G$	3 - 2	G11
Fe III	1498.825	70h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5H^\circ - f^5G$	4 - 3	G11
Fe III	1502.964	150h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5H^\circ - f^5G$	5 - 4	G11
Fe III	1504.002	150		$3d^5(a^4D)4s - 3d^5(a^4F)4p$	$b^5D - x^5F^\circ$	4 - 5	E25
Fe III	1505.166	650h	85	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^7P^\circ - e^7S$	4 - 3	E25
Fe III	1507.530	150h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5H^\circ - f^5G$	6 - 5	G11
Fe III	1511.133	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5G$	2 - 2	G11
Fe III	1511.617	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5G$	3 - 3	G11
Fe III	1512.192	150h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5H^\circ - f^5G$	7 - 6	G11
Fe III	1512.262	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5G$	4 - 3	G11
Fe III	1512.346	200h		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5D^\circ - f^5F$	0 - 1	G11
Fe III	1512.830	20		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5D^\circ - f^5F$	1 - 2	G11
Fe III	1512.896	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5F$	2 - 1	G11
Fe III	1513.539	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5F$	3 - 2	G11
Fe III	1514.563	150		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5F$	4 - 3	G11
Fe III	1514.948	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5G$	6 - 5	G11
Fe III	1515.481	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5G$	6 - 6	G11
Fe III	1516.222	200h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5F$	5 - 4	G11
Fe III	1516.591	20		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5D^\circ - f^5F$	3 - 4	G11
Fe III	1516.790	20h		$3d^5(a^4F)4p - 3d^5(a^4F)5s$	$x^5F^\circ - g^5F$	4 - 4	G11
Fe III	1517.771	20h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5F^\circ - e^5D$	2 - 1	G11
Fe III	1518.842	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5F$	6 - 5	G11
Fe III	1521.891	20h		$3d^5(a^4F)4p - 3d^5(a^4F)5s$	$x^5F^\circ - g^5F$	5 - 5	G11
Fe III	1524.522	300		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	2 - 3	G11
Fe III	1524.658	300		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5S^\circ - f^5F$	2 - 1	G11
Fe III	1524.799	70		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5S^\circ - f^5F$	2 - 2	G11
Fe III	1525.041	400		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	3 - 3	G11
Fe III	1525.343	70		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	4 - 4	G11
Fe III	1525.634	150		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5S^\circ - f^5F$	2 - 3	G11
Fe III	1525.801	400		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	5 - 6	G11
Fe III	1526.016	150h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5F^\circ - e^5D$	5 - 4	G11
Fe III	1527.145	400		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	6 - 7	G11
Fe III	1527.260	200h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5G^\circ - e^5H$	6 - 6	G11
Fe III	1527.767	70h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5F^\circ - f^5G$	5 - 6	G11
Fe III	1528.884	20h		$3d^5(a^2D)4p - 3d^5(a^4F)4d$	$x^3D^\circ - h^5G$	3 - 3	G11
Fe III	1529.764	200h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5F^\circ - g^5G$	3 - 4	G11
Fe III	1530.220	150h		$3d^5(a^2D)4p - 3d^5(a^4F)4d$	$x^3D^\circ - h^5G$	3 - 4	G11
Fe III	1530.431	20h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5F^\circ - f^5G$	4 - 5	G11
Fe III	1531.293	400h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	2 - 3	E25
Fe III	1531.644	550h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	2 - 2	E25
Fe III	1531.864	450h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	2 - 1	E25
Fe III	1533.439	250h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5F^\circ - g^5G$	4 - 5	G11
Fe III	1535.421	250h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5F^\circ - g^5G$	5 - 6	G11
Fe III	1536.421	150h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - h^5G$	4 - 4	G11
Fe III	1536.591	70h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - h^5G$	5 - 5	G11
Fe III	1536.640	150h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^3H^\circ - e^3G$	6 - 5	G11
Fe III	1536.830	70h		$3d^5(a^4D)4p - 3d^5(a^4D)5s$	$y^5D^\circ - f^5D$	4 - 4	G11
Fe III	1538.632	650h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	3 - 4	E25
Fe III	1539.128	550h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	3 - 3	E25
Fe III	1539.480	300h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	3 - 2	E25
Fe III	1540.165	450h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5I$	3 - 4	G11
Fe III	1540.362	20h		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$y^3G^\circ - h^5G$	5 - 6	G11
Fe III	1540.428	70h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - h^5G$	6 - 6	G11
Fe III	1540.815	150h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^3H^\circ - e^3G$	5 - 4	G11
Fe III	1541.818	300h		$3d^5(a^4P)4p - 3d^5(a^4P)4d$	$z^5D^\circ - f^5F$	4 - 5	G11
Fe III	1542.625	70h		$3d^5(a^4D)4p - 3d^5(a^4D)5s$	$y^3D^\circ - e^3D$	3 - 3	G11
Fe III	1542.965	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5G$	3 - 2	G11
Fe III	1543.640	400h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5I$	4 - 5	G11
Fe III	1544.067	200h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - f^5H$	2 - 3	G11
Fe III	1544.232	250h		$3d^5(a^4G)4p - 3d^5(a^4G)5s$	$z^5F^\circ - f^5G$	3 - 4	G11
Fe III	1545.411	200h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - f^5H$	3 - 4	G11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1546.120	550h		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$w^3D^\circ - h^5G$	3 - 3	G11
Fe III	1546.570	20		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$y^3G^\circ - h^5G$	5 - 5	G11
Fe III	1546.928	250h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - f^5H$	4 - 5	G11
Fe III	1547.494	20h		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$w^3D^\circ - h^5G$	3 - 4	G11
Fe III	1547.640	550h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5I$	5 - 6	G11
Fe III	1548.251	300h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - f^5H$	5 - 6	G11
Fe III	1550.196	800h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	4 - 5	E25
Fe III	1550.450	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3H^\circ - e^3I$	6 - 7	G11
Fe III	1550.862	550h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	4 - 4	E25
Fe III	1551.085	150h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$x^5F^\circ - h^5G$	5 - 6	G11
Fe III	1551.149	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5G$	5 - 4	G11
Fe III	1551.377	250h	84	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^7P^\circ - e^7D$	4 - 3	E25
Fe III	1552.067	550h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5I$	6 - 7	G11
Fe III	1552.681	20h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$x^5F^\circ - h^5G$	4 - 5	G11
Fe III	1555.166	20h		$3d^5(a^2I)4p - 3d^5(a^4F)4d$	$z^1I^\circ - f^5H$	6 - 5	G11
Fe III	1555.861	200h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3H^\circ - e^3I$	5 - 6	G11
Fe III	1556.075	300h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$y^5G^\circ - f^5H$	6 - 7	G11
Fe III	1556.427	70h		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$y^3G^\circ - f^5H$	4 - 4	G11
Fe III	1556.493	550h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5I$	7 - 8	G11
Fe III	1556.756	70h		$3d^5(a^4D)4p - 3d^5(a^4D)5s$	$y^3F^\circ - e^3D$	4 - 3	G11
Fe III	1556.902	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3F^\circ - e^3F$	2 - 2	G11
Fe III	1557.561	150h		$3d^5(a^4F)4p - 3d^5(a^4F)4d$	$x^5F^\circ - h^5G$	1 - 2	G11
Fe III	1558.310	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3F^\circ - e^3F$	3 - 4	G11
Fe III	1558.5 P			$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3F^\circ - e^3F$	3 - 3	G11
Fe III	1559.463	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^3H^\circ - e^3I$	4 - 5	G11
Fe III	1560.483	200h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5G$	7 - 6	G11
Fe III	1560.857	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	4 - 3	G11
Fe III	1561.179	20h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5D^\circ - e^5D$	4 - 4	G11
Fe III	1564.281	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	5 - 6	G11
Fe III	1564.512	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	5 - 5	G11
Fe III	1565.100	200h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5D^\circ - e^5D$	2 - 2	G11
Fe III	1567.650	70h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^5D^\circ - e^5D$	1 - 1	G11
Fe III	1568.7 P			$3d^5(a^4G)4p - 3d^5(^4G)4d$	$z^5H^\circ - e^5H$	6 - 7	G11
Fe III	1568.820	200h		$3d^5(a^4G)4p - 3d^5(^4G)4d$	$z^5H^\circ - e^5H$	6 - 6	G11
Fe III	1569.066	70h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	6 - 5	G11
Fe III	1571.255	70h		$3d^5(a^2F)4p - 3d^5(a^4F)4d$	$w^3D^\circ - h^5G$	2 - 2	G11
Fe III	1572.776	200h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^3F^\circ - f^3G$	4 - 5	G11
Fe III	1572.841	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	7 - 7	G11
Fe III	1572.984	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5H^\circ - e^5H$	7 - 6	G11
Fe III	1577.084	200		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5G$	5 - 6	G11
Fe III	1577.926	150h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$y^3F^\circ - f^3G$	3 - 4	G11
Fe III	1578.759	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5D^\circ - e^5G$	3 - 2	G11
Fe III	1580.237	300h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5D^\circ - e^5G$	3 - 4	G11
Fe III	1580.690	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	5 - 5	G11
Fe III	1581.057	70h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$x^5P^\circ - e^5D$	3 - 4	G11
Fe III	1582.419	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	4 - 3	G11
Fe III	1582.621	20h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$x^5P^\circ - e^5D$	2 - 3	G11
Fe III	1583.199	200h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	4 - 4	G11
Fe III	1583.973	20h		$3d^5(a^4D)4p - 3d^5(a^4D)4d$	$x^5P^\circ - e^5D$	3 - 3	G11
Fe III	1591.803	150h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5G$	1 - 2	G11
Fe III	1592.721	70h		$3d^5(a^4P)4p - 3d^5(a^4G)4d$	$z^5S^\circ - e^5F$	2 - 1	G11
Fe III	1592.913	70h		$3d^5(a^4P)4p - 3d^5(a^4G)4d$	$z^5S^\circ - e^5F$	2 - 2	G11
Fe III	1593.741	70h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	1 - 1	G11
Fe III	1593.897	70h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	1 - 2	G11
Fe III	1594.844	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	2 - 2	G11
Fe III	1595.180	20h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5G$	3 - 4	G11
Fe III	1595.597	400h	119	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^5P^\circ - e^5S$	3 - 2	E25
Fe III	1597.631	70h		$3d^5(a^4G)4p - 3d^5(a^4G)4d$	$z^5F^\circ - e^5F$	3 - 3	G11
Fe III	1601.211	650h	118	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^5P^\circ - e^5D$	3 - 4	E25
Fe III	1601.289	400h	118	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^5P^\circ - e^5D$	3 - 3	E25
Fe III	1602.000	300h	119	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^5P^\circ - e^5S$	2 - 2	E25
Fe III	1606.014	200h	119	$3d^5(a^6S)4p - 3d^5(a^6S)5s$	$z^5P^\circ - e^5S$	1 - 2	E25
Fe III	1607.723	600h	118	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^5P^\circ - e^5D$	2 - 3	E25
Fe III	1611.723	450h	118	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^5P^\circ - e^5D$	1 - 1	E25
Fe III	1611.763	450h	118	$3d^5(a^6S)4p - 3d^5(a^6S)4d$	$z^5P^\circ - e^5D$	1 - 2	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1614.611	70		$3d^5(a^4G)4s - 3d^5(a^2I)4p$	$b^3G - y^3H°$	3 - 4	E25
Fe III	1617.171	70		$3d^5(a^4G)4s - 3d^5(a^2I)4p$	$b^3G - y^3H°$	4 - 5	E25
Fe III	1624.206	150		$3d^5(a^4G)4s - 3d^5(a^2I)4p$	$b^3G - y^3H°$	5 - 6	E25
Fe III	1628.304	200		$3d^5(a^2I)4s - 3d^5(a^2H)4p$	$b^1I - x^1H°$	6 - 5	E25
Fe III	1656.831	150		$3d^5(a^2I)4s - 3d^5(a^2H)4p$	$a^3I - y^3I°$	7 - 7	E25
Fe III	1695.036	150		$3d^5(a^6S)4s - 3d^5(a^6S)4p$	$a^7S - z^5P°$	3 - 3	E25
Fe III	1709.892	250		$3d^5(a^2H)4s - 3d^5(b^2F)4p$	$b^3H - u^3G°$	6 - 5	E25
Fe III	1710.374	200		$3d^5(a^2H)4s - 3d^5(b^2F)4p$	$b^3H - u^3G°$	5 - 4	E25
Fe III	1717.414	150		$3d^5(a^2H)4s - 3d^5(b^2F)4p$	$b^3H - u^3G°$	4 - 3	E25
Fe III	1722.837	250		$3d^5(a^4G)4s - 3d^5(a^4D)4p$	$a^5G - y^5F°$	6 - 5	E25
Fe III	1730.842	250		$3d^5(a^4G)4s - 3d^5(a^4D)4p$	$a^5G - y^5F°$	5 - 4	E25
Fe III	1738.468	200		$3d^5(a^4G)4s - 3d^5(a^4D)4p$	$a^5G - y^5F°$	4 - 3	E25
Fe III	1739.201	20		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^3G - u^3G°$	5 - 5	E25
Fe III	1744.233	200		$3d^5(a^4G)4s - 3d^5(a^4D)4p$	$a^5G - y^5F°$	3 - 2	E25
Fe III	1745.638	250		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - x^5P°$	3 - 3	E25
Fe III	1747.260	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - x^5P°$	3 - 2	E25
Fe III	1748.177	150		$3d^5(a^4G)4s - 3d^5(a^4D)4p$	$a^5G - y^5F°$	2 - 1	E25
Fe III	1749.052	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - x^5P°$	2 - 2	E25
Fe III	1753.455	20		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - x^5P°$	2 - 1	E25
Fe III	1770.247	200		$3d^5(a^2H)4s - 3d^5(b^2F)4p$	$a^1H - w^1G°$	5 - 4	E25
Fe III	1770.554	400		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - y^5D°$	3 - 4	E25
Fe III	1771.975	150		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - y^5D°$	3 - 2	E25
Fe III	1773.098	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - y^5D°$	2 - 1	E25
Fe III	1775.267	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - y^5D°$	1 - 1	E25
Fe III	1775.590	20		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^3D°$	2 - 1	E25
Fe III	1775.983	400		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$a^5P - y^5D°$	2 - 3	E25
Fe III	1777.737	70		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^3D°$	1 - 1	E25
Fe III	1791.345	20		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^3D°$	2 - 3	E25
Fe III	1793.785	70		$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^3F°$	4 - 4	E25
Fe III	1797.769	20		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - w^1G°$	4 - 4	E25
Fe III	1801.766	200		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^1G - w^1G°$	4 - 4	E25
Fe III	1803.330	70		$3d^5(a^2H)4s - 3d^5(a^2G)4p$	$b^3H - v^3G°$	4 - 3	E25
Fe III	1805.337	150		$3d^5(a^2H)4s - 3d^5(a^2G)4p$	$b^3H - v^3G°$	5 - 4	E25
Fe III	1808.203	20		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - w^3G°$	4 - 5	E25
Fe III	1811.924	200		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - y^3P°$	2 - 2	E25
Fe III	1812.974	150		$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^3D°$	4 - 3	E25
Fe III	1819.480	150		$3d^5(a^2H)4s - 3d^5(a^2G)4p$	$b^3H - v^3G°$	6 - 5	E25
Fe III	1819.718	70		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - w^3G°$	3 - 4	E25
Fe III	1820.496	70		$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^3H°$	6 - 6	E25
Fe III	1821.865	20		$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^3H°$	5 - 6	E25
Fe III	1822.183	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - y^3P°$	2 - 1	E25
Fe III	1824.659	70		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^3G - t^3F°$	3 - 2	E25
Fe III	1826.156	70		$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^3F°$	4 - 3	E25
Fe III	1826.267	20		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - y^3P°$	1 - 1	E25
Fe III	1828.857	70		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - y^1H°$	5 - 5	E25
Fe III	1829.172	150		$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^3F°$	3 - 2	E25
Fe III	1830.623	200	117	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H°$	5 - 6	E25
Fe III	1834.096	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - y^3P°$	1 - 0	E25
Fe III	1837.422	70		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^3G - t^3F°$	5 - 4	E25
Fe III	1837.588	250		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G°$	3 - 3	E25
Fe III	1838.309	450	117	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H°$	6 - 6	E25
Fe III	1838.621	70		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G°$	3 - 4	E25
Fe III	1838.698	70		$3d^5(a^2D)4s - 3d^5(a^2F)4p$	$c^3D - w^3F°$	2 - 3	E25
Fe III	1841.387	200	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D°$	3 - 2	E25
Fe III	1841.536	300		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G°$	4 - 4	E25
Fe III	1842.927	300	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D°$	4 - 3	E25
Fe III	1843.409	250		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3D°$	4 - 3	E25
Fe III	1843.502	150	117	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H°$	4 - 5	E25
Fe III	1843.999	200		$3d^5(a^2D)4s - 3d^5(a^2F)4p$	$c^3D - w^3F°$	3 - 4	E25
Fe III	1844.263	300		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3D°$	3 - 2	E25
Fe III	1844.547	400	117	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H°$	5 - 5	E25
Fe III	1844.942	200	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D°$	2 - 1	E25
Fe III	1845.304	300	117	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H°$	4 - 4	E25
Fe III	1845.521	450	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D°$	3 - 3	E25
Fe III	1845.749	70w		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G°$	5 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1846.943	200		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3D^\circ$	2 - 1	E25
Fe III	1847.348	70		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - v^3P^\circ$	2 - 2	E25
Fe III	1847.637	150		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^1G - u^3D^\circ$	4 - 3	E25
Fe III	1848.130	150		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - v^3P^\circ$	3 - 2	E25
Fe III	1848.428	20		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G^\circ$	4 - 5	E25
Fe III	1848.492	70		$3d^5(a^4F)4s - 3d^5(b^2F)4p$	$d^3F - t^3F^\circ$	4 - 3	E25
Fe III	1848.883	70		$3d^5(a^4F)4s - 3d^5(b^2F)4p$	$d^3F - t^3F^\circ$	3 - 3	E25
Fe III	1849.172	70		$3d^5(a^4F)4s - 3d^5(b^2F)4p$	$d^3F - t^3F^\circ$	2 - 2	E25
Fe III	1849.407	450	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D^\circ$	5 - 4	E25
Fe III	1849.648	70	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D^\circ$	2 - 3	E25
Fe III	1849.960	300	53	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	5 - 4	E25
Fe III	1850.200	300	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D^\circ$	4 - 4	E25
Fe III	1850.650	70	53	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	4 - 4	E25
Fe III	1851.261	400		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3G^\circ$	4 - 5	E25
Fe III	1852.366	70		$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - w^3H^\circ$	6 - 5	E25
Fe III	1852.677	400		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3G^\circ$	5 - 5	E25
Fe III	1852.812	150	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D^\circ$	3 - 4	E25
Fe III	1854.384	200	97	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5D^\circ$	1 - 0	E25
Fe III	1854.826	600w	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	3 - 3	E25
Fe III	1854.975	300	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	1 - 2	E25
Fe III	1855.510	200		$3d^5(a^2G)4s - 3d^5(b^2F)4p$	$c^1G - u^3G^\circ$	4 - 5	E25
Fe III	1856.690	450	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	2 - 2	E25
Fe III	1858.542	300	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	0 - 1	E25
Fe III	1859.813	300		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3G^\circ$	3 - 4	E25
Fe III	1859.955	200	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	1 - 1	E25
Fe III	1861.665	200	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - x^5P^\circ$	2 - 1	E25
Fe III	1862.446	150		$3d^5(a^4F)4s - 3d^5(a^2G)4p$	$d^3F - v^3G^\circ$	2 - 3	E25
Fe III	1863.317	250	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	1 - 0	E25
Fe III	1864.534	70		$3d^5(a^4F)4s - 3d^5(a^2G)4p$	$d^3F - v^3G^\circ$	3 - 3	E25
Fe III	1865.202	450		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$c^1F - w^1F^\circ$	3 - 3	E25
Fe III	1865.445	150	154	$3d^5(a^2D)4s - 3d^5(a^2F)4p$	$b^1D - y^1F^\circ$	2 - 3	E25
Fe III	1865.606	150		$3d^5(a^4F)4s - 3d^5(a^2G)4p$	$d^3F - v^3G^\circ$	3 - 4	E25
Fe III	1866.305	600	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	4 - 3	E25
Fe III	1866.554	300	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	3 - 3	E25
Fe III	1866.900	150		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$b^1F - v^3D^\circ$	3 - 3	E25
Fe III	1869.828	650	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	3 - 2	E25
Fe III	1869.925	250		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - u^3G^\circ$	2 - 3	E25
Fe III	1871.152	600	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	2 - 1	E25
Fe III	1871.319	150		$3d^5(a^4F)4s - 3d^5(a^2F)4p$	$a^5F - w^3F^\circ$	2 - 3	E25
Fe III	1871.448	20		$3d^5(b^2F)4p - 3d^5(a^4F)4d$	$u^3G^\circ - h^5G$	3 - 4	E25
Fe III	1872.214	400		$3d^5(a^2G)4s - 3d^5(a^2H)4p$	$c^3G - w^3H^\circ$	5 - 6	E25
Fe III	1872.515	250		$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5S^\circ$	3 - 2	E25
Fe III	1873.534	150		$3d^5(a^4F)4s - 3d^5(a^2F)4p$	$a^5F - w^3F^\circ$	3 - 4	E25
Fe III	1877.989	800	63	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	4 - 4	E25
Fe III	1878.550	150		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^3P^\circ$	3 - 2	E25
Fe III	1880.620	200	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	0 - 1	E25
Fe III	1880.704	250		$3d^5(a^2D)4s - 3d^5(a^2F)4p$	$c^3D - y^3G^\circ$	3 - 4	E25
Fe III	1881.178	300		$3d^5(a^2G)4s - 3d^5(a^2H)4p$	$c^3G - w^3H^\circ$	3 - 4	E25
Fe III	1881.578	200		$3d^5(a^4F)4s - 3d^5(a^2F)4p$	$a^5F - w^3D^\circ$	1 - 2	E25
Fe III	1882.047	650	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	4 - 3	E25
Fe III	1882.357	300		$3d^5(a^2G)4s - 3d^5(a^2H)4p$	$c^3G - w^3H^\circ$	4 - 5	E25
Fe III	1882.979	250	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	3 - 4	E25
Fe III	1883.185	150		$3d^5(a^2F)4s - 3d^5(a^2G)4p$	$b^1F - v^3F^\circ$	3 - 4	E25
Fe III	1883.394	70		$3d^5(a^4D)4s - 3d^5(a^4P)4p$	$b^5D - z^3D^\circ$	0 - 1	E25
Fe III	1883.816	200	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	2 - 1	E25
Fe III	1884.253	150w		$3d^5(a^2G)4s - 3d^5(a^2H)4p$	$c^3G - w^3H^\circ$	4 - 4	E25
Fe III	1884.596	550	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	3 - 2	E25
Fe III	1885.125	600	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	5 - 5	E25
Fe III	1885.947	300	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	4 - 5	E25
Fe III	1886.607	300		$3d^5(a^4D)4s - 3d^5(a^4P)4p$	$b^5D - z^3D^\circ$	2 - 1	E25
Fe III	1886.757	800	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	5 - 4	E25
Fe III	1887.085	70	62	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5D^\circ$	2 - 3	E25
Fe III	1887.197	550	53	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	4 - 3	E25
Fe III	1887.471	550	52	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	2 - 3	E25
Fe III	1887.734	250		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - t^3G^\circ$	5 - 5	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1888.260	150		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - t^3G^\circ$	4 - 5	E25
Fe III	1889.451	300	53	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	3 - 2	E25
Fe III	1889.735	250		$3d^5(a^2D)4s - 3d^5(a^2F)4p$	$b^1D - y^1D^\circ$	2 - 2	E25
Fe III	1890.669	900	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	6 - 5	E25
Fe III	1890.893	150	53	$3d^5(a^4G)4s - 3d^5(a^4P)4p$	$a^5G - z^5D^\circ$	2 - 1	E25
Fe III	1891.070	250	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	3 - 2	E25
Fe III	1891.186	200	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	2 - 1	E25
Fe III	1891.339	70		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - x^5D^\circ$	3 - 2	E25
Fe III	1891.516	300w		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - t^3G^\circ$	4 - 4	E25
Fe III	1891.909	200		$3d^5(a^2D)4s - 3d^5(a^4F)4p$	$c^3D - y^5G^\circ$	3 - 4	E25
Fe III	1892.073	300	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	5 - 4	E25
Fe III	1892.140	300	52	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5F^\circ$	5 - 5	E25
Fe III	1892.247	300	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	4 - 3	E25
Fe III	1892.339	70		$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - y^1I^\circ$	5 - 6	E25
Fe III	1892.488	70		$3d^5(a^4D)4s - 3d^5(a^4P)4p$	$b^5D - z^3D^\circ$	1 - 2	E25
Fe III	1892.598	70		$3d^5(a^2G)4s - 3d^5(a^4F)4p$	$c^3G - u^3F^\circ$	3 - 2	E25
Fe III	1892.890	300	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	4 - 4	E25
Fe III	1893.113	200		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - t^3D^\circ$	2 - 3	E25
Fe III	1893.981	700	83	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - y^3H^\circ$	5 - 4	E25
Fe III	1894.252	300		$3d^5(a^2F)4s - 3d^5(a^2G)4p$	$b^1F - v^3F^\circ$	3 - 3	E25
Fe III	1894.509	200		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3D^\circ$	1 - 2	E25
Fe III	1894.983	250	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	3 - 3	E25
Fe III	1895.456	1000	34	$3d^5(a^6S)4s - 3d^5(a^6S)4p$	$a^7S - z^7P^\circ$	3 - 4	E25
Fe III	1895.635 P		96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	3 - 4	E25
Fe III	1895.912	70		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - t^3G^\circ$	4 - 3	E25
Fe III	1896.333	250		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - t^3G^\circ$	3 - 3	E25
Fe III	1896.734	250		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3D^\circ$	1 - 1	E25
Fe III	1896.803	600	83	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - y^3H^\circ$	6 - 5	E25
Fe III	1897.028	250		$3d^5(a^2D)4s - 3d^5(a^4F)4p$	$c^3D - y^5G^\circ$	3 - 3	E25
Fe III	1897.379	200	83	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - y^3H^\circ$	5 - 5	E25
Fe III	1898.870	400		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$c^3P - z^3S^\circ$	2 - 1	E25
Fe III	1899.318	300	96	$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - r^3F^\circ$	3 - 2	E25
Fe III	1899.931	300		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - s^3F^\circ$	3 - 4	E25
Fe III	1900.575	70		$3d^5(a^2G)4s - 3d^5(a^4F)4p$	$c^3G - u^3F^\circ$	3 - 3	E25
Fe III	1901.096	600	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	5 - 6	E25
Fe III	1901.379	300		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3D^\circ$	3 - 3	E25
Fe III	1901.540	200	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	1 - 1	E25
Fe III	1902.076	300	94	$3d^5(a^4F)4s - 3d^5(a^2F)4p$	$a^5F - y^3G^\circ$	4 - 5	E25
Fe III	1902.402	400		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3D^\circ$	2 - 3	E25
Fe III	1902.902	300		$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$b^1F - y^1F^\circ$	3 - 3	E25
Fe III	1903.159	70		$3d^5(a^4F)4s - 3d^5(a^2F)4p$	$a^5F - w^3D^\circ$	4 - 3	E25
Fe III	1903.257	200		$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$c^3P - z^3S^\circ$	1 - 1	E25
Fe III	1903.706	70		$3d^5(a^2G)4s - 3d^5(a^4F)4p$	$c^3G - u^3F^\circ$	4 - 3	E25
Fe III	1903.983	70		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - t^3D^\circ$	1 - 2	E25
Fe III	1904.257	150		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$c^1D - w^1D^\circ$	2 - 2	E25
Fe III	1904.402	250		$3d^5(a^4D)4s - 3d^5(a^4P)4p$	$b^5D - z^3D^\circ$	3 - 3	E25
Fe III	1905.214	70		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - t^3D^\circ$	3 - 2	E25
Fe III	1905.818	150	96	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - x^5F^\circ$	1 - 2	E25
Fe III	1906.457	400	108	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - w^3F^\circ$	4 - 4	E25
Fe III	1906.814	400		$3d^5(b^2G)4p - 3d^5(a^6S)6g$	$t^3G^\circ - {}^5G$	5 - 4	E25
Fe III	1907.577	650	83	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - y^3H^\circ$	7 - 6	E25
Fe III	1907.741	250	83	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - y^3H^\circ$	6 - 6	E25
Fe III	1909.782	150		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - t^3D^\circ$	1 - 1	E25
Fe III	1909.846	150		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^1G - u^1F^\circ$	4 - 3	E25
Fe III	1910.172	70		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - t^3D^\circ$	2 - 1	E25
Fe III	1910.401	400	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	2 - 1	E25
Fe III	1911.338	450	135	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$a^1H - x^1H^\circ$	5 - 5	E25
Fe III	1911.703	150		$3d^5(a^2I)4s - 3d^5(a^4F)4p$	$b^1I - y^5G^\circ$	6 - 6	E25
Fe III	1912.920	250	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	1 - 1	E25
Fe III	1913.386	70		$3d^5(a^2G)4s - 3d^5(a^4F)4p$	$c^3G - u^3F^\circ$	4 - 4	E25
Fe III	1913.622	250	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	3 - 2	E25
Fe III	1914.056	1000	34	$3d^5(a^6S)4s - 3d^5(a^6S)4p$	$a^7S - z^7P^\circ$	3 - 3	E25
Fe III	1915.083	750	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	6 - 7	E25
Fe III	1915.750	150	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	2 - 2	E25
Fe III	1916.507	300	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	5 - 5	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1917.087	150	108	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - w^3F^\circ$	2 - 2	E25
Fe III	1917.250	250		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - r^3F^\circ$	4 - 3	E25
Fe III	1917.351	550	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	4 - 5	E25
Fe III	1917.453	600	101	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$b^1I - z^1I^\circ$	6 - 6	E25
Fe III	1917.665	150		$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^1K^\circ$	6 - 7	E25
Fe III	1917.960	400		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3P^\circ$	2 - 1	E25
Fe III	1918.284	450	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	1 - 2	E25
Fe III	1918.480	450	108	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - w^3F^\circ$	3 - 3	E25
Fe III	1918.966	200		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - u^3F^\circ$	2 - 2	E25
Fe III	1919.572	250	107	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - w^3D^\circ$	2 - 1	E25
Fe III	1920.186	250	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	4 - 4	E25
Fe III	1920.260	150		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - s^3F^\circ$	2 - 3	E25
Fe III	1920.752	150		$3d^5(a^2H)4s - 3d^5(a^2G)4p$	$a^1H - y^1H^\circ$	5 - 5	E25
Fe III	1921.132	150		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - s^3F^\circ$	3 - 3	E25
Fe III	1921.990	70		$3d^5(a^2H)4s - 3d^5(a^2G)4p$	$b^3H - v^3F^\circ$	4 - 3	E25
Fe III	1922.132	70		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - x^5F^\circ$	4 - 5	E25
Fe III	1922.789	1000	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	5 - 6	E25
Fe III	1923.003	450	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	3 - 4	E25
Fe III	1923.877	450	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	3 - 3	E25
Fe III	1924.119	250		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$c^1F - w^1G^\circ$	3 - 4	E25
Fe III	1924.532	400	79	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^3D - y^3P^\circ$	3 - 2	E25
Fe III	1925.271	250		$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - w^3F^\circ$	3 - 4	E25
Fe III	1925.855	200		$3d^5(a^2F)4s - 3d^5(a^2G)4p$	$b^1F - y^1G^\circ$	3 - 4	E25
Fe III	1926.013	500	57	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - y^5P^\circ$	2 - 3	E25
Fe III	1926.304	1000	34	$3d^5(a^6S)4s - 3d^5(a^6S)4p$	$a^7S - z^7P^\circ$	3 - 2	E25
Fe III	1926.898	200		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - r^3F^\circ$	5 - 4	E25
Fe III	1927.436	300		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3P^\circ$	3 - 2	E25
Fe III	1927.679	150		$3d^5(a^4F)4p - 3d^5(a^4D)5s$	$x^5F^\circ - f^5D$?	1 - 0	E25,K8
Fe III	1928.178	250		$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$b^1F - y^1D^\circ$	3 - 2	E25
Fe III	1928.265	300w	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	3 - 3	E25
Fe III	1928.642	250		$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^1H^\circ$	5 - 5	E25
Fe III	1928.837	250		$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$b^1D - z^1P^\circ$	2 - 1	E25
Fe III	1928.991	70		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - u^3F^\circ$	4 - 3	E25
Fe III	1929.413	250w		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - u^3F^\circ$	3 - 3	E25
Fe III	1929.632	70	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	5 - 5	E25
Fe III	1929.941	150	79	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^3D - y^3P^\circ$	2 - 2	E25
Fe III	1930.184	150w		$3d^5(a^2H)4s - 3d^5(b^2F)4p$	$a^1H - t^3F^\circ$	5 - 4	E25
Fe III	1930.387	1000	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	4 - 5	E25
Fe III	1930.917	150b		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - s^3F^\circ$	1 - 2	E25
Fe III	1931.309	70		$3d^5(b^2D)4s - 3d^5(b^2D)4p$	$d^3D - s^3F^\circ$	2 - 2	E25
Fe III	1931.507	950	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F^\circ$	4 - 5	E25
Fe III	1932.818	300	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	2 - 3	E25
Fe III	1936.806	250b		$3d^5(a^2G)4s - 3d^5(a^2H)4p$	$c^3G - y^1I^\circ$	5 - 6	E25
Fe III	1937.077	200	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	4 - 4	E25
Fe III	1937.345	950	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	3 - 4	E25
Fe III	1937.996	250		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - v^3H^\circ$	4 - 5	E25
Fe III	1938.775	250	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	2 - 2	E25
Fe III	1938.901	650b	106	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - y^3G^\circ$	4 - 5	E25
Fe III	1939.107	70		$3d^5(a^4F)4s - 3d^5(a^2D)4p$	$a^5F - x^3D^\circ$	1 - 1	E25
Fe III	1940.018	550	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F^\circ$	4 - 4	E25
Fe III	1940.631	150	79	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^3D - y^3P^\circ$	1 - 1	E25
Fe III	1940.769	250		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^1G - x^1F^\circ$	4 - 3	E25
Fe III	1941.633	200	79	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^3D - y^3P^\circ$	2 - 1	E25
Fe III	1943.481	950	51	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5H^\circ$	2 - 3	E25
Fe III	1943.715	150		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - x^5F^\circ$	3 - 2	E25
Fe III	1945.342	800	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F^\circ$	3 - 4	E25
Fe III	1945.724	150	106	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - y^3G^\circ$	4 - 4	E25
Fe III	1946.321	20		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - v^3H^\circ$	4 - 4	E25
Fe III	1946.769	200		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^3G - v^3H^\circ$	3 - 4	E25
Fe III	1948.280	200		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^1G - v^1G^\circ$	4 - 4	E25
Fe III	1949.462	150	79	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^3D - y^3P^\circ$	1 - 0	E25
Fe III	1949.666	200	95	$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$a^5F - y^5G^\circ$	1 - 2	E25
Fe III	1950.334	650	116	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - y^3I^\circ$	6 - 7	E25
Fe III	1951.007	800	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G^\circ$	5 - 5	E25
Fe III	1951.318	200	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G^\circ$	5 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1952.362	150w	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G°$	4 - 5	E25
Fe III	1952.514	200	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G°$	3 - 4	E25
Fe III	1952.648	700	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G°$	4 - 4	E25
Fe III	1953.202	250		$3d^5(b^2F)4s - 3d^5(a^2G)4p$	$e^3F - y^1H°$	4 - 5	E25
Fe III	1953.322	900	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G°$	3 - 3	E25
Fe III	1953.488	650	68	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$b^3G - z^3G°$	4 - 3	E25
Fe III	1953.821	70		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - t^3F°$	4 - 3	E25
Fe III	1953.968	250		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - t^3F°$	3 - 3	E25
Fe III	1954.223	650w	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F°$	2 - 3	E25
Fe III	1954.769	250		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - y^5G°$	4 - 5	E25
Fe III	1954.975	550	116	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - y^3I°$	5 - 6	E25
Fe III	1955.943	20		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - y^3D°$	2 - 3	E25
Fe III	1957.137	200		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3F°$	5 - 4	E25
Fe III	1957.375	150		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - t^3F°$	2 - 2	E25
Fe III	1957.938	400	147	$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^1G - y^1H°$	4 - 5	E25
Fe III	1958.583	700	55	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^5D°$	3 - 4	E25
Fe III	1958.732	300		$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3F°$	3 - 2	E25
Fe III	1959.026	200		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - v^3D°$	2 - 1	E25
Fe III	1959.324	550	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F°$	1 - 2	E25
Fe III	1960.318	900	82	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3K°$	7 - 8	E25
Fe III	1961.010	300		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - v^3D°$	4 - 3	E25
Fe III	1961.230	400	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F°$	2 - 2	E25
Fe III	1961.456	70		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - v^3D°$	3 - 3	E25
Fe III	1961.724	70		$3d^5(a^4F)4s - 3d^5(a^4F)4p$	$d^3F - v^3D°$	2 - 2	E25
Fe III	1962.717	300	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F°$	0 - 1	E25
Fe III	1962.958	250		$3d^5(b^2F)4s - 3d^5(b^2F)4p$	$e^3F - t^3F°$	4 - 4	E25
Fe III	1963.209	70		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - y^5G°$	4 - 3	E25
Fe III	1963.461	70		$3d^5(a^2H)4s - 3d^5(a^4F)4p$	$b^3H - w^3G°$	5 - 4	E25
Fe III	1964.019	300	82	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3K°$	7 - 6	E25
Fe III	1964.169	550	82	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3K°$	6 - 6	E25
Fe III	1964.260	450	61	$3d^5(a^2G)4s - 3d^5(a^2G)4p$	$c^3G - v^3F°$	4 - 3	E25
Fe III	1964.776	550	82	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3K°$	5 - 6	E25
Fe III	1965.309	550	106	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - y^3G°$	3 - 4	E25
Fe III	1966.074	200		$3d^5(^4S)4s - 3d^5(a^2S)4p$	$a^3S - w^3P°$	1 - 2	G11
Fe III	1966.201	150	61	$3d^5(a^4D)4s - 3d^5(a^4D)4p$	$b^5D - y^5F°$	2 - 1	E25
Fe III	1966.740	550	116	$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$b^3H - y^3I°$	4 - 5	E25
Fe III	1967.352	250		$3d^5(b^2G)4s - 3d^5(b^2G)4p$	$d^1G - w^1H°$	4 - 5	E25
Fe III	1968.625	150		$3d^5(a^2H)4s - 3d^5(a^2H)4p$	$a^1H - w^3H°$	5 - 6	E25
Fe III	1972.245	150		$3d^5(b^2F)4s - 3d^5(a^2G)4p$	$e^3F - v^3G°$	2 - 3	E25
Fe III	1972.638	150		$3d^5(b^2F)4s - 3d^5(a^2G)4p$	$e^3F - v^3G°$	3 - 4	E25
Fe III	1973.578	20		$3d^5(a^2G)4s - 3d^5(a^2F)4p$	$c^3G - y^1F°$	4 - 3	E25
Fe III	1976.126	550	54	$3d^5(a^4P)4s - 3d^5(a^4G)4p$	$a^5P - z^5F°$	3 - 3	E25
Fe III	1978.417	250	54	$3d^5(a^4P)4s - 3d^5(a^4G)4p$	$a^5P - z^5F°$	2 - 3	E25
Fe III	1978.626	150		$3d^5(a^2H)4s - 3d^5(a^4F)4p$	$b^3H - w^3G°$	6 - 5	E25
Fe III	1979.002	70		$3d^5(a^4F)4s - 3d^5(a^2G)4p$	$d^3F - v^3F°$	4 - 4	E25
Fe III	1980.392	150		$3d^5(b^2F)4s - 3d^5(a^2G)4p$	$e^3F - v^3G°$	4 - 5	E25
Fe III	1982.076	400	54	$3d^5(a^4P)4s - 3d^5(a^4G)4p$	$a^5P - z^5F°$	2 - 2	E25
Fe III	1982.805	550	56	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^5S°$	3 - 2	E25
Fe III	1983.123	20		$3d^5(a^2F)4s - 3d^5(a^4F)4p$	$c^3F - y^5G°$	3 - 3	E25
Fe III	1983.676	150	81	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3I°$	6 - 5	E25
Fe III	1984.027	450	86	$3d^5(a^2D)4s - 3d^5(a^2D)4p$	$c^3D - x^3F°$	3 - 4	E25
Fe III	1984.288	600	81	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3I°$	5 - 5	E25
Fe III	1985.105	200	56	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^5S°$	2 - 2	E25
Fe III	1987.006	70		$3d^5(a^4F)4s - 3d^5(a^2G)4p$	$d^3F - v^3F°$	2 - 2	E25
Fe III	1987.503	1000	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	6 - 6	E25
Fe III	1987.810	200	56	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^5S°$	1 - 2	E25
Fe III	1989.975	450	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	6 - 5	E25
Fe III	1991.613	950	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	5 - 5	E25
Fe III	1992.017	600	81	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3I°$	7 - 7	E25
Fe III	1992.196	600	81	$3d^5(a^2I)4s - 3d^5(a^2I)4p$	$a^3I - z^3I°$	6 - 7	E25
Fe III	1992.427	70	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	4 - 5	E25
Fe III	1992.858	400	106	$3d^5(a^2F)4s - 3d^5(a^2F)4p$	$c^3F - y^3G°$	2 - 3	E25
Fe III	1993.262	450	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	5 - 4	E25
Fe III	1994.073	900	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	4 - 4	E25
Fe III	1994.366	70	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G°$	3 - 4	E25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe III	1995.266	450	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G^\circ$	4 - 3	E25
Fe III	1995.563	800	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G^\circ$	3 - 3	E25
Fe III	1996.420	800	50	$3d^5(a^4G)4s - 3d^5(a^4G)4p$	$a^5G - z^5G^\circ$	2 - 2	E25
Fe III	1999.100	70		$3d^5(a^4P)4s - 3d^5(a^4D)4p$	$c^3P - x^5P^\circ$	2 - 3	E25
Fe III	1999.588	600	55	$3d^5(a^4P)4s - 3d^5(a^4P)4p$	$a^5P - z^5D^\circ$	3 - 3	E25
Fe III	1999.893	200		$3d^5(a^4P)4s - 3d^5(a^4G)4p$	$a^5P - z^5F^\circ$	3 - 4	E25

IRON IV (Fe^{3+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d^5\ ^6S_{5/2}$ (23 electrons)

Ionization Potential [452 000] cm^{-1}; [56] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe IV	525.68	1000		$3d^5 - 3d^4(^5D)4p$	$g^6S - ^6P^\circ$	5/2 - 7/2	K21
Fe IV	526.28	750		$3d^5 - 3d^4(^5D)4p$	$g^6S - ^6P^\circ$	5/2 - 5/2	K21
Fe IV	526.60	600		$3d^5 - 3d^4(^5D)4p$	$g^6S - ^6P^\circ$	5/2 - 3/2	K21
Fe IV	597.54 P			$3d^5 - 3d^4(^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	K8
Fe IV	598.82 P			$3d^5 - 3d^4(^5D)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	K8
Fe IV	607.54 P			$3d^5 - 3d^4(^5D)4p$	$a^4G - z^4F^\circ$	11/2 - 9/2	K8
Fe IV	608.81 P			$3d^5 - 3d^4(^5D)4p$	$a^4G - z^4F^\circ$	9/2 - 7/2	K8
Fe IV	610.39 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 7/2	K8
Fe IV	612.02 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 5/2	K8
Fe IV	621.01 P			$3d^5 - 3d^4(^5D)4p$	$a^4G - z^4F^\circ$	7/2 - 5/2	K8
Fe IV	632.64 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 9/2	K8
Fe IV	634.45 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 7/2	K8
Fe IV	635.56 P			$3d^5 - 3d^4(^5D)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	K8
Fe IV	647.68 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 5/2	K8
Fe IV	650.12 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4P^\circ$	7/2 - 5/2	K8
Fe IV	654.62 P			$3d^5 - 3d^4(^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 3/2	K8
Fe IV	666.74 P			$3d^5 - 3d^4(^5D)4p$	$a^4F - z^4D^\circ$	9/2 - 7/2	K8
Fe IV	668.31 P			$3d^5 - 3d^4(^5D)4p$	$a^4F - z^4D^\circ$	7/2 - 5/2	K8
Fe IV	693.36 P			$3d^5 - 3d^4(^5D)4p$	$a^4F - z^4F^\circ$	9/2 - 9/2	K8

IRON V (Fe^{4+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d^4\ ^5D_0$ (22 electrons)

Ionization Potential [621 000] cm^{-1}; [77] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe V	364.292	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 3	B25
Fe V	364.795	400		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 3	B25
Fe V	364.973	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 2	B25
Fe V	365.339	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 2	B25
Fe V	365.440	600		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	4 - 3	B25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe V	365.634	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 1	B25
Fe V	365.858	600		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 2	B25
Fe V	366.001	300		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 1	B25
Fe V	373.720	500		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	B25
Fe V	374.240	400		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	B25
Fe V	374.464	200		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	B25
Fe V	374.864	500		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	B25
Fe V	379.032	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3G^\circ$	4 - 5	B25
Fe V	379.294	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3G^\circ$	3 - 4	B25
Fe V	380.664	300		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	B25
Fe V	381.152	200		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 3	B25
Fe V	381.260	300		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	B25
Fe V	381.467	50		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 5	B25
Fe V	381.671	50		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 4	B25
Fe V	381.881	400		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	B25
Fe V	383.484	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 3	B25
Fe V	384.212	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 2	B25
Fe V	384.610	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 2	B25
Fe V	384.826	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 1	B25
Fe V	384.957	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 5	B25
Fe V	385.023	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 4	B25
Fe V	385.740	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 2	B25
Fe V	385.869	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 3	B25
Fe V	386.156	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 2	B25
Fe V	386.256	50		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	0 - 1	B25
Fe V	386.483	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 1	B25
Fe V	386.585	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 3	B25
Fe V	386.737	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 2	B25
Fe V	386.783	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 4	B25
Fe V	386.897	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 1	B25
Fe V	387.199	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 3	B25
Fe V	387.500	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 4	B25
Fe V	387.616	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 2	B25
Fe V	387.775	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 3	B25
Fe V	387.983	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	0 - 1	B25
Fe V	388.500	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 3	B25
Fe V	388.607	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 2	B25
Fe V	392.907	600		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	6 - 5	B25
Fe V	393.270	500		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 4	B25
Fe V	393.911	400		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 3	B25
Fe V	395.155	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 5	B25
Fe V	395.789	200		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 4	B25
Fe V	396.773	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	2 - 3	B25
Fe V	396.902	50		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 3	B25
Fe V	400.625	400		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	B25
Fe V	401.030	200		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	B25
Fe V	401.639	200		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	B25
Fe V	402.197	100		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 3	B25
Fe V	414.790	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 4	B25
Fe V	415.006	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 4	B25
Fe V	415.825	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 3	B25
Fe V	415.972	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 3	B25
Fe V	416.208	500		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 3	B25
Fe V	416.910	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 2	B25
Fe V	417.048	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 2	B25
Fe V	417.382	600		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	6 - 5	B25
Fe V	417.516	50		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 4	B25
Fe V	418.033	600		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 4	B25
Fe V	418.457	500		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 3	B25
Fe V	419.915	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 5	B25
Fe V	420.546	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 4	B25
Fe V	420.874	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 4	B25
Fe V	421.045	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	5 - 4	B25
Fe V	421.682	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	2 - 3	B25
Fe V	421.765	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 3	B25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe V	422.287	600		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 2	B25
Fe V	423.833	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	B25
Fe V	424.733	300		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 2	B25
Fe V	425.476	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 1	B25
Fe V	425.589	100		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 5	B25
Fe V	425.840	50		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	0 - 1	B25
Fe V	426.045	500		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 3	B25
Fe V	426.097	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 5	B25
Fe V	426.609	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	1 - 2	B25
Fe V	426.745	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 3	B25
Fe V	426.814	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 4	B25
Fe V	426.969	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	4 - 3	B25
Fe V	427.190	300		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 3	B25
Fe V	427.320	100		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 4	B25
Fe V	427.442	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 2	B25
Fe V	427.782	100		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 3	B25
Fe V	427.918	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	0 - 1	B25
Fe V	428.000	50		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 2	B25
Fe V	428.131	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 2	B25
Fe V	428.292	50		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5F^\circ$	2 - 3	B25
Fe V	428.763	500		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 1	B25
Fe V	428.909	500		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	1 - 2	B25
Fe V	429.206	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	4 - 3	B25
Fe V	430.053	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	3 - 2	B25
Fe V	430.624	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	2 - 3	B25
Fe V	431.541	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	4 - 3	B25
Fe V	432.340	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	3 - 2	B25
Fe V	432.919	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	2 - 1	B25
Fe V	1302.99	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G^\circ$	3 - 3	B25
Fe V	1303.59	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3G^\circ$	5 - 5	B25
Fe V	1357.18	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	2 - 2	B25
Fe V	1359.41	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	1 - 1	B25
Fe V	1361.42	500		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	4 - 3	B25
Fe V	1363.00	400		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	3 - 4	B25
Fe V	1363.72	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	4 - 5	B25
Fe V	1365.14	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^3D^\circ$	3 - 2	B25
Fe V	1365.73	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	2 - 3	B25
Fe V	1371.00	400		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	1 - 2	B25
Fe V	1373.68	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	3 - 3	B25
Fe V	1376.45	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	5 - 5	B25
Fe V	1380.18	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	1 - 1	B25
Fe V	1384.37	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	4 - 3	B25
Fe V	1384.75	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	3 - 2	B25
Fe V	1385.32	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	3 - 4	B25
Fe V	1386.43	50		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5F^\circ$	5 - 4	B25
Fe V	1388.17	500		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 3	B25
Fe V	1389.05	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 4	B25
Fe V	1389.97	50		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	2 - 3	B25
Fe V	1394.77	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	1 - 2	B25
Fe V	1398.15	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	3 - 3	B25
Fe V	1400.30	400		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	2 - 2	B25
Fe V	1402.45	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	3 - 3	B25
Fe V	1406.78	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	4 - 4	B25
Fe V	1408.19	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	2 - 1	B25
Fe V	1409.19	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	4 - 3	B25
Fe V	1409.51	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5D^\circ$	5 - 4	B25
Fe V	1420.39	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3F^\circ$	4 - 3	B25
Fe V	1430.61	800		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	5 - 6	B25
Fe V	1440.59	700		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	4 - 5	B25
Fe V	1448.91	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	3 - 4	B25
Fe V	1454.71	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	5 - 5	B25
Fe V	1455.59	500		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	2 - 3	B25
Fe V	1456.23	500		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	2 - 3	B25
Fe V	1459.85	500		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	3 - 4	B25
Fe V	1460.86	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	4 - 4	B25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe V	1462.67	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	1 - 2	B25
Fe V	1464.73	600		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	4 - 5	B25
Fe V	1465.37	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$a^5F - z^5G^\circ$	3 - 3	B25
Fe V	1479.29	400		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3G^\circ$	4 - 4	B25
Fe V	1532.80	400		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	3 - 3	B25
Fe V	1533.57	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	2 - 2	B25
Fe V	1543.66	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	2 - 1	B25
Fe V	1544.50	300		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^5F^\circ$	2 - 3	B25
Fe V	1550.90	200		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	3 - 2	B25
Fe V	1554.27	100		$3d^3(a^4F)4s - 3d^3(a^4F)4p$	$b^3F - z^3D^\circ$	4 - 3	B25

IRON VI (Fe^{5+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d^3\ ^4F_{3/2}$ (21 electrons)

Ionization Potential [815 000] cm^{-1}; [101] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VI	276.947	300		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	B24
Fe VI	277.569	600		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	B24
Fe VI	277.610	200		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 5/2	B24
Fe VI	277.951	300		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 3/2	B24
Fe VI	278.149	500		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	B24
Fe VI	278.339	500		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	B24
Fe VI	278.471	300		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 1/2	B24
Fe VI	283.770	500		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	B24
Fe VI	284.504	400		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	B24
Fe VI	287.333	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	9/2 - 9/2	B24
Fe VI	288.551	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	B24
Fe VI	289.112	500		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	B24
Fe VI	289.302	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	B24
Fe VI	289.468	300		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	B24
Fe VI	289.520	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 5/2	B24
Fe VI	289.672	200		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	B24
Fe VI	289.851	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	B24
Fe VI	290.038	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	B24
Fe VI	290.089	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	7/2 - 5/2	B24
Fe VI	290.146	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	3/2 - 3/2	B24
Fe VI	290.271	600		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	B24
Fe VI	290.302	500		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	B24
Fe VI	290.499	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 7/2	B24
Fe VI	290.577	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D^\circ$	5/2 - 3/2	B24
Fe VI	290.737	400		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	B24
Fe VI	290.890	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 5/2	B24
Fe VI	291.020	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	3/2 - 1/2	B24
Fe VI	291.184	600		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	9/2 - 7/2	B24
Fe VI	291.229	600		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	9/2 - 9/2	B24
Fe VI	291.473	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	7/2 - 5/2	B24
Fe VI	291.632	200		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H^\circ$	11/2 - 9/2	B24
Fe VI	291.800	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D^\circ$	5/2 - 3/2	B24
Fe VI	291.829	500		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	B24
Fe VI	291.931	50		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	3/2 - 5/2	B24
Fe VI	292.038	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 7/2	B24
Fe VI	292.343	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	5/2 - 5/2	B24
Fe VI	292.597	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	B24
Fe VI	292.736	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	9/2 - 7/2	B24
Fe VI	292.925	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 5/2	B24
Fe VI	293.046	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 9/2	B24

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VI	293.214	100		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	B24
Fe VI	293.292	400		$3d^3 - 3d^2(a^3P)4p$	$a^2G - y^4D^\circ$	9/2 - 7/2	B24
Fe VI	293.384	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 7/2	B24
Fe VI	293.488	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 11/2	B24
Fe VI	293.745	800		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 9/2	B24
Fe VI	293.820	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 5/2	B24
Fe VI	293.966	800		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 7/2	B24
Fe VI	294.040	50		$3d^3 - 3d^2(a^3P)4p$	$a^2G - y^4D^\circ$	7/2 - 5/2	B24
Fe VI	294.265	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 5/2	B24
Fe VI	294.339	500		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 9/2	B24
Fe VI	294.520	700		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	3/2 - 3/2	B24
Fe VI	294.665	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	9/2 - 7/2	B24
Fe VI	294.850	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	7/2 - 5/2	B24
Fe VI	294.960	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	B24
Fe VI	295.014	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	5/2 - 7/2	B24
Fe VI	295.042	200		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 9/2	B24
Fe VI	295.634	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	3/2 - 5/2	B24
Fe VI	296.317	100		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	9/2 - 7/2	B24
Fe VI	296.723	300		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 5/2	B24
Fe VI	296.808	500		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	1/2 - 3/2	B24
Fe VI	296.988	600		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	3/2 - 3/2	B24
Fe VI	297.131	200		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 9/2	B24
Fe VI	297.308	700		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	B24
Fe VI	297.568	800d		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	B24
Fe VI	299.579	100		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 7/2	B24
Fe VI	299.803	100		$3d^3 - 3d^2(a^3P)4p$	$a^2H - y^4D^\circ$	9/2 - 7/2	B24
Fe VI	300.997	200		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 5/2	B24
Fe VI	303.558	400		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 9/2	B24
Fe VI	304.221	700		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	B24
Fe VI	304.551	700		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	B24
Fe VI	305.200	400		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	B24
Fe VI	305.837	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 5/2	B24
Fe VI	306.460	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 5/2	B24
Fe VI	306.823	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	1/2 - 3/2	B24
Fe VI	306.922	500		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	B24
Fe VI	307.013	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 3/2	B24
Fe VI	307.375	400		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	B24
Fe VI	307.404	300		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2D^\circ$	7/2 - 5/2	B24
Fe VI	307.800	300		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	B24
Fe VI	307.884	50		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	7/2 - 7/2	B24
Fe VI	308.007	300		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	B24
Fe VI	308.187	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	B24
Fe VI	308.383	200		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	B24
Fe VI	308.534	400		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	9/2 - 7/2	B24
Fe VI	308.644	500		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F^\circ$	5/2 - 7/2	B24
Fe VI	308.960	300		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	7/2 - 5/2	B24
Fe VI	308.993	300		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F^\circ$	3/2 - 5/2	B24
Fe VI	309.627	100		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 7/2	B24
Fe VI	310.274	500		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	B24
Fe VI	310.601	400		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	B24
Fe VI	310.807	50		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 7/2	B24
Fe VI	311.138	100		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	3/2 - 5/2	B24
Fe VI	311.236	200		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 9/2	B24
Fe VI	311.702	700		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	11/2 - 9/2	B24
Fe VI	312.263	700		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 7/2	B24
Fe VI	314.299	300		$3d^3 - 3d^2(a^3F)4p$	$a^2P - z^2D^\circ$	1/2 - 3/2	B24
Fe VI	314.814	100		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G^\circ$	7/2 - 5/2	B24
Fe VI	315.027	400		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	B24
Fe VI	315.506	300		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 7/2	B24
Fe VI	317.319	300		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	B24
Fe VI	318.364	300		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 5/2	B24

IRON VII (Fe^{6+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2$ $^3F_2$ (20 electrons)

Ionization Potential [1 016 000] cm^{-1}; [126] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VII	150.185	50		$3d^2$ - $3d4f$	ga^3F - $y^3D°$	2 - 1	E5
Fe VII	150.280	100		$3d^2$ - $3d4f$	ga^3F - $y^1F°$	2 - 3	E5
Fe VII	150.402	50		$3d^2$ - $3d4f$	ga^3F - $y^3D°$	3 - 2	E5
Fe VII	150.524	100		$3d^2$ - $3d4f$	ga^3F - $y^3D°$	4 - 3	E5
Fe VII	150.806	500		$3d^2$ - $3d4f$	ga^3F - $z^3G°$	2 - 3	E5
Fe VII	150.851	500		$3d^2$ - $3d4f$	ga^3F - $z^3G°$	3 - 4	E5
Fe VII	151.022	600		$3d^2$ - $3d4f$	ga^3F - $z^3G°$	4 - 5	E5
Fe VII	151.044	100		$3d^2$ - $3d4f$	ga^3F - $z^3G°$	3 - 3	E5
Fe VII	151.143	200		$3d^2$ - $3d4f$	ga^3F - $z^3G°$	4 - 4	E5
Fe VII	151.268	50		$3d^2$ - $3d4f$	ga^3F - $z^3H°$	3 - 4	E5
Fe VII	151.430	400		$3d^2$ - $3d4f$	ga^3F - $z^3H°$	4 - 5	E5
Fe VII	151.485	50		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	3 - 4	E5
Fe VII	151.510	400		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	2 - 2	E5
Fe VII	151.673	420		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	3 - 3	E5
Fe VII	151.748	100		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	3 - 2	E5
Fe VII	151.780	500		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	4 - 4	E5
Fe VII	151.968	100		$3d^2$ - $3d4f$	ga^3F - $y^3F°$	4 - 3	E5
Fe VII	152.069	300		$3d^2$ - $3d4f$	ga^3F - $z^1G°$	4 - 4	E5
Fe VII	152.906	50		$3d^2$ - $3d4f$	a^1D - $y^1P°$	2 - 1	E5
Fe VII	153.658	50		$3d^2$ - $3d4f$	a^1D - $y^3P°$	2 - 1	E5
Fe VII	153.742	20		$3d^2$ - $3d4f$	a^1D - $y^3P°$	2 - 2	E5
Fe VII	154.039	300		$3d^2$ - $3d4f$	a^1D - $y^3D°$	2 - 3	E5
Fe VII	154.214	50		$3d^2$ - $3d4f$	a^1D - $y^3D°$	2 - 2	E5
Fe VII	154.269	100		$3d^2$ - $3d4f$	a^3P - $y^3P°$	0 - 1	E5
Fe VII	154.304	200		$3d^2$ - $3d4f$	a^3P - $y^3P°$	1 - 0	E5
Fe VII	154.334	400		$3d^2$ - $3d4f$	a^1D - $y^1F°$	2 - 3	E5
Fe VII	154.359	100		$3d^2$ - $3d4f$	a^3P - $y^3P°$	1 - 1	E5
Fe VII	154.446	50		$3d^2$ - $3d4f$	a^3P - $y^3P°$	1 - 2	E5
Fe VII	154.562	200		$3d^2$ - $3d4f$	a^3P - $y^3P°$	2 - 1	E5
Fe VII	154.648	500		$3d^2$ - $3d4f$	a^3P - $y^3P°$	2 - 2	E5
Fe VII	154.701	400		$3d^2$ - $3d4f$	a^1D - $y^1D°$	2 - 2	E5
Fe VII	154.846	300		$3d^2$ - $3d4f$	a^3P - $y^3D°$	0 - 1	E5
Fe VII	154.885	100		$3d^2$ - $3d4f$	a^1D - $z^3G°$	2 - 3	E5
Fe VII	154.920	400		$3d^2$ - $3d4f$	a^3P - $y^3D°$	1 - 2	E5
Fe VII	154.945	400		$3d^2$ - $3d4f$	a^3P - $y^3D°$	2 - 3	E5
Fe VII	155.122	50		$3d^2$ - $3d4f$	a^3P - $y^3D°$	2 - 2	E5
Fe VII	155.243	200		$3d^2$ - $3d4f$	a^3P - $y^1F°$	2 - 3	E5
Fe VII	155.412	50		$3d^2$ - $3d4f$	a^3P - $y^1D°$	1 - 2	E5
Fe VII	155.548	50		$3d^2$ - $3d4f$	a^1D - $y^3F°$	2 - 3	E5
Fe VII	155.991	500		$3d^2$ - $3d4f$	a^1G - $z^1H°$	4 - 5	E5
Fe VII	158.163	300		$3d^2$ - $3d4f$	a^1G - $y^3F°$	4 - 4	E5
Fe VII	158.477	400		$3d^2$ - $3d4f$	a^1G - $z^1G°$	4 - 4	E5
Fe VII	165.081	300		$3d^2$ - $3d4f$	a^1S - $y^1P°$	0 - 1	E5
Fe VII	165.95	600		$3d^2$ - $3d4f$	a^1S - $y^3P°$?	0 - 1	F11,K8
Fe VII	166.629	50		$3d^2$ - $3d4f$	a^1S - $y^3D°$	0 - 1	E5
Fe VII	228.866	20		$3d^2$ - $3d4p$	ga^3F - $z^3P°$?	2 - 1	B5,K8
Fe VII	231.043	100		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	3 - 4	E5
Fe VII	231.726	300		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	4 - 4	E5
Fe VII	232.256	200		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	3 - 3	E5
Fe VII	232.442	200		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	2 - 2	E5
Fe VII	232.948	100		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	4 - 3	E5
Fe VII	233.021	300		$3d^2$ - $3d4p$	ga^3F - $z^3F°$	3 - 2	E5
Fe VII	233.762	50		$3d^2$ - $3d4p$	ga^3F - $z^3D°$	2 - 2	E5
Fe VII	234.336	200		$3d^2$ - $3d4p$	ga^3F - $z^3D°$	3 - 2	E5
Fe VII	234.754	200		$3d^2$ - $3d4p$	a^1D - $z^1P°$	2 - 1	E5
Fe VII	235.659	200		$3d^2$ - $3d4p$	ga^3F - $z^1D°$	3 - 2	E5
Fe VII	236.388	50		$3d^2$ - $3d4p$	a^3P - $z^1P°$	1 - 1	E5
Fe VII	236.779	20		$3d^2$ - $3d4p$	a^1D - $z^1F°$	2 - 3	E5
Fe VII	236.865	20		$3d^2$ - $3d4p$	a^3P - $z^1P°$	2 - 1	E5
Fe VII	238.040	20		$3d^2$ - $3d4p$	a^1D - $z^3P°$	2 - 2	E5

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VII	238.386	100		$3d^2 - 3d4p$	$a^1D - z^3P^\circ$	2 - 1	E5
Fe VII	239.728	100		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 2	E5
Fe VII	239.851	50		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	0 - 1	E5
Fe VII	240.049	50		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 0	E5
Fe VII	240.076	50		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	1 - 1	E5
Fe VII	240.216	200		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 2	E5
Fe VII	240.565	50		$3d^2 - 3d4p$	$a^3P - z^3P^\circ$	2 - 1	E5
Fe VII	243.370	400		$3d^2 - 3d4p$	$a^1G - z^1F^\circ$	4 - 3	E5
Fe VII	244.535	100		$3d^2 - 3d4p$	$a^3P - z^3F^\circ$	2 - 2	E5
Fe VII	245.151	120		$3d^2 - 3d4p$	$a^1D - z^1D^\circ$	2 - 2	E5
Fe VII	245.492	120		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	1 - 2	E5
Fe VII	246.005	20		$3d^2 - 3d4p$	$a^3P - z^3D^\circ$	2 - 2	E5
Fe VII	247.458	50		$3d^2 - 3d4p$	$a^3P - z^1D^\circ$	2 - 2	E5

IRON VIII (Fe^{7+}), Z = 26

Ground State $1s^22s^22p^63s^23p^63d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 1 218 400 cm^{-1}; 151.06 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VIII	93.46	100		3d - 7f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Fe VIII	93.61	200		3d - 7f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Fe VIII	98.37	200		3d - 6f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Fe VIII	98.54	300		3d - 6f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Fe VIII	107.872	400		3d - 5f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Fe VIII	108.083	400		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Fe VIII	112.25	250		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 5/2	F31,C16
Fe VIII	112.47	350		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 3/2	F31,C16
Fe VIII	112.49	350		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 5/2	F31,C16
Fe VIII	112.70	250		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 3/2	F31,C16
Fe VIII	112.93	500		$3p^63d - 3p^53d(^1F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	F31,C16
Fe VIII	114.05	150		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	3/2 - 5/2	F31,C16
Fe VIII	114.29	300		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 5/2	F31,C16
Fe VIII	114.56	300		$3p^63d - 3p^53d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 7/2	F31,C16
Fe VIII	116.18	400		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	3/2 - 5/2	F31,C16
Fe VIII	116.43	50		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 5/2	F31,C16
Fe VIII	117.18	500		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	F31,C16
Fe VIII	117.65	300		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	3/2 - 5/2	F31,C16
Fe VIII	118.28	300		$3p^63d - 3p^53d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	5/2 - 7/2	F31,C16
Fe VIII	118.63	150		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 3/2	F31,C16
Fe VIII	118.89	400		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	5/2 - 3/2	F31,C16
Fe VIII	119.37	400		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 1/2	F31,C16
Fe VIII	120.31	150		$3p^63d - 3p^53d(^3P^\circ)4s$	$g^2D - {}^4P^\circ$?	5/2 - 3/2	F31,C16
Fe VIII	130.939	400		3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	K28
Fe VIII	131.242	450		3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	K28
Fe VIII	167.49	700		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	3/2 - 3/2	G1,F11
Fe VIII	167.64	700		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	3/2 - 5/2	G1,F11
Fe VIII	168.03	700		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	5/2 - 3/2	G1,F11
Fe VIII	168.18	800		$3p^63d - 3p^53d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G1,F11
Fe VIII	168.54	800		$3p^63d - 3p^53d^2$	$g^2D - {}^2P^\circ$	5/2 - 3/2	F11,C17
Fe VIII	168.90	700		$3p^63d - 3p^53d^2$	$g^2D - {}^2P^\circ$	3/2 - 1/2	F11,C17
Fe VIII?	174.03	100					A2,F11
Fe VIII	185.22	800		$3p^63d - 3p^53d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G1,F11
Fe VIII	186.60	800		$3p^63d - 3p^53d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G1,F11
Fe VIII	187.27	600		$3p^63d - 3p^53d^2$	$g^2D - {}^2F^\circ$	5/2 - 5/2	F11,C17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe VIII	194.762	250		3d - 4p	g^2D - $^2P^\circ$	3/2 - 3/2	K28
Fe VIII	195.476	1000		3d - 4p	g^2D - $^2P^\circ$	5/2 - 3/2	K28
Fe VIII	196.046	750		3d - 4p	g^2D - $^2P^\circ$	3/2 - 1/2	K28
Fe VIII	222.189	200		4p - 6s	$^2P^\circ$ - ^2S	1/2 - 1/2	K28
Fe VIII	223.870	200		4p - 6s	$^2P^\circ$ - ^2S	3/2 - 1/2	K28
Fe VIII	365.873	400		4p - 5s	$^2P^\circ$ - ^2S	1/2 - 1/2	K28
Fe VIII	370.432	500		4p - 5s	$^2P^\circ$ - ^2S	3/2 - 1/2	K28
Fe VIII?	373.20	300					A1

IRON IX (Fe^{8+}), Z = 26

Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)

Ionization Potential 1 895 800 cm^{-1}; 235.04 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe IX	72.85	10		$3p^6$ - $3p^5(^2P^\circ)5s$	g^1S - 1/2[1/2]°	0 - 1	A1
Fe IX	73.63	20		$3p^6$ - $3p^5(^2P^\circ)5s$	g^1S - 3/2[3/2]°	0 - 1	A1
Fe IX	82.43	30		$3p^6$ - $3p^5(^2P^\circ)4d$	g^1S - (1/2,3/2)°	0 - 1	A1
Fe IX	83.45	40		$3p^6$ - $3p^5(^2P^\circ)4d$	g^1S - (3/2,5/2)°	0 - 1	A1
Fe IX	103.566	80		$3p^6$ - $3p^54s$	g^1S - $^1P^\circ$	0 - 1	F10,K29
Fe IX	105.208	60		$3p^6$ - $3p^54s$	g^1S - $^3P^\circ$	0 - 1	F10,K29
Fe IX	111.713	10		$3p^53d$ - $3p^54f$	$^3P^\circ$ - ^3D	0 - 1	F10,W1
Fe IX	111.791	20		$3p^53d$ - $3p^54f$	$^3P^\circ$ - ^3D	1 - 2	F10,W1
Fe IX	112.01	10		$3p^53d$ - $3p^54f$	$^3P^\circ$ - ^3D	1 - 1	W1
Fe IX	112.096	40		$3p^53d$ - $3p^54f$	$^3P^\circ$ - ^3D	2 - 3	F10,W1
Fe IX	112.37	10		$3p^53d$ - $3p^54f$	$^3F^\circ$ - ^1G	3 - 4	W1,K8
Fe IX	113.793	60		$3p^53d$ - $3p^54f$	$^3F^\circ$ - ^3G	4 - 5	F10,W1
Fe IX	114.024	40		$3p^53d$ - $3p^54f$	$^3F^\circ$ - ^3G	3 - 4	F10,W1
Fe IX	114.111	20		$3p^53d$ - $3p^54f$	$^3F^\circ$ - ^3G	2 - 3	F10,W1
Fe IX	115.353	30		$3p^53d$ - $3p^54f$	$^1D^\circ$ - ^1F	2 - 3	F10,W1
Fe IX	115.996	30		$3p^53d$ - $3p^54f$	$^3D^\circ$ - ^3F	3 - 4	F10,W1
Fe IX	116.193			$3p^53d$ - $3p^54f$	$^1F^\circ$ - ^1D	3 - 2	F10,K8
Fe IX	116.42	40		$3p^53d$ - $3p^54f$	$^3D^\circ$ - ^3F	2 - 3	W1
Fe IX	116.803	50		$3p^53d$ - $3p^54f$	$^3D^\circ$ - ^1G	3 - 4	F10,W1
Fe IX	171.075	900		$3p^6$ - $3p^53d$	g^1S - $^1P^\circ$	0 - 1	F2,F11
Fe IX	217.108	400		$3p^6$ - $3p^53d$	g^1S - $^3D^\circ$	0 - 1	F2,B5

IRON X (Fe^{9+}), Z = 26

Ground State $1s^2 2s^2 2p^3 3s^2 3p^5\ ^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 2 114 000 cm^{-1}; 262.1 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe X	62.8 P			$3p^5 - 3p^4(^1D)5s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F23
Fe X	75.865			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F10
Fe X	76.006			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F10
Fe X	76.495	30b		$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F10,B5
Fe X	76.53 P			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F23
Fe X	76.822			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F10
Fe X	77.45 P			$3p^5 - 3p^4(^1D)4d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F23
Fe X	77.627			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	F10
Fe X	77.728			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^4F$	3/2 - 5/2	F10
Fe X	77.812			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F10
Fe X	77.865	20		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F10,B5
Fe X	78.151			$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F10
Fe X	78.769	20b		$3p^5 - 3p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F10,B5
Fe X	89.577	10		$3p^4(^3P)3d - 3p^4(^1S)4f$	$^4D - ^2F^\circ$?	7/2 - 7/2	B5,K8
Fe X	94.012	400		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E20
Fe X	95.338	100		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	E20
Fe X	95.374	300		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E20
Fe X	96.122	400		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E20
Fe X	96.788	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	E20
Fe X	97.122	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E20
Fe X	97.591	10		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	E20
Fe X	97.838	10		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	E20
Fe X	100.590	400		$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4D - ^4F^\circ$	7/2 - 9/2	F10,B5
Fe X	101.435			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^2G^\circ$	7/2 - 9/2	F10
Fe X	101.733			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	5/2 - 7/2	F10
Fe X	101.846			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	3/2 - 5/2	F10
Fe X	102.095			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	9/2 - 11/2	F10
Fe X	102.192			$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2G - ^2H^\circ$	9/2 - 11/2	F10
Fe X	102.348			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^4F - ^4G^\circ$	7/2 - 9/2	F10
Fe X	102.829			$3p^4(^1S)3d - 3p^4(^1S)4f$	$^2D - ^2F^\circ$	3/2 - 5/2	F10
Fe X	103.164			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2F - ^2G^\circ$	7/2 - 9/2	F10
Fe X	103.319			$3p^4(^1S)3d - 3p^4(^1S)4f$	$^2D - ^2F^\circ$	5/2 - 7/2	F10
Fe X	103.724			$3p^4(^3P)3d - 3p^4(^3P)4f$	$^2F - ^2G^\circ$	5/2 - 7/2	F10
Fe X	104.248			$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2F - ^2G^\circ$	5/2 - 7/2	F10
Fe X	104.638			$3p^4(^1D)3d - 3p^4(^1D)4f$	$^2F - ^2G^\circ$	7/2 - 9/2	F10
Fe X	137.027			$3p^4(^3P)3d - 3p^4(^3P)4p$	$^4D - ^4P^\circ$	7/2 - 5/2	F10
Fe X	139.868			$3p^4(^1D)3d - 3p^4(^1D)4p$	$^2G - ^2F^\circ$	9/2 - 7/2	F10
Fe X	140.296			$3p^4(^3P)3d - 3p^4(^3P)4p$	$^4F - ^4D^\circ$	9/2 - 7/2	F10
Fe X	140.678			$3p^4(^1D)3d - 3p^4(^1D)4p$	$^2G - ^2F^\circ$	7/2 - 5/2	F10
Fe X	142.019	20		$3p^4(^3P)3d - 3p^4(^1D)4p$	$^2D - ^2F^\circ$?	5/2 - 5/2	B5,K8
Fe X	144.328			$3p^4(^1D)3d - 3p^4(^1D)4p$	$^2F - ^2D^\circ$	7/2 - 5/2	F10
Fe X	170.58	100		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F13,B5
Fe X	174.58	700		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F13,F11
Fe X	175.26	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F13,F11
Fe X	175.48			$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F13
Fe X	177.24	800		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F13,F11
Fe X	180.45	700b		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F13,F11
Fe X	182.31	300		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F13,B5
Fe X	184.53	600		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F13,F11
Fe X	190.02	400		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F13,E31
Fe X	210.67	200		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$?	3/2 - 5/2	F11,W14
Fe X	345.75	10		$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F2,B5
Fe X	365.57			$3s^2 3p^5 - 3s\,3p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F2

Fe XI

IRON XI (Fe^{10+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4\ ^3P_2$ (16 electrons)

Ionization Potential 2 342 000 cm^{-1}; 290.4 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XI	72.166			$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	F10
Fe XI	72.310			$3p^4 - 3p^3(^2D^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	F10
Fe XI	72.635			$3p^4 - 3p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	F10
Fe XI	77.00	40		$3p^4 - 3p^3(^4S^\circ)4d$	$^1S - ^3D^\circ$?	0 - 1	F23,K8
Fe XI	86.149	10		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^1D^\circ$	2 - 2	E19
Fe XI	86.513	100		$3p^4 - 3p^3(^2P^\circ)4s$	$^1D - ^1P^\circ$	2 - 1	E19
Fe XI	86.772	200		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 3	E19
Fe XI	87.025	120		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	2 - 2	E19
Fe XI	87.995	10		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 2	E19
Fe XI	88.029	10		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	1 - 1	E19
Fe XI	88.167	10		$3p^4 - 3p^3(^2D^\circ)4s$	$g\,^3P - ^3D^\circ$	0 - 1	E19
Fe XI	89.104	200		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^1D^\circ$	2 - 2	E19
Fe XI	89.185	100		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	2 - 1	E19
Fe XI	89.703	10		$3p^4 - 3p^3(^2D^\circ)4s$	$^1D - ^3D^\circ$?	2 - 3	B5,K8
Fe XI	89.771	10		$3p^4 - 3p^3(^2P^\circ)4s$	$^1S - ^1P^\circ$	0 - 1	E19
Fe XI	90.170	10		$3p^3(^2D^\circ)3d - 3p^3(^2P^\circ)4f$	$^3P^\circ - ^3G$?	2 - 3	B5,K8
Fe XI	90.205	100		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	1 - 1	E19
Fe XI	90.345	10		$3p^4 - 3p^3(^4S^\circ)4s$	$g\,^3P - ^3S^\circ$	0 - 1	E19
Fe XI	91.394			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	2 - 3	F10
Fe XI	91.472			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	3 - 4	F10
Fe XI	91.63			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3F^\circ - ^3G$	4 - 5	F10
Fe XI	91.733			$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4f$	$^5D^\circ - ^5F$	4 - 5	F10
Fe XI	92.81			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3G^\circ - ^3H$	4 - 5	F10
Fe XI	92.87			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^3G^\circ - ^3H$	5 - 6	F10
Fe XI	93.02			$3p^3(^2P^\circ)3d - 3p^3(^2P^\circ)4f$	$^3F^\circ - ^3G$	2 - 3	F10
Fe XI	93.433			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4f$	$^1G^\circ - ^1H$	4 - 5	F10
Fe XI	121.419			$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - ^5P$	4 - 3	F10
Fe XI	121.747			$3p^3(^4S^\circ)3d - 3p^3(^4S^\circ)4p$	$^5D^\circ - ^5P$	3 - 2	F10
Fe XI	123.49	200		$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4p$	$^3G^\circ - ^3F$	5 - 4	F10,B5
Fe XI	123.572			$3p^3(^2P^\circ)3d - 3p^3(^2P^\circ)4p$	$^3F^\circ - ^3D$	3 - 2	F10
Fe XI	123.822			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4p$	$^3G^\circ - ^3F$?	3 - 2	F10
Fe XI	124.725			$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4p$	$^1G^\circ - ^1F$	4 - 3	F10
Fe XI	125.587	10		$3p^3(^2D^\circ)3d - 3p^3(^2P^\circ)4p$	$^3G^\circ - ^3D$?	4 - 3	B5,K8
Fe XI	130.713	10		$3p^3(^2D^\circ)3d - 3p^3(^2D^\circ)4p$	$^3D^\circ - ^1F$?	3 - 3	B5,K8
Fe XI	176.694	40		$3p^4 - 3p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$?	2 - 2	B5,K8
Fe XI	178.060	400		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 2	F2,B5
Fe XI	179.762	600		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F2,F11
Fe XI	180.407	700		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F2,F11
Fe XI	180.600	300		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 1	F2,B5
Fe XI	181.140	400		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	0 - 1	F2,B5
Fe XI	182.173	500		$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 2	F2,F11
Fe XI	184.41			$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - ^1P^\circ$	0 - 1	F2
Fe XI	184.800	600		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1D^\circ$	2 - 2	F2,F11
Fe XI	188.305	400		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	F2,F11
Fe XI	192.819	250		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	1 - 2	F2,B5
Fe XI	193.46	200		$3p^4 - 3p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$?	0 - 1	E31,Z1,K8
Fe XI	202.67			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^3P^\circ$	2 - 1	F7
Fe XI	202.723	30		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^3P^\circ$?	2 - 2	B5,K8
Fe XI	308.61			$3s^2 3p^4 - 3s\,3p^5$	$^1D - ^1P^\circ$	2 - 1	F2
Fe XI	341.115	10		$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	2 - 1	F2
Fe XI	348.97			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 0	F2
Fe XI	352.680	30		$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	2 - 2	F2,B5
Fe XI	356.55			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 1	F2
Fe XI	358.64			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	0 - 1	F2
Fe XI	369.23			$3s^2 3p^4 - 3s\,3p^5$	$g\,^3P - ^3P^\circ$	1 - 2	F2
Fe XI?	1445.89	40					B35
Fe XI	1467.4	f		$3p^4 - 3p^4$	$g\,^3P - ^1S$	1 - 0	S28

IRON XII (Fe^{11+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3\ {}^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [2 646 000] cm^{-1}; [328] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XII	63.56	60		$3p^3 - 3p^2 4d$	${}^2D^\circ - {}^2D$?	5/2 - 5/2	F23,K8
Fe XII	65.63	40		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$?	3/2 - 1/2	F23,K8
Fe XII	65.805			$3p^3 - 3p^2(^1D)4d$	${}^2D^\circ - {}^2P$	5/2 - 3/2	F10
Fe XII	65.905			$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F10
Fe XII	65.98	60		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^2F$?	3/2 - 5/2	F23,K8
Fe XII	66.047	10		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4F$	3/2 - 5/2	F10,B5
Fe XII	66.225			$3p^3 - 3p^2(^1D)4d$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F10
Fe XII	66.297	40		$3p^3 - 3p^2(^3P)4d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F10,F23
Fe XII	66.43			$3p^3 - 3p^2(^1D)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F10
Fe XII	66.526			$3p^3 - 3p^2(^1D)4d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	F10
Fe XII	66.960			$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2D$	3/2 - 5/2	F10
Fe XII	67.164			$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F10
Fe XII	67.291			$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^4D$	5/2 - 7/2	F10
Fe XII	67.702			$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	F10
Fe XII	67.78	20		$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^4P$?	3/2 - 3/2	F23,K8
Fe XII	67.821			$3p^3 - 3p^2(^3P)4d$	${}^2D^\circ - {}^2F$	3/2 - 5/2	F10
Fe XII	67.972			$3p^3 - 3p^2(^1D)4d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	F10
Fe XII	68.382			$3p^3 - 3p^2(^3P)4d$	${}^2P^\circ - {}^2D$	1/2 - 3/2	F10
Fe XII	69.60	100		$3p^3 - 3p^2(^3P)4d$	${}^2P^\circ - {}^4P$?	3/2 - 3/2	F23,K8
Fe XII	70.01	60		$3p^3 - 3p^2(^3P)4d$	${}^2P^\circ - {}^4P$?	3/2 - 5/2	F23,K8
Fe XII	77.58	60		$3p^3 - 3p^2(^1D)4s$	$g^4S^\circ - {}^2D$?	3/2 - 3/2	F23,K8
Fe XII	79.488	30		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F10,B5
Fe XII	80.022	15		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F10,B5
Fe XII	80.160			$3p^3 - 3p^2(^1D)4s$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F10
Fe XII	80.23	24		$3p^3 - 3p^2(^1D)4s$	${}^2D^\circ - {}^2D$?	3/2 - 5/2	F23,K8
Fe XII	80.55	35		$3p^3 - 3p^2(^3P)4s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F10,B5
Fe XII	81.651	80		$3p^3 - 3p^2(^3P)4s$	${}^2D^\circ - {}^2P$	3/2 - 3/2	F10,Z1
Fe XII	81.943	93		$3p^3 - 3p^2(^3P)4s$	${}^2D^\circ - {}^2P$	5/2 - 3/2	F10,Z1
Fe XII	82.226			$3p^3 - 3p^2(^3P)4s$	${}^2D^\circ - {}^2P$	3/2 - 1/2	F10
Fe XII	82.744			$3p^3 - 3p^2(^1D)4s$	${}^2P^\circ - {}^2D$	3/2 - 3/2	F10
Fe XII	82.837	35		$3p^3 - 3p^2(^1D)4s$	${}^2P^\circ - {}^2D$	3/2 - 5/2	F10,F23
Fe XII	84.491	25		$3p^2(^3P)3d - 3p^2(^3P)4f$	${}^4F - {}^4G^\circ$	9/2 - 11/2	F10,B5
Fe XII	84.768			$3p^2(^3P)3d - 3p^2(^3P)4f$	${}^4D - {}^4F^\circ$	7/2 - 9/2	F10
Fe XII	85.14			$3p^2(^1D)3d - 3p^2(^1D)4f$	${}^2G - {}^2H^\circ$	7/2 - 9/2	F10
Fe XII	85.477	30		$3p^2(^1D)3d - 3p^2(^1D)4f$	${}^2G - {}^2H^\circ$	9/2 - 11/2	F10,B5
Fe XII	85.669			$3p^2(^1S)3d - 3p^2(^1S)4f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	F10
Fe XII	108.440			$3p^2(^3P)3d - 3p^2(^3P)4p$	${}^4F - {}^4D^\circ$	9/2 - 7/2	F10
Fe XII	108.605			$3p^2(^3P)3d - 3p^2(^3P)4p$	${}^4F - {}^4D^\circ$	7/2 - 5/2	F10
Fe XII	108.862			$3p^2(^3P)3d - 3p^2(^3P)4p$	${}^4F - {}^4D^\circ$	5/2 - 3/2	F10
Fe XII	109.015			$3p^2(^3P)3d - 3p^2(^3P)4p$	${}^4D - {}^4P^\circ$	7/2 - 5/2	F10
Fe XII	109.509			$3p^2(^1D)3d - 3p^2(^1D)4p$	${}^2F - {}^2D^\circ$	7/2 - 5/2	F10
Fe XII	109.712			$3p^2(^3P)3d - 3p^2(^3P)4p$	${}^4D - {}^2D^\circ$	5/2 - 3/2	F10
Fe XII	110.591			$3p^2(^1D)3d - 3p^2(^1D)4p$	${}^2G - {}^2F^\circ$	9/2 - 7/2	F10
Fe XII	110.732			$3p^2(^1D)3d - 3p^2(^1D)4p$	${}^2G - {}^2F^\circ$	7/2 - 5/2	F10
Fe XII	123.822			$3p^2 3d - 3p^2(^3P)4p$	${}^2D - {}^2D^\circ$?	5/2 - 5/2	F10,K8
Fe XII	186.885	60		$3p^3 - 3p^2(^1D)3d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	F2,B5
Fe XII	188.219	70		$3p^3 - 3p^2(^3P)3d$	${}^2P^\circ - {}^2D$	1/2 - 3/2	F2,B5
Fe XII	191.051	20		$3p^3 - 3p^2(^3P)3d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	F2,B5
Fe XII	192.402	70		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F2,B5
Fe XII	193.517	80		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F2,B5
Fe XII	195.127	90		$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F2,B5
Fe XII	196.649	50		$3p^3 - 3p^2(^1D)3d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F2,B5
Fe XII	198.58			$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	1/2 - 3/2	F2
Fe XII	201.134	70b		$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	3/2 - 3/2	F2,B5
Fe XII	201.745	30		$3p^3 - 3p^2(^1D)3d$	${}^2P^\circ - {}^2P$	1/2 - 1/2	F2,B5
Fe XII	211.749	30		$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^2P$	3/2 - 1/2	F2,B5
Fe XII	214.415	20		$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^4P$?	5/2 - 5/2	B5,K8
Fe XII	217.283	30		$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^2P$	3/2 - 3/2	F2,B5
Fe XII	219.453	40		$3p^3 - 3p^2(^3P)3d$	${}^2D^\circ - {}^2P$	5/2 - 3/2	F2,B5
Fe XII	283.64			$3s^2 3p^3 - 3s 3p^4$	${}^2D^\circ - {}^2P$	3/2 - 1/2	F2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XII	290.997			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2P$	5/2 - 3/2	F2
Fe XII	335.06			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	3/2 - 3/2	F2
Fe XII	338.27			$3s^2 3p^3 - 3s 3p^4$	$^2D^\circ - ^2D$	5/2 - 5/2	F2
Fe XII	346.859	20		$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	F2,B5
Fe XII	352.115	30		$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	F2,B5
Fe XII	364.477	40		$3s^2 3p^3 - 3s 3p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	F2,B5
Fe XII	382.83			$3s^2 3p^3 - 3s 3p^4$	$^2P^\circ - ^2D$	3/2 - 5/2	F2
Fe XII	1242.15	25f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 3/2	B35
Fe XII	1349.57	30f		$3p^3 - 3p^3$	$g^4S^\circ - ^2P^\circ$	3/2 - 1/2	B35

IRON XIII (Fe^{12+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2\ ^3P_0$ (14 electrons)

Ionization Potential [2 903 700] cm^{-1}; [360] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XIII?	61.659						F10
Fe XIII	61.876			$3p^2 - 3p4d$	$g^3P - ^3P^\circ$?	0 - 1	F10,K8
Fe XIII?	62.354	60					F10,F23
Fe XIII	62.387			$3p^2 - 3p4d$	$g^3P - ^3D^\circ$?	0 - 1	F10,K8
Fe XIII?	62.466						F10
Fe XIII	62.694	100		$3p^2 - 3p4d$	$g^3P - ^3D^\circ$	1 - 2	F10,F23
Fe XIII	62.975	100		$3p^2 - 3p4d$	$g^3P - ^3D^\circ$	2 - 3	F10,F23
Fe XIII	63.048	10		$3p^2 - 3p4d$	$g^3P - ^3D^\circ$?	2 - 2	B5,K8
Fe XIII	63.191	120		$3p^2 - 3p4d$	$^1D - ^1F^\circ$	2 - 3	F10,F23
Fe XIII	71.029			$3s 3p^3 - 3s^2 3p4f$	$^1D^\circ - ^1F$?	2 - 3	F10,K8
Fe XIII	74.327	92		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	1 - 2	F10,Z1
Fe XIII	74.845	250		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 2	F10,Z1
Fe XIII	75.892	93		$3p^2 - 3p4s$	$g^3P - ^3P^\circ$	2 - 1	F10,Z1
Fe XIII	76.117	20		$3p^2 - 3p4s$	$^1D - ^1P^\circ$	2 - 1	F10,B5
Fe XIII	78.462	80		$3p3d - 3p4f$	$^3F^\circ - ^3G$	4 - 5	F10,F23
Fe XIII	78.56			$3p3d - 3p4f$	$^3F^\circ - ^3G$	2 - 3	F10
Fe XIII	78.770	20b		$3p3d - 3p4f$	$^3F^\circ - ^3G$	3 - 4	F10,B5
Fe XIII	81.161			$3p3d - 3p4f$	$^3D^\circ - ^3F$	3 - 4	F10
Fe XIII	84.275			$3p3d - 3p4f$	$^1F^\circ - ^1G$	3 - 4	F10
Fe XIII	98.128	25		$3p3d - 3p4p$	$^3F^\circ - ^3D$	4 - 3	F10,B5
Fe XIII	98.387			$3p3d - 3p4p$	$^1D^\circ - ^1P$	2 - 1	F10
Fe XIII	98.523	15		$3p3d - 3p4p$	$^3F^\circ - ^3D$	3 - 2	F10,B5
Fe XIII	98.826			$3p3d - 3p4p$	$^3F^\circ - ^3D$	2 - 1	F10
Fe XIII	107.384			$3p3d - 3p4p$	$^1F^\circ - ^1D$	3 - 2	F10
Fe XIII	191.34			$3p^2 - 3p3d$	$^1D - ^1P^\circ$	2 - 1	F2
Fe XIII	196.531	50		$3p^2 - 3p3d$	$^1D - ^1F^\circ$	2 - 3	F2,B5
Fe XIII	197.443	30		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	0 - 1	F2,B5
Fe XIII	200.033	60		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 2	F2,B5
Fe XIII	201.134	70b		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	1 - 1	F2,B5
Fe XIII	202.056	80		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	0 - 1	F2,B5
Fe XIII	203.81	70		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 3	F2,B5
Fe XIII	204.26			$3p^2 - 3p3d$	$g^3P - ^1D^\circ$	1 - 2	F7
Fe XIII	204.951	50		$3p^2 - 3p3d$	$g^3P - ^3D^\circ$	2 - 1	F2,B5
Fe XIII	208.690	20		$3p^2 - 3p3d$	$^1S - ^1P^\circ$	0 - 1	F2,B5
Fe XIII	209.634	40		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	1 - 2	F2,B5
Fe XIII	209.927	50		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 1	F2,B5
Fe XIII	213.781	40		$3p^2 - 3p3d$	$g^3P - ^3P^\circ$	2 - 2	F2,B5
Fe XIII	216.88	35		$3p^2 - 3p3d$	$^1D - ^3D^\circ$	2 - 3	W7,B5
Fe XIII	221.830	40		$3p^2 - 3p3d$	$^1D - ^1D^\circ$	2 - 2	F2,B5
Fe XIII	240.713	50		$3s^2 3p^2 - 3s 3p^3$	$g^3P - ^3S^\circ$	0 - 1	F2,B5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XIII	246.210	50		$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3S^\circ$	1 - 1	F2,B5
Fe XIII	251.949	50		$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3S^\circ$	2 - 1	F2,B5
Fe XIII	256.42			$3s^2 3p^2 - 3s 3p^3$	$^1D - ^1P^\circ$	2 - 1	F2
Fe XIII	288.52 ?			$3s^2 3p^2 - 3s 3p^3$	$^1S - ^1P^\circ$	0 - 1	K8
Fe XIII	318.21			$3s^2 3p^2 - 3s 3p^3$	$^1D - ^1D^\circ$	2 - 2	F2
Fe XIII	320.93			$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3P^\circ$	2 - 2	F2
Fe XIII	348.20	40		$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3D^\circ$	0 - 1	W7,B5
Fe XIII	359.63	10		$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3D^\circ$	1 - 2	F2,B5
Fe XIII	359.85			$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3D^\circ$	1 - 1	W7
Fe XIII	368.12			$3s^2 3p^2 - 3s 3p^3$	$g\,^3P - ^3D^\circ$	2 - 3	F2
Fe XIII	1217.2	f		$3p^2 - 3p^2$	$g\,^3P - ^1S$	1 - 0	S28

IRON XIV (Fe^{13+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential [3 153 700] cm^{-1}; [391] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XIV	58.963	200		3p - 4d	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E18
Fe XIV	59.579	300		3p - 4d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E18
Fe XIV	67.21	60		$3s 3p^2 - 3s 3p 4s$	$^2D - ^4P^\circ$?	5/2 - 3/2	F23,K8
Fe XIV	69.176			$3s 3p^2 - 3s 3p 4s$	$^4P - ^4P^\circ$	3/2 - 5/2	F10
Fe XIV	69.386			$3s 3p^2 - 3s 3p 4s$	$^4P - ^4P^\circ$	1/2 - 3/2	F10
Fe XIV	69.667			$3s 3p^2 - 3s 3p 4s$	$^4P - ^4P^\circ$	5/2 - 5/2	F10
Fe XIV	70.251			$3s 3p^2 - 3s 3p 4s$	$^4P - ^4P^\circ$	5/2 - 3/2	F10
Fe XIV	70.613			3p - 4s	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F10
Fe XIV	71.377	10		$3s 3p^2 - 3s 3p 4s$	$^2D - ^2P^\circ$	5/2 - 3/2	F10,B5
Fe XIV	71.87	8		$3s 3p^2 - 3s 3p 4s$	$^2P - ^4P^\circ$?	1/2 - 1/2	F23,K8
Fe XIV	72.796			$3s 3p 3d - 3s 3p 4f$	$^4F^\circ - ^4G$	9/2 - 11/2	F10
Fe XIV	72.95			$3s 3p 3d - 3s 3p 4f$	$^4F^\circ - ^4G$	5/2 - 7/2	F10
Fe XIV	73.08			$3s 3p 3d - 3s 3p 4f$	$^4F^\circ - ^4G$	7/2 - 9/2	F10
Fe XIV	76.022	35		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	F10,B5
Fe XIV	76.152			3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F10
Fe XIV	91.009	20		3d - 4p	$^2D - ^2P^\circ$	5/2 - 3/2	F10,B5
Fe XIV	91.273			3d - 4p	$^2D - ^2P^\circ$	3/2 - 1/2	F10
Fe XIV	191.20	200		$3s 3p^2 - 3s 3p 3d$	$^2D - ^4D^\circ$?	5/2 - 7/2	E31,K8
Fe XIV	211.32	80		3p - 3d	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F17,B5
Fe XIV	216.95			$3s 3p^2 - 3s 3p 3d$	$^4P - ^4D^\circ$	3/2 - 5/2	F7
Fe XIV	218.21			$3s 3p^2 - 3s 3p 3d$	$^4P - ^4D^\circ$	5/2 - 7/2	F7
Fe XIV	219.13	60		3p - 3d	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F17,B5
Fe XIV	220.09	60		3p - 3d	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F17,B5
Fe XIV	241.739	60		$3s 3p^2 - 3p^3$	$^2D - ^4S^\circ$?	3/2 - 3/2	B5,K8
Fe XIV	252.190	40		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	F2,B5
Fe XIV	257.385	50		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	F2,B5
Fe XIV	264.799	60		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	F2,B5
Fe XIV	270.512	50		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	F2,B5
Fe XIV	274.22	60		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	F7,B5
Fe XIV	280.69			$3s 3p^2 - 3p^3$	$^4P - ^4S^\circ$	3/2 - 3/2	F7
Fe XIV	288.45			$3s 3p^2 - 3p^3$	$^4P - ^4S^\circ$	5/2 - 3/2	F7
Fe XIV	289.17			$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F7
Fe XIV	334.15			$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	F7
Fe XIV	353.84	30		$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	F7,B5
Fe XIV	356.60			$3s^2 3p - 3s 3p^2$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	F7

IRON XV (Fe^{14+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s^2$ $^1S_0$ (12 electrons)

Ionization Potential [3 678 000] cm^{-1}; [456] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XV	15.490	40 -A		$2p^6 3s^2 - 2p^5 3s^2 3d$	$g^1S - {}^1P^\circ$	0 - 1	C9,S31
Fe XV	17.345	10 -A		$2p^6 3s 3d - 2p^5 3s^2 3d$	$^1D - {}^1P^\circ$?	2 - 1	C9,K8
Fe XV	38.95			$3s^2 - 3s 5p$	$g^1S - {}^1P^\circ$	0 - 1	F14
Fe XV	41.559	3		3s3p - 3s5d	$^3P^\circ - {}^3D$	0 - 1	F33
Fe XV	41.663	10		3s3p - 3s5d	$^3P^\circ - {}^3D$	1 - 2	F33
Fe XV	41.903	20		3s3p - 3s5d	$^3P^\circ - {}^3D$	2 - 3	F33
Fe XV	42.93			3s3d - 3s6f	$^1D - {}^1F^\circ$	2 - 3	F14
Fe XV	43.39			3s3d - 3s6f	$^3D - {}^3F^\circ$	3 - 4	F14
Fe XV	43.65			3s3p - 3s5s	$^3P^\circ - {}^3S$	2 - 1	F14
Fe XV	49.49			3s3d - 3s5f	$^1D - {}^1F^\circ$	2 - 3	F14
Fe XV	50.062	1		3s3d - 3s5f	$^3D - {}^3F^\circ$	1 - 2	E18
Fe XV	50.085	10		3s3d - 3s5f	$^3D - {}^3F^\circ$	2 - 3	E18
Fe XV	50.120	100		3s3d - 3s5f	$^3D - {}^3F^\circ$	3 - 4	E18
Fe XV	52.911	300		$3s^2 - 3s 4p$	$g^1S - {}^1P^\circ$	0 - 1	E18
Fe XV	55.635	100		3s3p - 3s4d	$^3P^\circ - {}^3D$	0 - 1	E18
Fe XV	55.793	200		3s3p - 3s4d	$^3P^\circ - {}^3D$	1 - 2	E18
Fe XV	55.815	10		3s3p - 3s4d	$^3P^\circ - {}^3D$	1 - 1	E18
Fe XV	56.200	300		3s3p - 3s4d	$^3P^\circ - {}^3D$	2 - 3	E18
Fe XV	56.236	1		3s3p - 3s4d	$^3P^\circ - {}^3D$	2 - 2	E18
Fe XV	59.404			3s3p - 3s4d	$^1P^\circ - {}^1D$	1 - 2	F10
Fe XV	62.099	60		3p3d - 3s5d	$^1P^\circ - {}^3D$?	1 - 2	F10,K8
Fe XV	65.370	1		3s3p - 3s4s	$^3P^\circ - {}^3S$	0 - 1	F33
Fe XV	65.612	3		3s3p - 3s4s	$^3P^\circ - {}^3S$	1 - 1	F33
Fe XV	66.238	3		3s3p - 3s4s	$^3P^\circ - {}^3S$	2 - 1	F33
Fe XV	68.849			3p3d - 3p4f	$^3F^\circ - {}^3G$	4 - 5	F10
Fe XV	68.883			3p3d - 3p4f	$^3F^\circ - {}^3G$	2 - 3	F10
Fe XV	69.036			3p3d - 3p4f	$^3F^\circ - {}^3G$	3 - 4	F10
Fe XV	69.54			3p3d - 3p4f	$^3F^\circ - {}^3D$	4 - 3	F10
Fe XV	69.945	200		3s3d - 3s4f	$^3D - {}^3F^\circ$	1 - 2	E18
Fe XV	69.987	300		3s3d - 3s4f	$^3D - {}^3F^\circ$	2 - 3	E18
Fe XV	70.054	400		3s3d - 3s4f	$^3D - {}^3F^\circ$	3 - 4	E18
Fe XV	70.22			3p3d - 3p4f	$^3P^\circ - {}^3D$	0 - 1	F10
Fe XV	70.53			3p3d - 3p4f	$^3P^\circ - {}^3D$	1 - 2	F10
Fe XV	70.59			3p3d - 3p4f	$^3D^\circ - {}^3D$	3 - 3	F10
Fe XV	73.198			3p3d - 3p4f	$^1P^\circ - {}^1D$	1 - 2	F10
Fe XV	73.473	30		3p3d - 3p4f	$^1F^\circ - {}^1G$	3 - 4	F10,B5
Fe XV	90.503	10		3p3d - 3s4d	$^3F^\circ - {}^3D$?	2 - 3	B5,K8
Fe XV	155.50			3s4d - 3s5f	$^3D - {}^3F^\circ$?	3 - 4	H9,K8
Fe XV	171.359	40		3p4f - 3s6f	$^3G - {}^3F^\circ$?	5 - 4	B5,K8
Fe XV	224.745	40		3s3p - 3s3d	$^3P^\circ - {}^3D$	0 - 1	F2,B5
Fe XV	227.22	20		3s3p - 3s3d	$^3P^\circ - {}^3D$	1 - 2	F2,B5
Fe XV	227.70			3s3p - 3s3d	$^3P^\circ - {}^3D$	1 - 1	F2
Fe XV	233.865	30		3s3p - 3s3d	$^3P^\circ - {}^3D$	2 - 3	F2,B5
Fe XV	243.783	50		$3p^2 - 3p 3d$	$^3P - {}^3P^\circ$	2 - 2	F2,B5
Fe XV	256.919	40		$3p^2 - 3p 3d$	$^3P - {}^3D^\circ$?	2 - 3	B5,K8
Fe XV	284.15	80		$3s^2 - 3s 3p$	$g^1S - {}^1P^\circ$	0 - 1	F17,B5
Fe XV	292.36			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	1 - 2	F2
Fe XV	296.226	20		3s4f - 3p4f	$^3F^\circ - {}^3F$?	4 - 4	B5,K8
Fe XV	302.45			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	0 - 1	F2
Fe XV	303.40			3s3p - 3s3d	$^1P^\circ - {}^3D$	1 - 2	F10
Fe XV	305.00			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	2 - 2	F2
Fe XV	307.78			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	1 - 1	F2
Fe XV	317.62			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	1 - 0	F2
Fe XV	321.82			$3s 3p - 3p^2$	$^3P^\circ - {}^3P$	2 - 1	F2
Fe XV	359.53			3s4f - 3p4f	$^3F^\circ - {}^3G$?	4 - 4	W7,K8
Fe XV	372.78			3s3d - 3p3d	$^3D - {}^3F^\circ$	3 - 4	F2
Fe XV	387.00			3s3d - 3p3d	$^3D - {}^3F^\circ$	2 - 3	F2
Fe XV	400.65			3s3d - 3p3d	$^3D - {}^3F^\circ$	1 - 2	F2
Fe XV	415.41 ?			$3s^2 - 3s 3p$	$g^1S - {}^3P^\circ$	0 - 1	K8
Fe XV	481.52			$3s 3p - 3p^2$	$^1P^\circ - {}^1D$	1 - 2	F2

IRON XVI (Fe^{15+}), Z = 26

Ground State $1s^2 2s^2 2p^6 3s\ ^2S_{1/2}$ (11 electrons)

Ionization Potential 3 947 840 cm^{-1}; 489.5 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XVI	17.207	20 -A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P°$	½ - ½	C8,F27
Fe XVI	17.500	40 -A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P°$	½ - 3/2	C9,F27
Fe XVI	27.88			3s - 9p	$g\,^2S - ^2P°$	½ - 3/2	F14
Fe XVI	28.67			3s - 8p	$g\,^2S - ^2P°$	½ - 3/2	F14
Fe XVI	29.93			3s - 7p	$g\,^2S - ^2P°$	½ - 3/2	F14
Fe XVI	30.10			3p - 9d	$^2P° - ^2D$	½ - 3/2	F14
Fe XVI	30.33			3p - 9d	$^2P° - ^2D$	3/2 - 5/2	F14
Fe XVI	31.041	3		3p - 8d	$^2P° - ^2D$	½ - 3/2	F33
Fe XVI	31.242	20		3p - 8d	$^2P° - ^2D$	3/2 - 5/2	F33
Fe XVI	32.166	10		3s - 6p	$g\,^2S - ^2P°$	½ - 3/2	F33
Fe XVI	32.192	6		3s - 6p	$g\,^2S - ^2P°$	½ - ½	F33
Fe XVI	32.433	10		3p - 7d	$^2P° - ^2D$	½ - 3/2	F33
Fe XVI	32.652	35		3p - 7d	$^2P° - ^2D$	3/2 - 5/2	F33
Fe XVI	32.84			3p - 7s	$^2P° - ^2S$	½ - ½	F14
Fe XVI	33.04			3p - 7s	$^2P° - ^2S$	3/2 - ½	F14
Fe XVI	34.21			3d - 9f	$^2D - ^2F°$	5/2 - 7/2	F14
Fe XVI	34.857	20		3p - 6d	$^2P° - ^2D$	½ - 3/2	F33
Fe XVI	35.106	60		3p - 6d	$^2P° - ^2D$	3/2 - 5/2	F33
Fe XVI	35.333	1		3d - 8f	$^2D - ^2F°$	3/2 - 5/2	F33
Fe XVI	35.368	3		3d - 8f	$^2D - ^2F°$	5/2 - 7/2	F33
Fe XVI	35.71			3p - 6s	$^2P° - ^2S$	½ - ½	F14
Fe XVI	36.01			3p - 6s	$^2P° - ^2S$	3/2 - ½	F14
Fe XVI	36.749	60		3s - 5p	$g\,^2S - ^2P°$	½ - 3/2	F33
Fe XVI	36.803	20		3s - 5p	$g\,^2S - ^2P°$	½ - ½	F33
Fe XVI	37.096	6		3d - 7f	$^2D - ^2F°$	3/2 - 5/2	F33
Fe XVI	37.138	10		3d - 7f	$^2D - ^2F°$	5/2 - 7/2	F33
Fe XVI	39.827			3p - 5d	$^2P° - ^2D$	½ - 3/2	E16
Fe XVI	40.153			3p - 5d	$^2P° - ^2D$	3/2 - 5/2	E16
Fe XVI	40.199	10		3d - 6f	$^2D - ^2F°$	3/2 - 5/2	F33
Fe XVI	40.245	10		3d - 6f	$^2D - ^2F°$	5/2 - 7/2	F33
Fe XVI	41.17			3d - 6p	$^2D - ^2P°$	5/2 - 3/2	F14
Fe XVI	41.91			3p - 5s	$^2P° - ^2S$	½ - ½	F14
Fe XVI	42.30			3p - 5s	$^2P° - ^2S$	3/2 - ½	F14
Fe XVI	46.661			3d - 5f	$^2D - ^2F°$	3/2 - 5/2	E16
Fe XVI	46.718			3d - 5f	$^2D - ^2F°$	5/2 - 7/2	E16
Fe XVI	48.97			3d - 5p	$^2D - ^2P°$	5/2 - 3/2	F14
Fe XVI	50.350			3s - 4p	$g\,^2S - ^2P°$	½ - 3/2	E16
Fe XVI	50.555			3s - 4p	$g\,^2S - ^2P°$	½ - ½	E16
Fe XVI	54.142			3p - 4d	$^2P° - ^2D$	½ - 3/2	E16
Fe XVI	54.728			3p - 4d	$^2P° - ^2D$	3/2 - 5/2	E16
Fe XVI	54.769			3p - 4d	$^2P° - ^2D$	3/2 - 3/2	E16
Fe XVI	62.879	20		3p - 4s	$^2P° - ^2S$	½ - ½	E16,B5
Fe XVI	63.719	30		3p - 4s	$^2P° - ^2S$	3/2 - ½	E16,B5
Fe XVI	66.263	20		3d - 4f	$^2D - ^2F°$	3/2 - 5/2	E16,B5
Fe XVI	66.368	30		3d - 4f	$^2D - ^2F°$	5/2 - 7/2	E16,B5
Fe XVI	76.502	30b		3d - 4p	$^2D - ^2P°$	5/2 - 3/2	F10,B5
Fe XVI	76.796			3d - 4p	$^2D - ^2P°$	3/2 - ½	F10
Fe XVI	165.656	20		5p - 7s	$^2P° - ^2S$?	3/2 - ½	B5,K8
Fe XVI	171.66	300		5d - 7f	$^2D - ^2F°$?	5/2 - 7/2	F11,K8
Fe XVI	251.058	20		3p - 3d	$^2P° - ^2D$	½ - 3/2	F33
Fe XVI	262.967	60		3p - 3d	$^2P° - ^2D$	3/2 - 5/2	F33
Fe XVI	265.007	3		3p - 3d	$^2P° - ^2D$	3/2 - 3/2	F33
Fe XVI	335.407	6		3s - 3p	$g\,^2S - ^2P°$	½ - 3/2	F33
Fe XVI	360.798	3		3s - 3p	$g\,^2S - ^2P°$	½ - ½	F33

IRON XVII (Fe^{16+}), Z = 26

Ground State $1s^2 2s^2 2p^6\ ^1S_0$ (10 electrons)

Ionization Potential 10 211 700 cm^{-1}; 1266.1 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XVII	10.649	20		$2p^6 - 2p^5 3d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Fe XVII	10.762	10		$2p^6 - 2p^5 6d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Fe XVII	11.125	20		$2p^6 - 2p^5 5d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Fe XVII	11.247	40		$2p^6 - 2p^5 5d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Fe XVII	12.122	150		$2p^6 - 2p^5 4d$	$g\,^1S - ^3D^\circ$	0 - 1	C9,G5
Fe XVII	12.262	150		$2p^6 - 2p^5 4d$	$g\,^1S - ^1P^\circ$	0 - 1	C9,G5
Fe XVII	12.274	20		$2p^6 - 2p^5 4d$	$g\,^1S - ^3P^\circ$	0 - 1	S31,K8
Fe XVII	12.319	30		$2p^6 - 2p^5 4d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Fe XVII	12.514	20		$2p^6 - 2p^5 4s$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Fe XVII	12.681	20		$2p^6 - 2p^5 4s$	$g\,^1S - ^3P^\circ$	0 - 1	S31
Fe XVII	13.823	100		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^1P^\circ$	0 - 1	C9,G5
Fe XVII	13.888	100		$2s^2 2p^6 - 2s 2p^6 3p$	$g\,^1S - ^3P^\circ$	0 - 1	C9,G5
Fe XVII	15.013	150		$2p^6 - 2p^5 3d$	$g\,^1S - ^1P^\circ$	0 - 1	C9,G5
Fe XVII	15.260	100		$2p^6 - 2p^5 3d$	$g\,^1S - ^3D^\circ$	0 - 1	C9,G5
Fe XVII	15.453	90		$2p^6 - 2p^5 3d$	$g\,^1S - ^3P^\circ$	0 - 1	C9,G5
Fe XVII	16.775	200		$2p^6 - 2p^5 3s$	$g\,^1S - ^1P^\circ$	0 - 1	C9,G5
Fe XVII	17.051	200		$2p^6 - 2p^5 3s$	$g\,^1S - ^3P^\circ$	0 - 1	C9,G5
Fe XVII	199.26			$2p^5 3p - 2p^5 3d$	$^3D - ^1D^\circ$?	1 - 2	H9,G5
Fe XVII	200.80	100		$2p^5 3p - 2p^5 3d$	$^3S - ^3D^\circ$?	1 - 1	F11,G5
Fe XVII	244.152	10		$2p^5 3p - 2p^5 3d$	$^3D - ^3D^\circ$?	1 - 2	B5,K8

IRON XVIII (Fe^{17+}), Z = 26

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [10 913 000] cm^{-1}; [1353] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XVIII	11.021	20		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	11.280	20		$2p^5 - 2p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	11.318	30		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	11.440	40		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Fe XVIII	11.571	20		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S31
Fe XVIII?	11.637	10					S31
Fe XVIII	11.730	10		$2p^5 - 2p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S31
Fe XVIII	13.934	20		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	C9,C10
Fe XVIII	14.031	10		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	14.129	30		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31
Fe XVIII	14.207	70		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Fe XVIII	14.260	30		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S31
Fe XVIII	14.351	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	C9,C10
Fe XVIII	14.373	50		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	14.422	20		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Fe XVIII	14.453	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	C9,C10
Fe XVIII	14.481	0		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Fe XVIII	14.535	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	C9,C10
Fe XVIII	14.549	40		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	C9,C10
Fe XVIII	14.580	40		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	3/2 - 3/2	C9,S31
Fe XVIII	14.669	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	C9,C10
Fe XVIII	14.703	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	C9,C10
Fe XVIII	14.770	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	C9,C10
Fe XVIII	14.804	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	1/2 - 3/2	C9,C10
Fe XVIII	15.260	100		$2p^5 - 2p^4(^1S)3s$	$g\,^2P^\circ - ^2S$?	3/2 - 1/2	C9,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XVIII	15.567	10		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	C9,C10
Fe XVIII	15.624	60		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	C9,C10
Fe XVIII	15.764	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	C8,C10
Fe XVIII	15.828	80		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	C9,C10
Fe XVIII	15.869	80		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	C9,C10
Fe XVIII	15.979	0		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 1/2	S31
Fe XVIII	16.004	80		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	C9,C10
Fe XVIII	16.024	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	C9,C10
Fe XVIII	16.074	50		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	C9,C10
Fe XVIII	16.164	40		$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	C9,C10
Fe XVIII	16.236	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$?	1/2 - 1/2	C9,K8
Fe XVIII	16.270	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	1/2 - 3/2	C9,C10
Fe XVIII	93.94	400		$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	B12
Fe XVIII	103.96	200		$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	B12
Fe XVIII	145.656	10		$2s^22p^4(^1S)3s - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$?	1/2 - 3/2	B5,K8

IRON XIX (Fe^{18+}), Z = 26

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential [11 703 000] cm^{-1}; [1451] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XIX	12.990	20		$2s^22p^4 - 2s2p^43p$	$^1D - ^1F^\circ$	2 - 3	S31
Fe XIX	13.307	20		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$?	2 - 1	C9,K8
Fe XIX	13.322	20		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	S31
Fe XIX	13.399	50		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$?	2 - 2	C9,K8
Fe XIX	13.464	40		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$?	2 - 3	C9,K8
Fe XIX	13.497	10		$2p^4 - 2p^3(^2P^\circ)3d$	$^1D - ^3P^\circ$?	2 - 2	C9,K8
Fe XIX	13.518	60		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$?	2 - 3	C9,K8
Fe XIX	13.547	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$?	0 - 1	C9,K8
Fe XIX	13.575	20		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$?	1 - 2	C9,K8
Fe XIX	13.631	10		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3D^\circ$?	1 - 2	C9,K8
Fe XIX	13.644	20		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$?	0 - 1	C9,K8
Fe XIX	13.667	30		$2p^4 - 2p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$?	1 - 2	C9,K8
Fe XIX	13.695	20		$2p^4 - 2p^3(^4S^\circ)3d$	$^1D - ^3D^\circ$?	2 - 2	C9,K8
Fe XIX	13.733	20		$2p^4 - 2p^3(^2P^\circ)3d$	$^1S - ^3P^\circ$?	0 - 1	C9,K8
Fe XIX	14.927	10		$2p^4 - 2p^3(^2P^\circ)3s$	$g\,^3P - ^1P^\circ$?	2 - 1	C9,K8
Fe XIX	14.971	10		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$?	2 - 1	C9,K8
Fe XIX	15.069	30		$2p^4 - 2p^3(^2P^\circ)3s$	$g\,^3P - ^3P^\circ$?	2 - 2	C9,K8
Fe XIX	15.083	20		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^1P^\circ$?	2 - 1	C9,K8
Fe XIX	15.110	20		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^1P^\circ$?	2 - 1	C9,K8
Fe XIX	15.132	0		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$?	0 - 1	S31,K8
Fe XIX	15.158	10		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - ^1P^\circ$?	2 - 1	C9,K8
Fe XIX	15.173	30		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$?	1 - 1	C9,K8
Fe XIX	15.237	30		$2p^4 - 2p^3(^2P^\circ)3s$	$g\,^3P - ^3P^\circ$	0 - 1	C9,K8
Fe XIX	15.288	20		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^1P^\circ$?	1 - 1	C9,K8
Fe XIX	15.306	0		$2p^4 - 2p^3(^2P^\circ)3s$	$^1D - ^3P^\circ$?	2 - 1	S31,K8
Fe XIX	15.341	10		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - ^1P^\circ$?	2 - 1	C9,K8
Fe XIX	15.361	20		$2p^4 - 2p^3(^2D^\circ)3s$	$g\,^3P - ^3P^\circ$?	0 - 1	C9,K8
Fe XIX	15.413	20		$2p^4 - 2p^3(^2D^\circ)3s$	$^1D - ^3P^\circ$?	2 - 1	C9,K8
Fe XIX	15.453	90		$2p^4 - 2p^33s$	$^1S - ^1P^\circ$?	0 - 1	C9,K8
Fe XIX	15.598	10		$2p^4 - 2p^3(^2P^\circ)3s$	$^1S - ^3P^\circ$?	0 - 1	C9,K8
Fe XIX	90.0			$2s^22p^4 - 2s2p^5$	$^1D - ^1P^\circ$	2 - 1	F5
Fe XIX	101.5			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	2 - 1	F5
Fe XIX	106.3			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	1 - 0	F5
Fe XIX	108.4			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	2 - 2	F5
Fe XIX	109.9			$2s^22p^4 - 2s2p^5$	$g\,^3P - ^3P^\circ$	0 - 1	F5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XIX	116.5			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 1	F5
Fe XIX	119.8			$2s^22p^4 - 2s2p^5$	$g^3P - {}^3P^\circ$	1 - 2	F5

IRON XX (Fe^{19+}), Z = 26

Ground State $1s^22s^22p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential [12 704 000] cm^{-1}; [1575] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XX?	10.571	10					S31
Fe XX	12.741	10		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^2P$?	3/2 - 3/2	C9,K8
Fe XX?	12.756	10					S31
Fe XX	12.834	30		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$?	3/2 - 5/2	S31,K8
Fe XX	12.924	10		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$?	3/2 - 3/2	C9,K8
Fe XX	12.980	10		$2p^3 - 2p^2(^3P)3d$	$g^4S^\circ - {}^4P$?	3/2 - 1/2	C9,K8
Fe XX	13.012	20		$2p^3 - 2p^2(^3P)3d$	${}^2D^\circ - {}^2P$?	5/2 - 3/2	C9,K8
Fe XX	13.141	20		$2p^3 - 2p^2(^3P)3d$	${}^2P^\circ - {}^2P$?	3/2 - 3/2	C9,K8
Fe XX	13.183	20		$2p^3 - 2p^2(^3P)3d$	${}^2D^\circ - {}^4P$?	3/2 - 3/2	S31,K8
Fe XX	13.351	30		$2p^3 - 2p^2(^3P)3d$	${}^2P^\circ - {}^4P$?	3/2 - 3/2	C9,K8
Fe XX	13.374	30		$2p^3 - 2p^2(^3P)3d$	${}^2P^\circ - {}^4P$?	1/2 - 1/2	C9,K8
Fe XX	13.667	30		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$?	3/2 - 5/2	C9,K8
Fe XX	13.720	10		$2p^3 - 2p^2(^3P)3s$	$g^4S^\circ - {}^4P$?	3/2 - 3/2	C9,K8
Fe XX	13.953	30		$2p^3 - 2p^2(^3P)3s$	${}^2D^\circ - {}^4P$?	5/2 - 5/2	C9,K8
Fe XX	83.3			$2s^22p^3 - 2s2p^4$	${}^2D^\circ - {}^2P$	3/2 - 1/2	F5
Fe XX	93.8			$2s^22p^3 - 2s2p^4$	${}^2D^\circ - {}^2P$	5/2 - 3/2	F5
Fe XX	110.5			$2s^22p^3 - 2s2p^4$	${}^2D^\circ - {}^2D$	3/2 - 3/2	F5
Fe XX	112.25 ?			$2s^22p^3 - 2s2p^4$	${}^2P^\circ - {}^2S$	1/2 - 1/2	K8
Fe XX	112.99 ?			$2s^22p^3 - 2s2p^4$	${}^2P^\circ - {}^2S$	3/2 - 1/2	K8
Fe XX	113.5			$2s^22p^3 - 2s2p^4$	${}^2D^\circ - {}^2D$	5/2 - 5/2	F5
Fe XX	137.70 ?			$2s^22p^3 - 2s2p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	K8

IRON XXI (Fe^{20+}), Z = 26

Ground State $1s^22s^22p^2\ {}^3P_0$ (6 electrons)

Ionization Potential [13 591 000] cm^{-1}; [1685] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXI	12.145	10		$2p^2 - 2p3d$	$g^3P - {}^1P^\circ$?	0 - 1	C9,K8
Fe XXI	12.233	0		$2p^2 - 2p3d$	$g^3P - {}^1P^\circ$?	1 - 1	C9,K8
Fe XXI	12.362 ?			$2p^2 - 2p3d$	${}^1D - {}^1P^\circ$	2 - 1	K8
Fe XXI	12.411	20		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$?	0 - 1	C9,K8
Fe XXI	12.427	10		$2p^2 - 2p3d$	${}^1D - {}^1F^\circ$?	2 - 3	C9,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXI	12.438	10		$2p^2 - 2p3d$	$g^3P - {}^3P^\circ$?	1 - 2	C9,K8
Fe XXI	12.494	10		$2p^2 - 2p3d$	${}^1S - {}^1P^\circ$?	0 - 1	C9,K8
Fe XXI	12.521	20		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$?	2 - 3	C9,K8
Fe XXI	12.548	20		$2p^2 - 2p3d$	$g^3P - {}^1D^\circ$?	1 - 2	C9,K8
Fe XXI?	12.585	20					S31
Fe XXI	12.599	20		$2p^2 - 2p3d$	$g^3P - {}^3D^\circ$?	1 - 2	C9,K8
Fe XXI	12.726	10		$2p^2 - 2p3d$	${}^1D - {}^3D^\circ$?	2 - 2	C9,K8
Fe XXI	12.808	30		$2p^2 - 2p3d$	${}^1S - {}^3P^\circ$?	0 - 1	C9,K8
Fe XXI	13.052	20		$2p^2 - 2p3s$	$g^3P - {}^1P^\circ$	1 - 1	S31
Fe XXI	13.084	20		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$?	0 - 1	C9,K8
Fe XXI	13.158	20		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$?	1 - 2	C9,K8
Fe XXI	13.249	20		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$	2 - 2	S31,K8
Fe XXI	13.265	10		$2p^2 - 2p3s$	${}^1D - {}^1P^\circ$?	2 - 1	C9,K8
Fe XXI	13.296	10		$2p^2 - 2p3s$	$g^3P - {}^3P^\circ$?	2 - 1	C9,K8
Fe XXI	13.422	20		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$?	0 - 1	C9,K8
Fe XXI	13.518	60		$2p^2 - 2p3s$	${}^1S - {}^3P^\circ$?	0 - 1	C9,K8
Fe XXI	110.28 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1P^\circ$	2 - 1	K8
Fe XXI	120.15 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3S^\circ$	2 - 1	K8
Fe XXI	123.22 ?			$2s^22p^2 - 2s2p^3$	${}^1S - {}^1P^\circ$	0 - 1	K8
Fe XXI	124.77 ?			$2s^22p^2 - 2s2p^3$	${}^1D - {}^1D^\circ$	2 - 2	K8
Fe XXI	147.20 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	1 - 2	K8
Fe XXI	158.52 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 2	K8
Fe XXI	161.61 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3P^\circ$	2 - 1	K8
Fe XXI	194.38 ?			$2s^22p^2 - 2s2p^3$	$g^3P - {}^3D^\circ$	2 - 3	K8

IRON XXII (Fe^{21+}), Z = 26

Ground State $1s^22s^22p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [14 470 000] cm^{-1}; [1794] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXII	9.126			$2p - 4s$	$g^2P^\circ - {}^2S$?	1/2 - 1/2	S31,K8
Fe XXII	9.229	0		$2p - 4s$	$g^2P^\circ - {}^2S$?	3/2 - 1/2	S31,K8
Fe XXII	9.568	0		$2s2p^2 - 2s^24p$	${}^2D - {}^2P^\circ$?	5/2 - 3/2	S31,K8
Fe XXII	9.646	0		$2s2p^2 - 2s^24p$	${}^2S - {}^2P^\circ$?	1/2 - 1/2	S31,K8
Fe XXII	9.703	10		$2s2p^2 - 2s^24p$	${}^2S - {}^2P^\circ$?	1/2 - 3/2	S31,K8
Fe XXII	9.793	10		$2s2p^2 - 2s^24p$	${}^2P - {}^2P^\circ$?	3/2 - 3/2	S31,K8
Fe XXII	9.841	10		$2s2p^2 - 2s^24p$	${}^2P - {}^2P^\circ$?	3/2 - 1/2	S31,K8
Fe XXII	10.053	10		$2p^3 - 2s^24s$	${}^4S^\circ - {}^2S$?	3/2 - 1/2	S31,K8
Fe XXII	10.10	20		$2p^3 - 2s^24d$	${}^2D^\circ - {}^2D$?	5/2 - 3/2	C9,K8
Fe XXII	10.127	30		$2p^3 - 2s^24d$	${}^2D^\circ - {}^2D$?	5/2 - 5/2	C8,K8
Fe XXII	10.230	10		$2p^3 - 2s^24d$	${}^2P^\circ - {}^2D$?	1/2 - 3/2	S31,K8
Fe XXII	10.344	10		$2p^3 - 2s^24d$	${}^2P^\circ - {}^2D$?	3/2 - 5/2	S31,K8
Fe XXII	10.443	10		$2p^3 - 2s^24s$	${}^2P^\circ - {}^2S$?	3/2 - 1/2	S31,K8
Fe XXII	11.742	10		$2p - 3d$	$g^2P^\circ - {}^2D$?	1/2 - 3/2	C9,K8
Fe XXII	11.865	20		$2p - 3d$	$g^2P^\circ - {}^2D$?	3/2 - 5/2	C9,K8
Fe XXII	11.956	10		$2p - 3d$	$g^2P^\circ - {}^2D$?	3/2 - 3/2	C9,K8
Fe XXII	12.385	0		$2p - 3s$	$g^2P^\circ - {}^2S$?	1/2 - 1/2	C9,K8
Fe XXII?	12.401	20					C9
Fe XXII	12.573	20		$2p - 3s$	$g^2P^\circ - {}^2S$?	3/2 - 1/2	C9,K8
Fe XXII	13.196	10		$2s2p^2 - 2s^23p$	${}^2S - {}^2P^\circ$?	1/2 - 3/2	C9,K8
Fe XXII	13.416	20		$2s2p^2 - 2s^23p$	${}^2P - {}^2P^\circ$?	3/2 - 3/2	S31,K8
Fe XXII	13.442	10		$2s2p^2 - 2s^23p$	${}^2P - {}^2P^\circ$?	3/2 - 1/2	C9,K8
Fe XXII	13.711	10		$2p^3 - 2s^23d$	${}^2D^\circ - {}^2D$?	5/2 - 5/2	S31,K8
Fe XXII	13.750	0		$2p^3 - 2s^23d$	${}^2D^\circ - {}^2D$?	5/2 - 3/2	S31,K8
Fe XXII	13.770	0		$2p^3 - 2s^23d$	${}^2D^\circ - {}^2D$?	3/2 - 5/2	S31,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXII	13.780	0		$2p^3 - 2s^2 3d$	$^2D^\circ - ^2D$?	3/2 - 3/2	S31,K8
Fe XXII	14.053	0		$2p^3 - 2s^2 3d$	$^2P^\circ - ^2D$?	1/2 - 3/2	S31,K8
Fe XXII	14.160	20		$2p^3 - 2s^2 3d$	$^2P^\circ - ^2D$?	3/2 - 5/2	S31,K8
Fe XXII	14.711	0		$2p^3 - 2s^2 3s$	$^2P^\circ - ^2S$?	1/2 - 1/2	S31,K8
Fe XXII	14.857	0		$2p^3 - 2s^2 3s$	$^2P^\circ - ^2S$?	3/2 - 1/2	S31,K8
Fe XXII	125.47 ?			$2s^2 2p - 2s 2p^2$	$g^2P^\circ - ^2S$	1/2 - 1/2	K8
Fe XXII	147.14 ?			$2s^2 2p - 2s 2p^2$	$g^2P^\circ - ^2S$	3/2 - 1/2	K8

IRON XXIII (Fe^{22+}), Z = 26

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [15 648 000] cm^{-1}; [1940] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXIII	7.52 ?			$2s^2 - 2s 5p$	$g^1S - ^3P^\circ$	0 - 1	K8
Fe XXIII	8.307			$2s^2 - 2s 4p$	$g^1S - ^1P^\circ$	0 - 1	D7
Fe XXIII	8.38 ?			$2s^2 - 2s 4p$	$g^1S - ^3P^\circ$	0 - 1	K8
Fe XXIII	10.685			$2s^2 - 2p 3s$	$g^1S - ^1P^\circ$?	0 - 1	C8,K8
Fe XXIII	11.164	10		$2s^2 - 2s 3p$	$g^1S - ^3P^\circ$?	0 - 1	C9,K8
Fe XXIII	148.85 ?			$2s^2 - 2s 2p$	$g^1S - ^1P^\circ$	0 - 1	K8
Fe XXIII	284.41 ?			$2s^2 - 2s 2p$	$g^1S - ^3P^\circ$	0 - 1	K8

IRON XXIV (Fe^{23+}), Z = 26

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [16 494 000] cm^{-1}; [2045] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXIV	1.862			$1s^2 2s - 1s 2s 2p$	$g^2S - ^2P^\circ$	1/2 - 3/2	D6
Fe XXIV	1.874			$1s^2 2s - 1s 2s 2p$	$g^2S - ^4P^\circ$	1/2 - 3/2	D6
Fe XXIV	7.233			$2s - 5p$	$g^2S - ^2P^\circ$	1/2 - 3/2	D6,M6
Fe XXIV	7.990			$2s - 4p$	$g^2S - ^2P^\circ$	1/2 - 3/2	D7
Fe XXIV	8.233			$2p - 4d$	$^2P^\circ - ^2D$	1/2 - 3/2	D7
Fe XXIV	8.290			$2p - 4s$	$^2P^\circ - ^2S$	1/2 - 1/2	D7
Fe XXIV	8.317			$2p - 4d$	$^2P^\circ - ^2D$	3/2 - 5/2	D7
Fe XXIV	8.378			$2p - 4s$	$^2P^\circ - ^2S$	3/2 - 1/2	D7
Fe XXIV	10.658	10		$2s - 3p$	$g^2S - ^2P^\circ$	1/2 - 3/2	C9,F25
Fe XXIV	11.026	40		$2p - 3d$	$^2P^\circ - ^2D$	1/2 - 3/2	C9,F25
Fe XXIV	11.129	40		$2p - 3d$	$^2P^\circ - ^2D$	3/2 - 5/2	C9,F25
Fe XXIV	11.250	60		$2p - 3s$	$^2P^\circ - ^2S$	1/2 - 1/2	C9,F25
Fe XXIV	11.419	30		$2p - 3s$	$^2P^\circ - ^2S$	3/2 - 1/2	C9,F25
Fe XXIV	184.63 P			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 3/2	K8
Fe XXIV	245.00 P			$2s - 2p$	$g^2S - ^2P^\circ$	1/2 - 1/2	K8

IRON XXV (Fe^{24+}), Z = 26
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [71 204 000] cm^{-1}; [8828] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXV	1.456			$1s^2 - 1s5p$	$g\,^1S - ^1P^\circ$	0 - 1	D6
Fe XXV	1.509			$1s^2 - 1s4p$	$g\,^1S - ^1P^\circ$	0 - 1	D6
Fe XXV	1.59			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Fe XXV	1.852			$1s^2 - 1s2p$	$g\,^1S - ^1P^\circ$	0 - 1	D6
Fe XXV	1.857			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	D6
Fe XXV	1.867	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	D6

IRON XXVI (Fe^{25+}), Z = 26
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [74 827 600] cm^{-1}; [9277.2] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Fe XXVI	1.79			1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	C11

COBALT, Z = 27

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co	8.414	10					S31
Co	8.518	10					S31
Co	8.715	20					S31
Co	8.795	20					S31
Co	8.880	20					S31
Co	8.966	20					S31
Co	9.028	20					S31
Co	9.087	20					S31
Co	9.139	40					S31
Co	9.245	20					S31
Co	9.475	20					S31
Co	9.900	20					S31
Co	10.198	40					S31
Co	10.624	30					S31
Co	10.674	40					S31
Co	10.840	30					S31
Co	10.880	30					S31
Co	11.237	50					S31
Co	11.257	50					S31
Co	11.357	50					S31
Co	11.399	50					S31
Co	11.542	20					S31
Co	11.581	20					S31
Co	11.712	20					S31
Co	11.851	20					S31
Co	12.190	30					S31
Co	12.47	30					S31
Co	12.54	30					S31
Co	13.822	40					S31
Co	13.921	30					S31
Co	13.997	0					S31
Co	14.040	50					S31
Co	14.824	10					S31
Co	151.91	600					F11
Co	152.50	600					F11
Co	152.66	200					F11
Co	152.96	700					F11
Co	153.89	800					F11
Co	155.27	400					F11
Co	156.59	400					F11
Co	158.80	900					F11
Co	161.46	300					F11
Co	161.70	200					F11
Co	161.88	800					F11
Co	162.07	700					F11
Co	162.32	400					F11
Co	163.85	500					F11
Co	166.71	400					F11
Co	174.67	300					F11
Co	174.71	300					F11
Co	179.08	500					F11
Co	179.16	500					F11
Co	412.59	100					G9
Co	414.52	50					G9
Co	415.94	10					G9

525-206 O - 73 - 32

COBALT I (Co^{0+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7 4s^2$ $^4F_{9/2}$ (27 electrons)

Ionization Potential 63 430 cm^{-1}; 7.86 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co I	1814.20	120	47	$3d^7 4s^2$ -	ga^4F - 28°	9/2 - 7/2	R25
Co I	1820.42	120	46	$3d^7 4s^2$ -	ga^4F - 26°	9/2 - 7/2	R25
Co I	1825.17	10		$3d^7 4s^2$ -	ga^4F - v^4F° ?	9/2 - 9/2	R25
Co I	1828.35	120	51	$3d^7 4s^2$ -	ga^4F - 34°	5/2 - 3/2	R25
Co I	1832.47	150	48	$3d^7 4s^2$ -	ga^4F - 29°	7/2 - 5/2	R25
Co I	1834.34	100	50	$3d^7 4s^2$ -	ga^4F - 33°	5/2 - 5/2	R25
Co I	1834.99	100	45	$3d^7 4s^2$ -	ga^4F - v^4F°	7/2 - 7/2	R25
Co I	1837.82	80		$3d^7 4s^2$ -	ga^4F - 32°	5/2 - 3/2	R25
Co I	1838.28	150	44	$3d^7 4s^2$ -	ga^4F - 24°	9/2 - 7/2	R25
Co I	1840.55	100	49	$3d^7 4s^2$ -	ga^4F - 31°	5/2 - 3/2	R25
Co I	1840.79	100					R25
Co I	1841.47	100	47	$3d^7 4s^2$ -	ga^4F - 28°	7/2 - 7/2	R25
Co I	1841.88	30		$3d^7 4s^2$ -	ga^4F - 34°	3/2 - 3/2	R25
Co I	1842.34	250	45	$3d^7 4s^2$ -	ga^4F - v^4F° ?	5/2 - 5/2	R25
Co I	1843.45	80		$3d^7 4s^2$ -	ga^4F - 27°	7/2 - 5/2	R25
Co I	1846.94	40					R25
Co I	1847.89	300	46	$3d^7 4s^2$ -	ga^4F - 26°	7/2 - 7/2	R25
Co I	1851.49	80		$3d^7 4s^2$ -	ga^4F - 32° ?	3/2 - 3/2	R25,K8
Co I	1852.52	150	48	$3d^7 4s^2$ -	ga^4F - 29°	5/2 - 5/2	R25
Co I	1852.71	300	45	$3d^7 4s^2$ -	ga^4F - v^4F°	7/2 - 9/2	R25
Co I	1854.28	80	49	$3d^7 4s^2$ -	ga^4F - 31°	3/2 - 3/2	R25
Co I	1855.05	400	45	$3d^7 4s^2$ -	ga^4F - v^4F°	5/2 - 7/2	R25
Co I	1856.13	150	45	$3d^7 4s^2$ -	ga^4F - v^4F°	3/2 - 5/2	R25
Co I	1858.26	30	45	$3d^7 4s^2$ -	ga^4F - v^4F°	3/2 - 3/2	R25
Co I	1864.92	40					R25
Co I	1866.27	60		$3d^7 4s^2$ -	ga^4F - 24°	7/2 - 7/2	R25
Co I	1866.45	30		$3d^7 4s^2$ -	ga^4F - 29°	3/2 - 5/2	R25
Co I	1869.16	50					R25
Co I	1870.45	50		$3d^7 4s^2$ -	ga^4F - 22°	9/2 - 7/2	R25,K8
Co I	1876.01	100					R25
Co I	1876.48	70					R25
Co I	1876.88	80					R25
Co I	1877.40	150					R25
Co I	1878.28	250					R25
Co I	1880.34	40					R25
Co I	1880.82	150					R25
Co I	1884.45	100	42	$3d^7 4s^2$ -	ga^4F - 21°	9/2 - 7/2	R25
Co I	1884.56	100					R25
Co I	1887.89	120					R25
Co I	1889.60	60					R25
Co I	1889.87	100					R25
Co I	1893.43	30					R25
Co I	1894.07	30					R25
Co I	1897.48	100					R25
Co I	1897.73	80					R25
Co I	1901.75	200					R25
Co I	1902.15	100					R25
Co I	1904.75	50					R25
Co I	1905.41	60					R25
Co I	1905.87	200					R25
Co I	1906.72	50					R25
Co I	1924.46	150					R25
Co I	1925.05	120	122	$3d^8(a^3F)4s$ -	a^2F - 37°	7/2 - 7/2	R25
Co I	1926.90	100	39	$3d^7 4s^2$ -	ga^4F - t^2F°	9/2 - 7/2	R25
Co I	1929.34	150	95	$3d^8(a^3F)4s$ -	b^4F - v^4F°	9/2 - 7/2	R25
Co I	1930.90	60		$3d^7 4s^2$ -	ga^4F - u^2D°	5/2 - 5/2	R25
Co I	1931.00	100					R25
Co I	1931.89	80					R25
Co I	1933.03	30					R25
Co I	1934.34	120	43	$3d^7 4s^2$ -	ga^4F - s^2F°	5/2 - 7/2	R25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co I	1935.46	0		$3d^7 4s^2$ -	ga^4F - $u^2D°$	5/2 - 3/2	R25
Co I	1936.58	300	98	$3d^8(a^3F)4s$ -	b^4F - 28° ?	9/2 - 7/2	R25
Co I	1938.94	100					R25
Co I	1939.75	30					R25
Co I	1940.16	150	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$?	7/2 - 5/2	R25
Co I	1943.64	120	97	$3d^8(a^3F)4s$ -	b^4F - 26°	9/2 - 7/2	R25
Co I	1945.09	120	104	$3d^8(a^3F)4s$ -	b^4F - 34°	5/2 - 3/2	R25
Co I	1945.86	0		$3d^8(a^3F)4s$ -	b^4F - 25°	9/2 - 9/2	R25
Co I	1946.79	250	100	$3d^8(a^3F)4s$ -	b^4F - 29°	7/2 - 5/2	R25
Co I	1947.58	50					R25
Co I	1948.09	100					R25
Co I	1949.00	150	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	9/2 - 9/2	R25
Co I	1951.44	120	99	$3d^8(a^3F)4s$ -	b^4F - 29°	7/2 - 5/2	R25
Co I	1951.90	250	103	$3d^8(a^3F)4s$ -	b^4F - 33°	5/2 - 5/2	R25
Co I	1953.71	80	38	$3d^7 4s^2$ -	ga^4F - 15°	9/2 - 7/2	R25
Co I	1954.22	300	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	7/2 - 7/2	R25
Co I	1955.17	300	105	$3d^8(a^3F)4s$ -	b^4F - 35°	3/2 - 3/2	R25
Co I	1956.22	150	41	$3d^7 4s^2$ -	ga^4F - 20°	5/2 - 3/2	R25
Co I	1957.69	120	39	$3d^7 4s^2$ -	ga^4F - $t^2F°$	7/2 - 7/2	R25
Co I	1958.10	80		$3d^7 4s^2$ -	ga^4F - 18°	5/2 - 7/2	R25
Co I	1958.55	250					R25
Co I	1958.94	150	101	$3d^8(a^3F)4s$ -	b^4F - 31°	5/2 - 3/2	R25
Co I	1961.00	150	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	5/2 - 5/2	R25
Co I	1961.26	80	39	$3d^7 4s^2$ -	ga^4F - $t^2F°$	3/2 - 5/2	R25
Co I	1961.59	250		$3d^8(a^3F)4s$ -	b^4F - 28° ?	7/2 - 7/2	R25,K8
Co I	1963.38	120	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	5/2 - 3/2	R25
Co I	1963.55	200	122	$3d^8(a^3F)4s$ -	a^2F - 37°	5/2 - 7/2	R25
Co I	1963.92	80		$3d^8(a^3F)4s$ -	b^4F - 27°	7/2 - 5/2	R25
Co I	1964.03	200	94	$3d^8(a^3F)4s$ -	b^4F - 24°	9/2 - 7/2	R25
Co I	1966.68	90	103	$3d^8(a^3F)4s$ -	b^4F - 33°	3/2 - 5/2	R25
Co I	1967.78	100	100	$3d^8(a^3F)4s$ -	b^4F - 29°	5/2 - 5/2	R25
Co I	1968.69	250					R25
Co I	1968.93	250	97	$3d^8(a^3F)4s$ -	b^4F - 26°	7/2 - 7/2	R25
Co I	1969.68	30					R25
Co I	1970.71	500	102	$3d^8(a^3F)4s$ -	b^4F - 32°	3/2 - 3/2	R25
Co I	1970.77 P		37	$3d^7 4s^2$ - $3d^7 4s(^3D)4p$	ga^4F - $s^4D°$	9/2 - 7/2	M23
Co I	1971.16	300	96	$3d^8(a^3F)4s$ -	b^4F - 25°	7/2 - 9/2	R25
Co I	1971.75	150	41	$3d^7 4s^2$ -	ga^4F - 20°	3/2 - 3/2	R25
Co I	1972.52	300	99	$3d^8(a^3F)4s$ -	b^4F - 29°	5/2 - 5/2	R25
Co I	1972.82	0		$3d^7 4s^2$ -	ga^4F - 19°	3/2 - 3/2	R25
Co I	1973.62	50					R25
Co I	1973.85	250	101	$3d^8(a^3F)4s$ -	b^4F - 31°	3/2 - 3/2	R25
Co I	1974.39	150	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	7/2 - 9/2	R25
Co I	1975.36	60		$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	5/2 - 7/2	R25
Co I	1975.67	200					R25
Co I	1975.94	60		$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	3/2 - 5/2	R25
Co I	1976.97	300	40	$3d^7 4s^2$ -	ga^4F - 17°	5/2 - 5/2	R25
Co I	1978.36	100	95	$3d^8(a^3F)4s$ -	b^4F - $v^4F°$	3/2 - 3/2	R25
Co I	1978.53	120					R25
Co I	1980.59	150	39	$3d^7 4s^2$ -	ga^4F - $t^2F°$	5/2 - 7/2	R25
Co I	1980.89	400					R25
Co I	1981.97	200	37	$3d^7 4s^2$ - $3d^7 4s(^3D)4p$	ga^4F - $s^4D°$	3/2 - 1/2	R25
Co I	1982.52	200	37	$3d^7 4s^2$ - $3d^7 4s(^3D)4p$	ga^4F - $s^4D°$	5/2 - 3/2	R25
Co I	1982.81	80	100	$3d^8(a^3F)4s$ -	b^4F - 29°	3/2 - 5/2	R25
Co I	1985.25	100		$3d^8(a^3F)4s$ -	b^4F - 27°	5/2 - 5/2	R25
Co I	1985.36	100	38	$3d^7 4s^2$ -	ga^4F - 15°	7/2 - 7/2	R25
Co I	1985.88	40					R25
Co I	1986.31	60		$3d^7 4s^2$ - $3d^7 4s(^3D)4p$	ga^4F - $w^4P°$	7/2 - 5/2	R25
Co I	1987.03	150					R25
Co I	1987.15	120	37	$3d^7 4s^2$ - $3d^7 4s(^3D)4p$	ga^4F - $s^4D°$	7/2 - 5/2	R25,M23
Co I	1987.24	100					R25
Co I	1987.65	200	99	$3d^8(a^3F)4s$ -	b^4F - 29°	3/2 - 5/2	R25
Co I	1989.28	100					R25
Co I	1989.80	250	94	$3d^8(a^3F)4s$ -	b^4F - 24°	7/2 - 7/2	R25
Co I	1990.34	300	97	$3d^8(a^3F)4s$ -	b^4F - 26°	5/2 - 7/2	R25

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co I	1991.80	30		$3d^74s^2$ - $3d^74s(^3D)4p$	ga^4F - w^4P°	3/2 - 3/2	R25
Co I	1992.79	200		$3d^74s^2$ -	ga^4F - 17° ?	3/2 - 5/2	R25,K8
Co I	1993.25	100					R25
Co I	1994.98	150					R25
Co I	1998.49	250	37	$3d^74s^2$ - $3d^74s(^3D)4p$	ga^4F - s^4D°	3/2 - 3/2	R25

COBALT II (Co^{1+}), Z = 27

Ground State $1s^22s^22p^63s^23p^63d^8$ $^3F_4$ (26 electrons)

Ionization Potential 137 572 cm^{-1}; 17.06 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co II	1271.940	20		$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - y^5F°	5 - 5	V4
Co II	1276.914	0		$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - y^5F°	4 - 4	V4
Co II	1295.853	30					V4
Co II	1299.551	30	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	5 - 4	V4
Co II	1302.378	20					V4
Co II	1306.935	30	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	4 - 3	V4
Co II	1306.969	10					V4
Co II	1311.124	10d	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	4 - 4	V4
Co II	1311.864	10	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	3 - 2	V4
Co II	1315.393	0	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	2 - 1	V4
Co II	1316.086	0	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	3 - 3	V4
Co II	1318.589	0	12	$3d^7(a^4F)4s$ - $3d^64s(a^6D)4p$	a^5F - x^5D°	2 - 2	V4
Co II	1429.002	20					V4
Co II	1438.710	10					V4
Co II	1445.572	0					V4
Co II	1448.037	70		$3d^8$ - $3d^7(a^2D)4p$	ga^3F - w^3D°	4 - 3	V4
Co II	1454.962	50					V4
Co II	1455.884	70					V4
Co II	1466.209	100		$3d^8$ - $3d^7(a^2H)4p$	ga^3F - x^3G°	4 - 5	V4
Co II	1468.235	20		$3d^8$ - $3d^7(a^2D)4p$	ga^3F - w^3D°	3 - 3	V4
Co II	1468.383	20	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	2 - 1	V4
Co II	1469.727	20					V4
Co II	1471.879	20	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	3 - 2	V4
Co II	1472.898	100		$3d^8$ - $3d^7(a^2H)4p$	ga^3F - x^3G°	3 - 4	V4
Co II	1475.018	20	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	1 - 1	M23
Co II	1475.807	70					V4
Co II	1476.661	50					V4
Co II	1480.953	50		$3d^8$ - $3d^64s(a^6D)4p$	a^3P - x^5D° ?	2 - 2	V4,K8
Co II	1484.259	20	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	1 - 2	V4
Co II	1486.492	70	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	3 - 3	V4
Co II	1489.659	10					V4
Co II	1491.701	10					V4
Co II	1492.263	20	25	$3d^7(a^4P)4s$ - $3d^64s(a^6D)4p$	a^5P - y^5P°	2 - 3	V4
Co II	1494.124	0					V4
Co II	1497.675	10					V4
Co II	1500.897	20					V4
Co II	1509.240	60					V4
Co II	1509.954	30		$3d^8$ - $3d^7(a^2P)4p$	ga^3F - x^3D°	2 - 1	V4
Co II	1519.412	10d					V4
Co II	1525.793	10					V4
Co II	1534.834	10		$3d^8$ - $3d^7(a^2G)4p$	ga^3F - y^3G°	4 - 4	V4
Co II	1547.965	50					V4
Co II	1552.756	70		$3d^8$ - $3d^7(a^2G)4p$	ga^3F - z^1G°	4 - 4	V4
Co II	1553.762	20		$3d^8$ - $3d^7(a^2G)4p$	ga^3F - y^3F°	4 - 3	V4
Co II	1557.039	50					V4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co II	1557.566	60		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3G^\circ$	3 - 4	V4
Co II	1560.874	20		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	3 - 2	V4
Co II	1567.592	50		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - z^3H^\circ$	4 - 4	V4
Co II	1572.674	80	6	$3d^8 - 3d^7(a^4P)4p$	$ga^3F - y^3D^\circ$	4 - 3	V4
Co II	1572.915	30					V4
Co II	1574.568	100		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	4 - 4	V4
Co II	1576.813	100		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	2 - 2	V4
Co II	1577.058	100		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	3 - 3	V4
Co II	1589.674	10					V4
Co II	1590.558	30		$3d^7(a^4F)4s - 3d^7(a^2P)4p$	$a^5F - x^3D^\circ$?	2 - 1	V4,K8
Co II	1593.323	20		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	2 - 3	V4
Co II	1595.784	50	6	$3d^8 - 3d^7(a^4P)4p$	$ga^3F - y^3D^\circ$	3 - 2	V4
Co II	1596.521	10		$3d^8 - 3d^7(a^4P)4p$	$ga^3F - y^3D^\circ$	3 - 3	V4
Co II	1598.494	30		$3d^8 - 3d^7(a^2G)4p$	$ga^3F - y^3F^\circ$	3 - 4	V4
Co II	1599.314	30	24	$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$a^5P - x^5D^\circ$	3 - 4	V4
Co II	1599.716	10	24	$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$a^5P - x^5D^\circ$	2 - 3	V4
Co II	1601.282	5	24	$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$a^5P - x^5D^\circ$	1 - 2	M23
Co II	1605.987	30	6	$3d^8 - 3d^7(a^4P)4p$	$ga^3F - y^3D^\circ$	2 - 1	V4
Co II	1622.661	0					V4
Co II	1627.506	10		$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$b^3P - y^5P^\circ$	1 - 2	V4
Co II	1632.347	10					V4
Co II	1633.370	0					V4
Co II	1637.302	10					V4
Co II	1638.815	20					V4
Co II	1639.276	40					V4
Co II	1640.127	20		$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$b^3P - y^5P^\circ$	2 - 3	V4
Co II	1642.485	30					V4
Co II	1647.758	20					V4
Co II	1649.303	100					V4
Co II	1655.089	20					V4
Co II	1656.669	30					V4
Co II	1656.948	60		$3d^7(a^4F)4s - 3d^7(a^2P)4p$	$a^5F - z^3P^\circ$?	3 - 2	V4,K8
Co II	1657.028	80		$3d^7(a^2G)4s - 3d^64s(a^6D)4p$	$a^3G - y^5F^\circ$?	5 - 5	V4,K8
Co II	1657.400	20		$3d^7(a^2G)4s - 3d^64s(a^6D)4p$	$a^3G - y^5F^\circ$	4 - 4	V4
Co II	1657.933	30					V4
Co II	1658.145	40		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^3P^\circ$?	1 - 0	V4,K8
Co II	1658.377	20					V4
Co II	1659.062	30		$3d^7(a^2P)4s - 3d^64s(a^6D)4p$	$c^3P - y^5P^\circ$?	0 - 1	V4,K8
Co II	1661.281	50					V4
Co II	1664.824	10		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$a^5F - y^3F^\circ$	2 - 2	V4
Co II	1666.316	40					V4
Co II	1666.406	40					V4
Co II	1667.534	10h					V4
Co II	1668.655			$3d^7(a^2G)4s - 3d^64s(a^6D)4p$	$a^3G - y^5F^\circ$?	3 - 4	V4,K8
Co II	1669.915	20		$3d^7(a^4F)4s - 3d^7(a^2D)4p$	$b^3F - x^3F^\circ$	4 - 3	V4
Co II	1673.199	10		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$a^5F - z^3H^\circ$?	4 - 4	V4,K8
Co II	1673.956	20					V4
Co II	1674.953	30					V4
Co II	1679.423	40					V4
Co II	1680.187	20					V4
Co II	1682.124	20					V4
Co II	1682.355	100					V4
Co II	1683.518	70					V4
Co II	1683.765	60		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$a^5F - z^3H^\circ$	5 - 6	V4
Co II	1685.882	20		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - z^5P^\circ$	4 - 3	V4
Co II	1686.934	70		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$a^5F - z^3H^\circ$?	4 - 5	V4,K8
Co II	1687.069	60					V4
Co II	1687.868	10		$3d^7(a^4F)4s - 3d^7(a^2D)4p$	$b^3F - w^3D^\circ$	4 - 3	V4
Co II	1688.338	20		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$a^5F - z^3H^\circ$?	3 - 4	V4,K8
Co II	1691.339	30					V4
Co II	1693.786	20					V4
Co II	1693.846	20					V4
Co II	1706.088	20					V4
Co II	1706.823	80					V4
Co II	1706.937	20					V4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co II	1707.602	80					V4
Co II	1707.822	50		$3d^7(a^4P)4s - 3d^64s(a^6D)4p$	$b^3P - y^5F^\circ$?	2 - 3	V4,K8
Co II	1711.127	10					V4
Co II	1715.114	0					V4
Co II	1720.182	0		$3d^7(a^4F)4s - 3d^7(a^2H)4p$	$b^3F - x^3G^\circ$?	3 - 4	V4,K8
Co II	1723.048	30		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	5 - 4	V4
Co II	1725.258	20					V4
Co II	1727.823	20					V4
Co II	1732.807	0					V4
Co II	1734.156	40					V4
Co II	1738.870	60					V4
Co II	1740.598	0					V4
Co II	1743.021	0h					V4
Co II	1743.439	0		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 4	V4
Co II	1746.215	10					V4
Co II	1747.897	40		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	4 - 3	V4
Co II	1748.350	10		$3d^7(a^2G)4s - 3d^64s(a^6D)4p$	$b^1G - y^5F^\circ$?	4 - 4	V4,K8
Co II	1748.772	0					V4
Co II	1754.228	20					V4
Co II	1757.770	0					V4
Co II	1758.648	20					V4
Co II	1761.67	0					V4
Co II	1763.673	20		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 2	V4
Co II	1764.289	0		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	3 - 3	V4
Co II	1773.042	10		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	2 - 1	V4
Co II	1775.878	0		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$a^5F - y^5D^\circ$	2 - 2	V4
Co II	1778.321	10					V4
Co II	1804.954	60					V4
Co II	1818.584	10					V4
Co II	1824.060	10					V4
Co II	1839.367	100		$3d^8 - 3d^7(a^2G)4p$	$a^1D - z^1F^\circ$	2 - 3	V4
Co II	1840.220	30					V4
Co II	1845.910	200					V4
Co II	1848.466	10					V4
Co II	1851.639	10		$3d^8 - 3d^7(a^4P)4p$	$a^1D - y^3P^\circ$	2 - 1	V4
Co II	1852.564	0		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$b^3F - z^3H^\circ$	4 - 4	V4
Co II	1853.726	10					V4
Co II	1859.622	0		$3d^7(a^4F)4s - 3d^7(a^4P)4p$	$b^3F - y^3D^\circ$	4 - 3	V4
Co II	1860.214	40		$3d^8 - 3d^7(a^4P)4p$	$a^1D - y^3P^\circ$	2 - 2	V4
Co II	1862.313	250		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$b^3F - y^3F^\circ$	4 - 4	V4
Co II	1862.360	10		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$b^3F - y^3F^\circ$	2 - 2	V4
Co II	1863.86	40		$3d^7(a^4F)4s - 3d^7(a^2G)4p$	$b^3F - y^3F^\circ$	3 - 3	V4
Co II	1867.028	50					V4
Co II	1895.478	40		$3d^8 - 3d^7(a^2G)4p$	$a^3P - z^1F^\circ$	2 - 3	V4
Co II	1907.951	0					V4
Co II	1908.517	30		$3d^8 - 3d^7(a^4P)4p$	$a^3P - y^3P^\circ$	2 - 1	V4
Co II	1917.621	60		$3d^8 - 3d^7(a^4P)4p$	$a^3P - y^3P^\circ$	2 - 2	V4
Co II	1920.713	20		$3d^8 - 3d^7(a^4P)4p$	$a^3P - y^3P^\circ$	0 - 1	V4
Co II	1922.925	30		$3d^8 - 3d^7(a^4P)4p$	$a^3P - y^3P^\circ$	1 - 2	V4
Co II	1937.070	30		$3d^8 - 3d^7(a^2P)4p$	$a^3P - z^3P^\circ$	1 - 1	V4
Co II	1941.281	800	5	$3d^8 - 3d^7(a^4F)4p$	$ga^3F - z^3D^\circ$	4 - 3	V4
Co II	1944.181	20		$3d^8 - 3d^7(a^2P)4p$	$a^3P - z^3P^\circ$	0 - 1	V4
Co II	1950.097	500	5	$3d^8 - 3d^7(a^4F)4p$	$ga^3F - z^3D^\circ$	3 - 2	V4
Co II	1957.418	150	5	$3d^8 - 3d^7(a^4F)4p$	$ga^3F - z^3D^\circ$	2 - 1	V4
Co II	1968.918	30		$3d^8 - 3d^7(a^4P)4p$	$a^1D - z^3S^\circ$	2 - 1	V4
Co II	1975.002	20		$3d^8 - 3d^7(a^4F)4p$	$ga^3F - z^3D^\circ$	2 - 2	V4
Co II	1983.162	100h					V4
Co II	1983.947	20		$3d^8 - 3d^7(a^4P)4p$	$a^3P - z^5P^\circ$	2 - 1	V4
Co II	1984.827	10		$3d^8 - 3d^7(a^4F)4p$	$ga^3F - z^3F^\circ$	4 - 3	V4
Co II	1991.574	0		$3d^8 - 3d^7(a^4P)4p$	$a^3P - y^3D^\circ$	1 - 2	V4
Co II	1997.095	10		$3d^8 - 3d^7(a^4P)4p$	$a^3P - z^5P^\circ$	0 - 1	V4

COBALT III (Co^{2+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential 270 200 cm^{-1}; 33.50 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	649.342	1					S8
Co III	682.084	5		$3d^7 - 3d^6(b^3P)4p$	$a^4P - v^4P^\circ$	5/2 - 5/2	S8
Co III	683.140	3		$3d^7 - 3d^6(b^3P)4p$	$a^4P - v^4P^\circ$	3/2 - 5/2	S8
Co III	708.767	15		$3d^7 - 3d^6(b^3P)4p$	$a^4P - w^4P^\circ$	5/2 - 5/2	S8
Co III	709.912	10		$3d^7 - 3d^6(b^3P)4p$	$a^4P - w^4P^\circ$	3/2 - 5/2	S8
Co III	709.996	15		$3d^7 - 3d^6(b^3P)4p$	$a^4P - w^4P^\circ$	5/2 - 3/2	S8
Co III	710.592	0					S8
Co III	711.002	0		$3d^7 - 3d^6(^1G)4p$	$ga^4F - x^2F^\circ$	9/2 - 7/2	S8
Co III	711.741	5		$3d^7 - 3d^6(b^3P)4p$	$a^4P - y^4S^\circ$	5/2 - 3/2	S8
Co III	712.193	0					S8
Co III	712.890	2		$3d^7 - 3d^6(b^3P)4p$	$a^4P - y^4S^\circ$	3/2 - 3/2	S8
Co III	714.836	0		$3d^7 - 3d^6(b^3P)4p$	$a^4P - y^4S^\circ$	1/2 - 3/2	S8
Co III	715.125	0		$3d^7 - 3d^6(^3D)4p$	$ga^4F - w^4D^\circ$?	9/2 - 7/2	S8,K8
Co III	716.055	2		$3d^7 - 3d^6(^3D)4p$	$ga^4F - w^4F^\circ$	7/2 - 9/2	S8
Co III	717.490	1		$3d^7 - 3d^6(^3D)4p$	$ga^4F - w^4F^\circ$	7/2 - 5/2	S8
Co III	735.720	0					S8
Co III	738.066	2					S8
Co III	741.032	1					S8
Co III	745.762	0					S8
Co III	745.939	0					S8
Co III	748.019	1					S8
Co III	752.485	0					S8
Co III	752.759	3					S8
Co III	754.795	2h					S8
Co III	755.253	5					S8
Co III	755.512	0					S8
Co III	755.972	1		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	9/2 - 7/2	S8
Co III	756.064	1		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^2D^\circ$	5/2 - 5/2	S8
Co III	756.338	5		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^2D^\circ$	3/2 - 3/2	S8
Co III	758.212	20	7	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	9/2 - 9/2	S8
Co III	759.592	3		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	7/2 - 5/2	S8
Co III	759.644	3					S8
Co III	759.970	0		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	9/2 - 7/2	S8
Co III	760.211	1		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^2H^\circ$	9/2 - 9/2	S8
Co III	760.825	30	7	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	7/2 - 7/2	S8
Co III	761.202	1		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	9/2 - 11/2	S8
Co III	762.038	1					S8
Co III	762.529	3		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	5/2 - 3/2	S8
Co III	762.694	0					S8
Co III	762.775	50	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	9/2 - 9/2	S8
Co III	763.013	0		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	7/2 - 9/2	S8
Co III	763.131	25	7	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	5/2 - 5/2	S8
Co III	764.229	0					S8
Co III	764.363	2		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	5/2 - 7/2	S8
Co III	764.418	2					S8
Co III	764.866	10	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	7/2 - 7/2	S8
Co III	764.959	20	7	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	3/2 - 3/2	S8
Co III	765.104	3h		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^2H^\circ$	7/2 - 9/2	S8
Co III	765.561	3		$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	3/2 - 5/2	S8
Co III	766.667	10h	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	5/2 - 5/2	S8
Co III	767.703	20	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	7/2 - 9/2	S8
Co III	767.770	15					S8
Co III	768.458	20	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4F^\circ$	5/2 - 7/2	S8
Co III	769.128	10	6	$3d^7 - 3d^6(^3G)4p$	$ga^4F - x^4G^\circ$	3/2 - 5/2	S8
Co III	769.459	3		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^2G^\circ$	7/2 - 9/2	S8
Co III	770.192	1		$3d^7 - 3d^6(^1D)4p$	$a^2G - v^2F^\circ$	9/2 - 7/2	S8
Co III	770.723	2					S8
Co III	770.967	0		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	9/2 - 7/2	S8
Co III	771.638	10		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	9/2 - 9/2	S8
Co III	771.868	30	5	$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	9/2 - 11/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	773.125	1		$3d^7 - 3d^6(^3F)4p$	$ga^4F - z^2F^\circ$	7/2 - 7/2	S8
Co III	775.446	2		$3d^7 - 3d^6(^3F)4p$	$ga^4F - z^2F^\circ$	5/2 - 5/2	S8
Co III	775.992	10		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	7/2 - 7/2	S8
Co III	776.688	20	5	$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	7/2 - 9/2	S8
Co III	776.794	5		$3d^7 - 3d^6(^3F)4p$	$ga^4F - z^2F^\circ$	5/2 - 7/2	S8
Co III	779.436	3		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	5/2 - 5/2	S8
Co III	779.683	20	5	$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	5/2 - 7/2	S8
Co III	781.130	20		$3d^7 - 3d^6(^3F)4p$	$ga^4F - x^4D^\circ$	9/2 - 7/2	S8
Co III	781.250	3					S8
Co III	781.983	15	5	$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4G^\circ$	3/2 - 5/2	S8
Co III	783.179	10		$3d^7 - 3d^6(^3F)4p$	$ga^4F - x^4D^\circ$	7/2 - 5/2	S8
Co III	785.207	10		$3d^7 - 3d^6(^3F)4p$	$ga^4F - x^4D^\circ$	5/2 - 3/2	S8
Co III	785.426	1		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^2G^\circ$	9/2 - 7/2	S8
Co III	785.677	1					S8
Co III	785.883	15	4	$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	S8
Co III	786.958	8		$3d^7 - 3d^6(^3F)4p$	$ga^4F - x^4D^\circ$	5/2 - 5/2	S8
Co III	787.406	5		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	9/2 - 9/2	S8
Co III	787.562	8	4	$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	S8
Co III	788.057	8		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	9/2 - 7/2	S8
Co III	788.693	2					S8
Co III	789.447	30	4	$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 1/2	S8
Co III	789.662	2		$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 5/2	S8
Co III	790.197	50	4	$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	S8
Co III	790.268	3					S8
Co III	790.688	25		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^2G^\circ$	7/2 - 7/2	S8
Co III	791.440	3					S8
Co III	792.661	5		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	7/2 - 9/2	S8
Co III	792.833	5					S8
Co III	793.600	2		$3d^7 - 3d^6(^3P)4p$	$ga^4F - z^2D^\circ$	5/2 - 3/2	S8
Co III	794.493	1		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^2G^\circ$	5/2 - 7/2	S8
Co III	795.475	5		$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	S8
Co III	797.166	2		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	5/2 - 7/2	S8
Co III	797.312	2		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	5/2 - 5/2	S8
Co III	799.034	0		$3d^7 - 3d^6(^3P)4p$	$ga^4F - z^2D^\circ$	7/2 - 5/2	S8
Co III	799.237	2		$3d^7 - 3d^6(^3F)4p$	$ga^4F - y^4F^\circ$	3/2 - 3/2	S8
Co III	799.361	0		$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 7/2	S8
Co III	799.919	10h		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	9/2 - 9/2	S8
Co III	800.445	2		$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4P^\circ$	5/2 - 3/2	S8
Co III	801.493	30	3	$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	9/2 - 11/2	S8
Co III	802.434	1h		$3d^7 - 3d^6(^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 7/2	S8
Co III	802.943	3		$3d^7 - 3d^6(^3D)4p$	$a^4P - w^4D^\circ$	5/2 - 5/2	S8
Co III	803.942	5		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	7/2 - 7/2	S8
Co III	804.495	1h		$3d^7 - 3d^6(^3D)4p$	$a^4P - w^4D^\circ$	3/2 - 1/2	S8
Co III	805.345	20	3	$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	7/2 - 9/2	S8
Co III	805.379	3		$3d^7 - 3d^6(^3P)4p$	$ga^4F - y^4P^\circ$	7/2 - 5/2	S8
Co III	806.962	3h		$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	5/2 - 5/2	S8
Co III	807.156	1		$3d^7 - 3d^6(^1D)4p$	$a^2D - x^2D^\circ$?	5/2 - 5/2	S8,K8
Co III	807.910	15	3	$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	5/2 - 7/2	S8
Co III	808.033	3		$3d^7 - 3d^6(^1D)4p$	$a^2D - v^2F^\circ$	5/2 - 7/2	S8
Co III	808.612	5	13	$3d^7 - 3d^6(^1G)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	S8
Co III	809.221	15		$3d^7 - 3d^6(^3D)4p$	$a^4P - x^4P^\circ$	5/2 - 5/2	S8
Co III	809.609	10		$3d^7 - 3d^6(^3D)4p$	$a^2G - w^4F^\circ$	9/2 - 9/2	S8
Co III	809.706	15	3	$3d^7 - 3d^6(^3H)4p$	$ga^4F - z^4G^\circ$	3/2 - 5/2	S8
Co III	809.844	2					S8
Co III	810.502	15	12	$3d^7 - 3d^6(^1G)4p$	$a^2G - w^2G^\circ$	9/2 - 9/2	S8
Co III	810.716	10		$3d^7 - 3d^6(^3D)4p$	$a^4P - x^4P^\circ$	3/2 - 5/2	S8
Co III	811.951	10		$3d^7 - 3d^6(^3D)4p$	$a^4P - x^4P^\circ$	1/2 - 3/2	S8
Co III	812.869	10	13	$3d^7 - 3d^6(^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	S8
Co III	814.066	1		$3d^7 - 3d^6(^3D)4p$	$a^2G - w^4D^\circ$	9/2 - 7/2	S8
Co III	814.649	2h					S8
Co III	815.555	25	12	$3d^7 - 3d^6(^1G)4p$	$a^2G - w^2G^\circ$	7/2 - 7/2	S8
Co III	816.617	10		$3d^7 - 3d^6(^3D)4p$	$a^2G - w^4F^\circ$	7/2 - 7/2	S8
Co III	816.864	1					S8
Co III	817.937	1					S8
Co III	818.600	20	11	$3d^7 - 3d^6(^1I)4p$	$a^2G - x^2H^\circ$	9/2 - 11/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	820.066	3		$3d^7 - 3d^6(^1I)4p$	$a^2G - x^2H^\circ$	9/2 - 9/2	S8
Co III	825.403	15	11	$3d^7 - 3d^6(^1I)4p$	$a^2G - x^2H^\circ$	7/2 - 9/2	S8
Co III	828.608	1		$3d^7 - 3d^6(^3G)4p$	$a^2G - x^2G^\circ$	9/2 - 9/2	S8
Co III	829.072	10		$3d^7 - 3d^6(^3D)4p$	$a^2D - w^2F^\circ$	5/2 - 7/2	S8
Co III	832.050	5					S8
Co III	837.330	1		$3d^7 - 3d^6(^3D)4p$	$a^2P - w^4D^\circ$?	3/2 - 3/2	S8,K8
Co III	838.133	25	10	$3d^7 - 3d^6(^3G)4p$	$a^2G - y^2F^\circ$	9/2 - 7/2	S8
Co III	839.284	30	19	$3d^7 - 3d^6(^1I)4p$	$a^2H - y^2I^\circ$	11/2 - 13/2	S8
Co III	844.097	20	18	$3d^7 - 3d^6(^1G)4p$	$a^2H - w^2H^\circ$	11/2 - 11/2	S8
Co III	844.310	8	19	$3d^7 - 3d^6(^1I)4p$	$a^2H - y^2I^\circ$	9/2 - 11/2	S8
Co III	844.411	1		$3d^7 - 3d^6(^3G)4p$	$a^2G - y^2H^\circ$	9/2 - 9/2	S8
Co III	844.866	10	10	$3d^7 - 3d^6(^3G)4p$	$a^2G - y^2F^\circ$	7/2 - 5/2	S8
Co III	848.088	30	18	$3d^7 - 3d^6(^1G)4p$	$a^2H - w^2H^\circ$	9/2 - 9/2	S8
Co III	849.210	0		$3d^7 - 3d^6(^1G)4p$	$a^2H - w^2H^\circ$	9/2 - 11/2	S8
Co III	849.485	5		$3d^7 - 3d^6(^3G)4p$	$a^2G - y^2H^\circ$	9/2 - 11/2	S8
Co III	850.067	3		$3d^7 - 3d^6(^3G)4p$	$a^2G - y^2H^\circ$	7/2 - 9/2	S8
Co III	850.424	3		$3d^7 - 3d^6(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	S8
Co III	858.663	1					S8
Co III	858.975	15	17	$3d^7 - 3d^6(^1I)4p$	$a^2H - x^2H^\circ$	11/2 - 11/2	S8
Co III	865.567	0		$3d^7 - 3d^6(^3G)4p$	$a^2G - y^4H^\circ$	9/2 - 11/2	S8
Co III	865.898	0	17	$3d^7 - 3d^6(^1I)4p$	$a^2H - x^2H^\circ$	9/2 - 9/2	S8
Co III	870.007	15	16	$3d^7 - 3d^6(^3G)4p$	$a^2H - x^2G^\circ$	11/2 - 9/2	S8
Co III	874.294	10	16	$3d^7 - 3d^6(^3G)4p$	$a^2H - x^2G^\circ$	9/2 - 7/2	S8
Co III	876.594	5		$3d^7 - 3d^6(^3H)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	S8
Co III	878.080	0		$3d^7 - 3d^6(^3F)4p$	$a^2P - y^2D^\circ$	3/2 - 3/2	S8
Co III	878.543	10	9	$3d^7 - 3d^6(^3F)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	S8
Co III	878.963	5		$3d^7 - 3d^6(^3H)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	S8
Co III	880.950	10	9	$3d^7 - 3d^6(^3F)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	S8
Co III	882.025	0		$3d^7 - 3d^6(^3F)4p$	$a^4P - x^4D^\circ$	3/2 - 3/2	S8
Co III	883.154	5		$3d^7 - 3d^6(^3G)4p$	$a^2D - y^2F^\circ$	5/2 - 7/2	S8
Co III	883.345	1		$3d^7 - 3d^6(^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	S8
Co III	883.703	2		$3d^7 - 3d^6(^3F)4p$	$a^2P - y^2D^\circ$	1/2 - 3/2	S8
Co III	883.960	0		$3d^7 - 3d^6(^3F)4p$	$a^4P - x^4D^\circ$	1/2 - 1/2	S8
Co III	884.192	2		$3d^7 - 3d^6(^3F)4p$	$a^4P - x^4D^\circ$	3/2 - 5/2	S8
Co III	885.011	0		$3d^7 - 3d^6(^3F)4p$	$a^4P - x^4D^\circ$	1/2 - 3/2	S8
Co III	886.378	5		$3d^7 - 3d^6(^3F)4p$	$a^4P - x^4D^\circ$	5/2 - 7/2	S8
Co III	887.777	0		$3d^7 - 3d^6(^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	S8
Co III	887.988	0		$3d^7 - 3d^6(^3F)4p$	$a^2G - y^4G^\circ$	9/2 - 9/2	S8
Co III	891.902	5		$3d^7 - 3d^6(^3P)4p$	$a^2P - z^2S^\circ$	3/2 - 1/2	S8
Co III	893.045	15	15	$3d^7 - 3d^6(^3G)4p$	$a^2H - y^2H^\circ$	11/2 - 11/2	S8
Co III	893.095	8	15	$3d^7 - 3d^6(^3G)4p$	$a^2H - y^2H^\circ$	9/2 - 9/2	S8
Co III	893.713	8		$3d^7 - 3d^6(^3G)4p$	$a^2D - y^2F^\circ$	3/2 - 5/2	S8
Co III	897.686	1		$3d^7 - 3d^6(^3P)4p$	$a^2P - z^2S^\circ$	1/2 - 1/2	S8
Co III	899.025	1					S8
Co III	903.730	5		$3d^7 - 3d^6(^3F)4p$	$a^2D - y^2D^\circ$	5/2 - 5/2	S8
Co III	908.491	5		$3d^7 - 3d^6(^3H)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	S8
Co III	910.415	0		$3d^7 - 3d^6(^3F)4p$	$a^2D - y^2D^\circ$	3/2 - 3/2	S8
Co III	910.721	0		$3d^7 - 3d^6(^3P)4p$	$a^4P - y^4P^\circ$	5/2 - 5/2	S8
Co III	912.817	2		$3d^7 - 3d^6(^3H)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	S8
Co III	913.239	2		$3d^7 - 3d^6(^1D)4p$	$a^2F - v^2F^\circ$	5/2 - 7/2	S8
Co III	918.233	1					S8
Co III	920.371	2		$3d^7 - 3d^6(^3G)4p$	$a^2H - x^4G^\circ$	11/2 - 11/2	S8
Co III	923.075	10	14	$3d^7 - 3d^6(^3H)4p$	$a^2H - z^2H^\circ$	11/2 - 11/2	S8
Co III	925.045	8	14	$3d^7 - 3d^6(^3H)4p$	$a^2H - z^2H^\circ$	9/2 - 9/2	S8
Co III	925.230	0		$3d^7 - 3d^6(^3F)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	S8
Co III	926.591	0		$3d^7 - 3d^6(^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	S8
Co III	927.224	5		$3d^7 - 3d^6(^3P)4p$	$a^2D - z^2P^\circ$	5/2 - 3/2	S8
Co III	929.970	5		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	9/2 - 7/2	S8
Co III	932.733	3		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	7/2 - 5/2	S8
Co III	935.003	3		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	S8
Co III	936.639	30	2	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	9/2 - 9/2	S8
Co III	937.310	20	2	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	7/2 - 7/2	S8
Co III	938.077	10	2	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	5/2 - 5/2	S8
Co III	938.647	5	2	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	3/2 - 3/2	S8
Co III	939.060	30	1	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	9/2 - 7/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	941.756	0		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	3/2 - 5/2	S8
Co III	942.388	20	1	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	7/2 - 5/2	S8
Co III	942.696	1		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	5/2 - 7/2	S8
Co III	944.084	1		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F^\circ$	7/2 - 9/2	S8
Co III	944.768	20	1	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	5/2 - 3/2	S8
Co III	945.198	0		$3d^7 - 3d^6(^3P)4p$	$a^2P - z^2D^\circ$	3/2 - 5/2	S8
Co III	946.526	10		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	7/2 - 7/2	S8
Co III	946.594	20	1	$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	3/2 - 1/2	S8
Co III	947.838	10		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	5/2 - 5/2	S8
Co III	948.501	5		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D^\circ$	3/2 - 3/2	S8
Co III	951.264	0		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P^\circ$	7/2 - 5/2	S8
Co III	952.279	2		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P^\circ$	9/2 - 7/2	S8
Co III	952.812	2		$3d^7 - 3d^6(^3H)4p$	$a^2H - z^2I^\circ$	11/2 - 13/2	S8
Co III	953.977	2		$3d^7 - 3d^6(^3H)4p$	$a^2H - z^2I^\circ$	9/2 - 11/2	S8
Co III	989.169	1					S8
Co III	992.145	5		$3d^7 - 3d^6(^3G)4p$	$a^2F - x^2G^\circ$	7/2 - 7/2	S8
Co III	996.558	8					S8
Co III	1008.997	2		$3d^7 - 3d^6(^3G)4p$	$a^2F - y^2F^\circ$	7/2 - 5/2	S8
Co III	1030.280	0					S8
Co III	1037.174	0					S8
Co III	1043.243	15		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	S8
Co III	1044.281	20		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	S8
Co III	1046.760	3		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	S8
Co III	1047.471	2		$3d^7 - 3d^6(^3G)4p$	$a^2F - x^4F^\circ$	7/2 - 5/2	S8
Co III	1048.879	3					S8
Co III	1050.762	20		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	S8
Co III	1050.977	10		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	S8
Co III	1053.257	10		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	S8
Co III	1077.530	2					S8
Co III	1078.127	2					S8
Co III	1079.098	2					S8
Co III	1088.486	1		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	S8
Co III	1089.899	1		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	S8
Co III	1090.554	0		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	S8
Co III	1092.581	10	8	$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	S8
Co III	1093.066	5	8	$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	S8
Co III	1095.443	15	8	$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	S8
Co III	1114.405	1					S8
Co III	1270.646	1					S8
Co III	1272.416	2					S8
Co III	1286.626	1					S8
Co III	1371.419	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	5/2 - 3/2	S8
Co III	1371.779	2		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	3/2 - 1/2	S8
Co III	1376.576	0		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	5/2 - 5/2	S8
Co III	1378.208	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	1/2 - 3/2	S8
Co III	1378.665	5		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	7/2 - 7/2	S8
Co III	1380.775	2		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	3/2 - 5/2	S8
Co III	1383.971	10		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	5/2 - 7/2	S8
Co III	1384.187	25		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	9/2 - 9/2	S8
Co III	1389.079	5		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6D^\circ - f^6D$	7/2 - 9/2	S8
Co III	1396.210	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6P$	1/2 - 3/2	S8
Co III	1402.415	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	9/2 - 7/2	S8
Co III	1403.755	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	9/2 - 9/2	S8
Co III	1404.009	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	7/2 - 5/2	S8
Co III	1405.032	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	5/2 - 3/2	S8
Co III	1405.451	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	3/2 - 1/2	S8
Co III	1408.808	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	7/2 - 9/2	S8
Co III	1409.340	25		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	3/2 - 3/2	S8
Co III	1412.012	3		$3d^6(^5D)4s - 3d^6(^3P)4p$	$a^4D - y^4D^\circ$	7/2 - 7/2	S8
Co III	1412.974	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	5/2 - 7/2	S8
Co III	1413.884	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6D$	3/2 - 5/2	S8
Co III	1425.329	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	9/2 - 7/2	S8
Co III	1425.650	2		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	7/2 - 5/2	S8
Co III	1427.308	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	5/2 - 3/2	S8
Co III	1428.331	1		$3d^6(^5D)4s - 3d^6(^3P)4p$	$a^4D - y^4P^\circ$?	5/2 - 3/2	S8,K8

Co III

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1429.236	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	3/2 - 1/2	S8
Co III	1429.324	0		$3d^6(^5D)4s - 3d^6(^3H)4p$	$a^4D - z^4H^\circ$?	7/2 - 7/2	S8
Co III	1430.177	15		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	9/2 - 9/2	S8
Co III	1430.530	15		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	7/2 - 7/2	S8
Co III	1431.323	15		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	5/2 - 5/2	S8
Co III	1431.800	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	3/2 - 3/2	S8
Co III	1432.065	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	1/2 - 1/2	S8
Co III	1434.259	100		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	9/2 - 11/2	S8
Co III	1434.642	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	1/2 - 3/2	S8
Co III	1435.426	50		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	7/2 - 9/2	S8
Co III	1435.840	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	3/2 - 5/2	S8
Co III	1436.236	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6D^\circ - e^6F$	5/2 - 7/2	S8
Co III	1445.427	1					S8
Co III	1463.936	1					S8
Co III	1464.773	1					S8
Co III	1464.932	1					S8
Co III	1465.101	1					S8
Co III	1465.558	2		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$?	5/2 - 3/2	S8,K8
Co III	1466.579	3		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6P^\circ - f^4D$?	7/2 - 5/2	S8,K8
Co III	1466.919	2		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	3/2 - 3/2	S8
Co III	1467.394	5h		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6F^\circ - f^6D$	5/2 - 3/2	S8
Co III	1467.663	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	1/2 - 3/2	S8
Co III	1468.992	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	3/2 - 5/2	S8
Co III	1471.140	1					S8
Co III	1471.328	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6F^\circ - f^6D$	7/2 - 5/2	S8
Co III	1471.575	0		$3d^6(^3H)4s - 3d^6(^3D)4p$	$a^4H - w^4F^\circ$	7/2 - 7/2	S8
Co III	1472.019	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	5/2 - 7/2	S8
Co III	1472.756	2					S8
Co III	1473.303	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6F^\circ - f^6D$	5/2 - 5/2	S8
Co III	1475.266	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	11/2 - 11/2	S8
Co III	1475.635	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	7/2 - 9/2	S8
Co III	1476.366	3		$3d^6(^3H)4s - 3d^6(^3D)4p$	$a^4H - w^4D^\circ$	9/2 - 7/2	S8
Co III	1477.260	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6F^\circ - f^6D$	9/2 - 7/2	S8
Co III	1478.367	25		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	9/2 - 11/2	S8
Co III	1479.393	2					S8
Co III	1479.880	1		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6P^\circ - f^4D$?	7/2 - 7/2	S8,K8
Co III	1481.905	50		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6G$	11/2 - 13/2	S8
Co III	1483.363	5					S8
Co III	1483.800	10					S8
Co III	1484.565	0		$3d^6(^3F)4s - 3d^6(^1G)4p$	$b^4F - x^2F^\circ$	9/2 - 7/2	S8
Co III	1485.170	8					S8
Co III	1487.962	1h		$3d^6(^3F)4s - 3d^6(^3D)4p$	$b^4F - w^4F^\circ$	9/2 - 9/2	S8
Co III	1488.174	3					S8
Co III	1488.753	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^4F$?	5/2 - 3/2	S8,K8
Co III	1489.243	0		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6F^\circ - f^6D$	9/2 - 9/2	S8
Co III	1489.899	10					S8
Co III	1491.273	5		$3d^6(^3H)4s - 3d^6(^1I)4p$	$a^4H - x^2H^\circ$?	9/2 - 11/2	S8,K8
Co III	1492.528	3					S8
Co III	1493.152	10		$3d^6(^3P)4s - 3d^6(^3D)4p$	$b^4P - x^4P^\circ$	3/2 - 1/2	S8
Co III	1493.595	2h		$3d^6(^3F)4s - 3d^6(^3D)4p$	$b^4F - w^4F^\circ$	7/2 - 9/2	S8
Co III	1498.144	1		$3d^6(^5D)4s - 3d^6(^3P)4p$	$a^4D - z^4S^\circ$	5/2 - 3/2	S8
Co III	1499.124	25		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4D^\circ - f^4D$	7/2 - 5/2	S8
Co III	1499.877	3		$3d^6(^3F)4s - 3d^6(^3D)4p$	$b^4F - w^4F^\circ$	7/2 - 5/2	S8
Co III	1500.269	10		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4D^\circ - f^4D$	5/2 - 3/2	S8
Co III	1502.531	3		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4D^\circ - f^4D$	3/2 - 1/2	S8
Co III	1504.362	2		$3d^6(^3F)4s - 3d^6(^3D)4p$	$b^4F - w^4F^\circ$	5/2 - 3/2	S8
Co III	1505.249	5		$3d^6(^3P)4s - 3d^6(^3D)4p$	$b^4P - x^4P^\circ$	3/2 - 5/2	S8
Co III	1508.683	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6D$	11/2 - 9/2	S8
Co III	1510.489	1		$3d^6(^3F)4s - 3d^6(^3D)4p$	$b^4F - w^4D^\circ$	7/2 - 5/2	S8
Co III	1511.404	3					S8
Co III	1511.730	2					S8
Co III	1511.920	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6D$	9/2 - 9/2	S8
Co III	1512.997	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6D$	7/2 - 7/2	S8
Co III	1513.706	3					S8
Co III	1515.027	25					S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1515.638	1					S8
Co III	1515.776	1					S8
Co III	1515.982	2					S8
Co III	1517.070	1					S8
Co III	1517.153	1					S8
Co III	1517.482	8		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4D^\circ - f^4D$	3/2 - 5/2	S8
Co III	1517.724	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4D^\circ - e^4F$	7/2 - 7/2	S8
Co III	1518.636	0		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4D^\circ - e^4F$	5/2 - 5/2	S8
Co III	1519.326	8		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4F^\circ - f^4D$	9/2 - 7/2	S8
Co III	1522.149	2					S8
Co III	1522.885	10		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4F^\circ - f^4D$	7/2 - 5/2	S8
Co III	1524.113	8		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	9/2 - 7/2	S8
Co III	1524.472	2					S8
Co III	1524.942	1h		$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - x^2G^\circ$?	9/2 - 9/2	S8
Co III	1525.163	1h					S8
Co III	1525.407	8		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4F^\circ - f^4D$	5/2 - 3/2	S8
Co III	1526.734	15		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^6P^\circ - f^6D$?	5/2 - 5/2	S8,K8
Co III	1527.780	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4D^\circ - e^4F$	7/2 - 9/2	S8
Co III	1527.948	2		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4F^\circ - f^4D$	3/2 - 1/2	S8
Co III	1530.906	5h		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$	1/2 - 1/2	S8
Co III	1531.068	8h					S8
Co III	1532.032	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	7/2 - 5/2	S8
Co III	1534.268	100		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	9/2 - 9/2	S8
Co III	1536.554	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	5/2 - 3/2	S8
Co III	1536.955	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$	9/2 - 7/2	S8
Co III	1539.255	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$	11/2 - 9/2	S8
Co III	1539.458	10					S8
Co III	1542.094	50		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	7/2 - 7/2	S8
Co III	1542.616	5		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$	9/2 - 9/2	S8
Co III	1543.981	15		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$	11/2 - 11/2	S8
Co III	1544.129	2		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6D$	7/2 - 5/2	S8
Co III	1544.411	15		$3d^6(^3F)4s - 3d^6(^3D)4p$	$a^2F - w^2F^\circ$	7/2 - 7/2	S8
Co III	1544.880	20		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^4F^\circ - e^4F$	3/2 - 3/2	S8
Co III	1547.309	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6F^\circ - e^6F$?	9/2 - 11/2	S8,K8
Co III	1548.413	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6P$	7/2 - 7/2	S8
Co III	1549.940	10		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6D$	7/2 - 9/2	S8
Co III	1551.536	3		$3d^6(^3G)4s - 3d^6(^1D)4p$	$b^2G - v^2F^\circ$	9/2 - 7/2	S8
Co III	1553.015	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6P$	5/2 - 5/2	S8
Co III	1557.328	3		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6P$	3/2 - 3/2	S8
Co III	1561.746	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6D$	5/2 - 3/2	S8
Co III	1563.158	3		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4F^\circ$	11/2 - 9/2	S8
Co III	1564.090	1		$3d^6(^3H)4s - 3d^6(^1G)4p$	$b^2H - w^2H^\circ$	11/2 - 9/2	S8
Co III	1567.173	2					S8
Co III	1567.917	0		$3d^6(^3H)4s - 3d^6(^1G)4p$	$b^2H - w^2H^\circ$	11/2 - 11/2	S8
Co III	1568.308	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6P$	3/2 - 5/2	S8
Co III	1569.264	1		$3d^6(^3H)4s - 3d^6(^1G)4p$	$b^2H - w^2H^\circ$	9/2 - 9/2	S8
Co III	1572.266	1		$3d^6(^5D)4p - 3d^6(^5D)4d$	$z^6P^\circ - e^6D$	3/2 - 1/2	S8
Co III	1573.921	5h					S8
Co III	1576.025	1					S8
Co III	1578.093	0		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4P^\circ$	7/2 - 5/2	S8
Co III	1580.735	0		$3d^6(^3G)4s - 3d^6(^1G)4p$	$a^4G - w^2G^\circ$	9/2 - 7/2	S8
Co III	1581.502	3					S8
Co III	1582.044	2					S8
Co III	1584.663	1		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4F^\circ$	9/2 - 7/2	S8
Co III	1586.180	8					S8
Co III	1587.186	5		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - y^2F^\circ$	9/2 - 7/2	S8
Co III	1588.642	5	59	$3d^6(^3H)4s - 3d^6(^1G)4p$	$b^2H - w^2G^\circ$	11/2 - 9/2	S8
Co III	1593.446	5	59	$3d^6(^3H)4s - 3d^6(^1G)4p$	$b^2H - w^2G^\circ$?	9/2 - 7/2	S8,K8
Co III	1594.182	0		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4F^\circ$	5/2 - 3/2	S8
Co III	1594.953	5		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4D^\circ$	9/2 - 7/2	S8
Co III	1603.563	8		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4D^\circ$	7/2 - 5/2	S8
Co III	1607.410	3		$3d^6(^5D)4p - 3d^6(^5D)5s$	$z^4P^\circ - f^4D$	5/2 - 7/2	S8
Co III	1608.777	3					S8
Co III	1608.864	3		$3d^6(^3G)4s - 3d^6(^3D)4p$	$a^4G - w^4D^\circ$	5/2 - 3/2	S8
Co III	1608.950	3					S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1620.051	1		$3d^6(^3H)4s - 3d^6(^1I)4p$	$b^2H - x^2H^\circ$	11/2 - 11/2	S8
Co III	1620.254	1		$3d^6(^3F)4s - 3d^6(^1G)4p$	$a^2F - x^2F^\circ$	7/2 - 7/2	S8
Co III	1629.666	1		$3d^6(^3F)4s - 3d^6(^1G)4p$	$a^2F - x^2F^\circ$	5/2 - 5/2	S8
Co III	1635.521	1		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^2G^\circ$	11/2 - 9/2	S8
Co III	1645.986	6	36	$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - y^4H^\circ$	13/2 - 13/2	S8
Co III	1647.100	0	36	$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - y^4H^\circ$	11/2 - 9/2	S8
Co III	1649.153	1		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F^\circ$	5/2 - 5/2	S8
Co III	1649.265	40d	36	$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - y^4H^\circ$	11/2 - 11/2	S8
Co III	1651.783	0	36	$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - y^4H^\circ$	9/2 - 7/2	S8
Co III	1652.024	1		$3d^6(^1G)4s - 3d^6(^1D)4p$	$c^2G - v^2F^\circ$	9/2 - 7/2	S8
Co III	1652.182	1		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F^\circ$	7/2 - 7/2	S8
Co III	1652.791	2	36	$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - y^4H^\circ$	9/2 - 9/2	S8
Co III	1659.757	2	58	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^2G^\circ$	11/2 - 9/2	S8
Co III	1661.422	2	58	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^2G^\circ$	9/2 - 7/2	S8
Co III	1663.500	1		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F^\circ$	5/2 - 7/2	S8
Co III	1665.269	10	23	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D^\circ$	9/2 - 7/2	S8
Co III	1668.032	1	23	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D^\circ$	7/2 - 5/2	S8
Co III	1672.133	0		$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - x^4G^\circ$	9/2 - 9/2	S8
Co III	1673.325	2		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F^\circ$	7/2 - 9/2	S8
Co III	1673.679	4		$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - x^4G^\circ$	13/2 - 11/2	S8
Co III	1677.901	3	23	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D^\circ$	3/2 - 3/2	S8
Co III	1679.481	1		$3d^6(^3P)4s - 3d^6(^3G)4p$	$b^4P - x^4G^\circ$	3/2 - 5/2	S8
Co III	1679.578	4	23	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D^\circ$	5/2 - 5/2	S8
Co III	1680.734	0		$3d^6(^3H)4s - 3d^6(^3G)4p$	$a^4H - x^4G^\circ$	11/2 - 11/2	S8
Co III	1681.074	2	23	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D^\circ$	7/2 - 7/2	S8
Co III	1689.283	1		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^2G^\circ$	9/2 - 7/2	S8
Co III	1689.858	20	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	5/2 - 3/2	S8
Co III	1696.008	200	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	7/2 - 5/2	S8
Co III	1696.980	1		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^2G^\circ$	11/2 - 9/2	S8
Co III	1697.988	160	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	3/2 - 3/2	S8
Co III	1699.880	0		$3d^6(^3G)4s - 3d^6(^1G)4p$	$b^2G - w^2H^\circ$	9/2 - 11/2	S8
Co III	1701.770	0		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - x^4F^\circ$	5/2 - 5/2	S8
Co III	1702.506	1		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - x^4G^\circ$	7/2 - 7/2	S8
Co III	1702.790	100	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	1/2 - 3/2	S8
Co III	1704.817	1		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^2F^\circ$	5/2 - 5/2	S8
Co III	1707.348	200	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	9/2 - 7/2	S8
Co III	1707.951	100	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	5/2 - 5/2	S8
Co III	1709.395	1					S8
Co III	1711.531	1		$3d^6(^3G)4s - 3d^6(^1G)4p$	$b^2G - w^2H^\circ$	7/2 - 9/2	S8
Co III	1715.768	0		$3d^6(^3G)4s - 3d^6(^1G)4p$	$b^2G - x^2F^\circ$	9/2 - 7/2	S8
Co III	1716.251	40	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	3/2 - 5/2	S8
Co III	1718.887	0		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^2H^\circ$	11/2 - 11/2	S8
Co III	1719.383	1					S8
Co III	1720.068	4		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - z^2F^\circ$	7/2 - 5/2	S8
Co III	1721.151	2		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - z^2F^\circ$	9/2 - 7/2	S8
Co III	1721.678	1		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - x^4G^\circ$?	9/2 - 11/2	S8,K8
Co III	1722.911	0		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - x^4F^\circ$	7/2 - 7/2	S8
Co III	1723.536	0		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^2H^\circ$	7/2 - 9/2	S8
Co III	1723.970	100	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	7/2 - 7/2	S8
Co III	1726.134	20	35	$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	13/2 - 11/2	S8
Co III	1726.726	3		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - z^2F^\circ$	7/2 - 7/2	S8
Co III	1728.091	1		$3d^6(^3G)4s - 3d^6(^1G)4p$	$b^2G - x^2F^\circ$	7/2 - 5/2	S8
Co III	1729.724	1		$3d^6(^3F)4s - 3d^6(^3G)4p$	$b^4F - x^4F^\circ$	9/2 - 9/2	S8
Co III	1730.669	50	57	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - y^2H^\circ$	9/2 - 9/2	S8
Co III	1732.358	0		$3d^6(^3G)4s - 3d^6(^1G)4p$	$b^2G - x^2F^\circ$	7/2 - 7/2	S8
Co III	1732.545	40	35	$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	11/2 - 9/2	S8
Co III	1733.635	2		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	11/2 - 11/2	S8
Co III	1735.400	10	35	$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	9/2 - 7/2	S8
Co III	1736.312	50	22	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P^\circ$	5/2 - 7/2	S8
Co III	1736.856	1		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^2H^\circ$	9/2 - 11/2	S8
Co III	1737.523	1		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^2G^\circ$	5/2 - 7/2	S8
Co III	1738.653	0		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^2G^\circ$	9/2 - 9/2	S8
Co III	1739.833	6	35	$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	7/2 - 5/2	S8
Co III	1741.057	1	35	$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	7/2 - 7/2	S8
Co III	1742.372	0		$3d^6(^1G)4s - 3d^6(^3D)4p$	$c^2G - w^2F^\circ$	9/2 - 7/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1743.311	6	63	$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - y^2F^\circ$	7/2 - 7/2	S8
Co III	1744.529	0		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4G^\circ$	7/2 - 9/2	S8
Co III	1745.674	80	57	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - y^2H^\circ$	11/2 - 11/2	S8
Co III	1746.369	4		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^2G^\circ$	7/2 - 9/2	S8
Co III	1746.853	1					S8
Co III	1749.728	5	28	$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4D^\circ$	5/2 - 5/2	S8
Co III	1751.037	20					S8
Co III	1751.854	40	29	$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^4P - x^4D^\circ$	5/2 - 7/2	S8
Co III	1754.761	0		$3d^6(^3D)4s - 3d^6(^1G)4p$	$b^4D - x^2F^\circ$	5/2 - 5/2	S8
Co III	1755.979	100	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	9/2 - 9/2	S8
Co III	1756.851	6		$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^2P - y^2D^\circ$	3/2 - 5/2	S8
Co III	1757.531	3		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - z^2F^\circ$	9/2 - 7/2	S8
Co III	1758.454	0		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - z^2F^\circ$	7/2 - 5/2	S8
Co III	1759.144	1		$3d^6(^3D)4s - 3d^6(^1G)4p$	$b^4D - x^2F^\circ$	5/2 - 7/2	S8
Co III	1760.354	1000	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	9/2 - 11/2	S8
Co III	1761.367	2	69	$3d^6(^3G)4s - 3d^6(^1I)4p$	$b^2G - x^2H^\circ$	9/2 - 11/2	S8
Co III	1763.465	20		$3d^6(^3D)4s - 3d^6(^1G)4p$	$b^4D - x^2F^\circ$	7/2 - 7/2	S8
Co III	1763.533	3	63	$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - y^2F^\circ$	5/2 - 5/2	S8
Co III	1765.414	0		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - z^2F^\circ$	7/2 - 7/2	S8
Co III	1767.084	6	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 5/2	S8
Co III	1767.308	10		$3d^6(^3D)4s - 3d^6(^1G)4p$	$b^4D - w^2G^\circ$	5/2 - 7/2	S8
Co III	1768.003	1h					S8
Co III	1768.238	40		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4F^\circ$	7/2 - 9/2	S8
Co III	1768.471	20		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - z^2F^\circ$	3/2 - 5/2	S8
Co III	1769.495	2					S8
Co III	1769.957	100	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 7/2	S8
Co III	1770.500	2					S8
Co III	1771.259	20		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - z^2F^\circ$	5/2 - 7/2	S8
Co III	1771.854	40		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4F^\circ$	3/2 - 5/2	S8
Co III	1772.233	60		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4F^\circ$	5/2 - 7/2	S8
Co III	1772.438	40		$3d^6(^3D)4s - 3d^6(^1G)4p$	$b^4D - w^2G^\circ$	7/2 - 9/2	S8
Co III	1772.549	10					S8
Co III	1772.671	20		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4F^\circ$	5/2 - 5/2	S8
Co III	1773.215	100	73	$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - y^2I^\circ$	13/2 - 13/2	S8
Co III	1773.568	1000	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 9/2	S8
Co III	1774.418	100	73	$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - y^2I^\circ$	11/2 - 11/2	S8
Co III	1774.577	2	73	$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - y^2I^\circ$	11/2 - 13/2	S8
Co III	1776.630	0		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4F^\circ$	7/2 - 7/2	S8
Co III	1777.145	200	43	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4G^\circ$	9/2 - 11/2	S8
Co III	1778.091	20	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 3/2	S8
Co III	1779.536	4	28	$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4D^\circ$	3/2 - 1/2	S8
Co III	1779.896	1		$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^4P - x^4D^\circ$	3/2 - 5/2	S8
Co III	1780.046	400	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 5/2	S8
Co III	1782.966	600	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 7/2	S8
Co III	1784.055	100	43	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4G^\circ$	7/2 - 9/2	S8
Co III	1784.790	6					S8
Co III	1785.116	4		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	5/2 - 7/2	S8
Co III	1785.705	1	69	$3d^6(^3G)4s - 3d^6(^1I)4p$	$b^2G - x^2H^\circ$	7/2 - 9/2	S8
Co III	1785.965	10	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 1/2	S8
Co III	1786.342	40	43	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4G^\circ$	5/2 - 7/2	S8
Co III	1786.679	10		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	3/2 - 5/2	S8
Co III	1787.082	200	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 3/2	S8
Co III	1787.502	10		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	5/2 - 5/2	S8
Co III	1787.575	6		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	1/2 - 1/2	S8
Co III	1789.070	200	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 5/2	S8
Co III	1789.373	20	43	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4G^\circ$	3/2 - 5/2	S8
Co III	1789.549	20		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	7/2 - 7/2	S8
Co III	1790.258	100	49	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^4H^\circ$	11/2 - 13/2	S8
Co III	1790.389	10		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	3/2 - 3/2	S8
Co III	1790.892	5		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - w^4D^\circ$	1/2 - 3/2	S8
Co III	1791.153	60	72	$3d^6(^1I)4s - 3d^6(^1G)4p$	$a^2I - w^2H^\circ$	11/2 - 9/2	S8
Co III	1791.277	100	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	1/2 - 1/2	S8
Co III	1792.144	20	34	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^2I^\circ$	11/2 - 13/2	S8
Co III	1792.410	60	21	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	1/2 - 3/2	S8
Co III	1793.924	40	28	$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4D^\circ$	3/2 - 5/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1794.804	20	72	$3d^6(^1I)4s - 3d^6(^1G)4p$	$a^2I - w^2H^\circ$	13/2 - 11/2	S8
Co III	1795.426	0		$3d^6(^3P)4s - 3d^6(^3G)4p$	$b^2P - x^4F^\circ$	3/2 - 5/2	S8
Co III	1796.200	2	72	$3d^6(^1I)4s - 3d^6(^1G)4p$	$a^2I - w^2H^\circ$	11/2 - 11/2	S8
Co III	1796.664	1					S8
Co III	1797.095	2		$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^2P - y^2D^\circ$	1/2 - 3/2	S8
Co III	1798.064	100	28	$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4D^\circ$	5/2 - 7/2	S8
Co III	1798.876	1		$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^4P - x^4D^\circ$	1/2 - 3/2	S8
Co III	1800.469	10		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	3/2 - 1/2	S8
Co III	1800.974	5		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	1/2 - 1/2	S8
Co III	1801.030	5		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2S^\circ$	3/2 - 1/2	S8
Co III	1802.917	0		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^4H^\circ$	9/2 - 9/2	S8
Co III	1805.535	100	49	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^4H^\circ$	9/2 - 11/2	S8
Co III	1806.096	2	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	11/2 - 9/2	S8
Co III	1806.350	2					S8
Co III	1808.384	60	68	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - x^2G^\circ$	9/2 - 9/2	S8
Co III	1809.233	8					S8
Co III	1809.904	1					S8
Co III	1810.464	3		$3d^6(^1D)4s - 3d^6(^1D)4p$	$b^2D - x^2D^\circ$	5/2 - 5/2	S8
Co III	1811.317	20	28	$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4D^\circ$	1/2 - 3/2	S8
Co III	1811.466	80	49	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^4H^\circ$	7/2 - 9/2	S8
Co III	1811.694	1		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	3/2 - 3/2	S8
Co III	1812.336	1		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^2G^\circ$	11/2 - 9/2	S8
Co III	1812.550	10		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	5/2 - 3/2	S8
Co III	1813.044	10	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 7/2	S8
Co III	1813.186	60	49	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - y^4H^\circ$	5/2 - 7/2	S8
Co III	1814.084	2		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4F^\circ$	11/2 - 9/2	S8
Co III	1814.219	20	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	5/2 - 3/2	S8
Co III	1814.683	20	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	7/2 - 5/2	S8
Co III	1814.865	20		$3d^6(^1D)4s - 3d^6(^1D)4p$	$b^2D - v^2F^\circ$	5/2 - 7/2	S8
Co III	1815.063	4	56	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - y^4H^\circ$	11/2 - 11/2	S8
Co III	1815.596	40	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	5/2 - 3/2	S8
Co III	1815.686	40	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 1/2	S8
Co III	1816.084	1		$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - w^2H^\circ$	9/2 - 9/2	S8
Co III	1816.250	2		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - z^2D^\circ$	5/2 - 5/2	S8
Co III	1816.617	4	33	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^2G^\circ$	7/2 - 7/2	S8
Co III	1817.518	20	78	$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - w^2H^\circ$	7/2 - 9/2	S8
Co III	1817.626	20	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	5/2 - 5/2	S8
Co III	1818.684	40	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	7/2 - 5/2	S8
Co III	1819.009	0		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	5/2 - 5/2	S8
Co III	1819.070	0		$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^2I^\circ$	9/2 - 11/2	S8
Co III	1819.261	6	33	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^2G^\circ$	9/2 - 9/2	S8
Co III	1819.330	40	56	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - y^4H^\circ$	11/2 - 13/2	S8
Co III	1820.064	20	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 3/2	S8
Co III	1821.004	0		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4F^\circ$	9/2 - 9/2	S8
Co III	1821.262	80	78	$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - w^2H^\circ$	9/2 - 11/2	S8
Co III	1821.688	80	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	7/2 - 7/2	S8
Co III	1821.766	80	68	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - x^2G^\circ$	7/2 - 7/2	S8
Co III	1822.046	20	56	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - y^4H^\circ$	9/2 - 11/2	S8
Co III	1822.215	0		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	13/2 - 11/2	S8
Co III	1823.079	200		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	11/2 - 11/2	S8
Co III	1823.414	20		$3d^6(^1I)4s - 3d^6(^1G)4p$	$a^2I - w^2G^\circ$	11/2 - 9/2	S8
Co III	1823.622	30		$3d^6(^3D)4s - 3d^6(^3D)4p$	$b^4D - x^4P^\circ$	7/2 - 5/2	S8
Co III	1824.874	20	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	5/2 - 5/2	S8
Co III	1825.365	80		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2D^\circ$	7/2 - 5/2	S8
Co III	1825.464	60	33	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^2G^\circ$	7/2 - 9/2	S8
Co III	1825.947	150	48	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 9/2	S8
Co III	1827.094	60	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	9/2 - 7/2	S8
Co III	1829.392	1		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	3/2 - 5/2	S8
Co III	1829.674	40	55	$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2D^\circ$	5/2 - 3/2	S8
Co III	1830.093	400	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	7/2 - 5/2	S8
Co III	1830.581	60	32	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	11/2 - 11/2	S8
Co III	1830.780	4		$3d^6(^3H)4s - 3d^6(^3F)4p$	$a^4H - y^4F^\circ$	7/2 - 7/2	S8
Co III	1830.870	30					S8
Co III	1831.439	400	32	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	11/2 - 13/2	S8
Co III	1831.916	150	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 3/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1832.201	80	47	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	11/2 - 9/2	S8
Co III	1832.784	0		$3d^6(^3F)4s - 3d^6(^3P)4p$	$b^4F - y^4D^\circ$	3/2 - 3/2	S8
Co III	1833.876	10		$3d^6(^3P)4s - 3d^6(^3F)4p$	$b^4P - y^4F^\circ$	3/2 - 5/2	S8
Co III	1834.840	15	47	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	7/2 - 5/2	S8
Co III	1835.000	1000	32	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	13/2 - 15/2	S8
Co III	1835.255	20	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 1/2	S8
Co III	1835.617	30	42	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	7/2 - 7/2	S8
Co III	1835.687	4	55	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^4G^\circ$	11/2 - 9/2	S8
Co III	1836.200	60		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	9/2 - 7/2	S8
Co III	1837.630	200	32	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	9/2 - 11/2	S8
Co III	1837.840	20	47	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	5/2 - 5/2	S8
Co III	1839.535	10	77	$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - x^2F^\circ$	9/2 - 7/2	S8
Co III	1839.636	4	39	$3d^6(^3F)4s - 3d^6(^3P)4p$	$b^4F - y^4D^\circ$	5/2 - 5/2	S8
Co III	1841.924	3		$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - x^4D^\circ$	5/2 - 7/2	S8
Co III	1842.109	0		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2D^\circ$	5/2 - 5/2	S8
Co III	1843.332	0		$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4G^\circ$	9/2 - 11/2	S8
Co III	1843.443	40	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	1/2 - 1/2	S8
Co III	1843.532	40		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - z^2D^\circ$	1/2 - 3/2	S8
Co III	1843.960	15					S8
Co III	1844.684	6					S8
Co III	1844.726	10		$3d^6(^1G)4s - 3d^6(^3D)4p$	$c^2G - w^4F^\circ$	9/2 - 9/2	S8
Co III	1845.074	20	47	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	7/2 - 7/2	S8
Co III	1846.050	4					S8
Co III	1846.157	100	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 3/2	S8
Co III	1846.514	10d	32	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	9/2 - 9/2	S8
Co III	1847.825	25		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2P^\circ$	3/2 - 3/2	S8
Co III	1849.299	30	76	$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - w^2G^\circ$	9/2 - 9/2	S8
Co III	1849.464	60		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4P^\circ$	5/2 - 5/2	S8
Co III	1849.932	40	76	$3d^6(^1G)4s - 3d^6(^1G)4p$	$c^2G - w^2G^\circ$	7/2 - 7/2	S8
Co III	1850.503	60		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4P^\circ$	3/2 - 3/2	S8
Co III	1850.780	2	41	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^2G^\circ$	9/2 - 7/2	S8
Co III	1851.509	10		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - y^4P^\circ$	1/2 - 1/2	S8
Co III	1851.937	40	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 5/2	S8
Co III	1852.645	4	32	$3d^6(^3G)4s - 3d^6(^3G)4p$	$a^4G - x^4F^\circ$	9/2 - 9/2	S8
Co III	1852.919	100		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4I^\circ$	7/2 - 9/2	S8
Co III	1853.266	2	55	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^4F^\circ$	9/2 - 7/2	S8
Co III	1853.841	2		$3d^6(^1G)4s - 3d^6(^3D)4p$	$c^2G - w^4F^\circ$	9/2 - 7/2	S8
Co III	1854.194	25		$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2H^\circ$	9/2 - 11/2	S8
Co III	1854.393	80	67	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - y^2F^\circ$	9/2 - 7/2	S8
Co III	1854.763	80	53	$3d^6(^3H)4s - 3d^6(^3H)4p$	$b^2H - z^2H^\circ$	9/2 - 9/2	S8
Co III	1855.331	5		$3d^6(^1G)4s - 3d^6(^3D)4p$	$c^2G - w^4F^\circ$	7/2 - 7/2	S8
Co III	1855.954	10		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2S^\circ$	1/2 - 1/2	S8
Co III	1857.657	10					S8
Co III	1858.487	10		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^2G^\circ$	5/2 - 7/2	S8
Co III	1859.510	10	41	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^2G^\circ$	7/2 - 7/2	S8
Co III	1861.775	200	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	9/2 - 9/2	S8
Co III	1862.660	20	55	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^4F^\circ$	11/2 - 9/2	S8
Co III	1863.134	1	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	13/2 - 11/2	S8
Co III	1863.467	40	71	$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - x^2H^\circ$	13/2 - 11/2	S8
Co III	1863.615	4		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - y^4H^\circ$	7/2 - 9/2	S8
Co III	1863.826	400	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	13/2 - 13/2	S8
Co III	1864.187	80	53	$3d^6(^3H)4s - 3d^6(^3H)4p$	$b^2H - z^2H^\circ$	11/2 - 11/2	S8
Co III	1865.424	20	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	9/2 - 7/2	S8
Co III	1865.456	20	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	9/2 - 7/2	S8
Co III	1866.497	4	26	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 5/2	S8
Co III	1866.615	20					S8
Co III	1867.490	10	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	11/2 - 9/2	S8
Co III	1867.930	6		$3d^6(^1G)4s - 3d^6(^3D)4p$	$c^2G - w^4D^\circ$	9/2 - 7/2	S8
Co III	1868.796	6	41	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^2G^\circ$	7/2 - 9/2	S8
Co III	1870.012	6	55	$3d^6(^3H)4s - 3d^6(^3G)4p$	$b^2H - x^4F^\circ$	9/2 - 9/2	S8
Co III	1870.634	15	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	7/2 - 9/2	S8
Co III	1871.870	100	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	11/2 - 11/2	S8
Co III	1871.952	60	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	7/2 - 7/2	S8
Co III	1872.532	40	71	$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - x^2H^\circ$	11/2 - 9/2	S8
Co III	1872.575	60	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	11/2 - 13/2	S8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1873.014	0	52	$3d^6(^3H)4s - 3d^6(^3F)4p$	$b^2H - y^2G^\circ$	11/2 - 9/2	S8
Co III	1874.355	20	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	7/2 - 7/2	S8
Co III	1874.822	60	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	9/2 - 9/2	S8
Co III	1875.094	40	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	7/2 - 5/2	S8
Co III	1877.464	10	39	$3d^6(^3F)4s - 3d^6(^3P)4p$	$b^4F - y^4D^\circ$	9/2 - 7/2	S8
Co III	1877.544	10	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	5/2 - 3/2	S8
Co III	1879.170	2		$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4I^\circ$	9/2 - 11/2	S8
Co III	1879.244	60	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	9/2 - 11/2	S8
Co III	1879.385	20	67	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - y^2F^\circ$	7/2 - 5/2	S8
Co III	1879.753	10		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - y^4H^\circ$	5/2 - 7/2	S8
Co III	1880.449	6	52	$3d^6(^3H)4s - 3d^6(^3F)4p$	$b^2H - y^2G^\circ$	9/2 - 9/2	S8
Co III	1880.912	10	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	5/2 - 7/2	S8
Co III	1881.080	30					S8
Co III	1881.427	30	31	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4H^\circ$	7/2 - 9/2	S8
Co III	1881.702	200b	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	5/2 - 5/2	S8
Co III	1881.702	200b	30	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	13/2 - 11/2	S8
Co III	1881.867	60	30	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	11/2 - 9/2	S8
Co III	1882.323	30	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	3/2 - 3/2	S8
Co III	1883.286	40	30	$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	7/2 - 5/2	S8
Co III	1884.532	1		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - x^4F^\circ$	5/2 - 5/2	S8
Co III	1885.476	3h		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^4G^\circ$	11/2 - 11/2	S8
Co III	1886.469	10	40	$3d^6(^3F)4s - 3d^6(^3F)4p$	$b^4F - y^4F^\circ$	3/2 - 5/2	S8
Co III	1886.742	40					S8
Co III	1888.345	2		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - x^4G^\circ$	7/2 - 5/2	S8
Co III	1888.451	2		$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4I^\circ$	9/2 - 9/2	S8
Co III	1889.090	2		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - z^2F^\circ$	5/2 - 5/2	S8
Co III	1889.321	4		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	9/2 - 9/2	S8
Co III	1890.642	0		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	11/2 - 11/2	S8
Co III	1892.011	30	75	$3d^6(^1G)4s - 3d^6(^1I)4p$	$c^2G - x^2H^\circ$	9/2 - 11/2	S8
Co III	1893.095	4		$3d^6(^3F)4s - 3d^6(^3P)4p$	$b^4F - y^4D^\circ$	5/2 - 7/2	S8
Co III	1893.911	1		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - z^2F^\circ$	7/2 - 7/2	S8
Co III	1895.368	100		$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - z^2K^\circ$	13/2 - 15/2	S8
Co III	1896.031	0		$3d^6(^3H)4s - 3d^6(^3H)4p$	$a^4H - z^4G^\circ$	7/2 - 9/2	S8
Co III	1897.560	1		$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4I^\circ$	7/2 - 9/2	S8
Co III	1899.183	1		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - x^4F^\circ$	7/2 - 7/2	S8
Co III	1899.795	10	75	$3d^6(^1G)4s - 3d^6(^1I)4p$	$c^2G - x^2H^\circ$	9/2 - 9/2	S8
Co III	1900.763	10	62	$3d^6(^3F)4s - 3d^6(^3H)4p$	$a^2F - z^2H^\circ$	7/2 - 9/2	S8
Co III	1901.357	60	75	$3d^6(^1G)4s - 3d^6(^1I)4p$	$c^2G - x^2H^\circ$	7/2 - 9/2	S8
Co III	1905.354	60	66	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - y^2H^\circ$	7/2 - 9/2	S8
Co III	1905.674	4		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2P^\circ$	1/2 - 3/2	S8
Co III	1905.810	1		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^4G^\circ$	9/2 - 9/2	S8
Co III	1906.265	6		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - x^4G^\circ$	5/2 - 5/2	S8
Co III	1907.458	6					S8
Co III	1909.666	30		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2P^\circ$	1/2 - 1/2	S8
Co III	1910.151	0		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2G^\circ$	7/2 - 7/2	S8
Co III	1910.840	60	66	$3d^6(^3G)4s - 3d^6(^3G)4p$	$b^2G - y^2H^\circ$	9/2 - 11/2	S8
Co III	1911.174	4		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^4G^\circ$	7/2 - 7/2	S8
Co III	1912.952	6		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^4G^\circ$	5/2 - 5/2	S8
Co III	1916.112	10		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^4P - z^4S^\circ$	5/2 - 3/2	S8
Co III	1917.321	4		$3d^6(^3F)4s - 3d^6(^3G)4p$	$a^2F - x^4F^\circ$	5/2 - 7/2	S8
Co III	1919.120	100	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 7/2	S8
Co III	1919.980	1		$3d^6(^3H)4s - 3d^6(^3F)4p$	$b^2H - y^4G^\circ$	9/2 - 7/2	S8
Co III	1922.000	0		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 3/2	S8
Co III	1924.529	10		$3d^6(^1D)4s - 3d^6(^3D)4p$	$b^2D - w^2F^\circ$	5/2 - 7/2	S8
Co III	1925.260	4h	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	9/2 - 7/2	S8
Co III	1925.563	3		$3d^6(^3H)4s - 3d^6(^3F)4p$	$b^2H - y^4G^\circ$	9/2 - 11/2	S8
Co III	1927.198	1		$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - z^2K^\circ$	13/2 - 13/2	S8
Co III	1927.740	40	61	$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2G^\circ$	7/2 - 9/2	S8
Co III	1928.490	20	61	$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^2G^\circ$	5/2 - 7/2	S8
Co III	1928.570	100	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 9/2	S8
Co III	1928.802	40		$3d^6(^1I)4s - 3d^6(^1I)4p$	$a^2I - z^2K^\circ$	11/2 - 13/2	S8
Co III	1929.756	60	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 5/2	S8
Co III	1930.479	10	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 7/2	S8
Co III	1932.442	1h					S8
Co III	1932.766	0		$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2I^\circ$	11/2 - 11/2	S8

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co III	1933.250	10	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	9/2 - 9/2	S8
Co III	1934.274	10					S8
Co III	1934.734	10	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	7/2 - 7/2	S8
Co III	1935.023	20	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 5/2	S8
Co III	1936.392	4	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	5/2 - 5/2	S8
Co III	1936.784	1		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - y^4D^\circ$	3/2 - 3/2	S8
Co III	1936.933	60	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 3/2	S8
Co III	1937.661	20	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 3/2	S8
Co III	1940.147	100	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 7/2	S8
Co III	1941.460	10	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	3/2 - 5/2	S8
Co III	1941.730	20	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	5/2 - 7/2	S8
Co III	1942.369	40	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 1/2	S8
Co III	1942.497	20	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	9/2 - 11/2	S8
Co III	1942.796	20	38	$3d^6(^3F)4s - 3d^6(^3H)4p$	$b^4F - z^4G^\circ$	7/2 - 9/2	S8
Co III	1945.234	40	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 5/2	S8
Co III	1946.792	60	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	1/2 - 3/2	S8
Co III	1947.626	1	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 3/2	S8
Co III	1948.655	20	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 1/2	S8
Co III	1949.533	6		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - y^4D^\circ$	3/2 - 5/2	S8
Co III	1949.805	40	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 9/2	S8
Co III	1950.911	80	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 5/2	S8
Co III	1950.961	10	60	$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 7/2	S8
Co III	1952.158	40	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 5/2	S8
Co III	1953.942	100	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 3/2	S8
Co III	1954.791	60	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 7/2	S8
Co III	1954.876	20	46	$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2I^\circ$	11/2 - 13/2	S8
Co III	1955.505	6	46	$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2I^\circ$	9/2 - 11/2	S8
Co III	1955.793	40	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 7/2	S8
Co III	1956.011	40	20	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 5/2	S8
Co III	1959.414	100	25	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 9/2	S8
Co III	1961.450	10	60	$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 5/2	S8
Co III	1963.243	1					S8
Co III	1963.743	20	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 3/2	S8
Co III	1964.765	1		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - x^4D^\circ$	9/2 - 7/2	S8
Co III	1966.680	1		$3d^6(^3H)4s - 3d^6(^3H)4p$	$b^2H - z^2I^\circ$?	11/2 - 11/2	S8
Co III	1969.312	4		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^4G^\circ$	7/2 - 7/2	S8
Co III	1970.054	60	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 7/2	S8
Co III	1971.889	20	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 1/2	S8
Co III	1973.667	1		$3d^6(^3P)4s - 3d^6(^3P)4p$	$b^2P - z^2D^\circ$	3/2 - 3/2	S8
Co III	1973.767	2		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^4G^\circ$	7/2 - 9/2	S8
Co III	1974.883	40	51	$3d^6(^3H)4s - 3d^6(^3H)4p$	$b^2H - z^2I^\circ$	9/2 - 11/2	S8
Co III	1977.031	40	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 5/2	S8
Co III	1978.948	10	45	$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2G^\circ$	11/2 - 9/2	S8
Co III	1980.113	40	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 3/2	S8
Co III	1981.000	0		$3d^6(^3G)4s - 3d^6(^3F)4p$	$a^4G - y^4F^\circ$	11/2 - 9/2	S8
Co III	1981.345	20	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 1/2	S8
Co III	1984.324	6		$3d^6(^3H)4s - 3d^6(^3F)4p$	$b^2H - x^4D^\circ$	9/2 - 7/2	S8
Co III	1986.704	1					S8
Co III	1987.197	6		$3d^6(^3F)4s - 3d^6(^3F)4p$	$a^2F - y^4G^\circ$	5/2 - 5/2	S8
Co III	1987.952	2					S8
Co III	1989.598	80	51	$3d^6(^3H)4s - 3d^6(^3H)4p$	$b^2H - z^2I^\circ$	11/2 - 13/2	S8
Co III	1989.645	20	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 3/2	S8
Co III	1990.841	2					S8
Co III	1992.158	2	45	$3d^6(^3G)4s - 3d^6(^3H)4p$	$a^4G - z^2G^\circ$	9/2 - 7/2	S8
Co III	1993.625	20	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 5/2	S8
Co III	1995.397	10	24	$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 7/2	S8
Co III	1999.913	1					S8

COBALT IV (Co^{3+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^6$ $^5D_4$ (24 electrons)

Ionization Potential [444 000] cm^{-1}; [58] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co IV	1349.61	30		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^5P^\circ$?	3 - 3	M26
Co IV	1502.11	300		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 4	M26
Co IV	1521.61	250		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 3	M26
Co IV	1533.93	150		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 2	M26
Co IV	1594.53	80		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 1	M26
Co IV	1601.22	150		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 2	M26
Co IV	1612.16	200		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 3	M26
Co IV	1863.80	100		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^7P^\circ$?	2 - 3	M26
Co IV	1882.28	50		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^7P^\circ$?	2 - 2	M26

COBALT V (Co^{4+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5$ $^6S_{5/2}$ (23 electrons)

Ionization Potential [653 000] cm^{-1}; [81] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co V	355.52	1000		$3d^5 - 3d^4 4p$	$g^6S - ^6P^\circ$	5/2 - 7/2	K21
Co V	355.88	900		$3d^5 - 3d^4 4p$	$g^6S - ^6P^\circ$	5/2 - 5/2	K21
Co V	356.06	600		$3d^5 - 3d^4 4p$	$g^6S - ^6P^\circ$	5/2 - 3/2	K21

COBALT VI (Co^{5+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^4$ $^5D_0$ (22 electrons)

Ionization Potential [847 000] cm^{-1}; [105] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VI	266.114	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 3	B26
Co VI	266.498	600		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 3	B26
Co VI	266.634	400		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 2	B26
Co VI	266.905	400		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 2	B26
Co VI	266.973	800		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	4 - 3	B26
Co VI	267.131	500		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 1	B26
Co VI	267.297	600		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 2	B26
Co VI	267.402	500		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 1	B26
Co VI	271.595	500		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	B26
Co VI	271.711	50		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 4	B26
Co VI	272.022	600		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	B26
Co VI	272.149	50		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	B26
Co VI	272.481	700		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	B26
Co VI	274.534	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3G^\circ$	4 - 5	B26
Co VI	275.818	500		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	B26

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VI	275.944	300		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 4	B26
Co VI	276.167	200		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 3	B26
Co VI	276.285	700		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	B26
Co VI	276.424	50		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 5	B26
Co VI	276.570	400		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 4	B26
Co VI	276.721	700		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	B26
Co VI	277.079	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 3	B26
Co VI	277.579	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 2	B26
Co VI	277.853	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	0 - 1	B26
Co VI	278.013	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	1 - 1	B26
Co VI	278.113	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 4	B26
Co VI	278.184	700		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 5	B26
Co VI	278.298	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	3 - 2	B26
Co VI	278.360	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 3	B26
Co VI	278.632	700		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 4	B26
Co VI	278.685	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 2	B26
Co VI	278.790	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 3	B26
Co VI	278.981	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 2	B26
Co VI	279.040	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	0 - 1	B26
Co VI	279.210	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 1	B26
Co VI	279.301			$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 3	P17,B26
Co VI	279.400	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 2	B26
Co VI	279.508	700		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 1	B26
Co VI	279.780	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 3	B26
Co VI	280.003	700		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 4	B26
Co VI	280.060	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 2	B26
Co VI	280.199	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 3	B26
Co VI	280.309	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	0 - 1	B26
Co VI	280.350	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 2	B26
Co VI	280.464	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 1	B26
Co VI	280.706	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 3	B26
Co VI	280.775	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 2	B26
Co VI	283.089	800		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	6 - 5	B26
Co VI	283.405	500		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 4	B26
Co VI	283.883	300		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 3	B26
Co VI	284.366	500		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 5	B26
Co VI	284.885	400		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 4	B26
Co VI	285.034	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 4	B26
Co VI	285.645	300		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	2 - 3	B26
Co VI	285.713	200		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 3	B26
Co VI	287.666	400		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	B26
Co VI	288.031	400		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	B26
Co VI	288.509	300		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	B26
Co VI	295.268	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 4	B26
Co VI	295.419	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 4	B26
Co VI	295.976	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 3	B26
Co VI	296.050	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 3	B26
Co VI	296.206	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 3	B26
Co VI	296.719	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 2	B26
Co VI	296.923	700		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	6 - 5	B26
Co VI	297.372	700		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 4	B26
Co VI	297.651	600		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 3	B26
Co VI	298.318	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 5	B26
Co VI	298.649	300		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 4	B26
Co VI	298.989	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	5 - 4	B26
Co VI	299.051	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 4	B26
Co VI	299.157	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 4	B26
Co VI	299.456	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 3	B26
Co VI	299.586	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	2 - 3	B26
Co VI	299.659	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 3	B26
Co VI	299.822	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 2	B26
Co VI	300.537	500		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	B26
Co VI	301.203	400		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 2	B26
Co VI	301.604	50		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 5	B26
Co VI	301.713	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 1	B26

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VI	301.955	500		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 5	B26
Co VI	302.061	50		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 4	B26
Co VI	302.123	400		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 3	B26
Co VI	302.157	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 3	B26
Co VI	302.261	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 3	B26
Co VI	302.408	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	4 - 3	B26
Co VI	302.471	400		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 4	B26
Co VI	302.736	300		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 3	B26
Co VI	303.071	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 2	B26
Co VI	303.191	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 2	B26
Co VI	303.410	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	0 - 1	B26
Co VI	303.565	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 1	B26
Co VI	303.619	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 1	B26
Co VI	303.685	300		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	2 - 3	B26
Co VI	303.943	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	4 - 3	B26
Co VI	304.116	200		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	1 - 2	B26
Co VI	304.374	50		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	2 - 2	B26
Co VI	304.531	50		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	3 - 2	B26
Co VI	304.607	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	1 - 1	B26
Co VI	305.037	400		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	2 - 1	B26
Co VI	305.322	100		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^5D^\circ$	2 - 3	B26
Co VI	305.612	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	4 - 3	B26
Co VI	306.145	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	3 - 2	B26
Co VI	306.567	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5D^\circ$	2 - 1	B26

COBALT VII (Co^{6+}), Z = 27

Ground State $1s^22s^22p^63s^23p^63d^3\ ^4F_{3/2}$ (21 electrons)

Ionization Potential [1 073 000] cm^{-1}; [131] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VII	206.23	150		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - z^2H^\circ$	9/2 - 11/2	A4
Co VII	206.60	10		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - z^2H^\circ$	7/2 - 9/2	A4
Co VII	209.815	10		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4P^\circ$	3/2 - 5/2	A4
Co VII	210.37	40		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - y^2G^\circ$	5/2 - 7/2	A4
Co VII	210.68	10		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - y^2G^\circ$	7/2 - 9/2	A4
Co VII	210.71	10		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4P^\circ$	3/2 - 1/2	A4
Co VII	210.77	80		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4P^\circ$	5/2 - 3/2	A4
Co VII	211.25	10		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 7/2	A4
Co VII	211.65	40		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 7/2	A4
Co VII	212.15	1000		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	9/2 - 7/2	A4
Co VII	212.23	80		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 5/2	A4
Co VII	212.61	250		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 3/2	A4
Co VII	212.64	1000		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	7/2 - 5/2	A4
Co VII	212.91	900		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	5/2 - 3/2	A4
Co VII	213.06	20d		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D^\circ$	3/2 - 1/2	A4
Co VII	215.26	80d		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4S^\circ$	5/2 - 3/2	A4
Co VII	216.205	20		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	A4
Co VII	216.70	250		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	A4
Co VII	217.13	20		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 9/2	A4
Co VII	217.88	20		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	7/2 - 9/2	A4
Co VII	218.11	20		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	5/2 - 7/2	A4
Co VII	218.42	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	9/2 - 9/2	A4
Co VII	218.56	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	7/2 - 7/2	A4
Co VII	219.09	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G^\circ$	9/2 - 7/2	A4
Co VII	219.64	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	A4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VII	220.07	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	5/2 - 5/2	A4
Co VII	220.10	10		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	9/2 - 11/2	A4
Co VII	220.23	10		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	1/2 - 3/2	A4
Co VII	220.34	150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	3/2 - 3/2	A4
Co VII	220.37	150		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	5/2 - 5/2	A4
Co VII	220.405	150		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	11/2 - 11/2	A4
Co VII	220.515	150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	1/2 - 1/2	A4
Co VII	220.62	1000		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	3/2 - 1/2	A4
Co VII	220.77	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	5/2 - 3/2	A4
Co VII	220.81	20d		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	7/2 - 5/2	A4
Co VII	220.89	20		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	3/2 - 3/2	A4
Co VII	220.96	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	3/2 - 5/2	A4
Co VII	220.98	150		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	7/2 - 7/2	A4
Co VII	221.02	750		$3d^3 - 3d^2(a^3P)4p$	$a^2G - z^4P°$	7/2 - 5/2	A4
Co VII	221.06	150		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	9/2 - 9/2	A4
Co VII	221.15	20		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	7/2 - 9/2	A4
Co VII	221.24	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	5/2 - 3/2	A4
Co VII	221.30	80		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	5/2 - 7/2	A4
Co VII	221.37	10		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	11/2 - 9/2	A4
Co VII	221.45	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	3/2 - 1/2	A4
Co VII	221.52	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	9/2 - 7/2	A4
Co VII	221.62	250		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	9/2 - 9/2	A4
Co VII	221.75	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	7/2 - 5/2	A4
Co VII	221.96	900		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	5/2 - 3/2	A4
Co VII	222.37	10		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	5/2 - 5/2	A4
Co VII	222.53	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 9/2	A4
Co VII	222.57	1000		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	1/2 - 3/2	A4
Co VII	222.67	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	9/2 - 11/2	A4
Co VII	222.72	10		$3d^3 - 3d^2(a^3P)4p$	$a^2G - y^4D°$	9/2 - 7/2	A4
Co VII	222.84	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	5/2 - 7/2	A4
Co VII	223.08	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	9/2 - 9/2	A4
Co VII	223.19	900		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	3/2 - 5/2	A4
Co VII	223.30	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 7/2	A4
Co VII	223.37	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	7/2 - 9/2	A4
Co VII	223.54	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	5/2 - 5/2	A4
Co VII	223.73	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	3/2 - 3/2	A4
Co VII	223.86	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	9/2 - 7/2	A4
Co VII	223.91	550		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	5/2 - 7/2	A4
Co VII	223.99	250		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 5/2	A4
Co VII	224.08	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	5/2 - 3/2	A4
Co VII	224.335	550		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	3/2 - 5/2	A4
Co VII	224.36	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	7/2 - 7/2	A4
Co VII	224.60	10		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4P°$	5/2 - 5/2	A4
Co VII	224.71	1000		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4P°$	3/2 - 5/2	A4
Co VII	224.93	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	9/2 - 7/2	A4
Co VII	225.12	80		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S°$	1/2 - 3/2	A4
Co VII	225.23	150		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S°$	3/2 - 3/2	A4
Co VII	225.43	40		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4P°$	3/2 - 3/2	A4
Co VII	225.68	80		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S°$	5/2 - 3/2	A4
Co VII	225.71	40		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G°$	9/2 - 9/2	A4
Co VII	225.83	750		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G°$	9/2 - 7/2	A4
Co VII	225.87	10		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D°$	5/2 - 7/2	A4
Co VII	226.03	1000		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G°$	11/2 - 9/2	A4
Co VII	226.83	20		$3d^3 - 3d^2(a^3P)4p$	$a^2H - y^4D°$	9/2 - 7/2	A4
Co VII	226.98	150d		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D°$	5/2 - 5/2	A4
Co VII	227.11	20		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D°$	3/2 - 5/2	A4
Co VII	227.88	20		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D°$	3/2 - 3/2	A4
Co VII	228.425	40		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D°$	3/2 - 1/2	A4
Co VII	229.13	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G°$	7/2 - 9/2	A4
Co VII	229.61	1000		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G°$	9/2 - 9/2	A4
Co VII	229.87	1000		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G°$	7/2 - 7/2	A4
Co VII	230.36	40		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G°$	9/2 - 7/2	A4
Co VII	230.45	20		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4S°$	5/2 - 3/2	A4
Co VII	231.32	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D°$	5/2 - 5/2	A4
Co VII	231.48	20		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D°$	5/2 - 7/2	A4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VII	231.68	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D°$	1/2 - 3/2	A4
Co VII	231.79	20		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D°$	3/2 - 3/2	A4
Co VII	232.35	150		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D°$	5/2 - 5/2	A4
Co VII	232.425	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D°$	3/2 - 1/2	A4
Co VII	232.51	250		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D°$	1/2 - 3/2	A4
Co VII	232.56	900		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D°$	7/2 - 7/2	A4
Co VII	232.65	900		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F°$	5/2 - 7/2	A4
Co VII	232.80	80		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2F°$	3/2 - 5/2	A4
Co VII	233.06	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D°$	9/2 - 7/2	A4
Co VII	233.425	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D°$	7/2 - 5/2	A4
Co VII	233.75	250		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2G°$	5/2 - 7/2	A4
Co VII	234.01	40		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G°$	9/2 - 9/2	A4
Co VII	234.05	10		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F°$	5/2 - 7/2	A4
Co VII	234.27	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F°$	7/2 - 9/2	A4
Co VII	234.34	1000		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G°$	11/2 - 9/2	A4
Co VII	234.79	1000		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G°$	9/2 - 7/2	A4
Co VII	235.13	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F°$	7/2 - 7/2	A4
Co VII	236.09	250		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4G°$	5/2 - 5/2	A4
Co VII	236.45	80		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D°$	3/2 - 5/2	A4
Co VII	236.51	150		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D°$	5/2 - 7/2	A4
Co VII	236.82	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G°$	9/2 - 7/2	A4
Co VII	237.575	10		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^4D°$	9/2 - 7/2	A4
Co VII	237.73	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F°$	5/2 - 7/2	A4
Co VII	238.11	40		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D°$	3/2 - 1/2	A4
Co VII	238.17	20		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D°$	5/2 - 3/2	A4
Co VII	238.27	80		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D°$	3/2 - 3/2	A4
Co VII	238.37	900		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F°$	5/2 - 5/2	A4
Co VII	239.37	10		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^4F°$	9/2 - 9/2	A4
Co VII	240.745	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4F°$?	3/2 - 3/2	A4

COBALT VIII (Co^{7+}), Z = 27

Ground State $1s^22s^22p^63s^23p^63d^2\ ^3F_2$ (20 electrons)

Ionization Potential [1 282 000] cm^{-1}; [159] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co VIII	122.27	50		$3d^2 - 3d4f$	$g^3F - {}^3G°$	2 - 3	A3
Co VIII	122.32	50		$3d^2 - 3d4f$	$g^3F - {}^3G°$	3 - 4	A3
Co VIII	122.47	70		$3d^2 - 3d4f$	$g^3F - {}^3G°$	4 - 5	A3
Co VIII	122.49	20		$3d^2 - 3d4f$	$g^3F - {}^3G°$	3 - 3	A3
Co VIII	122.58	40		$3d^2 - 3d4f$	$g^3F - {}^3G°$	4 - 4	A3
Co VIII	122.96	30		$3d^2 - 3d4f$	$g^3F - {}^3F°$	2 - 3	A3
Co VIII	123.02	40		$3d^2 - 3d4f$	$g^3F - {}^3F°$	2 - 2	A3
Co VIII	123.05	20		$3d^2 - 3d4f$	$g^3F - {}^3F°$	3 - 4	A3
Co VIII	123.17	50		$3d^2 - 3d4f$	$g^3F - {}^3F°$	3 - 3	A3
Co VIII	123.24	10		$3d^2 - 3d4f$	$g^3F - {}^3F°$	3 - 2	A3
Co VIII	123.31	50		$3d^2 - 3d4f$	$g^3F - {}^3F°$	4 - 4	A3
Co VIII	123.44	10		$3d^2 - 3d4f$	$g^3F - {}^3F°$	4 - 3	A3
Co VIII	124.65	50		$3d^2 - 3d4f$	${}^1D - {}^3D°$	2 - 3	A3
Co VIII	124.88	80		$3d^2 - 3d4f$	${}^1D - {}^1F°$	2 - 3	A3
Co VIII	125.16	80		$3d^2 - 3d4f$	${}^1D - {}^1D°$	2 - 2	A3
Co VIII	125.27	60		$3d^2 - 3d4f$	${}^1D - {}^3G°$	2 - 3	A3
Co VIII	125.34	100		$3d^2 - 3d4f$	${}^3P - {}^3D°$	2 - 3	A3
Co VIII	125.35	100		$3d^2 - 3d4f$	${}^3P - {}^3D°$	1 - 2	A3
Co VIII	125.57	30		$3d^2 - 3d4f$	${}^3P - {}^3D°$	2 - 2	A3

COBALT IX (Co^{8+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 1 501 300 cm^{-1}; 186.13 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co IX	70.92	0		3d - 10f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	71.05	10		3d - 10f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	72.04	10		3d - 9f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	72.17	20		3d - 9f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	73.66	20		3d - 8f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	73.79	30		3d - 8f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	76.16	30		3d - 7f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	76.30	40		3d - 7f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	80.38	50		3d - 6f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	80.54	60		3d - 6f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	88.44	70		3d - 5f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	88.63	80		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	95.852	2		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 5/2	H8
Co IX	96.076	40		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 5/2	H8
Co IX	96.305	5		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 3/2	H8
Co IX	96.541	10		$3p^6 3d - 3p^5 3d(^1F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	H8
Co IX	97.355	5		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	3/2 - 5/2	H8
Co IX	97.587	15		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 5/2	H8
Co IX	97.854	15		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 7/2	H8
Co IX	99.042	40		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	3/2 - 5/2	H8
Co IX	99.284	1		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 5/2	H8
Co IX	99.921	90		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	H8
Co IX	100.210	15		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	3/2 - 5/2	H8
Co IX	100.636	2		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	5/2 - 7/2	H8
Co IX	100.856	1		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 3/2	H8
Co IX	101.107	2		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	5/2 - 3/2	H8
Co IX	101.410	2		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 1/2	H8
Co IX	108.39	90		3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	A1
Co IX	108.66	100		3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	A1
Co IX	152.71	5		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 3/2	G12
Co IX	153.29	150		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	5/2 - 3/2	G12
Co IX	153.78	60		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 1/2	G12
Co IX	154.92	150		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 3/2	G12
Co IX	155.06	25		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 5/2	G12
Co IX	155.51	25		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 3/2	G12
Co IX	155.65	150		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G12
Co IX	158.94	15		3d - 4p	$g^2D - {}^2P^\circ$	3/2 - 3/2	G12
Co IX	159.56	150		3d - 4p	$g^2D - {}^2P^\circ$	5/2 - 3/2	G12
Co IX	170.70	500		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G12
Co IX	172.19	150		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G12
Co IX	172.91	1		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 5/2	G12

COBALT X (Co^{9+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential 2 232 000 cm^{-1}; 276.7 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co X	71.48	30		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (1/2, 3/2)^\circ$	0 - 1	A1
Co X	72.45	40		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (3/2, 5/2)^\circ$	0 - 1	A1
Co X	88.99	90		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	A1
Co X	90.47	80		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	A1
Co X	158.88			$3p^6 - 3p^5 3d$	$g\,^1S - ^1P^\circ$	0 - 1	G12

COBALT XI (Co^{10+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5$ $^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential 2 462 000 cm^{-1}; 305 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XI	81.507	300		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	E20
Co XI	82.527	70		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	E20
Co XI	82.759	200		$3p^5 - 3p^4(^1D)4s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	E20
Co XI	83.190	300		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	E20
Co XI	83.861	100		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	E20
Co XI	84.039	200		$3p^5 - 3p^4(^3P)4s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	E20
Co XI	158.27	1		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	G12
Co XI	162.56	500		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G12
Co XI	162.99	1		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	G12
Co XI	163.32	150		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	G12
Co XI	164.91	120		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	G12
Co XI	168.327	90		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	G12
Co XI	170.33	2		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	G12
Co XI	171.66	2		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	G12
Co XI	177.58	1		$3p^5 - 3p^4(^1D)3d$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	G12
Co XI	318.85			$3s^2 3p^5 - 3s 3p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	F19

COBALT XII (Co^{11+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4$ $^3P_2$ (16 electrons)

Ionization Potential [2 702 000] cm^{-1}; [335] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XII	165.86			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 2	F19
Co XII	168.34			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	2 - 3	F19
Co XII	168.68			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	1 - 1	F19
Co XII	169.04			$3p^4 - 3p^3(^4S^\circ)3d$	$g\,^3P - ^3D^\circ$	0 - 1	F19
Co XII	169.91			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - ^1F^\circ$	2 - 3	F19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XII	170.33			$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F19
Co XII	172.33			$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	F19
Co XII	172.41			$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F19
Co XII	175.44			$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F19
Co XII	180.45			$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	1 - 2	F19
Co XII	286.64			$3s^23p^4 - 3s3p^5$	$^1D - {}^1P^\circ$	2 - 1	F19
Co XII	326.17			$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	2 - 2	F19
Co XII	343.93			$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	1 - 2	F19
Co XII	1369.4	f		$3p^4 - 3p^4$	$g^3P - {}^1S$	1 - 0	S28

COBALT XIII (Co^{12+}), Z = 27

Ground State $1s^22s^22p^63s^23p^3\ {}^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [3 025 000] cm^{-1}; [375] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XIII	174.82			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F19
Co XIII	175.77			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	F19
Co XIII	178.98			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F19
Co XIII	179.59			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F19
Co XIII	180.87			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F19
Co XIII	182.09			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	F19
Co XIII	182.52			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F19
Co XIII	183.65			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F19
Co XIII	185.39			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 3/2	F19
Co XIII	188.42			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	F19
Co XIII	188.89			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	F19
Co XIII	205.38			$3p^3 - 3p^2(^3P)3d$	$^2D^\circ - {}^2D$	5/2 - 3/2	F19
Co XIII	263.41			$3s^23p^3 - 3s3p^4$	$^2D^\circ - {}^2P$	3/2 - 1/2	F19
Co XIII	271.16			$3s^23p^3 - 3s3p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F19
Co XIII	313.95			$3s^23p^3 - 3s3p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	F19
Co XIII	325.70			$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F19
Co XIII	338.82			$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F19
Co XIII	1134.3	f		$3p^3 - 3p^3$	$g^4S^\circ - {}^2P^\circ$	3/2 - 3/2	S28

COBALT XIV (Co^{13+}), Z = 27

Ground State $1s^22s^22p^63s^23p^2\ {}^3P_0$ (14 electrons)

Ionization Potential [3 298 900] cm^{-1}; [409] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XIV	184.41			$3p^2 - 3p3d$	$^1D - {}^1P^\circ$	2 - 1	F19
Co XIV	186.79			$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 2	F19
Co XIV	187.89			$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	1 - 1	F19
Co XIV	188.60			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	0 - 1	F19
Co XIV	190.65			$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 2	F19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XIV	190.82			$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 3	F19
Co XIV	191.76			$3p^2 - 3p3d$	$g^3P - {}^3D^\circ$	2 - 1	F19
Co XIV	195.66			$3p^2 - 3p3d$	${}^1S - {}^1P^\circ$	0 - 1	F19
Co XIV	196.48			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	1 - 2	F19
Co XIV	197.01			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 1	F19
Co XIV	200.75			$3p^2 - 3p3d$	$g^3P - {}^3P^\circ$	2 - 2	F19
Co XIV	207.85			$3p^2 - 3p3d$	${}^1D - {}^1D^\circ$	2 - 2	F19
Co XIV	224.13			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	0 - 1	F19
Co XIV	230.34			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	1 - 1	F19
Co XIV	236.11			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3S^\circ$	2 - 1	F19
Co XIV	239.33			$3s^23p^2 - 3s3p^3$	${}^1D - {}^1P^\circ$	2 - 1	F19
Co XIV	296.68			$3s^23p^2 - 3s3p^3$	${}^1D - {}^1D^\circ$	2 - 2	F19
Co XIV	298.38			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3P^\circ$	2 - 2	F19
Co XIV	334.22			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	1 - 2	F19
Co XIV	342.25			$3s^23p^2 - 3s3p^3$	$g^3P - {}^3D^\circ$	2 - 3	F19
Co XIV	1121.6	f		$3p^2 - 3p^2$	$g^3P - {}^1S$	1 - 0	S28

COBALT XV (Co^{14+}), Z = 27

Ground State $1s^22s^22p^63s^23p\ {}^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential [3 565 100] cm^{-1}; [442] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XV	52.583	100		3p - 4d	$g^2P^\circ - {}^2D$	½ - 3/2	E18
Co XV	53.173	200		3p - 4d	$g^2P^\circ - {}^2D$	3/2 - 5/2	E18
Co XV	197.54			3p - 3d	$g^2P^\circ - {}^2D$	½ - 3/2	F19
Co XV	205.85			3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 5/2	F19
Co XV	206.94			3p - 3d	$g^2P^\circ - {}^2D$	3/2 - 3/2	F19
Co XV	234.41			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - 3/2	F19
Co XV	239.42			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	½ - ½	F19
Co XV	247.76			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	F19
Co XV	253.34			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2P$	3/2 - ½	F19
Co XV	255.88			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	½ - ½	F19
Co XV	270.43			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2S$	3/2 - ½	F19
Co XV	310.69			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	½ - 3/2	F19
Co XV	330.25			$3s^23p - 3s3p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	F19

COBALT XVI (Co^{15+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s^2$ $^1S_0$ (12 electrons)

Ionization Potential [4 130 000] cm^{-1}; [512] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XVI	14.080	30		$2p^6 3s^2 - 2p^5 3s^2 3d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Co XVI	37.070	3		3s3p - 3s5d	$^3P^\circ - ^3D$	0 - 1	F33
Co XVI	37.165	6		3s3p - 3s5d	$^3P^\circ - ^3D$	1 - 2	F33
Co XVI	37.401	10		3s3p - 3s5d	$^3P^\circ - ^3D$	2 - 3	F33
Co XVI	47.483	100		$3s^2 - 3s4p$	$g\,^1S - ^1P^\circ$	0 - 1	E18
Co XVI	49.808	100		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	E18
Co XVI	49.958	100		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	E18
Co XVI	49.979	20		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 1	E18
Co XVI	50.357	200		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	E18
Co XVI	50.393	20		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 2	E18
Co XVI	58.95 P			3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	K8
Co XVI	61.875	100		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	E18
Co XVI	61.916	200		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	E18
Co XVI	61.982	200		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	E18
Co XVI	210.23			3s3p - 3s3d	$^3P^\circ - ^3D$	0 - 1	F19
Co XVI	212.78			3s3p - 3s3d	$^3P^\circ - ^3D$	1 - 2	F19
Co XVI	219.94			3s3p - 3s3d	$^3P^\circ - ^3D$	2 - 3	F19
Co XVI	229.07			$3p^2 - 3p3d$	$^3P - ^3P^\circ$	2 - 2	F19
Co XVI	265.74			$3s^2 - 3s3p$	$g\,^1S - ^1P^\circ$	0 - 1	F19
Co XVI	271.38			$3s3p - 3p^2$	$^3P^\circ - ^3P$	1 - 2	F19
Co XVI	281.88			$3s3p - 3p^2$	$^3P^\circ - ^3P$	0 - 1	F19
Co XVI	284.42			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 2	F19
Co XVI	302.69			$3s3p - 3p^2$	$^3P^\circ - ^3P$	2 - 1	F19
Co XVI	389.17 P			$3s^2 - 3s3p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

COBALT XVII (Co^{16+}), Z = 27

Ground State $1s^2 2s^2 2p^6 3s$ $^2S_{1/2}$ (11 electrons)

Ionization Potential 4 410 480 cm^{-1}; 546.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XVII	15.551	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P^\circ$	½ - ½	F27
Co XVII	15.828	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P^\circ$	½ - 3/2	F27
Co XVII	27.902	3		3p - 8d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Co XVII	28.85			3s - 6p	$g\,^2S - ^2P^\circ$	½ - 3/2	F33
Co XVII	28.874	6		3s - 6p	$g\,^2S - ^2P^\circ$	½ - ½	F33
Co XVII	28.960	6		3p - 7d	$^2P^\circ - ^2D$	½ - 3/2	F33
Co XVII	29.171	10		3p - 7d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Co XVII	31.142	20		3p - 6d	$^2P^\circ - ^2D$	½ - 3/2	F33
Co XVII	31.386	35		3p - 6d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Co XVII	32.910	6		3d - 7f	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Co XVII	32.951	6		3d - 7f	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Co XVII	32.995	35		3s - 5p	$g\,^2S - ^2P^\circ$	½ - 3/2	F33
Co XVII	33.046	20		3s - 5p	$g\,^2S - ^2P^\circ$	½ - ½	F33
Co XVII	35.617	6		3p - 5d	$^2P^\circ - ^2D$	½ - 3/2	F33
Co XVII	35.660	10		3d - 6f	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Co XVII	35.707	20		3d - 6f	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Co XVII	35.932	20		3p - 5d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Co XVII	41.404	10		3d - 5f	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Co XVII	41.462	10		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Co XVII	45.319			3s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	E16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XVII	45.527			3s - 4p	$g^2S - {}^2P^\circ$	½ - ½	E16
Co XVII	48.564			3p - 4d	${}^2P^\circ - {}^2D$	½ - 3/2	E16
Co XVII	49.133			3p - 4d	${}^2P^\circ - {}^2D$	3/2 - 5/2	E16
Co XVII	49.171			3p - 4d	${}^2P^\circ - {}^2D$	3/2 - 3/2	E16
Co XVII	56.021			3p - 4s	${}^2P^\circ - {}^2S$	½ - ½	E16
Co XVII	56.833			3p - 4s	${}^2P^\circ - {}^2S$	3/2 - ½	E16
Co XVII	58.842			3d - 4f	${}^2D - {}^2F^\circ$	3/2 - 5/2	E16
Co XVII	58.948			3d - 4f	${}^2D - {}^2F^\circ$	5/2 - 7/2	E16
Co XVII	234.91 P			3p - 3d	${}^2P^\circ - {}^2D$	½ - 3/2	F33
Co XVII	247.62 P			3p - 3d	${}^2P^\circ - {}^2D$	3/2 - 5/2	F33
Co XVII	249.85 P			3p - 3d	${}^2P^\circ - {}^2D$	3/2 - 3/2	F33
Co XVII	312.57 P			3s - 3p	$g^2S - {}^2P^\circ$	½ - 3/2	F33
Co XVII	339.58 P			3s - 3p	$g^2S - {}^2P^\circ$	½ - ½	F33

COBALT XVIII (Co^{17+}), Z = 27

Ground State $1s^22s^22p^6\ {}^1S_0$ (10 electrons)

Ionization Potential 11 316 400 cm^{-1}; 1403.0 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XVIII	9.611	20		$2p^6 - 2p^56d$	$g^1S - {}^1P^\circ$	0 - 1	S31
Co XVIII	9.743	20		$2p^6 - 2p^56d$	$g^1S - {}^3D^\circ$	0 - 1	S31
Co XVIII	10.060	40		$2p^6 - 2p^55d$	$g^1S - {}^1P^\circ$	0 - 1	S31
Co XVIII	10.178	40		$2p^6 - 2p^55d$	$g^1S - {}^3D^\circ$	0 - 1	S31
Co XVIII	10.97	50		$2p^6 - 2p^54d$	$g^1S - {}^1P^\circ$	0 - 1	S31,F24
Co XVIII	11.103	70		$2p^6 - 2p^54d$	$g^1S - {}^3D^\circ$	0 - 1	S31,F24
Co XVIII	11.324	50		$2p^6 - 2p^54s$	$g^1S - {}^1P^\circ$	0 - 1	S31
Co XVIII	11.458	70		$2p^6 - 2p^54s$	$g^1S - {}^3P^\circ$	0 - 1	S31
Co XVIII	12.593	70		$2s^22p^6 - 2s2p^63p$	$g^1S - {}^1P^\circ$	0 - 1	S31
Co XVIII	12.656	60		$2s^22p^6 - 2s2p^63p$	$g^1S - {}^3P^\circ$	0 - 1	S31
Co XVIII	13.862	90		$2p^6 - 2p^53d$	$g^1S - {}^1P^\circ$	0 - 1	S31,T14
Co XVIII	15.169	40		$2p^6 - 2p^53s$	$g^1S - {}^1P^\circ$	0 - 1	S31,T14
Co XVIII	15.432	70		$2p^6 - 2p^53s$	$g^1S - {}^3P^\circ$	0 - 1	S31,T14

COBALT XIX (Co^{18+}), Z = 27

Ground State $1s^22s^22p^5\ {}^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [12 042 000] cm^{-1}; [1493] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XIX	10.023	30		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	S31
Co XIX	10.130	30		$2p^5 - 2p^4(^1S)4d$	$g^2P^\circ - {}^2D$?	½ - 3/2	S31,K8
Co XIX	10.230	20		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	S31
Co XIX	10.287	40		$2p^5 - 2p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	S31
Co XIX	10.367	20		$2p^5 - 2p^4(^1D)4d$	$g^2P^\circ - {}^2D$?	½ - 3/2	S31,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XIX	10.392	40		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Co XIX	10.477	40		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	S31
Co XIX	10.507	40		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$?	1/2 - 3/2	S31,K8
Co XIX	10.583	30		$2p^5 - 2p^4(^1S)4s$	$g\,^2P^\circ - ^2S$?	3/2 - 1/2	S31,K8
Co XIX?	10.644	30					S31
Co XIX	10.704	40		$2p^5 - 2p^4(^1S)4s$	$g\,^2P^\circ - ^2S$?	1/2 - 1/2	S31,K8
Co XIX	12.689	40		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$?	3/2 - 3/2	S31,K8
Co XIX	12.781	30		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Co XIX	12.864	40		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31
Co XIX	12.922	70		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Co XIX	12.973	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S31
Co XIX	13.078	50		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Co XIX	13.114	30		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$?	3/2 - 5/2	S31,K8
Co XIX	13.183	40		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$?	1/2 - 1/2	S31,K8
Co XIX	13.238	40		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Co XIX	13.272	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	3/2 - 3/2	S31
Co XIX	13.417	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$?	1/2 - 3/2	S31,K8
Co XIX	13.500	20		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$?	1/2 - 3/2	S31,K8
Co XIX	13.862	90		$2p^5 - 2p^4(^1S)3s$	$g\,^2P^\circ - ^2S$?	3/2 - 1/2	S31,K8
Co XIX	14.178	30		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Co XIX	14.355	20		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$?	3/2 - 3/2	S31,K8
Co XIX	14.425	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Co XIX	14.476	10		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$?	1/2 - 3/2	S31,K8
Co XIX	14.513	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	S31
Co XIX	14.539	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$?	1/2 - 1/2	S31,K8
Co XIX	14.599	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 5/2	S31
Co XIX	14.664	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$?	1/2 - 3/2	S31,K8
Co XIX	14.761	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$?	1/2 - 3/2	S31,K8
Co XIX	88.81 P			$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	K8
Co XIX	99.30 P			$2s^22p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	K8

COBALT XX (Co^{19+}), Z = 27

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential [12 873 000] cm^{-1}; [1596] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XX?	9.830	20					S31
Co XX	11.886	20		$2s^22p^4 - 2s2p^43d$	$^1D - ^1F^\circ$	2 - 3	S31
Co XX?	12.144	40					S31
Co XX	12.338	20		$2p^4 - 2p^33d$			S31
Co XX	12.42	30		$2p^4 - 2p^3(^2P^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	S31
Co XX	12.50	30		$2p^4 - 2p^3(^2D^\circ)3d$	$g\,^3P - ^3P^\circ$	2 - 2	S31
Co XX	13.628	100		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	2 - 1	S31
Co XX	13.705	20		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	1 - 1	S31
Co XX	13.769	40		$2p^4 - 2p^3(^4S^\circ)3s$	$g\,^3P - ^3S^\circ$	0 - 1	S31

COBALT XXI (Co^{20+}), Z = 27

Ground State $1s^2 2s^2 2p^3\ {}^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential [13 913 000] cm^{-1}; [1725] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XXI?	11.612	20					S31
Co XXI	11.801	30		$2p^3 - 2p^2 3d$	${}^2P^\circ - {}^2D$	3/2 - 5/2	S31
Co XXI	12.234	30		$2p^3 - 2p^2 3d$	${}^2P^\circ - {}^2P$	3/2 - 3/2	S31

COBALT XXII (Co^{21+}), Z = 27

Ground State $1s^2 2s^2 2p^2\ {}^3P_0$ (6 electrons)

Ionization Potential [14 849 000] cm^{-1}; [1841] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XXII?	11.672	20					S31
Co XXII?	11.742	30					S31
Co XXII	11.936	30		$2p^2 - 2p3s$	$g{}^3P - {}^1P^\circ$	1 - 1	S31
Co XXII?	11.995	30					S31
Co XXII	12.067	30		$2p^2 - 2p3s$	${}^1D - {}^3P^\circ$	2 - 2	S31
Co XXII	12.285	30		$2p^2 - 2p3s$	${}^1S - {}^1P^\circ$	0 - 1	S31

COBALT XXIII (Co^{22+}), Z = 27

Ground State $1s^2 2s^2 2p\ {}^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [15 768 000] cm^{-1}; [1955] eV

COBALT XXIV (Co^{23+}), Z = 27

Ground State $1s^2 2s^2\ {}^1S_0$ (4 electrons)

Ionization Potential [16 986 000] cm^{-1}; [2106] eV

COBALT XXV (Co^{24+}), Z = 27

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [17 882 000] cm^{-1}; [2218] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XXV	170.5 P			2s - 2p	$g^2S - {}^2P^\circ$	½ - 3/2	K8
Co XXV	232.9 P			2s - 2p	$g^2S - {}^2P^\circ$	½ - ½	K8

COBALT XXVI (Co^{25+}), Z = 27

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [76 979 000] cm^{-1}; [9544] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XXVI	1.47			$1s^2 - 1s3p$	$g^1S - {}^3P^\circ$	0 - 1	C11
Co XXVI	1.72			$1s^2 - 1s2p$	$g^1S - {}^3P^\circ$	0 - 1	C11
Co XXVI	1.75 ?	f		$1s^2 - 1s2s$	$g^1S - {}^3S$	0 - 1	K8

COBALT XXVII (Co^{26+}), Z = 27

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential [80 746 000] cm^{-1}; [10011] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Co XXVII	1.66 P			1s - 2p	$g^2S - {}^2P^\circ$	½ - 3/2	K8

NICKEL, Z = 28

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni	8.516	0					S31
Ni	8.549	30					S31
Ni	8.605	30					S31
Ni	8.649	20					S31
Ni	8.694	20					S31
Ni	9.291	10					S31
Ni	9.755	10					S31
Ni	9.883	0					S31
Ni	10.195	20					S31
Ni	10.215	20					S31
Ni	10.261	10					S31
Ni	10.354	20					S31
Ni	10.450	20					S31
Ni	10.49	10					S31
Ni	10.500	10					S31
Ni	10.530	10					S31
Ni	10.580	10					S31
Ni	10.724	10					S31
Ni	10.841	20					S31
Ni	12.693	30					S31
Ni	12.759	20					S31
Ni	13.658	10					S31
Ni	139.55	20					F11
Ni	140.52	20					F11
Ni	140.83	30					F11
Ni	141.06	50					F11
Ni	141.35	60					F11
Ni	141.70	30					F11
Ni	141.87	60					F11
Ni	142.22	40					F11
Ni	142.42	50					F11
Ni	143.80	50					F11
Ni	147.00	70					F11
Ni	148.62	50					F11
Ni	148.83	40					F11
Ni	149.21	30					F11
Ni	149.47	50					F11
Ni	149.97	40					F11
Ni	150.56	40					F11
Ni	151.70	30					F11
Ni	151.85	30					F11
Ni	156.30	30					F11
Ni	156.68	40					F11
Ni	157.24	40					F11
Ni	158.00	40					F11
Ni	158.54	50					F11
Ni	160.38	30					F11
Ni	161.94	30					F11
Ni	162.16	40					F11
Ni	162.90	50					F11
Ni	165.43	70					F11
Ni	165.69	30					F11
Ni	165.81	40					F11
Ni	166.08	50					F11
Ni	166.29	50					F11
Ni	166.46	50					F11

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NICKEL I (Ni^{0+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8 4s^2$ $^3F_4$ (28 electrons)

Ionization Potential 61 579 cm^{-1}; 7.635 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni I	1963.85	50	47	$3d^9(a^2D)4s - 3d^8 4s(a^2G)4p$	$a^3D - u^3F°$	3 - 3	R24
Ni I	1968.90	50	23	$3d^8 4s^2 - 3d^8 4s(a^2G)4p$	$ga^3F - u^3F°$	4 - 4	R24
Ni I	1976.87	150	47	$3d^9(a^2D)4s - 3d^8 4s(a^2G)4p$	$a^3D - u^3F°$	3 - 4	R24
Ni I	1981.61	100	47	$3d^9(a^2D)4s - 3d^8 4s(a^2G)4p$	$a^3D - u^3F°$	2 - 2	R24
Ni I	1990.25	200	47	$3d^9(a^2D)4s - 3d^8 4s(a^2G)4p$	$a^3D - u^3F°$	2 - 3	R24
Ni I	1994.29	100	20	$3d^8 4s^2 - 3d^9(a^2D)5p$	$ga^3F - w^1F°$	4 - 3	R24
Ni I	1999.53	0	23	$3d^8 4s^2 - 3d^8 4s(a^2G)4p$	$ga^3F - u^3F°$	3 - 2	R24

NICKEL II (Ni^{1+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9$ $^2D_{5/2}$ (27 electrons)

Ionization Potential 146 541.56 cm^{-1}; 18.168 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	727.100	2		$3d^9 - 3d^8(^3F)7f$	$g^2D - {}^4F°$	5/2 - 7/2	S11
Ni II	737.300	5		$3d^9 - 3d^8(^3F)6f$	$g^2D - {}^2F°$	5/2 - 7/2	S11
Ni II	738.201	2		$3d^9 - 3d^8(^3P)4f$	$g^2D - {}^2G°$	5/2 - 7/2	S11
Ni II	738.548	1		$3d^9 - 3d^8(^3P)4f$	$g^2D - {}^2F°$	5/2 - 7/2	S11
Ni II	744.636	2		$3d^9 - 3d^8(^3F)6f$	$g^2D - {}^4D°$	5/2 - 5/2	S11
Ni II	744.867	5		$3d^9 - 3d^8(^3F)6f$	$g^2D - {}^4F°$	5/2 - 7/2	S11
Ni II	745.640	1		$3d^9 - 3d^8(^3F)6f$	$g^2D - {}^4D°$	3/2 - 3/2	S11
Ni II	746.241	5		$3d^9 - 3d^8(^3P)4f$	$g^2D - {}^2D°$	3/2 - 5/2	S11
Ni II	746.525	0		$3d^9 - 3d^8(^3P)4f$	$g^2D - {}^4F°$	3/2 - 5/2	S11
Ni II	752.403	0		$3d^9 - 3d^8(^1D)4f$	$g^2D - {}^2D°$	5/2 - 5/2	S11
Ni II	752.626	4		$3d^9 - 3d^8(^1D)4f$	$g^2D - {}^2F°$	5/2 - 7/2	S11
Ni II	767.898	1		$3d^9 - 3d^8(^3F)5f$	$g^2D - {}^2F°$	5/2 - 7/2	S11
Ni II	771.626	1		$3d^9 - 3d^8(^3F)5f$	$g^2D - {}^4G°$	3/2 - 5/2	S11
Ni II	776.000	3		$3d^9 - 3d^8(^3F)5f$	$g^2D - {}^4F°$	5/2 - 7/2	S11
Ni II	776.078	5		$3d^9 - 3d^8(^3F)5f$	$g^2D - {}^4D°$	5/2 - 5/2	S11
Ni II	795.506	10					S11
Ni II	797.074	200		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	9/2 - 9/2	S11
Ni II	797.088	150		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	9/2 - 7/2	S11
Ni II	798.518	30		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4G°$	9/2 - 11/2	S11
Ni II	799.145	2		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	9/2 - 7/2	S11
Ni II	802.292	100		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	7/2 - 5/2	S11
Ni II	803.064	15		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	7/2 - 9/2	S11
Ni II	805.168	150		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	7/2 - 7/2	S11
Ni II	806.188	30		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	5/2 - 3/2	S11
Ni II	807.391	0		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	5/2 - 5/2	S11
Ni II	808.933	5		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	3/2 - 1/2	S11
Ni II	809.772	0		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - s^4D°$	3/2 - 3/2	S11
Ni II	810.292	20		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	5/2 - 7/2	S11
Ni II	812.388	100		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	5/2 - 5/2	S11
Ni II	814.050	5		$3d^8(^3F)4s - 3d^8(^1D)6p$	$^2F - {}^2F°$	7/2 - 7/2	S11
Ni II	815.570	5		$3d^8(^3F)4s - 3d^8(^1D)4f$	$^4F - {}^2F°$	5/2 - 5/2	S11
Ni II	816.024	8		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	3/2 - 5/2	S11
Ni II	816.150	30		$3d^8(^3F)4s - 3d^7 4s4p$	$^4F - v^4F°$	3/2 - 3/2	S11
Ni II	816.156	150		$3d^8(^3F)4s - 3d^7 4s4p$	$^2F - v^2G°$	7/2 - 9/2	S11
Ni II	817.884	1		$3d^8(^3F)4s - 3d^8(^3F)7p$	$^4F - {}^4G°$	9/2 - 11/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	819.090	5		$3d^8(^3F)4s - 3d^8(^3F)7p$	$^4F - ^4D°$	9/2 - 7/2	S11
Ni II	821.612	1		$3d^8(^3F)4s - 3d^8(^3F)8p$	$^2F - ^4G°$	7/2 - 9/2	S11
Ni II	821.634	20		$3d^8(^3F)4s - 3d^74s4p$	$^2F - v^2D°$	7/2 - 5/2	S11
Ni II	823.277	3		$3d^8(^3F)4s - 3d^74s4p$	$^2F - v^2D°$	5/2 - 3/2	S11
Ni II	824.856	2		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2D°$	7/2 - 5/2	S11
Ni II	828.152	10		$3d^8(^3F)4s - 3d^74s4p$	$^2F - v^2G°$	5/2 - 7/2	S11
Ni II	828.786	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - t^4D°$	7/2 - 5/2	S11
Ni II	830.677	2		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2P°$	5/2 - 3/2	S11
Ni II	831.475	2		$3d^9 - 3d^8(^3F)4f$	$g^2D - ^2F°$	5/2 - 7/2	S11
Ni II	834.059	100		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2G°$	7/2 - 9/2	S11
Ni II	835.739	0		$3d^9 - 3d^8(^3F)4f$	$g^2D - ^4F°$	3/2 - 3/2	S11
Ni II	835.983	75		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2F°$	7/2 - 7/2	S11
Ni II	836.954	1		$3d^8(^3F)4s - 3d^8(^1D)4f$	$^2F - ^2H°$	7/2 - 9/2	S11
Ni II	837.624	50		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2G°$	5/2 - 7/2	S11
Ni II	838.224	10		$3d^8(^3F)4s - 3d^8(^3F)6f$	$^2F - ^4D°$	5/2 - 5/2	S11
Ni II	838.524	1		$3d^8(^3F)4s - 3d^8(^3F)6f$	$^2F - ^4F°$	5/2 - 7/2	S11
Ni II	838.834	50		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^2F°$	5/2 - 5/2	S11
Ni II	840.878	5		$3d^9 - 3d^8(^3F)4f$	$g^2D - ^4F°$	5/2 - 7/2	S11
Ni II	841.056	10		$3d^9 - 3d^8(^3F)4f$	$g^2D - ^4D°$	5/2 - 5/2	S11
Ni II	841.205	0		$3d^9 - 3d^8(^3F)4f$	$g^2D - ^4P°$	5/2 - 3/2	S11
Ni II	844.748	2		$3d^9 - 3d^8(^1D)5p$	$g^2D - ^2F°$	5/2 - 5/2	S11
Ni II	849.398	5		$3d^8(^3F)4s - 3d^8(^1D)4f$	$^2F - ^2F°$	5/2 - 5/2	S11
Ni II	855.282	5		$3d^8(^3F)4s - 3d^8(^3F)7p$	$^2F - ^4F°$	7/2 - 9/2	S11
Ni II	876.829	0		$3d^8(^3F)4s - 3d^8(^3F)6p$	$^4F - ^4F°$	9/2 - 9/2	S11
Ni II	881.608	2		$3d^8(^3F)4s - 3d^8(^3F)6p$	$^4F - ^4D°$	9/2 - 7/2	S11
Ni II	888.818	5		$3d^8(^3F)4s - 3d^8(^3P)5p$	$^4F - ^4D°$	9/2 - 7/2	S11
Ni II	894.004	2		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2D°$	5/2 - 3/2	S11
Ni II	895.093	1		$3d^8(^3F)4s - 3d^8(^3P)5p$	$^4F - ^4D°$	7/2 - 5/2	S11
Ni II	895.458	15		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2D°$	5/2 - 5/2	S11
Ni II	896.168	5		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2P°$	3/2 - 3/2	S11
Ni II	898.716	2		$3d^8(^3F)4s - 3d^8(^3P)5p$	$^4F - ^4D°$	5/2 - 3/2	S11
Ni II	898.821	5		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2P°$	3/2 - 1/2	S11
Ni II	900.510	0		$3d^8(^1D)4s - 3d^74s4p$	$^2D - s^4D°$	5/2 - 3/2	S11
Ni II	901.007	10		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2D°$	3/2 - 5/2	S11
Ni II	901.737	2		$3d^8(^3F)4s - 3d^8(^3P)5p$	$^4F - ^4D°$	3/2 - 1/2	S11
Ni II	901.999	50		$3d^8(^1D)4s - 3d^74s4p$	$^2D - s^4D°$	5/2 - 5/2	S11
Ni II	902.687	1		$3d^8(^3P)4s - 3d^8(^3F)6f$	$^4P - ^4D°$	1/2 - 3/2	S11
Ni II	902.996	75		$3d^8(^1D)4s - 3d^74s4p$	$^2D - s^4D°$	5/2 - 7/2	S11
Ni II	904.205	2		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2P°$	3/2 - 3/2	S11
Ni II	904.986	1		$3d^8(^3F)4s - 3d^8(^3F)4f$	$^4F - ^4H°$	9/2 - 11/2	S11
Ni II	905.634	100		$3d^8(^1D)4s - 3d^74s4p$	$^2D - v^4F°$	5/2 - 7/2	S11
Ni II	905.696	3		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2F°$	3/2 - 5/2	S11
Ni II	906.123	15		$3d^8(^1D)4s - 3d^74s4p$	$^2D - s^4D°$	3/2 - 3/2	S11
Ni II	906.237	2		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2P°$	5/2 - 3/2	S11
Ni II	906.906	1		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2P°$	3/2 - 1/2	S11
Ni II	907.630	50		$3d^8(^1D)4s - 3d^74s4p$	$^2D - s^4D°$	3/2 - 5/2	S11
Ni II	907.692	10		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2F°$	9/2 - 7/2	S11
Ni II	908.258	40		$3d^8(^1D)4s - 3d^74s4p$	$^2D - v^4F°$	5/2 - 5/2	S11
Ni II	908.584	20		$3d^8(^1D)4s - 3d^74s4p$	$^2D - w^2F°$	5/2 - 7/2	S11
Ni II	909.683	10		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2D°$	5/2 - 3/2	S11
Ni II	911.187	15		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2D°$	5/2 - 5/2	S11
Ni II	913.187	2		$3d^8(^3P)4s - 3d^8(^3F)6f$	$^4P - ^4D°$	3/2 - 5/2	S11
Ni II	913.279	3		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	3/2 - 1/2	S11
Ni II	913.678	75		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	1/2 - 1/2	S11
Ni II	913.909	15		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2F°$	3/2 - 5/2	S11
Ni II	914.343	50		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	3/2 - 3/2	S11
Ni II	914.743	40		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	1/2 - 3/2	S11
Ni II	915.471	1		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2F°$	7/2 - 7/2	S11
Ni II	915.877	75		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	3/2 - 5/2	S11
Ni II	915.920	30		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4F°$	9/2 - 9/2	S11
Ni II	916.449	1		$3d^8(^1D)4s - 3d^74s4p$	$^2D - v^4P°$	5/2 - 3/2	S11
Ni II	917.017	10		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2F°$	7/2 - 5/2	S11
Ni II	917.962	15		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	5/2 - 5/2	S11
Ni II	918.022	3		$3d^8(^1D)4s - 3d^8(^1D)4f$	$^2D - ^2F°$	3/2 - 5/2	S11
Ni II	918.994	150		$3d^8(^3P)4s - 3d^74s4p$	$^4P - s^4D°$	5/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	920.451	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4F^\circ$	7/2 - 7/2	S11
Ni II	921.299	1		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2D^\circ$	7/2 - 5/2	S11
Ni II	921.730	75		$3d^8(^3P)4s - 3d^74s4p$	$^4P - v^4F^\circ$	5/2 - 7/2	S11
Ni II	922.331	15		$3d^8(^3P)4s - 3d^74s4p$	$^4P - v^4F^\circ$	3/2 - 5/2	S11
Ni II	924.710	1		$3d^8(^3F)4s - 3d^74s4p$	$^2F - x^2G^\circ$	7/2 - 9/2	S11
Ni II	924.783	10		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^2F^\circ$	5/2 - 7/2	S11
Ni II	924.912	20		$3d^8(^3F)4s - 3d^74s4p$	$^4F - v^4D^\circ$	9/2 - 7/2	S11
Ni II	925.100	2		$3d^8(^3P)4s - 3d^8(^1D)4f$	$^4P - ^2D^\circ$?	1/2 - 3/2	S11
Ni II	925.578	1		$3d^8(^1D)4s - 3d^74s4p$	$^2D - v^4P^\circ$	3/2 - 5/2	S11
Ni II	927.820	5		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2P^\circ$	3/2 - 3/2	S11
Ni II	928.953	3		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^4F - ^2D^\circ$	5/2 - 3/2	S11
Ni II	929.586	1		$3d^8(^3F)4s - 3d^8(^3F)4f$	$^2F - ^4I^\circ$	7/2 - 9/2	S11
Ni II	929.681	3		$3d^8(^3F)4s - 3d^74s4p$	$^4F - v^4D^\circ$	7/2 - 5/2	S11
Ni II	929.831	5		$3d^8(^3F)4s - 3d^74s4p$	$^4F - v^4D^\circ$	5/2 - 3/2	S11
Ni II	930.707	3		$3d^8(^3P)4s - 3d^8(^3F)6f$	$^2P - ^4D^\circ$	3/2 - 1/2	S11
Ni II	931.191	1		$3d^8(^3P)4s - 3d^74s4p$	$^4P - v^4P^\circ$	1/2 - 3/2	S11
Ni II	931.501	2		$3d^8(^3F)4s - 3d^8(^3P)5p$	$^2F - ^4D^\circ$	7/2 - 7/2	S11
Ni II	933.339	2		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2D^\circ$	5/2 - 3/2	S11
Ni II	933.866	1		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2F^\circ$	5/2 - 5/2	S11
Ni II	935.085	2		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4G^\circ$?	7/2 - 7/2	S11
Ni II	935.200	1		$3d^8(^3P)4s - 3d^8(^3F)6f$	$^2P - ^4D^\circ$?	1/2 - 1/2	S11
Ni II	936.188	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - x^4G^\circ$	9/2 - 7/2	S11
Ni II	939.276	30		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4G^\circ$	9/2 - 11/2	S11
Ni II	940.886	20		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^4G^\circ$	5/2 - 5/2	S11
Ni II	941.972	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4G^\circ$	5/2 - 7/2	S11
Ni II	941.996	4		$3d^8(^3P)4s - 3d^8(^3P)4f$	$^2P - ^2D^\circ$?	1/2 - 3/2	S11
Ni II	942.587	5		$3d^8(^3F)4s - 3d^74s4p$	$^4F - w^4G^\circ$	3/2 - 5/2	S11
Ni II	944.343	1		$3d^8(^3P)4s - 3d^74s4p$	$^2P - w^2D^\circ$	3/2 - 3/2	S11
Ni II	944.634	30		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2D^\circ$	5/2 - 5/2	S11
Ni II	944.842	10		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	945.965	75		$3d^8(^3P)4s - 3d^74s4p$	$^2P - w^2D^\circ$	3/2 - 5/2	S11
Ni II	946.657	15		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2D^\circ$	3/2 - 3/2	S11
Ni II	946.769	3		$3d^8(^1G)4s - 3d^8(^3F)9p$	$^2G - ^4F^\circ$	9/2 - 9/2	S11
Ni II	947.195	2		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^2F^\circ$	3/2 - 5/2	S11
Ni II	949.024	0		$3d^8(^3P)4s - 3d^74s4p$	$^2P - w^2D^\circ$	1/2 - 3/2	S11
Ni II	949.137	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - x^4G^\circ$	9/2 - 9/2	S11
Ni II	952.027	1		$3d^8(^1G)4s - 3d^8(^3F)8p$	$^2G - ^2G^\circ$	7/2 - 7/2	S11
Ni II	952.266	8		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^2F - ^2F^\circ$	7/2 - 7/2	S11
Ni II	952.340	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - x^4F^\circ$	5/2 - 5/2	S11
Ni II	953.033	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - x^4F^\circ$	9/2 - 9/2	S11
Ni II	953.937	2		$3d^8(^3F)4s - 3d^8(^1D)5p$	$^2F - ^2F^\circ$	7/2 - 5/2	S11
Ni II	954.911	1		$3d^9(^3F)4s - 3d^74s4p$	$^4F - x^4F^\circ$	7/2 - 7/2	S11
Ni II	955.601	10		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^4F^\circ$	5/2 - 7/2	S11
Ni II	956.912	3		$3d^9 - 3d^8(^3F)5p$	$g^2D - ^4D^\circ$	5/2 - 5/2	S11
Ni II	959.931	5		$3d^8(^1G)4s - 3d^8(^3F)8p$	$^2G - ^2G^\circ$	9/2 - 9/2	S11
Ni II	960.261	5		$3d^8(^3P)4s - 3d^74s4p$	$^2P - v^4F^\circ$	3/2 - 5/2	S11
Ni II	961.516	1		$3d^8(^1G)4s - 3d^8(^3F)6f$	$^2G - ^4I^\circ$	7/2 - 9/2	S11
Ni II	962.526	1		$3d^8(^1G)4s - 3d^8(^1D)6p$	$^2G - ^2F^\circ$	9/2 - 7/2	S11
Ni II	962.750	1		$3d^8(^1G)4s - 3d^8(^1D)6p$	$^2G - ^2F^\circ$	7/2 - 7/2	S11
Ni II	963.855	15					S11
Ni II	965.470	20		$3d^8(^1G)4s - 3d^74s4p$	$^2G - v^2G^\circ$	9/2 - 9/2	S11
Ni II	968.784	20		$3d^8(^1G)4s - 3d^74s4p$	$^2G - v^2G^\circ$	7/2 - 7/2	S11
Ni II	971.415	50		$3d^8(^1D)4s - 3d^74s4p$	$^2D - x^4S^\circ$	3/2 - 3/2	S11
Ni II	973.121	1		$3d^8(^1G)4s - 3d^8(^3F)8p$	$^2G - ^4G^\circ$	9/2 - 9/2	S11
Ni II	977.276	10					S11
Ni II	978.108	25					S11
Ni II	981.768	50		$3d^8(^1G)4s - 3d^74s4p$	$^2G - w^2G^\circ$	7/2 - 7/2	S11
Ni II	983.004	3		$3d^8(^1G)4s - 3d^8(^3F)6f$	$^2G - ^4F^\circ$	7/2 - 7/2	S11
Ni II	983.431	1		$3d^8(^1G)4s - 3d^74s4p$	$^2G - w^2F^\circ$	7/2 - 5/2	S11
Ni II	983.592	2		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4G^\circ$	5/2 - 7/2	S11
Ni II	985.918	10					S11
Ni II	987.339	4		$3d^8(^3F)4s - 3d^74s4p$	$^2F - w^4G^\circ$?	5/2 - 7/2	S11
Ni II	988.338	10					S11
Ni II	990.626	100		$3d^8(^1G)4s - 3d^74s4p$	$^2G - w^2G^\circ$	9/2 - 9/2	S11
Ni II	992.516	20		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4F^\circ$	9/2 - 9/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	993.128	15		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4G^\circ$	7/2 - 9/2	S11
Ni II	993.341	1		$3d^8(^1G)4s - 3d^74s4p$	$^2G - w^2F^\circ$	9/2 - 7/2	S11
Ni II	994.867	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4F^\circ$	7/2 - 7/2	S11
Ni II	995.256	30					S11
Ni II	995.445	4		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4F^\circ$	5/2 - 5/2	S11
Ni II	995.453	3		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^4F^\circ$	3/2 - 3/2	S11
Ni II	997.974	1		$3d^8(^3F)4s - 3d^74s4p$	$^2F - x^4G^\circ$	7/2 - 9/2	S11
Ni II	1008.218	10					S11
Ni II	1016.622	20					S11
Ni II	1021.060	5		$3d^8(^1D)4s - 3d^8(^3P)5p$	$^2D - ^2P^\circ$?	5/2 - 3/2	S11
Ni II	1023.961	3		$3d^8(^1D)4s - 3d^8(^3P)5p$	$^2D - ^4S^\circ$	3/2 - 3/2	S11
Ni II	1023.999	15					S11
Ni II	1024.720	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - y^6F^\circ$	9/2 - 11/2	S11
Ni II	1028.208	20		$3d^8(^1D)4s - 3d^8(^3P)5p$	$^2D - ^4D^\circ$?	3/2 - 5/2	S11
Ni II	1031.306	1		$3d^8(^3P)4s - 3d^8(^3P)5p$	$^4P - ^2D^\circ$	1/2 - 3/2	S11
Ni II	1032.749	2		$3d^8(^3P)4s - 3d^74s4p$	$^4P - x^2G^\circ$?	5/2 - 7/2	S11
Ni II	1033.443	10		$3d^8(^3P)4s - 3d^8(^3P)5p$	$^4P - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1034.155	15					S11
Ni II	1034.249	10		$3d^8(^1D)4s - 3d^8(^3P)5p$	$^2D - ^4P^\circ$	5/2 - 5/2	S11
Ni II	1036.182	2		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^2F^\circ$	7/2 - 7/2	S11
Ni II	1038.866	5		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^2G^\circ$	7/2 - 9/2	S11
Ni II	1042.704	2		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4G^\circ$	9/2 - 9/2	S11
Ni II	1044.349	30		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4G^\circ$	9/2 - 11/2	S11
Ni II	1044.871	2		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4F^\circ$	3/2 - 3/2	S11
Ni II	1045.073	15		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4F^\circ$	9/2 - 9/2	S11
Ni II	1045.813	5		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4G^\circ$	3/2 - 5/2	S11
Ni II	1046.537	8		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4F^\circ$	5/2 - 5/2	S11
Ni II	1048.400	6		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4G^\circ$	5/2 - 7/2	S11
Ni II	1048.936	1		$3d^8(^1D)4s - 3d^8(^1D)5p$	$^2D - ^2P^\circ$	5/2 - 3/2	S11
Ni II	1048.982	3		$3d^8(^3P)4s - 3d^8(^3P)5p$	$^4P - ^4P^\circ$	1/2 - 3/2	S11
Ni II	1049.051	1		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4D^\circ$	5/2 - 3/2	S11
Ni II	1049.137	8		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4F^\circ$	7/2 - 7/2	S11
Ni II	1049.755	100		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4D^\circ$	9/2 - 7/2	S11
Ni II	1050.718	3		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4D^\circ$	7/2 - 5/2	S11
Ni II	1052.534	10		$3d^8(^3P)4s - 3d^8(^3P)5p$	$^4P - ^4P^\circ$	3/2 - 5/2	S11
Ni II	1052.983	2		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^4F - ^4G^\circ$	7/2 - 9/2	S11
Ni II	1053.729	15					S11
Ni II	1055.246	15		$3d^8(^1D)4s - 3d^8(^1D)5p$	$^2D - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1055.291	30		$3d^8(^3P)4s - 3d^8(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 5/2	S11
Ni II	1062.965	1		$3d^8(^1D)4s - 3d^8(^1D)5p$	$^2D - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1070.590	10		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^4P - ^2P^\circ$	5/2 - 3/2	S11
Ni II	1075.551	3		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^4P - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1076.006	2		$3d^8(^3P)4s - 3d^74s4p$	$^4P - w^4F^\circ$	5/2 - 7/2	S11
Ni II	1077.163	4		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^4P - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1081.035	200		$3d^8(^1G)4s - 3d^74s4p$	$^2G - y^2H^\circ$	9/2 - 11/2	S11
Ni II	1085.441	150		$3d^8(^1G)4s - 3d^74s4p$	$^2G - y^2H^\circ$	7/2 - 9/2	S11
Ni II	1086.503	4		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^2F - ^2G^\circ$	7/2 - 9/2	S11
Ni II	1091.407	4		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^2F - ^2G^\circ$	5/2 - 7/2	S11
Ni II	1099.471	1		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^2F - ^4D^\circ$	7/2 - 5/2	S11
Ni II	1101.956	5		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^2F - ^4G^\circ$	7/2 - 9/2	S11
Ni II	1104.602	1		$3d^8(^3F)4s - 3d^8(^3F)5p$	$^2F - ^4F^\circ$	7/2 - 9/2	S11
Ni II	1108.729	30					S11
Ni II	1116.557	40		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^2P - ^2P^\circ$	3/2 - 1/2	S11
Ni II	1118.404	20					S11
Ni II	1118.547	25					S11
Ni II	1118.921	10		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^2P - ^2P^\circ$	3/2 - 3/2	S11
Ni II	1119.330	75		$3d^8(^1G)4s - 3d^74s4p$	$^2G - x^2G^\circ$	7/2 - 7/2	S11
Ni II	1121.162	125		$3d^8(^1G)4s - 3d^74s4p$	$^2G - x^2G^\circ$	9/2 - 9/2	S11
Ni II	1123.113	2		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^2P - ^2P^\circ$	1/2 - 1/2	S11
Ni II	1127.486	5		$3d^8(^3P)4s - 3d^8(^1D)5p$	$^2P - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1133.730	75		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2D^\circ$	7/2 - 5/2	S11
Ni II	1134.533	150		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	9/2 - 7/2	S11
Ni II	1137.091	100		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	7/2 - 5/2	S11
Ni II	1138.547	10					S11
Ni II	1139.009	3		$3d^74s^2 - 3d^8(^3P)6p$	$^4F - ^4D^\circ$	9/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1139.638	75		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2D^\circ$	5/2 - 3/2	S11
Ni II	1140.459	75		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	5/2 - 3/2	S11
Ni II	1143.397	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	3/2 - 1/2	S11
Ni II	1147.633	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	3/2 - 3/2	S11
Ni II	1154.416	150		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	9/2 - 9/2	S11
Ni II	1157.132	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4D^\circ$	5/2 - 7/2	S11
Ni II	1158.830	100		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2G^\circ$	7/2 - 7/2	S11
Ni II	1159.510	150		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	7/2 - 7/2	S11
Ni II	1160.776	2		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4D^\circ - ^4D$	7/2 - 7/2	S11
Ni II	1161.297	15					S11
Ni II	1161.927	1		$3d^8(^1G)4s - 3d^8(^1D)5p$	$^2G - ^2F^\circ$	9/2 - 7/2	S11
Ni II	1162.748	150		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	9/2 - 11/2	S11
Ni II	1163.645	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	5/2 - 5/2	S11
Ni II	1163.729	8		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^6P^\circ$	5/2 - 3/2	S11
Ni II	1164.279	150		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	9/2 - 9/2	S11
Ni II	1164.574	100		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2F^\circ$	7/2 - 7/2	S11
Ni II	1165.798	12		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	5/2 - 3/2	S11
Ni II	1167.030	25		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	7/2 - 9/2	S11
Ni II	1167.803	10		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1168.040	75		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2F^\circ$	5/2 - 5/2	S11
Ni II	1170.169	20		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	5/2 - 7/2	S11
Ni II	1171.117	15		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4G^\circ$	3/2 - 5/2	S11
Ni II	1171.291	100		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	7/2 - 7/2	S11
Ni II	1173.121	1		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^6P^\circ$	3/2 - 3/2	S11
Ni II	1173.298	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	3/2 - 3/2	S11
Ni II	1173.477	75		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	5/2 - 5/2	S11
Ni II	1177.006	1		$3d^8(^3F)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1177.109	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	7/2 - 9/2	S11
Ni II	1178.571	30		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2G^\circ$	5/2 - 7/2	S11
Ni II	1180.271	150		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2G^\circ$	7/2 - 9/2	S11
Ni II	1181.075	30		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	3/2 - 5/2	S11
Ni II	1181.620	15		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^4S^\circ$	5/2 - 3/2	S11
Ni II	1182.169	75		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^4F^\circ$	5/2 - 7/2	S11
Ni II	1184.512	20		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^2F^\circ$	5/2 - 7/2	S11
Ni II	1184.980	3		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4G^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1185.146	2		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1186.347	1		$3d^74s^2 - 3d^8(^3F)8p$	$^4F - ^4G^\circ$	9/2 - 11/2	S11
Ni II	1186.933	8		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^6P^\circ$	3/2 - 3/2	S11
Ni II	1186.993	1		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4G^\circ - ^4H$	11/2 - 11/2	S11
Ni II	1187.102	20		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4G^\circ - ^4H$	11/2 - 13/2	S11
Ni II	1187.608	15		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^6P^\circ$	1/2 - 3/2	S11
Ni II	1190.442	1		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^6P^\circ$	5/2 - 3/2	S11
Ni II	1192.306	5		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1192.596	0		$3d^8(^3F)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1192.983	3		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1193.267	5		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^2G^\circ - ^2H$	9/2 - 11/2	S11
Ni II	1194.857	15		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1200.307	1		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1201.002	3		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^2G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1201.119	8		$3d^74s^2 - 3d^8(^3P)4f$	$^4F - ^4F^\circ$	7/2 - 5/2	S11
Ni II	1201.838	5		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1201.957	3		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^4F^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1202.452	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1202.511	10		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4F^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1202.911	3		$3d^8(^3F)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1204.102	30		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1205.088	15		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4P$	7/2 - 5/2	S11
Ni II	1205.201	1		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4G^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1205.266	20		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4D$	7/2 - 7/2	S11
Ni II	1205.552	10		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4S^\circ$	3/2 - 3/2	S11
Ni II	1206.246	7		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4S^\circ$	1/2 - 3/2	S11
Ni II	1207.567	0		$3d^74s^2 - 3d^8(^3P)4f$	$^4F - ^4D^\circ$	5/2 - 5/2	S11
Ni II	1207.620	4		$3d^74s^2 - 3d^74s4p$	$^4F - v^4F^\circ$	9/2 - 9/2	S11
Ni II	1207.654	3		$3d^74s^2 - 3d^74s4p$	$^4F - s^4D^\circ$	9/2 - 7/2	S11
Ni II	1208.433	1		$3d^8(^1D)4s - 3d^8(^3F)5p$	$^2D - ^2D^\circ$	5/2 - 5/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1209.170	7		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4S^\circ$	5/2 - 3/2	S11
Ni II	1209.492	1		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4F^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1210.192	10		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4F^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1210.729	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4H$	9/2 - 9/2	S11
Ni II	1210.790	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^2H$	9/2 - 11/2	S11
Ni II	1211.403	1		$3d^8(^3F)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4P$	1/2 - 1/2	S11
Ni II	1212.959	0		$3d^8(^3F)4p - 3d^8(^3F)8d$	$^2G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1213.361	7		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1214.104	3		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1214.153	40		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1214.350	1		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1217.180	100		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1217.692	1		$3d^74s^2 - 3d^74s4p$	$^4F - w^2F^\circ$	9/2 - 7/2	S11
Ni II	1220.530	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1220.950	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1221.213	1		$3d^8(^3F)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	7/2 - 5/2	S11
Ni II	1221.289	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	5/2 - 5/2	S11
Ni II	1221.992	40		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1222.220	1		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^4F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1222.395	20		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1222.678	1		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1222.989	1		$3d^74s^2 - 3d^74s4p$	$^4F - s^4D^\circ$	7/2 - 5/2	S11
Ni II	1223.466	2		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1223.643	5		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	7/2 - 7/2	S11
Ni II	1223.775	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1224.033	75		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1224.268	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1224.839	2		$3d^8(^1D)4s - 3d^8(^3F)5p$	$^2D - ^4D^\circ$	3/2 - 3/2	S11
Ni II	1226.628	25		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	9/2 - 9/2	S11
Ni II	1227.267	15		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1227.491	5		$3d^8(^3F)4s - 3d^74s4p$	$^2F - z^4G^\circ$	7/2 - 9/2	S11
Ni II	1228.581	0		$3d^8(^1D)4s - 3d^8(^3F)5p$	$^2D - ^4D^\circ$	5/2 - 5/2	S11
Ni II	1229.684	10		$3d^74s^2 - 3d^74s4p$	$^4F - v^4F^\circ$	7/2 - 7/2	S11
Ni II	1230.116	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	9/2 - 9/2	S11
Ni II	1230.367	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1230.782	40		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1230.869	50					S11
Ni II	1230.889	25		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1231.041	100		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1232.107	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1232.773	2		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	11/2 - 11/2	S11
Ni II	1232.886	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1233.036	15		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4H$	11/2 - 11/2	S11
Ni II	1233.250	150		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4H$	11/2 - 13/2	S11
Ni II	1233.484	10		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1233.557	100		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	9/2 - 11/2	S11
Ni II	1234.092	0		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1234.375	4		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1234.659	1		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2F$?	5/2 - 7/2	S11
Ni II	1235.069	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1235.112	20		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1235.405	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	7/2 - 7/2	S11
Ni II	1236.474	0		$3d^8(^3F)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1236.799	25		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1237.049	10		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1237.247	1		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^4P - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1237.260	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	5/2 - 5/2	S11
Ni II	1237.976	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1238.919	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1239.061	25		$3d^74s^2 - 3d^8(^1D)4f$	$^4F - ^2D^\circ$	7/2 - 5/2	S11
Ni II	1239.506	12		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2G$	9/2 - 9/2	S11
Ni II	1239.832	60		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2H$	9/2 - 11/2	S11
Ni II	1240.012	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1240.877	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	7/2 - 9/2	S11
Ni II	1241.189	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	7/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1241.233	2		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2G$	7/2 - 7/2	S11
Ni II	1241.320	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1241.548	3		$3d^8(^1D)4s - 3d^8(^3F)5p$	$^2D - ^4D^\circ$	5/2 - 7/2	S11
Ni II	1241.588	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1241.827	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1242.099	30		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1242.627	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	3/2 - 5/2	S11
Ni II	1243.093	75		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1243.345	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1243.622	3		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	5/2 - 5/2	S11
Ni II	1243.848	5		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1244.104	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4G^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1244.255	5		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1244.560	50		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1244.811	100					S11
Ni II	1246.598	150		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1247.333	20		$3d^74s^2 - 3d^74s4p$	$^4F - v^4F^\circ$	5/2 - 5/2	S11
Ni II	1247.509	6		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6G^\circ$	5/2 - 7/2	S11
Ni II	1247.568	1		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^2F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1248.413	9		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	9/2 - 9/2	S11
Ni II	1248.467	10		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1248.844	4		$3d^8(^3F)4p - 3d^8(^3F)6g$	$^4G^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1249.101	100		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1249.213	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1249.369	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1250.467	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1250.685	4		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1251.394	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1251.438	16		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1252.879	1		$3d^8(^3F)4p - 3d^8(^3F)9s$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1253.122	50		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1253.477	75		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6D^\circ$	9/2 - 9/2	S11
Ni II	1253.599	4		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6D^\circ$	7/2 - 7/2	S11
Ni II	1254.290	2		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2D$	1/2 - 3/2	S11
Ni II	1254.346	0		$3d^74s^2 - 3d^8(^3F)7p$	$^4F - ^2G^\circ$	7/2 - 9/2	S11
Ni II	1254.471	1		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^4P - ^4D^\circ$	3/2 - 5/2	S11
Ni II	1254.721	50		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1254.978	7		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1255.034	8		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2G^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1255.335	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2D$	7/2 - 5/2	S11
Ni II	1256.029	5		$3d^74s^2 - 3d^8(^3F)7p$	$^4F - ^4G^\circ$	9/2 - 11/2	S11
Ni II	1256.187	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1256.459	0		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1256.708	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1256.905	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1256.930	40		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1257.116	8		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4G^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1258.303	0		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4G^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1259.886	1		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4F^\circ - ^2G$	9/2 - 7/2	S11
Ni II	1261.068	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1261.786	12		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1261.975	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1262.239	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^4F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1262.979	2		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4F^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1263.294	100		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1265.157	14		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1266.065	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6D^\circ$	5/2 - 7/2	S11
Ni II	1266.608	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F^\circ - ^2D$	7/2 - 5/2	S11
Ni II	1267.478	6		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1268.007	8		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1268.359	2		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6D^\circ$	7/2 - 9/2	S11
Ni II	1269.059	1		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F^\circ$	7/2 - 5/2	S11
Ni II	1269.917	2		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2G^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1270.061	1		$3d^74s^2 - 3d^74s4p$	$^4F - t^4D^\circ$	9/2 - 7/2	S11
Ni II	1270.180	15		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2G^\circ - ^2F$	7/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1271.993	1		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^4P - ^4D°$	5/2 - 7/2	S11
Ni II	1272.080	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^2D$	5/2 - 5/2	S11
Ni II	1273.488	2		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^2F$	5/2 - 7/2	S11
Ni II	1273.717	1		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2G° - ^4F$	9/2 - 7/2	S11
Ni II	1274.180	2		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^4F$	5/2 - 5/2	S11
Ni II	1274.270	100		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	9/2 - 9/2	S11
Ni II	1274.802	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^2G$	5/2 - 7/2	S11
Ni II	1275.640	10		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^4F° - ^4F$	7/2 - 7/2	S11
Ni II	1276.859	1		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^4F° - ^2F$	7/2 - 7/2	S11
Ni II	1277.243	20		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2D$	5/2 - 5/2	S11
Ni II	1277.344	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G° - ^4G$	7/2 - 9/2	S11
Ni II	1277.617	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2G° - ^4F$	7/2 - 7/2	S11
Ni II	1277.725	2		$3d^74s^2 - 3d^8(^3F)7p$	$^4F - ^4F°$	7/2 - 9/2	S11
Ni II	1277.967	18		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^2P$	3/2 - 1/2	S11
Ni II	1278.637	100		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	7/2 - 7/2	S11
Ni II	1279.400	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2F$	3/2 - 5/2	S11
Ni II	1281.056	1		$3d^8(^3F)4p - 3d^8(^3P)5d$	$^2D° - ^4F$	3/2 - 5/2	S11
Ni II	1281.609	5		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2F$	5/2 - 7/2	S11
Ni II	1281.704	4		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2P$	3/2 - 1/2	S11
Ni II	1281.723	12		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2F° - ^2F$	7/2 - 7/2	S11
Ni II	1281.834	50		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	5/2 - 5/2	S11
Ni II	1282.179	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4F$	5/2 - 5/2	S11
Ni II	1282.732	1		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^2D°$	3/2 - 5/2	S11
Ni II	1282.825	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2P$	5/2 - 3/2	S11
Ni II	1283.399	12		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	3/2 - 3/2	S11
Ni II	1283.731	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^4D$	7/2 - 5/2	S11
Ni II	1284.327	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4F$	7/2 - 9/2	S11
Ni II	1286.338	50		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4D$	7/2 - 7/2	S11
Ni II	1286.396	3		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D° - ^4F$	7/2 - 5/2	S11
Ni II	1286.561	50		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4P$	7/2 - 5/2	S11
Ni II	1287.329	15		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2D° - ^2F$	5/2 - 7/2	S11
Ni II	1289.024	9		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^4G$	7/2 - 9/2	S11
Ni II	1289.298	3		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^4F$	7/2 - 7/2	S11
Ni II	1289.354	7		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^2G° - ^2G$	7/2 - 7/2	S11
Ni II	1289.369	11		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2F° - ^2F$	5/2 - 5/2	S11
Ni II	1289.513	2		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^2P - ^2D°$	1/2 - 3/2	S11
Ni II	1289.656	6		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	7/2 - 9/2	S11
Ni II	1289.682	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^2D$	5/2 - 5/2	S11
Ni II	1290.442	1		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2F° - ^4G$	5/2 - 7/2	S11
Ni II	1290.908	4		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	3/2 - 5/2	S11
Ni II	1291.251	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4F$	1/2 - 3/2	S11
Ni II	1291.614	10		$3d^8(^3F)4s - 3d^74s4p$	$^4F - z^6F°$	5/2 - 7/2	S11
Ni II	1292.033	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^2D$	3/2 - 5/2	S11
Ni II	1292.224	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^2H$	9/2 - 11/2	S11
Ni II	1293.232	5		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^2D$	3/2 - 5/2	S11
Ni II	1293.533	6		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4D$	3/2 - 3/2	S11
Ni II	1294.500	10		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^4P$	5/2 - 3/2	S11
Ni II	1294.968	2		$3d^8(^3F)4p - 3d^8(^3F)7d$	$^2D° - ^4F$	5/2 - 7/2	S11
Ni II	1296.950	13		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4D$	5/2 - 5/2	S11
Ni II	1297.087	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4F$	3/2 - 5/2	S11
Ni II	1297.417	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4P$	3/2 - 1/2	S11
Ni II	1302.246	10		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^2P - ^2D°$	3/2 - 5/2	S11
Ni II	1302.603	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^2D$	7/2 - 5/2	S11
Ni II	1303.078	4		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4P$	5/2 - 3/2	S11
Ni II	1303.170	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4D° - ^4F$	5/2 - 7/2	S11
Ni II	1303.237	0		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^2G$	5/2 - 7/2	S11
Ni II	1303.283	5		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2F° - ^4F$	7/2 - 7/2	S11
Ni II	1304.555	1		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^2F° - ^2F$	7/2 - 7/2	S11
Ni II	1304.594	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^4G$	5/2 - 5/2	S11
Ni II	1305.083	6		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2F° - ^4F$	5/2 - 5/2	S11
Ni II	1305.169	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^4H$	5/2 - 7/2	S11
Ni II	1306.279	4		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^4G$	7/2 - 7/2	S11
Ni II	1306.528	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^2G$	7/2 - 9/2	S11
Ni II	1306.621	6		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D° - ^2F$	5/2 - 7/2	S11
Ni II	1307.146	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G° - ^2F$	7/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1307.276	50		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1308.714	8		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1308.869	16	10	$3d^9 - 3d^8(^1G)4p$	$g^2D - ^2F^\circ$	5/2 - 5/2	S11
Ni II	1309.079	0		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1310.358	1		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1310.457	15		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1311.152	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1313.403	7		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4G$	9/2 - 9/2	S11
Ni II	1313.903	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1314.771	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1314.847	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1315.255	70		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1315.558	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1316.502	4		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1317.045	6		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4G$	11/2 - 11/2	S11
Ni II	1317.122	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1317.220	500	10	$3d^9 - 3d^8(^1G)4p$	$g^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	1317.531	15		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4H$	11/2 - 11/2	S11
Ni II	1318.017	100		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4H$	11/2 - 13/2	S11
Ni II	1319.310	8		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1320.799	0		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1321.432	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1321.704	2		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1322.825	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4G$	5/2 - 5/2	S11
Ni II	1323.107	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1323.417	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4H$	5/2 - 7/2	S11
Ni II	1324.475	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2G$	9/2 - 9/2	S11
Ni II	1325.105	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1325.242	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^4H$	9/2 - 9/2	S11
Ni II	1325.359	100		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2H$	9/2 - 11/2	S11
Ni II	1325.691	4		$3d^8(^3P)4s - 3d^8(^3F)5p$	$^2P - ^4D^\circ$	3/2 - 5/2	S11
Ni II	1326.292	7		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4G$	7/2 - 7/2	S11
Ni II	1326.548	11		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1326.623	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2G$	7/2 - 7/2	S11
Ni II	1327.187	3		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2D$	3/2 - 5/2	S11
Ni II	1327.319	20		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1327.730	8		$3d^8(^3F)4p - 3d^8(^3F)8s$	$^2F^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1327.755	50		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1328.847	3		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1328.964	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4G$	3/2 - 5/2	S11
Ni II	1329.857	13		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1331.264	9		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1332.706	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4G^\circ - ^4D$	7/2 - 7/2	S11
Ni II	1332.766	6		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1332.808	7		$3d^8(^3F)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1333.171	3		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1334.101	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1334.287	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4G$	9/2 - 9/2	S11
Ni II	1335.203	400		$3d^9 - 3d^8(^1G)4p$	$g^2D - ^2F^\circ$	3/2 - 5/2	S11
Ni II	1335.779	18		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1336.201	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1337.958	15		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1338.402	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2F^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1339.221	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2F^\circ - ^2G$	7/2 - 7/2	S11
Ni II	1339.394	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2D$	7/2 - 5/2	S11
Ni II	1339.487	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1340.007	15		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1340.374	20		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2F^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1341.226	0		$3d^8(^1G)4s - 3d^8(^3F)5p$	$^2G - ^2F^\circ$	7/2 - 5/2	S11
Ni II	1342.242	20		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1343.544	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1343.642	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^4F^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1344.196	2		$3d^8(^3F)4p - 3d^8(^3F)5g$	$^4F^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1344.334	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2G^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1344.614	50		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^4G^\circ - ^4F$	11/2 - 9/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1345.882	50		$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^4S^\circ$	5/2 - 3/2	S11
Ni II	1346.334	1		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4G^\circ - {}^4F$	5/2 - 5/2	S11
Ni II	1348.333	30		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4D^\circ$	5/2 - 5/2	S11
Ni II	1349.594	0		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2G^\circ - {}^4H$	9/2 - 11/2	S11
Ni II	1349.791	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^4F^\circ - {}^4G$	7/2 - 9/2	S11
Ni II	1350.256	5		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	5/2 - 3/2	S11
Ni II	1350.321	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^4F^\circ - {}^4F$	7/2 - 7/2	S11
Ni II	1351.287	10		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4D^\circ$	3/2 - 3/2	S11
Ni II	1351.862	35		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2G^\circ - {}^2F$	9/2 - 7/2	S11
Ni II	1352.237	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2D$	7/2 - 5/2	S11
Ni II	1353.606	8		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	7/2 - 5/2	S11
Ni II	1353.821	15		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2G^\circ - {}^2F$	7/2 - 5/2	S11
Ni II	1354.023	2		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^2F$	7/2 - 7/2	S11
Ni II	1356.318	5		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4G^\circ - {}^4F$	7/2 - 7/2	S11
Ni II	1356.469	20		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2G$	7/2 - 9/2	S11
Ni II	1356.653	9		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	3/2 - 3/2	S11
Ni II	1357.132	11		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2F$	7/2 - 7/2	S11
Ni II	1357.371	5		$3d^8(^3P)4s - 3d^74s4p$	${}^2P - z^2D^\circ$	3/2 - 3/2	S11
Ni II	1358.475	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^2D$	5/2 - 5/2	S11
Ni II	1358.992	15					S11
Ni II	1360.956	14		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4D^\circ$	3/2 - 5/2	S11
Ni II	1361.757	5		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	9/2 - 7/2	S11
Ni II	1361.885	50		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4D^\circ$	5/2 - 7/2	S11
Ni II	1362.926	20					S11
Ni II	1363.421	3		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^2F$	5/2 - 7/2	S11
Ni II	1363.540	2		$3d^8(^1G)4s - 3d^8(^3F)5p$	${}^2G - {}^2F^\circ$	9/2 - 7/2	S11
Ni II	1363.617	2		$3d^8(^3P)4s - 3d^74s4p$	${}^4P - z^4D^\circ$	3/2 - 1/2	S11
Ni II	1363.861	1		$3d^8(^3F)4s - 3d^74s4p$	${}^2F - z^6F^\circ$?	7/2 - 9/2	S11
Ni II	1364.067	25		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	9/2 - 9/2	S11
Ni II	1364.202	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2F$	5/2 - 5/2	S11
Ni II	1364.505	20		$3d^8(^3P)4s - 3d^74s4p$	${}^4P - z^4D^\circ$	1/2 - 1/2	S11
Ni II	1364.793	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^2P$	5/2 - 3/2	S11
Ni II	1365.048	25		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2G$	5/2 - 7/2	S11
Ni II	1365.760	4		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	5/2 - 5/2	S11
Ni II	1366.947	5		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2F^\circ - {}^2F$	7/2 - 5/2	S11
Ni II	1367.067	20		$3d^8(^3P)4s - 3d^74s4p$	${}^2P - z^2D^\circ$	1/2 - 3/2	S11
Ni II	1367.394	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2G^\circ - {}^4G$	7/2 - 9/2	S11
Ni II	1368.171	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^2F$	3/2 - 5/2	S11
Ni II	1369.651	20		$3d^8(^3P)4s - 3d^74s4p$	${}^4P - z^4D^\circ$	3/2 - 3/2	S11
Ni II	1370.136	500	8	$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^2P^\circ$	5/2 - 3/2	S11
Ni II	1370.549	25		$3d^8(^3P)4s - 3d^74s4p$	${}^4P - z^4D^\circ$	1/2 - 3/2	S11
Ni II	1370.804	4		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^2P$	3/2 - 1/2	S11
Ni II	1371.733	1		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2G^\circ - {}^2F$	7/2 - 7/2	S11
Ni II	1373.746	4		$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^4S^\circ$	3/2 - 3/2	S11
Ni II	1374.075	150	9	$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^2S^\circ$	3/2 - 1/2	S11
Ni II	1375.822	50		$3d^8(^3P)4s - 3d^74s4p$	${}^2P - z^2D^\circ$	3/2 - 5/2	S11
Ni II	1377.001	10					S11
Ni II	1377.912	7		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^4F^\circ - {}^4F$	7/2 - 7/2	S11
Ni II	1378.578	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^2D$	5/2 - 5/2	S11
Ni II	1379.586	50		$3d^8(^3P)4s - 3d^74s4p$	${}^4P - z^4D^\circ$	3/2 - 5/2	S11
Ni II	1379.980	12		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4G^\circ$	5/2 - 7/2	S11
Ni II	1380.793	20		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^4D$	5/2 - 5/2	S11
Ni II	1381.295	200	8	$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^2P^\circ$	3/2 - 1/2	S11
Ni II	1381.423	6		$3d^74s^2 - 3d^8(^3F)6p$	${}^4F - {}^2G^\circ$	9/2 - 9/2	S11
Ni II	1381.694	4		$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^2D^\circ$	5/2 - 3/2	S11
Ni II	1382.695	2		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^4G$	5/2 - 7/2	S11
Ni II	1383.966	0		$3d^8(^1D)4s - 3d^74s4p$	${}^2D - z^4G^\circ$	3/2 - 5/2	S11
Ni II	1384.327	12		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2F^\circ - {}^4F$	5/2 - 5/2	S11
Ni II	1385.216	6		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2F^\circ - {}^2F$	7/2 - 7/2	S11
Ni II	1386.063	1		$3d^8(^1G)4s - 3d^8(^3F)5p$	${}^2G - {}^4F^\circ$	9/2 - 7/2	S11
Ni II	1387.745	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^4P$	5/2 - 3/2	S11
Ni II	1387.851	5		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^4F$	5/2 - 7/2	S11
Ni II	1388.796	1		$3d^8(^3F)4p - 3d^8(^3F)6d$	${}^2D^\circ - {}^4P$	3/2 - 1/2	S11
Ni II	1391.761	2		$3d^8(^3F)4p - 3d^8(^3F)7s$	${}^2D^\circ - {}^2F$	5/2 - 7/2	S11
Ni II	1393.330	100		$3d^9 - 3d^8(^3P)4p$	$g^2D - {}^2D^\circ$	5/2 - 5/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1393.867	12		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^2F^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1396.695	10		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^4F^\circ$	5/2 - 7/2	S11
Ni II	1396.790	14					S11
Ni II	1397.480	2		$3d^8(^1G)4s - 3d^8(^3F)5p$	$^2G - ^4F^\circ$	7/2 - 9/2	S11
Ni II	1397.858	2		$3d^8(^3F)4p - 3d^8(^3F)5g$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1398.009	3		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1398.612	40		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4D^\circ$	5/2 - 7/2	S11
Ni II	1398.758	16		$3d^8(^3F)4p - 3d^8(^3F)5g$	$^2D^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1399.026	80	8	$3d^9 - 3d^8(^3P)4p$	$g^2D - ^2P^\circ$	3/2 - 3/2	S11
Ni II	1399.361	12					S11
Ni II	1400.644	30		$3d^74s^2 - 3d^8(^3F)6p$	$^4F - ^4F^\circ$	9/2 - 9/2	S11
Ni II	1402.379	20					S11
Ni II	1408.796	10		$3d^8(^3F)4p - 3d^8(^3F)6d$	$^2F^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1409.612	15					S11
Ni II	1410.219	4		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^2F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1411.071	100		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1412.868	30		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4D^\circ$	5/2 - 7/2	S11
Ni II	1413.679	10					S11
Ni II	1414.299	15		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4D^\circ$	5/2 - 3/2	S11
Ni II	1414.444	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1415.728	20		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4D^\circ$	5/2 - 5/2	S11
Ni II	1416.060	12		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1416.660	0		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^2D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1417.007	10		$3d^8(^3F)4p - 3d^8(^3F)7s$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1417.553	1		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4F^\circ$	3/2 - 5/2	S11
Ni II	1417.699	10		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4G^\circ$	5/2 - 7/2	S11
Ni II	1420.674	5		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1420.843	18		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1421.913	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1423.212	16		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1423.786	11		$3d^74s^2 - 3d^8(^3F)6p$	$^4F - ^4F^\circ$	7/2 - 9/2	S11
Ni II	1424.890	3		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1425.025	10					S11
Ni II	1425.579	6		$3d^74s^2 - 3d^8(^3F)4f$	$^4F - ^4H^\circ$	9/2 - 7/2	S11
Ni II	1425.604	3		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1427.782	10					S11
Ni II	1431.270	8		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1431.492	25		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^4D^\circ$	9/2 - 7/2	S11
Ni II	1433.745	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	3/2 - 3/2	S11
Ni II	1434.373	12		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1434.493	14		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	3/2 - 1/2	S11
Ni II	1434.546	12		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	3/2 - 5/2	S11
Ni II	1434.688	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1434.837	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4P$	1/2 - 1/2	S11
Ni II	1435.348	5		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^4F^\circ$	5/2 - 7/2	S11
Ni II	1436.165	50		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	5/2 - 7/2	S11
Ni II	1439.094	8		$3d^74s^2 - 3d^74s4p$	$^4F - x^2G^\circ$	7/2 - 9/2	S11
Ni II	1439.283	1		$3d^8(^3P)4p - 3d^8(^3F)8s$	$^4P^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1439.352	8		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4P^\circ - ^4D$	3/2 - 3/2	S11
Ni II	1443.080	13		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	1/2 - 3/2	S11
Ni II	1443.838	10		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4P^\circ - ^4D$	1/2 - 1/2	S11
Ni II	1445.098	13		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4D^\circ$	3/2 - 3/2	S11
Ni II	1445.460	14					S11
Ni II	1446.589	20		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4D^\circ$	3/2 - 5/2	S11
Ni II	1450.005	14		$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2P^\circ$	5/2 - 3/2	S11
Ni II	1452.558	15		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^4D^\circ$	7/2 - 5/2	S11
Ni II	1453.359	15		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1454.292	2		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1454.852	200	7	$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1456.913	16					S11
Ni II	1457.359	5		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1457.863	4		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2F^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1458.170	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1458.342	4		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1459.611	1		$3d^74s^2 - 3d^8(^1D)6p$	$^4P - ^2F^\circ$?	5/2 - 7/2	S11

Ni II

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1459.640	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4G$	3/2 - 5/2	S11
Ni II	1459.715	12		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2F^\circ - ^4D$	5/2 - 7/2	S11
Ni II	1459.809	9		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1460.078	6		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1460.136	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1460.312	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1460.408	2		$3d^8(^1D)4p - 3d^8(^3F)6g$	$^2F^\circ - ^2G$	7/2 - 7/2	S11
Ni II	1461.840	8		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4P^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1462.482	8		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1462.944	20		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1463.113	14		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^4D^\circ$	5/2 - 3/2	S11
Ni II	1464.301	8		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2F^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1464.369	10		$3d^8(^1D)4p - 3d^8(^3F)8s$	$^2F^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1467.265	60		$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1467.637	10		$3d^74s^2 - 3d^74s4p$	$^2G - w^2G^\circ$	9/2 - 9/2	S11
Ni II	1467.694	10		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4D$	3/2 - 5/2	S11
Ni II	1467.762	100	6	$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	1468.268	30		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4P$	7/2 - 5/2	S11
Ni II	1468.465	25		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4D$	7/2 - 7/2	S11
Ni II	1469.200	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4D$	3/2 - 3/2	S11
Ni II	1469.601	3		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4D$	1/2 - 3/2	S11
Ni II	1470.322	1		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^4D^\circ$	5/2 - 5/2	S11
Ni II	1470.386	2		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4D$	1/2 - 1/2	S11
Ni II	1470.666	5		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1471.466	10		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4P^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1471.961	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1472.571	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1472.835	5		$3d^8(^1D)4p - 3d^8(^3F)8s$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1472.889	2		$3d^74s^2 - 3d^8(^3F)4f$	$^4F - ^4G^\circ$	9/2 - 11/2	S11
Ni II	1473.249	1		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2D^\circ - ^2D$	3/2 - 5/2	S11
Ni II	1474.312	1		$3d^74s^2 - 3d^8(^3F)4f$	$^4F - ^4D^\circ$	9/2 - 7/2	S11
Ni II	1474.597	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^2H$	9/2 - 11/2	S11
Ni II	1474.910	1		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1475.270	3		$3d^74s^2 - 3d^8(^3P)5p$	$^4F - ^4D^\circ$	3/2 - 3/2	S11
Ni II	1475.645	1		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1475.734	3		$3d^74s^2 - 3d^8(^3F)9p$	$^2G - ^4F^\circ$	9/2 - 9/2	S11
Ni II	1475.801	2		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1476.043	25		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4D$	1/2 - 1/2	S11
Ni II	1477.063	1		$3d^8(^1D)4p - 3d^8(^3F)8s$	$^2P^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1477.227	4		$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2F^\circ$	5/2 - 5/2	S11
Ni II	1477.264	1		$3d^74s^2 - 3d^8(^3P)4f$	$^4P - ^4D^\circ$	3/2 - 5/2	S11
Ni II	1479.443	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1480.331	30		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1481.091	75		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2F^\circ$	9/2 - 7/2	S11
Ni II	1481.560	15		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1481.744	15		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1481.883	12		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1481.898	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1481.982	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1482.240	100		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4D$	5/2 - 7/2	S11
Ni II	1482.393	8		$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2P^\circ$	3/2 - 3/2	S11
Ni II	1483.277	40		$3d^8(^1D)4s - 3d^74s4p$	$^2D - z^6G^\circ$?	5/2 - 5/2	S11
Ni II	1483.554	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1484.227	25		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1484.592	1		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1485.185	10		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2D$	5/2 - 3/2	S11
Ni II	1485.375	60		$3d^8(^1D)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4D$	3/2 - 5/2	S11
Ni II	1485.987	2		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2D^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1486.372	5		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1486.668	7		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1487.242	50		$3d^8(^3P)4p - 3d^8(^3F)8s$	$^4P^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1487.438	5		$3d^74s^2 - 3d^8(^3F)4f$	$^4F - ^2F^\circ$?	5/2 - 7/2	S11
Ni II	1487.455	6		$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1488.730	16		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1488.845	5		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2D^\circ - ^4F$	5/2 - 5/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1488.896	100		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1489.079	35		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1489.729	5		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	5/2 - 5/2	S11
Ni II	1490.262	7		$3d^74s^2 - 3d^74s4p$	$^4P - v^2D^\circ$	3/2 - 5/2	S11
Ni II	1491.176	5		$3d^8(^3F)4p - 3d^8(^1G)4d$	$^4G^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1491.308	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	7/2 - 7/2	S11
Ni II	1491.588	4		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1491.776	6		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1491.823	3		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1491.899	40		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4H$	5/2 - 7/2	S11
Ni II	1493.022	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1493.315	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1494.151	50		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1494.236	6		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4P^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1494.701	10		$3d^74s^2 - 3d^74s4p$	$^4P - w^2D^\circ$	5/2 - 5/2	S11
Ni II	1495.383	40		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1495.570	20		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1496.308	10		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^2P$	1/2 - 3/2	S11
Ni II	1496.409	2		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	1/2 - 1/2	S11
Ni II	1496.463	1		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2D^\circ - ^4D$	3/2 - 5/2	S11
Ni II	1498.734	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1499.704	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	9/2 - 9/2	S11
Ni II	1500.437	200	7	$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1500.651	7		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1501.885	20		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4P^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1501.962	6		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4P^\circ$	5/2 - 3/2	S11
Ni II	1502.150	75		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4P^\circ$	5/2 - 5/2	S11
Ni II	1502.669	20		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1503.123	7		$3d^74s^2 - 3d^74s4p$	$^4F - w^4F^\circ$	9/2 - 9/2	S11
Ni II	1503.209	12		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	9/2 - 11/2	S11
Ni II	1504.485	75		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1504.590	5		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4D^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1505.642	13		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1506.184	16		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	11/2 - 11/2	S11
Ni II	1506.585	25		$3d^74s^2 - 3d^8(^3F)6f$	$^4P - ^4P^\circ$	5/2 - 5/2	S11
Ni II	1506.851	7		$3d^8(^1D)4p - 3d^8(^3F)8s$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1506.968	10		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2F^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1506.995	5		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2F^\circ$	7/2 - 7/2	S11
Ni II	1507.465	18		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4H$	11/2 - 11/2	S11
Ni II	1507.961	15		$3d^74s^2 - 3d^8(^3F)8p$	$^2G - ^2G^\circ$	9/2 - 9/2	S11
Ni II	1508.249	10					S11
Ni II	1508.262	7		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4D^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1508.315	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1508.498	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1508.816	100		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4H$	11/2 - 13/2	S11
Ni II	1509.113	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1509.308	12		$3d^74s^2 - 3d^74s4p$	$^4P - w^2D^\circ$	1/2 - 3/2	S11
Ni II	1509.345	8		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1509.602	4		$3d^8(^1D)4p - 3d^8(^3F)7d$	$^2D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1509.767	100		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2F^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1510.067	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1510.232	16					S11
Ni II	1510.366	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1510.690	3		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1510.741	5		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1510.859	75	6	$3d^9 - 3d^8(^1D)4p$	$g^2D - ^2F^\circ$	3/2 - 5/2	S11
Ni II	1511.185	8		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2F^\circ$	7/2 - 5/2	S11
Ni II	1511.314	3		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2F^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1511.467	10					S11
Ni II	1512.237	1		$3d^74s^2 - 3d^74s4p$	$^4P - s^4D^\circ$	3/2 - 1/2	S11
Ni II	1512.742	11		$3d^74s^2 - 3d^8(^3F)8p$	$^2G - ^2G^\circ$	7/2 - 7/2	S11
Ni II	1513.016	11		$3d^74s^2 - 3d^74s4p$	$^4P - s^4D^\circ$	5/2 - 5/2	S11
Ni II	1513.550	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4G$	5/2 - 5/2	S11
Ni II	1513.783	15		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1514.222	50		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2F^\circ - ^2F$	5/2 - 5/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1514.336	10					S11
Ni II	1514.372	80		$3d^74s^2$ - $3d^8(^1D)6p$	^2G - $^2F^\circ$	9/2 - 7/2	S11
Ni II	1514.411	17					S11
Ni II	1514.552	5		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4F	3/2 - 3/2	S11
Ni II	1514.856	8		$3d^8(^1D)4p$ - $3d^8(^3F)7d$	$^2P^\circ$ - ^4D	3/2 - 5/2	S11
Ni II	1515.157	15		$3d^74s^2$ - $3d^74s4p$	^4P - s^4D°	3/2 - 3/2	S11
Ni II	1515.269	25		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^2G^\circ$ - ^2G	9/2 - 9/2	S11
Ni II	1515.329	8		$3d^8(^1D)4s$ - $3d^74s4p$	^2D - z^6D°	5/2 - 7/2	S11
Ni II	1515.518	5		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4F	1/2 - 3/2	S11
Ni II	1515.692	1		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4P	1/2 - 1/2	S11
Ni II	1515.791	30		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4H	5/2 - 7/2	S11
Ni II	1515.825	40		$3d^74s^2$ - $3d^74s4p$	^4P - s^4D°	5/2 - 7/2	S11
Ni II	1516.048	17		$3d^8(^1D)4p$ - $3d^8(^3P)6s$	$^2P^\circ$ - ^2P	1/2 - 1/2	S11
Ni II	1516.215	50		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4F	5/2 - 7/2	S11
Ni II	1516.503	3		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^2G^\circ$ - ^2F	9/2 - 7/2	S11
Ni II	1517.449	25		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4G	7/2 - 7/2	S11
Ni II	1517.480	40		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^2G^\circ$ - ^2G	7/2 - 7/2	S11
Ni II	1517.894	100		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^2G^\circ$ - ^2H	9/2 - 11/2	S11
Ni II	1517.984	15		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^2G	7/2 - 9/2	S11
Ni II	1519.371	40		$3d^74s^2$ - $3d^74s4p$	^4P - s^4D°	3/2 - 5/2	S11
Ni II	1519.513	15		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4F	7/2 - 5/2	S11
Ni II	1519.745	4		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2D^\circ$ - ^2P	3/2 - 1/2	S11
Ni II	1519.935	100		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2F^\circ$ - ^2G	7/2 - 9/2	S11
Ni II	1520.077	4		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2P^\circ$ - ^2P	1/2 - 3/2	S11
Ni II	1520.168	14		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4G^\circ$ - ^4G	7/2 - 9/2	S11
Ni II	1520.294	10		$3d^8(^1G)4s$ - $3d^74s4p$	^2G - z^2G°	9/2 - 9/2	S11
Ni II	1520.392	30		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4H	7/2 - 9/2	S11
Ni II	1520.467	40		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^2G^\circ$ - ^2H	7/2 - 9/2	S11
Ni II	1520.932	10		$3d^8(^1D)4p$ - $3d^8(^3P)6s$	$^2F^\circ$ - ^4P	5/2 - 5/2	S11
Ni II	1520.944	20		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2D^\circ$ - ^2D	3/2 - 3/2	S11
Ni II	1521.119	100		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4F	7/2 - 9/2	S11
Ni II	1521.596	15		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4G	3/2 - 5/2	S11
Ni II	1521.673	18		$3d^74s^2$ - $3d^74s4p$	^2G - v^2G°	9/2 - 9/2	S11
Ni II	1521.889	12		$3d^8(^1D)4p$ - $3d^8(^3P)6s$	$^2D^\circ$ - ^2P	3/2 - 3/2	S11
Ni II	1521.992	10		$3d^8(^1D)4p$ - $3d^8(^3P)6s$	$^2D^\circ$ - ^4P	3/2 - 1/2	S11
Ni II	1522.517	0		$3d^8(^3F)4p$ - $3d^8(^3F)6s$	$^4D^\circ$ - ^2F	3/2 - 5/2	S11
Ni II	1522.569	30		$3d^8(^1D)4p$ - $3d^8(^3F)8s$	$^2F^\circ$ - ^4F	7/2 - 7/2	S11
Ni II	1522.691	10		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2P^\circ$ - ^2P	1/2 - 1/2	S11
Ni II	1522.846	12		$3d^74s^2$ - $3d^8(^1D)5p$	^4F - $^2D^\circ$	7/2 - 5/2	S11
Ni II	1522.990	11		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4F	3/2 - 3/2	S11
Ni II	1523.102	3		$3d^8(^3F)4p$ - $3d^8(^1G)4d$	$^4F^\circ$ - ^2F	3/2 - 5/2	S11
Ni II	1523.160	6		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4D	5/2 - 5/2	S11
Ni II	1523.278	30		$3d^74s^2$ - $3d^74s4p$	^4P - v^4F°	5/2 - 7/2	S11
Ni II	1523.897	15		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2P^\circ$ - ^2D	1/2 - 3/2	S11
Ni II	1524.302	50		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2F^\circ$ - ^2F	7/2 - 7/2	S11
Ni II	1524.758	4		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4D	3/2 - 1/2	S11
Ni II	1524.834	22		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2D^\circ$ - ^2F	3/2 - 5/2	S11
Ni II	1524.996	14		$3d^74s^2$ - $3d^74s4p$	^4P - s^4D°	1/2 - 1/2	S11
Ni II	1525.422	8		$3d^8(^3F)4p$ - $3d^8(^3F)6s$	$^4D^\circ$ - ^2F	5/2 - 7/2	S11
Ni II	1526.480	4		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4D	7/2 - 5/2	S11
Ni II	1526.999	20		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4G	9/2 - 9/2	S11
Ni II	1527.497	15		$3d^74s^2$ - $3d^74s4p$	^4F - v^4D°	9/2 - 7/2	S11
Ni II	1527.661	1		$3d^8(^1D)4p$ - $3d^8(^3P)6s$	$^2D^\circ$ - ^4P	3/2 - 3/2	S11
Ni II	1527.968	18		$3d^74s^2$ - $3d^74s4p$	^4P - s^4D°	1/2 - 3/2	S11
Ni II	1528.508	22		$3d^8(^3P)4p$ - $3d^8(^3P)5d$	$^4D^\circ$ - ^4D	7/2 - 7/2	S11
Ni II	1528.703	1		$3d^8(^3P)4p$ - $3d^8(^3F)8s$	$^4D^\circ$ - ^2F	5/2 - 5/2	S11
Ni II	1529.148	4		$3d^8(^3P)4p$ - $3d^8(^3F)7d$	$^4D^\circ$ - ^2D	5/2 - 5/2	S11
Ni II	1529.812	0		$3d^74s^2$ - $3d^74s4p$	^4F - w^4F°	7/2 - 9/2	S11
Ni II	1530.080	18		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4F	9/2 - 9/2	S11
Ni II	1530.428	10		$3d^74s^2$ - $3d^8(^1D)5p$	^4F - $^2F^\circ$	5/2 - 5/2	S11
Ni II	1530.636	75		$3d^8(^3F)4p$ - $3d^8(^3F)5d$	$^4F^\circ$ - ^4G	9/2 - 11/2	S11
Ni II	1530.663	30		$3d^8(^3P)4p$ - $3d^8(^3F)8d$	$^2D^\circ$ - ^4P	3/2 - 5/2	S11
Ni II	1530.995	16		$3d^8(^1D)4p$ - $3d^8(^1D)5d$	$^2D^\circ$ - ^2D	5/2 - 5/2	S11
Ni II	1531.288	3		$3d^8(^3P)4p$ - $3d^8(^3F)7d$	$^4D^\circ$ - ^4D	1/2 - 3/2	S11
Ni II	1531.408	14					S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1531.640	18		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1531.720	1		$3d^74s^2 - 3d^8(^3F)6f$	$^2G - ^2H^\circ$	9/2 - 11/2	S11
Ni II	1531.952	16		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1531.972	20		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1532.741	14		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1533.669	17					S11
Ni II	1533.885	12		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1533.991	20		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2G$	7/2 - 7/2	S11
Ni II	1534.484	12					S11
Ni II	1534.546	11		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1534.861	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1535.477	12		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2D^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1535.961	15		$3d^74s^2 - 3d^8(^3P)4f$	$^2G - ^2G^\circ$	9/2 - 7/2	S11
Ni II	1536.051	30		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1536.118	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4D$	9/2 - 7/2	S11
Ni II	1536.367	1		$3d^74s^2 - 3d^8(^3F)6f$	$^2G - ^2H^\circ$	7/2 - 9/2	S11
Ni II	1536.398	20		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2P^\circ - ^2D$	3/2 - 5/2	S11
Ni II	1536.717	15		$3d^8(^1D)4p - 3d^8(^3F)8s$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1536.746	25		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4P^\circ$	3/2 - 3/2	S11
Ni II	1536.779	10					S11
Ni II	1536.944	12		$3d^9 - 3d^8(^3P)4p$	$g^2D - ^4P^\circ$	3/2 - 5/2	S11
Ni II	1537.038	12		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2H$	7/2 - 9/2	S11
Ni II	1537.216	20		$3d^74s^2 - 3d^74s4p$	$^4P - v^4F^\circ$	3/2 - 5/2	S11
Ni II	1537.322	2		$3d^74s^2 - 3d^8(^1D)4f$	$^4P - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1537.477	15		$3d^74s^2 - 3d^8(^3P)4f$	$^2G - ^2F^\circ$	9/2 - 7/2	S11
Ni II	1537.776	1		$3d^8(^3P)4p - 3d^8(^3F)8d$	$^2P^\circ - ^4D$	3/2 - 5/2	S11
Ni II	1537.859	25					S11
Ni II	1538.388	30					S11
Ni II	1538.483	30		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1538.567	4		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1538.722	0		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2P^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1538.831	3		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4G^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1538.956	1		$3d^74s^2 - 3d^8(^3F)8p$	$^2G - ^4G^\circ$	9/2 - 11/2	S11
Ni II	1539.649	15					S11
Ni II	1539.731	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^4G$	7/2 - 7/2	S11
Ni II	1539.949	2		$3d^8(^1D)4p - 3d^8(^1D)5d$	$^2P^\circ - ^2D$	3/2 - 3/2	S11
Ni II	1540.015	1		$3d^74s^2 - 3d^74s4p$	$^4F - w^4F^\circ$	5/2 - 7/2	S11
Ni II	1540.281	25		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1540.760	35		$3d^74s^2 - 3d^8(^3F)8p$	$^2G - ^4G^\circ$	9/2 - 9/2	S11
Ni II	1540.908	4		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1541.324	14					S11
Ni II	1541.356	11		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1541.560	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1541.801	2		$3d^8(^1G)4p - 3d^8(^1G)6s$	$^2H^\circ - ^2G$	9/2 - 7/2	S11
Ni II	1542.024	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1542.208	18		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2P^\circ$?	3/2 - 3/2	S11
Ni II	1542.388	1		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1542.401	3		$3d^8(^3P)4p - 3d^8(^3F)6g$	$^2D^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1542.773	15		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1543.132	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1544.273	3		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1544.968	5		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1544.980	10		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1545.408	30		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1545.453	12					S11
Ni II	1545.717	16					S11
Ni II	1545.881	5		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	7/2 - 5/2	S11
Ni II	1546.070	4		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1547.337	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1547.407	13		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	5/2 - 3/2	S11
Ni II	1547.547	3		$3d^74s^2 - 3d^74s4p$	$^2G - v^2G^\circ$	7/2 - 9/2	S11
Ni II	1548.344	16		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1549.588	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^4H$	9/2 - 11/2	S11
Ni II	1549.818	0		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1549.964	4		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4D$	5/2 - 5/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1550.479	3		$3d^74s^2 - 3d^8(^3P)4f$	$^2G - ^4D^\circ$	7/2 - 7/2	S11
Ni II	1550.495	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1550.912	10		$3d^8(^1D)4p - 3d^8(^3P)6s$	$^2P^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1552.276	5		$3d^74s^2 - 3d^8(^3P)4f$	$^2G - ^4G^\circ$	7/2 - 7/2	S11
Ni II	1553.012	0		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1554.124	50		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	5/2 - 3/2	S11
Ni II	1554.293	8		$3d^8(^3P)4p - 3d^8(^3F)8s$	$^4D^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1554.332	8		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1554.509	6		$3d^8(^3P)4p - 3d^8(^1D)6s$	$^4P^\circ - ^2D$	5/2 - 5/2	S11
Ni II	1555.062	2		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	7/2 - 7/2	S11
Ni II	1555.398	16		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1555.496	30		$3d^74s^2 - 3d^74s4p$	$^2G - v^2G^\circ$	7/2 - 7/2	S11
Ni II	1555.585	8		$3d^8(^1G)4p - 3d^8(^1G)6s$	$^2H^\circ - ^2G$	11/2 - 9/2	S11
Ni II	1555.957	13		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1556.766	10					S11
Ni II	1556.997	4		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1557.194	1		$3d^74s^2 - 3d^8(^1D)4f$	$^4P - ^2D^\circ$	1/2 - 3/2	S11
Ni II	1557.290	12		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1558.087	10		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4F$	7/2 - 9/2	S11
Ni II	1558.443	12					S11
Ni II	1558.501	2		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	9/2 - 7/2	S11
Ni II	1558.544	5		$3d^74s^2 - 3d^8(^1D)5p$	$^4F - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1558.597	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1558.655	40					S11
Ni II	1559.159	18					S11
Ni II	1559.822	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4H$	7/2 - 9/2	S11
Ni II	1560.341	6		$3d^8(^1G)4p - 3d^8(^1G)6s$	$^2F^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1560.459	25					S11
Ni II	1560.517	10		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1560.796	5		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$	7/2 - 7/2	S11
Ni II	1560.831	15		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	3/2 - 3/2	S11
Ni II	1560.935	4		$3d^8(^3P)4s - 3d^74s4p$	$^4P - z^6D^\circ$	5/2 - 7/2	S11
Ni II	1561.015	4		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	3/2 - 3/2	S11
Ni II	1561.229	15		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1561.733	2		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1561.968	11		$3d^74s^2 - 3d^74s4p$	$^2G - w^2G^\circ$	9/2 - 7/2	S11
Ni II	1562.329	18		$3d^74s^2 - 3d^8(^3P)4f$	$^2G - ^2G^\circ$	7/2 - 7/2	S11
Ni II	1563.111	7		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1563.376	50		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	3/2 - 1/2	S11
Ni II	1563.604	120		$3d^74s^2 - 3d^74s4p$	$^4F - w^4D^\circ$	9/2 - 7/2	S11
Ni II	1564.273	15		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^4F^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1564.389	8		$3d^8(^3P)4p - 3d^8(^3F)6g$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1565.001	1		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1565.399	20		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4D^\circ - ^4G$?	7/2 - 9/2	S11
Ni II	1566.019	7		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	5/2 - 5/2	S11
Ni II	1566.890	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1567.069	15		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$	9/2 - 11/2	S11
Ni II	1567.220	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1567.298	3		$3d^74s^2 - 3d^8(^3F)8p$	$^2G - ^4G^\circ$	7/2 - 9/2	S11
Ni II	1567.323	10					S11
Ni II	1567.336	12					S11
Ni II	1567.370	3		$3d^74s^2 - 3d^74s4p$	$^2G - v^2D^\circ$	7/2 - 5/2	S11
Ni II	1567.872	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1567.966	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2G$	5/2 - 7/2	S11
Ni II	1568.698	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1569.172	16					S11
Ni II	1569.415	1		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$?	5/2 - 5/2	S11
Ni II	1569.624	13		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1569.972	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1570.302	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1570.392	60		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	3/2 - 5/2	S11
Ni II	1570.512	3		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1570.701	1		$3d^8(^1D)4p - 3d^8(^3F)6d$	$^2F^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1571.145	12					S11
Ni II	1571.162	12					S11

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1571.257	10					S11
Ni II	1571.532	2		$3d^74s^2 - 3d^8(^3F)7f$	$^2P - ^4D^\circ$?	3/2 - 5/2	S11
Ni II	1571.550	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2G^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1572.540	25		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1572.646	4		$3d^8(^3F)4p - 3d^8(^1G)4d$	$^2F^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1572.993	1		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1573.071	10					S11
Ni II	1574.202	18		$3d^8(^3F)4p - 3d^8(^1G)5s$	$^4D^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1574.423	100		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	1/2 - 3/2	S11
Ni II	1574.942	20		$3d^74s^2 - 3d^74s4p$	$^2G - v^4F^\circ$	9/2 - 9/2	S11
Ni II	1574.976	5		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1575.003	16		$3d^74s^2 - 3d^74s4p$	$^2G - s^4D^\circ$	9/2 - 7/2	S11
Ni II	1575.090	15					S11
Ni II	1575.559	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1575.597	9		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1577.015	30		$3d^74s^2 - 3d^74s4p$	$^4P - v^4P^\circ$	1/2 - 1/2	S11
Ni II	1577.115	16		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$	7/2 - 9/2	S11
Ni II	1577.933	14		$3d^8(^3F)4p - 3d^8(^1G)4d$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1578.865	20		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	11/2 - 9/2	S11
Ni II	1578.990	60					S11
Ni II	1579.073	18					S11
Ni II	1579.563	18		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2P^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1579.791	17					S11
Ni II	1579.877	2		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4G^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1579.959	3		$3d^74s^2 - 3d^74s4p$	$^4F - v^4D^\circ$	3/2 - 5/2	S11
Ni II	1580.588	8		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2D$	5/2 - 3/2	S11
Ni II	1581.085	6		$3d^8(^1D)4p - 3d^8(^1D)6s$	$^2F^\circ - ^2D$	5/2 - 3/2	S11
Ni II	1581.334	25		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$	5/2 - 7/2	S11
Ni II	1581.704	10		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4G^\circ$	5/2 - 5/2	S11
Ni II	1581.826	6		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1582.135	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4D$	5/2 - 3/2	S11
Ni II	1582.373	0		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2D$	3/2 - 3/2	S11
Ni II	1582.689	10					S11
Ni II	1583.051	17		$3d^74s^2 - 3d^74s4p$	$^2G - v^4F^\circ$	9/2 - 7/2	S11
Ni II	1583.398	1		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1583.436	10		$3d^74s^2 - 3d^74s4p$	$^4F - w^4G^\circ$	3/2 - 5/2	S11
Ni II	1583.509	15		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1584.530	10					S11
Ni II	1584.563	16		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	1/2 - 1/2	S11
Ni II	1585.117	200		$3d^74s^2 - 3d^74s4p$	$^2G - w^2G^\circ$	9/2 - 9/2	S11
Ni II	1585.702	4		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4D$	7/2 - 5/2	S11
Ni II	1586.677	4		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1587.138	3		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	9/2 - 7/2	S11
Ni II	1587.207	8		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	7/2 - 7/2	S11
Ni II	1587.443	18		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2G^\circ - ^2F$	9/2 - 7/2	S11
Ni II	1587.845	35		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1588.200	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4G$	7/2 - 9/2	S11
Ni II	1588.369	15		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^4D^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1588.464	10					S11
Ni II	1588.715	9		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2G^\circ - ^2F$	7/2 - 5/2	S11
Ni II	1588.798	20		$3d^8(^1D)4p - 3d^8(^3F)5g$	$^2P^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1589.061	40					S11
Ni II	1589.116	80		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2S^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1589.246	200		$3d^74s^2 - 3d^74s4p$	$^2G - w^2G^\circ$	7/2 - 7/2	S11
Ni II	1589.474	5		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	7/2 - 5/2	S11
Ni II	1589.547	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4S^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1589.644	20		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1589.772	80		$3d^74s^2 - 3d^74s4p$	$^4F - w^4D^\circ$	7/2 - 5/2	S11
Ni II	1589.903	8		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	7/2 - 5/2	S11
Ni II	1590.422	0		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1590.529	10		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^2D^\circ - ^4F$?	5/2 - 7/2	S11
Ni II	1590.703	1		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1591.041	50		$3d^8(^3F)4s - 3d^8(^1G)4p$	$^2F - ^2F^\circ$	7/2 - 5/2	S11
Ni II	1591.099	16					S11
Ni II	1591.350	10					S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1591.415	80		$3d^74s^2 - 3d^8(^3F)6f$	$^2G - ^4D^\circ$	7/2 - 5/2	S11
Ni II	1591.732	2		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4G$	5/2 - 7/2	S11
Ni II	1592.080	200		$3d^74s^2 - 3d^74s4p$	$^2G - w^2F^\circ$	9/2 - 7/2	S11
Ni II	1592.144	15		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1592.248	25		$3d^74s^2 - 3d^8(^3F)6f$	$^2G - ^4D^\circ$	7/2 - 7/2	S11
Ni II	1592.479	50		$3d^74s^2 - 3d^8(^3F)6f$	$^2G - ^4F^\circ$	7/2 - 7/2	S11
Ni II	1592.502	15		$3d^74s^2 - 3d^74s4p$	$^4F - w^4D^\circ$	7/2 - 7/2	S11
Ni II	1592.662	1		$3d^8(^1D)4p - 3d^8(^1D)6s$	$^2D^\circ - ^2D$	3/2 - 3/2	S11
Ni II	1593.132	1		$3d^8(^1D)4p - 3d^8(^1D)6s$	$^2F^\circ - ^2D$	7/2 - 5/2	S11
Ni II	1593.200	15					S11
Ni II	1593.522	15					S11
Ni II	1593.611	150		$3d^74s^2 - 3d^74s4p$	$^2G - w^2F^\circ$	7/2 - 5/2	S11
Ni II	1593.698	40		$3d^74s^2 - 3d^74s4p$	$^4F - t^2D^\circ$	5/2 - 3/2	S11
Ni II	1594.019	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1594.287	6		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1594.346	35					S11
Ni II	1594.575	1		$3d^8(^3P)4p - 3d^8(^3F)6d$	$^4P^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1594.703	12		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	9/2 - 9/2	S11
Ni II	1595.519	8		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1595.608	70		$3d^74s^2 - 3d^8(^1D)4f$	$^2G - ^2H^\circ$	9/2 - 9/2	S11
Ni II	1595.768	70		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4D^\circ - ^4P$	7/2 - 5/2	S11
Ni II	1595.919	15		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4S^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1596.074	60		$3d^8(^3P)4p - 3d^8(^3F)7d$	$^4S^\circ - ^2P$?	3/2 - 1/2	S11
Ni II	1596.874	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2F^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1597.031	1		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2S^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1597.101	25					S11
Ni II	1597.484	9		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4S^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1597.886	7		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1598.282	40		$3d^74s^2 - 3d^74s4p$	$^2P - v^2D^\circ$	3/2 - 3/2	S11
Ni II	1598.371	30		$3d^8(^3P)4p - 3d^8(^3F)6g$	$^2D^\circ - ^4D$	5/2 - 3/2	S11
Ni II	1598.860	18					S11
Ni II	1599.251	40					S11
Ni II	1599.282	12		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	5/2 - 5/2	S11
Ni II	1599.439	1		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1599.549	10		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	9/2 - 7/2	S11
Ni II	1599.603	25		$3d^74s^2 - 3d^74s4p$	$^2G - s^4D^\circ$	7/2 - 5/2	S11
Ni II	1600.268	10		$3d^8(^3F)4p - 3d^8(^3F)5d$	$^2D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1600.565	18					S11
Ni II	1600.753	3		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4G^\circ - ^4P$?	7/2 - 5/2	S11
Ni II	1601.045	16		$3d^74s^2 - 3d^8(^1D)4f$	$^2G - ^2G^\circ$	9/2 - 9/2	S11
Ni II	1601.240	10		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	5/2 - 3/2	S11
Ni II	1601.288	8		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^2S^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1601.518	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^2D^\circ$	7/2 - 5/2	S11
Ni II	1601.742	4		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4S^\circ - ^4F$	3/2 - 3/2	S11
Ni II	1601.928	10		$3d^8(^3P)4p - 3d^8(^3P)5d$	$^4S^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1602.209	12		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	3/2 - 1/2	S11
Ni II	1602.679	1		$3d^74s^2 - 3d^74s4p$	$^2G - v^4F^\circ$	7/2 - 9/2	S11
Ni II	1602.973	20		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	9/2 - 7/2	S11
Ni II	1603.224	1		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4G^\circ - ^4F$	9/2 - 9/2	S11
Ni II	1603.410	20		$3d^8(^3F)4s - 3d^8(^1G)4p$	$^2F - ^2F^\circ$	7/2 - 7/2	S11
Ni II	1603.555	25					S11
Ni II	1603.728	16		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4D^\circ$	1/2 - 1/2	S11
Ni II	1603.917	5		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1604.394	2		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4G^\circ$	5/2 - 7/2	S11
Ni II	1604.482	18					S11
Ni II	1604.570	5		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4F$	3/2 - 5/2	S11
Ni II	1604.696	3		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4D^\circ$	5/2 - 3/2	S11
Ni II	1605.027	9		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4F^\circ$	5/2 - 5/2	S11
Ni II	1605.217	4		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1605.744	35		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	9/2 - 9/2	S11
Ni II	1605.910	60					S11
Ni II	1606.280	12		$3d^8(^1D)4p - 3d^8(^3F)5g$	$^2P^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1606.469	30					S11
Ni II	1606.695	8		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	5/2 - 5/2	S11
Ni II	1606.729	15					S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1606.902	18					S11
Ni II	1607.849	20					S11
Ni II	1607.987	3		$3d^8(^1D)4p - 3d^8(^3F)5g$	$^2F^\circ - ^4G$	7/2 - 7/2	S11
Ni II	1608.134	60		$3d^74s^2 - 3d^74s4p$	$^4F - t^2D^\circ$	3/2 - 3/2	S11
Ni II	1608.177	80		$3d^8(^1G)4s - 3d^74s4p$	$^2G - z^4F^\circ$	7/2 - 7/2	S11
Ni II	1608.358	30		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	3/2 - 3/2	S11
Ni II	1608.442	25		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	5/2 - 7/2	S11
Ni II	1608.708	1		$3d^8(^1G)4p - 3d^8(^3F)9s$	$^2F^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1609.343	1		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1609.474	12		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2D$	5/2 - 3/2	S11
Ni II	1610.102	20		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	5/2 - 5/2	S11
Ni II	1610.532	18		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^2P$	5/2 - 3/2	S11
Ni II	1611.061	8		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1611.079	6		$3d^74s^2 - 3d^74s4p$	$^2G - v^4F^\circ$	7/2 - 7/2	S11
Ni II	1611.390	25					S11
Ni II	1611.927	2		$3d^8(^3P)4p - 3d^8(^3F)8s$	$^2D^\circ - ^4F$?	5/2 - 7/2	S11
Ni II	1612.163	1		$3d^8(^1D)4p - 3d^8(^3F)6d$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1612.450	20		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^2P^\circ$	3/2 - 3/2	S11
Ni II	1613.132	2		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1613.216	60		$3d^74s^2 - 3d^74s4p$	$^2G - w^2G^\circ$	7/2 - 9/2	S11
Ni II	1613.820	20		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	3/2 - 5/2	S11
Ni II	1613.949	1		$3d^8(^3P)4p - 3d^8(^3F)6g$	$^2D^\circ - ^4D$	3/2 - 3/2	S11
Ni II	1614.495	10					S11
Ni II	1614.824	30					S11
Ni II	1614.911	90		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2G^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1615.459	120		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	5/2 - 7/2	S11
Ni II	1616.387	15		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1616.456	2		$3d^8(^1G)4p - 3d^8(^3F)8d$	$^2F^\circ - ^4G$?	7/2 - 9/2	S11
Ni II	1616.536	25		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	1/2 - 1/2	S11
Ni II	1616.917	25		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	7/2 - 7/2	S11
Ni II	1616.993	2		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1617.088	50					S11
Ni II	1617.144	40		$3d^8(^1G)4p - 3d^8(^3F)8d$	$^2F^\circ - ^4F$?	7/2 - 9/2	S11
Ni II	1617.299	40		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	3/2 - 5/2	S11
Ni II	1618.950	20		$3d^74s^2 - 3d^74s4p$	$^2H - w^2G^\circ$	11/2 - 9/2	S11
Ni II	1619.193	1		$3d^74s^2 - 3d^8(^3P)4f$	$^2P - ^4D^\circ$	3/2 - 3/2	S11
Ni II	1619.395	6		$3d^74s^2 - 3d^74s4p$	$^2G - v^4F^\circ$	7/2 - 5/2	S11
Ni II	1619.607	7		$3d^74s^2 - 3d^8(^3F)6f$	$^2P - ^4D^\circ$?	1/2 - 1/2	S11
Ni II	1619.857	20					S11
Ni II	1619.964	6		$3d^74s^2 - 3d^8(^3F)6f$	$^2P - ^2P^\circ$	3/2 - 3/2	S11
Ni II	1620.331	18		$3d^8(^3F)4p - 3d^8(^1G)5s$	$^4G^\circ - ^2G$	9/2 - 9/2	S11
Ni II	1620.428	1		$3d^74s^2 - 3d^74s4p$	$^2G - w^2F^\circ$	7/2 - 7/2	S11
Ni II	1620.946	1		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1621.460	40		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 5/2	S11
Ni II	1621.880	6		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^4F^\circ - ^4F$	7/2 - 7/2	S11
Ni II	1621.926	18		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1622.106	80					S11
Ni II	1622.796	20		$3d^74s^2 - 3d^74s4p$	$^4P - t^4D^\circ$	1/2 - 3/2	S11
Ni II	1622.981	1		$3d^8(^3F)4p - 3d^8(^1D)4d$	$^4D^\circ - ^2G$	7/2 - 9/2	S11
Ni II	1624.084	60		$3d^74s^2 - 3d^8(^1D)4f$	$^2G - ^2H^\circ$	7/2 - 9/2	S11
Ni II	1624.172	20		$3d^74s^2 - 3d^8(^3F)7p$	$^2G - ^2G^\circ$	9/2 - 9/2	S11
Ni II	1624.773	16		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	7/2 - 9/2	S11
Ni II	1625.233	25					S11
Ni II	1625.288	2		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2D^\circ - ^2D$	3/2 - 3/2	S11
Ni II	1626.161	12					S11
Ni II	1626.309	20		$3d^74s^2 - 3d^74s4p$	$^2P - w^2P^\circ$	3/2 - 3/2	S11
Ni II	1626.320	15		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4D^\circ$?	1/2 - 3/2	S11
Ni II	1626.366	6		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1626.961	12		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^2P^\circ$	1/2 - 3/2	S11
Ni II	1627.396	12		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	7/2 - 7/2	S11
Ni II	1627.656	4		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4P^\circ$	1/2 - 1/2	S11
Ni II	1628.126	15		$3d^8(^3P)4p - 3d^8(^3F)7s$	$^4P^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1628.497	10		$3d^8(^3F)4s - 3d^8(^1G)4p$	$^2F - ^2F^\circ$	5/2 - 5/2	S11
Ni II	1628.726	15					S11
Ni II	1628.810	20		$3d^74s^2 - 3d^8(^3F)9p$	$^2H - ^4F^\circ$	11/2 - 9/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1629.282	100		$3d^74s^2 - 3d^74s4p$	$^4F - x^4G^\circ$	9/2 - 11/2	S11
Ni II	1629.445	11		$3d^8(^1G)4p - 3d^8(^3P)5d$	$^2H^\circ - ^4F$?	9/2 - 9/2	S11
Ni II	1629.591	70		$3d^74s^2 - 3d^74s4p$	$^2P - v^2D^\circ$	3/2 - 5/2	S11
Ni II	1629.718	1		$3d^74s^2 - 3d^8(^1D)4f$	$^2G - ^2G^\circ$	7/2 - 9/2	S11
Ni II	1630.130	20					S11
Ni II	1630.356	10		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4D^\circ - ^4D$	3/2 - 1/2	S11
Ni II	1631.024	25					S11
Ni II	1631.182	12		$3d^8(^1G)4p - 3d^8(^3F)8d$	$^2F^\circ - ^4D$	5/2 - 7/2	S11
Ni II	1632.152	15					S11
Ni II	1632.171	30		$3d^74s^2 - 3d^74s4p$	$^4F - w^4D^\circ$	3/2 - 3/2	S11
Ni II	1632.488	6		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 1/2	S11
Ni II	1632.960	2		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1633.625	10		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2F^\circ - ^2F$	7/2 - 7/2	S11
Ni II	1633.988	35					S11
Ni II	1635.070	30		$3d^74s^2 - 3d^74s4p$	$^2P - w^2P^\circ$	3/2 - 1/2	S11
Ni II	1635.340	100		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^4G^\circ - ^4F$	5/2 - 3/2	S11
Ni II	1636.231	4		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	7/2 - 9/2	S11
Ni II	1636.488	3		$3d^8(^1D)4p - 3d^8(^3F)6d$	$^2D^\circ - ^4D$	5/2 - 5/2	S11
Ni II	1637.072	20					S11
Ni II	1637.140	2		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1637.267	10					S11
Ni II	1637.439	100		$3d^74s^2 - 3d^74s4p$	$^2P - w^2D^\circ$	3/2 - 3/2	S11
Ni II	1637.509	20		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2D^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1637.589	300		$3d^74s^2 - 3d^74s4p$	$^2G - x^2H^\circ$	9/2 - 11/2	S11
Ni II	1638.963	4		$3d^74s^2 - 3d^74s4p$	$^4F - x^4F^\circ$	5/2 - 7/2	S11
Ni II	1640.769	7		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4D^\circ$	5/2 - 7/2	S11
Ni II	1641.418	10		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4P^\circ$	5/2 - 5/2	S11
Ni II	1642.299	20					S11
Ni II	1642.324	40		$3d^74s^2 - 3d^74s4p$	$^2P - w^2D^\circ$	3/2 - 5/2	S11
Ni II	1642.351	15					S11
Ni II	1642.670	5		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1642.739	2		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2D^\circ - ^2F$	5/2 - 7/2	S11
Ni II	1642.792	2		$3d^8(^3P)4p - 3d^8(^3F)6d$	$^4D^\circ - ^4F$	1/2 - 3/2	S11
Ni II	1643.271	80		$3d^74s^2 - 3d^74s4p$	$^2G - x^2H^\circ$	7/2 - 9/2	S11
Ni II	1643.334	20		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4S^\circ$	5/2 - 3/2	S11
Ni II	1644.040	14					S11
Ni II	1644.137	6		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2F^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1645.654	0		$3d^74s^2 - 3d^8(^3F)5f$	$^2G - ^2G^\circ$	9/2 - 7/2	S11
Ni II	1647.637	10					S11
Ni II	1648.381	1		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4P^\circ$	3/2 - 3/2	S11
Ni II	1649.396	13		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2P^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1649.905	3		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2D^\circ - ^2F$	3/2 - 5/2	S11
Ni II	1650.412	14		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	5/2 - 3/2	S11
Ni II	1650.835	10		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4S^\circ$	3/2 - 3/2	S11
Ni II	1652.270	13					S11
Ni II	1652.355	3		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	5/2 - 5/2	S11
Ni II	1652.726	10					S11
Ni II	1652.839	15					S11
Ni II	1653.369	18					S11
Ni II	1653.687	10		$3d^74s^2 - 3d^8(^3F)7p$	$^2G - ^2G^\circ$	7/2 - 9/2	S11
Ni II	1653.779	10					S11
Ni II	1655.749	1		$3d^8(^3P)4p - 3d^8(^3F)6d$	$^4D^\circ - ^2D$?	5/2 - 5/2	S11
Ni II	1655.903	0		$3d^74s^2 - 3d^74s4p$	$^2P - s^4D^\circ$	3/2 - 1/2	S11
Ni II	1656.840	3		$3d^74s^2 - 3d^8(^3F)6f$	$^2P - ^4P^\circ$	3/2 - 3/2	S11
Ni II	1657.313	10		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2P^\circ - ^2P$	1/2 - 1/2	S11
Ni II	1661.018	20		$3d^8(^1D)4p - 3d^8(^3F)5g$	$^2D^\circ - ^4P$	5/2 - 3/2	S11
Ni II	1662.423	20					S11
Ni II	1662.892	25					S11
Ni II	1663.563	16		$3d^74s^2 - 3d^8(^3F)7p$	$^2G - ^4F^\circ$	9/2 - 9/2	S11
Ni II	1664.316	10		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	3/2 - 1/2	S11
Ni II	1664.384	2		$3d^8(^1G)4p - 3d^8(^1G)6s$	$^2G^\circ - ^2G$	9/2 - 9/2	S11
Ni II	1664.459	8		$3d^74s^2 - 3d^74s4p$	$^2P - s^4D^\circ$	3/2 - 5/2	S11
Ni II	1665.477	4		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4D^\circ$	3/2 - 3/2	S11
Ni II	1666.045	0		$3d^74s^2 - 3d^8(^3F)5f$	$^4P - ^4S^\circ$	1/2 - 3/2	S11
Ni II	1666.828	4b		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2F^\circ - ^4F$	7/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1667.930	4		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2P^\circ - ^4P$	1/2 - 1/2	S11
Ni II	1668.122	1		$3d^8(^3F)4p - 3d^8(^1D)4d$	$^4D^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1670.935	7		$3d^74s^2 - 3d^8(^3F)5f$	$^2G - ^2H^\circ$	9/2 - 11/2	S11
Ni II	1671.514	12		$3d^74s^2 - 3d^8(^3F)8p$	$^2H - ^2G^\circ$	9/2 - 7/2	S11
Ni II	1674.000	10		$3d^8(^3F)4s - 3d^8(^1D)4p$	$^4F - ^2F^\circ$	9/2 - 7/2	S11
Ni II	1676.317	3		$3d^8(^3F)4p - 3d^8(^3F)6s$	$^2D^\circ - ^4F$	5/2 - 7/2	S11
Ni II	1677.297	1		$3d^8(^3P)4p - 3d^8(^1D)5d$	$^2S^\circ - ^2D$	1/2 - 3/2	S11
Ni II	1678.447	5		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2S^\circ - ^2P$	1/2 - 3/2	S11
Ni II	1678.476	10		$3d^74s^2 - 3d^74s4p$	$^4F - y^4G^\circ$	7/2 - 7/2	S11
Ni II	1678.941	1		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4S^\circ - ^2P$	3/2 - 3/2	S11
Ni II	1679.068	7		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4S^\circ - ^4P$	3/2 - 1/2	S11
Ni II	1684.952	70		$3d^74s^2 - 3d^74s4p$	$^2H - v^2G^\circ$	11/2 - 9/2	S11
Ni II	1685.465	8		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^2S^\circ - ^4P$	1/2 - 3/2	S11
Ni II	1685.965	9		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4S^\circ - ^4P$	3/2 - 3/2	S11
Ni II	1690.814	12		$3d^8(^3P)4p - 3d^8(^3P)6s$	$^4S^\circ - ^4P$	3/2 - 5/2	S11
Ni II	1691.231	11		$3d^74s^2 - 3d^74s4p$	$^2D - v^2D^\circ$	5/2 - 3/2	S11
Ni II	1693.177	10		$3d^74s^2 - 3d^8(^1D)6p$	$^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	1694.384	2		$3d^74s^2 - 3d^8(^1D)4f$	$^2P - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1695.594	8		$3d^74s^2 - 3d^74s4p$	$^4F - y^4G^\circ$	9/2 - 9/2	S11
Ni II	1698.400	4		$3d^74s^2 - 3d^8(^3F)6f$	$^2H - ^2I^\circ$	11/2 - 13/2	S11
Ni II	1699.772	2		$3d^74s^2 - 3d^8(^3P)4f$	$^2H - ^4G^\circ$	11/2 - 9/2	S11
Ni II	1700.665	1		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	9/2 - 7/2	S11
Ni II	1701.504	2		$3d^8(^3F)4p - 3d^8(^3P)4d$	$^2D^\circ - ^2F$	5/2 - 5/2	S11
Ni II	1702.150	1		$3d^74s^2 - 3d^8(^3F)5f$	$^2G - ^4H^\circ$	7/2 - 9/2	S11
Ni II	1702.265	7		$3d^74s^2 - 3d^74s4p$	$^4F - y^4G^\circ$	5/2 - 7/2	S11
Ni II	1703.408	25	5	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2D^\circ$	5/2 - 3/2	S11
Ni II	1705.581	11					S11
Ni II	1706.170	2		$3d^74s^2 - 3d^8(^3F)8p$	$^2H - ^4G^\circ$	11/2 - 11/2	S11
Ni II	1708.386	25		$3d^74s^2 - 3d^8(^3F)8p$	$^2H - ^4G^\circ$	11/2 - 9/2	S11
Ni II	1709.598	200	4	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2F^\circ$	5/2 - 5/2	S11
Ni II	1710.032	3		$3d^74s^2 - 3d^8(^3F)5f$	$^2G - ^4H^\circ$	9/2 - 11/2	S11
Ni II	1713.285	2		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	7/2 - 5/2	S11
Ni II	1717.700	3		$3d^74s^2 - 3d^8(^3P)4f$	$^2H - ^4D^\circ$	9/2 - 7/2	S11
Ni II	1719.906	5		$3d^74s^2 - 3d^8(^3P)4f$	$^2H - ^4G^\circ$	9/2 - 7/2	S11
Ni II	1721.092	15		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	9/2 - 9/2	S11
Ni II	1722.113	1		$3d^74s^2 - 3d^8(^3P)4f$	$^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	1722.646	2		$3d^74s^2 - 3d^74s4p$	$^2D - w^2P^\circ$	5/2 - 3/2	S11
Ni II	1723.859	20		$3d^74s^2 - 3d^74s4p$	$^2H - v^2G^\circ$	9/2 - 7/2	S11
Ni II	1723.957	1		$3d^8(^1G)4p - 3d^8(^1D)5d$	$^2F^\circ - ^2G$?	7/2 - 9/2	S11
Ni II	1726.324	4		$3d^74s^2 - 3d^74s4p$	$^2D - v^2D^\circ$	5/2 - 5/2	S11
Ni II	1728.022	1		$3d^74s^2 - 3d^8(^3F)6f$	$^2H - ^4I^\circ$	9/2 - 11/2	S11
Ni II	1734.904	8		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	7/2 - 7/2	S11
Ni II	1735.135	5		$3d^74s^2 - 3d^74s4p$	$^2D - w^2D^\circ$	5/2 - 3/2	S11
Ni II	1738.059	3		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	5/2 - 5/2	S11
Ni II	1738.311	12		$3d^74s^2 - 3d^8(^1G)5p$	$^2G - ^2G^\circ$	9/2 - 9/2	S11
Ni II	1738.549	1		$3d^74s^2 - 3d^74s4p$	$^4F - y^4F^\circ$	3/2 - 3/2	S11
Ni II	1738.793	4		$3d^74s^2 - 3d^8(^3F)6f$	$^2H - ^4I^\circ$	11/2 - 13/2	S11
Ni II	1740.619	30		$3d^74s^2 - 3d^74s4p$	$^2D - w^2D^\circ$	5/2 - 5/2	S11
Ni II	1741.547	1000	5	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2D^\circ$	5/2 - 5/2	S11
Ni II	1746.989	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^4F - ^4P^\circ$	7/2 - 5/2	S11
Ni II	1748.285	500	5	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2D^\circ$	3/2 - 3/2	S11
Ni II	1751.911	300	4	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2F^\circ$	5/2 - 7/2	S11
Ni II	1754.808	50	4	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2F^\circ$	3/2 - 5/2	S11
Ni II	1756.829	2		$3d^74s^2 - 3d^8(^3F)6f$	$^2D - ^4F^\circ$	5/2 - 7/2	S11
Ni II	1763.097	1		$3d^74s^2 - 3d^74s4p$	$^2H - w^2G^\circ$	11/2 - 9/2	S11
Ni II	1769.940	2		$3d^74s^2 - 3d^8(^1G)5p$	$^2G - ^2H^\circ$	9/2 - 11/2	S11
Ni II	1771.865	4		$3d^74s^2 - 3d^8(^1G)5p$	$^2G - ^2G^\circ$	7/2 - 7/2	S11
Ni II	1772.197	1		$3d^74s^2 - 3d^74s4p$	$^2D - w^2P^\circ$	3/2 - 3/2	S11
Ni II	1773.949	25	3	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2G^\circ$	5/2 - 7/2	S11
Ni II	1783.317	1		$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4F^\circ$	5/2 - 5/2	S11
Ni II	1788.485	100	5	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^2D^\circ$	3/2 - 5/2	S11
Ni II	1789.640	1		$3d^74s^2 - 3d^74s4p$	$^2D - v^4F^\circ$	5/2 - 5/2	S11
Ni II	1791.219	1		$3d^74s^2 - 3d^74s4p$	$^2D - w^2D^\circ$	3/2 - 5/2	S11
Ni II	1804.473	30	2	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4F^\circ$	5/2 - 7/2	S11
Ni II	1808.330	2		$3d^8(^3F)4p - 3d^8(^1D)4d$	$^2D^\circ - ^2F$	5/2 - 7/2	S11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni II	1812.065	30	24	$3d^8(^3F)4s - 3d^8(^1D)4p$	$^2F - ^2D°$	7/2 - 5/2	S11
Ni II	1820.916	1		$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4F°$	3/2 - 3/2	S11
Ni II	1825.068	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^2F°$	9/2 - 7/2	S11
Ni II	1832.144	1		$3d^8(^3F)4s - 3d^8(^1D)4p$	$^2F - ^2F°$	7/2 - 7/2	S11
Ni II	1832.566	1	2	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4F°$	3/2 - 5/2	S11
Ni II	1833.403	5		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^2G°$	9/2 - 9/2	S11
Ni II	1837.744	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^2G°$	7/2 - 7/2	S11
Ni II	1837.985	2		$3d^8(^1G)4p - 3d^8(^3F)5g$	$^2F° - ^2G$	7/2 - 9/2	S11
Ni II	1842.889	1		$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4G°$	5/2 - 7/2	S11
Ni II	1852.522	2		$3d^8(^3F)4p - 3d^8(^1D)4d$	$^2D° - ^2F$	3/2 - 5/2	S11
Ni II	1852.875	2		$3d^8(^3F)4s - 3d^8(^1D)4p$	$^2F - ^2P°$	5/2 - 3/2	S11
Ni II	1860.689	1		$3d^74s^2 - 3d^8(^3F)7p$	$^2H - ^4F°$	11/2 - 9/2	S11
Ni II	1860.796	1		$3d^8(^3F)4s - 3d^8(^1D)4p$	$^2F - ^2D°$	5/2 - 5/2	S11
Ni II	1864.558	6		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^2F°$	7/2 - 7/2	S11
Ni II	1865.637	5		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	9/2 - 7/2	S11
Ni II	1866.499	5		$3d^74s^2 - 3d^8(^3P)5p$	$^4P - ^4S°$	5/2 - 3/2	S11
Ni II	1870.460	8		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	7/2 - 5/2	S11
Ni II	1875.069	3		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	5/2 - 3/2	S11
Ni II	1876.180	1		$3d^74s^2 - 3d^8(^3P)5p$	$^4P - ^4S°$	3/2 - 3/2	S11
Ni II	1876.418	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4G°$	7/2 - 7/2	S11
Ni II	1877.838	40		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4G°$	9/2 - 9/2	S11
Ni II	1878.103	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4G°$	5/2 - 5/2	S11
Ni II	1881.155	25	24	$3d^8(^3F)4s - 3d^8(^1D)4p$	$^2F - ^2D°$	5/2 - 3/2	S11
Ni II	1883.170	4		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4G°$	9/2 - 11/2	S11
Ni II	1885.525	20		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	9/2 - 9/2	S11
Ni II	1886.043	12	23	$3d^8(^3F)4s - 3d^8(^3P)4p$	$^2F - ^4P°$	7/2 - 5/2	S11
Ni II	1893.600	1		$3d^8(^1D)4s - 3d^8(^1G)4p$	$^2D - ^2F°$	5/2 - 7/2	S11
Ni II	1895.082	6		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	3/2 - 3/2	S11
Ni II	1896.147	2	1	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4D°$	5/2 - 5/2	S11
Ni II	1900.025	4		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	5/2 - 5/2	S11
Ni II	1900.865	15		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	9/2 - 7/2	S11
Ni II	1900.921	2		$3d^8(^1D)4s - 3d^8(^1G)4p$	$^2D - ^2F°$	3/2 - 5/2	S11
Ni II	1907.612	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	3/2 - 1/2	S11
Ni II	1908.326	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	5/2 - 3/2	S11
Ni II	1912.146	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	7/2 - 5/2	S11
Ni II	1918.37 P		1	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4D°$	3/2 - 3/2	K8
Ni II	1920.582	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	3/2 - 5/2	S11
Ni II	1927.707	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	7/2 - 9/2	S11
Ni II	1929.063	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	3/2 - 3/2	S11
Ni II	1937.661	1		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4F°$	5/2 - 7/2	S11
Ni II	1938.579	2		$3d^8(^3F)4s - 3d^8(^3P)4p$	$^2F - ^4P°$	5/2 - 3/2	S11
Ni II	1939.56 P		1	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4D°$	5/2 - 7/2	K8
Ni II	1939.901	10					S11
Ni II	1943.060	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	5/2 - 5/2	S11
Ni II	1943.744	2		$3d^74s^2 - 3d^8(^3F)5p$	$^4F - ^4D°$	7/2 - 7/2	S11
Ni II	1951.92 P		1	$3d^9 - 3d^8(^3F)4p$	$g^2D - ^4D°$	3/2 - 5/2	K8
Ni II	1953.407	40	34	$3d^8(^1D)4s - 3d^8(^3P)4p$	$^2D - ^4S°$	5/2 - 3/2	S11
Ni II	1954.709	1		$3d^74s^2 - 3d^8(^1G)5p$	$^2H - ^2G°$	11/2 - 9/2	S11
Ni II	1965.357	8	44	$3d^8(^3P)4s - 3d^8(^1G)4p$	$^4P - ^2F°$	5/2 - 7/2	S11
Ni II	1980.010	15	34	$3d^8(^1D)4s - 3d^8(^3P)4p$	$^2D - ^4S°$	3/2 - 3/2	S11
Ni II	1980.699	3		$3d^8(^1D)4s - 3d^8(^3P)4p$	$^2D - ^2S°$	3/2 - 1/2	S11
Ni II	1993.570	2		$3d^8(^3P)4p - 3d^8(^3P)4d$	$^4P° - ^4P$	5/2 - 5/2	S11
Ni II	1993.906	1		$3d^8(^3P)4p - 3d^8(^3P)4d$	$^4P° - ^4P$	3/2 - 5/2	S11
Ni II	1995.723	15	33	$3d^8(^1D)4s - 3d^8(^3P)4p$	$^2D - ^2P°$	3/2 - 1/2	S11

NICKEL III (Ni^{2+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8$ $^3F_4$ (26 electrons)

Ionization Potential 283 700 cm^{-1}; 35.17 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	615.164	0		$3d^8 - 3d^7(b^2D)4p$	$a^1D - w^3P^\circ$	2 - 1	S9
Ni III	615.554	5		$3d^8 - 3d^7(b^2D)4p$	$a^1D - w^3P^\circ$	2 - 2	S9
Ni III	625.306	15		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	2 - 1	S9
Ni III	625.682	100		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	2 - 2	S9
Ni III	625.938	15		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	1 - 0	S9
Ni III	626.548	10		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	1 - 1	S9
Ni III	626.923	30		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	1 - 2	S9
Ni III	627.541	15		$3d^8 - 3d^7(b^2D)4p$	$a^3P - w^3P^\circ$	0 - 1	S9
Ni III	630.711	500		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$a^5F - u^3F^\circ$?	3 - 3	S9
Ni III	635.406	1		$3d^8 - 3d^7(^2F)4p$	$ga^3F - x^1G^\circ$	4 - 4	S9
Ni III	637.057	15		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	4 - 3	S9
Ni III	637.535	200		$3d^8 - 3d^7(^2F)4p$	$ga^3F - v^3D^\circ$	4 - 3	S9
Ni III	639.338	10		$3d^8 - 3d^7(b^2D)4p$	$a^3P - u^3D^\circ$	2 - 2	S9
Ni III	641.689	5		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	4 - 4	S9
Ni III	641.866	100		$3d^8 - 3d^7(^2F)4p$	$ga^3F - v^3D^\circ$	3 - 2	S9
Ni III	642.611	1		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	3 - 3	S9
Ni III	644.488	0		$3d^8 - 3d^7(^2F)4p$	$ga^3F - y^1D^\circ$	3 - 2	S9
Ni III	644.948	20					S9
Ni III	645.305	30		$3d^8 - 3d^7(^2F)4p$	$ga^3F - v^3D^\circ$	2 - 1	S9
Ni III	645.632	2		$3d^8 - 3d^7(^2F)4p$	$ga^3F - v^3D^\circ$	2 - 2	S9
Ni III	646.890	1		$3d^8 - 3d^7(^2F)4p$	$ga^3F - v^3D^\circ$	2 - 3	S9
Ni III	647.319	0		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	3 - 4	S9
Ni III	648.271	3		$3d^8 - 3d^7(^2F)4p$	$ga^3F - y^1D^\circ$	2 - 2	S9
Ni III	649.006	2		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	3 - 2	S9
Ni III	650.701	2		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	5 - 4	S9
Ni III	652.652	30		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	5 - 5	S9
Ni III	652.837	1		$3d^8 - 3d^7(^2F)4p$	$ga^3F - w^3F^\circ$	2 - 2	S9
Ni III	653.496	10					S9
Ni III	654.445	10					S9
Ni III	654.768	5		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	4 - 4	S9
Ni III	655.120	0		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - u^3F^\circ$	4 - 3	S9
Ni III	656.431	1		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	3 - 3	S9
Ni III	656.724	1		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	4 - 5	S9
Ni III	657.304	1		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - u^3F^\circ$	3 - 2	S9
Ni III	657.668	0		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	2 - 2	S9
Ni III	657.998	0		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	3 - 4	S9
Ni III	658.810	0		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - y^5F^\circ$	2 - 3	S9
Ni III	660.079	30		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - u^3F^\circ$	4 - 4	S9
Ni III	660.620	10		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - u^3F^\circ$	3 - 3	S9
Ni III	661.061	5		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - u^3F^\circ$	2 - 2	S9
Ni III	662.366	200		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - t^3D^\circ$	4 - 3	S9
Ni III	663.568	150		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	5 - 4	S9
Ni III	664.851	100		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - t^3D^\circ$	3 - 2	S9
Ni III	666.477	50		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	4 - 3	S9
Ni III	666.585	30		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - t^3D^\circ$	2 - 1	S9
Ni III	667.783	5h		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	4 - 4	S9
Ni III	667.976	1		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - t^3D^\circ$	3 - 3	S9
Ni III	668.195	10		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	3 - 2	S9
Ni III	668.697	1		$3d^7(^4F)4s - 3d^64s(^4D)4p$	$b^3F - t^3D^\circ$	2 - 2	S9
Ni III	669.458	5		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	2 - 1	S9
Ni III	669.755	5		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	3 - 3	S9
Ni III	670.440	0		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	1 - 0	S9
Ni III	670.640	2		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	2 - 2	S9
Ni III	671.065	0		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$a^5F - x^5D^\circ$	1 - 1	S9
Ni III	676.941	500					S9
Ni III	682.947	5		$3d^7(^4F)4s - 3d^64s(^6D)4p$	$b^3F - y^5F^\circ$	4 - 3	S9
Ni III	683.186	10					S9
Ni III	683.455	10		$3d^8 - 3d^7(^2H)4p$	$ga^3F - y^1H^\circ$?	4 - 5	S9
Ni III	683.590	10					S9
Ni III	683.918	10					S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	689.210	100					S9
Ni III	700.168	200		$3d^8 - 3d^7(^2F)4p$	$a^1D - v^3D^\circ$	2 - 3	S9
Ni III	701.361	1		$3d^8 - 3d^7(^2H)4p$	$ga^3F - y^3H^\circ$	4 - 5	S9
Ni III	701.778	100		$3d^8 - 3d^7(^2F)4p$	$a^1D - y^1D^\circ$	2 - 2	S9
Ni III	705.991	0		$3d^8 - 3d^7(^2H)4p$	$ga^3F - y^3H^\circ$	3 - 4	S9
Ni III	707.754	0		$3d^8 - 3d^7(^2D)4p$	$ga^3F - x^3P^\circ$	2 - 2	S9
Ni III	708.853	5		$3d^8 - 3d^7(^2D)4p$	$ga^3F - z^1D^\circ$	3 - 2	S9
Ni III	709.027	100					S9
Ni III	711.518	20		$3d^8 - 3d^7(^2D)4p$	$ga^3F - x^3F^\circ$	4 - 3	S9
Ni III	711.772	100		$3d^8 - 3d^7(^2F)4p$	$a^3P - v^3D^\circ$	2 - 2	S9
Ni III	712.976	100		$3d^8 - 3d^7(^2F)4p$	$a^3P - v^3D^\circ$	1 - 1	S9
Ni III	713.332	300		$3d^8 - 3d^7(^2F)4p$	$a^3P - v^3D^\circ$	2 - 3	S9
Ni III	713.385	300		$3d^8 - 3d^7(^2F)4p$	$a^3P - v^3D^\circ$	1 - 2	S9
Ni III	714.254	100		$3d^8 - 3d^7(^2F)4p$	$a^3P - v^3D^\circ$	0 - 1	S9
Ni III	714.965	1		$3d^8 - 3d^7(^2F)4p$	$a^3P - y^1D^\circ$	2 - 2	S9
Ni III	715.563	100		$3d^8 - 3d^7(^2P)4p$	$ga^3F - y^3P^\circ$	3 - 2	S9
Ni III	716.608	20		$3d^8 - 3d^7(^2F)4p$	$a^3P - y^1D^\circ$	1 - 2	S9
Ni III	716.708	20		$3d^8 - 3d^7(^2F)4p$	$a^3P - y^1D^\circ$	1 - 2	S9
Ni III	718.287	10					S9
Ni III	718.480	500b		$3d^8 - 3d^7(^2D)4p$	$ga^3F - x^3F^\circ$	3 - 3	S9
Ni III	718.674	100		$3d^8 - 3d^7(^2P)4p$	$ga^3F - y^3P^\circ$	2 - 1	S9
Ni III	720.337	15		$3d^8 - 3d^7(^2D)4p$	$ga^3F - x^3F^\circ$	3 - 4	S9
Ni III	721.259	200		$3d^8 - 3d^7(^2D)4p$	$ga^3F - x^3F^\circ$	2 - 2	S9
Ni III	721.418	100		$3d^8 - 3d^7(^2P)4p$	$ga^3F - z^1P^\circ$	2 - 1	S9
Ni III	722.094	300	12	$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	4 - 3	S9
Ni III	724.471	20		$3d^8 - 3d^7(^2H)4p$	$ga^3F - x^3G^\circ$	4 - 4	S9
Ni III	725.196	250	12	$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	3 - 2	S9
Ni III	727.313	15		$3d^8 - 3d^7(^2H)4p$	$ga^3F - x^3G^\circ$	3 - 3	S9
Ni III	729.249	100	12	$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	3 - 3	S9
Ni III	729.820	500		$3d^8 - 3d^7(^2H)4p$	$ga^3F - x^3G^\circ$	4 - 5	S9
Ni III	730.014	50		$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	2 - 2	S9
Ni III	730.109	250	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	4 - 3	S9
Ni III	731.481	150		$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	2 - 1	S9
Ni III	731.696	400		$3d^8 - 3d^7(^2H)4p$	$ga^3F - x^3G^\circ$	3 - 4	S9
Ni III	732.158	300		$3d^8 - 3d^7(^2H)4p$	$ga^3F - x^3G^\circ$	2 - 3	S9
Ni III	733.807	20		$3d^7(^4P)4s - 3d^64s(^4D)4p$	$b^3P - u^3F^\circ$?	1 - 2	S9
Ni III	734.100	5	12	$3d^8 - 3d^7(^2D)4p$	$ga^3F - w^3D^\circ$	2 - 3	S9
Ni III	737.419	50h	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	3 - 3	S9
Ni III	738.258	200	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	3 - 2	S9
Ni III	740.235	100	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	2 - 1	S9
Ni III	740.620	30		$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^1F^\circ$	4 - 3	S9
Ni III	742.391	3	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	2 - 3	S9
Ni III	743.275	2	11	$3d^8 - 3d^7(^2P)4p$	$ga^3F - x^3D^\circ$	2 - 2	S9
Ni III	743.955	100		$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	4 - 4	S9
Ni III	744.400	5		$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	4 - 3	S9
Ni III	744.784	100		$3d^8 - 3d^7(^2F)4p$	$a^1G - x^1G^\circ$	4 - 4	S9
Ni III	745.058	40		$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^1H^\circ$	4 - 5	S9
Ni III	746.319	50h		$3d^8 - 3d^7(^4P)4p$	$ga^3F - z^3P^\circ$	3 - 2	S9
Ni III	747.015	30		$3d^8 - 3d^7(^2F)4p$	$a^1G - w^3F^\circ$	4 - 3	S9
Ni III	747.213	20		$3d^8 - 3d^7(^4P)4p$	$ga^3F - z^3P^\circ$	2 - 1	S9
Ni III	747.697	3		$3d^8 - 3d^7(^2F)4p$	$a^1G - v^3D^\circ$	4 - 3	S9
Ni III	747.989	300	9	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	4 - 5	S9
Ni III	749.677	200	8	$3d^8 - 3d^7(^4P)4p$	$ga^3F - z^5P^\circ$	4 - 3	S9
Ni III	750.053	300		$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^1G^\circ$	4 - 4	S9
Ni III	750.983	150	4	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	4 - 3	S9
Ni III	751.333	150	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$	4 - 3	S9
Ni III	751.573	150	9	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	3 - 4	S9
Ni III	752.023	200	9	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	3 - 3	S9
Ni III	752.603	100	4	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	3 - 2	S9
Ni III	753.252	30		$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^1F^\circ$	2 - 3	S9
Ni III	753.378	10h		$3d^8 - 3d^7(^2F)4p$	$a^1G - w^3F^\circ$	4 - 4	S9
Ni III	756.687	100	5	$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^3H^\circ$	4 - 4	S9
Ni III	757.201	50	9	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3G^\circ$	2 - 3	S9
Ni III	757.397	5		$3d^8 - 3d^7(^4P)4p$	$ga^3F - z^5P^\circ$	3 - 3	S9
Ni III	757.795	300	4	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	2 - 2	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	758.039	150		$3d^8 - 3d^7(^2D)4p$	$a^1D - y^1P^\circ$	2 - 1	S9
Ni III	758.733	250	4	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	3 - 3	S9
Ni III	758.773	250	4	$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	4 - 4	S9
Ni III	759.098	100	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$	3 - 3	S9
Ni III	760.024	15	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$?	2 - 1	S9
Ni III	760.452	10		$3d^8 - 3d^7(^2G)4p$	$ga^3F - z^3H^\circ$	4 - 5	S9
Ni III	760.684	5	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$?	3 - 2	S9
Ni III	762.951	5		$3d^8 - 3d^7(^4P)4p$	$ga^3F - z^5P^\circ$	2 - 1	S9
Ni III	764.014	100		$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	2 - 3	S9
Ni III	764.354	50	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$	2 - 3	S9
Ni III	765.726	50		$3d^8 - 3d^7(^2D)4p$	$a^1D - x^3P^\circ$	2 - 1	S9
Ni III	766.000	5	6	$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^3D^\circ$	2 - 2	S9
Ni III	766.693	100		$3d^8 - 3d^7(^2G)4p$	$ga^3F - y^3F^\circ$	3 - 4	S9
Ni III	767.400	5		$3d^8 - 3d^7(^4P)4p$	$ga^3F - y^5D^\circ$	4 - 4	S9
Ni III	770.216	400		$3d^8 - 3d^7(^2D)4p$	$a^1D - y^1F^\circ$	2 - 3	S9
Ni III	772.040	200		$3d^8 - 3d^7(^2D)4p$	$a^1D - x^3P^\circ$	2 - 2	S9
Ni III	773.464	100		$3d^8 - 3d^7(^2D)4p$	$a^3P - y^1P^\circ$	2 - 1	S9
Ni III	775.364	5		$3d^8 - 3d^7(^2D)4p$	$a^3P - y^1P^\circ$	1 - 1	S9
Ni III	776.884	5		$3d^8 - 3d^7(^2D)4p$	$a^3P - y^1P^\circ$	0 - 1	S9
Ni III	777.181	100					S9
Ni III	778.806	500		$3d^8 - 3d^7(^2D)4p$	$a^1D - z^1D^\circ$	2 - 2	S9
Ni III	780.572	30		$3d^7(a^2D)4s - 3d^64s(^4D)4p$	$b^1D - u^3F^\circ$?	2 - 2	S9
Ni III	781.486	50		$3d^8 - 3d^7(^2D)4p$	$a^3P - x^3P^\circ$	2 - 1	S9
Ni III	783.419	30		$3d^8 - 3d^7(^2D)4p$	$a^3P - x^3P^\circ$	1 - 1	S9
Ni III	785.020	200d		$3d^8 - 3d^7(^2P)4p$	$a^1D - y^3P^\circ$	2 - 1	S9
Ni III	786.145	20		$3d^8 - 3d^7(^2D)4p$	$a^3P - y^1F^\circ$	2 - 3	S9
Ni III	788.039	300		$3d^8 - 3d^7(^2D)4p$	$a^3P - x^3P^\circ$	2 - 2	S9
Ni III	788.298	200		$3d^8 - 3d^7(^2P)4p$	$a^1D - z^1P^\circ$	2 - 1	S9
Ni III	790.000	20		$3d^8 - 3d^7(^2D)4p$	$a^3P - x^3P^\circ$	1 - 2	S9
Ni III	790.450	20		$3d^8 - 3d^7(^2D)4p$	$a^1D - x^3F^\circ$	2 - 3	S9
Ni III	797.092	30		$3d^8 - 3d^7(^2D)4p$	$a^3P - z^1D^\circ$	1 - 2	S9
Ni III	798.572	2		$3d^8 - 3d^7(^2D)4p$	$a^1D - w^3D^\circ$	2 - 2	S9
Ni III	800.332	100		$3d^8 - 3d^7(^2D)4p$	$a^1D - w^3D^\circ$	2 - 1	S9
Ni III	801.145	20		$3d^8 - 3d^7(^2H)4p$	$a^1D - x^3G^\circ$	2 - 3	S9
Ni III	801.591	100		$3d^8 - 3d^7(^2P)4p$	$a^3P - y^3P^\circ$	2 - 1	S9
Ni III	803.490	20		$3d^8 - 3d^7(^2D)4p$	$a^1D - w^3D^\circ$	2 - 3	S9
Ni III	803.612	3		$3d^8 - 3d^7(^2P)4p$	$a^3P - y^3P^\circ$	1 - 1	S9
Ni III	805.007	200		$3d^8 - 3d^7(^2P)4p$	$a^3P - z^1P^\circ$	2 - 1	S9
Ni III	805.263	20		$3d^8 - 3d^7(^2P)4p$	$a^3P - y^3P^\circ$	0 - 1	S9
Ni III	807.055	100		$3d^8 - 3d^7(^2P)4p$	$a^3P - z^1P^\circ$	1 - 1	S9
Ni III	807.213	30		$3d^8 - 3d^7(^2D)4p$	$a^3P - x^3F^\circ$	2 - 3	S9
Ni III	808.711	10		$3d^8 - 3d^7(^2P)4p$	$a^3P - z^1P^\circ$	0 - 1	S9
Ni III	811.568	500		$3d^8 - 3d^7(^2H)4p$	$a^1G - y^1H^\circ$	4 - 5	S9
Ni III	813.426	10		$3d^8 - 3d^7(^2P)4p$	$a^1D - x^3D^\circ$	2 - 3	S9
Ni III	815.718	5h		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	2 - 2	S9
Ni III	817.544	5		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	2 - 1	S9
Ni III	817.833	20		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	1 - 2	S9
Ni III	818.389	1		$3d^8 - 3d^7(^2H)4p$	$a^3P - x^3G^\circ$	2 - 3	S9
Ni III	819.237	10		$3d^8 - 3d^7(^4P)4p$	$a^1D - z^3P^\circ$	2 - 1	S9
Ni III	819.665	5		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	1 - 1	S9
Ni III	820.851	50		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	2 - 3	S9
Ni III	821.373	15		$3d^8 - 3d^7(^2D)4p$	$a^3P - w^3D^\circ$	0 - 1	S9
Ni III	824.292	20		$3d^8 - 3d^7(^4P)4p$	$a^1D - z^3P^\circ$	2 - 2	S9
Ni III	825.300	10h		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	1 - 0	S9
Ni III	826.138	500		$3d^8 - 3d^7(^2H)4p$	$a^1G - y^1G^\circ$	4 - 4	S9
Ni III	826.501	200		$3d^8 - 3d^7(^2G)4p$	$a^1D - z^1F^\circ$	2 - 3	S9
Ni III	828.109	100		$3d^8 - 3d^7(^2D)4p$	$a^1G - y^1F^\circ$	4 - 3	S9
Ni III	828.491	3		$3d^8 - 3d^7(^2P)4p$	$a^3P - x^3D^\circ$	2 - 1	S9
Ni III	830.666	10		$3d^8 - 3d^7(^2P)4p$	$a^3P - x^3D^\circ$	1 - 1	S9
Ni III	831.229	100		$3d^8 - 3d^7(^2P)4p$	$a^3P - x^3D^\circ$	2 - 3	S9
Ni III	831.487	5		$3d^7(^4F)4s - 3d^7(b^2D)4p$	$a^5F - w^3P^\circ$?	1 - 1	S9
Ni III	832.284	5		$3d^8 - 3d^7(^2P)4p$	$a^3P - x^3D^\circ$	2 - 2	S9
Ni III	834.058	20		$3d^8 - 3d^7(^2H)4p$	$a^1G - y^3H^\circ$	4 - 4	S9
Ni III	837.025	20		$3d^8 - 3d^7(^2H)4p$	$a^1G - y^3H^\circ$	4 - 5	S9
Ni III	837.266	50		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	2 - 1	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	839.478	5		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	1 - 1	S9
Ni III	841.256	20		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	0 - 1	S9
Ni III	841.825	2		$3d^8 - 3d^7(^4P)4p$	$a^1D - y^3D^\circ$	2 - 2	S9
Ni III	842.142	500	3	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3D^\circ$	4 - 3	S9
Ni III	842.546	50		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	2 - 2	S9
Ni III	844.787	50		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3P^\circ$	1 - 2	S9
Ni III	844.859	100		$3d^8 - 3d^7(^2G)4p$	$a^3P - z^1F^\circ$	2 - 3	S9
Ni III	845.242	400	3	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3D^\circ$	3 - 2	S9
Ni III	847.433	300	3	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3D^\circ$	2 - 1	S9
Ni III	849.810	5		$3d^8 - 3d^7(^2G)4p$	$a^3P - y^3G^\circ$	2 - 3	S9
Ni III	851.521	15		$3d^8 - 3d^7(^2D)4p$	$a^1G - x^3F^\circ$	4 - 3	S9
Ni III	851.788	15		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3D^\circ$	2 - 2	S9
Ni III	852.867	10h		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	4 - 3	S9
Ni III	853.398	5		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^3D^\circ$	2 - 1	S9
Ni III	855.719	2		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^3D^\circ$	1 - 1	S9
Ni III	855.922	100d		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^5P^\circ$	2 - 2	S9
Ni III	856.506	50	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	3 - 2	S9
Ni III	856.684	50		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^5P^\circ$	2 - 3	S9
Ni III	857.087	200	1	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3G^\circ$	4 - 4	S9
Ni III	857.550	50h		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^3D^\circ$	0 - 1	S9
Ni III	858.198	20		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^5P^\circ$	1 - 2	S9
Ni III	858.861	20h		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^3D^\circ$	2 - 3	S9
Ni III	859.387	20		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^5P^\circ$	1 - 1	S9
Ni III	859.854	50					S9
Ni III	860.238	150		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3G^\circ$	3 - 3	S9
Ni III	860.642	300	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	4 - 4	S9
Ni III	860.905	10		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^3D^\circ$	2 - 2	S9
Ni III	862.882	300	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	3 - 3	S9
Ni III	863.217	300	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	2 - 2	S9
Ni III	867.023	50	1	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3G^\circ$	2 - 3	S9
Ni III	867.194	100	1	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3G^\circ$	3 - 4	S9
Ni III	867.508	300	1	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3G^\circ$	4 - 5	S9
Ni III	869.702	200	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	2 - 3	S9
Ni III	869.926	10		$3d^8 - 3d^7(^2H)4p$	$a^1G - z^3I^\circ$	4 - 5	S9
Ni III	870.845	200	2	$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^3F^\circ$	3 - 4	S9
Ni III	875.641	150		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3S^\circ$	2 - 1	S9
Ni III	877.852 P			$3d^8 - 3d^7(^2H)4p$	$a^1G - x^3G^\circ$	4 - 5	S9
Ni III	878.078	30		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3S^\circ$	1 - 1	S9
Ni III	879.471	50		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5G^\circ$	4 - 4	S9
Ni III	880.028	20		$3d^8 - 3d^7(^4P)4p$	$a^3P - z^3S^\circ$	0 - 1	S9
Ni III	882.642	20		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^5D^\circ$	2 - 1	S9
Ni III	883.849	50		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5G^\circ$	4 - 5	S9
Ni III	885.103	3		$3d^8 - 3d^7(^4P)4p$	$a^3P - y^5D^\circ$	1 - 1	S9
Ni III	885.455	2		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5D^\circ$	4 - 3	S9
Ni III	886.924	10		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5G^\circ$	3 - 3	S9
Ni III	890.131	5		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5G^\circ$	3 - 4	S9
Ni III	892.041	3		$3d^8 - 3d^7(^4F)4p$	$ga^3F - z^5G^\circ$	2 - 2	S9
Ni III	893.533	50		$3d^8 - 3d^7(^2G)4p$	$a^1G - z^1F^\circ$	4 - 3	S9
Ni III	900.008	100		$3d^8 - 3d^7(^2G)4p$	$a^1G - z^1H^\circ$	4 - 5	S9
Ni III	904.294	50		$3d^8 - 3d^7(^2G)4p$	$a^1G - y^3G^\circ$	4 - 5	S9
Ni III	968.100	20	13	$3d^8 - 3d^7(^4F)4p$	$a^3P - z^3D^\circ$	1 - 1	S9
Ni III	970.478	50	13	$3d^8 - 3d^7(^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	S9
Ni III	970.790	20	13	$3d^8 - 3d^7(^4F)4p$	$a^3P - z^3D^\circ$	2 - 2	S9
Ni III	973.786	300	13	$3d^8 - 3d^7(^4F)4p$	$a^3P - z^3D^\circ$	1 - 2	S9
Ni III	979.589	400	13	$3d^8 - 3d^7(^4F)4p$	$a^3P - z^3D^\circ$	2 - 3	S9
Ni III	1305.344	100		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	5 - 4	S9
Ni III	1321.804	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	4 - 4	S9
Ni III	1328.084	75		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	4 - 3	S9
Ni III	1330.787	2		$3d^7(^2F)4s - 3d^7(b^2D)4p$	$a^1F - v^3F^\circ$?	3 - 3	S9
Ni III	1341.421	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	3 - 3	S9
Ni III	1342.148	50		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	3 - 2	S9
Ni III	1351.256	30		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	2 - 1	S9
Ni III	1352.052	20		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	2 - 2	S9
Ni III	1353.512	20		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	1 - 0	S9
Ni III	1357.802	50		$3d^7(^4F)4s - 3d^7(^4P)4p$	$a^5F - y^5D^\circ$	1 - 1	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1362.783	3		$3d^7(^2D)4s - 3d^7(^2F)4p$	$a^3D - v^3D^\circ$?	1 - 1	S9
Ni III	1374.491	5		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 8$	4 - 5	S9
Ni III	1374.660	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$b^3F - z^3P^\circ$	3 - 2	S9
Ni III	1376.183	15					S9
Ni III	1382.077	10		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3G^\circ$	4 - 5	S9
Ni III	1387.870	3		$3d^7(^4F)4s - 3d^7(^4P)4p$	$b^3F - z^5P^\circ$	4 - 3	S9
Ni III	1388.629	5					S9
Ni III	1389.149	1		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - z^1G^\circ$	4 - 4	S9
Ni III	1389.735	20		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 7$	4 - 4	S9
Ni III	1392.377	30		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3F^\circ$	4 - 3	S9
Ni III	1395.459	10					S9
Ni III	1401.214	15		$3d^7(^4P)4s - 3d^7(^2D)4p$	$a^5P - z^1D^\circ$	3 - 2	S9
Ni III	1403.113	15		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5F^\circ - e^5F$	5 - 4	S9
Ni III	1405.279	10					S9
Ni III	1405.421	10		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5D^\circ - e^3F$?	4 - 4	S9
Ni III	1406.250	50		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5F^\circ - e^5F$	4 - 4	S9
Ni III	1409.000	15					S9
Ni III	1409.974	5		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5D^\circ - e^3F$?	3 - 3	S9
Ni III	1410.126	10					S9
Ni III	1410.344	15					S9
Ni III	1410.446	3		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 6$	3 - 3	S9
Ni III	1410.642	5					S9
Ni III	1412.304	50		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5F^\circ - e^5F$	5 - 5	S9
Ni III	1413.211	5		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3F^\circ$	2 - 2	S9
Ni III	1414.389	20					S9
Ni III	1414.916	15		$3d^7(^2G)4s - 3d^7(^2H)4p$	$a^3G - y^1H^\circ$?	4 - 5	S9
Ni III	1415.467	3		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5F^\circ - e^5F$	4 - 5	S9
Ni III	1415.909	5					S9
Ni III	1416.956	75		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 5$	5 - 6	S9
Ni III	1417.249	2		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 4$	5 - 5	S9
Ni III	1417.387	2		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3F^\circ$	3 - 3	S9
Ni III	1417.841	10					S9
Ni III	1418.292	5		$3d^7(a^2D)4s - 3d^7(^2F)4p$	$b^1D - v^3D^\circ$?	2 - 2	S9
Ni III	1419.382	10		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3F^\circ$	4 - 4	S9
Ni III	1420.448	75		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 4$	4 - 4	S9
Ni III	1421.082	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$b^3F - y^3D^\circ$?	2 - 1	S9
Ni III	1423.722	10					S9
Ni III	1424.511	100		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 3$	4 - 5	S9
Ni III	1425.737	5					S9
Ni III	1427.087	5					S9
Ni III	1427.639	20		$3d^7(^4P)4s - 3d^7(^2P)4p$	$a^5P - y^3P^\circ$	3 - 2	S9
Ni III	1427.914	3		$3d^7(^4P)4s - 3d^7(^2P)4p$	$a^5P - y^3P^\circ$	2 - 1	S9
Ni III	1428.870	200		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5G^\circ - 8$	5 - 4	S9
Ni III	1434.133	30		$3d^7(^4P)4s - 3d^7(^2P)4p$	$a^5P - y^3P^\circ$	2 - 2	S9
Ni III	1434.306	200		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 2$	5 - 4	S9
Ni III	1435.609	10					S9
Ni III	1438.152	2		$3d^7(^4P)4s - 3d^7(^2D)4p$	$a^5P - x^3F^\circ$	2 - 2	S9
Ni III	1439.809	20					S9
Ni III	1442.235	5					S9
Ni III	1445.374	40		$3d^7(^4F)4s - 3d^7(^2G)4p$	$b^3F - y^3F^\circ$	3 - 4	S9
Ni III	1446.748	15	35	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5D^\circ - e^5F$	4 - 5	S9
Ni III	1448.175	30		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 1$	5 - 4	S9
Ni III	1451.504	200		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5F^\circ - 1$	4 - 4	S9
Ni III	1452.532	20					S9
Ni III	1453.882	50					S9
Ni III	1457.430	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$b^3F - y^5D^\circ$	4 - 3	S9
Ni III	1457.575	10					S9
Ni III	1457.829	50					S9
Ni III	1458.284	5					S9
Ni III	1461.649	10		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5G^\circ - 6$	4 - 4	S9
Ni III	1462.239	5					S9
Ni III	1464.989	5					S9
Ni III	1465.606	10	36	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5G^\circ - e^5F$	6 - 5	S9
Ni III	1466.027	5					S9
Ni III	1469.836	3		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5D^\circ - 2$	4 - 4	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1470.642	2		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5G^\circ - 5$	6 - 5	S9
Ni III	1473.939	5					S9
Ni III	1474.402	5					S9
Ni III	1475.368	15	37	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3G^\circ - e^3F$	5 - 4	S9
Ni III	1475.662	5					S9
Ni III	1477.801	10	38	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3F^\circ - e^3F$	4 - 3	S9
Ni III	1478.252	10		$3d^7(^4P)4s - 3d^7(^2D)4p$	$b^3P - y^1P^\circ$	0 - 1	S9
Ni III	1478.854	10					S9
Ni III	1483.044	10		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5G^\circ - 3$	5 - 4	S9
Ni III	1484.268	3		$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^5G^\circ - e^5F$?	3 - 4	S9
Ni III	1488.424	3	37	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3G^\circ - e^3F$	4 - 3	S9
Ni III	1491.111	1		$3d^7(^2G)4s - 3d^7(^2H)4p$	$a^3G - y^3H^\circ$	5 - 6	S9
Ni III	1491.309	2		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^3G^\circ - 7$	5 - 4	S9
Ni III	1492.622	30		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^5D^\circ - 2$	3 - 4	S9
Ni III	1492.990	30					S9
Ni III	1495.641	20	38	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3F^\circ - e^3F$	4 - 4	S9
Ni III	1498.338	5					S9
Ni III	1501.311	5	38	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3F^\circ - e^3F$	3 - 3	S9
Ni III	1505.165	5		$3d^7(^4F)4s - 3d^7(^4P)4p$	$b^3F - y^5D^\circ$?	2 - 2	S9
Ni III	1506.518	1	37	$3d^7(^4F)4p - 3d^7(^4F)5s$	$z^3G^\circ - e^3F$	4 - 4	S9
Ni III	1512.046	10		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^3F^\circ - 7$	4 - 5	S9
Ni III	1526.305	5		$3d^7(^4F)4p - 3d^7(^4F)4d$	$z^3G^\circ - 8$?	3 - 4	S9
Ni III	1536.246	5					S9
Ni III	1540.759	50		$3d^7(^2G)4s - 3d^7(^2H)4p$	$b^1G - y^1G^\circ$	4 - 4	S9
Ni III	1547.641	20		$3d^7(^2G)4s - 3d^7(^2D)4p$	$b^1G - y^1F^\circ$	4 - 3	S9
Ni III	1552.365	10		$3d^7(^4P)4s - 3d^7(^2D)4p$	$b^3P - x^3P^\circ$	2 - 2	S9
Ni III	1555.598	2		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^3P^\circ$	3 - 2	S9
Ni III	1568.569	5		$3d^7(^2G)4s - 3d^7(^2H)4p$	$b^1G - y^3H^\circ$	4 - 4	S9
Ni III	1579.999	15		$3d^7(^4P)4s - 3d^7(^2D)4p$	$b^3P - z^1D^\circ$	2 - 2	S9
Ni III	1586.909	1		$3d^7(^2G)4s - 3d^7(^2D)4p$	$a^3G - w^3D^\circ$	3 - 2	S9
Ni III	1589.625	2		$3d^7(^2G)4s - 3d^7(^2H)4p$	$a^3G - x^3G^\circ$	5 - 4	S9
Ni III	1597.077	3		$3d^7(^2G)4s - 3d^7(^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	S9
Ni III	1597.899	3		$3d^7(^4P)4s - 3d^7(^2P)4p$	$b^3P - z^1P^\circ$	0 - 1	S9
Ni III	1598.073	15					S9
Ni III	1600.294	10		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3F^\circ$	5 - 4	S9
Ni III	1602.505	15		$3d^7(^4P)4s - 3d^7(^2P)4p$	$b^3P - z^1P^\circ$	1 - 1	S9
Ni III	1604.537	300		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5P^\circ$	3 - 3	S9
Ni III	1609.876	100		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5P^\circ$	2 - 2	S9
Ni III	1610.534	20		$3d^7(^4P)4s - 3d^7(^2G)4p$	$a^5P - y^3F^\circ$	3 - 3	S9
Ni III	1612.165	30		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	3 - 3	S9
Ni III	1612.474	10	17	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3G^\circ$	4 - 4	S9
Ni III	1612.730	30		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5P^\circ$	2 - 3	S9
Ni III	1612.966	1		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	1 - 1	S9
Ni III	1615.597	2		$3d^7(^2G)4s - 3d^7(^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	S9
Ni III	1618.127	15					S9
Ni III	1618.801	20		$3d^7(^4P)4s - 3d^7(^2G)4p$	$a^5P - y^3F^\circ$	2 - 3	S9
Ni III	1619.414	20		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	3 - 2	S9
Ni III	1619.642	30		$3d^7(^4P)4s - 3d^7(^2P)4p$	$b^3P - z^1P^\circ$	2 - 1	S9
Ni III	1620.443	100		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	2 - 3	S9
Ni III	1621.830	50		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5P^\circ$	1 - 2	S9
Ni III	1621.942	50	17	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3G^\circ$	2 - 3	S9
Ni III	1623.622	35		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - x^3P^\circ$	2 - 1	S9
Ni III	1624.220	20	17	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3G^\circ$	5 - 5	S9
Ni III	1626.096	100		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5P^\circ$	1 - 1	S9
Ni III	1627.751	3		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	2 - 2	S9
Ni III	1629.000	25		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$a^3D - x^3P^\circ$	3 - 2	S9
Ni III	1630.120	3		$3d^7(^2P)4s - 3d^7(^2D)4p$	$a^1P - y^1P^\circ$	1 - 1	S9
Ni III	1630.602	5		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^1G^\circ$	4 - 4	S9
Ni III	1631.479	2		$3d^7(^2G)4s - 3d^7(^2D)4p$	$b^1G - x^3F^\circ$	4 - 3	S9
Ni III	1631.754	2		$3d^7(^2P)4s - 3d^7(^2D)4p$	$c^3P - x^3P^\circ$	1 - 2	S9
Ni III	1632.166	100	17	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3G^\circ$	3 - 4	S9
Ni III	1639.996	25		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^3D^\circ$	1 - 2	S9
Ni III	1644.466	1		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	5 - 4	S9
Ni III	1649.771	100	17	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^3G^\circ$	4 - 5	S9
Ni III	1652.866	300		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	6 - 6	S9

Ni III

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1653.119	200		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - y^1H^\circ$	5 - 5	S9
Ni III	1656.126	250		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	5 - 5	S9
Ni III	1659.438	10		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$a^3D - z^1D^\circ$	3 - 2	S9
Ni III	1661.786	200		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	4 - 4	S9
Ni III	1662.311	1		$3d^7(^2P)4s - 3d^7(^2D)4p$	$c^3P - z^1D^\circ$	1 - 2	S9
Ni III	1665.859	20					S9
Ni III	1666.102	20		$3d^7(^2P)4s - 3d^7(^2D)4p$	$a^1P - x^3P^\circ$	1 - 1	S9
Ni III	1666.828	20b		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	5 - 6	S9
Ni III	1672.213	50					S9
Ni III	1673.659	10		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - y^3H^\circ$	4 - 5	S9
Ni III	1676.054	1		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	1 - 0	S9
Ni III	1680.532	10					S9
Ni III	1682.029	10	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	4 - 3	S9
Ni III	1682.443	1	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	5 - 5	S9
Ni III	1683.471	2		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - z^1D^\circ$	2 - 2	S9
Ni III	1683.688	30		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	2 - 1	S9
Ni III	1684.515	1					S9
Ni III	1685.085	5		$3d^7(^4P)4s - 3d^7(^2D)4p$	$b^3P - w^3D^\circ$	2 - 3	S9
Ni III	1685.977	5		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	2 - 2	S9
Ni III	1686.216	75		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$b^1D - y^1P^\circ$	2 - 1	S9
Ni III	1687.897	400	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	3 - 4	S9
Ni III	1689.121	5					S9
Ni III	1690.372	20		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	3 - 2	S9
Ni III	1690.634	5					S9
Ni III	1690.974	15		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - x^1G^\circ$	4 - 4	S9
Ni III	1692.219	3h		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^1H^\circ$	5 - 5	S9
Ni III	1692.514	1000	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	5 - 6	S9
Ni III	1693.559	3	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	4 - 4	S9
Ni III	1694.307	5		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^3S^\circ$	1 - 1	S9
Ni III	1694.582	2		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	2 - 3	S9
Ni III	1695.599	30		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	3 - 3	S9
Ni III	1695.910	5	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	3 - 2	S9
Ni III	1696.195	5		$3d^7(^2P)4s - 3d^7(^2D)4p$	$a^1P - x^3P^\circ$	1 - 2	S9
Ni III	1698.176	50	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	3 - 3	S9
Ni III	1698.381	5		$3d^7(^4P)4s - 3d^7(^2P)4p$	$b^3P - x^3D^\circ$?	1 - 1	S9
Ni III	1699.024	10		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	3 - 3	S9
Ni III	1699.349	8		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	3 - 2	S9
Ni III	1701.081	10		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^1F^\circ$	3 - 3	S9
Ni III	1701.599	60	30	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	S9
Ni III	1702.591	10		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	4 - 3	S9
Ni III	1703.467	50	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	3 - 3	S9
Ni III	1703.925	3		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	4 - 3	S9
Ni III	1704.128	10		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - y^1D^\circ$?	2 - 2	S9
Ni III	1704.641	60					S9
Ni III	1706.041	10		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - v^3D^\circ$	4 - 3	S9
Ni III	1706.246	15		$3d^7(^2P)4s - 3d^7(^2P)4p$	$c^3P - z^1P^\circ$	1 - 1	S9
Ni III	1707.242	10	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	2 - 1	S9
Ni III	1707.346	200	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	2 - 3	S9
Ni III	1707.426	200	30	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	S9
Ni III	1708.552	50	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	2 - 2	S9
Ni III	1709.901	800	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	4 - 5	S9
Ni III	1711.779	10	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	2 - 2	S9
Ni III	1712.893	5		$3d^7(^2D)4s - 3d^7(^2P)4p$	$a^3D - y^3P^\circ$	2 - 1	S9
Ni III	1713.864	10		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	1 - 0	S9
Ni III	1714.698	100		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - y^1G^\circ$	5 - 4	S9
Ni III	1715.303	650	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	3 - 4	S9
Ni III	1715.931	100	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	4 - 3	S9
Ni III	1716.886	75	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	3 - 2	S9
Ni III	1718.184	20		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^1G^\circ$	5 - 4	S9
Ni III	1718.365	150	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	5 - 4	S9
Ni III	1718.873	20	30	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	3 - 4	S9
Ni III	1719.008	20		$3d^7(^2P)4s - 3d^7(^2P)4p$	$c^3P - z^1P^\circ$	0 - 1	S9
Ni III	1719.458	500	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	2 - 3	S9
Ni III	1719.892	50	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	2 - 1	S9
Ni III	1720.708	20	25	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	1 - 1	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1721.256	200	30	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	S9
Ni III	1721.799	0		$3d^7(^2D)4s - 3d^7(^2P)4p$	$a^3D - y^3P^\circ$	2 - 2	S9
Ni III	1722.038	15		$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - y^5D^\circ$	1 - 2	S9
Ni III	1722.283	400	16	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5G^\circ$	1 - 2	S9
Ni III	1722.790	20	30	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3G^\circ$	4 - 5	S9
Ni III	1723.793	150		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$a^3D - x^3F^\circ$	3 - 4	S9
Ni III	1724.291	75	28	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3F^\circ$	3 - 2	S9
Ni III	1724.523	50	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	1 - 0	S9
Ni III	1727.640	20		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - x^3F^\circ$	2 - 2	S9
Ni III	1728.738	20		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	3 - 4	S9
Ni III	1729.219	2		$3d^7(^2P)4s - 3d^7(^2D)4p$	$a^1P - z^1D^\circ$	1 - 2	S9
Ni III	1729.384	20		$3d^7(^4P)4s - 3d^7(^2P)4p$	$b^3P - x^3D^\circ$?	2 - 3	S9
Ni III	1730.255	10		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	0 - 1	S9
Ni III	1730.483	75	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	1 - 1	S9
Ni III	1731.733	2		$3d^7(^2G)4s - 3d^7(^4P)4p$	$a^3G - z^5P^\circ$	4 - 3	S9
Ni III	1733.129	250	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	2 - 2	S9
Ni III	1733.762	50		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^1G^\circ$	4 - 4	S9
Ni III	1735.628	2		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	1 - 1	S9
Ni III	1735.713	5					S9
Ni III	1736.011	50		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	4 - 4	S9
Ni III	1736.051	50		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	2 - 2	S9
Ni III	1738.252	500	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	3 - 3	S9
Ni III	1738.785	300	28	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3F^\circ$	4 - 3	S9
Ni III	1740.671	15		$3d^7(^2G)4s - 3d^7(^4P)4p$	$a^3G - y^3D^\circ$	4 - 3	S9
Ni III	1740.718	10		$3d^7(^2F)4s - 3d^7(^2F)4p$	$c^3F - w^3F^\circ$	3 - 2	S9
Ni III	1740.944	30		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^1I^\circ$	5 - 6	S9
Ni III	1741.963	300	21	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	4 - 3	S9
Ni III	1743.903	1	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	1 - 2	S9
Ni III	1747.011	550	15	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	4 - 4	S9
Ni III	1747.680	50		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$b^1D - y^1F^\circ$	2 - 3	S9
Ni III	1749.203	1		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - y^3H^\circ$	5 - 4	S9
Ni III	1752.427	300	21	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	3 - 2	S9
Ni III	1753.011	400		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^3I^\circ$	6 - 7	S9
Ni III	1753.150	3		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - v^3F^\circ$	2 - 3	S9
Ni III	1753.377	10	29	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^3H^\circ$	5 - 4	S9
Ni III	1755.757	1		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	2 - 1	S9
Ni III	1756.151	1		$3d^7(^2P)4s - 3d^7(^2D)4p$	$c^3P - w^3D^\circ$	2 - 3	S9
Ni III	1756.801	2		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3F^\circ$?	3 - 3	S9
Ni III	1757.034	25		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$b^1D - x^3P^\circ$	2 - 2	S9
Ni III	1758.468	10		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	1 - 2	S9
Ni III	1760.260	20		$3d^7(^2P)4s - 3d^7(^2P)4p$	$a^1P - y^3P^\circ$	1 - 1	S9
Ni III	1760.560	150	21	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	2 - 1	S9
Ni III	1762.394	20		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - y^3H^\circ$	5 - 5	S9
Ni III	1763.607	20		$3d^7(^2P)4s - 3d^7(^2D)4p$	$c^3P - w^3D^\circ$	1 - 1	S9
Ni III	1764.688	800	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	5 - 4	S9
Ni III	1765.229	1		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - v^3F^\circ$	3 - 3	S9
Ni III	1767.938	500	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	4 - 3	S9
Ni III	1769.643	1000	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	5 - 5	S9
Ni III	1770.153	1		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5D^\circ$	3 - 4	S9
Ni III	1771.492	100	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	2 - 1	S9
Ni III	1773.788	40	27	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^3H^\circ$	5 - 5	S9
Ni III	1774.640	10					S9
Ni III	1775.750	150		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$a^3D - w^3D^\circ$	3 - 3	S9
Ni III	1776.068	400		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^3H^\circ$	5 - 6	S9
Ni III	1776.802	30		$3d^7(^2P)4s - 3d^7(^2P)4p$	$a^1P - z^1P^\circ$	1 - 1	S9
Ni III	1777.227	10		$3d^7(^2P)4s - 3d^7(^2D)4p$	$c^3P - w^3D^\circ$	0 - 1	S9
Ni III	1778.583	10					S9
Ni III	1778.730	30		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - w^3D^\circ$	2 - 2	S9
Ni III	1779.127	20		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3P^\circ$	2 - 2	S9
Ni III	1779.442	30	21	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	2 - 2	S9
Ni III	1781.088	15		$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - y^3F^\circ$	4 - 4	S9
Ni III	1781.279	50	21	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	3 - 3	S9
Ni III	1782.747	60	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	1 - 1	S9
Ni III	1784.882	75		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	S9
Ni III	1786.927	60	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	2 - 2	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1787.456	2		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - w^3D^\circ$	2 - 1	S9
Ni III	1788.301	200	27	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^3H^\circ$	3 - 4	S9
Ni III	1788.502	150b		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	4 - 3	S9
Ni III	1789.888	3		$3d^7(^2P)4s - 3d^7(^4P)4p$	$c^3P - z^3P^\circ$	1 - 0	S9
Ni III	1789.983	5		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^3I^\circ$	5 - 5	S9
Ni III	1790.402	250	27	$3d^7(^2G)4s - 3d^7(^2G)4p$	$a^3G - z^3H^\circ$	4 - 5	S9
Ni III	1790.934	200		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	S9
Ni III	1791.644	200	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	3 - 3	S9
Ni III	1792.513	25		$3d^7(a^2D)4s - 3d^7(^2D)4p$	$b^1D - z^1D^\circ$	2 - 2	S9
Ni III	1792.994	100		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - z^1F^\circ$	4 - 3	S9
Ni III	1794.904	200	14	$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	4 - 4	S9
Ni III	1795.192	20		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^3I^\circ$	6 - 6	S9
Ni III	1798.366	20		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	1 - 2	S9
Ni III	1799.023	5					S9
Ni III	1800.031	20		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	4 - 5	S9
Ni III	1801.506	50	20	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	3 - 2	S9
Ni III	1804.394	30		$3d^7(^2P)4s - 3d^7(^2P)4p$	$c^3P - x^3D^\circ$	2 - 3	S9
Ni III	1806.457	30		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^3D^\circ$	1 - 1	S9
Ni III	1806.550	30					S9
Ni III	1807.056	50					S9
Ni III	1807.245	300		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	S9
Ni III	1809.200	5		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3D^\circ$	2 - 3	S9
Ni III	1809.335	15		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	2 - 3	S9
Ni III	1810.489	150		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^3I^\circ$	4 - 5	S9
Ni III	1811.689	200		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - z^3I^\circ$	5 - 6	S9
Ni III	1812.539	3		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - w^3P^\circ$	2 - 1	S9
Ni III	1812.769	20		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - y^3G^\circ$	4 - 4	S9
Ni III	1814.082	1		$3d^7(^2D)4s - 3d^7(^2D)4p$	$a^3D - w^3D^\circ$	1 - 1	S9
Ni III	1815.307	20		$3d^7(^2P)4s - 3d^7(^2P)4p$	$c^3P - x^3D^\circ$	1 - 1	S9
Ni III	1815.398	15		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - y^3G^\circ$	4 - 3	S9
Ni III	1815.650	2h		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - w^3P^\circ$	2 - 2	S9
Ni III	1816.990	1		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^5P^\circ$	0 - 1	S9
Ni III	1817.598	15		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^5P^\circ$	1 - 2	S9
Ni III	1819.275	300		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - z^1H^\circ$	4 - 5	S9
Ni III	1819.325	3		$3d^7(^4F)4s - 3d^7(^4F)4p$	$a^5F - z^5F^\circ$	3 - 4	S9
Ni III	1822.918	25		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^5P^\circ$	1 - 1	S9
Ni III	1823.061	800	20	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	4 - 4	S9
Ni III	1823.936	1		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	S9
Ni III	1825.084	20		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$a^3D - x^3D^\circ$	3 - 3	S9
Ni III	1828.279	15		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^3D^\circ$	2 - 1	S9
Ni III	1828.672	15		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - w^3P^\circ$	3 - 2	S9
Ni III	1830.006	400	20	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	3 - 3	S9
Ni III	1830.075	200	20	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	2 - 2	S9
Ni III	1830.859	15					S9
Ni III	1833.669	20		$3d^7(^2P)4s - 3d^7(^2P)4p$	$c^3P - x^3D^\circ$	1 - 2	S9
Ni III	1834.381	15					S9
Ni III	1834.890	20					S9
Ni III	1836.843	30		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - y^3G^\circ$	4 - 5	S9
Ni III	1839.092	1		$3d^7(^2P)4s - 3d^7(^2D)4p$	$a^1P - w^3D^\circ$	1 - 1	S9
Ni III	1840.421	40		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^3D^\circ$	1 - 2	S9
Ni III	1841.866	15		$3d^7(^2D)4s - 3d^7(^4P)4p$	$a^3D - z^3P^\circ$	1 - 0	S9
Ni III	1843.406	50	34	$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^5P^\circ$	2 - 3	S9
Ni III	1843.689	1		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$b^1D - z^1P^\circ$	2 - 1	S9
Ni III	1845.141	15		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^5P^\circ$	2 - 1	S9
Ni III	1847.275	650	19	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3G^\circ$	2 - 3	S9
Ni III	1849.319	100		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - z^1G^\circ$	4 - 4	S9
Ni III	1849.473	50		$3d^7(^2F)4s - 3d^7(^2F)4p$	$a^1F - x^1G^\circ$	3 - 4	S9
Ni III	1849.540	75	19	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3G^\circ$	3 - 4	S9
Ni III	1853.480	30		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^3D^\circ$	2 - 3	S9
Ni III	1854.149	800	19	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3G^\circ$	4 - 5	S9
Ni III	1857.158	0		$3d^7(^2G)4s - 3d^7(^4P)4p$	$b^1G - y^3D^\circ$?	4 - 3	S9
Ni III	1858.750	300		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - z^1I^\circ$	5 - 6	S9
Ni III	1859.480	2		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	2 - 3	S9
Ni III	1866.163	5		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^3F^\circ$	3 - 4	S9
Ni III	1867.706	3		$3d^7(^2P)4s - 3d^7(^4P)4p$	$a^1P - z^3P^\circ$	1 - 0	S9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni III	1868.201	20					S9
Ni III	1879.063	5		$3d^7(^2F)4s - 3d^7(^2F)4p$	$a^1F - y^1D°$	3 - 2	S9
Ni III	1880.498	5		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$a^3D - z^3P°$	3 - 2	S9
Ni III	1882.686	25					S9
Ni III	1885.864	10					S9
Ni III	1890.155	15		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - z^3H°$	4 - 4	S9
Ni III	1895.479	5		$3d^7(^2P)4s - 3d^7(^2P)4p$	$a^1P - x^3D°$?	1 - 1	S9
Ni III	1902.607	50		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3S°$	0 - 1	S9
Ni III	1903.262	15		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - y^3F°$	4 - 4	S9
Ni III	1909.091	5		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3S°$	1 - 1	S9
Ni III	1913.890	30		$3d^7(^2G)4s - 3d^7(^2G)4p$	$b^1G - z^3H°$	4 - 5	S9
Ni III	1914.076	3		$3d^7(^2D)4s - 3d^7(^4P)4p$	$a^3D - z^3P°$	1 - 1	S9
Ni III	1914.75	1		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - z^3I°$	5 - 5	S9
Ni III	1914.919	1		$3d^7(^2H)4s - 3d^7(^2G)4p$	$a^3H - y^3G°$	5 - 4	S9
Ni III	1915.409	5		$3d^7(^2P)4s - 3d^7(^2P)4p$	$a^1P - x^3D°$	1 - 2	S9
Ni III	1915.497	5		$3d^7(a^2D)4s - 3d^7(^2H)4p$	$b^1D - x^3G°$	2 - 3	S9
Ni III	1915.834	2		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - x^3G°$	5 - 4	S9
Ni III	1922.91	1		$3d^7(^2H)4s - 3d^7(^2G)4p$	$a^3H - y^3G°$	6 - 5	S9
Ni III	1923.463	5		$3d^7(^2D)4s - 3d^7(^2G)4p$	$a^3D - z^1F°$	2 - 3	S9
Ni III	1930.431	200	18	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^5G°$	4 - 5	S9
Ni III	1933.50 P			$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - z^3S°$	2 - 1	S9
Ni III	1935.947	5		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^5D°$	0 - 1	S9
Ni III	1936.10	2		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - u^3D°$	2 - 2	S9
Ni III	1939.40	3		$3d^7(^2P)4s - 3d^7(^4P)4p$	$c^3P - y^3D°$	1 - 1	S9
Ni III	1939.588	100		$3d^7(^2H)4s - 3d^7(^2H)4p$	$a^1H - z^3I°$	5 - 6	S9
Ni III	1941.41	0		$3d^7(^2H)4s - 3d^7(^2G)4p$	$a^3H - y^3G°$	4 - 3	S9
Ni III	1941.58	0		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - u^3D°$	2 - 3	S9
Ni III	1942.64	0		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^5D°$	1 - 1	S9
Ni III	1942.886	10					S9
Ni III	1944.36	2		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^5D°$	1 - 2	S9
Ni III	1950.90	0		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - u^3D°$	3 - 2	S9
Ni III	1952.540	200	24	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5S°$	3 - 2	S9
Ni III	1955.74	0		$3d^7(^2H)4s - 3d^7(^2G)4p$	$a^3H - z^1G°$	5 - 4	S9
Ni III	1956.402	3		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$b^3D - u^3D°$	3 - 3	S9
Ni III	1956.964	20	18	$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^5G°$	3 - 4	S9
Ni III	1961.324	5		$3d^7(a^2D)4s - 3d^7(^2G)4p$	$a^3D - y^3F°$	3 - 3	S9
Ni III	1963.73	2		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$a^3D - y^3D°$	3 - 3	S9
Ni III	1964.689	100	24	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5S°$	2 - 2	S9
Ni III	1968.053	3		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^5D°$	2 - 3	S9
Ni III	1969.62	0		$3d^7(^4P)4s - 3d^7(^4P)4p$	$b^3P - y^5D°$	2 - 2	S9
Ni III	1970.54	0		$3d^7(^2P)4s - 3d^7(^4P)4p$	$a^1P - z^3P°$	1 - 2	S9
Ni III	1974.493	15		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$a^3D - y^3D°$	3 - 2	S9
Ni III	1974.780	15		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^5G°$	2 - 3	S9
Ni III	1977.84	1		$3d^7(^4F)4s - 3d^7(^4F)4p$	$b^3F - z^5D°$	4 - 4	S9
Ni III	1980.248	2		$3d^7(^2H)4s - 3d^7(^2G)4p$	$a^3H - z^1G°$	4 - 4	S9
Ni III	1982.538	50	24	$3d^7(^4P)4s - 3d^7(^4P)4p$	$a^5P - z^5S°$	1 - 2	S9
Ni III	1987.83	1h		$3d^7(^2D)4s - 3d^7(^4P)4p$	$a^3D - z^5P°$	2 - 1	S9
Ni III	1993.362	10		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$b^1D - x^3D°$	2 - 2	S9

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NICKEL IV (Ni^{3+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential [476 000] cm^{-1}; [59] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni IV	533.155	200		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	9/2 - 7/2	P20
Ni IV	534.408	210		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	7/2 - 5/2	P20
Ni IV	536.302	630		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	9/2 - 9/2	P20
Ni IV	536.556	570		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	7/2 - 7/2	P20
Ni IV	536.849	490		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	5/2 - 5/2	P20
Ni IV	537.073	460		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	3/2 - 3/2	P20
Ni IV	537.976	690		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	9/2 - 7/2	P20
Ni IV	538.520	200		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	3/2 - 5/2	P20
Ni IV	539.027	220		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	5/2 - 7/2	P20
Ni IV	539.609	610		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	7/2 - 5/2	P20
Ni IV	539.72	150		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4F°$	7/2 - 9/2	P20
Ni IV	540.807	450		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	5/2 - 3/2	P20
Ni IV	541.434	280		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	7/2 - 7/2	P20
Ni IV	541.709	390		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	3/2 - 1/2	P20
Ni IV	542.099	210		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	5/2 - 5/2	P20
Ni IV	542.33	210		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P°$	5/2 - 3/2	G4,P20
Ni IV	542.53	560		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	3/2 - 3/2	P20
Ni IV	543.20	430		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P°$	9/2 - 7/2	G4,P20
Ni IV	543.807	100		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^4D°$	3/2 - 5/2	P20
Ni IV	544.01	110		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P°$	3/2 - 3/2	G4,P20
Ni IV	545.08	130		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P°$	5/2 - 5/2	G4,P20
Ni IV	546.75	110		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6P°$	7/2 - 7/2	G4,P20
Ni IV	549.10	140		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6F°$	9/2 - 7/2	G4,P20
Ni IV	549.33	140		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6F°$	9/2 - 9/2	G4,P20
Ni IV	552.44	130		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6F°$	7/2 - 5/2	G4,P20
Ni IV	554.90	100		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6F°$	5/2 - 3/2	G4,P20
Ni IV	573.06	90		$3d^7 - 3d^6(^5D)4p$	$ga^4F - z^6D°$	5/2 - 3/2	G4,P20
Ni IV	575.816	410		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	3/2 - 1/2	P20
Ni IV	576.378	440		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	5/2 - 3/2	P20
Ni IV	577.203	250		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	3/2 - 3/2	P20
Ni IV	577.788	200		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	1/2 - 1/2	P20
Ni IV	579.008	690		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	5/2 - 5/2	P20
Ni IV	579.172	460		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	1/2 - 3/2	P20
Ni IV	579.833	450		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4P°$	3/2 - 5/2	P20
Ni IV	593.156	120		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	3/2 - 3/2	P20
Ni IV	593.848	100		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	5/2 - 5/2	P20
Ni IV	594.291	130		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	1/2 - 1/2	P20
Ni IV	594.702	300		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	3/2 - 5/2	P20
Ni IV	595.248	160		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	1/2 - 3/2	P20
Ni IV	596.050	400		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^4D°$	5/2 - 7/2	P20
Ni IV	602.50	140		$3d^7 - 3d^6(^5D)4p$	$a^4P - z^6P°$	5/2 - 7/2	G4,P20
Ni IV	1309.340	30		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F°$	7/2 - 7/2	G4,P20
Ni IV	1314.760	30		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F°$	9/2 - 9/2	G4,P20
Ni IV	1319.139	30h		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F°$	5/2 - 7/2	G4,P20
Ni IV	1324.859	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	9/2 - 7/2	G4,P20
Ni IV	1327.655	50		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	7/2 - 5/2	G4,P20
Ni IV	1328.470	70		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4F°$	7/2 - 9/2	G4,P20
Ni IV	1329.885	10		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	5/2 - 3/2	G4,P20
Ni IV	1336.790	70		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	3/2 - 3/2	G4,P20
Ni IV	1337.737	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	5/2 - 5/2	G4,P20
Ni IV	1338.786	70		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^4D°$	7/2 - 7/2	G4,P20
Ni IV	1339.071	740		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	5/2 - 3/2	P20
Ni IV	1345.718	760		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	7/2 - 5/2	P20
Ni IV	1346.083	740		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	3/2 - 3/2	P20
Ni IV	1350.215	650		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	1/2 - 3/2	P20
Ni IV	1356.078	650		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	5/2 - 5/2	P20
Ni IV	1357.063	760		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	9/2 - 7/2	P20
Ni IV	1363.258	560		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	3/2 - 5/2	P20
Ni IV	1371.679	580		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	7/2 - 7/2	P20
Ni IV	1382.448	380		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6P°$	5/2 - 7/2	P20

Ni IV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni IV	1395.985	480		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	9/2 - 9/2	P20
Ni IV	1398.195	780		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	9/2 - 11/2	P20
Ni IV	1408.236	10		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 5/2	P20
Ni IV	1409.846	640		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 7/2	P20
Ni IV	1411.461	780		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	7/2 - 9/2	P20
Ni IV	1418.501	150		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 3/2	P20
Ni IV	1419.583	470		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 5/2	P20
Ni IV	1421.225	620		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	5/2 - 7/2	P20
Ni IV	1425.802	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 1/2	P20
Ni IV	1426.362	510		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 3/2	P20
Ni IV	1427.453	400		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	3/2 - 5/2	P20
Ni IV	1430.186	430		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	7/2 - 5/2	P20
Ni IV	1430.439	540		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	1/2 - 1/2	P20
Ni IV	1431.013	370		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6F^\circ$	1/2 - 3/2	P20
Ni IV	1432.453	210		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 3/2	P20
Ni IV	1435.792	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 1/2	P20
Ni IV	1442.675	170		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	1/2 - 1/2	P20
Ni IV	1444.420	440		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 3/2	P20
Ni IV	1448.799	120		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	5/2 - 5/2	P20
Ni IV	1461.063	140		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4P^\circ$	3/2 - 5/2	P20
Ni IV	1483.432	30h		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 5/2	G4,P20
Ni IV	1492.162	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 3/2	G4,P20
Ni IV	1500.128	300		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 7/2	P20
Ni IV	1503.482	310		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 5/2	P20
Ni IV	1505.173	230		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 3/2	P20
Ni IV	1512.733	600		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	1/2 - 3/2	P20
Ni IV	1516.671	590		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	3/2 - 5/2	P20
Ni IV	1520.631	660		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	5/2 - 7/2	P20
Ni IV	1524.245	280		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 5/2	P20
Ni IV	1525.316	710		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4F^\circ$	7/2 - 9/2	P20
Ni IV	1527.693	750		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 7/2	P20
Ni IV	1534.715	810		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	9/2 - 9/2	P20
Ni IV	1534.931	480		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 3/2	P20
Ni IV	1537.249	700		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 5/2	P20
Ni IV	1538.927	610		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	7/2 - 7/2	P20
Ni IV	1542.261	220		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 1/2	P20
Ni IV	1543.411	790		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 3/2	P20
Ni IV	1545.400	440		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 5/2	P20
Ni IV	1546.230	680		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 7/2	P20
Ni IV	1548.037	760		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 1/2	P20
Ni IV	1548.676	450		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 3/2	P20
Ni IV	1550.185	320		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 1/2	P20
Ni IV	1550.775	700		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 5/2	P20
Ni IV	1552.730	50		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 3/2	P20
Ni IV	1553.426	690		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	7/2 - 9/2	P20
Ni IV	1553.491	590		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 1/2	P20
Ni IV	1556.669	230		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	1/2 - 3/2	P20
Ni IV	1558.240	560		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	1/2 - 3/2	P20
Ni IV	1559.327	440		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	3/2 - 5/2	P20
Ni IV	1559.917	640		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	5/2 - 7/2	P20
Ni IV	1560.175	690		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^6D - z^6D^\circ$	3/2 - 5/2	P20
Ni IV	1560.492	340		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^4D^\circ$	5/2 - 7/2	P20
Ni IV	1561.153	200		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	3/2 - 3/2	G4,P20
Ni IV	1569.276	30		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	1/2 - 3/2	G4,P20
Ni IV	1569.916	400		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	5/2 - 5/2	G4,P20
Ni IV	1582.531	500		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	7/2 - 7/2	G4,P20
Ni IV	1584.297	100		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	3/2 - 5/2	G4,P20
Ni IV	1605.357	70		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6P^\circ$	5/2 - 7/2	G4,P20
Ni IV	1631.376	100h		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	7/2 - 5/2	G4,P20
Ni IV	1633.549	20h		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	7/2 - 7/2	G4,P20
Ni IV	1635.707	300		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	7/2 - 9/2	G4,P20
Ni IV	1655.643	80		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	5/2 - 5/2	G4,P20
Ni IV	1657.878	200		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	5/2 - 7/2	G4,P20
Ni IV	1671.645	70		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	3/2 - 5/2	G4,P20
Ni IV	1679.478	150		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6F^\circ$	1/2 - 3/2	G4,P20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni IV	1829.497	200		$3d^6(^5D)4s - 3d^6(^5D)4p$	$a^4D - z^6D^\circ$	7/2 - 9/2	G4,P20

NICKEL V (Ni^{4+}), Z = 28

Ground State $1s^22s^22p^63s^23p^63d^6\ ^5D_4$ (24 electrons)

Ionization Potential [661 000] cm^{-1}; [82] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni V	1123.20	0		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^5P^\circ$?	3 - 2	M26
Ni V	1131.82	0		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^5P^\circ$?	3 - 3	M26
Ni V	1244.15	300		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 4	M26
Ni V	1264.46	200		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 3	M26
Ni V	1276.90	100		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^7S - ^7P^\circ$?	3 - 2	M26
Ni V	1300.97	50		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 1	M26
Ni V	1306.60	100		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 2	M26
Ni V	1318.47	200		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^5P^\circ$?	2 - 3	M26
Ni V	1501.90	30		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^7P^\circ$?	2 - 3	M26
Ni V	1519.55	30		$3d^5(^6S)4s - 3d^5(^6S)4p$	$^5S - ^7P^\circ$?	2 - 2	M26

NICKEL VI (Ni^{5+}), Z = 28

Ground State $1s^22s^22p^63s^23p^63d^5\ ^6S_{5/2}$ (23 electrons)

Ionization Potential [887 000] cm^{-1}; [110] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VI	260.348	400		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 7/2	K21
Ni VI	260.591	300		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 5/2	K21
Ni VI	260.713	250		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 3/2	K21
Ni VI?	844.69	200					G9
Ni VI?	851.66	200					G9
Ni VI?	1073.11	120					G9
Ni VI?	1074.51	150					G9
Ni VI?	1081.82	10					G9
Ni VI?	1087.97	500					G9
Ni VI?	1093.37	400					G9
Ni VI?	1095.49	80					G9
Ni VI?	1141.96	100					G9
Ni VI?	1144.32	180					G9
Ni VI?	1145.53	150					G9
Ni VI?	1146.85	80					G9
Ni VI?	1150.22	100					G9
Ni VI?	1157.13	150					G9
Ni VI?	1161.61	20					G9
Ni VI?	1163.20	100					G9
Ni VI?	1170.08	150					G9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VI?	1179.80	200					G9
Ni VI?	1186.90	20					G9
Ni VI?	1191.72	50					G9

NICKEL VII (Ni^{6+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^4\ ^5D_0$ (22 electrons)

Ionization Potential [1 097 000] cm^{-1}; [136] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VII	205.275	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 3	P17
Ni VII	205.359	20		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 2	P17
Ni VII	205.637	320		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	4 - 3	P17
Ni VII	205.689	10		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	0 - 1	P17
Ni VII	205.807	200		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	1 - 1	P17
Ni VII	205.885	240		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	3 - 2	P17
Ni VII	206.030	100		$3d^4 - 3d^3(a^4P)4p$	$ga^5D - z^5P^\circ$	2 - 1	P17
Ni VII	208.182	240		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	4 - 3	P17
Ni VII	208.580	200		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 4	P17
Ni VII	208.679	80		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	5 - 5	P17
Ni VII	208.940	240		$3d^4 - 3d^3(a^2H)4p$	$a^3H - x^3G^\circ$	6 - 5	P17
Ni VII	211.037	160		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	3 - 3	P17
Ni VII	211.298	80		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 3	P17
Ni VII	211.433	240		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 4	P17
Ni VII	211.539	10		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	4 - 5	P17
Ni VII	211.649	240w		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 4	P17
Ni VII	211.759	280		$3d^4 - 3d^3(a^2H)4p$	$a^3G - x^3G^\circ$	5 - 5	P17
Ni VII	211.993	180		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 3	P17
Ni VII	212.316	160		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	3 - 3	P17
Ni VII	212.516	700b		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 5	P17
Ni VII	212.560	20		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^3D^\circ$	2 - 2	P17
Ni VII	212.625	60		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 3	P17
Ni VII	212.856	20		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 2	P17
Ni VII	212.904	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 4	P17
Ni VII	212.949	400		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 3	P17
Ni VII	213.096	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 2	P17
Ni VII	213.133	80		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	0 - 1	P17
Ni VII	213.258	100		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	1 - 1	P17
Ni VII	213.339	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	4 - 3	P17
Ni VII	213.422	240		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	3 - 2	P17
Ni VII	213.496	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5F^\circ$	2 - 1	P17
Ni VII	213.515	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 4	P17
Ni VII	213.714	500		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 3	P17
Ni VII	213.908	600		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 4	P17
Ni VII	213.924	200		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 2	P17
Ni VII	214.042	300		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 3	P17
Ni VII	214.111	140		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	0 - 1	P17
Ni VII	214.166	40		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	2 - 2	P17
Ni VII	214.237	20		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	1 - 1	P17
Ni VII	214.440	120		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	4 - 3	P17
Ni VII	214.492	140d		$3d^4 - 3d^3(a^4F)4p$	$ga^5D - z^5D^\circ$	3 - 2	P17
Ni VII	215.759	600		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	6 - 5	P17
Ni VII	216.064	400		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	5 - 4	P17
Ni VII	216.408	300		$3d^4 - 3d^3(a^2G)4p$	$a^3H - y^3G^\circ$	4 - 3	P17
Ni VII	216.550	140		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 5	P17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VII	217.018	160		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 4	P17
Ni VII	217.138	240		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 4	P17
Ni VII	217.658	160		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	3 - 3	P17
Ni VII	217.781	10		$3d^4 - 3d^3(a^2G)4p$	$a^3F - y^3G^\circ$	4 - 3	P17
Ni VII	218.531	100		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 5	P17
Ni VII	218.766	100		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	5 - 5	P17
Ni VII	218.846	20		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 4	P17
Ni VII	219.127	40		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 4	P17
Ni VII	219.497	100		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	3 - 3	P17
Ni VII	219.782	20		$3d^4 - 3d^3(a^2G)4p$	$a^3G - y^3G^\circ$	4 - 3	P17
Ni VII	223.248	20		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 4	P17
Ni VII	223.377	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 4	P17
Ni VII	223.762	60		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	2 - 3	P17
Ni VII	223.819	60		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	3 - 3	P17
Ni VII	223.948	20		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3F^\circ$	4 - 3	P17
Ni VII	224.381	320		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	6 - 5	P17
Ni VII	224.724	280		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	5 - 4	P17
Ni VII	224.919	240		$3d^4 - 3d^3(a^4F)4p$	$a^3H - z^3G^\circ$	4 - 3	P17
Ni VII	225.182	20		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 4	P17
Ni VII	225.238	60		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 5	P17
Ni VII	225.476	40		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 4	P17
Ni VII	225.734	200		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	5 - 4	P17
Ni VII	225.760	40		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 4	P17
Ni VII	225.889	60		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 4	P17
Ni VII	226.062	180		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	4 - 3	P17
Ni VII	226.215	20		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	2 - 3	P17
Ni VII	226.268	40		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	3 - 3	P17
Ni VII	226.347	140		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3F^\circ$	3 - 2	P17
Ni VII	226.399	20		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3G^\circ$	4 - 3	P17
Ni VII	226.658	40		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	0 - 1	P17
Ni VII	227.191	140		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 2	P17
Ni VII	227.377	40		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 5	P17
Ni VII	227.570	10		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	1 - 1	P17
Ni VII	227.636	180		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 5	P17
Ni VII	227.734	40		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 4	P17
Ni VII	227.831	20		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 3	P17
Ni VII	227.889	160		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 3	P17
Ni VII	228.023	200		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	4 - 3	P17
Ni VII	228.039	80		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	4 - 4	P17
Ni VII	228.255	100		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	3 - 3	P17
Ni VII	228.299	10		$3d^4 - 3d^3(a^4F)4p$	$a^3G - z^3G^\circ$	5 - 4	P17
Ni VII	228.484	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 2	P17
Ni VII	228.541	100		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	3 - 2	P17
Ni VII	228.864	40		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^3D^\circ$	2 - 1	P17
Ni VII	228.927	20		$3d^4 - 3d^3(a^4F)4p$	$a^3P - z^3D^\circ$	2 - 1	P17
Ni VII	229.569	80		$3d^4 - 3d^3(a^4F)4p$	$a^3F - z^5F^\circ$	2 - 1	P17

NICKEL VIII (Ni^{7+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^3$ $^4F_{3/2}$ (21 electrons)

Ionization Potential [1 355 000] cm^{-1}; [165] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VIII	167.07	80		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4P°$	3/2 - 5/2	A4
Ni VIII	167.35	20		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4P°$	5/2 - 5/2	A4
Ni VIII	167.66	10		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - y^2G°$	7/2 - 7/2	A4
Ni VIII	167.97	40		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - y^2G°$	9/2 - 9/2	A4
Ni VIII	168.08	20		$3d^3 - 3d^2(a^1G)4p$	$ga^4F - y^2G°$	9/2 - 7/2	A4
Ni VIII	168.33	10		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	3/2 - 5/2	A4
Ni VIII	168.58	150		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	9/2 - 7/2	A4
Ni VIII	168.62	10		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	5/2 - 5/2	A4
Ni VIII	168.87	40		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	3/2 - 3/2	A4
Ni VIII	168.95	20		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	7/2 - 5/2	A4
Ni VIII	169.16	400		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	5/2 - 3/2	A4
Ni VIII	169.27	40		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - y^4D°$	3/2 - 1/2	A4
Ni VIII	170.17	80		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H°$	9/2 - 11/2	A4
Ni VIII	170.27	20		$3d^3 - 3d^2(a^3P)4p$	$ga^4F - z^4S°$	3/2 - 3/2	A4
Ni VIII	170.52	250		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H°$	7/2 - 9/2	A4
Ni VIII	170.84	10		$3d^3 - 3d^2(a^1G)4p$	$a^2G - z^2H°$	9/2 - 9/2	A4
Ni VIII	172.10	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G°$	7/2 - 9/2	A4
Ni VIII	172.32	20		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G°$	5/2 - 7/2	A4
Ni VIII	172.67	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2G°$	7/2 - 7/2	A4
Ni VIII	172.93	20		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	11/2 - 11/2	A4
Ni VIII	173.41	750		$3d^3 - 3d^2(a^1G)4p$	$a^2H - z^2H°$	9/2 - 9/2	A4
Ni VIII	173.95	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	3/2 - 5/2	A4
Ni VIII	174.22	10		$3d^3 - 3d^2(a^1G)4p$	$a^4P - y^2G°$	5/2 - 7/2	A4
Ni VIII	174.24	750		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$?	5/2 - 5/2	A4
Ni VIII	174.36	400		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	1/2 - 1/2	A4
Ni VIII	174.46	250		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	3/2 - 3/2	A4
Ni VIII	174.50	10		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4P°$	3/2 - 1/2	A4
Ni VIII	174.75	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	5/2 - 7/2	A4
Ni VIII	174.79	150		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	7/2 - 9/2	A4
Ni VIII	174.88	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	3/2 - 5/2	A4
Ni VIII	174.92	750		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	7/2 - 7/2	A4
Ni VIII	174.95	40		$3d^3 - 3d^2(a^3P)4p$	$a^2G - z^4P°$	7/2 - 5/2	A4
Ni VIII	175.13	400		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	9/2 - 9/2	A4
Ni VIII	175.26	40		$3d^3 - 3d^2(a^1G)4p$	$a^2G - y^2G°$	9/2 - 7/2	A4
Ni VIII	175.28	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	5/2 - 5/2	A4
Ni VIII	175.32	400d		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	3/2 - 5/2	A4
Ni VIII	175.49	20		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	3/2 - 3/2	A4
Ni VIII	175.54	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2D°$	7/2 - 5/2	A4
Ni VIII	175.56	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	9/2 - 7/2	A4
Ni VIII	175.62	20		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	5/2 - 5/2	A4
Ni VIII	175.64	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	7/2 - 5/2	A4
Ni VIII	175.67	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	9/2 - 11/2	A4
Ni VIII	175.80	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4D°$	5/2 - 3/2	A4
Ni VIII	175.82	1000		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 9/2	A4
Ni VIII	175.91	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	3/2 - 3/2	A4
Ni VIII	175.94	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F°$	7/2 - 5/2	A4
Ni VIII	176.03	400		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^2F°$	9/2 - 7/2	A4
Ni VIII	176.13	250		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	5/2 - 7/2	A4
Ni VIII	176.21	10		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	5/2 - 3/2	A4
Ni VIII	176.25	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	7/2 - 9/2	A4
Ni VIII	176.29	250		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	9/2 - 9/2	A4
Ni VIII	176.35	20		$3d^3 - 3d^2(a^3P)4p$	$a^4P - y^4D°$	3/2 - 1/2	A4
Ni VIII	176.42	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	3/2 - 5/2	A4
Ni VIII	176.50	150		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 7/2	A4
Ni VIII	176.69	80		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	5/2 - 7/2	A4
Ni VIII	176.74	250		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	5/2 - 5/2	A4
Ni VIII	176.87	750		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	3/2 - 3/2	A4
Ni VIII	176.95	250		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G°$	3/2 - 5/2	A4
Ni VIII	176.98	40		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	9/2 - 7/2	A4
Ni VIII	177.10	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F°$	7/2 - 5/2	A4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni VIII	177.19	400b		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4F^\circ$	5/2 - 3/2	A4
Ni VIII	177.29	80		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	1/2 - 3/2	A4
Ni VIII	177.32	40		$3d^3 - 3d^2(a^1G)4p$	$a^2D - y^2G^\circ$	5/2 - 7/2	A4
Ni VIII	177.43	80		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	3/2 - 3/2	A4
Ni VIII	177.63	10		$3d^3 - 3d^2(a^3F)4p$	$ga^4F - z^4G^\circ$	7/2 - 5/2	A4
Ni VIII	177.73	40		$3d^3 - 3d^2(a^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	A4
Ni VIII	177.83	10		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 9/2	A4
Ni VIII	177.87	10		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 3/2	A4
Ni VIII	177.97	20		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	9/2 - 7/2	A4
Ni VIII	178.06	20		$3d^3 - 3d^2(a^1G)4p$	$a^2H - y^2G^\circ$	11/2 - 9/2	A4
Ni VIII	178.52	80		$3d^3 - 3d^2(a^3P)4p$	$a^2H - y^4D^\circ$?	9/2 - 7/2	A4
Ni VIII	178.77	400		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	5/2 - 5/2	A4
Ni VIII	178.91	250		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	3/2 - 5/2	A4
Ni VIII	179.77	40		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 9/2	A4
Ni VIII	179.97	550		$3d^3 - 3d^2(a^3P)4p$	$a^2D - y^4D^\circ$	3/2 - 1/2	A4
Ni VIII	180.12	250		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 9/2	A4
Ni VIII	180.39	250		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	A4
Ni VIII	180.74	40		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	A4
Ni VIII	181.10	40		$3d^3 - 3d^2(a^3P)4p$	$a^2D - z^4S^\circ$	3/2 - 3/2	A4
Ni VIII	182.27	20		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 7/2	A4
Ni VIII	182.44	400		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 5/2	A4
Ni VIII	182.55	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	A4
Ni VIII	182.76	20		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 5/2	A4
Ni VIII	182.79	20		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	A4
Ni VIII	182.87	80		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	A4
Ni VIII	182.94	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 1/2	A4
Ni VIII	182.96	80		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	A4
Ni VIII	182.99	40		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 9/2	A4
Ni VIII	183.02	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	1/2 - 3/2	A4
Ni VIII	183.16	10		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 3/2	A4
Ni VIII	183.23	10		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	11/2 - 9/2	A4
Ni VIII	183.39	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4D^\circ$	9/2 - 7/2	A4
Ni VIII	183.44	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 3/2	A4
Ni VIII	183.51	150		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G^\circ$	9/2 - 11/2	A4
Ni VIII	183.63	10		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^2G^\circ$	9/2 - 7/2	A4
Ni VIII	183.80	40		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 7/2	A4
Ni VIII	183.83	900		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F^\circ$	7/2 - 9/2	A4
Ni VIII	183.91	80d		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	A4
Ni VIII	183.97	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	A4
Ni VIII	184.12	900		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	3/2 - 5/2	A4
Ni VIII	184.20	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F^\circ$	9/2 - 9/2	A4
Ni VIII	184.40	10		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4G^\circ$	5/2 - 7/2	A4
Ni VIII	184.44	550		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 5/2	A4
Ni VIII	184.58	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F^\circ$	7/2 - 7/2	A4
Ni VIII	184.62	10		$3d^3 - 3d^2(a^3F)4p$	$a^4P - z^4F^\circ$	3/2 - 3/2	A4
Ni VIII	184.68	40		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G^\circ$	9/2 - 9/2	A4
Ni VIII	184.95	40		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F^\circ$	9/2 - 7/2	A4
Ni VIII	185.18	20		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G^\circ$	7/2 - 7/2	A4
Ni VIII	185.23	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4F^\circ$	7/2 - 5/2	A4
Ni VIII	185.65	80		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 7/2	A4
Ni VIII	185.82	10		$3d^3 - 3d^2(a^3F)4p$	$a^2G - z^4G^\circ$	7/2 - 5/2	A4
Ni VIII	186.16	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	A4
Ni VIII	186.18	80		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	A4
Ni VIII	186.31	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 5/2	A4
Ni VIII	186.49	250		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^4G^\circ$	9/2 - 11/2	A4
Ni VIII	186.76	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	A4
Ni VIII	186.86	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4D^\circ$	5/2 - 3/2	A4
Ni VIII	186.93	40		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 3/2	A4
Ni VIII	187.08	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 3/2	A4
Ni VIII	187.20	20		$3d^3 - 3d^2(a^3F)4p$	$a^2H - z^4F^\circ$	9/2 - 9/2	A4
Ni VIII	187.23	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4F^\circ$	5/2 - 7/2	A4
Ni VIII	187.87	10		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4G^\circ$	5/2 - 7/2	A4
Ni VIII	188.06	20		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4F^\circ$	3/2 - 5/2	A4
Ni VIII	188.58	150		$3d^3 - 3d^2(a^3F)4p$	$a^2D - z^4F^\circ$	3/2 - 3/2	A4

NICKEL IX (Ni^{8+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2$ $^3F_2$ (20 electrons)

Ionization Potential [1 573 000] cm^{-1}; [195] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni IX	101.657	80		$3d^2$ - 3d4f	g^3F - $^3G°$	2 - 3	E37
Ni IX	101.701	80		$3d^2$ - 3d4f	g^3F - $^3G°$	3 - 4	E37
Ni IX	101.846	100		$3d^2$ - 3d4f	g^3F - $^3G°$	4 - 5	E37
Ni IX	101.932	20		$3d^2$ - 3d4f	g^3F - $^3G°$	4 - 4	E37
Ni IX	102.283	10		$3d^2$ - 3d4f	g^3F - $^3F°$	2 - 3	E37
Ni IX	102.340	60		$3d^2$ - 3d4f	g^3F - $^3F°$	2 - 2	E37
Ni IX	102.364	1		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 4	E37
Ni IX	102.480	60		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 3	E37
Ni IX	102.539	1		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 2	E37
Ni IX	102.602	100		$3d^2$ - 3d4f	g^3F - $^3F°$	4 - 4	E37
Ni IX	102.710	1		$3d^2$ - 3d4f	g^3F - $^3F°$	4 - 3	E37
Ni IX	103.428	40		$3d^2$ - 3d4f	^1D - $^3D°$	2 - 2	E37
Ni IX	103.620	80		$3d^2$ - 3d4f	^1D - $^1F°$	2 - 3	E37
Ni IX	103.871	60		$3d^2$ - 3d4f	^1D - $^1D°$	2 - 2	E37
Ni IX	103.926	1		$3d^2$ - 3d4f	^3P - $^3D°$	0 - 1	E37
Ni IX	103.981	100		$3d^2$ - 3d4f	^3P - $^3D°$	1 - 2	E37
Ni IX	103.993	100		$3d^2$ - 3d4f	^3P - $^3D°$	2 - 3	E37

NICKEL X (Ni^{9+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d$ $^2D_{3/2}$ (19 electrons)

Ionization Potential 1 811 000 cm^{-1}; 224.5 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni X	61.809	1		3d - 7f	g^2D - $^2F°$	3/2 - 5/2	E37
Ni X	61.915	1		3d - 7f	g^2D - $^2F°$	5/2 - 7/2	E37
Ni X	66.542	10		3d - 6f	g^2D - $^2F°$	3/2 - 5/2	E37
Ni X	66.687	10		3d - 6f	g^2D - $^2F°$	5/2 - 7/2	E37
Ni X	74.097	20		3d - 5f	g^2D - $^2F°$	3/2 - 5/2	E37
Ni X	74.266	30		3d - 5f	g^2D - $^2F°$	5/2 - 7/2	E37
Ni X	82.892	2		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^2D°$	3/2 - 5/2	H8
Ni X	83.108	25		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^2D°$	5/2 - 5/2	H8
Ni X	83.326	2		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^2D°$	5/2 - 3/2	H8
Ni X	83.676	10		$3p^6 3d$ - $3p^5 3d(^1F°)4s$	g^2D - $^2F°$	5/2 - 7/2	H8
Ni X	84.194	2		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^4D°$	3/2 - 5/2	H8
Ni X	84.418	5		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^4D°$	5/2 - 5/2	H8
Ni X	84.659	5		$3p^6 3d$ - $3p^5 3d(^3D°)4s$	g^2D - $^4D°$	5/2 - 7/2	H8
Ni X	85.523	25		$3p^6 3d$ - $3p^5 3d(^3F°)4s$	g^2D - $^2F°$	3/2 - 5/2	H8
Ni X	85.753	5		$3p^6 3d$ - $3p^5 3d(^3F°)4s$	g^2D - $^2F°$	5/2 - 5/2	H8
Ni X	86.300	60		$3p^6 3d$ - $3p^5 3d(^3F°)4s$	g^2D - $^2F°$	5/2 - 7/2	H8
Ni X	86.464	5		$3p^6 3d$ - $3p^5 3d(^3F°)4s$	g^2D - $^4F°$	3/2 - 5/2	H8
Ni X	86.865	2		$3p^6 3d$ - $3p^5 3d(^3F°)4s$	g^2D - $^4F°$	5/2 - 7/2	H8
Ni X	87.077	1		$3p^6 3d$ - $3p^5 3d(^3P°)4s$	g^2D - $^2P°$	3/2 - 3/2	H8
Ni X	87.317	25		$3p^6 3d$ - $3p^5 3d(^3P°)4s$	g^2D - $^2P°$	5/2 - 3/2	H8
Ni X	87.680	15		$3p^6 3d$ - $3p^5 3d(^3P°)4s$	g^2D - $^2P°$	3/2 - 1/2	H8
Ni X	91.527	40		3d - 4f	g^2D - $^2F°$	3/2 - 5/2	E37
Ni X	91.790	60		3d - 4f	g^2D - $^2F°$	5/2 - 7/2	E37
Ni X	144.271	150		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2D°$	3/2 - 3/2	G17
Ni X	144.379	15		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2D°$	3/2 - 5/2	G17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni X	144.933	15		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 3/2	G17
Ni X	145.040	300		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G17
Ni X	145.110	2		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 3/2	G17
Ni X	145.777	60		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	5/2 - 3/2	G17
Ni X	146.119	15		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 1/2	G17
Ni X	158.374	150		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G17
Ni X	159.975	60		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G17
Ni X	160.798	5		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 5/2	G17

NICKEL XI (Ni^{10+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6\ {}^1S_0$ (18 electrons)

Ionization Potential 2 591 000 cm^{-1}; 321.2 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XI	62.730	20		$3p^6 - 3p^5(^2P^\circ)4d$	$g^1S - (1/2, 3/2)^\circ$	0 - 1	E37
Ni XI	63.641	40		$3p^6 - 3p^5(^2P^\circ)4d$	$g^1S - (3/2, 5/2)^\circ$	0 - 1	E37
Ni XI	77.393	80		$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E37
Ni XI	78.744	60		$3p^6 - 3p^5(^2P^\circ)4s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E37
Ni XI	148.402	100		$3p^6 - 3p^5(^2P^\circ)3d$	$g^1S - {}^1P^\circ$	0 - 1	E37

NICKEL XII (Ni^{11+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5\ {}^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential [2 839 200] cm^{-1}; [352] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XII	147.847	1		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	G17
Ni XII	152.152	1		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	G17
Ni XII	152.153	15		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	G17
Ni XII	153.174	5		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	G17
Ni XII	154.175	15		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	G17
Ni XII	157.798	2		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	G17
Ni XII	159.975	1		$3p^5 - 3p^4(^3P)3d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	G17
Ni XII	160.554	2		$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	G17
Ni XII	166.88			$3p^5 - 3p^4(^1D)3d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	F19

NICKEL XIII (Ni^{12+}), Z = 28

Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)

Ionization Potential [3 097 300] cm^{-1}; [384] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XIII	155.12			$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 2	F19
Ni XIII	157.55	50		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1F^\circ$	2 - 3	F19,F11
Ni XIII	157.730	40		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	F19,F11
Ni XIII	158.77	50		$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	0 - 1	F19,F11
Ni XIII	159.97			$3p^4 - 3p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	1 - 2	F19
Ni XIII	161.56	50		$3p^4 - 3p^3(^2D^\circ)3d$	$^1D - {}^1D^\circ$	2 - 2	F19,F11
Ni XIII	161.78			$3p^4 - 3p^3(^2D^\circ)3d$	$^1S - {}^1P^\circ$	0 - 1	F19
Ni XIII	164.15			$3p^4 - 3p^3(^2D^\circ)3d$	$g^3P - {}^3P^\circ$	2 - 2	F19
Ni XIII	303.31			$3s^23p^4 - 3s3p^5$	$g^3P - {}^3P^\circ$	2 - 2	F19
Ni XIII	1277.0	f		$3p^4 - 3p^4$	$g^3P - {}^1S$	1 - 0	S28

NICKEL XIV (Ni^{13+}), Z = 28

Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [3 436 000] cm^{-1}; [426] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XIV	164.146	35		$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2F$	5/2 - 7/2	F19,B5
Ni XIV	164.80			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2D$	1/2 - 3/2	F19
Ni XIV	168.12			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 1/2	F19
Ni XIV	168.37			$3p^3 - 3p^2(^3P)3d$	$^2P^\circ - {}^2D$	3/2 - 5/2	F19
Ni XIV	169.69			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F19
Ni XIV	170.50			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	3/2 - 3/2	F19
Ni XIV	171.37			$3p^3 - 3p^2(^3P)3d$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F19
Ni XIV	172.16			$3p^3 - 3p^2(^1D)3d$	$^2D^\circ - {}^2D$	5/2 - 5/2	F19
Ni XIV	177.28			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	3/2 - 3/2	F19
Ni XIV	177.56			$3p^3 - 3p^2(^1D)3d$	$^2P^\circ - {}^2P$	1/2 - 1/2	F19
Ni XIV	253.69			$3s^23p^3 - 3s3p^4$	$^2D^\circ - {}^2P$	5/2 - 3/2	F19
Ni XIV	292.03			$3s^23p^3 - 3s3p^4$	$^2D^\circ - {}^2D$	5/2 - 5/2	F19
Ni XIV	302.27			$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 3/2	F19
Ni XIV	316.53			$3s^23p^3 - 3s3p^4$	$g^4S^\circ - {}^4P$	3/2 - 5/2	F19
Ni XIV	1034.9	f		$3p^3 - 3p^3$	$g^4S^\circ - {}^2P^\circ$	3/2 - 3/2	S28
Ni XIV	1175.3	f		$3p^3 - 3p^3$	$g^4S^\circ - {}^2P^\circ$	3/2 - 1/2	S28
Ni XIV	1867.1	f		$3p^3 - 3p^3$	$g^4S^\circ - {}^2D^\circ$	3/2 - 5/2	S28
Ni XIV	1966.6	f		$3p^3 - 3p^3$	$^2D^\circ - {}^2P^\circ$	3/2 - 3/2	S28

NICKEL XV (Ni^{14+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2\ ^3P_0$ (14 electrons)

Ionization Potential [3 718 300] cm^{-1}; [461] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XV	173.73			$3p^2$ - $3p3d$	^1D - $^1P°$	2 - 1	F19
Ni XV	174.99			$3p^2$ - $3p3d$	g^3P - $^3D°$	1 - 2	F19
Ni XV	176.10			$3p^2$ - $3p3d$	g^3P - $^3D°$	1 - 1	F19
Ni XV	176.70			$3p^2$ - $3p3d$	g^3P - $^3P°$	0 - 1	F19
Ni XV	178.75			$3p^2$ - $3p3d$	g^3P - $^1D°$	1 - 2	F19
Ni XV	178.87			$3p^2$ - $3p3d$	g^3P - $^3D°$	2 - 2	F19
Ni XV	179.28			$3p^2$ - $3p3d$	g^3P - $^3D°$	2 - 3	F19
Ni XV	180.06			$3p^2$ - $3p3d$	g^3P - $^3D°$	2 - 1	F19
Ni XV	184.89			$3p^2$ - $3p3d$	g^3P - $^3P°$	1 - 2	F19
Ni XV	189.21			$3p^2$ - $3p3d$	g^3P - $^3P°$	2 - 2	F19
Ni XV	195.52			$3p^2$ - $3p3d$	^1D - $^1D°$	2 - 2	F19
Ni XV	209.18			$3s^2 3p^2$ - $3s3p^3$	g^3P - $^3S°$	0 - 1	F19
Ni XV	215.94			$3s^2 3p^2$ - $3s3p^3$	g^3P - $^3S°$	1 - 1	F19
Ni XV	221.93			$3s^2 3p^2$ - $3s3p^3$	g^3P - $^3S°$	2 - 1	F19
Ni XV	224.04			$3s^2 3p^2$ - $3s3p^3$	^1D - $^1P°$	2 - 1	F19
Ni XV	311.73			$3s^2 3p^2$ - $3s3p^3$	g^3P - $^3D°$	1 - 2	F19
Ni XV	319.01			$3s^2 3p^2$ - $3s3p^3$	g^3P - $^3D°$	2 - 3	F19
Ni XV	1034.3	f		$3p^2$ - $3p^2$	g^3P - ^1S	1 - 0	S28

NICKEL XVI (Ni^{15+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2 3p\ ^2P°_{1/2}$ (13 electrons)

Ionization Potential [4 000 600] cm^{-1}; [496] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XVI	185.23			$3p$ - $3d$	$g^2P°$ - ^2D	½ - 3/2	F19
Ni XVI	194.04			$3p$ - $3d$	$g^2P°$ - ^2D	3/2 - 5/2	F19
Ni XVI	218.39			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2P	½ - 3/2	F19
Ni XVI	223.09			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2P	½ - ½	F19
Ni XVI	232.49			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2P	3/2 - 3/2	F19
Ni XVI	237.87			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2P	3/2 - ½	F19
Ni XVI	239.53			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2S	½ - ½	F19
Ni XVI	309.40			$3s^2 3p$ - $3s3p^2$	$g^2P°$ - ^2D	3/2 - 5/2	F19

NICKEL XVII (Ni^{16+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s^2$ $^1S_0$ (12 electrons)

Ionization Potential [4 597 000] cm^{-1}; [570] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XVII	12.830	30		$2p^6 3s^2 - 2p^5 3s^2 3d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Ni XVII	30.91			$3s^2 - 3s5p$	$g\,^1S - ^1P^\circ$	0 - 1	F14
Ni XVII	33.249	6		$3s3p - 3s5d$	$^3P^\circ - ^3D$	0 - 1	F33
Ni XVII	33.340	3		$3s3p - 3s5d$	$^3P^\circ - ^3D$	1 - 2	F33
Ni XVII	33.567	3		$3s3p - 3s5d$	$^3P^\circ - ^3D$	2 - 3	F33
Ni XVII	33.96			$3s3d - 3s6f$	$^3D - ^3F^\circ$	3 - 4	F14
Ni XVII	38.96			$3s3d - 3s5f$	$^1D - ^1F^\circ$	2 - 3	F14
Ni XVII	39.346	3		$3s3d - 3s5f$	$^3D - ^3F^\circ$	1 - 2	F33
Ni XVII	39.373	6		$3s3d - 3s5f$	$^3D - ^3F^\circ$	2 - 3	F33
Ni XVII	39.415	10		$3s3d - 3s5f$	$^3D - ^3F^\circ$	3 - 4	F33
Ni XVII	42.855	20		$3s^2 - 3s4p$	$g\,^1S - ^1P^\circ$	0 - 1	F33
Ni XVII	44.850	6		$3s3p - 3s4d$	$^3P^\circ - ^3D$	0 - 1	F33
Ni XVII	44.995	10		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 2	F33
Ni XVII	45.018	1		$3s3p - 3s4d$	$^3P^\circ - ^3D$	1 - 1	F33
Ni XVII	45.382	20		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 3	F33
Ni XVII	45.424	6		$3s3p - 3s4d$	$^3P^\circ - ^3D$	2 - 2	F33
Ni XVII	52.000	6		$3s3p - 3s4s$	$^3P^\circ - ^3S$	0 - 1	F33
Ni XVII	52.224	10		$3s3p - 3s4s$	$^3P^\circ - ^3S$	1 - 1	F33
Ni XVII	52.802	6		$3s3p - 3s4s$	$^3P^\circ - ^3S$	2 - 1	F33
Ni XVII	54.52			$3s3d - 3s4f$	$^1D - ^1F^\circ$	2 - 3	F14
Ni XVII	55.14	6		$3s3d - 3s4f$	$^3D - ^3F^\circ$	1 - 2	F33
Ni XVII	55.18	10		$3s3d - 3s4f$	$^3D - ^3F^\circ$	2 - 3	F33
Ni XVII	55.25	20		$3s3d - 3s4f$	$^3D - ^3F^\circ$	3 - 4	F33
Ni XVII	249.180			$3s^2 - 3s3p$	$g\,^1S - ^1P^\circ$	0 - 1	F19
Ni XVII	365.60 P			$3s^2 - 3s3p$	$g\,^1S - ^3P^\circ$	0 - 1	K8

NICKEL XVIII (Ni^{17+}), Z = 28

Ground State $1s^2 2s^2 2p^6 3s$ $^2S_{1/2}$ (11 electrons)

Ionization Potential 4 897 400 cm^{-1}; 607.2 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XVIII	14.10	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P^\circ$	½ - ½	F27
Ni XVIII	14.37	-A		$2p^6 3s - 2p^5 3s^2$	$g\,^2S - ^2P^\circ$	½ - 3/2	F27
Ni XVIII	24.881	1		$3p - 8d$	$^2P^\circ - ^2D$	½ - 3/2	F33
Ni XVIII	25.070	3		$3p - 8d$	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	26.020	6		$3s - 6p$	$g\,^2S - ^2P^\circ$	½ - 3/2	F33
Ni XVIII	26.046	3		$3s - 6p$	$g\,^2S - ^2P^\circ$	½ - ½	F33
Ni XVIII	26.218	10		$3p - 7d$	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	27.98			$3d - 8f$	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Ni XVIII	27.982	20		$3p - 6d$	$^2P^\circ - ^2D$	½ - 3/2	F33
Ni XVIII	28.018	3		$3d - 8f$	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Ni XVIII	28.220	35		$3p - 6d$	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	29.383	3		$3d - 7f$	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Ni XVIII	29.422	3		$3d - 7f$	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Ni XVIII	29.779	35		$3s - 5p$	$g\,^2S - ^2P^\circ$	½ - 3/2	F33
Ni XVIII	29.829	20		$3s - 5p$	$g\,^2S - ^2P^\circ$	½ - ½	F33
Ni XVIII	31.845	20		$3d - 6f$	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Ni XVIII	31.890	20		$3d - 6f$	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Ni XVIII	32.034	60		$3p - 5d$	$^2P^\circ - ^2D$	½ - 3/2	F33
Ni XVIII	32.340	90		$3p - 5d$	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	36.990	60		$3d - 5f$	$^2D - ^2F^\circ$	3/2 - 5/2	F33

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XVIII	37.049	60		3d - 5f	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Ni XVIII	41.015	125		3s - 4p	$g^2S - ^2P^\circ$	1/2 - 3/2	F33
Ni XVIII	41.218	90		3s - 4p	$g^2S - ^2P^\circ$	1/2 - 1/2	F33
Ni XVIII	43.814	200		3p - 4d	$^2P^\circ - ^2D$	1/2 - 3/2	F33
Ni XVIII	44.365	250		3p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	44.405	35		3p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	F33
Ni XVIII	50.253	20		3p - 4s	$^2P^\circ - ^2S$	1/2 - 1/2	F33
Ni XVIII	51.042	35		3p - 4s	$^2P^\circ - ^2S$	3/2 - 1/2	F33
Ni XVIII	52.615	200		3d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	F33
Ni XVIII	52.720	250		3d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	F33
Ni XVIII	220.41	10		3p - 3d	$^2P^\circ - ^2D$	1/2 - 3/2	F33
Ni XVIII	233.79	35		3p - 3d	$^2P^\circ - ^2D$	3/2 - 5/2	F33
Ni XVIII	236.36	3		3p - 3d	$^2P^\circ - ^2D$	3/2 - 3/2	F33
Ni XVIII	292.00	10		3s - 3p	$g^2S - ^2P^\circ$	1/2 - 3/2	F33
Ni XVIII	320.56			3s - 3p	$g^2S - ^2P^\circ$	1/2 - 1/2	W7

NICKEL XIX (Ni^{18+}), Z = 28

Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)

Ionization Potential 12 477 000 cm^{-1}; 1546.9 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XIX	8.725	10		$2p^6 - 2p^56d$	$g^1S - ^1P^\circ$	0 - 1	S31
Ni XIX	8.838	20		$2p^6 - 2p^56d$	$g^1S - ^3D^\circ$	0 - 1	S31
Ni XIX	9.130	30		$2p^6 - 2p^55d$	$g^1S - ^1P^\circ$	0 - 1	S31
Ni XIX	9.236	30		$2p^6 - 2p^55d$	$g^1S - ^3D^\circ$	0 - 1	S31
Ni XIX	9.97	30		$2p^6 - 2p^54d$	$g^1S - ^1P^\circ$	0 - 1	S31
Ni XIX	10.102	30		$2p^6 - 2p^54d$	$g^1S - ^3D^\circ$	0 - 1	S31
Ni XIX	10.306	20		$2p^6 - 2p^54s$	$g^1S - ^1P^\circ$	0 - 1	S31
Ni XIX	10.417	20		$2p^6 - 2p^54s$	$g^1S - ^3P^\circ$	0 - 1	S31
Ni XIX	11.522	60		$2s^22p^6 - 2s2p^63p$	$g^1S - ^1P^\circ$	0 - 1	S31,F29
Ni XIX	11.582	50		$2s^22p^6 - 2s2p^63p$	$g^1S - ^3P^\circ$	0 - 1	S31,F29
Ni XIX	12.42	100		$2p^6 - 2p^53d$	$g^1S - ^1P^\circ$	0 - 1	S31,F29
Ni XIX	12.641	90		$2p^6 - 2p^53d$	$g^1S - ^3D^\circ$	0 - 1	S31,F29
Ni XIX	12.805	50		$2p^6 - 2p^53d$	$g^1S - ^3P^\circ$	0 - 1	S31,F29
Ni XIX	13.768	50		$2p^6 - 2p^53s$	$g^1S - ^1P^\circ$	0 - 1	S31,F29
Ni XIX	14.03	70		$2p^6 - 2p^53s$	$g^1S - ^3P^\circ$	0 - 1	S31,F29

NICKEL XX (Ni^{19+}), Z = 28

Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [13 220 000] cm^{-1}; [1639] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XX	11.691	20		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - ^2D$	3/2 - 5/2	S31
Ni XX	11.760	40		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	S31
Ni XX	11.818	60		$2p^5 - 2p^4(^1S)3d$	$g^2P^\circ - ^2D$	1/2 - 3/2	S31
Ni XX	11.854	40		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$	3/2 - 3/2	S31
Ni XX	11.946	60		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - ^2P$?	3/2 - 1/2	S31,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XX	11.963	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2D$?	3/2 - 5/2	S31,K8
Ni XX	12.043	30		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	S31
Ni XX	12.103	40		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	S31
Ni XX	12.139	0		$2p^5 - 2p^4(^1D)3d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	S31,K8
Ni XX	12.164	10		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^4D$?	3/2 - 3/2	S31,C10
Ni XX	12.250	20		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$?	1/2 - 1/2	S31,K8
Ni XX	12.315	0		$2p^5 - 2p^4(^3P)3d$	$g^2P^\circ - {}^2P$?	1/2 - 3/2	S31,K8
Ni XX	12.915	30		$2p^5 - 2p^4(^1D)3s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	S31
Ni XX	13.065	10		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$?	3/2 - 1/2	S31,K8
Ni XX	13.120	10		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^2P$?	3/2 - 3/2	S31,K8
Ni XX	13.151	10		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	S31
Ni XX	13.240	20		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	S31
Ni XX	13.303	10		$2p^5 - 2p^4(^3P)3s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	S31
Ni XX	13.37 ?			$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - {}^2P^\circ$	1/2 - 3/2	K8
Ni XX	83.82 P			$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	K8
Ni XX	94.97 P			$2s^22p^5 - 2s2p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	K8

NICKEL XXI (Ni^{20+}), Z = 28

Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)

Ionization Potential [14 091 000] cm^{-1}; [1747] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXI?	8.886	10					S31
Ni XXI?	8.993	20					S31
Ni XXI	10.902	20		$2s^22p^4 - 2s2p^43p$	$^1D - {}^1F^\circ$	2 - 3	S31
Ni XXI?	11.123	20					S31
Ni XXI	11.342	20		$2p^4 - 2p^3(^2P^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S31
Ni XXI	11.403	20		$2p^4 - 2p^3(^2D^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S31
Ni XXI	11.457	20		$2p^4 - 2p^3(^4S^\circ)3d$	$g^3P - {}^3D^\circ$	2 - 3	S31
Ni XXI	12.467	30		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	2 - 1	S31
Ni XXI	12.552	30		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	1 - 1	S31
Ni XXI	12.581	30		$2p^4 - 2p^3(^4S^\circ)3s$	$g^3P - {}^3S^\circ$	0 - 1	S31

NICKEL XXII (Ni^{21+}), Z = 28

Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)

Ionization Potential [15 180 000] cm^{-1}; [1882] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXII?	8.798	10					S31
Ni XXII	10.820	20		$2p^3 - 2p^23d$	$^2P^\circ - {}^2P$	3/2 - 3/2	S31
Ni XXII	11.203	30		$2p^3 - 2p^23d$	$^2D^\circ - {}^2D$	5/2 - 5/2	S31

NICKEL XXIII (Ni^{22+}), Z = 28

Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)

Ionization Potential [16 156 000] cm^{-1}; [2003] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXIII?	10.680	10					S31
Ni XXIII?	10.762	20					S31
Ni XXIII	10.967	20		$2p^2$ - $2p3s$	$g\,^3P$ - $^1P^\circ$	0 - 1	S31
Ni XXIII?	11.002	20					S31
Ni XXIII	11.023	20		$2p^2$ - $2p3s$	$g\,^3P$ - $^3P^\circ$?	0 - 1	S31
Ni XXIII	11.073	0		$2p^2$ - $2p3s$	$g\,^3P$ - $^1P^\circ$	1 - 1	S31
Ni XXIII	11.159	20		$2p^2$ - $2p3s$	$g\,^3P$ - $^1P^\circ$?	2 - 1	S31
Ni XXIII	11.262	30		$2p^2$ - $2p3s$	^1D - $^3P^\circ$?	2 - 1	S31
Ni XXIII	11.298	40		$2p^2$ - $2p3s$	^1S - $^1P^\circ$	0 - 1	S31

NICKEL XXIV (Ni^{23+}), Z = 28

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [17 124 000] cm^{-1}; [2123] eV

NICKEL XXV (Ni^{24+}), Z = 28

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [18 382 000] cm^{-1}; [2279] eV

NICKEL XXVI (Ni^{25+}), Z = 28

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [19 342 000] cm^{-1}; [2398] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXVI	157.5 P			2s - 2p	$g\,^2S$ - $^2P^\circ$	½ - 3/2	K8
Ni XXVI	221.6 P			2s - 2p	$g\,^2S$ - $^2P^\circ$	½ - ½	K8

NICKEL XXVII (Ni^{26+}), Z = 28

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [82 980 000] cm^{-1}; [10288] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXVII	1.36			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Ni XXVII	1.60			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Ni XXVII	1.63 ?	f		$1s^2 - 1s2s$	$g\,^1S - ^3S$	0 - 1	K8

NICKEL XXVIII (Ni^{27+}), Z = 28

Ground State $1s\ ^2S_{1/2}$ (1 electron)

Ionization Potential [86 908 000] cm^{-1}; [10775] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ni XXVIII	1.54 P			1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8

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COPPER, Z = 29

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu	8.931	0					S31
Cu	9.040	0					S31
Cu	9.060	0					S31
Cu	9.280	10					S31
Cu	9.309	10					S31
Cu	9.375	10					S31
Cu	9.448	10					S31
Cu	9.582	0					S31
Cu	9.640	0					S31
Cu	9.653	0					S31
Cu	9.752	0					S31
Cu	9.792	0					S31
Cu	9.892	0					S31
Cu	10.010	10					S31
Cu	10.037	10					S31
Cu	10.963	30					S31
Cu	11.229	10					S31
Cu	11.479	40					S31
Cu	11.678	30					S31
Cu	11.904	10					S31
Cu	12.003	10					S31
Cu	12.439	0					S31
Cu	109.215	120					K20
Cu	112.532	120					K20
Cu	120.594	150					K20
Cu	127.105	200					K20
Cu	128.123	250					K20
Cu	128.255	300					K20
Cu	129.398	100					K20
Cu	129.567	400					K20
Cu	129.697	200					K20
Cu	131.533	150					K20
Cu	131.590	350					K20
Cu	133.916	400					K20
Cu	134.550	600					K20
Cu	136.724	450					K20
Cu	136.936	400					K20
Cu	141.694	300					K20
Cu	142.158	200					K20
Cu	142.892	600					K20
Cu	143.033	500					K20
Cu	143.634	150					K20
Cu	144.728	250					K20
Cu	145.651	350					K20
Cu	145.671	100					K20
Cu	146.669	1000					K20
Cu	147.544	200					K20
Cu	148.846	800					K20
Cu	149.703	800					K20
Cu	154.785	400					K20
Cu	155.718	150					K20
Cu	156.557	200					K20
Cu	156.847	200					K20
Cu	157.359	400					K20
Cu	159.072	100					K20
Cu	159.462	100					K20
Cu	160.763	500					K20
Cu	161.551	300					K20
Cu	161.748	250					K20
Cu	162.078	200					K20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu	162.651	100					K20
Cu	163.271	300					K20
Cu	163.598	250					K20
Cu	164.259	200					K20
Cu	165.127	300					K20
Cu	165.481	250					K20
Cu	166.308	120					K20
Cu	166.645	100					K20
Cu	168.111	150					K20
Cu	169.488	150					K20
Cu	169.765	150					K20
Cu	170.007	150					K20
Cu	172.036	400					K20
Cu	173.193	100					K20
Cu	175.484	300					K20
Cu	175.633	250					K20
Cu	176.232	150					K20
Cu	176.824	100					K20
Cu	177.466	200					K20
Cu	178.489	150					K20
Cu	179.223	150					K20
Cu	180.986	200					K20
Cu	186.296	150					K20
Cu	197.128	300					K20
Cu	197.598	300					K20
Cu	199.723	100					K20
Cu	201.329	150					K20
Cu	201.615	200					K20
Cu	202.065	200					K20
Cu	203.432	600					K20
Cu	204.056	150					K20
Cu	204.725	400					K20
Cu	205.610	300					K20
Cu	206.355	600					K20
Cu	206.842	350					K20
Cu	207.733	150					K20
Cu	207.925	350					K20
Cu	210.217	150					K20
Cu	210.612	150					K20
Cu	211.707	200					K20
Cu	215.611	500					K20
Cu	216.454	250					K20
Cu	217.743	200					K20
Cu	241.583	150					K20
Cu	248.153	100					K20
Cu	249.415	150					K20
Cu	249.908	100					K20
Cu	250.400	300					K20
Cu	251.670	200					K20
Cu	251.947	200					K20
Cu	252.223	150					K20
Cu	252.780	750					K20
Cu	253.465	150					K20
Cu	253.786	150					K20
Cu	254.510	500					K20
Cu	254.772	700					K20
Cu	255.417	350					K20
Cu	256.365	300					K20
Cu	256.898	400					K20
Cu	257.315	200					K20
Cu	257.626	200					K20
Cu	258.004	150					K20
Cu	258.265	450					K20
Cu	258.927	800					K20
Cu	259.871	250					K20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu	260.245	250					K20
Cu	261.606	300					K20
Cu	261.806	200					K20
Cu	262.442	200					K20
Cu	264.029	150					K20
Cu	266.061	200					K20
Cu	266.584	100					K20
Cu	267.562	250					K20
Cu	268.773	500					K20
Cu	269.044	400					K20
Cu	269.653	200					K20
Cu	270.740	200					K20
Cu	272.424	150					K20
Cu	272.807	100					K20
Cu	273.417	200					K20
Cu	274.601	150					K20
Cu	275.244	100					K20
Cu	277.761	100					K20
Cu	279.150	100					K20
Cu	281.492	500					K20
Cu	281.744	400					K20
Cu	293.257	100					K20
Cu	297.057	100					K20
Cu	298.901	200					K20
Cu	299.217	150					K20
Cu	304.434	100					K20
Cu	310.727	150					K20
Cu	312.505	200					K20
Cu	322.617	150					K20
Cu	323.816	600					K20
Cu	324.607	500					K20
Cu	325.038	200					K20
Cu	325.687	200					K20
Cu	326.575	200					K20
Cu	327.383	150					K20
Cu	328.412	500					K20
Cu	328.536	250					K20
Cu	328.831	200					K20
Cu	329.047	1000					K20
Cu	329.851	300					K20
Cu	332.405	100					K20
Cu	332.893	1000					K20
Cu	333.562	300					K20
Cu	334.204	300					K20
Cu	335.470	150					K20
Cu	335.919	250					K20
Cu	336.279	250					K20
Cu	341.483	250					K20
Cu	342.713	800					K20
Cu	345.368	900					K20
Cu	346.004	600					K20
Cu	348.413	150					K20
Cu	350.056	100					K20
Cu	353.031	150					K20
Cu	353.568	100					K20
Cu	357.052	100					K20
Cu	358.865	900					K20
Cu	359.873	500					K20
Cu	361.220	250					K20
Cu	361.838	150					K20
Cu	363.967	100					K20
Cu	370.622	100					K20
Cu	371.267	100					K20
Cu	377.355	100					K20
Cu	377.756	150					K20

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu	446.359	100					K20
Cu	454.791	100					K20
Cu	467.106	150					K20

COPPER I (Cu^{0+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential 62 317.2 cm^{-1}; 7.726 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu I?	1504.091	0					S17
Cu I?	1522.252	0h					S17
Cu I?	1523.371	1h					S17
Cu I?	1523.851	0h					S17
Cu I	1579.658	5		$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2D°$	5/2 - 5/2	S17
Cu I	1583.799	15	32	$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2F°$	5/2 - 7/2	S17
Cu I	1585.871	5h	31	$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2P°$	5/2 - 3/2	S17
Cu I	1616.940	20h	31	$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2P°$	3/2 - 1/2	S17
Cu I	1621.316	20	32	$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2F°$	3/2 - 5/2	S17
Cu I	1632.326	5		$3d^9 4s^2 - 3d^9 4s(^1D)5p$	$^2D - ^2D°$	3/2 - 3/2	S17
Cu I	1640.474	5r	13	$3d^{10} 4s - 3d^{10} 11p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1647.030	0h		$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2P°$	5/2 - 3/2	S17
Cu I	1650.119	5r	12	$3d^{10} 4s - 3d^{10} 10p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1650.301	5r	12	$3d^{10} 4s - 3d^{10} 10p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1651.721	20r	30	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2D°$	5/2 - 5/2	S17
Cu I	1655.318	30r	29	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2F°$	5/2 - 7/2	S17
Cu I	1664.303	10r	11	$3d^{10} 4s - 3d^{10} 9p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1664.708	10r	11	$3d^{10} 4s - 3d^{10} 9p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1671.484	3	28	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4D°$	5/2 - 3/2	S17
Cu I	1673.440	5	29	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2F°$	5/2 - 5/2	S17
Cu I	1684.674	20h	28	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4D°$	5/2 - 5/2	S17
Cu I	1685.682	25r	10	$3d^{10} 4s - 3d^{10} 8p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1687.043	20r	10	$3d^{10} 4s - 3d^{10} 8p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1688.093	30	28	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4D°$	5/2 - 7/2	S17
Cu I	1688.865	15	27	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4F°$	5/2 - 5/2	S17
Cu I	1691.076	30	27	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4F°$	5/2 - 7/2	S17
Cu I	1692.654	5h		$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4P°$	5/2 - 3/2	S17
Cu I	1701.292	10	30	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2D°$	3/2 - 3/2	S17
Cu I	1703.843	30r	8	$3d^{10} 4s - 3d^9 4s(^1D)4p$	$g^2S - ^2D°$	1/2 - 3/2	S17
Cu I	1707.391	5f		$3d^{10} 4s - 3d^{10} 8s$	$^2S - ^2S$	1/2 - 1/2	S17
Cu I	1709.396	2		$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2D°$	3/2 - 5/2	S17
Cu I	1713.364	50r	7	$3d^{10} 4s - 3d^9 4s(^1D)4p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1725.664	50r	9	$3d^{10} 4s - 3d^{10} 7p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1730.576	10	28	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4D°$	3/2 - 3/2	S17
Cu I	1731.32	2h		$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4P°$	3/2 - 1/2	S17
Cu I	1732.674	20	29	$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^2F°$	3/2 - 5/2	S17
Cu I	1741.574	50r	9	$3d^{10} 4s - 3d^{10} 7p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1749.202	2		$3d^9 4s^2 - 3d^9 4s(^3D)5p$	$^2D - ^4F°$	3/2 - 5/2	S17
Cu I	1764.540	10f		$3d^{10} 4s - 3d^{10} 7s$	$^2S - ^2S$	1/2 - 1/2	S17
Cu I	1774.820	200r	7	$3d^{10} 4s - 3d^9 4s(^1D)4p$	$g^2S - ^2P°$	1/2 - 3/2	S17
Cu I	1817.265	20	6	$3d^{10} 4s - 3d^{10} 6p$	$g^2S - ^2P°$	1/2 - 1/2	S17
Cu I	1825.348	100r	6	$3d^{10} 4s - 3d^{10} 6p$	$g^2S - ^2P°$	1/2 - 3/2	S17

COPPER II (Cu^{1+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}$ $^1S_0$ (28 electrons)

Ionization Potential 163 669.2 cm^{-1}; 20.292 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	675.6020	2		$3d^{10}$ - $3d^9(^2D)5f$	g^1S - $^3D°$	0 - 1	R21
Cu II	685.1406	8		$3d^{10}$ - $3d^9(^2D)5f$	g^1S - $^1P°$	0 - 1	R21
Cu II	685.3968	2		$3d^{10}$ - $3d^9(^2D)5f$	g^1S - $^3P°$	0 - 1	R21
Cu II	709.3129	10	12	$3d^{10}$ - $3d^9(^2D)6p$	g^1S - $^1P°$	0 - 1	R21
Cu II	718.1787	10	11	$3d^{10}$ - $3d^9(^2D)6p$	g^1S - $^3P°$	0 - 1	R21
Cu II	724.4887	15	10	$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^3D°$	0 - 1	R21
Cu II	735.5203	20	9	$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^1P°$	0 - 1	R21
Cu II	736.0319	25	8	$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^3P°$	0 - 1	R21
Cu II	752.80	0					R21
Cu II	763.29	0					R21
Cu II	768.48	0					R21
Cu II	776.48	0					R21
Cu II	777.7435	0		$3d^9(^2D)4s$ - $3d^9(^2D)6f$	^3D - $^3P°$	2 - 1	R21
Cu II	779.2949	8		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3F°$	3 - 2	R21
Cu II	784.9125	0		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3F°$	2 - 2	R21
Cu II	797.4552	10		$3d^9(^2D)4s$ - $3d^9(^2D)7p$	^3D - $^3P°$	3 - 2	R21
Cu II	806.5472	3		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^1D - $v^3F°$	2 - 2	R21
Cu II	810.635	1					R21
Cu II	810.9984	15	5	$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^3D°$	0 - 1	R21
Cu II	811.29	1					R21
Cu II	813.8834	20	6	$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^1P°$	0 - 1	R21
Cu II	822.500	1					R21
Cu II	823.768	2	43	$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3D°$	2 - 1	R21
Cu II	823.8378	2		$3d^9(^2D)4s$ - $3d^9(^2D)7p$	^1D - $^3D°$	2 - 2	R21
Cu II	824.635	2					R21
Cu II	826.9961	30	4	$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^3P°$	0 - 1	R21
Cu II	836.0278	0		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^1D°$	3 - 2	R21
Cu II	839.47	1					R21
Cu II	841.1346	2	47	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3F°$	2 - 2	R21
Cu II	842.4964	3		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^1D°$	2 - 2	R21
Cu II	844.6128	3	48	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	2 - 1	R21
Cu II	844.9122	5		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^1F°$	2 - 3	R21
Cu II	848.8075	15	48	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	3 - 3	R21
Cu II	849.3594	3	47	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3F°$	1 - 2	R21
Cu II	850.7480	2		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^1D°$	1 - 2	R21
Cu II	851.3027	25	47	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3F°$	3 - 4	R21
Cu II	851.7714	2	47	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3F°$	3 - 3	R21
Cu II	852.9061	3	48	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	1 - 1	R21
Cu II	853.5644	1		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3P°$	1 - 0	R21
Cu II	855.4762	5	48	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	2 - 3	R21
Cu II	855.7002	10	48	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	2 - 2	R21
Cu II	858.4869	25	47	$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3F°$	2 - 3	R21
Cu II	858.5667	25		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3G°$	3 - 3	R21
Cu II	859.1509	0		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3P°$	2 - 1	R21
Cu II	860.7217	1	43	$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3D°$	2 - 2	R21
Cu II	861.9936	40		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3F°$	3 - 4	R21
Cu II	862.8226	2		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3P°$	2 - 2	R21
Cu II	864.1546	10		$3d^9(^2D)4s$ - $3d^84s(^2P)4p$	^3D - $w^1D°$	3 - 2	R21
Cu II	864.2138	10		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3D°$	1 - 2	R21
Cu II	865.3902	40		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3G°$	2 - 3	R21
Cu II	866.4427	5		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3G°$	2 - 3	R21
Cu II	867.7336	8		$3d^9(^2D)4s$ - $3d^9(^2D)6p$	^3D - $^3P°$	1 - 1	R21
Cu II	869.0641	10		$3d^9(^2D)4s$ - $3d^84s(^2P)4p$	^3D - $w^3S°$	2 - 1	R21
Cu II	869.3360	25	43	$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3D°$	1 - 2	R21
Cu II	870.5389	8	42	$3d^9(^2D)4s$ - $3d^84s(^2G)4p$	^3D - $u^3F°$	3 - 2	R21
Cu II	871.0676	8		$3d^9(^2D)4s$ - $3d^84s(^2P)4p$	^3D - $w^1D°$	2 - 2	R21
Cu II	873.2629	15	43	$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $v^3D°$	3 - 3	R21
Cu II	876.7227	20		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3F°$	3 - 3	R21
Cu II	877.0121	25		$3d^9(^2D)4s$ - $3d^84s(^4P)4p$	^3D - $x^5S°$	3 - 2	R21
Cu II	877.5548	20	42	$3d^9(^2D)4s$ - $3d^84s(^2G)4p$	^3D - $u^3F°$	2 - 2	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	877.8471	15		$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3S^\circ$	1 - 1	R21
Cu II	878.6986	50	42	$3d^9(^2D)4s - 3d^84s(^2G)4p$	$^3D - u^3F^\circ$	3 - 3	R21
Cu II	879.8912	2		$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^1D^\circ$	1 - 2	R21
Cu II	880.3230	5	43	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - v^3D^\circ$	2 - 3	R21
Cu II	883.2800	5		$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^1P^\circ$	1 - 1	R21
Cu II	883.8390	5		$3d^9(^2D)4s - 3d^9(^2D)4f$	$^3D - ^3F^\circ$	2 - 3	R21
Cu II	884.1332	10	44	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5S^\circ$	2 - 2	R21
Cu II	884.4346	8	75	$3d^9(^2D)4s - 3d^9(^2D)6p$	$^1D - ^3F^\circ$	2 - 3	R21
Cu II	884.8262	5		$3d^9(^2D)4s - 3d^9(^2D)4f$	$^3D - ^3P^\circ$	2 - 1	R21
Cu II	885.8472	25	42	$3d^9(^2D)4s - 3d^84s(^2G)4p$	$^3D - u^3F^\circ$	2 - 3	R21
Cu II	886.5111	10	42	$3d^9(^2D)4s - 3d^84s(^2G)4p$	$^3D - u^3F^\circ$	1 - 2	R21
Cu II	886.9434	60	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	3 - 2	R21
Cu II	890.5669	60	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	2 - 1	R21
Cu II	892.4144	50	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	3 - 3	R21
Cu II	893.6777	80	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	3 - 2	R21
Cu II	894.2274	40	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	2 - 2	R21
Cu II	896.7588	60	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	2 - 1	R21
Cu II	896.9762	40	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	1 - 0	R21
Cu II	897.7932	15	74	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^1D - w^1D^\circ$	2 - 2	R21
Cu II	899.7888	50	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	2 - 3	R21
Cu II	899.7922	50	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	1 - 1	R21
Cu II	901.0731	60	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	2 - 2	R21
Cu II	903.5290	1	41	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3D^\circ$	1 - 2	R21
Cu II	906.1134	40	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	1 - 1	R21
Cu II	910.5185	15	40	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^3D - w^3P^\circ$	1 - 2	R21
Cu II	911.6301	1		$3d^9(^2D)4s - 3d^9(^2D)4f$	$^1D - ^1P^\circ$	2 - 1	R21
Cu II	911.6793	1		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^1D - x^5S^\circ$	2 - 2	R21
Cu II	912.0248	0		$3d^9(^2D)4s - 3d^9(^2D)4f$	$^1D - ^3P^\circ$	2 - 2	R21
Cu II	912.4162	3		$3d^9(^2D)4s - 3d^9(^2D)4f$	$^1D - ^3P^\circ$	2 - 1	R21
Cu II	913.5018	0		$3d^9(^2D)4s - 3d^84s(^2G)4p$	$^1D - u^3F^\circ$	2 - 3	R21
Cu II	914.2133	80	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	3 - 4	R21
Cu II	917.3058	20	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	3 - 2	R21
Cu II	922.0190	60	37	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3P^\circ$	3 - 2	R21
Cu II	922.4161	20	73	$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^1D - w^3P^\circ$	2 - 2	R21
Cu II	924.2386	50	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	2 - 3	R21
Cu II	925.0992	30	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	2 - 2	R21
Cu II	925.1098	30		$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^1D - w^3P^\circ$	2 - 1	R21
Cu II	925.1263	30	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	2 - 1	R21
Cu II	929.7020	2		$3d^9(^2D)4s - 3d^84s(^2P)4p$	$^1D - w^3P^\circ$	2 - 2	R21
Cu II	929.8930	5	37	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3P^\circ$	2 - 2	R21
Cu II	932.9387	60	33	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3D^\circ$	3 - 3	R21
Cu II	935.0577	60	38	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	1 - 2	R21
Cu II	935.0855	60		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5D^\circ$	1 - 1	R21
Cu II	935.2325	40	33	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3D^\circ$	3 - 2	R21
Cu II	935.3434	20	37	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3P^\circ$	2 - 1	R21
Cu II	935.8977	60	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	3 - 4	R21
Cu II	937.8175	5	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	3 - 3	R21
Cu II	939.5232	10	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	3 - 2	R21
Cu II	943.3348	60	33	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3D^\circ$	2 - 2	R21
Cu II	945.5249	60	37	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3P^\circ$	1 - 1	R21
Cu II	945.8769	40	33	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3D^\circ$	2 - 1	R21
Cu II	945.9648	50	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	2 - 3	R21
Cu II	*947.7003	2	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	2 - 2	R21
Cu II	951.4079	5		$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3P^\circ$	1 - 0	R21
Cu II	954.3830	20		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^1D - x^5D^\circ$	2 - 3	R21
Cu II	955.3297	5		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^1D - x^5D^\circ$	2 - 1	R21
Cu II	956.2903	25		$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3D^\circ$	1 - 1	R21
Cu II	958.1542	40	33	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^3D - y^3F^\circ$	1 - 2	R21
Cu II	960.4135	20	35	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3P^\circ$	2 - 2	R21
Cu II	966.2287	3	69	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3P^\circ$	2 - 1	R21
Cu II	967.8729	0		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	3 - 2	R21
Cu II	968.0343	25		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	3 - 3	R21
Cu II	972.2674	2		$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3D^\circ$	2 - 3	R21
Cu II	973.4995	2		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	2 - 1	R21
Cu II	974.7589	20		$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3D^\circ$	2 - 2	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	976.5532	10		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	2 - 2	R21
Cu II	976.7176	10		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	2 - 3	R21
Cu II	977.5674	25	67	$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3F^\circ$	2 - 3	R21
Cu II	979.4209	5		$3d^9(^2D)4s - 3d^84s(^2D)4p$	$^1D - y^3F^\circ$	2 - 2	R21
Cu II	983.9802	1	32	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1D^\circ$	3 - 2	R21
Cu II	984.5336	10		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	1 - 1	R21
Cu II	987.6570	10		$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^3D - x^5P^\circ$	1 - 2	R21
Cu II	989.2365	8	31	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1F^\circ$	3 - 3	R21
Cu II	992.9532	25	32	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1D^\circ$	2 - 2	R21
Cu II	998.3060	8	31	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1F^\circ$	2 - 3	R21
Cu II	999.7940	5		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1P^\circ$	2 - 1	R21
Cu II	1001.0130	8	27	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	2 - 2	R21
Cu II	1004.0554	30	30	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	3 - 3	R21
Cu II	1006.9841	1	30	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	1 - 1	R21
Cu II	1008.5688	30	29	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^1F^\circ$	3 - 3	R21
Cu II	1008.7284	30	30	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	2 - 2	R21
Cu II	1010.2690	30	68	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^1D - x^5P^\circ$	2 - 2	R21
Cu II	1010.4450	10	68	$3d^9(^2D)4s - 3d^84s(^4P)4p$	$^1D - x^5P^\circ$	2 - 3	R21
Cu II	1010.6395	3	28	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^1D^\circ$	3 - 2	R21
Cu II	1011.4358	2		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1P^\circ$	1 - 1	R21
Cu II	1012.5971	25	27	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	3 - 3	R21
Cu II	1012.6833	3	27	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	1 - 2	R21
Cu II	1013.3999	1		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	2 - 3	R21
Cu II	1017.9980	15	29	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^1F^\circ$	2 - 3	R21
Cu II	1018.0642	15	26	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	1 - 0	R21
Cu II	1018.7073	50	26	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	3 - 2	R21
Cu II	1019.6545	15	26	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	2 - 1	R21
Cu II	1020.1076	15	28	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^1D^\circ$	2 - 2	R21
Cu II	1022.1021	5	27	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	2 - 3	R21
Cu II	1027.8311	50	64	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1D^\circ$	2 - 2	R21
Cu II	1028.3279	25	26	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	2 - 2	R21
Cu II	1029.7508	10	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	3 - 2	R21
Cu II	1030.2633	20	25	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^1G^\circ$	3 - 4	R21
Cu II	1031.7662	8	26	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	1 - 1	R21
Cu II	1033.5677	10	63	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1F^\circ$	2 - 3	R21
Cu II	1035.1628	8	62	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1P^\circ$	2 - 1	R21
Cu II	1036.4695	60	58	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3F^\circ$	2 - 2	R21
Cu II	1039.3477	60	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	3 - 3	R21
Cu II	1039.5821	60	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	2 - 2	R21
Cu II	1044.5188	80	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	3 - 4	R21
Cu II	1044.7435	80	61	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3D^\circ$	2 - 2	R21
Cu II	1049.3640	20	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	2 - 3	R21
Cu II	1049.7554	50	61	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3D^\circ$	2 - 3	R21
Cu II	1050.1536	10	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	2 - 1	R21
Cu II	1050.4028	10	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	3 - 2	R21
Cu II	1052.1747	20	24	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3F^\circ$	1 - 2	R21
Cu II	1054.6901	60	60	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^1F^\circ$	2 - 3	R21
Cu II	1055.7968	40	22	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3G^\circ$	3 - 3	R21
Cu II	1056.9546	60	59	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^1D^\circ$	2 - 2	R21
Cu II	1058.7988	40	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	3 - 3	R21
Cu II	1059.0960	60	58	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3F^\circ$	2 - 3	R21
Cu II	1060.6343	60	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	2 - 2	R21
Cu II	1063.0052	60	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	1 - 1	R21
Cu II	1065.7821	20	57	$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3P^\circ$	2 - 2	R21
Cu II	1066.1343	20	22	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3G^\circ$	2 - 3	R21
Cu II	1069.1954	50	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	2 - 3	R21
Cu II	1070.3112	15	22	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3G^\circ$	3 - 4	R21
Cu II	1073.7454	30	23	$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^3D - z^3D^\circ$	1 - 2	R21
Cu II	1077.8759	1		$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^3F^\circ$	2 - 2	R21
Cu II	1086.1102	5	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	3 - 3	R21
Cu II	1088.3953	20		$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^3F^\circ$	2 - 3	R21
Cu II	1089.2447	3		$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^3D^\circ$	2 - 1	R21
Cu II	1091.2916	5	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	2 - 2	R21
Cu II	1094.4025	30	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	3 - 4	R21
Cu II	1097.0529	25	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	2 - 3	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	1101.8362	1	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	1 - 1	R21
Cu II	1105.1765	5	21	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5F^\circ$	1 - 2	R21
Cu II	1106.4471	3		$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^3G^\circ$	2 - 3	R21
Cu II	1109.7445	1		$3d^9(^2D)4s - 3d^84s(^2F)4p$	$^1D - z^3D^\circ$	2 - 3	R21
Cu II	1111.7577	0	20	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5G^\circ$	3 - 3	R21
Cu II	1112.407	5					R21
Cu II	1119.9470	15	20	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5G^\circ$	3 - 4	R21
Cu II	1123.2260	5	20	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5G^\circ$	2 - 3	R21
Cu II	1130.8853	1	20	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5G^\circ$	1 - 2	R21
Cu II	1130.8978	1		$3d^9(^2D)4p - 3d^9(^2D)9s$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1142.6405	20	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	2 - 2	R21
Cu II	1144.8556	30	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	3 - 3	R21
Cu II	1147.7617	8	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	1 - 1	R21
Cu II	1157.0206	5	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	2 - 3	R21
Cu II	1157.8719	8	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	1 - 2	R21
Cu II	1157.8807	8		$3d^9(^2D)4p - 3d^9(^2D)9s$	$^3P^\circ - ^3D$	1 - 2	R21
Cu II	1162.6010	3	19	$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	3 - 4	R21
Cu II	1185.8991	2		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3P^\circ - ^3D$	2 - 3	R21
Cu II	1192.261	2					R21
Cu II	1201.6258	2		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3G$	3 - 4	R21
Cu II	1204.6158	1		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3F$	4 - 4	R21
Cu II	1204.6356	1		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3F$	4 - 3	R21
Cu II	1204.6531	1		$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^1D - ^5D^\circ$	2 - 3	R21
Cu II	1205.1467	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3D$	4 - 3	R21
Cu II	1205.1944	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3D^\circ - ^1F$	3 - 3	R21
Cu II	1205.2024	0		$3d^9(^2D)4p - 3d^9(^2D)9s$	$^1D^\circ - ^3D$	2 - 1	R21
Cu II	1205.9029	2		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3G$	4 - 5	R21
Cu II	1206.7691	0		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3P^\circ - ^3D$	1 - 2	R21
Cu II	1214.5399	1		$3d^9(^2D)4p - 3d^9(^2D)9s$	$^1F^\circ - ^3D$	3 - 3	R21
Cu II	1214.5546	1		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	3 - 2	R21
Cu II	1219.3337	1		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	4 - 3	R21
Cu II	1235.8729	0		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	2 - 2	R21
Cu II	1240.0272	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1241.9641	2		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^1D$	2 - 2	R21
Cu II	1243.0857	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^1P$	1 - 1	R21
Cu II	1248.7916	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	2 - 3	R21
Cu II	1250.0483	10	90	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3P$	2 - 2	R21
Cu II	1253.1809	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3S$	2 - 1	R21
Cu II	1255.1571	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	0 - 1	R21
Cu II	1257.6833	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^1P$	0 - 1	R21
Cu II	1261.2154	0		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	2 - 2	R21
Cu II	1262.9249	3	90	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3P$	1 - 0	R21
Cu II	1265.5062	15	91	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1266.3101	10	89	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	1 - 1	R21
Cu II	1268.6686	0		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^1F^\circ - ^3D$	3 - 3	R21
Cu II	1269.4464	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	2 - 2	R21
Cu II	1271.3178	2	90	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	1 - 2	R21
Cu II	1272.0417	8	102	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	2 - 3	R21
Cu II	1273.7007	2	90	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3P$	1 - 1	R21
Cu II	1274.0708	3		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^1D$	3 - 2	R21
Cu II	1274.4651	3		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	2 - 2	R21
Cu II	1275.5717	30	89	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	2 - 3	R21
Cu II	1279.9615	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	3 - 2	R21
Cu II	1280.2682	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	3 - 3	R21
Cu II	1281.2570	3		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	3 - 3	R21
Cu II	1281.4616	8		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	0 - 1	R21
Cu II	1282.4547	15	102	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	3 - 4	R21
Cu II	1283.8298	1		$3d^84s^2 - 3d^9(^2D)7p$	$^3F - ^3F^\circ$	4 - 4	R21
Cu II	1284.8712	8		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	4 - 4	R21
Cu II	1285.5186	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^1F$	3 - 3	R21
Cu II	1285.9222	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	4 - 3	R21
Cu II	1287.4683	15	102	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	4 - 5	R21
Cu II	1297.5498	2		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^1D$	2 - 2	R21
Cu II	1297.978	1					R21
Cu II	1298.3949	15	101	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	2 - 1	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	1298.9053	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3G$	2 - 3	R21
Cu II	1299.2678	10	89	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	1 - 2	R21
Cu II	1303.6602	2		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	2 - 2	R21
Cu II	1303.9783	2		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	2 - 3	R21
Cu II	1305.5608	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1F^\circ - ^1G$	3 - 4	R21
Cu II	1308.2971	30	101	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	3 - 2	R21
Cu II	1309.4633	15	101	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	3 - 3	R21
Cu II	1311.7947	1		$3d^84s^2 - 3d^9(^2D)7p$	$^3F - ^3D^\circ$	3 - 3	R21
Cu II	1314.1495	15	149	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^1D$	3 - 2	R21
Cu II	1314.3366	30	101	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	4 - 3	R21
Cu II	1320.6858	10	148	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3F$	3 - 4	R21
Cu II	1321.7962	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3D$	3 - 3	R21
Cu II	1322.6326	6		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1P^\circ - ^1S$	1 - 0	R21
Cu II	1323.2042	3		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3P$	3 - 2	R21
Cu II	1323.7943	6	148	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3F$	1 - 2	R21
Cu II	1325.2421	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^1D$	1 - 2	R21
Cu II	1325.5135	3		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^1D$	2 - 2	R21
Cu II	1326.3954	10	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	2 - 1	R21
Cu II	1328.4129	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^1F$	2 - 3	R21
Cu II	1329.6696	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^1D$	2 - 2	R21
Cu II	1331.8907	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3D$	2 - 2	R21
Cu II	1332.2228	5	148	$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3F$	2 - 3	R21
Cu II	1333.0452	20	163	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^1D$	3 - 2	R21
Cu II	1334.5063	2		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3P$	2 - 1	R21
Cu II	1334.6546	2		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1P^\circ - ^3D$	1 - 1	R21
Cu II	1337.5114	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1P^\circ - ^1P$	1 - 1	R21
Cu II	1339.4952	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1F^\circ - ^3D$	3 - 2	R21
Cu II	1339.7713	5		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1F^\circ - ^3F$	3 - 4	R21
Cu II	1340.9141	3		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1F^\circ - ^3D$	3 - 3	R21
Cu II	1350.5938	15	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	3 - 2	R21
Cu II	1351.8366	25	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	3 - 3	R21
Cu II	1355.3053	15	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	1 - 1	R21
Cu II	1358.7730	30	3	$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^1P^\circ$	0 - 1	R21
Cu II	1359.0091	20	173	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1D^\circ - ^1D$	2 - 2	R21
Cu II	1359.9362	5		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1D^\circ - ^3D$	2 - 1	R21
Cu II	1362.5997	20	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	2 - 2	R21
Cu II	1363.5031	5		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1P^\circ - ^1D$	1 - 2	R21
Cu II	1367.9509	25	2	$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3D^\circ$	0 - 1	R21
Cu II	1370.2520	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1P^\circ - ^3D$	1 - 2	R21
Cu II	1370.5600	2		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^3D$	3 - 2	R21
Cu II	1371.451	2					R21
Cu II	1371.8399	20	162	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^3D$	3 - 3	R21
Cu II	1375.5019	3		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1F$	2 - 3	R21
Cu II	1377.477	3					R21
Cu II	1393.1275	10	147	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	1 - 2	R21
Cu II	1398.6419	10	128	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^1F^\circ$	4 - 3	R21
Cu II	1399.3527	3		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1D^\circ - ^3D$	2 - 3	R21
Cu II	1402.7770	15	186	$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1P^\circ - ^3D$	1 - 2	R21
Cu II	1407.1689	15	88	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1408.8124	2		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	1 - 1	R21
Cu II	1410.002	1					R21
Cu II	1410.570	2					R21
Cu II	1414.8980	10	87	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1P$	1 - 1	R21
Cu II	1418.4265	25	86	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	2 - 3	R21
Cu II	1419.7455	2		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^1G$	3 - 4	R21
Cu II	1421.3737	5		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	2 - 1	R21
Cu II	1421.7589	25	85	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	2 - 2	R21
Cu II	1427.5912	10	86	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	0 - 1	R21
Cu II	1427.8290	20	126	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	4 - 3	R21
Cu II	1428.3580	25	129	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^1D^\circ$	3 - 2	R21
Cu II	1430.2428	40	84	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3S$	2 - 1	R21
Cu II	1433.8404	10	87	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1P$	0 - 1	R21
Cu II	1434.7699	15	85	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	1 - 0	R21
Cu II	1434.9037	125	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	4 - 4	R21,K7
Cu II	1435.3155	10	128	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^1F^\circ$	3 - 3	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	1436.2359	25	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	4 - 3	R21,K7
Cu II	1442.1386	5	83	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^1D$	2 - 2	R21,K7
Cu II	1443.5419	3	100	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	2 - 2	R21
Cu II	1444.1304	2		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	2 - 1	R21
Cu II	1445.9835	20	86	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	1 - 2	R21
Cu II	1446.9006	1		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^1D$	2 - 2	R21
Cu II	1448.6383	1		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3D$	2 - 1	R21
Cu II	1449.0580	20	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	2 - 2	R21
Cu II	1450.3035	40	98	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	2 - 3	R21
Cu II	1452.2935	20	85	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	1 - 1	R21
Cu II	1452.6956	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	1 - 2	R21
Cu II	1455.6624	3		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3G^\circ$	4 - 3	R21
Cu II	1457.1759	10	99	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3D$	3 - 2	R21
Cu II	1458.0016	15	100	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	3 - 3	R21,K7
Cu II	1459.4117	25	126	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	2 - 1	R21
Cu II	1461.5539	15	84	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3S$	1 - 1	R21
Cu II	1463.7515	100	98	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	3 - 4	R21,K7
Cu II	1463.8381	25	100	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	4 - 4	R21,K7
Cu II	1465.5408	15	121	$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3F^\circ$	4 - 4	R21
Cu II	1466.0702	70	126	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	3 - 3	R21,K7
Cu II	1466.5240	4	99	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3D$	4 - 3	R21,K7
Cu II	1466.7284	5		$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	3 - 2	R21
Cu II	1469.6928	15	145	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^1G$	3 - 4	R21
Cu II	1470.6974	150	98	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	4 - 5	R21,K7
Cu II	1472.3950	15	1	$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3P^\circ$	0 - 1	R21,K7
Cu II	1473.5299	8	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	3 - 4	R21,K7
Cu II	1473.9785	25	83	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1474.9348	40	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	3 - 3	R21,K7
Cu II	1475.846	60					R21
Cu II	1476.0593	25		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	1 - 1	R21,K7
Cu II	1478.2363	2		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	2 - 2	R21
Cu II	1481.5438	10		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3D^\circ$	3 - 2	R21,K7
Cu II	1485.3277	6	141	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3G$	2 - 3	R21,K7
Cu II	1485.6102	2	97	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^1D$	3 - 2	R21,K7
Cu II	1485.6778	6	82	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	2 - 2	R21,K7
Cu II	1488.6372	900	82	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	2 - 3	R21,K7
Cu II	1488.8311	10		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	2 - 3	R21,K7
Cu II	1492.1525	4	126	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	2 - 3	R21,K7
Cu II	1492.6817	5	185	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1P^\circ - ^1S$	1 - 0	R21,K7
Cu II	1492.8343	40	126	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3D^\circ$	2 - 2	R21,K7
Cu II	1493.3665	20	161	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1F^\circ - ^1G$	3 - 4	R21,K7
Cu II	1494.6526	5		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3P$	2 - 1	R21
Cu II	1495.4298	20		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3G^\circ$	3 - 3	R21,K7
Cu II	1496.6867	50	82	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	0 - 1	R21,K7
Cu II	1497.956	1					R21
Cu II	1498.5756	3		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3G^\circ$	3 - 3	R21
Cu II	1499.5132	3	123	$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^1G^\circ$	3 - 4	R21,K7
Cu II	1501.3363	5	125	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3F^\circ$	2 - 3	R21,K7
Cu II	1503.3682	10	124	$3d^84s^2 - 3d^9(^2D)6p$	$^3F - ^3P^\circ$	2 - 1	R21,K7
Cu II	1504.7571	30	119	$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3G^\circ$	4 - 5	R21,K7
Cu II	1505.3878	10	118	$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3F^\circ$	4 - 4	R21,K7
Cu II	1505.8572	5		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3F^\circ$	3 - 4	R21
Cu II	1508.1846	15		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - v^3D^\circ$	2 - 2	R21,K7
Cu II	1508.6323	10	118	$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3F^\circ$	4 - 3	R21,K7
Cu II	1510.5058	30	144	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	3 - 4	R21,K7
Cu II	1512.1739	5	115	$3d^84s^2 - 3d^84s(^2G)4p$	$^3F - u^3F^\circ$	4 - 4	R21,K7
Cu II	1512.4646	4		$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^1D^\circ$	3 - 2	R21,K7
Cu II	1513.3659	15	143	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3D$	3 - 3	R21,K7
Cu II	1514.2339	4	144	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	1 - 2	R21,K7
Cu II	1514.4924	200	115	$3d^84s^2 - 3d^84s(^2G)4p$	$^3F - u^3F^\circ$	4 - 3	R21,K7
Cu II	1516.9010	5		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3G$	3 - 4	R21
Cu II	1517.1599	5	142	$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3P$	3 - 2	R21,K7
Cu II	1517.6310	10	97	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^1D$	2 - 2	R21,K7
Cu II	1517.9300	4		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^1D$	1 - 2	R21,K7
Cu II	1519.4918	100	82	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	1 - 2	R21,K7

Cu II

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	1519.8371	200		$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	2 - 1	R21,K7
Cu II	1520.5396	15	172	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^1F	2 - 3	R21,K7
Cu II	1522.5768	7	119	$3d^84s^2$ - $3d^84s(^4F)4p$	^3F - v^3G°	2 - 3	R21,K7
Cu II	1523.7413	3	171	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^1D	2 - 2	R21,K7
Cu II	1524.8601	15	143	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^3D	2 - 2	R21,K7
Cu II	1525.6312	10	114	$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3G°	3 - 3	R21
Cu II	1525.6409	10		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1P^\circ$ - ^3F	1 - 2	R21
Cu II	1525.6686	10		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^3D	2 - 1	R21
Cu II	1525.7645	15		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^3F	2 - 3	R21,K7
Cu II	1525.8381	8		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3G^\circ$	2 - 3	R21,K7
Cu II	1526.9276	5		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^1P	1 - 1	R21
Cu II	1527.8126	5		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3F^\circ$	2 - 2	R21
Cu II?	1528.782	2					S16
Cu II	1528.8952	2		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^1F^\circ$	2 - 3	R21
Cu II	1531.8559	400	96	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	3 - 2	R21,K7
Cu II	1532.1306	90	115	$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3F°	3 - 2	R21,K7
Cu II	1533.9865	30		$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^3S°	2 - 1	R21,K7
Cu II	1535.0023	150	96	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	3 - 3	R21,K7
Cu II	1535.5238	10	160	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1F^\circ$ - ^3F	3 - 4	R21,K7
Cu II	1537.5590	400		$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3H°	4 - 4	R21,K7
Cu II	1538.4795	10	159	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1F^\circ$ - ^3D	3 - 3	R21
Cu II	1540.2394	10		$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^1D°	2 - 2	R21,K7
Cu II	1540.3887	100	140	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^1D	3 - 2	R21,K7
Cu II	1540.5883	200	116	$3d^84s^2$ - $3d^84s(^4F)4p$	^3F - v^3D°	3 - 3	R21,K7
Cu II	1541.7032	1000	96	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	4 - 3	R21,K7
Cu II	1541.7560	15		$3d^84s^2$ - $3d^84s(^4F)4p$	^1D - v^3F°	2 - 2	R21,K7
Cu II	1544.6771	150	119	$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3G^\circ$	3 - 4	R21,K7
Cu II	1547.9582	6	118	$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3F^\circ$	3 - 4	R21,K7
Cu II	1549.6252	2		$3d^84s^2$ - $3d^9(^2D)6f$	^3P - $^3D^\circ$	0 - 1	R21
Cu II	1550.2967	3		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3D^\circ$	3 - 3	R21
Cu II	1550.6533	25	120	$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^1P°	2 - 1	R21,K7
Cu II	1551.3890	90	118	$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3F^\circ$	3 - 3	R21,K7
Cu II	1552.6464	300		$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3H°	4 - 5	R21,K7
Cu II	1553.8962	90	114	$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3G°	2 - 3	R21,K7
Cu II	1555.1344	200	115	$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3F°	3 - 4	R21,K7
Cu II	1555.7030	300	113	$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^3D°	4 - 3	R21,K7
Cu II	1556.0255	8	140	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^1D	2 - 2	R21,K7
Cu II	1557.5867	20	115	$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3F°	3 - 3	R21
Cu II	1558.3447	80	139	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^3D	2 - 1	R21,K7
Cu II	1563.1937	5		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^3D	1 - 2	R21
Cu II	1565.9243	100	96	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	2 - 2	R21,K7
Cu II	1566.4148	150	158	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^1F^\circ$ - ^1D	3 - 2	R21,K7
Cu II	1569.2123	4	96	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3F^\circ$ - ^3D	2 - 3	R21,K7
Cu II	1569.4155	4	116	$3d^84s^2$ - $3d^84s(^4F)4p$	^3F - v^3D°	2 - 3	R21
Cu II	1570.3153	2		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^3F	2 - 3	R21
Cu II	1570.5707	3		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^3P	1 - 1	R21
Cu II	1573.1668	0		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^3D	2 - 3	R21
Cu II	1575.3533	5		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1P^\circ$ - ^3D	1 - 2	R21
Cu II	1577.2670	0		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^3P	2 - 2	R21
Cu II	1579.4918	6	117	$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3D^\circ$	2 - 3	R21,K7
Cu II	1580.0250	15		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3D^\circ$	2 - 2	R21
Cu II	1580.6257	8	118	$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^3F^\circ$	2 - 3	R21,K7
Cu II	1581.4066	0		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^3D^\circ$ - ^3S	1 - 1	R21
Cu II	1581.4187	0		$3d^84s^2$ - $3d^9(^2D)4f$	^3F - $^1P^\circ$	2 - 1	R21
Cu II	1581.9953	15		$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3H°	3 - 4	R21,K7
Cu II	1582.8458	3	183	$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1P^\circ$ - ^3P	1 - 1	R21,K7
Cu II	1583.6823	80	113	$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^3D°	3 - 2	R21,K7
Cu II	1587.0035	1		$3d^84s^2$ - $3d^9(^2D)6f$	^3P - $^1P^\circ$	2 - 1	R21
Cu II	1587.0596	1		$3d^84s^2$ - $3d^84s(^2G)4p$	^3F - u^3F°	2 - 3	R21
Cu II	1587.7151	0		$3d^9(^2D)4p$ - $3d^9(^2D)5d$	$^1D^\circ$ - ^3S	2 - 1	R21
Cu II	1590.1649	80	139	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^3D	3 - 2	R21,K7
Cu II	1593.5556	500	139	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^3D	3 - 3	R21,K7
Cu II	1596.7458	1		$3d^84s^2$ - $3d^9(^2D)5f$	^1D - $^3D^\circ$	2 - 1	R21
Cu II	1598.4023	200	139	$3d^9(^2D)4p$ - $3d^9(^2D)6s$	$^3D^\circ$ - ^3D	1 - 1	R21,K7
Cu II	1601.2097	1	113	$3d^84s^2$ - $3d^84s(^2P)4p$	^3F - w^3D°	3 - 3	R21

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu II	1602.2729	6	113	$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^3D^\circ$	2 - 1	R21,K7
Cu II	1602.3880	150	170	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1D^\circ - ^1D$	2 - 2	R21,K7
Cu II	1604.8475	50	169	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1D^\circ - ^3D$	2 - 1	R21,K7
Cu II	1605.2813	200	112	$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^3P^\circ$	3 - 2	R21,K7
Cu II	1606.8341	300	139	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	2 - 2	R21,K7
Cu II	1608.6393	70	182	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1P^\circ - ^1D$	1 - 2	R21,K7
Cu II	1610.2964	5	139	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	2 - 3	R21,K7
Cu II	1611.1181	2	181	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1P^\circ - ^3D$	1 - 1	R21,K7
Cu II	1614.1608	1		$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^3D^\circ$	2 - 2	R21
Cu II	1617.9154	8	157	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1F^\circ - ^3D$	3 - 2	R21,K7
Cu II	1621.4256	300	157	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1F^\circ - ^3D$	3 - 3	R21,K7
Cu II	1622.4278	100	112	$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^3P^\circ$	2 - 1	R21,K7
Cu II	1623.1732	20	110	$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	4 - 4	R21,K7
Cu II	1630.2681	20		$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	4 - 3	R21,K7
Cu II	1636.6050	10	112	$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - w^3P^\circ$	2 - 2	R21
Cu II	1649.4575	25	139	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	1 - 2	R21
Cu II	1656.3219	20	169	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1D^\circ - ^3D$	2 - 2	R21
Cu II	1660.0009	25	169	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1D^\circ - ^3D$	2 - 3	R21,K7
Cu II	1663.0020	60	181	$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1P^\circ - ^3D$	1 - 2	R21,K7
Cu II	1672.7757	10	110	$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	3 - 4	R21
Cu II	1680.3118	1	110	$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	3 - 3	R21
Cu II	1683.1549	40		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3D^\circ$	4 - 3	R21
Cu II	1683.1585	40		$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	3 - 2	R21
Cu II	1683.1884	40		$3d^84s^2 - 3d^9(^2D)5f$	$^3P - ^3D^\circ$	1 - 1	R21
Cu II	1699.0953	60		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3P^\circ$	3 - 2	R21
Cu II	1699.1023	30		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3F^\circ$	4 - 3	R21
Cu II	1714.6633	0		$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	2 - 3	R21
Cu II	1717.7214	15	110	$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5D^\circ$	2 - 1	R21
Cu II	1734.2272	3		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3P^\circ$	2 - 2	R21
Cu II	1736.5514	10		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3D^\circ$	3 - 3	R21
Cu II	1744.5158	20		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3D^\circ$	3 - 2	R21
Cu II	1744.5269	20		$3d^84s^2 - 3d^9(^2D)5f$	$^3P - ^3P^\circ$	1 - 2	R21
Cu II	1753.2811	15		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3P^\circ$	2 - 1	R21
Cu II	1759.5045	1		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3F^\circ$	3 - 2	R21
Cu II	1790.6603	5		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - y^3D^\circ$	2 - 1	R21
Cu II	1800.9526	2		$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5P^\circ$	4 - 3	R21
Cu II	1807.8410	15		$3d^84s^2 - 3d^84s(^4F)4p$	$^3P - v^3D^\circ$	0 - 1	R21
Cu II	1856.9291	0		$3d^84s^2 - 3d^9(^2D)6p$	$^1D - ^3P^\circ$	2 - 1	R21
Cu II	1861.6229	0		$3d^84s^2 - 3d^84s(^4P)4p$	$^3F - x^5P^\circ$	3 - 2	R21
Cu II	1882.2085	1		$3d^84s^2 - 3d^9(^2D)6p$	$^3P - ^3F^\circ$	1 - 2	R21
Cu II	1920.6718	5		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1F$	2 - 3	R21
Cu II	1922.1425	5		$3d^84s^2 - 3d^9(^2D)5p$	$^3F - ^1D^\circ$	3 - 2	R21
Cu II	1928.45	1					R21
Cu II	1929.6081	25		$3d^84s^2 - 3d^84s(^2P)4p$	$^1D - w^1P^\circ$	2 - 1	R21
Cu II	1929.7510	25	107	$3d^84s^2 - 3d^9(^2D)5p$	$^3F - ^3D^\circ$	4 - 3	R21
Cu II	1944.5970	40		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1D^\circ$	3 - 2	R21
Cu II	1946.4929	10	106	$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - z^1F^\circ$	4 - 3	R21
Cu II	1952.5758	5		$3d^84s^2 - 3d^9(^2D)5p$	$^3F - ^3F^\circ$	3 - 2	R21
Cu II	1957.5176	20	105	$3d^84s^2 - 3d^9(^2D)5p$	$^3F - ^3F^\circ$	4 - 4	R21
Cu II	1968.0118	2		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1P$	2 - 1	R21
Cu II	1970.4946	15	18	$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1P^\circ$	2 - 1	R21
Cu II	1974.4681	0		$3d^84s^2 - 3d^9(^2D)4f$	$^1D - ^3D^\circ$	2 - 3	R21
Cu II	1977.0270	15	107	$3d^84s^2 - 3d^9(^2D)5p$	$^3F - ^3D^\circ$	2 - 1	R21
Cu II	1979.9565	200	17	$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1D^\circ$	2 - 2	R21
Cu II	1984.7643	1		$3d^84s^2 - 3d^9(^2D)6p$	$^3P - ^3P^\circ$	2 - 2	R21
Cu II	1989.8554	90	15	$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 1	R21
Cu II	1990.1804	1		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1D$	1 - 2	R21
Cu II	1993.81	1					R21

COPPER III (Cu^{2+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9$ $^2D_{5/2}$ (27 electrons)

Ionization Potential 297 100 cm^{-1}; 36.83 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu III	672.659	50	10	$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F°$	5/2 - 5/2	S19
Cu III	676.564	300	10	$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F°$	5/2 - 7/2	S19
Cu III	682.171	200	10	$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F°$	3/2 - 5/2	S19
Cu III	686.903	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^2S°$	3/2 - 1/2	S19
Cu III	687.987	100	9	$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P°$	5/2 - 3/2	S19
Cu III	690.250	75	8	$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	5/2 - 3/2	S19
Cu III	691.557	100	9	$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P°$	3/2 - 1/2	S19
Cu III	693.510	50	8	$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	5/2 - 5/2	S19
Cu III	697.930	20	9	$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P°$	3/2 - 3/2	S19
Cu III	700.182	20		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	5/2 - 7/2	S19
Cu III	700.271	150	8	$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	3/2 - 3/2	S19
Cu III	701.692	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	5/2 - 3/2	S19
Cu III	702.112	20		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	5/2 - 5/2	S19
Cu III	703.622	15	8	$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	3/2 - 5/2	S19
Cu III	711.834	3		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	3/2 - 1/2	S19
Cu III	712.040	5		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	3/2 - 3/2	S19
Cu III	712.473	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D°$	3/2 - 5/2	S19
Cu III	713.262	10		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P°$	5/2 - 3/2	S19
Cu III	715.530	200	7	$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D°$	5/2 - 5/2	S19
Cu III	719.506	150	6	$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F°$	5/2 - 7/2	S19
Cu III	723.958	20		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P°$	3/2 - 3/2	S19
Cu III	726.295	10		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D°$	3/2 - 5/2	S19
Cu III	728.906	2		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P°$	3/2 - 1/2	S19
Cu III	730.365	150	7	$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D°$	3/2 - 3/2	S19
Cu III	732.026	100	5	$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P°$	5/2 - 5/2	S19
Cu III	732.688	5	5	$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P°$	5/2 - 3/2	S19
Cu III	735.224	100	6	$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F°$	3/2 - 5/2	S19
Cu III	743.303	20	5	$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P°$	3/2 - 5/2	S19
Cu III	743.970	30	5	$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P°$	3/2 - 3/2	S19
Cu III	777.125	200	3	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F°$	5/2 - 5/2	S19
Cu III	778.603	50	4	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D°$	5/2 - 3/2	S19
Cu III	788.073	400	4	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D°$	5/2 - 5/2	S19
Cu III	788.462	300	3	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F°$	5/2 - 7/2	S19
Cu III	789.840	200	3	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F°$	3/2 - 5/2	S19
Cu III	791.371	300	4	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D°$	3/2 - 3/2	S19
Cu III	793.065	100	2	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2G°$	5/2 - 7/2	S19
Cu III	795.258	2	1	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F°$	5/2 - 3/2	S19
Cu III	797.566	100	1	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F°$	5/2 - 5/2	S19
Cu III	801.154	200	4	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D°$	3/2 - 5/2	S19
Cu III	802.841	150	1	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F°$	5/2 - 7/2	S19
Cu III	808.583	20	1	$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F°$	3/2 - 3/2	S19
Cu III	810.124	0		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4G°$	5/2 - 5/2	S19
Cu III	816.313	0		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4G°$	5/2 - 7/2	S19
Cu III	829.343	5		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4D°$	5/2 - 5/2	S19
Cu III	1152.155	1		$3d^8(^3F)4s - 3d^8(^1G)4p$	$a^2F - y^2G°$	7/2 - 9/2	S7,K8
Cu III	1219.290	3		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	9/2 - 7/2	S19
Cu III	1237.776	2		$3d^8(^3F)4s - 3d^8(^1G)4p$	$a^2F - x^2F°$	7/2 - 7/2	S19
Cu III	1238.325	0		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	7/2 - 7/2	S19
Cu III	1244.377	5		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	7/2 - 5/2	S19
Cu III	1254.717	2		$3d^8(^3F)4s - 3d^8(^1G)4p$	$a^2F - x^2F°$	5/2 - 5/2	S19
Cu III	1259.937	5		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	5/2 - 3/2	S19
Cu III	1261.315	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	5/2 - 5/2	S7,K8
Cu III	1271.234	3		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	3/2 - 1/2	S19
Cu III	1271.839	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D°$	3/2 - 3/2	S19
Cu III	1295.700	0		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - x^2D°$	7/2 - 5/2	S19
Cu III	1312.400	5		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4D° - 4$	7/2 - 7/2	S19
Cu III?	1313.313	1					S19
Cu III?	1316.143	3					S19
Cu III	1318.582	1		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^4F - y^2F°$	5/2 - 7/2	S19
Cu III?	1324.033	3					S19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu III	1326.379	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 9$?	7/2 - 5/2	S19,K8
Cu III?	1327.178	3					S19
Cu III	1330.365	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4D^\circ - 3$	7/2 - 7/2	S19
Cu III?	1332.985	8					S19
Cu III	1337.572	3h		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4D^\circ - 5$?	5/2 - 7/2	S19,K8
Cu III?	1338.386	1					S19
Cu III?	1338.858	1					S19
Cu III	1339.497	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4D^\circ - 1$	7/2 - 9/2	S19
Cu III?	1341.178	1h					S19
Cu III	1341.497	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - z^4P^\circ$?	7/2 - 5/2	S19,K8
Cu III	1342.193	2h		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4D^\circ - e^4F$	7/2 - 9/2	S19
Cu III	1343.032	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 9$	5/2 - 5/2	S19
Cu III?	1343.730	3					S19
Cu III?	1344.363	1					S19
Cu III?	1345.506	1					S19
Cu III?	1346.062	3					S19
Cu III	1347.048	2h		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 7$	7/2 - 5/2	S19
Cu III	1348.077	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 6$	9/2 - 7/2	S19
Cu III?	1348.584	2					S19
Cu III?	1349.441	3					S19
Cu III	1351.271	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 5$	9/2 - 7/2	S19
Cu III	1353.964	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 10$	9/2 - 7/2	S19
Cu III	1356.424	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 4$	9/2 - 7/2	S19
Cu III?	1358.130	1					S19
Cu III	1358.440	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 8$	5/2 - 5/2	S19
Cu III	1359.833	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4D^\circ - e^4F$	5/2 - 7/2	S19
Cu III?	1360.922	2					S19
Cu III?	1365.862	1					S19
Cu III?	1366.400	2					S19
Cu III?	1367.646	3					S19
Cu III	1368.923	1		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4G^\circ - e^4F$	7/2 - 5/2	S19
Cu III	1369.612	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 6$	7/2 - 7/2	S19
Cu III	1369.988	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - e^4G$	9/2 - 11/2	S19
Cu III	1371.144	5		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - f^2F$	9/2 - 7/2	S19
Cu III	1372.899	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 5$	7/2 - 7/2	S19
Cu III?	1372.965	2					S19
Cu III	1373.305	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - f^2F$?	7/2 - 7/2	S19,K8
Cu III	1374.033	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4G^\circ - e^4F$	9/2 - 7/2	S19
Cu III?	1374.298	2					S19
Cu III	1374.758	2		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	7/2 - 5/2	S19
Cu III	1375.621	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 3$	9/2 - 7/2	S19
Cu III	1376.807	15		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - e^4G$	11/2 - 11/2	S19
Cu III	1377.182	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 8$	9/2 - 7/2	S7,K8
Cu III	1377.504	15		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - z^4P^\circ$?	3/2 - 3/2	S19,K8
Cu III?	1377.559	1					S19
Cu III	1378.238	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4G^\circ - 4$	7/2 - 9/2	S19
Cu III	1379.379	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 8$	7/2 - 7/2	S19
Cu III?	1379.775	1					S19
Cu III?	1382.561	3					S19
Cu III?	1384.276	1					S19
Cu III	1384.324	3		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^2F$	9/2 - 7/2	S19
Cu III?	1384.840	3					S19
Cu III	1384.929	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 10$	7/2 - 7/2	S19
Cu III	1385.380	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 7$	7/2 - 5/2	S19
Cu III	1385.921	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 9$	3/2 - 3/2	S19
Cu III	1386.714	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4G^\circ - e^4F$	5/2 - 5/2	S19
Cu III	1388.276	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4G^\circ - e^4F$	9/2 - 9/2	S19
Cu III	1389.528	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 6$	9/2 - 9/2	S19
Cu III?	1390.306	5					S19
Cu III?	1391.667	1					S19
Cu III	1395.578	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^2F$	3/2 - 5/2	S7,K8
Cu III	1396.417	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4G^\circ - e^4F$	7/2 - 7/2	S19
Cu III	1398.397	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 4$	9/2 - 9/2	S19
Cu III	1399.190	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 10$	7/2 - 7/2	S19
Cu III?	1400.539	1					S19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu III	1401.376	1		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 7$	5/2 - 5/2	S19
Cu III?	1401.602	3					S19
Cu III	1401.655	3		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2G^\circ - e^2F$	9/2 - 7/2	S19
Cu III?	1402.250	3					S19
Cu III	1402.435	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2G^\circ - e^2F$	7/2 - 5/2	S19
Cu III	1402.917	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - f^2F$	7/2 - 7/2	S19
Cu III?	1403.181	5					S19
Cu III	1403.763	0		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - z^2P^\circ$	5/2 - 3/2	S19
Cu III?	1405.115	1					S19
Cu III	1407.139	3		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2F^\circ$?	7/2 - 5/2	S19
Cu III	1407.196	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	5/2 - 3/2	S19
Cu III	1408.310	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2D^\circ - 9$	5/2 - 3/2	S19
Cu III	1408.536	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	7/2 - 5/2	S19
Cu III	1409.248	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 8$	7/2 - 7/2	S19
Cu III	1412.553	3		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	5/2 - 5/2	S7,K8
Cu III	1412.724	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 5$	7/2 - 7/2	S19
Cu III	1412.794	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - e^4G$	9/2 - 11/2	S19
Cu III?	1414.086	1					S19
Cu III	1414.431	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	3/2 - 3/2	S19
Cu III	1414.553	4		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 5/2	S7,K8
Cu III	1415.478	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 7$	7/2 - 5/2	S19
Cu III	1417.060	1		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2F^\circ - e^2F$	7/2 - 5/2	S19
Cu III	1417.124	1		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	9/2 - 7/2	S19
Cu III	1417.538	5		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - f^2F$	7/2 - 7/2	S19
Cu III	1418.811	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2D^\circ - f^2F$	5/2 - 7/2	S19
Cu III?	1423.504	5					S19
Cu III	1424.020	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 8$?	7/2 - 7/2	S19
Cu III	1425.079	1		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	5/2 - 5/2	S19
Cu III	1425.282	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2D^\circ - 8$	5/2 - 7/2	S19
Cu III	1428.081	3		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	5/2 - 3/2	S19
Cu III	1429.201	3		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^4F^\circ - 1$	9/2 - 9/2	S19
Cu III	1430.373	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 7$	7/2 - 5/2	S19
Cu III	1430.969	2		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	3/2 - 5/2	S19
Cu III	1431.671	5		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2D^\circ - 7$	5/2 - 5/2	S19
Cu III	1431.901	2		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 7/2	S19
Cu III	1432.275	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	9/2 - 9/2	S19
Cu III?	1436.846	1					S19
Cu III	1436.994	8		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 3$	9/2 - 7/2	S19
Cu III?	1437.554	1					S19
Cu III	1437.645	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^4F^\circ - e^4F$	7/2 - 7/2	S19
Cu III	1437.762	1		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2D^\circ - e^4F$	5/2 - 3/2	S7,K8
Cu III?	1438.983	1					S19
Cu III?	1439.275	1					S19
Cu III	1440.446	2		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2G^\circ - 6$	7/2 - 7/2	S19
Cu III?	1441.102	1					S19
Cu III?	1441.635	2					S19
Cu III	1444.692	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 9$	5/2 - 5/2	S19
Cu III	1448.512	1		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - x^4S^\circ$?	3/2 - 3/2	S19,K8
Cu III	1450.165	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2F^\circ - e^2F$	7/2 - 7/2	S19
Cu III	1451.478	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2D^\circ - e^2F$	5/2 - 7/2	S19
Cu III	1455.200	2		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2F^\circ - e^2F$	5/2 - 5/2	S19
Cu III	1459.568	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 5$	7/2 - 7/2	S19
Cu III	1460.915	5		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2D^\circ - 5$	5/2 - 7/2	S19
Cu III	1469.259	0		$3d^8(^3F)4p - 3d^8(^3F)4d$	$z^2F^\circ - 7$	5/2 - 5/2	S19
Cu III?	1469.460	1					S19
Cu III	1481.243	10		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^4S^\circ$	3/2 - 3/2	S19
Cu III	1483.831	8		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^4S^\circ$	1/2 - 3/2	S19
Cu III	1484.010	3		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^2P^\circ$	5/2 - 3/2	S19
Cu III	1486.659	15		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^4S^\circ$	5/2 - 3/2	S19
Cu III	1486.904	5		$3d^8(^3P)4s - 3d^8(^1G)4p$	$a^4P - x^2F^\circ$	5/2 - 7/2	S19
Cu III	1487.566	0		$3d^8(^3F)4p - 3d^8(^3F)5s$	$z^2D^\circ - e^4F$	5/2 - 7/2	S19
Cu III	1501.173	0		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	7/2 - 5/2	S19
Cu III	1502.107	0		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^2P^\circ$	3/2 - 3/2	S19
Cu III	1525.895	2		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	5/2 - 5/2	S7,K8
Cu III	1531.588	0		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	5/2 - 3/2	S19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu III	1541.970	20		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	5/2 - 7/2	S19
Cu III	1542.562	1		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	7/2 - 5/2	S19
Cu III	1543.180	1		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^2P^\circ$	5/2 - 3/2	S19
Cu III	1543.438	250	32	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	S19
Cu III	1544.062	1		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	7/2 - 7/2	S19
Cu III	1544.110	1	32	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 9/2	S19
Cu III	1548.867	150	32	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	S19
Cu III	1549.203	5		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	3/2 - 3/2	S19
Cu III?	1551.932	1					S19
Cu III	1561.790	2	14	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	7/2 - 7/2	S19
Cu III	1565.194	3		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^2D^\circ$	3/2 - 5/2	S19
Cu III	1568.564	1	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	9/2 - 7/2	S19
Cu III	1568.655	1		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	5/2 - 5/2	S19
Cu III	1569.027	0		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 3/2	S19
Cu III	1570.202	15		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	5/2 - 7/2	S19
Cu III	1571.154	2		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 5/2	S19
Cu III	1571.390	0	14	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	9/2 - 9/2	S19
Cu III	1579.353	8	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 5/2	S19
Cu III	1588.551	2	14	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	5/2 - 7/2	S19
Cu III	1593.758	500	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	9/2 - 9/2	S19
Cu III	1597.418	5	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 3/2	S19
Cu III	1600.194	250	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 7/2	S19
Cu III	1603.146	200	14	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	7/2 - 9/2	S19
Cu III	1605.969	150	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	S19
Cu III	1606.730	150	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 5/2	S19
Cu III	1606.837	5		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	5/2 - 3/2	S19
Cu III	1607.542	50	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^2S^\circ$	3/2 - 1/2	S19
Cu III	1609.599	25	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 1/2	S19
Cu III	1609.757	50	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	S19
Cu III	1610.571	40	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	S19
Cu III	1616.160	8	25	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 5/2	S19
Cu III	1616.607	150	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	3/2 - 3/2	S19
Cu III	1618.408	3		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$	5/2 - 5/2	S19
Cu III	1620.776	0	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 7/2	S19
Cu III	1621.723	2		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 5/2	S19
Cu III	1625.500	0		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^2S^\circ$	1/2 - 1/2	S19
Cu III	1626.139	100	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	3/2 - 5/2	S19
Cu III	1626.411	100	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 9/2	S19
Cu III	1628.088	25		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	3/2 - 3/2	S19
Cu III	1628.295	150	13	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 7/2	S19
Cu III	1629.301	0	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 5/2	S19
Cu III	1633.192	0		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	3/2 - 1/2	S19
Cu III	1638.956	150	22	$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2F^\circ$	5/2 - 7/2	S19
Cu III	1639.960	5		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$	3/2 - 5/2	S19
Cu III	1642.208	1000	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 11/2	S19
Cu III	1651.758	8		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	1/2 - 1/2	S19
Cu III	1652.010	150	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 9/2	S19
Cu III	1653.399	5		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	3/2 - 1/2	S19
Cu III	1654.574	150	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 7/2	S19
Cu III	1658.472	100	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	5/2 - 5/2	S19
Cu III	1660.887	15		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$	3/2 - 3/2	S19
Cu III	1669.273	5		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	3/2 - 3/2	S19
Cu III	1670.140	250	19	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	7/2 - 5/2	S19
Cu III	1671.886	250	18	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 7/2	S19
Cu III	1674.602	250	18	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 5/2	S19
Cu III	1676.469	8		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	5/2 - 3/2	S19
Cu III	1677.373	100	31	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	S19
Cu III	1679.151	200	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	3/2 - 5/2	S19
Cu III	1681.481	150	18	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	5/2 - 3/2	S19
Cu III	1682.044	5	24	$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	3/2 - 5/2	S19
Cu III	1682.695	15	26	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	3/2 - 3/2	S19
Cu III	1684.642	250	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	5/2 - 7/2	S19
Cu III	1686.214	150	22	$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2F^\circ$	3/2 - 5/2	S19
Cu III	1687.134	300	12	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 9/2	S19
Cu III	1688.618	50	27	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	1/2 - 3/2	S19

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu III	1689.051	100	24	$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	5/2 - 5/2	S19
Cu III	1692.706	150	17	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	7/2 - 7/2	S19
Cu III	1696.202	8		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	3/2 - 1/2	S19
Cu III	1699.581	0		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	1/2 - 1/2	S19
Cu III	1701.023	200	31	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	S19
Cu III	1702.102	200	11	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	3/2 - 1/2	S19
Cu III	1702.190	150	26	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	3/2 - 5/2	S19
Cu III	1702.349	15	26	$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	1/2 - 3/2	S19
Cu III	1702.994	250	11	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	5/2 - 3/2	S19
Cu III	1704.072	5		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	3/2 - 3/2	S19
Cu III	1705.333	150	21	$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	5/2 - 5/2	S19
Cu III	1705.633	200	30	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	S19
Cu III	1707.500	3		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	1/2 - 3/2	S19
Cu III	1708.958	100	21	$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	5/2 - 3/2	S19
Cu III	1709.036	350	11	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	7/2 - 5/2	S19
Cu III	1711.257	15		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	5/2 - 3/2	S19
Cu III	1711.437	15		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2F^\circ$	5/2 - 7/2	S19
Cu III	1713.346	3	16	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 5/2	S19
Cu III?	1716.189	0					S19
Cu III	1716.400	5		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	3/2 - 1/2	S19
Cu III?	1717.134	3					S19
Cu III	1722.379	500	11	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	9/2 - 7/2	S19
Cu III	1724.810	5		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	3/2 - 3/2	S19
Cu III	1726.275	3		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	5/2 - 5/2	S19
Cu III	1728.139	100	18	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 7/2	S19
Cu III	1732.998	3		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	3/2 - 3/2	S19
Cu III	1737.893	15	16	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 7/2	S19
Cu III	1738.145	15		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2F^\circ$	5/2 - 5/2	S19
Cu III	1738.548	5	30	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 9/2	S19
Cu III	1738.861	0		$3d^8(^3P)4p - 3d^8(^3F)5s$	$z^4P^\circ - e^4F$	5/2 - 7/2	S7,K8
Cu III	1739.508	150	30	$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	S19
Cu III	1741.135	15		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	5/2 - 5/2	S19
Cu III	1741.378	250	17	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	7/2 - 9/2	S19
Cu III	1750.391	250	17	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	5/2 - 7/2	S19
Cu III	1755.012	10		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	3/2 - 5/2	S19
Cu III	1760.586	5		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	7/2 - 7/2	S19
Cu III	1761.155	10	16	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 3/2	S19
Cu III	1762.557	15		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	S19
Cu III	1763.935	0		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	3/2 - 5/2	S19
Cu III	1766.219	1		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	S19
Cu III	1768.869	100	16	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 9/2	S19
Cu III	1772.478	1		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 5/2	S19
Cu III	1773.697	0		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	1/2 - 3/2	S19
Cu III	1776.136	10		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	S19
Cu III	1780.062	3		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	S19
Cu III	1783.799	10		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	S19
Cu III	1783.935	3		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	S19
Cu III	1787.902	0		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	S19
Cu III	1798.761	3		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 7/2	S19
Cu III	1799.000	0		$3d^8(^1D)4p - 3d^8(^3F)4d$	$y^2D^\circ - 5$	5/2 - 7/2	S7,K8
Cu III?	1820.339	3					S19
Cu III	1826.339	5		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	3/2 - 3/2	S19
Cu III	1840.917	100	15	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	7/2 - 9/2	S19
Cu III	1858.685	0		$3d^8(^1G)4s - 3d^8(^3P)4p$	$a^2G - y^4D^\circ$	9/2 - 7/2	S19
Cu III	1867.747	25	15	$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	5/2 - 7/2	S19
Cu III	1882.250	1		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	1/2 - 1/2	S19
Cu III	1928.715	1		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4D^\circ$	7/2 - 7/2	S19

COPPER IV (Cu^{3+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8$ $^3F_4$ (26 electrons)

Ionization Potential 445 124 cm^{-1}; 55.2 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	135.846	30 -A		$3d^8$ -	^1D - 6° ?	2 - 3	K20,K8
Cu IV	162.926	20 -A		$3d^8$ -	g^3F - 4° ?	4 - 3	K20,K8
Cu IV	167.392	10 -A		$3d^8$ -	^1D - 4° ?	2 - 3	K20,K8
Cu IV	179.630	15 -A		$3d^7(b^2D)4s$ -	^3D - 6° ?	1 - 2	K20,K8
Cu IV	184.938	7 -A		$3d^8$ -	^1S - 3° ?	0 - 1	K20,K8
Cu IV	192.585	7 -A		$3d^7(^4F)4s$ -	^5F - 5° ?	4 - 3	K20,K8
Cu IV	196.585	30 -A		$3d^7(^4P)4s$ -	^3F - 5° ?	2 - 3	K20,K8
Cu IV	205.278	60 -A		$3d^7(^2H)4s$ -	^3H - 5° ?	4 - 3	K20,K8
Cu IV	207.282	20 -A		$3d^7(^4P)4s$ -	^3F - 4° ?	2 - 3	K20,K8
Cu IV	208.502	15 -A		$3d^7(^4F)4s$ -	^5F - 3° ?	1 - 1	K20,K8
Cu IV	211.109	50 -A		$3d^7(^4P)4s$ -	^5P - 4° ?	2 - 3	K20,K8
Cu IV	213.617	8 -A		$3d^7(^2G)4s$ -	^3G - 4° ?	3 - 3	K20,K8
Cu IV	216.063	50 -A		$3d^7(^4F)5s$ -	^5F - 6° ?	4 - 3	K20,K8
Cu IV	219.927	6 -A		$3d^7(^4P)4s$ -	^3P - 3° ?	1 - 1	K20,K8
Cu IV	225.497	25 -A		$3d^7(b^2D)4s$ -	^3D - 5° ?	2 - 3	K20,K8
Cu IV	235.299	30		$3d^8$ -	g^3F - 2° ?	4 - 4	K20,K8
Cu IV	236.343	5		$3d^8$ -	g^3F - 2° ?	3 - 4	K20,K8
Cu IV	251.278	20		$3d^8$ -	^1G - 2° ?	4 - 4	K20,K8
Cu IV	289.358	0 -A		$3d^7(^4F)5s$ -	^3F - 5° ?	2 - 3	K20,K8
Cu IV	310.380	20 -A		$3d^7(^4F)5s$ -	^3F - 4° ?	4 - 3	K20,K8
Cu IV	324.485	70 -A		$3d^7(^4F)5s$ -	^3F - 3° ?	2 - 1	K20,K8
Cu IV	329.805	30 -A			1 - 4° ?	2 - 3	K20,K8
Cu IV	339.038	10		$3d^7(^4F)4s$ -	^3F - 2° ?	3 - 4	K20,K8
Cu IV	342.432	20 -A			1 - 3° ?	2 - 1	K20,K8
Cu IV	350.421	8		$3d^7(^4P)4s$ -	^5P - 2° ?	3 - 4	K20,K8
Cu IV	355.977	5		$3d^7(^2G)4s$ -	^3G - 2° ?	5 - 4	K20,K8
Cu IV	357.897	100		$3d^7(^2G)4s$ -	^3G - 2° ?	3 - 4	K20,K8
Cu IV	393.172	3		$3d^7(^2F)4s$ -	^3F - 2° ?	4 - 4	K20,K8
Cu IV	406.439	8		$3d^8$ - $3d^7(b^2D)4p$	^3P - ^3P° ?	1 - 0	K20,K8
Cu IV	438.265	10		$3d^8$ - $3d^7(^2F)4p$	^1D - ^3D°	2 - 3	S7
Cu IV	438.930	14		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3P°	3 - 2	S7
Cu IV	439.599	10		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^1F°	2 - 3	S7
Cu IV	442.753	10		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	4 - 3	S7
Cu IV	443.677	26		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	4 - 4	S7
Cu IV	444.212	14		$3d^8$ - $3d^7(^2F)4p$	^3P - ^3D°	2 - 2	S7
Cu IV	444.745	13		$3d^8$ - $3d^7(^2F)4p$	^3P - ^3D°	1 - 1	S7
Cu IV	444.996	36		$3d^8$ - $3d^7(^2F)4p$	^3P - ^3D°	2 - 3	S7
Cu IV	445.391	15		$3d^8$ - $3d^7(^2F)4p$	^3P - ^3D°	0 - 1	S7
Cu IV	445.612	12		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	3 - 2	S7
Cu IV	446.264	18		$3d^8$ - $3d^7(^2F)4p$	^1G - ^1F°	4 - 3	S7
Cu IV	446.412	37		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	3 - 3	S7
Cu IV	446.995	25		$3d^8$ - $3d^7(^2P)4p$	g^3F - ^1P° ?	2 - 1	K20,K8
Cu IV	447.371	10		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	3 - 4	S7
Cu IV	448.039	14		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3F°	2 - 2	S7
Cu IV	448.428	34		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3D°	4 - 3	S7
Cu IV	449.658	10		$3d^8$ - $3d^7(^2H)4p$	g^3F - ^3G°	4 - 4	S7
Cu IV	450.024	37		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3D°	3 - 2	S7
Cu IV	450.935	14		$3d^8$ - $3d^7(^2H)4p$	g^3F - ^3G°	3 - 3	S7
Cu IV	451.159	48		$3d^8$ - $3d^7(^2P)4p$	g^3F - ^3D°	4 - 3	S7
Cu IV	452.202	28		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3D°	3 - 3	S7
Cu IV	452.502	34		$3d^8$ - $3d^7(^2H)4p$	g^3F - ^3G°	4 - 5	S7
Cu IV	453.127	42		$3d^8$ - $3d^7(a^2D)4p$	g^3F - ^3D°	2 - 1	S7
Cu IV	453.425	66		$3d^8$ - $3d^7(^2H)4p$	g^3F - ^3G°	3 - 4	S7
Cu IV	454.982	14		$3d^8$ - $3d^7(^2P)4p$	g^3F - ^3D°	3 - 3	S7
Cu IV	456.081	13		$3d^8$ - $3d^7(^2G)4p$	g^3F - ^1F°	4 - 3	S7
Cu IV	456.734	20		$3d^8$ - $3d^7(^2G)4p$	g^3F - ^3G°	4 - 4	S7
Cu IV	457.759	26		$3d^8$ - $3d^7(^4P)4p$	g^3F - ^3P°	3 - 2	S7
Cu IV	458.222	12		$3d^8$ - $3d^7(^4P)4p$	g^3F - ^3P°	2 - 1	S7
Cu IV	458.423	31		$3d^8$ - $3d^7(^4P)4p$	g^3F - ^3D°	4 - 3	S7
Cu IV	458.712	43		$3d^8$ - $3d^7(^2G)4p$	g^3F - ^3G°	4 - 5	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	459.510	46		$3d^8 - 3d^7(^2F)4p$	$^1G - ^3F^\circ$	4 - 4	S7
Cu IV	459.995	42		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^1F^\circ$	3 - 3	S7
Cu IV	460.651	39		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3G^\circ$	3 - 4	S7
Cu IV	461.115	27		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	3 - 2	S7
Cu IV	461.321	46		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3G^\circ$	3 - 3	S7
Cu IV	462.275	19		$3d^8 - 3d^7(^4P)4p$	$g^3F - ^3D^\circ$	3 - 2	S7
Cu IV	462.387	23		$3d^8 - 3d^7(^4P)4p$	$g^3F - ^3D^\circ$	3 - 3	S7
Cu IV	462.545	10		$3d^8 - 3d^7(^4P)4p$	$g^3F - ^5P^\circ$?	3 - 3	K20,K8
Cu IV	463.714	60		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	2 - 2	S7
Cu IV	463.922	43		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3G^\circ$	2 - 3	S7
Cu IV	464.642	62		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	3 - 3	S7
Cu IV	464.823	67		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	4 - 4	S7
Cu IV	465.185	27		$3d^8 - 3d^7(a^2D)4p$	$^1D - ^3P^\circ$	2 - 1	S7
Cu IV	466.593	28		$3d^8 - 3d^7(a^2D)4p$	$^1D - ^1F^\circ$	2 - 3	S7
Cu IV	467.282	34		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	2 - 3	S7
Cu IV	468.499	23		$3d^8 - 3d^7(a^2D)4p$	$^1D - ^3P^\circ$	2 - 2	S7
Cu IV	468.880	27		$3d^8 - 3d^7(^2G)4p$	$g^3F - ^3F^\circ$	3 - 4	S7
Cu IV	472.332	54		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	1 - 0	S7
Cu IV	472.767	29		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	2 - 1	S7
Cu IV	473.664	20		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	1 - 1	S7
Cu IV	474.176	20		$3d^8 - 3d^7(b^2D)4p$	$^1S - ^1P^\circ$?	0 - 1	K20,K8
Cu IV	474.397	20		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	0 - 1	S7
Cu IV	475.370	19		$3d^8 - 3d^7(^4P)4p$	$g^3F - ^5D^\circ$	2 - 2	S7
Cu IV	475.486	31		$3d^8 - 3d^7(^2P)4p$	$^1D - ^3S^\circ$	2 - 1	S7
Cu IV	476.192	46		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	2 - 2	S7
Cu IV	477.083	31		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	1 - 2	S7
Cu IV	481.888	29		$3d^8 - 3d^7(a^2D)4p$	$^1D - ^3D^\circ$	2 - 1	S7
Cu IV	483.415	34		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3S^\circ$	2 - 1	S7
Cu IV	483.678	30		$3d^8 - 3d^7(a^2D)4p$	$^1D - ^3D^\circ$	2 - 3	S7
Cu IV	484.353	36		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3S^\circ$	1 - 1	S7
Cu IV	484.524	62		$3d^8 - 3d^7(^2P)4p$	$^3P - ^1P^\circ$	0 - 1	S7
Cu IV	485.051	34		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3F^\circ$	2 - 3	S7
Cu IV	486.851	10		$3d^8 - 3d^7(^2P)4p$	$^1D - ^3D^\circ$	2 - 3	S7
Cu IV	489.297	10		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	490.030	20		$3d^8 - 3d^7(^4P)4p$	$^1D - ^3P^\circ$	2 - 2	S7
Cu IV	490.257	18		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	1 - 2	S7
Cu IV	490.999	10		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	1 - 1	S7
Cu IV	491.829	67		$3d^8 - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	2 - 3	S7
Cu IV	492.229	53		$3d^8 - 3d^7(^2H)4p$	$^1G - ^1G^\circ$	4 - 4	S7
Cu IV	494.115	41		$3d^8 - 3d^7(^2G)4p$	$^1D - ^3G^\circ$	2 - 3	S7
Cu IV	495.242	10		$3d^8 - 3d^7(^4P)4p$	$^1D - ^3D^\circ$	2 - 2	S7
Cu IV	495.315	13		$3d^8 - 3d^7(^4P)4p$	$^1D - ^3D^\circ$	2 - 3	S7
Cu IV	496.983	64		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3D^\circ$	4 - 3	S7
Cu IV	498.457	28		$3d^8 - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	2 - 2	S7
Cu IV	498.748	65		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3D^\circ$	3 - 2	S7
Cu IV	499.454	25		$3d^8 - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	1 - 2	S7
Cu IV	499.836	55		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3D^\circ$	2 - 1	S7
Cu IV	501.650	10		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3D^\circ$	3 - 3	S7
Cu IV	501.799	10		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3D^\circ$	2 - 2	S7
Cu IV	501.999	41		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3G^\circ$	4 - 4	S7
Cu IV	502.665	20		$3d^8 - 3d^7(^2G)4p$	$^3P - ^3G^\circ$	2 - 3	S7
Cu IV	502.868	12		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F^\circ$	3 - 2	S7
Cu IV	503.469	29		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3G^\circ$	3 - 3	S7
Cu IV	503.861	26		$3d^8 - 3d^7(^4P)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	503.924	40		$3d^8 - 3d^7(^4P)4p$	$^3P - ^3D^\circ$	2 - 3	S7
Cu IV	504.584	74		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F^\circ$	4 - 4	S7
Cu IV	504.858	49		$3d^8 - 3d^7(^4P)4p$	$^3P - ^3D^\circ$	1 - 2	S7
Cu IV	505.4	8		$3d^8 - 3d^7(^4P)4p$	$^3P - ^5P^\circ$?	1 - 2	M12,K8
Cu IV	505.711	68		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F^\circ$	3 - 3	S7
Cu IV	505.955	70		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F^\circ$	2 - 2	S7
Cu IV	506.189	38		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3P^\circ$	2 - 1	S7
Cu IV	506.567	62		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3G^\circ$	2 - 3	S7
Cu IV	506.748	74		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3G^\circ$	3 - 4	S7
Cu IV	506.767	77		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3G^\circ$	4 - 5	S7
Cu IV	507.367	31		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3P^\circ$	2 - 2	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	508.423	23		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3P°$	1 - 2	S7
Cu IV	508.642	20		$3d^8 - 3d^7(^2P)4p$	$^3P - ^3P°$	1 - 0	S7
Cu IV	508.848	49		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F°$	2 - 3	S7
Cu IV	509.372	51		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^3F°$	3 - 4	S7
Cu IV	512.674	30		$3d^8 - 3d^7(^2H)4p$	$^1G - ^3I°$	4 - 5	S7
Cu IV	519.667	14		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^5G°$	2 - 2	S7
Cu IV	524.787	17		$3d^8 - 3d^7(^4F)4p$	$g^3F - ^5F°$	4 - 4	S7
Cu IV	537.311	17		$3d^8 - 3d^7(^4F)4p$	$^1D - ^3D°$	2 - 2	S7
Cu IV	540.647	24		$3d^8 - 3d^7(^4F)4p$	$^1D - ^3D°$	2 - 3	S7
Cu IV	542.103	13		$3d^8 - 3d^7(^4F)4p$	$^1D - ^3F°$	2 - 2	S7
Cu IV	542.810	14		$3d^8 - 3d^7(^4F)4p$	$^1D - ^3G°$	2 - 3	S7
Cu IV	545.110	12		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	2 - 1	S7
Cu IV	545.410	11		$3d^8 - 3d^7(^4F)4p$	$^1D - ^3F°$	2 - 3	S7
Cu IV	546.319	20		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	1 - 1	S7
Cu IV	547.294	24		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	0 - 1	S7
Cu IV	547.451	23		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	2 - 2	S7
Cu IV	548.650	28		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	1 - 2	S7
Cu IV	550.915	32		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3D°$	2 - 3	S7
Cu IV	553.144	17		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3G°$	2 - 3	S7
Cu IV	553.645	12		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3F°$	1 - 2	S7
Cu IV	555.858	17		$3d^8 - 3d^7(^4F)4p$	$^3P - ^3F°$	2 - 3	S7
Cu IV	574.284	14		$3d^8 - 3d^7(^4F)4p$	$^1G - ^3D°$	4 - 3	S7
Cu IV	576.660	14		$3d^8 - 3d^7(^4F)4p$	$^1G - ^3G°$	4 - 3	S7
Cu IV	580.970	13		$3d^8 - 3d^7(^4F)4p$	$^1G - ^3G°$	4 - 4	S7
Cu IV	584.444	12		$3d^8 - 3d^7(^4F)4p$	$^1G - ^3F°$	4 - 4	S7
Cu IV	605.874	11		$3d^8 - 3d^7(^2P)4p$	$^1S - ^1P°$	0 - 1	S7
Cu IV	606.817	12		$3d^8 - 3d^7(^2P)4p$	$^1S - ^3S°$	0 - 1	S7
Cu IV	653.010	15		$3d^8 - 3d^7(^4P)4p$	$^1S - ^3S°$	0 - 1	S7
Cu IV	675.879	16		$3d^7(^4F)4s - 3d^7(b^2D)4p$	$^3F - ^3D°$	4 - 3	S7
Cu IV	680.698	13		$3d^7(^4F)4s - 3d^7(b^2D)4p$	$^3F - ^1D°$	3 - 2	S7
Cu IV	685.810	21		$3d^7(^4F)4s - 3d^7(b^2D)4p$	$^5F - ^3F°$	3 - 2	S7
Cu IV	688.918	22		$3d^7(^4F)4s - 3d^7(b^2D)4p$	$^5F - ^3F°$	2 - 2	S7
Cu IV	818.988	12		$3d^7(^4F)4s - 3d^7(^2F)4p$	$^5F - ^3F°$	3 - 3	S7
Cu IV	820.437	13		$3d^7(^4F)4s - 3d^7(^2F)4p$	$^5F - ^3G°$	4 - 3	S7
Cu IV	823.416	11		$3d^7(^4F)4s - 3d^7(^2F)4p$	$^5F - ^3F°$	2 - 3	S7
Cu IV	834.957	40		$3d^7(a^2D)4s - 3d^7(b^2D)4p$	$^1D - ^1D°$	2 - 2	S7
Cu IV	846.723	12		$3d^7(^2P)4s - 3d^7(b^2D)4p$	$^3P - ^3P°$	2 - 2	S7
Cu IV	848.546	12		$3d^7(^4P)4s - 3d^7(b^2D)4p$	$^3P - ^3P°$	1 - 2	S7
Cu IV	862.12	14		$3d^7(a^2D)4s - 3d^7(b^2D)4p$	$^1D - ^1F°$	2 - 3	S7
Cu IV	867.440	18		$3d^7(a^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F°$	3 - 2	S7
Cu IV	868.649	13		$3d^7(a^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F°$	2 - 3	S7
Cu IV	881.589	11		$3d^7(a^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3P°$	1 - 1	S7
Cu IV	918.652	11		$3d^7(^4F)4s - 3d^7(a^2D)4p$	$^5F - ^3P°$	2 - 1	S7
Cu IV	956.939	10		$3d^7(^4P)4s - 3d^7(^2F)4p$	$^5P - ^3F°$	3 - 2	S7
Cu IV	959.725	10		$3d^7(^4F)4s - 3d^7(^2P)4p$	$^5F - ^3S°$	2 - 1	S7
Cu IV	976.078	10		$3d^7(^4P)4s - 3d^7(^2F)4p$	$^5P - ^1D°$	2 - 2	S7
Cu IV	978.262	10		$3d^7(^4F)4s - 3d^7(a^2D)4p$	$^3F - ^1F°$	4 - 3	S7
Cu IV	982.318	12		$3d^7(^4P)4s - 3d^7(^2F)4p$	$^5P - ^1D°$	1 - 2	S7
Cu IV	983.205	10		$3d^7(^4F)4s - 3d^7(a^2D)4p$	$^5F - ^3D°$	2 - 2	S7
Cu IV	983.667	15		$3d^7(^4F)4s - 3d^7(^2H)4p$	$^5F - ^3G°$	4 - 4	S7
Cu IV	985.702	10		$3d^7(^2G)4s - 3d^7(^2F)4p$	$^3G - ^1G°$	5 - 4	S7
Cu IV	1000.034	14		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^3F - ^3P°$	2 - 1	S7
Cu IV	1000.612	14		$3d^7(^2G)4s - 3d^7(^2F)4p$	$^3G - ^1G°$	3 - 4	S7
Cu IV	1000.821	15		$3d^7(^4F)4s - 3d^7(^2P)4p$	$^5F - ^3D°$	2 - 1	S7
Cu IV	1006.427	10		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^5F° - ^5F$	3 - 3	S7
Cu IV	1007.159	10		$3d^7(^4F)4s - 3d^7(^2P)4p$	$^5F - ^3D°$	2 - 3	S7
Cu IV	1014.923	17		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^5F - ^3G°$	5 - 5	S7
Cu IV	1018.462	16		$3d^7(^2F)4s - 3d^7(b^2D)4p$	$^1F - ^1F°$	3 - 3	S7
Cu IV	1021.800	11		$3d^7(^2G)4s - 3d^7(^2F)4p$	$^3G - ^3G°$	4 - 3	S7
Cu IV	1039.589	57		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^5G° - ^5F$	4 - 3	S7
Cu IV	1041.202	15		$3d^7(^4P)4s - 3d^7(^2F)4p$	$^3P - ^3D°$	2 - 1	S7
Cu IV	1043.995	64		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^5G° - ^5F$	5 - 4	S7
Cu IV	1044.748	30		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5P°$	2 - 1	S7
Cu IV	1045.288	22		$3d^7(^2G)4s - 3d^7(^2F)4p$	$^1G - ^3G°$	4 - 5	S7
Cu IV	1047.003	40		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^5G° - ^5F$	2 - 3	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1048.803	16		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^3D^\circ$	1 - 2	S7
Cu IV	1051.588	68		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^5G^\circ - ^5F$	6 - 5	S7
Cu IV	1052.528	43		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3F^\circ - ^3F$	4 - 3	S7
Cu IV	1055.408	21		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5D^\circ$	5 - 4	S7
Cu IV	1056.417	12		$3d^7(^4F)4s - 3d^7(a^2D)4p$	$^3F - ^3D^\circ$	4 - 3	S7
Cu IV	1056.662	14		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^3F - ^3F^\circ$	2 - 3	S7
Cu IV	1061.581	61		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3G^\circ - ^3F$	5 - 4	S7
Cu IV	1064.014	58		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3G^\circ - ^3F$	4 - 3	S7
Cu IV	1065.824	55		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3G^\circ - ^3F$	3 - 2	S7
Cu IV	1066.365	20		$3d^7(^4F)4s - 3d^7(^2H)4p$	$^3F - ^3I^\circ$	4 - 5	S7
Cu IV	1067.056	14		$3d^7(^4P)4s - 3d^7(^2F)4p$	$^3P - ^3G^\circ$	2 - 3	S7
Cu IV	1068.859	17		$3d^7(^4F)4s - 3d^7(^2H)4p$	$^3F - ^3G^\circ$	3 - 3	S7
Cu IV	1070.291	18		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^5F - ^3F^\circ$	3 - 4	S7
Cu IV	1071.730	14		$3d^7(^4F)4s - 3d^7(^2P)4p$	$^3F - ^3D^\circ$	4 - 3	S7
Cu IV	1074.163	21		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3D^\circ - ^3F$	3 - 2	S7
Cu IV	1077.090	22		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5D^\circ$	4 - 3	S7
Cu IV	1079.804	46		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3G^\circ - ^5F$	5 - 4	S7
Cu IV	1080.830	12		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5D^\circ$	3 - 4	S7
Cu IV	1082.253	14		$3d^7(^4P)4s - 3d^7(^2H)4p$	$^3F - ^3G^\circ$	2 - 3	S7
Cu IV	1090.090	20		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5D^\circ$	3 - 2	S7
Cu IV	1092.029	10		$3d^7(a^2D)4s - 3d^7(^2F)4p$	$^3D - ^3F^\circ$	3 - 3	S7
Cu IV	1093.165	10		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^3F - ^1D^\circ$	2 - 2	S7
Cu IV	1096.680	11		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^5P - ^3P^\circ$	1 - 0	S7
Cu IV	1098.151	13		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^3F - ^3D^\circ$	2 - 1	S7
Cu IV	1098.409	13		$3d^7(^4F)4p - 3d^7(^4F)5s$	$^3G^\circ - ^3F$	3 - 4	S7
Cu IV	1102.198	27		$3d^7(a^2D)4s - 3d^7(^2F)4p$	$^3D - ^3F^\circ$	2 - 2	S7
Cu IV	1103.489	14		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^5F - ^5D^\circ$	1 - 2	S7
Cu IV	1127.830	10		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^3F - ^3F^\circ$	3 - 2	S7
Cu IV	1129.076	12		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^3F - ^3G^\circ$	3 - 3	S7
Cu IV	1134.976	10		$3d^7(^4F)4s - 3d^7(^4P)4p$	$^3F - ^3D^\circ$	3 - 2	S7
Cu IV	1142.743	16		$3d^7(^4P)4s - 3d^7(^2G)4p$	$^3F - ^3F^\circ$	2 - 2	S7
Cu IV	1145.290	10		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^3F - ^3H^\circ$	4 - 4	S7
Cu IV	1149.166	18		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^3F - ^3F^\circ$	3 - 3	S7
Cu IV	1157.603	18		$3d^7(^4F)4s - 3d^7(^2G)4p$	$^3F - ^3H^\circ$	4 - 5	S7
Cu IV	1164.664	12		$3d^7(^4P)4s - 3d^7(^2G)4p$	$^3F - ^3F^\circ$	2 - 3	S7
Cu IV	1165.308	10		$3d^7(^2G)4s - 3d^7(a^2D)4p$	$^3G - ^1F^\circ$	4 - 3	S7
Cu IV	1170.576	11		$3d^7(a^2D)4s - 3d^7(^2F)4p$	$^1D - ^3G^\circ$	2 - 3	S7
Cu IV	1173.259	32		$3d^7(a^2D)4s - 3d^7(^2F)4p$	$^1D - ^1D^\circ$	2 - 2	S7
Cu IV	1182.576	20		$3d^7(^2G)4s - 3d^7(^2H)4p$	$^1G - ^1H^\circ$	4 - 5	S7
Cu IV	1193.475	15		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^5P - ^3D^\circ$	2 - 1	S7
Cu IV	1203.261	13		$3d^7(^2G)4s - 3d^7(^2H)4p$	$^3G - ^3H^\circ$	3 - 4	S7
Cu IV	1214.347	15		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3F - ^5D^\circ$	2 - 1	S7
Cu IV	1214.871	18		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^3P - ^3P^\circ$	2 - 1	S7
Cu IV	1216.910	21		$3d^7(^2P)4s - 3d^7(a^2D)4p$	$^3P - ^1P^\circ$	0 - 1	S7
Cu IV	1218.430	12		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^5P - ^1D^\circ$	1 - 2	S7
Cu IV	1224.244	28		$3d^7(^2G)4s - 3d^7(a^2D)4p$	$^1G - ^1F^\circ$	4 - 3	S7
Cu IV	1230.062	15		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^5P - ^3D^\circ$	1 - 2	S7
Cu IV	1239.316	13		$3d^7(^2G)4s - 3d^7(a^2D)4p$	$^3G - ^3F^\circ$	3 - 2	S7
Cu IV	1240.160	23		$3d^7(^2G)4s - 3d^7(a^2D)4p$	$^3G - ^3F^\circ$	4 - 4	S7
Cu IV	1242.541	21		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^3D^\circ$	4 - 3	S7
Cu IV	1245.071	16		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^3D^\circ$	1 - 1	S7
Cu IV	1245.691	30		$3d^7(^2G)4s - 3d^7(a^2D)4p$	$^3G - ^3F^\circ$	3 - 3	S7
Cu IV	1250.003	13		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^3D^\circ$	2 - 2	S7
Cu IV	1253.061	15		$3d^7(^2G)4s - 3d^7(^2H)4p$	$^1G - ^3H^\circ$	4 - 4	S7
Cu IV	1259.076	23		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3D^\circ$	3 - 3	S7
Cu IV	1259.352	18		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	1 - 0	S7
Cu IV	1261.132	11		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^1P^\circ$	2 - 1	S7
Cu IV	1265.172	11		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3S^\circ$	2 - 1	S7
Cu IV	1266.879	29		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3D^\circ$	1 - 1	S7
Cu IV	1268.546	36		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3D^\circ$	2 - 2	S7
Cu IV	1268.748	32		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	1 - 1	S7
Cu IV	1269.342	27		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^3D^\circ$	2 - 1	S7
Cu IV	1272.858	12		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^3D^\circ$	3 - 2	S7
Cu IV	1273.352	12		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^3D^\circ$	3 - 3	S7
Cu IV	1273.720	15		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3D^\circ$	2 - 1	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1274.721	82		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3D^\circ$	3 - 2	S7
Cu IV	1274.843	158		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	3 - 3	S7
Cu IV	1276.641	104		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	3 - 2	S7
Cu IV	1276.766	19		$3d^7(^2G)4s - 3d^7(^2H)4p$	$^3G - ^3G^\circ$	5 - 4	S7
Cu IV	1277.849	11		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^1G^\circ$	5 - 4	S7
Cu IV	1278.187	29		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^3P - ^3S^\circ$	0 - 1	S7
Cu IV	1278.848	11		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^3D^\circ$	2 - 2	S7
Cu IV	1280.353	113		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	2 - 1	S7
Cu IV	1280.889	59		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	2 - 3	S7
Cu IV	1282.702	12		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	2 - 2	S7
Cu IV	1284.702	52		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	2 - 1	S7
Cu IV	1286.119	12		$3d^7(^2P)4s - 3d^7(a^2D)4p$	$^1P - ^1P^\circ$	1 - 1	S7
Cu IV	1290.969	72		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	3 - 2	S7
Cu IV	1291.084	58		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	1 - 1	S7
Cu IV	1293.476	173		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5P^\circ$	1 - 2	S7
Cu IV	1293.780	13		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	1 - 2	S7
Cu IV	1294.142	104		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^1H - ^1H^\circ$	5 - 5	S7
Cu IV	1296.752	14		$3d^7(^2G)4s - 3d^7(^2P)4p$	$^3G - ^1D^\circ$	3 - 2	S7
Cu IV	1296.878	11		$3d^7(^4P)4s - 3d^7(^2G)4p$	$^5P - ^3F^\circ$	2 - 3	S7
Cu IV	1300.572	16		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3S^\circ$	1 - 1	S7
Cu IV	1301.999	11		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	6 - 5	S7
Cu IV	1305.168	18		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^5P - ^3P^\circ$	1 - 1	S7
Cu IV	1305.468	10		$3d^7(^2P)4s - 3d^7(a^2D)4p$	$^3P - ^3F^\circ$	1 - 2	S7
Cu IV	1305.617	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^3G^\circ$	4 - 5	S7
Cu IV	1306.256	90		$3d^7(^2P)4s - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	1307.600	128		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^3F^\circ$	3 - 4	S7
Cu IV	1308.822	205		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	1 - 0	S7
Cu IV	1309.427	212		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	6 - 6	S7
Cu IV	1310.319	23		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3P^\circ$	2 - 2	S7
Cu IV	1311.505	15		$3d^7(^2P)4s - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	2 - 1	S7
Cu IV	1311.855	66		$3d^7(^2G)4s - 3d^7(^2H)4p$	$^3G - ^3G^\circ$	4 - 5	S7
Cu IV	1312.715	221		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	5 - 5	S7
Cu IV	1312.790	169		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^1F - ^1F^\circ$	3 - 3	S7
Cu IV	1312.948	15		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^1P^\circ$	2 - 1	S7
Cu IV	1318.140	280		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	4 - 4	S7
Cu IV	1319.433	129		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^1D - ^1D^\circ$	2 - 2	S7
Cu IV	1320.206	11		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	5 - 6	S7
Cu IV	1321.168	101		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^1D - ^1P^\circ$	2 - 1	S7
Cu IV	1325.524	16		$3d^7(^4P)4s - 3d^7(a^2D)4p$	$^3P - ^3D^\circ$	0 - 1	S7
Cu IV	1327.622	11		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3H^\circ$	4 - 5	S7
Cu IV	1335.043	106		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3D^\circ$	2 - 1	S7
Cu IV	1335.554	87		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	5 - 4	S7
Cu IV	1337.364	76		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3D^\circ$	2 - 2	S7
Cu IV	1339.179	45		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	5 - 5	S7
Cu IV	1340.102	240		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	3 - 4	S7
Cu IV	1342.092	61		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	1 - 1	S7
Cu IV	1342.741	190		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3D^\circ$	3 - 2	S7
Cu IV	1343.992	40		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	1344.994	63		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	3 - 4	S7
Cu IV	1345.665	360		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	5 - 6	S7
Cu IV	1347.811	212		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	4 - 4	S7
Cu IV	1348.569	147		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^1H^\circ$	5 - 5	S7
Cu IV	1348.880	171		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	2 - 3	S7
Cu IV	1349.598	38		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	4 - 4	S7
Cu IV	1349.860	27		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3D^\circ$	3 - 3	S7
Cu IV	1350.165	166		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	2 - 2	S7
Cu IV	1350.390	191		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^1H - ^1G^\circ$	5 - 4	S7
Cu IV	1350.424	191		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	4 - 4	S7
Cu IV	1351.925	221		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	3 - 3	S7
Cu IV	1352.585	217		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	5 - 5	S7
Cu IV	1352.957	166		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3G^\circ$	4 - 5	S7
Cu IV	1353.576	58		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	4 - 3	S7
Cu IV	1353.720	82		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3F^\circ$	1 - 2	S7
Cu IV	1354.318	98		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	3 - 2	S7
Cu IV	1354.602	161		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^1D - ^3D^\circ$	2 - 1	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1354.928	26		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	3 - 2	S7
Cu IV	1355.391	136		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3D^\circ$	4 - 3	S7
Cu IV	1355.617	17		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	3 - 2	S7
Cu IV	1357.313	61		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^1F^\circ$	3 - 3	S7
Cu IV	1358.732	220		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	2 - 3	S7
Cu IV	1358.770	226		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	2 - 1	S7
Cu IV	1359.616	70		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	1 - 1	S7
Cu IV	1359.929	41		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	3 - 3	S7
Cu IV	1361.146	196		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	3 - 3	S7
Cu IV	1362.052	276		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	4 - 5	S7
Cu IV	1362.808	128		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^1D - ^1F^\circ$	2 - 3	S7
Cu IV	1363.061	196		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	3 - 4	S7
Cu IV	1365.189	177		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	4 - 5	S7
Cu IV	1366.802	30		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3F^\circ$	4 - 3	S7
Cu IV	1366.960	259		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3F^\circ$	3 - 4	S7
Cu IV	1367.140	133		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3F^\circ$	3 - 2	S7
Cu IV	1367.562	178		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	3 - 4	S7
Cu IV	1368.972	189		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3G^\circ$	3 - 3	S7
Cu IV	1369.497	173		$3d^7(^4P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	1369.847	75		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	0 - 1	S7
Cu IV	1370.849	23		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	1 - 1	S7
Cu IV	1372.142	216		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	2 - 3	S7
Cu IV	1372.372	192		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3D^\circ$	4 - 3	S7
Cu IV	1373.278	157		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5D^\circ$	1 - 2	S7
Cu IV	1373.748	172		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	3 - 2	S7
Cu IV	1373.812	172		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	4 - 3	S7
Cu IV	1374.564	136		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	2 - 1	S7
Cu IV	1374.655	113		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	1 - 0	S7
Cu IV	1375.783	160		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5G^\circ$	1 - 2	S7
Cu IV	1376.339	128		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	5 - 4	S7
Cu IV	1377.800	172		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3G^\circ$	2 - 3	S7
Cu IV	1378.109	44		$3d^7(^2H)4s - 3d^7(a^2D)4p$	$^3H - ^3F^\circ$	4 - 4	S7
Cu IV	1378.488	210		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F^\circ$	3 - 4	S7
Cu IV	1379.640	169		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3F^\circ$	2 - 3	S7
Cu IV	1380.020	170		$3d^7(^2G)4s - 3d^7(^4P)4p$	$^3G - ^5P^\circ$	3 - 3	S7
Cu IV	1380.818	227		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	2 - 1	S7
Cu IV	1382.123	52		$3d^7(^2G)4s - 3d^7(^4P)4p$	$^3G - ^5P^\circ$	3 - 2	S7
Cu IV	1382.545	230		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3F^\circ$	4 - 3	S7
Cu IV	1383.130	209		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3D^\circ$	3 - 2	S7
Cu IV	1383.350	20		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	1 - 1	S7
Cu IV	1383.520	11		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^3F - ^3G^\circ$	3 - 3	S7
Cu IV	1384.053	165		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	1 - 2	S7
Cu IV	1386.248	31		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3G^\circ$	4 - 3	S7
Cu IV	1386.289	34		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	2 - 2	S7
Cu IV	1388.827	246		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^1D - ^1F^\circ$	2 - 3	S7
Cu IV	1390.433	154		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3D^\circ$	2 - 1	S7
Cu IV	1392.133	350		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3H^\circ$	5 - 6	S7
Cu IV	1392.424	147		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	3 - 3	S7
Cu IV	1395.038	91		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^1P - ^1P^\circ$	1 - 1	S7
Cu IV	1395.251	206		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3D^\circ$	1 - 2	S7
Cu IV	1396.175	10		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F^\circ$	3 - 3	S7
Cu IV	1397.110	65		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3D^\circ$	0 - 1	S7
Cu IV	1398.620	74		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3F^\circ$	3 - 3	S7
Cu IV	1399.036	85		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^1D - ^1P^\circ$	2 - 1	S7
Cu IV	1399.643	201		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F^\circ$	1 - 2	S7
Cu IV	1400.341	171		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3P^\circ$	2 - 2	S7
Cu IV	1400.527	14		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5D^\circ$	4 - 4	S7
Cu IV	1401.273	127		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3D^\circ$	1 - 1	S7
Cu IV	1403.403	218		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3F^\circ$	4 - 3	S7
Cu IV	1404.247	12		$3d^7(^2P)4s - 3d^7(^2G)4p$	$^3P - ^3F^\circ$	2 - 2	S7
Cu IV	1405.493	196		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3D^\circ$	3 - 3	S7
Cu IV	1405.659	164		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3D^\circ$	2 - 2	S7
Cu IV	1406.194	10		$3d^7(^2P)4s - 3d^7(^2G)4p$	$^3P - ^3G^\circ$	2 - 3	S7
Cu IV	1406.733	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F^\circ$	5 - 4	S7
Cu IV	1407.605	253		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F^\circ$	5 - 5	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1408.016	62		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3F°$	2 - 2	S7
Cu IV	1408.770	162		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3D°$	1 - 1	S7
Cu IV	1410.336	26		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3H°$	4 - 4	S7
Cu IV	1410.582	368		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3I°$	6 - 7	S7
Cu IV	1411.264	16		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3G°$	4 - 4	S7
Cu IV	1411.558	244		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^1D - ^1D°$	2 - 2	S7
Cu IV	1413.066	247		$3d^7(a^2D)4s - 3d^7(a^2D)4p$	$^3D - ^3D°$	3 - 3	S7
Cu IV	1413.564	10		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	3 - 2	S7
Cu IV	1415.261	197		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	3 - 2	S7
Cu IV	1416.167	29		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	2 - 1	S7
Cu IV	1417.654	172		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^1F - ^1G°$	3 - 4	S7
Cu IV	1419.788	53		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3D°$	0 - 1	S7
Cu IV	1420.014	262		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3G°$	3 - 3	S7
Cu IV	1420.485	175		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3D°$	1 - 2	S7
Cu IV	1420.805	77		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3F°$	4 - 4	S7
Cu IV	1421.022	246		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^1F°$	4 - 3	S7
Cu IV	1421.364	12		$3d^7(^4P)4s - 3d^7(^2G)4p$	$^3P - ^1F°$	2 - 3	S7
Cu IV	1425.445	281		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	1 - 1	S7
Cu IV	1426.642	251		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3P°$	1 - 0	S7
Cu IV	1426.841	268		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	2 - 2	S7
Cu IV	1427.002	266		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3H°$	3 - 4	S7
Cu IV	1428.748	54		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3D°$	2 - 3	S7
Cu IV	1429.034	177		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^3G - ^3H°$	4 - 5	S7
Cu IV	1429.504	247		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3I°$	6 - 6	S7
Cu IV	1429.552	256		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	3 - 3	S7
Cu IV	1431.925	107		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	4 - 4	S7
Cu IV	1431.963	153		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	4 - 4	S7
Cu IV	1432.964	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	4 - 5	S7
Cu IV	1433.369	162		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3P°$	1 - 1	S7
Cu IV	1433.776	35		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^3G°$	4 - 3	S7
Cu IV	1434.197	54		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3P°$	2 - 1	S7
Cu IV	1436.086	322		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3G°$	6 - 5	S7
Cu IV	1436.267	83		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	1 - 2	S7
Cu IV	1436.375	117		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^1D - ^1P°$	2 - 1	S7
Cu IV	1438.093	312		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	3 - 3	S7
Cu IV	1438.846	282		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	2 - 2	S7
Cu IV	1440.576	16		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^3D - ^3D°$	3 - 3	S7
Cu IV	1442.227	130		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3P°$	2 - 1	S7
Cu IV	1442.410	295		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3I°$	5 - 6	S7
Cu IV	1442.590	48		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^3D - ^1D°$	2 - 2	S7
Cu IV	1443.042	268		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3I°$	4 - 5	S7
Cu IV	1443.163	203		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	2 - 3	S7
Cu IV	1443.510	46		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3P°$	2 - 2	S7
Cu IV	1443.771	199		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3G°$	2 - 3	S7
Cu IV	1444.001	18		$3d^7(^2G)4s - 3d^7(^4P)4p$	$^1G - ^3D°$	4 - 3	S7
Cu IV	1444.330	210		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3D°$	2 - 3	S7
Cu IV	1446.255	20		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^5P°$	2 - 3	S7
Cu IV	1446.315	276		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3G°$	3 - 4	S7
Cu IV	1446.695	23		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^1F - ^3F°$	3 - 2	S7
Cu IV	1446.836	19		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^3G°$	4 - 5	S7
Cu IV	1449.071	11		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3G°$	5 - 5	S7
Cu IV	1449.700	350		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3G°$	4 - 5	S7
Cu IV	1452.242	13		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^5F - ^5F°$	3 - 4	S7
Cu IV	1454.650	207		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^3D - ^3P°$	3 - 2	S7
Cu IV	1458.086	306		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^1G°$	4 - 4	S7
Cu IV	1459.883	311		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^1H - ^1I°$	5 - 6	S7
Cu IV	1462.437	16		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	2 - 3	S7
Cu IV	1466.353	132		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^3F°$	4 - 3	S7
Cu IV	1467.291	12		$3d^7(^2H)4s - 3d^7(^2H)4p$	$^3H - ^3G°$	4 - 5	S7
Cu IV	1467.423	11		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^1F - ^3G°$	3 - 4	S7
Cu IV	1468.062	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^3F°$	3 - 4	S7
Cu IV	1472.421	40		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^3P°$	1 - 2	S7
Cu IV	1473.640	10		$3d^7(^2G)4s - 3d^7(^4P)4p$	$^3G - ^5D°$	3 - 2	S7
Cu IV	1479.940	56		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^1P - ^1D°$	1 - 2	S7
Cu IV	1482.779	157		$3d^7(^2F)4s - 3d^7(^2F)4p$	$^1F - ^1D°$	3 - 2	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1489.774	32		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3S^\circ$	1 - 1	S7
Cu IV	1492.044	220		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3P^\circ$	1 - 0	S7
Cu IV	1500.258	11		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^3H - ^3G^\circ$	6 - 5	S7
Cu IV	1502.114	221		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3S^\circ$	0 - 1	S7
Cu IV	1502.955	88		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^3P - ^3P^\circ$	0 - 1	S7
Cu IV	1504.167	30		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5G^\circ$	4 - 4	S7
Cu IV	1506.103	11		$3d^7(a^2D)4s - 3d^7(^2G)4p$	$^3D - ^3G^\circ$	3 - 3	S7
Cu IV	1507.022	11		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^3D^\circ$	1 - 1	S7
Cu IV	1509.415	19		$3d^7(^2G)4s - 3d^7(^2G)4p$	$^1G - ^3F^\circ$	4 - 4	S7
Cu IV	1515.293	298		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^3S^\circ$	2 - 1	S7
Cu IV	1517.345	22		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^3D^\circ$	3 - 3	S7
Cu IV	1517.918	31		$3d^7(a^2D)4s - 3d^7(^2G)4p$	$^3D - ^1F^\circ$	2 - 3	S7
Cu IV	1522.587	11		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^5P^\circ$	1 - 1	S7
Cu IV	1522.773	13		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^5D^\circ$	1 - 2	S7
Cu IV	1526.559	15		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^1D - ^1D^\circ$	2 - 2	S7
Cu IV	1529.088	11		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^3H - ^1H^\circ$	4 - 5	S7
Cu IV	1532.594	46		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^5D^\circ$	0 - 1	S7
Cu IV	1534.277	10		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5G^\circ$	3 - 3	S7
Cu IV	1535.307	38		$3d^7(^2P)4s - 3d^7(^2P)4p$	$^1P - ^1S^\circ$	1 - 0	S7
Cu IV	1536.308	11		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^1D - ^3D^\circ$	2 - 1	S7
Cu IV	1544.141	206		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^3D^\circ$	2 - 3	S7
Cu IV	1544.847	12		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^1D - ^3D^\circ$	2 - 2	S7
Cu IV	1546.762	13		$3d^7(b^2D)4s - 3d^7(b^2D)4p$	$^1D - ^3P^\circ$	2 - 1	S7
Cu IV	1549.288	94		$3d^7(a^2D)4p - 3d^7(^4F)5s$	$^3F^\circ - ^5F$	4 - 4	S7
Cu IV	1549.459	14		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^3P - ^5D^\circ$	2 - 2	S7
Cu IV	1551.924	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5D^\circ$	3 - 2	S7
Cu IV	1555.521	10		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5G^\circ$	2 - 2	S7
Cu IV	1558.271	312		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5S^\circ$	2 - 2	S7
Cu IV	1562.049	10		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5G^\circ$	2 - 3	S7
Cu IV	1565.168	162		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5D^\circ$	2 - 1	S7
Cu IV	1567.735	11		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5D^\circ$	4 - 4	S7
Cu IV	1574.186	12		$3d^7(^4P)4s - 3d^7(^4P)4p$	$^5P - ^5S^\circ$	1 - 2	S7
Cu IV	1576.895	50		$3d^7(a^2D)4s - 3d^7(^2P)4p$	$^3D - ^3P^\circ$	2 - 2	S7
Cu IV	1580.354	11		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5D^\circ$	2 - 2	S7
Cu IV	1586.252	12		$3d^7(^2P)4s - 3d^7(^4P)4p$	$^1P - ^3D^\circ$	1 - 2	S7
Cu IV	1591.549	11		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^3H - ^3H^\circ$	4 - 4	S7
Cu IV	1592.170	12		$3d^7(^2P)4s - 3d^7(^4P)4p$	$^1P - ^5P^\circ$	1 - 2	S7
Cu IV	1593.090	20		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^1H - ^3G^\circ$	5 - 4	S7
Cu IV	1593.374	15		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^3H - ^3H^\circ$	5 - 5	S7
Cu IV	1602.960	39		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	3 - 2	S7
Cu IV	1604.898	12		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^3H - ^3F^\circ$	4 - 4	S7
Cu IV	1607.300	23		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	4 - 4	S7
Cu IV	1608.451	13		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	4 - 5	S7
Cu IV	1611.130	14		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5D^\circ$	3 - 4	S7
Cu IV	1613.127	11		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^5D^\circ$	3 - 4	S7
Cu IV	1617.373	13		$3d^7(^2H)4s - 3d^7(^2G)4p$	$^1H - ^3G^\circ$	5 - 5	S7
Cu IV	1619.313	19		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	2 - 1	S7
Cu IV	1619.735	16		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^3D^\circ$	1 - 2	S7
Cu IV	1623.508	12		$3d^7(^4F)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	3 - 3	S7
Cu IV	1632.948	12		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^3D^\circ$	2 - 3	S7
Cu IV	1633.257	121		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	2 - 2	S7
Cu IV	1642.614	19		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^3G^\circ$	3 - 3	S7
Cu IV	1654.655	190		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3F - ^5F^\circ$	2 - 3	S7
Cu IV	1661.259	10		$3d^7(a^2D)4s - 3d^7(^4P)4p$	$^3D - ^5D^\circ$	2 - 3	S7
Cu IV	1677.908	21		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^3G^\circ$	3 - 4	S7
Cu IV	1702.253	20		$3d^7(^2P)4s - 3d^7(^4P)4p$	$^1P - ^5D^\circ$	1 - 0	S7
Cu IV	1791.457	10		$3d^7(^2F)4s - 3d^7(a^2D)4p$	$^3F - ^3F^\circ$	2 - 3	S7
Cu IV	1813.608	30		$3d^7(^2G)4s - 3d^7(^4F)4p$	$^3G - ^3F^\circ$	3 - 2	S7
Cu IV	1822.024	10		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^5G^\circ$	1 - 2	S7
Cu IV	1836.484	10		$3d^7(^2G)4s - 3d^7(^4F)4p$	$^3G - ^3G^\circ$	4 - 4	S7
Cu IV	1851.250	11		$3d^7(^2G)4s - 3d^7(^4F)4p$	$^3G - ^3F^\circ$	3 - 3	S7
Cu IV	1854.679	26		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^5P - ^5D^\circ$	3 - 3	S7
Cu IV	1862.324	16		$3d^7(^2P)4s - 3d^7(^4F)4p$	$^3P - ^3D^\circ$	2 - 3	S7
Cu IV	1870.535	10		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3P - ^3D^\circ$	2 - 2	S7
Cu IV	1876.812	10		$3d^7(^2F)4s - 3d^7(^2H)4p$	$^3F - ^3G^\circ$	3 - 3	S7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu IV	1929.757	14		$3d^7(^4P)4s - 3d^7(^4F)4p$	$^3P - ^3F^\circ$	2 - 2	S7
Cu IV	1960.335	12		$3d^7(^2F)4s - 3d^7(^2P)4p$	$^3F - ^3D^\circ$	4 - 3	S7
Cu IV	1970.822	11		$3d^7(a^2D)4s - 3d^7(^4F)4p$	$^3D - ^3D^\circ$	1 - 1	S7

COPPER V (Cu^{4+}), Z = 29

Ground State $1s^22s^22p^63s^23p^63d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential [686 000] cm^{-1}; [85] eV

COPPER VI (Cu^{5+}), Z = 29

Ground State $1s^22s^22p^63s^23p^63d^6\ ^5D_4$ (24 electrons)

Ionization Potential [895 000] cm^{-1}; [111] eV

COPPER VII (Cu^{6+}), Z = 29

Ground State $1s^22s^22p^63s^23p^63d^5\ ^6S_{5/2}$ (23 electrons)

Ionization Potential [1 137 000] cm^{-1}; [141] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu VII	200.665	1000		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 7/2	K21,K20
Cu VII	200.851	750		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 5/2	K21,K20
Cu VII	200.948	500		$3d^5 - 3d^44p$	$g^6S - ^6P^\circ$	5/2 - 3/2	K21,K20

COPPER VIII (Cu^{7+}), Z = 29
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^4$ $^5D_0$ (22 electrons)
Ionization Potential [1 371 000] cm^{-1}; [170] eV

COPPER IX (Cu^{8+}), Z = 29
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [1 678 000] cm^{-1}; [201] eV

COPPER X (Cu^{9+}), Z = 29
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2$ $^3F_2$ (20 electrons)
Ionization Potential [1 887 000] cm^{-1}; [234] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu X	86.160	100		$3d^2$ - 3d4f	g^3F - $^3G°$	2 - 3	E37
Cu X	86.204	100		$3d^2$ - 3d4f	g^3F - $^3G°$	3 - 4	E37
Cu X	86.336	140		$3d^2$ - 3d4f	g^3F - $^3G°$	4 - 5	E37
Cu X	86.422	10		$3d^2$ - 3d4f	g^3F - $^3G°$	4 - 4	E37
Cu X	86.720	10		$3d^2$ - 3d4f	g^3F - $^3F°$	2 - 3	E37
Cu X	86.776	90		$3d^2$ - 3d4f	g^3F - $^3F°$	2 - 2	E37
Cu X	86.792	10		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 4	E37
Cu X	86.907	90		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 3	E37
Cu X	86.964	1		$3d^2$ - 3d4f	g^3F - $^3F°$	3 - 2	E37
Cu X	87.018	90		$3d^2$ - 3d4f	g^3F - $^3F°$	4 - 4	E37
Cu X	87.135	1		$3d^2$ - 3d4f	g^3F - $^3F°$	4 - 3	E37
Cu X	87.516	50		$3d^2$ - 3d4f	^1D - $^3D°$	2 - 3	E37
Cu X	87.703	100		$3d^2$ - 3d4f	^1D - $^1F°$	2 - 3	E37
Cu X	87.932	100		$3d^2$ - 3d4f	^1D - $^1D°$	2 - 2	E37
Cu X	87.983	40		$3d^2$ - 3d4f	^3P - $^3D°$	0 - 1	E37
Cu X	88.020	60		$3d^2$ - 3d4f	^3P - $^3D°$	1 - 2	E37
Cu X	88.032	120		$3d^2$ - 3d4f	^3P - $^3D°$	2 - 3	E37

COPPER XI (Cu^{10+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d\ ^2D_{3/2}$ (19 electrons)

Ionization Potential 2 146 000 cm^{-1}; 266 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XI	56.915	1		3d - 6f	$g^2D - {}^2F^\circ$	3/2 - 5/2	E37
Cu XI	57.047	1		3d - 6f	$g^2D - {}^2F^\circ$	5/2 - 7/2	E37
Cu XI	63.038	40		3d - 5f	$g^2D - {}^2F^\circ$	3/2 - 5/2	E37
Cu XI	63.192	40		3d - 5f	$g^2D - {}^2F^\circ$	5/2 - 7/2	E37
Cu XI	70.550	40					E37
Cu XI	70.654	30					E37
Cu XI	70.895	1					E37
Cu XI	71.045	1					E37
Cu XI	71.536	20					E37
Cu XI	71.612	10					E37
Cu XI	71.707	10					E37
Cu XI	71.823	10					E37
Cu XI	71.847	10					E37
Cu XI	71.951	1					E37
Cu XI	72.098	30					E37
Cu XI	72.369	2		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	3/2 - 5/2	H8
Cu XI	72.580	15		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 5/2	H8
Cu XI	72.792	5		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^2D^\circ$	5/2 - 3/2	H8
Cu XI	72.956	5		$3p^6 3d - 3p^5 3d(^1F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	H8
Cu XI	73.516	1		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	3/2 - 5/2	H8
Cu XI	73.735	5		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 5/2	H8
Cu XI	73.982	2		$3p^6 3d - 3p^5 3d(^3D^\circ)4s$	$g^2D - {}^4D^\circ$	5/2 - 7/2	H8
Cu XI	74.633	15		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	3/2 - 5/2	H8
Cu XI	74.856	1		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 5/2	H8
Cu XI	75.325	25		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^2F^\circ$	5/2 - 7/2	H8
Cu XI	75.472	2		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	3/2 - 5/2	H8
Cu XI	75.866	2		$3p^6 3d - 3p^5 3d(^3F^\circ)4s$	$g^2D - {}^4F^\circ$	5/2 - 7/2	H8
Cu XI	76.022	1		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	3/2 - 3/2	H8
Cu XI	76.256	5		$3p^6 3d - 3p^5 3d(^3P^\circ)4s$	$g^2D - {}^2P^\circ$	5/2 - 3/2	H8
Cu XI	76.406	10					E37
Cu XI	78.542	120		3d - 4f	$g^2D - {}^2F^\circ$	3/2 - 5/2	E37
Cu XI	78.786	130		3d - 4f	$g^2D - {}^2F^\circ$	5/2 - 7/2	E37
Cu XI	134.933	400		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 3/2	G17
Cu XI	135.006	5		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	3/2 - 5/2	G17
Cu XI	135.335	1		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 3/2	G17
Cu XI	135.669	5		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 3/2	G17
Cu XI	135.747	500		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2D^\circ$	5/2 - 5/2	G17
Cu XI	136.073	90		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	5/2 - 3/2	G17
Cu XI	136.572	15		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2P^\circ$	3/2 - 1/2	G17
Cu XI	147.748	60		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 7/2	G17
Cu XI	149.460	40		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	3/2 - 5/2	G17
Cu XI	150.356	1		$3p^6 3d - 3p^5 3d^2$	$g^2D - {}^2F^\circ$	5/2 - 5/2	G17

COPPER XII (Cu^{11+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential [2 984 400] cm^{-1}; [370] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XII	55.466	1		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (1/2, 3/2)^\circ$	0 - 1	E37
Cu XII	56.333	1		$3p^6 - 3p^5(^2P^\circ)4d$	$g\,^1S - (3/2, 5/2)^\circ$	0 - 1	E37
Cu XII	67.882	30		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 1/2[1/2]^\circ$	0 - 1	E37
Cu XII	69.128	30		$3p^6 - 3p^5(^2P^\circ)4s$	$g\,^1S - 3/2[3/2]^\circ$	0 - 1	E37
Cu XII	139.210	100		$3p^6 - 3p^5(^2P^\circ)3d$	$g\,^1S - ^1P^\circ$	0 - 1	E37

COPPER XIII (Cu^{12+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5$ $^2P^\circ_{3/2}$ (17 electrons)

Ionization Potential [3 234 400] cm^{-1}; [401] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XIII	138.481	0		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 3/2	G17
Cu XIII	142.930	5		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	G17
Cu XIII	143.334	2		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	G17
Cu XIII	144.186	2		$3p^5 - 3p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	G17

COPPER XIV (Cu^{13+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^4$ $^3P_2$ (16 electrons)

Ionization Potential [3 508 600] cm^{-1}; [435] eV

COPPER XV (Cu^{14+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^3$ $^4S^\circ_{3/2}$ (15 electrons)

Ionization Potential [3 863 000] cm^{-1}; [479] eV

COPPER XVI (Cu^{15+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p^2$ $^3P_0$ (14 electrons)

Ionization Potential [4 170 000] cm^{-1}; [517] eV

COPPER XVII (Cu^{16+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2 3p$ $^2P^\circ_{1/2}$ (13 electrons)

Ionization Potential [4 468 500] cm^{-1}; [554] eV

COPPER XVIII (Cu^{17+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s^2$ $^1S_0$ (12 electrons)

Ionization Potential [5 098 000] cm^{-1}; [632] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XVIII	11.774	20		$2p^6 3s^2 - 2p^5 3s^2 3d$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Cu XVIII	30.019	10		3s3p - 3s5d	$^3P^\circ - ^3D$	0 - 1	F33
Cu XVIII	30.104	20		3s3p - 3s5d	$^3P^\circ - ^3D$	1 - 2	F33
Cu XVIII	30.325	35		3s3p - 3s5d	$^3P^\circ - ^3D$	2 - 3	F33
Cu XVIII	35.238	6		3s3d - 3s5f	$^3D - ^3F^\circ$	1 - 2	F33
Cu XVIII	35.256	6		3s3d - 3s5f	$^3D - ^3F^\circ$	2 - 3	F33
Cu XVIII	35.294	10		3s3d - 3s5f	$^3D - ^3F^\circ$	3 - 4	F33
Cu XVIII	38.876	35		$3s^2$ - 3s4p	$g\,^1S - ^1P^\circ$	0 - 1	F33
Cu XVIII	40.613	6		3s3p - 3s4d	$^3P^\circ - ^3D$	0 - 1	F33
Cu XVIII	40.749	35		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 2	F33
Cu XVIII	40.769	10		3s3p - 3s4d	$^3P^\circ - ^3D$	1 - 1	F33
Cu XVIII	41.134	60		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 3	F33
Cu XVIII	41.173	10		3s3p - 3s4d	$^3P^\circ - ^3D$	2 - 2	F33
Cu XVIII	46.781	3		3s3p - 3s4s	$^3P^\circ - ^3S$	0 - 1	F33
Cu XVIII	47.012	6		3s3p - 3s4s	$^3P^\circ - ^3S$	1 - 1	F33
Cu XVIII	47.585	10		3s3p - 3s4s	$^3P^\circ - ^3S$	2 - 1	F33
Cu XVIII	49.452	10		3s3d - 3s4f	$^3D - ^3F^\circ$	1 - 2	F33
Cu XVIII	49.490	20		3s3d - 3s4f	$^3D - ^3F^\circ$	2 - 3	F33
Cu XVIII	49.558	20		3s3d - 3s4f	$^3D - ^3F^\circ$	3 - 4	F33
Cu XVIII	238.87 P			$3s^2$ - 3s3p	$g\,^1S - ^1P^\circ$	0 - 1	K8
Cu XVIII	344.59 P			$3s^2$ - 3s3p	$g\,^1S - ^3P^\circ$	0 - 1	K8

COPPER XIX (Cu^{18+}), Z = 29

Ground State $1s^2 2s^2 2p^6 3s$ $^2S_{1/2}$ (11 electrons)

Ionization Potential 5 410 000 cm^{-1}; 671 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XIX	13.11	-A		$2p^6 3s - 2p^5 3s^2$	$g^2S - {}^2P^\circ$	1/2 - 3/2	F27
Cu XIX	22.475	1		3p - 8d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	22.661	1		3p - 8d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	23.503	10		3p - 7d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	23.599	10		3s - 6p	$g^2S - {}^2P^\circ$	1/2 - 3/2	F33
Cu XIX	23.621	1		3s - 6p	$g^2S - {}^2P^\circ$	1/2 - 1/2	F33
Cu XIX	23.704	10		3p - 7d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	25.142			3d - 8f	$^2D - {}^2F^\circ$	3/2 - 5/2	F33
Cu XIX	25.175	1		3d - 8f	$^2D - {}^2F^\circ$	5/2 - 7/2	F33
Cu XIX	25.295	20		3p - 6d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	25.525	60		3p - 6d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	26.416	20		3d - 7f	$^2D - {}^2F^\circ$	3/2 - 5/2	F33
Cu XIX	26.452	20		3d - 7f	$^2D - {}^2F^\circ$	5/2 - 7/2	F33
Cu XIX	27.025	60		3s - 5p	$g^2S - {}^2P^\circ$	1/2 - 3/2	F33
Cu XIX	27.076	35		3s - 5p	$g^2S - {}^2P^\circ$	1/2 - 1/2	F33
Cu XIX	28.626	20		3d - 6f	$^2D - {}^2F^\circ$	3/2 - 5/2	F33
Cu XIX	28.671	35		3d - 6f	$^2D - {}^2F^\circ$	5/2 - 7/2	F33
Cu XIX	28.978	125		3p - 5d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	29.277	200		3p - 5d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	33.260	35		3d - 5f	$^2D - {}^2F^\circ$	3/2 - 5/2	F33
Cu XIX	33.317	60		3d - 5f	$^2D - {}^2F^\circ$	5/2 - 7/2	F33
Cu XIX	37.290	250		3s - 4p	$g^2S - {}^2P^\circ$	1/2 - 3/2	F33
Cu XIX	37.492	90		3s - 4p	$g^2S - {}^2P^\circ$	1/2 - 1/2	F33
Cu XIX	39.728	200		3p - 4d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	40.270	90		3p - 4d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	40.312	35		3p - 4d	$^2P^\circ - {}^2D$	3/2 - 3/2	F33
Cu XIX	45.329	10		3p - 4s	$^2P^\circ - {}^2S$	1/2 - 1/2	F33
Cu XIX	46.086	60		3p - 4s	$^2P^\circ - {}^2S$	3/2 - 1/2	F33
Cu XIX	47.329	200		3d - 4f	$^2D - {}^2F^\circ$	3/2 - 5/2	F33
Cu XIX	47.437	250		3d - 4f	$^2D - {}^2F^\circ$	5/2 - 7/2	F33
Cu XIX	207.31	20		3p - 3d	$^2P^\circ - {}^2D$	1/2 - 3/2	F33
Cu XIX	221.37	35		3p - 3d	$^2P^\circ - {}^2D$	3/2 - 5/2	F33
Cu XIX	224.22	3		3p - 3d	$^2P^\circ - {}^2D$	3/2 - 3/2	F33
Cu XIX	273.34	10		3s - 3p	$g^2S - {}^2P^\circ$	1/2 - 3/2	F33
Cu XIX	303.51 P			3s - 3p	$g^2S - {}^2P^\circ$	1/2 - 1/2	F33

COPPER XX (Cu^{19+}), Z = 29

Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)

Ionization Potential 13 695 000 cm^{-1}; 1697.9 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XX	8.056	10		$2p^6 - 2p^5 6d$	$g^1S - {}^3D^\circ$	0 - 1	S31
Cu XX	8.320	10		$2p^6 - 2p^5 5d$	$g^1S - {}^1P^\circ$	0 - 1	S31
Cu XX	8.437	10		$2p^6 - 2p^5 5d$	$g^1S - {}^3D^\circ$	0 - 1	S31
Cu XX	9.11	20		$2p^6 - 2p^5 4d$	$g^1S - {}^1P^\circ$	0 - 1	S31
Cu XX	9.230	20		$2p^6 - 2p^5 4d$	$g^1S - {}^3D^\circ$	0 - 1	S31
Cu XX	9.429	10		$2p^6 - 2p^5 4s$	$g^1S - {}^1P^\circ$	0 - 1	S31
Cu XX	9.522	10		$2p^6 - 2p^5 4s$	$g^1S - {}^3P^\circ$	0 - 1	S31
Cu XX	10.587	50		$2s^2 2p^6 - 2s 2p^6 3p$	$g^1S - {}^1P^\circ$	0 - 1	S31
Cu XX	10.641	40		$2s^2 2p^6 - 2s 2p^6 3p$	$g^1S - {}^3P^\circ$	0 - 1	S31
Cu XX	11.38	100		$2p^6 - 2p^5 3d$	$g^1S - {}^1P^\circ$	0 - 1	S31

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XX	11.593	100		$2p^6 - 2p^5 3d$	$g\,^1S - ^3D^\circ$	0 - 1	S31
Cu XX	11.732	60		$2p^6 - 2p^5 3d$	$g\,^1S - ^3P^\circ$	0 - 1	S31
Cu XX	12.558	80		$2p^6 - 2p^5 3s$	$g\,^1S - ^1P^\circ$	0 - 1	S31
Cu XX	12.82	40		$2p^6 - 2p^5 3s$	$g\,^1S - ^3P^\circ$	0 - 1	S31

COPPER XXI (Cu^{20+}), Z = 29

Ground State $1s^2 2s^2 2p^5\ ^2P^\circ_{3/2}$ (9 electrons)

Ionization Potential [14 462 000] cm^{-1}; [1793] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXI	8.379	10		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	8.450	10		$2p^5 - 2p^4(^1S)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31,K8
Cu XXI	8.524	10		$2p^5 - 2p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	8.577	10		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Cu XXI	8.647	10		$2p^5 - 2p^4(^1D)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31
Cu XXI	8.690	10		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	8.743	10		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2F$	3/2 - 5/2	S31
Cu XXI	8.790	10		$2p^5 - 2p^4(^3P)4d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31,K8
Cu XXI	8.876	0		$2p^5 - 2p^4(^1S)4s$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	S31
Cu XXI	10.769	10		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	10.847	40		$2p^5 - 2p^4(^1S)3d$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31,K8
Cu XXI	10.874	30		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31,K8
Cu XXI	10.933	30		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S31,K8
Cu XXI	10.995	40		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	11.055	20		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	11.110	30		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31
Cu XXI	11.152	10		$2p^5 - 2p^4(^1D)3d$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S31,K8
Cu XXI	11.175	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^4D$	3/2 - 3/2	S31,K8
Cu XXI	11.280	10		$2p^5 - 2p^4(^3P)3d$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S31,K8
Cu XXI	11.814	20		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	3/2 - 5/2	S31
Cu XXI	11.924	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 1/2	S31,K8
Cu XXI	11.942	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	3/2 - 3/2	S31,K8
Cu XXI	12.045	10		$2p^5 - 2p^4(^1D)3s$	$g\,^2P^\circ - ^2D$	1/2 - 3/2	S31,K8
Cu XXI	12.125	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	3/2 - 3/2	S31
Cu XXI	12.171	20		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 1/2	S31,K8
Cu XXI	12.204	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^2P$	1/2 - 3/2	S31,K8
Cu XXI	12.24 P			$2s2p^6 - 2s2p^5(^3P^\circ)3s$	$^2S - ^2P^\circ$	1/2 - 3/2	K8
Cu XXI	12.328	10		$2p^5 - 2p^4(^3P)3s$	$g\,^2P^\circ - ^4P$	1/2 - 1/2	S31
Cu XXI	79.05 P			$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	3/2 - 1/2	K8
Cu XXI	90.81 P			$2s^2 2p^5 - 2s2p^6$	$g\,^2P^\circ - ^2S$	1/2 - 1/2	K8

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COPPER XXII (Cu^{21+}), Z = 29

Ground State $1s^2 2s^2 2p^4$ $^3P_2$ (8 electrons)

Ionization Potential [15 365 000] cm^{-1}; [1905] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXII?	8.158	10					S31
Cu XXII?	8.260	10					S31
Cu XXII	10.057	10		$2s^2 2p^4 - 2s 2p^4 3p$	$^1D - ^1F°$	2 - 3	S31
Cu XXII?	10.229	0					S31
Cu XXII	10.450	10		$2p^4 - 2p^3(^2P°)3d$	$g^3P - ^3D°$	2 - 3	S31,K8
Cu XXII	10.506	10		$2p^4 - 2p^3(^2D°)3d$	$g^3P - ^3D°$	2 - 3	S31,K8
Cu XXII	10.546	10		$2p^4 - 2p^3(^4S°)3d$	$g^3P - ^3D°$	2 - 3	S31,K8
Cu XXII	10.717	10		$2p^4 - 2p^3(^4S°)3d$	$^1D - ^3D°$?	2 - 2	S31,K8
Cu XXII	10.799	30		$2p^4 - 2p^3(^2D°)3d$	$^1S - ^3D°$?	0 - 1	S31,K8
Cu XXII	11.429	40		$2p^4 - 2p^3(^4S°)3s$	$g^3P - ^3S°$	2 - 1	S31
Cu XXII	11.518	50		$2p^4 - 2p^3(^4S°)3s$	$g^3P - ^3S°$	1 - 1	S31
Cu XXII	11.576	40		$2p^4 - 2p^3(^4S°)3s$	$g^3P - ^3S°$	0 - 1	S31

COPPER XXIII (Cu^{22+}), Z = 29

Ground State $1s^2 2s^2 2p^3$ $^4S°_{3/2}$ (7 electrons)

Ionization Potential [16 494 000] cm^{-1}; [2045] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXIII	9.670	0		$2p^3 - 2p^2 3d$	$g^4S° - ^2P$	3/2 - 3/2	S31,K8
Cu XXIII?	9.772	0					S31
Cu XXIII	9.982	10		$2p^3 - 2p^2 3d$	$^2P° - ^2P$?	3/2 - 3/2	S31,K8
Cu XXIII	10.123	10		$2p^3 - 2p^2 3d$	$g^4S° - ^2D$?	3/2 - 5/2	S31,K8
Cu XXIII	10.311	10		$2p^3 - 2p^2 3d$	$^2D° - ^2D$	5/2 - 5/2	S31,K8

COPPER XXIV (Cu^{23+}), Z = 29

Ground State $1s^2 2s^2 2p^2$ $^3P_0$ (6 electrons)

Ionization Potential [17 527 000] cm^{-1}; [2173] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXIV?	9.802	0					S31
Cu XXIV?	9.906	0					S31
Cu XXIV	9.961	10		$2p^2 - 2p 3s$	$g^3P - ^3P°$?	0 - 1	S31,K8
Cu XXIV	10.103	10		$2p^2 - 2p 3s$	$g^3P - ^1P°$	0 - 1	S31
Cu XXIV	10.170	0		$2p^2 - 2p 3s$	$^1D - ^3P°$	2 - 2	S31
Cu XXIV	10.267	10		$2p^2 - 2p 3s$	$^1S - ^3P°$?	0 - 1	S31,K8
Cu XXIV	10.359	10		$2p^2 - 2p 3s$	$g^3P - ^3P°$?	2 - 1	S31,K8
Cu XXIV	10.400	10		$2p^2 - 2p 3s$	$^1S - ^1P°$	0 - 1	S31

COPPER XXV (Cu^{24+}), Z = 29

Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)

Ionization Potential [18 535 000] cm^{-1}; [2298] eV

COPPER XXVI (Cu^{25+}), Z = 29

Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)

Ionization Potential [19 842 000] cm^{-1}; [2460] eV

COPPER XXVII (Cu^{26+}), Z = 29

Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)

Ionization Potential [20 850 000] cm^{-1}; [2585] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXVII	145.5 P			2s - 2p	$g^2S - {}^2P^\circ$	½ - 3/2	K8
Cu XXVII	211.0 P			2s - 2p	$g^2S - {}^2P^\circ$	½ - ½	K8

COPPER XXVIII (Cu^{27+}), Z = 29

Ground State $1s^2\ ^1S_0$ (2 electrons)

Ionization Potential [89 223 000] cm^{-1}; [11062] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXVIII	1.27			$1s^2 - 1s3p$	$g^1S - {}^3P^\circ$	0 - 1	C11
Cu XXVIII	1.49			$1s^2 - 1s2p$	$g^1S - {}^3P^\circ$	0 - 1	C11
Cu XXVIII	1.52 ?	f		$1s^2 - 1s2s$	$g^1S - {}^3S$	0 - 1	K8

COPPER XXIX (Cu^{28+}), Z = 29
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential [93 288 000] cm^{-1}; [11566] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Cu XXIX	1.44 P			1s - 2p	g^2S - $^2P°$	½ - 3/2	K8

ZINC, Z = 30

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn	512.656	20					C18
Zn	512.812	15					C18
Zn	518.550	20					C18
Zn	524.323	15					C18
Zn	532.310	12					C18
Zn	542.762	10					C18
Zn	544.195	15					C18
Zn	564.305	10					C18
Zn	574.967	20					C18
Zn	582.852	20					C18
Zn	825.330	10					C18
Zn	903.194	15					C18
Zn	926.083	10					C18
Zn	926.892	10					C18
Zn	949.063	12					C18
Zn	975.438	10					C18
Zn	977.536	12					C18
Zn	980.623	10					C18
Zn	982.253	10					C18
Zn	987.445	10					C18
Zn	990.443	15					C18
Zn	998.496	10					C18
Zn	999.413	10					C18
Zn	1000.885	12					C18
Zn	1001.932	20					C18
Zn	1003.523	12					C18
Zn	1004.598	12					C18
Zn	1006.347	10					C18
Zn	1009.049	12					C18
Zn	1009.648	10					C18
Zn	1016.017	10					C18
Zn	1017.431	12					C18
Zn	1018.107	10					C18
Zn	1018.456	10					C18
Zn	1023.423	10					C18
Zn	1042.980	10					C18
Zn	1046.867	10					C18
Zn	1079.655	10					C18
Zn	1088.711	10					C18
Zn	1117.393	10					C18
Zn	1138.175	10					C18
Zn	1142.865	10					C18
Zn	1146.190	50					C18
Zn	1146.465	15					C18
Zn	1147.006	10					C18
Zn	1148.062	12					C18
Zn	1152.957	10					C18
Zn	1163.315	15					C18
Zn	1173.854	50					C18
Zn	1176.846	10					C18
Zn	1178.929	60					C18
Zn	1181.539	20					C18
Zn	1183.824	12					C18
Zn	1187.404	50					C18
Zn	1195.019	12					C18
Zn	1195.366	60					C18
Zn	1196.009	35					C18
Zn	1197.098	10					C18
Zn	1199.415	60					C18
Zn	1199.748	15					C18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn	1200.339	10					C18
Zn	1204.964	10					C18
Zn	1208.034	20					C18
Zn	1212.471	40					C18
Zn	1219.671	12					C18
Zn	1219.901	12					C18
Zn	1229.253	20					C18
Zn	1255.619	15					C18
Zn	1259.843	10					C18
Zn	1281.573	20					C18
Zn	1298.783	10					C18
Zn	1315.262	15					C18
Zn	1356.608	10					C18
Zn	1366.390	10					C18
Zn	1410.410	60					C18
Zn	1412.818	12					C18
Zn	1425.709	10					C18
Zn	1434.219	10					C18
Zn	1435.914	20					C18
Zn	1454.804	10					C18
Zn	1457.922	10					C18
Zn	1466.682	30					C18
Zn	1470.452	15					C18
Zn	1486.884	25					C18
Zn	1487.996	10					C18
Zn	1489.492	10					C18
Zn	1497.396	40					C18
Zn	1504.754	12					C18
Zn	1517.117	15					C18
Zn	1517.209	20					C18
Zn	1517.314	25					C18
Zn	1520.780	30					C18
Zn	1525.406	10					C18
Zn	1526.845	30					C18
Zn	1532.019	20					C18
Zn	1532.188	15					C18
Zn	1534.371	15					C18
Zn	1536.405	10					C18
Zn	1541.599	15					C18
Zn	1542.517	20					C18
Zn	1543.868	10					C18
Zn	1553.564	20					C18
Zn	1554.199	15					C18
Zn	1554.724	20					C18
Zn	1556.100	10					C18
Zn	1558.505	10					C18
Zn	1563.035	10					C18
Zn	1566.039	15					C18
Zn	1566.822	10					C18
Zn	1567.840	25					C18
Zn	1568.913	10					C18
Zn	1569.307	10					C18
Zn	1570.065	15					C18
Zn	1572.703	20					C18
Zn	1573.011	90					C18
Zn	1575.810	10					C18
Zn	1578.395	10					C18
Zn	1579.446	15					C18
Zn	1580.220	20					C18
Zn	1580.353	25					C18
Zn	1585.214	10					C18
Zn	1587.998	15					C18
Zn	1588.989	15					C18
Zn	1595.044	40					C18
Zn	1595.308	10					C18

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn	1596.076	10					C18
Zn	1597.183	25					C18
Zn	1601.695	15					C18
Zn	1604.500	12					C18
Zn	1606.255	20					C18
Zn	1608.680	30					C18
Zn	1609.725	15					C18
Zn	1611.340	12					C18
Zn	1612.937	15					C18
Zn	1614.235	25					C18
Zn	1614.468	30					C18
Zn	1614.629	10					C18
Zn	1622.829	15					C18
Zn	1628.470	20					C18
Zn	1637.529	25					C18
Zn	1649.055	15					C18
Zn	1664.265	50					C18
Zn	1665.072	20					C18
Zn	1705.833	10					C18
Zn	1707.449	10					C18
Zn	1755.761	10					C18
Zn	1771.987	10					D4,C18
Zn	1828.925	75					C18
Zn	1843.100	10					C18
Zn	1848.481	20					C18
Zn	1850.894	60					C18
Zn	1855.670	10					C18
Zn	1864.164	100					C18
Zn	1866.055	100					C18
Zn	1892.866	75					C18
Zn	1920.951	10					C18
Zn	1938.775	12					C18
Zn	1950.769	10					C18

ZINC I (Zn^{0+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2\ {}^1S_0$ (30 electrons)

Ionization Potential 75 768.10 cm^{-1}; 9.394 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn I	1362.541	60		$4s^2 - 4s9p$	${}^1S - {}^3P^\circ$	0 - 1	J1,C18
Zn I	1379.337			$4s^2 - 4s8p$	${}^1S - {}^3P^\circ$	0 - 1	J1
Zn I	1404.119	20		$4s^2 - 4s7p$	${}^1S - {}^1P^\circ$	0 - 1	J1,C18
Zn I	1408.808			$4s^2 - 4s7p$	${}^1S - {}^3P^\circ$	0 - 1	J1
Zn I	1457.572	20	4	$4s^2 - 4s6p$	${}^1S - {}^1P^\circ$	0 - 1	J1,C18
Zn I	1468.845	3		$4s^2 - 4s6p$	${}^1S - {}^3P^\circ$	0 - 1	J1,C18
Zn I	1589.561	30	3	$4s^2 - 4s5p$	${}^1S - {}^1P^\circ$	0 - 1	J1,C18
Zn I	1632.001	10	2	$4s^2 - 4s5p$	${}^1S - {}^3P^\circ$	0 - 1	J1,C18

ZINC II (Zn^{1+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential 144 892.6 cm^{-1}; 17.964 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn II	732.605	1		$3d^{10}4s - 3d^{10}9p$	$g\,^2S - ^2P°$	1/2 - 3/2	M5
Zn II	742.720	3		$3d^{10}4s - 3d^{9}4s(^1D)4p$	$g\,^2S - ^2D°$	1/2 - 3/2	C19
Zn II	747.358	5		$3d^{10}4s - 3d^{9}4s(^1D)4p$	$g\,^2S - ^2P°$	1/2 - 1/2	C19
Zn II	767.050	5		$3d^{10}4s - 3d^{9}4s(^1D)4p$	$g\,^2S - ^2P°$	1/2 - 3/2	C19
Zn II	778.112	5		4s - 7p	$g\,^2S - ^2P°$	1/2 - 1/2	C19
Zn II	779.163	10		4s - 7p	$g\,^2S - ^2P°$	1/2 - 3/2	C19
Zn II	833.600	1b		4s - 6p	$g\,^2S - ^2P°$	1/2 - 3/2	C19
Zn II	834.11	6		4s - 6p	$g\,^2S - ^2P°$?	1/2 - 1/2	S18,K8
Zn II	876.84	4		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^2D°$?	1/2 - 3/2	S18,K8
Zn II	881.060	15		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^2P°$	1/2 - 3/2	C19
Zn II	888.620	6		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^4D°$	1/2 - 1/2	C19
Zn II	892.914	10		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^4D°$	1/2 - 3/2	C19
Zn II	923.969	0		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^4F°$	1/2 - 3/2	C19
Zn II	938.719	1		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^4P°$	1/2 - 1/2	C19
Zn II	949.455	10		$3d^{10}4s - 3d^{9}4s(^3D)4p$	$g\,^2S - ^4P°$	1/2 - 3/2	C19
Zn II	984.139	10	2	4s - 5p	$g\,^2S - ^2P°$	1/2 - 3/2	C19
Zn II	986.516	8	2	4s - 5p	$g\,^2S - ^2P°$	1/2 - 1/2	C19
Zn II	1115.657	8h		4p - 9d	$^2P° - ^2D$	1/2 - 3/2	C19
Zn II	1126.611	2h		4p - 9d	$^2P° - ^2D$	3/2 - 5/2	C19
Zn II	1128.300	2h		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4P° - ^4D$	3/2 - 1/2	C19
Zn II	1141.955	5b		4p - 8d	$^2P° - ^2D$	1/2 - 3/2	C19
Zn II	1142.904	2h		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4P° - ^4D$	5/2 - 7/2	C19
Zn II	1153.398	5		4p - 8d	$^2P° - ^2D$	3/2 - 5/2	C19
Zn II	1171.943	5		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4F° - ^4D$	5/2 - 3/2	C19
Zn II	1184.528	8 -A		$3d^{9}4s4p - 3d^{9}4s(^3D)6s$	$^4F° - ^4D$	9/2 - 7/2	M5
Zn II	1184.858	40		4p - 7d	$^2P° - ^2D$	1/2 - 3/2	C19
Zn II	1185.610	1 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4F° - ^4D$	7/2 - 7/2	C19
Zn II	1193.231	60					C19
Zn II	1197.149	40		4p - 7d	$^2P° - ^2D$	3/2 - 5/2	C19
Zn II	1211.841	25		4p - 8s	$^2P° - ^2S$	3/2 - 1/2	C19
Zn II	1228.261	0 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4D° - ^4D$	1/2 - 1/2	C19
Zn II	1240.625	3 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4D° - ^4D$	3/2 - 3/2	C19
Zn II	1241.874	0 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^2F° - ^4D$	5/2 - 7/2	C19
Zn II	1244.848	2 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4D° - ^4D$	7/2 - 7/2	C19
Zn II	1258.581	0 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^4D° - ^4D$	5/2 - 7/2	C19
Zn II	1263.412	40		4p - 6d	$^2P° - ^2D$	1/2 - 3/2	C19
Zn II	1277.306	60		4p - 6d	$^2P° - ^2D$	3/2 - 5/2	C19
Zn II	1277.523	40		4p - 6d	$^2P° - ^2D$	3/2 - 3/2	C19
Zn II	1292.00	3		4p - 7s	$^2P° - ^2S$?	1/2 - 1/2	S18,K8
Zn II	1306.741	5		4p - 7s	$^2P° - ^2S$	3/2 - 1/2	C19
Zn II	1309.521	1 -A		$3d^{9}4s(^3D)4p - 3d^{9}4s(^3D)6s$	$^2D° - ^4D$	5/2 - 7/2	C19
Zn II	1355.332	25		$3d^{9}4s^2 - 3d^{10}9p$	$^2D - ^2P°$	5/2 - 3/2	M5
Zn II	1366.682	60b		$3d^{9}4s^2 - 3d^{10}7f$	$^2D - ^2F°$	5/2 - 7/2	C19
Zn II	1390.372	40		$3d^{9}4s^2 - 3d^{9}4s(^1D)4p$	$^2D - ^2D°$	5/2 - 3/2	C19
Zn II	1407.189	2		$3d^{9}4s^2 - 3d^{10}9p$	$^2D - ^2P°$	3/2 - 3/2	M5
Zn II?	1407.259	7					M5
Zn II	1410.443	100		$3d^{9}4s^2 - 3d^{10}8p$	$^2D - ^2P°$	5/2 - 3/2	M5
Zn II	1419.416	3		$3d^{9}4s^2 - 3d^{10}7f$	$^2D - ^2F°$	3/2 - 5/2	C19
Zn II	1419.982	200		$3d^{9}4s^2 - 3d^{9}4s4p$	$^2D - ^2F°$	5/2 - 5/2	M5
Zn II	1430.285	15		$3d^{9}4s^2 - 3d^{10}6f$	$^2D - ^2F°$	5/2 - 7/2	M5
Zn II	1430.992	150		$3d^{9}4s^2 - 3d^{10}6f$	$^2D - ^2F°$	5/2 - 5/2	M5
Zn II	1439.091	500		4p - 5d	$^2P° - ^2D$	1/2 - 3/2	M5
Zn II	1442.962	5 -A		$3d^{9}4s4p$ -	$^4P° - 12$	5/2 - 7/2	C19
Zn II	1445.042	700		$3d^{9}4s^2 - 3d^{9}4s4p$	$^2D - ^2D°$	3/2 - 3/2	M5
Zn II	1450.234	5 -A		$3d^{9}4s4p$ -	$^4P° - 17$	3/2 - 5/2	C19
Zn II	1450.778	700		$3d^{9}4s^2 - 3d^{9}4s4p$	$^2D - ^2D°$	5/2 - 5/2	M5
Zn II	1456.907	500		4p - 5d	$^2P° - ^2D$	3/2 - 5/2	M5
Zn II	1457.422	100		4p - 5d	$^2P° - ^2D$	3/2 - 3/2	M5
Zn II	1458.455	20 -A		$3d^{9}4s4p$ -	$^4P° - 10$	5/2 - 7/2	C19
Zn II	1460.616	12 -A		$3d^{9}4s4p$ -	$^4P° - 9$	5/2 - 5/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn II	1462.743	150		$3d^94s^2$ - $3d^94s4p$	^2D - $^2P^\circ$	3/2 - 1/2	M5
Zn II	1466.697	15		$3d^94s^2$ - $3d^{10}8p$	^2D - $^2P^\circ$	3/2 - 3/2	M5
Zn II	1467.867	4 -A		$3d^94s4p$ -	$^4P^\circ$ - 8	5/2 - 3/2	M5
Zn II	1470.222	2 -A		$3d^94s4p$ -	$^4P^\circ$ - 14	3/2 - 5/2	C19
Zn II	1471.862	50 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 7	5/2 - 7/2	M5
Zn II	1477.016	400		$3d^94s^2$ - $3d^94s4p$	^2D - $^2F^\circ$	3/2 - 5/2	M5
Zn II	1477.938	5 -A		$3d^94s4p$ -	$^4P^\circ$ - 16	1/2 - 3/2	C19
Zn II	1478.216	300		$3d^94s^2$ - $3d^94s4p$	^2D - $^2P^\circ$	5/2 - 3/2	M5
Zn II	1482.139	80 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 6	5/2 - 5/2	M5
Zn II	1486.065	700		$3d^94s^2$ - $3d^94s4p$	^2D - $^2F^\circ$	5/2 - 7/2	M5
Zn II	1488.926	120		$3d^94s^2$ - $3d^{10}6f$	^2D - $^2F^\circ$	3/2 - 5/2	M5
Zn II	1492.121	30 -A		$3d^94s4p$ -	$^4P^\circ$ - 11	3/2 - 5/2	M5
Zn II	1492.369	2 -A		$3d^94s4p$ -	$^4F^\circ$ - 17	5/2 - 5/2	C19
Zn II	1493.133	300		$3d^94s^2$ - $3d^{10}8p$	^2D - $^2P^\circ$	3/2 - 1/2	M5
Zn II	1496.001	5 -A		$3d^94s4p$ -	$^4P^\circ$ - 9	3/2 - 5/2	M5
Zn II	1497.410	80 -A		$3d^94s4p$ -	$^4F^\circ$ - 21	9/2 - 9/2	M5
Zn II	1499.052	20 -A		$3d^94s4p$ -	$^4F^\circ$ - 21	7/2 - 9/2	M5
Zn II	1499.077	20 -A		$3d^94s4p$ -	$^4F^\circ$ - 20	7/2 - 5/2	M5
Zn II?	1503.109	20					M5
Zn II	1503.653	25 -A		$3d^94s4p$ -	$^4P^\circ$ - 8	3/2 - 3/2	M5
Zn II	1504.034	5 -A		$3d^94s4p$ -	$^4F^\circ$ - 14	7/2 - 5/2	M5
Zn II	1508.645	70 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 4	5/2 - 5/2	M5
Zn II	1510.045	5 -A		$3d^94s4p$ -	$^4F^\circ$ - 12	9/2 - 7/2	M5
Zn II	1510.363	150		$3d^94s^2$ - $3d^94s4p$	^2D - $^2D^\circ$	3/2 - 5/2	M5
Zn II	1511.694	12 -A		$3d^94s4p$ -	$^4F^\circ$ - 12	7/2 - 7/2	M5
Zn II?	1511.718	15					M5
Zn II	1513.522	20 -A		$3d^94s4p$ -	$^4F^\circ$ - 14	5/2 - 5/2	M5
Zn II?	1514.479	25					M5
Zn II	1514.763	120	5	4p - 6s	$^2P^\circ$ - ^2S	1/2 - 1/2	M5
Zn II	1516.045	35 -A		$3d^94s4p$ -	$^4F^\circ$ - 16	3/2 - 3/2	C19
Zn II	1518.631	3 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 6	3/2 - 5/2	M5
Zn II	1520.022	2 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 5	3/2 - 1/2	M5
Zn II	1520.527	50 -A		$3d^94s4p$ -	$^4F^\circ$ - 13	5/2 - 5/2	M5
Zn II	1520.998	15 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 3	5/2 - 5/2	M5
Zn II	1521.276	40 -A		$3d^94s4p$ -	$^4F^\circ$ - 12	5/2 - 7/2	M5
Zn II	1523.241	2 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 2	5/2 - 3/2	C19
Zn II	1523.903	150		$3d^94s^2$ - $3d^{10}7p$	^2D - $^2P^\circ$	5/2 - 3/2	M5
Zn II	1526.969	15 -A		$3d^94s4p$ -	$^4F^\circ$ - 11	7/2 - 5/2	M5
Zn II	1527.002	20					C19
Zn II?	1527.125	25					M5
Zn II?	1527.236	20					M5
Zn II	1527.915	100 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 1	5/2 - 7/2	M5
Zn II?	1528.550	40					M5
Zn II?	1528.759	9					M5
Zn II	1530.620	25 -A		$3d^94s4p$ -	$^4F^\circ$ - 20	3/2 - 5/2	M5
Zn II	1531.088	30 -A		$3d^94s4p$ -	$^4F^\circ$ - 9	7/2 - 5/2	M5
Zn II	1531.394	3 -A		$3d^94s4p$ -	$^4P^\circ$ - 8	1/2 - 3/2	M5
Zn II	1535.081	200	5	4p - 6s	$^2P^\circ$ - ^2S	3/2 - 1/2	M5
Zn II	1535.823	30 -A		$3d^94s4p$ -	$^4F^\circ$ - 14	3/2 - 5/2	M5
Zn II	1536.726	20 -A		$3d^94s4p$ -	$^4F^\circ$ - 11	5/2 - 5/2	M5
Zn II	1538.464	2 -A		$3d^94s4p$ -	$^4F^\circ$ - 10 ?	5/2 - 7/2	C19
Zn II	1540.120	50		$3d^94s^2$ - $3d^94s4p$	^2D - $^2P^\circ$	3/2 - 3/2	M5
Zn II	1540.895	80 -A		$3d^94s4p$ -	$^4F^\circ$ - 9	5/2 - 5/2	M5
Zn II	1541.707	40 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 7	9/2 - 7/2	M5
Zn II	1543.037	50 -A		$3d^94s4p$ -	$^4F^\circ$ - 13	3/2 - 5/2	M5
Zn II	1543.428	40 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 7	7/2 - 7/2	M5
Zn II?	1544.922	50					M5
Zn II	1546.460	10 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 4	3/2 - 5/2	M5
Zn II?	1546.650	100					M5
Zn II?	1546.991	25					C19
Zn II?	1547.800	20					M5
Zn II	1548.434	20 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 5	1/2 - 1/2	M5
Zn II	1548.957	3 -A		$3d^94s4p$ -	$^4F^\circ$ - 8	5/2 - 3/2	M5
Zn II	1550.936	80		$3d^94s^2$ - $3d^{10}5f$	^2D - $^2F^\circ$	5/2 - 7/2	M5
Zn II?	1551.031	75					C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn II?	1554.225	6					M5
Zn II	1554.740	6 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 6	7/2 - 5/2	M5
Zn II?	1555.764	100					M5
Zn II	1559.466	10 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 3	3/2 - 5/2	M5
Zn II	1559.709	15b -A		$3d^94s4p$ -	$^4F^\circ$ - 11	3/2 - 5/2	C19
Zn II	1561.778	5 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 2 ?	3/2 - 3/2	C19
Zn II	1564.369	6 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^2D	5/2 - 5/2	M5
Zn II?	1566.736	10					C19
Zn II	1572.198	15b -A		$3d^94s4p$ -	$^2F^\circ$ - 17 ?	5/2 - 5/2	C19
Zn II?	1572.991	40					M5
Zn II	1574.381	6 -A		$3d^94s4p$ -	$^2F^\circ$ - 16 ?	5/2 - 3/2	C19
Zn II?	1576.905	15					C19
Zn II?	1580.443	10					C19
Zn II	1583.933	15 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 4	7/2 - 5/2	M5
Zn II	1585.368	100		$3d^94s^2$ - $3d^{10}7p$	^2D - $^2P^\circ$	3/2 - 1/2	M5
Zn II	1588.754	3 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 6	3/2 - 5/2	M5
Zn II	1589.777	50		$3d^94s^2$ - $3d^{10}7p$	^2D - $^2P^\circ$	3/2 - 3/2	M5
Zn II	1590.133	25 -A		$3d^94s4p$ -	$^2F^\circ$ - 20	5/2 - 5/2	M5
Zn II	1591.724	2 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4P^\circ$ - 2 ?	1/2 - 3/2	C19
Zn II	1594.448	-A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 4	5/2 - 5/2	M5
Zn II	1595.027	100 -A		$3d^94s4p$ -	$^4D^\circ$ - 21	7/2 - 9/2	M5
Zn II	1595.732	20 -A		$3d^94s4p$ -	$^2F^\circ$ - 14	5/2 - 5/2	M5
Zn II	1597.556	15 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 3	7/2 - 5/2	M5
Zn II	1597.801	5 -A		$3d^94s4p$ - $3d^94s(^3D)6s$	$^2F^\circ$ - ^2D ?	7/2 - 5/2	M5
Zn II	1599.146	3b -A		$3d^94s4p$ -	$^4D^\circ$ - 17 ?	5/2 - 5/2	C19
Zn II	1603.315	100 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 1	9/2 - 7/2	M5
Zn II	1603.508	3 -A		$3d^94s4p$ -	$^2F^\circ$ - 13	5/2 - 5/2	M5
Zn II	1604.347	20 -A		$3d^94s4p$ -	$^2F^\circ$ - 12	5/2 - 7/2	M5
Zn II	1605.196	10 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 1	7/2 - 7/2	M5
Zn II?	1606.082	60					M5
Zn II	1608.555	10 -A		$3d^94s4p$ -	$^4D^\circ$ - 13	7/2 - 5/2	M5
Zn II?	1608.819	70					M5
Zn II	1609.390	10 -A		$3d^94s4p$ -	$^4D^\circ$ - 12	7/2 - 7/2	M5
Zn II	1610.743	30 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 2 ?	5/2 - 3/2	C19
Zn II?	1611.501	5					C19
Zn II?	1611.866	25					M5
Zn II?	1613.938	25					C19
Zn II	1614.364	10 -A		$3d^94s4p$ -	$^4D^\circ$ - 15 ?	5/2 - 3/2	M5
Zn II?	1614.432	8					C19
Zn II	1615.949	1 -A		$3d^94s4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 1 ?	5/2 - 7/2	M5
Zn II	1616.364	30 -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 17 ?	7/2 - 5/2	C19
Zn II	1617.675	40 -A		$3d^94s4p$ -	$^4D^\circ$ - 20	5/2 - 5/2	M5
Zn II	1618.968	40		$3d^94s^2$ - $3d^{10}5f$	^2D - $^2F^\circ$	3/2 - 5/2	M5
Zn II	1619.269	80 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4F^\circ$ - 4 ?	3/2 - 5/2	C19,K8
Zn II	1621.552	40b -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 11	5/2 - 5/2	C19
Zn II	1621.951	15 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 16 ?	1/2 - 3/2	C19
Zn II	1623.479	40 -A		$3d^94s4p$ -	$^2F^\circ$ - 10	5/2 - 7/2	C19
Zn II	1624.020	30 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^2D	5/2 - 3/2	C19
Zn II	1626.200	3 -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 9	5/2 - 5/2	C19
Zn II	1630.119	25 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 14	3/2 - 5/2	C19
Zn II	1631.364	20 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 9	7/2 - 5/2	C19
Zn II	1631.539	12 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 13	5/2 - 5/2	C19
Zn II	1632.390	15 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 12	5/2 - 7/2	C19
Zn II	1635.180	20 -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 8	5/2 - 3/2	C19
Zn II	1635.277	20 -A		$3d^94s4p$ -	$^2F^\circ$ - 21 ?	7/2 - 9/2	C19
Zn II	1638.239	20 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 13	3/2 - 5/2	C19
Zn II	1641.257	2b -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 14 ?	7/2 - 5/2	C19
Zn II	1645.389	50 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 7 ?	7/2 - 7/2	C19
Zn II	1647.571	8 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 16 ?	1/2 - 3/2	C19
Zn II	1647.754	5 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 16 ?	3/2 - 3/2	C19
Zn II	1650.211	20 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 11	5/2 - 5/2	C19
Zn II	1652.241	10 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 10 ?	5/2 - 7/2	C19
Zn II	1652.931	5 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 6	5/2 - 5/2	C19
Zn II	1655.020	30 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 9	5/2 - 5/2	C19
Zn II	1658.245	60 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 6	7/2 - 5/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn II	1660.247	4 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 17 ?	3/2 - 5/2	C19
Zn II	1661.306	2 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 15 ?	1/2 - 3/2	C19
Zn II	1661.495	4 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 15 ?	3/2 - 3/2	C19
Zn II	1662.695	15 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 16 ?	3/2 - 3/2	C19
Zn II	1664.326	0 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 8	5/2 - 3/2	C19
Zn II	1667.911	5 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^2D	3/2 - 3/2	C19
Zn II	1668.585	1 -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 11 ?	7/2 - 5/2	C19
Zn II	1669.453	2 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 7 ?	5/2 - 5/2	C19
Zn II	1670.617	2b -A		$3d^94s(^3D)4p$ -	$^2F^\circ$ - 10 ?	7/2 - 7/2	C19
Zn II	1671.313	20 -A		$3d^94s(^3D)4p$ -	$^4D^\circ$ - 8	3/2 - 3/2	C19
Zn II	1676.692	2b -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 15 ?	3/2 - 3/2	C19
Zn II	1679.667	5 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 13	3/2 - 5/2	C19
Zn II	1682.698	5 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 6	5/2 - 5/2	C19
Zn II	1684.802	3 -A		$3d^94s4p$ -	$^2D^\circ$ - 16 ?	5/2 - 3/2	C19
Zn II	1685.942	5b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 4	5/2 - 5/2	C19
Zn II	1686.502	25 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 14 ?	3/2 - 5/2	C19
Zn II	1688.240	15b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 7 ?	7/2 - 7/2	C19
Zn II	1689.818	25b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 6	3/2 - 5/2	C19
Zn II	1691.470	1 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 4	7/2 - 5/2	C19
Zn II	1691.592	1 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 5	3/2 - 1/2	C19
Zn II	1699.471	3 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 11	3/2 - 5/2	C19
Zn II	1701.398	4 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 3 ?	5/2 - 5/2	C19
Zn II	1701.766	12 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 6	7/2 - 5/2	C19
Zn II	1702.210	10b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	3/2 - 1/2	C19
Zn II	1702.836	2 -A		$3d^94s4p$ -	$^2D^\circ$ - 20	5/2 - 5/2	M5
Zn II	1704.178	2b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 2 ?	5/2 - 3/2	C19
Zn II	1704.577	0 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 9	3/2 - 5/2	C19
Zn II	1707.191	20b -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 5	1/2 - 1/2	C19
Zn II	1709.243	0 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 14 ?	5/2 - 5/2	C19
Zn II	1710.052	10 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 1 ?	5/2 - 7/2	C19
Zn II	1713.251	50 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	5/2 - 5/2	C19
Zn II	1714.270	0 -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 8	1/2 - 3/2	C19
Zn II	1714.457	15b -A		$3d^94s(^3D)4p$ -	$^2P^\circ$ - 8	3/2 - 3/2	C19
Zn II	1715.388	1 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 11 ?	3/2 - 5/2	C19
Zn II	1715.763	60 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 1 ?	7/2 - 7/2	C19
Zn II	1716.935	1 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 4	5/2 - 5/2	C19
Zn II	1718.182	1 -A		$3d^94s4p$ -	$^2D^\circ$ - 13	5/2 - 5/2	M5
Zn II	1719.136	2 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 12 ?	5/2 - 7/2	C19
Zn II	1723.901	2 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4F^\circ$ - ^2D	5/2 - 3/2	C19
Zn II	1724.364	2 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 4	3/2 - 5/2	C19
Zn II	1730.619	2 -A		$3d^94s(^3D)4p$ -	$^2D^\circ$ - 8	3/2 - 3/2	C19
Zn II	1732.953	25 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 3 ?	5/2 - 5/2	C19
Zn II	1735.607	80 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	5/2 - 7/2	M5
Zn II	1735.847	15 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 2 ?	5/2 - 3/2	C19
Zn II	1736.825	0h -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 4	7/2 - 5/2	C19
Zn II	1736.889	60 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	3/2 - 3/2	C19
Zn II	1737.895	50 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	1/2 - 1/2	M5
Zn II	1738.915	1 -A		$3d^94s4p$ -	$^2D^\circ$ - 11 ?	5/2 - 5/2	C19,K8
Zn II	1740.536	1 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 3 ?	3/2 - 5/2	C19
Zn II	1741.930	18 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^4D^\circ$ - 1	5/2 - 7/2	C19
Zn II?	1742.285	20					C19
Zn II	1747.118	75		$3d^94s^2$ - $3d^{10}6p$	^2D - $^2P^\circ$	5/2 - 3/2	C19
Zn II	1752.358	3 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2D^\circ$ - 5	3/2 - 1/2	C19
Zn II	1755.847	10 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^2F^\circ$ - ^2D	5/2 - 5/2	M5
Zn II	1756.665	2 -A		$3d^{10}4f$ -	$^2F^\circ$ - 16 ?	5/2 - 3/2	C19
Zn II?	1762.151	20					M5
Zn II	1762.191	10 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	3/2 - 5/2	M5
Zn II?	1762.223	10					M5
Zn II?	1762.243	10					M5
Zn II	1762.395	25 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2F^\circ$ - 1 ?	7/2 - 7/2	C19
Zn II	1774.040	75 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)5s$	$^4P^\circ$ - ^4D	1/2 - 3/2	C19
Zn II	1775.024	3 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2D^\circ$ - 6 ?	5/2 - 5/2	C19
Zn II	1787.384	0 -A		$3d^94s(^3D)4p$ - $3d^94s(^3D)4d$	$^2P^\circ$ - 3	3/2 - 5/2	C19
Zn II	1789.509	8 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4D^\circ$ - ^2D	5/2 - 5/2	M5
Zn II	1790.759	80 -A		$3d^94s4p$ - $3d^94s(^3D)5s$	$^4F^\circ$ - ^4D	3/2 - 1/2	M5

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn II?	1796.701	15					C19
Zn II	1797.643	100 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	5/2 - 3/2	M5
Zn II?	1808.915	10					C19
Zn II	1811.008	80 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	7/2 - 5/2	M5
Zn II	1811.105	15 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2F^\circ - ^2D$	7/2 - 5/2	M5
Zn II	1813.170	1 -A		$3d^94s(^3D)4p - 3d^94s(^3D)4d$	$^2D^\circ - 4$?	5/2 - 5/2	C19
Zn II?	1816.480	80					C19
Zn II	1831.376	80 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2F^\circ - ^2D$	5/2 - 3/2	C19
Zn II	1833.481	40		$3d^94s^2 - 3d^104f$	$^2D - ^2F^\circ$	5/2 - 7/2	M5
Zn II	1833.573	50 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	9/2 - 7/2	M5
Zn II	1834.268	40 -A		$3d^94s^2 - 3d^106p$	$^2D - ^2P^\circ$	3/2 - 3/2	M5
Zn II	1836.007	70 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	7/2 - 7/2	M5
Zn II	1836.654	75		$3d^94s^2 - 3d^106p$	$^2D - ^2P^\circ$	3/2 - 1/2	M5
Zn II	1847.562	75 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2P^\circ - ^2D$	3/2 - 5/2	M5
Zn II	1850.140	10 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	5/2 - 7/2	C19
Zn II	1857.274	5 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4F^\circ - ^4D$	3/2 - 5/2	C19
Zn II?	1864.117	100					M5
Zn II?	1866.077	100					M5
Zn II	1866.366	10 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2D^\circ - ^2D$	3/2 - 5/2	M5
Zn II	1867.994	40 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^2D$	5/2 - 3/2	C19
Zn II?	1872.125	100					C19
Zn II	1894.259	75 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2D^\circ - ^2D$	5/2 - 5/2	M5
Zn II	1896.056	2 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^2D$	1/2 - 3/2	C19
Zn II	1901.523	60 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2F^\circ - ^2D$	7/2 - 5/2	M5
Zn II	1914.806	60 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2F^\circ - ^4D$	5/2 - 3/2	C19
Zn II	1918.962	50		$3d^94s^2 - 3d^94s4p$	$^2D - ^2D^\circ$	5/2 - 5/2	M5
Zn II	1920.271	70 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	3/2 - 1/2	M5
Zn II	1929.670	3	8	$3d^94s^2 - 3d^104f$	$^2D - ^2F^\circ$	3/2 - 5/2	M5
Zn II	1931.073	40 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2P^\circ - ^2D$	1/2 - 3/2	C19
Zn II	1940.413	40 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	1/2 - 1/2	C19
Zn II	1945.583	60 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2F^\circ - ^4D$	5/2 - 5/2	C19
Zn II	1948.458	30		$3d^94s^2 - 3d^94s(^3D)4p$	$^2D - ^2D^\circ$	5/2 - 3/2	C19
Zn II	1951.911	60 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2D^\circ - ^2D$	3/2 - 3/2	C19
Zn II	1952.999	80 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	7/2 - 5/2	M5
Zn II	1954.872	75 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	5/2 - 3/2	C19
Zn II	1964.538	80 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	3/2 - 3/2	M5
Zn II	1969.404	100		$3d^94s^2 - 3d^94s4p$	$^2D - ^2P^\circ$	5/2 - 3/2	M5
Zn II	1974.467	12 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2F^\circ - ^4D$	5/2 - 7/2	C19
Zn II	1977.159	25 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2P^\circ - ^4D$	1/2 - 1/2	C19
Zn II	1977.494	5 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2P^\circ - ^4D$	3/2 - 1/2	C19
Zn II	1982.111	100 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	7/2 - 7/2	M5
Zn II	1982.429	10 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2D^\circ - ^2D$?	5/2 - 3/2	C19
Zn II	1985.608	70 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	1/2 - 3/2	C19
Zn II	1986.988	100 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	5/2 - 5/2	M5
Zn II	1993.367	50 -A		$3d^94s4p - 3d^94s(^3D)5s$	$^2D^\circ - ^2D$?	5/2 - 5/2	M5
Zn II	1996.922	50 -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^4D^\circ - ^4D$	3/2 - 5/2	C19
Zn II?	1998.238	20					C19
Zn II	1998.977	25b -A		$3d^94s(^3D)4p - 3d^94s(^3D)5s$	$^2D^\circ - ^4D$	3/2 - 1/2	C19

ZINC III (Zn^{2+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}$ $^1S_0$ (28 electrons)

Ionization Potential 320 390 cm^{-1}; 39.722 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	383.759	1		$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^3D^\circ$	0 - 1	D4
Zn III	387.740	1		$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^1P^\circ$	0 - 1	D4
Zn III	388.224	0		$3d^{10}$ - $3d^9(^2D)4f$	g^1S - $^3P^\circ$	0 - 1	D4
Zn III	419.807	1		$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^3D^\circ$	0 - 1	D4
Zn III	421.035	3		$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^1P^\circ$	0 - 1	D4
Zn III	425.799	15		$3d^{10}$ - $3d^9(^2D)5p$	g^1S - $^3P^\circ$	0 - 1	D4
Zn III	467.630	0		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^1F^\circ$	3 - 3	D4
Zn III	470.211	1		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^1F^\circ$	2 - 3	D4
Zn III	479.743	1		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^1D - $^1F^\circ$	2 - 3	D4
Zn III	496.423	1		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3F^\circ$	2 - 2	D4
Zn III	499.678	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3D^\circ$	3 - 2	D4
Zn III	499.915	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3F^\circ$	2 - 3	D4
Zn III	500.342	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3F^\circ$	1 - 2	D4
Zn III	501.264	5		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3D^\circ$	3 - 3	D4
Zn III	502.632	5		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3D^\circ$	2 - 2	D4
Zn III	504.227	1		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3D^\circ$	2 - 3	D4
Zn III	506.646	3		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3D^\circ$	1 - 2	D4
Zn III	507.202	5		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^3F^\circ$	3 - 4	D4
Zn III	516.837	8		$3d^9(^2D)4s$ - $3d^84s(^2P)4p$	^3D - $^3D^\circ$	3 - 3	D4
Zn III	519.998	8		$3d^9(^2D)4s$ - $3d^84s(^2P)4p$	^3D - $^3D^\circ$	2 - 3	D4
Zn III	521.872	4		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^1F^\circ$	3 - 3	D4
Zn III	525.109	5		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^1F^\circ$	2 - 3	D4
Zn III	533.517	10		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^3F^\circ$	3 - 4	D4
Zn III	533.646	4		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^3F^\circ$	3 - 3	D4
Zn III	537.019	8		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^3F^\circ$	2 - 3	D4
Zn III	539.072	2		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^3D - $^3F^\circ$	1 - 2	D4
Zn III	546.802	0		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3G^\circ$	3 - 3	D4
Zn III	549.491	4		$3d^9(^2D)4s$ - $3d^84s(^2D)4p$	^1D - $^3F^\circ$	2 - 3	D4
Zn III	555.627	0		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3D^\circ$	3 - 3	D4
Zn III	555.979	0		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3D^\circ$	3 - 2	D4
Zn III	556.763	6		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^1F^\circ$	3 - 3	D4
Zn III	558.641	0		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3F^\circ$	2 - 3	D4
Zn III	559.239	6		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^1D^\circ$	2 - 2	D4
Zn III	559.628	2		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3D^\circ$	2 - 2	D4
Zn III	560.513	8		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^3D - $^3P^\circ$	2 - 2	D4
Zn III	563.759	1		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^1D - $^1F^\circ$	2 - 3	D4
Zn III	568.099	25		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3G^\circ$	3 - 3	D4
Zn III	569.987	25		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3D^\circ$	1 - 1	D4
Zn III	571.927	15		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3G^\circ$	2 - 3	D4
Zn III	572.151	10		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3D^\circ$	3 - 3	D4
Zn III	572.788	20		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^1D - $^1D^\circ$	2 - 2	D4
Zn III	573.187	12		$3d^9(^2D)4s$ - $3d^9(^2D)4f$	^1D - $^3D^\circ$	2 - 2	D4
Zn III	573.338	8		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3D^\circ$	2 - 2	D4
Zn III	573.695	8		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3F^\circ$	3 - 3	D4
Zn III	574.037	12		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^1D - $^1F^\circ$	2 - 3	D4
Zn III	574.161	8		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3F^\circ$	3 - 4	D4
Zn III	577.031	25		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3F^\circ$	1 - 2	D4
Zn III	577.590	15		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3F^\circ$	2 - 3	D4
Zn III	578.559	12		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3D^\circ$	1 - 2	D4
Zn III	582.123	10		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^3D - $^3G^\circ$	3 - 4	D4
Zn III	585.100	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	3 - 3	D4
Zn III	586.087	8		$3d^9(^2D)4s$ - $3d^84s(^2F)4p$	^1D - $^3G^\circ$	2 - 3	D4
Zn III	587.194	4		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	2 - 2	D4
Zn III	588.048	10		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	3 - 4	D4
Zn III	589.146	6		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	2 - 3	D4
Zn III	591.710	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	1 - 1	D4
Zn III	592.677	0		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5F^\circ$	1 - 2	D4
Zn III	598.665	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5G^\circ$	3 - 4	D4
Zn III	600.599	2		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5G^\circ$	2 - 3	D4
Zn III	604.082	1		$3d^9(^2D)4s$ - $3d^84s(^4F)4p$	^3D - $^5G^\circ$	1 - 2	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	606.164	8		$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	2 - 2	D4
Zn III	607.364	10		$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	3 - 3	D4
Zn III	612.787	0		$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	3 - 4	D4
Zn III	616.310	8		$3d^9(^2D)4s - 3d^84s(^4F)4p$	$^3D - ^5D^\circ$	1 - 1	D4
Zn III	628.682	4		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1D^\circ$	2 - 2	D4
Zn III	631.444	5		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1F^\circ$	2 - 3	D4
Zn III	634.807	10		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	3 - 3	D4
Zn III	634.979	1		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^1D^\circ$	1 - 2	D4
Zn III	635.498	6		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	1 - 1	D4
Zn III	639.060	20		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	3 - 4	D4
Zn III	639.597	2		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	2 - 3	D4
Zn III	639.850	4		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	3 - 3	D4
Zn III	640.263	20		$3d^9(^2D)4p - 3d^9(^2D)9s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	641.821	1		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^1D$	3 - 2	D4
Zn III	642.216	6		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	1 - 0	D4
Zn III	642.702	8		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	2 - 1	D4
Zn III	643.026	12		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	3 - 2	D4
Zn III	643.259	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3P^\circ - ^3D$	0 - 1	D4
Zn III	644.700	30		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3F^\circ$	2 - 3	D4
Zn III	645.836	15		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1D^\circ$	2 - 2	D4
Zn III	646.377	4		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3D^\circ$	2 - 1	D4
Zn III	646.802	2		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3D^\circ$	1 - 2	D4
Zn III	647.927	1		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - ^3P^\circ$	2 - 2	D4
Zn III	648.755	12		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1F^\circ$	2 - 3	D4
Zn III	649.318	6		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^1P^\circ$	2 - 1	D4
Zn III	651.261	10		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3F^\circ$	2 - 2	D4
Zn III	651.975	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3G$	3 - 4	D4
Zn III	653.321	1		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	653.575	0		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	3 - 3	D4
Zn III	654.977	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^3F^\circ - ^3G$	4 - 5	D4
Zn III	656.486	2		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	657.372	6		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3D^\circ$	2 - 3	D4
Zn III	658.115	6		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3D^\circ$	2 - 2	D4
Zn III	662.309	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^1F^\circ - ^3F$	3 - 2	D4
Zn III	662.776	20		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^1D - ^3F^\circ$	2 - 3	D4
Zn III	673.499	2		$3d^9(^2D)4p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	677.642	60		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^1P^\circ$	0 - 1	D4
Zn III	677.971	60		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3D^\circ$	0 - 1	D4
Zn III	683.268	0		$3d^9(^2D)4p - 3d^9(^2D)7d$	$^1D^\circ - ^3F$	2 - 3	D4
Zn III	689.790	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	2 - 3	D4
Zn III	692.619	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3S$	2 - 1	D4
Zn III	692.983	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	2 - 2	D4
Zn III	693.571	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3P^\circ - ^3D$	2 - 3	D4
Zn III	694.970	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3P$	1 - 0	D4
Zn III	698.157	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^1F$	2 - 3	D4
Zn III	699.680	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	2 - 3	D4
Zn III	699.904	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	702.594	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	2 - 1	D4
Zn III	704.108	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	3 - 4	D4
Zn III	705.979	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	4 - 4	D4
Zn III	706.667	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	707.671	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	4 - 5	D4
Zn III	710.603	2		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	711.924	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3F^\circ - ^3D$	2 - 2	D4
Zn III	713.904	10		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3P^\circ$	0 - 1	D4
Zn III	716.052	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^1D$	2 - 2	D4
Zn III	716.758	1		$3d^9(^2D)4p - 3d^9(^2G)5g$	$^3F^\circ - ^3F$	4 - 4	D4
Zn III	717.143	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1F^\circ - ^3G$	3 - 3	D4
Zn III	719.765	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	722.182	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^3F$	3 - 3	D4
Zn III	725.533	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^3F$	2 - 2	D4
Zn III	725.694	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^1F$	2 - 3	D4
Zn III	726.394	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	3 - 2	D4
Zn III	727.002	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	727.332	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^3G$	2 - 3	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	728.252	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	728.646	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1P^\circ - ^3D$	1 - 1	D4
Zn III	728.921	1		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^3D^\circ - ^1P$	1 - 1	D4
Zn III	730.064	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	730.310	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	730.946	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^3D^\circ - ^3D$	2 - 3	D4
Zn III	731.197	0		$3d^9(^2D)4p - 3d^9(^2D)6d$	$^1D^\circ - ^1P$	2 - 1	D4
Zn III	734.185	0		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^3D$	3 - 2	D4
Zn III	734.828	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1F^\circ - ^3D$	3 - 3	D4
Zn III	742.964	1		$3d^9(^2D)4p - 3d^9(^2D)7s$	$^1P^\circ - ^3D$	1 - 2	D4
Zn III	794.474	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^1D$	2 - 2	D4
Zn III	800.422	3		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	804.077	5		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	2 - 3	D4
Zn III	805.351	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^1P$	1 - 1	D4
Zn III	806.108	5		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	2 - 2	D4
Zn III	808.606	3		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	813.485	3		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	2 - 3	D4
Zn III	814.120	1		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	2 - 2	D4
Zn III	816.670	1		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	818.682	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	2 - 3	D4
Zn III	820.661	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3P^\circ - ^3P$	1 - 2	D4
Zn III	820.735	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	3 - 4	D4
Zn III	821.070	2		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	3 - 3	D4
Zn III	822.498	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3D$	3 - 3	D4
Zn III	824.711	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	3 - 4	D4
Zn III	825.955	2		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^3D$	2 - 1	D4
Zn III	826.909	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	829.866	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3G$	4 - 5	D4
Zn III	830.901	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	831.380	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^1G$	3 - 4	D4
Zn III	832.426	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3G$	3 - 3	D4
Zn III	832.868	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	2 - 2	D4
Zn III	833.600	1b		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3F^\circ - ^3F$	2 - 3	D4
Zn III	837.054	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	837.613	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3G$	2 - 3	D4
Zn III	838.313	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1F^\circ - ^1F$	3 - 3	D4
Zn III	838.658	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^1D$	3 - 2	D4
Zn III	841.664	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1F^\circ - ^1G$	3 - 4	D4
Zn III	845.238	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3F^\circ - ^3D$	2 - 3	D4
Zn III	847.525	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	3 - 4	D4
Zn III	847.879	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	3 - 3	D4
Zn III	849.117	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	849.386	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	851.539	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	852.306	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	852.707	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	853.220	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^3D^\circ - ^3F$	2 - 3	D4
Zn III	858.152	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1F^\circ - ^3F$	3 - 4	D4
Zn III	859.760	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1D^\circ - ^1P$	2 - 1	D4
Zn III	859.895	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	860.062	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1F^\circ - ^3D$	3 - 3	D4
Zn III	860.286	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^1D$	1 - 2	D4
Zn III	860.808	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	861.667	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	863.850	1		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	870.890	3		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1F^\circ - ^3D$	3 - 3	D4
Zn III	872.633	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1D^\circ - ^3D$	2 - 2	D4
Zn III	873.207	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1D^\circ - ^3F$	2 - 3	D4
Zn III	874.542	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1P^\circ - ^3P$	1 - 2	D4
Zn III	879.380	0		$3d^9(^2D)4p - 3d^9(^2D)5d$	$^1P^\circ - ^3S$	1 - 1	D4
Zn III	881.565	0		$3d^9(^2D)4p - 3d^9(^2D)6s$	$^1P^\circ - ^3D$	1 - 2	D4
Zn III	1124.021	2		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	4 - 3	D4
Zn III	1137.030	3		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	3 - 2	D4
Zn III	1146.105	50		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3D^\circ$	4 - 3	D4
Zn III	1155.497	60		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	3 - 3	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1157.289	40		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	2 - 2	D4
Zn III	1166.790	25		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^1S$	1 - 0	D4
Zn III	1167.764	30		$3d^9(^2D)4p - 3d^84s^2$	$^1P^\circ - ^1S$	1 - 0	D4
Zn III	1170.149	50		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3D^\circ$	3 - 2	D4
Zn III	1177.651	50		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	4 - 4	D4
Zn III	1178.835	25		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3D^\circ$	3 - 3	D4
Zn III	1191.597	10		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3D^\circ$	2 - 2	D4
Zn III	1191.864	40		$3d^84s^2 - 3d^84s(^4F)4p$	$^1D - ^1F^\circ$	2 - 3	D4
Zn III	1197.973	20		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3F$	2 - 2	D4
Zn III	1198.322	15		$3d^9(^2D)4d - 3d^9(^2D)7f$	$^1G - ^3H^\circ$?	4 - 4	C18,K8
Zn III	1200.635	60		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3D^\circ$	2 - 3	D4
Zn III	1200.854	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1F$	2 - 3	D4
Zn III	1202.152	30		$3d^9(^2D)4d - 3d^9(^2D)7f$	$^3G - ^3G^\circ$?	3 - 3	C18,K8
Zn III	1203.270	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1S$	1 - 0	D4
Zn III	1204.310	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^1S$	1 - 0	D4
Zn III	1207.737	10		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1D$	2 - 2	D4
Zn III	1212.255	40		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	3 - 4	D4
Zn III	1217.494	3		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3D$	2 - 1	D4
Zn III	1222.266	8		$3d^84s^2 - 3d^9(^2D)7f$	$^1G - ^3G^\circ$	4 - 3	D4
Zn III	1230.451	25		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3F$	1 - 2	D4
Zn III	1230.949	1		$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - ^3D^\circ$	4 - 3	D4
Zn III	1233.948	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1P$	2 - 1	D4
Zn III	1239.355	3		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3F$	3 - 2	D4
Zn III	1240.750	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	1242.411	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1F$	3 - 3	D4
Zn III	1243.833	20		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^1G$	3 - 4	D4
Zn III	1247.355	5		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3F$?	2 - 3	D4
Zn III	1250.336	30		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^1D$	2 - 2	D4
Zn III	1251.021	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3D$	1 - 1	D4
Zn III	1252.873	3		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1F$	4 - 3	D4
Zn III	1253.201	10		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$?	2 - 1	D4
Zn III	1253.345	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3D$?	2 - 3	D4
Zn III	1254.316	25		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^1G$	4 - 4	D4
Zn III	1259.912	20		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - ^1F^\circ$	4 - 3	D4
Zn III	1262.541	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3P$	2 - 2	D4
Zn III	1265.370	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3P$	2 - 1	D4
Zn III	1268.077	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3F$	2 - 2	D4
Zn III	1268.423	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1P$	1 - 1	D4
Zn III	1268.792	10		$3d^84s^2 - 3d^84s(^2P)4p$	$^3F - ^3D^\circ$	3 - 3	D4
Zn III	1270.573	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1G$	3 - 4	D4
Zn III	1271.291	8		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1F$	2 - 3	D4
Zn III	1272.037	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3D$	0 - 1	D4
Zn III	1274.383	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	1276.219	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3P$	1 - 0	D4
Zn III	1279.021	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1D$	2 - 2	D4
Zn III	1281.508	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1G$	4 - 4	D4
Zn III	1283.941	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	1285.752	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	1288.767	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$	1 - 1	D4
Zn III	1289.935	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	2 - 1	D4
Zn III	1290.051	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^1P$	0 - 1	D4
Zn III	1290.789	5		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$	2 - 2	D4
Zn III	1292.231	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3F$	3 - 3	D4
Zn III	1295.318	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3G$	2 - 3	D4
Zn III	1295.465	10		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^1D$	3 - 2	D4
Zn III	1298.539	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$	2 - 3	D4
Zn III	1298.689	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	3 - 3	D4
Zn III	1301.371	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3F$	3 - 2	D4
Zn III	1301.687	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3P$	1 - 1	D4
Zn III	1303.551	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3F$	4 - 4	D4
Zn III	1304.769	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1F$	3 - 3	D4
Zn III	1306.322	50		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^1G$	3 - 4	D4
Zn III	1307.384	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3S$	2 - 1	D4
Zn III	1308.450	5		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^1P$	2 - 1	D4
Zn III	1308.569	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3P$	3 - 2	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1310.117	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	1311.104	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$	0 - 1	D4
Zn III	1312.904	35		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1D$	3 - 2	D4
Zn III	1314.067	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3F$	2 - 2	D4
Zn III	1314.796	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	2 - 2	D4
Zn III	1317.509	0		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1F$	2 - 3	D4
Zn III	1319.096	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3G$	3 - 4	D4
Zn III	1323.512	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3F$	2 - 3	D4
Zn III	1324.455	20		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3P$	0 - 1	D4
Zn III	1325.831	30b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1D$	2 - 2	D4
Zn III	1326.708	50b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3F$	3 - 2	D4
Zn III	1326.899	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^1D$	2 - 2	D4
Zn III	1328.372	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3G$	4 - 5	D4
Zn III	1328.561	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	1329.923	40b		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - ^3F^\circ$	4 - 4	D4
Zn III	1330.087	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3G$	3 - 3	D4
Zn III	1330.178	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^1F$	3 - 3	D4
Zn III	1330.297	40b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3D$	2 - 3	D4
Zn III	1330.897	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3F^\circ - ^3G$	4 - 4	D4
Zn III	1331.823	50		$3d^9(^2D)4p - 3d^84s^2$	$^1F^\circ - ^1G$	3 - 4	D4
Zn III	1335.846	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1G$	3 - 4	D4
Zn III	1336.996	2		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3P^\circ - ^3D$	2 - 2	D4
Zn III	1337.571	20		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	2 - 1	D4
Zn III	1338.659	20		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1338.939	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	1340.656	3		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3P^\circ - ^3D$	0 - 1	D4
Zn III	1343.355	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3G$	2 - 3	D4
Zn III	1346.146	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3S$	1 - 1	D4
Zn III	1347.286	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^3D$	3 - 3	D4
Zn III	1350.377	50		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3P$	2 - 1	D4
Zn III	1350.638	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	3 - 2	D4
Zn III	1350.968	10b		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	1353.953	50		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3P$	2 - 2	D4
Zn III	1354.189	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3F$	1 - 2	D4
Zn III	1354.650	1		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	1355.518	30		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3F$	1 - 2	D4
Zn III	1356.519	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3G$	3 - 3	D4
Zn III	1357.496	15		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1P$	2 - 1	D4
Zn III	1359.604	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	1359.804	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3F$	3 - 4	D4
Zn III	1360.220	0		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1361.979	60b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3F$	2 - 2	D4
Zn III	1362.335	5		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3D - ^1F^\circ$	2 - 3	D4
Zn III	1362.523	60b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^1G$	3 - 4	D4
Zn III	1363.413	60b		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^1D$	3 - 2	D4
Zn III	1364.323	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	1365.702	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^1F$	2 - 3	D4
Zn III	1366.682	60b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1D$	1 - 2	D4
Zn III	1366.978	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1368.027	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	1370.532	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3P^\circ - ^3S$	0 - 1	D4
Zn III	1372.541	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^3D$	2 - 2	D4
Zn III	1373.200	1		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1373.381	1		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^1D^\circ - ^3D$	2 - 1	D4
Zn III	1373.687	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3F$	2 - 3	D4
Zn III	1374.005	3		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3D^\circ - ^3D$	3 - 2	D4
Zn III	1374.130	1		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1374.638	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1375.105	20		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - ^3F^\circ$	3 - 3	D4
Zn III	1377.346	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^1D$	2 - 2	D4
Zn III	1377.915	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	3 - 2	D4
Zn III	1379.161	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	1380.554	12		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3D$	1 - 1	D4
Zn III	1380.828	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	2 - 1	D4
Zn III	1380.986	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	2 - 3	D4

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1381.314	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3F^\circ - ^3D$	2 - 3	D4
Zn III	1383.700	60		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3P$	1 - 0	D4
Zn III	1383.920	1		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3G - ^1F^\circ$	3 - 3	D4
Zn III	1387.215	50b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3D$	2 - 1	D4
Zn III	1387.440	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3F$	3 - 4	D4
Zn III	1387.925	3		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - ^3F^\circ$	2 - 2	D4
Zn III	1389.604	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3G$	3 - 4	D4
Zn III	1391.216	60b		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1391.790	40		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3P$	1 - 1	D4
Zn III	1392.170	30		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	2 - 2	D4
Zn III	1393.460	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3G$	2 - 3	D4
Zn III	1394.911	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3D$	3 - 3	D4
Zn III	1395.652	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	2 - 1	D4
Zn III	1399.599	2		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^3P^\circ - ^3D$	0 - 1	D4
Zn III	1400.344	8		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^1P$	1 - 1	D4
Zn III	1401.762	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^1P$	1 - 1	D4
Zn III	1404.853	3		$3d^84s^2 - 3d^84s(^2D)4p$	$^3F - ^3F^\circ$	2 - 3	D4
Zn III	1406.326	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3P$	3 - 2	D4
Zn III	1407.039	40		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3P$	3 - 2	D4
Zn III	1407.619	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3D$	1 - 2	D4
Zn III	1408.687	70		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^1P$	2 - 1	D4
Zn III	1409.050	30		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3D$	1 - 2	D4
Zn III	1409.855	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	1 - 0	D4
Zn III	1411.287	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3P$	1 - 0	D4
Zn III	1411.647	60		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	3 - 2	D4
Zn III	1413.168	2		$3d^9(^2D)5p - 3d^9(^2D)11s$	$^1F^\circ - ^3D$	3 - 2	D4
Zn III	1416.048	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3D$	2 - 2	D4
Zn III	1417.682	5		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^1F^\circ$	4 - 3	D4
Zn III	1417.868	40		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3P$	0 - 1	D4
Zn III	1418.152	0		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	1418.482	1		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1F^\circ - ^3G$	3 - 4	D4
Zn III	1420.509	10		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	1420.920	60		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1421.494	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^1D$	1 - 2	D4
Zn III	1422.976	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	1425.002	25		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^1D$	2 - 2	D4
Zn III	1425.210	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	1426.150	25		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3F$	2 - 3	D4
Zn III	1426.611	60		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	1430.107	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1432.143	60		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1D^\circ$	3 - 2	D4
Zn III	1432.716	2		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^3D^\circ - ^3D$	2 - 3	D4
Zn III	1433.853	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1D^\circ - ^3D$	2 - 1	D4
Zn III	1434.027	25		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3D$	2 - 3	D4
Zn III	1435.037	2		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1436.075	40		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^3D^\circ - ^3D$	2 - 3	D4
Zn III	1436.219	15		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1437.296	12		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	1 - 2	D4
Zn III	1437.767	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^1D - ^3D^\circ$	2 - 3	D4
Zn III	1438.808	10		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3P$	1 - 2	D4
Zn III	1440.159	12		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3P$	2 - 1	D4
Zn III	1441.017	15		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3P$	1 - 1	D4
Zn III	1441.474	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1F^\circ - ^3D$	3 - 2	D4
Zn III	1442.512	60		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3P$	1 - 1	D4
Zn III	1444.216	10		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3P$	2 - 2	D4
Zn III	1446.086	50		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3P$	2 - 2	D4
Zn III	1446.915	40		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3S$	2 - 1	D4
Zn III	1449.832	40b		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3P$	2 - 1	D4
Zn III	1451.147	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1F^\circ - ^3D$	3 - 3	D4
Zn III	1453.700	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3P - ^3F^\circ$	1 - 2	D4
Zn III	1456.707	60		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1D^\circ$	2 - 2	D4
Zn III	1464.198	75		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1P^\circ$	2 - 1	D4
Zn III	1465.744	60		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 1	D4
Zn III	1465.952	15		$3d^9(^2D)5p - 3d^9(^2D)10s$	$^3F^\circ - ^3D$	2 - 2	D4
Zn III	1468.113	4		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^1F^\circ$	3 - 3	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1471.224	30		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	1472.769	2		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3G^\circ$	4 - 4	D4
Zn III	1473.394	75		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1F^\circ$	3 - 3	D4
Zn III	1474.132	15		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3F^\circ$	4 - 4	D4
Zn III	1474.270	20		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3G^\circ$	4 - 5	D4
Zn III	1475.591	50		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1P^\circ - ^3D$	1 - 2	D4
Zn III	1483.266	30		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1D^\circ - ^3D$	2 - 2	D4
Zn III	1483.979	8		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^1D$	3 - 2	D4
Zn III	1484.484	5		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^1F^\circ$	4 - 3	D4
Zn III	1487.566	25		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^3P$	3 - 2	D4
Zn III	1489.245	40		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	3 - 2	D4
Zn III	1489.708	3		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P^\circ - ^3S$	2 - 1	D4
Zn III	1490.943	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1D^\circ$	1 - 2	D4
Zn III	1493.506	30		$3d^9(^2D)4p - 3d^9(^2D)5s$	$^1D^\circ - ^3D$	2 - 3	D4
Zn III	1495.715	15		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^3D^\circ - ^3S$	1 - 1	D4
Zn III	1497.327	10		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1P^\circ - ^3S$	1 - 1	D4
Zn III	1498.778	60		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1P^\circ$	1 - 1	D4
Zn III	1499.400	70		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1F^\circ$	2 - 3	D4
Zn III	1499.780	5		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^3P$	2 - 1	D4
Zn III	1500.398	60		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	1 - 1	D4
Zn III	1502.077	5		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^1F^\circ$	2 - 3	D4
Zn III	1503.803	0		$3d^84s^2 - 3d^84s(^4F)4p$	$^3P - ^3D^\circ$	2 - 2	D4
Zn III	1504.188	15		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^3P$	2 - 2	D4
Zn III	1505.234	20		$3d^9(^2D)4p - 3d^9(^2D)4d$	$^1D^\circ - ^3S$	2 - 1	D4
Zn III	1505.903	75		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	3 - 3	D4
Zn III	1507.862	15		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	1508.220	10		$3d^84s^2 - 3d^84s(^4F)4p$	$^3P - ^3D^\circ$	1 - 2	D4
Zn III	1512.611	2		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	1515.289	10		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^1P^\circ - ^1D$	1 - 2	D4
Zn III	1515.833	80		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 2	D4
Zn III	1517.611	20		$3d^9(^2D)5p - 3d^9(^2D)7g$	$^3F^\circ - ^3F$?	2 - 2	C18,K8
Zn III	1518.150	3		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P^\circ - ^3S$	1 - 1	D4
Zn III	1518.396	6		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1518.979	2		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	1520.713	60		$3d^9(^2D)4p - 3d^84s^2$	$^1F^\circ - ^3P$	3 - 2	D4
Zn III	1525.371	8		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^1D$	2 - 2	D4
Zn III	1526.417	2		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3F^\circ$	3 - 3	D4
Zn III	1531.725	1h		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^3S$	2 - 1	D4
Zn III	1532.588	6		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	1533.087	30		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 3	D4
Zn III	1534.563	2		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1536.999	3		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1539.845	20		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^1F^\circ$	3 - 3	D4
Zn III	1542.223	25		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^3P$	1 - 0	D4
Zn III	1543.954	10		$3d^9(^2D)4p - 3d^84s^2$	$^1P^\circ - ^3P$	1 - 0	D4
Zn III	1545.086	20		$3d^9(^2D)5p - 3d^9(^2D)7g$	$^3D^\circ - ^1D$?	2 - 2	C18,K8
Zn III	1549.173	10		$3d^9(^2D)5p - 3d^9(^2D)7g$	$^3D^\circ - ^1D$?	3 - 2	C18,K8
Zn III	1552.090	5		$3d^9(^2D)5s - 3d^84s(^4F)4p$	$^3D - ^3F^\circ$	3 - 3	D4
Zn III	1552.288	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^1D^\circ$	2 - 2	D4
Zn III	1552.937	30		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	1 - 2	D4
Zn III	1553.106	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	3 - 2	D4
Zn III	1554.030	20		$3d^9(^2D)4p - 3d^84s^2$	$^1P^\circ - ^3P$	1 - 1	D4
Zn III	1556.993	15		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^3P$	1 - 2	D4
Zn III	1558.738	25		$3d^9(^2D)4p - 3d^84s^2$	$^1P^\circ - ^3P$	1 - 2	D4
Zn III	1560.780	70		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^1P^\circ$	2 - 1	D4
Zn III	1562.538	75		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D^\circ$	2 - 1	D4
Zn III	1563.163	10		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3F^\circ$	2 - 3	D4
Zn III	1566.955	12		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3P - ^3F^\circ$	1 - 2	D4
Zn III	1567.310	25		$3d^9(^2D)4p - 3d^84s^2$	$^1D^\circ - ^3P$	2 - 2	D4
Zn III	1570.900	3		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^3D^\circ$	2 - 2	D4
Zn III	1571.008	3		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3F^\circ - ^3D$	2 - 2	D4
Zn III	1571.377	12		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3F^\circ - ^3D$	2 - 3	D4
Zn III	1572.198	15		$3d^84s^2 - 3d^9(^2D)4f$	$^3F - ^1P^\circ$	2 - 1	D4
Zn III	1573.809	25		$3d^9(^2D)4p - 3d^84s^2$	$^3D^\circ - ^1D$	3 - 2	D4
Zn III	1577.275	0		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^1F^\circ$	2 - 3	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1578.642	15		$3d^9(^2D)5s - 3d^84s(^4F)4p$	$^3D - ^3D°$	3 - 2	D4
Zn III	1579.729	15		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^1F$	2 - 3	D4
Zn III	1581.505	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F°$	3 - 4	D4
Zn III	1582.034	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F°$	2 - 2	D4
Zn III	1585.876	5		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3D - ^3F°$	3 - 2	D4
Zn III	1586.076	6		$3d^9(^2D)5s - 3d^84s(^4F)4p$	$^3D - ^3F°$	1 - 2	D4
Zn III	1590.678	2		$3d^9(^2D)5s - 3d^84s(^4F)4p$	$^1D - ^3F°$	2 - 2	D4
Zn III	1592.128	3		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P° - ^3D$	2 - 1	D4
Zn III	1592.431	50		$3d^9(^2D)4p - 3d^84s^2$	$^3D° - ^1D$	2 - 2	D4
Zn III	1598.517	80		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F°$	3 - 3	D4
Zn III	1599.146	3		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3D°$	4 - 3	D4
Zn III	1600.074	2		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^3D° - ^3D$	1 - 2	D4
Zn III	1600.206	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^1D$	3 - 2	D4
Zn III	1600.858	80		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^1F°$	2 - 3	D4
Zn III	1602.511	1		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^1D° - ^3S$	2 - 1	D4
Zn III	1603.470	0		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^1D° - ^3D$	2 - 2	D4
Zn III	1603.873	5		$3d^9(^2D)5p - 3d^9(^2D)9s$	$^1D° - ^3D$	2 - 3	D4
Zn III	1607.950	10		$3d^84s(^4F)4p - 3d^9(^2D)8g$	$^5D° - ^3D$?	3 - 3	C18,K8
Zn III	1608.424	20		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3D - ^3F°$	2 - 2	D4
Zn III	1608.829	40		$3d^84s(^4F)4p - 3d^9(^2D)10s$	$^5D° - ^3D$?	1 - 2	C18,K8
Zn III	1609.043	20		$3d^84s(^4F)4p - 3d^9(^2D)11s$	$^5F° - ^1D$?	3 - 2	C18,K8
Zn III	1610.713	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^3F$	1 - 2	D4
Zn III	1610.832	30		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3F° - ^1D$	3 - 2	D4
Zn III	1610.968	40		$3d^9(^2D)4p - 3d^84s^2$	$^1F° - ^1D$	3 - 2	D4
Zn III	1612.688	10b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^1D$	1 - 2	D4
Zn III	1613.201	15		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3D°$	2 - 1	D4
Zn III	1613.728	20		$3d^9(^2D)5p - 3d^9(^2D)7g$	$^3D° - ^1D$?	1 - 2	C18,K8
Zn III	1614.895	8		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3F°$	4 - 4	D4
Zn III	1619.616	80		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D°$	2 - 2	D4
Zn III	1621.552	40b		$3d^84s^2 - 3d^84s(^2D)4p$	$^1D - ^1F°$	2 - 3	D4
Zn III	1622.509	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F°$	1 - 2	D4
Zn III	1626.009	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D° - ^3F$	2 - 2	D4
Zn III	1629.157	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F°$	2 - 3	D4
Zn III	1630.546	5		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D° - ^3F$	3 - 2	D4
Zn III	1631.653	8		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D° - ^1F$	3 - 3	D4
Zn III	1632.171	2		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3F - ^3F°$	3 - 3	D4
Zn III	1632.626	10		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D° - ^1D$	3 - 2	D4
Zn III	1639.318	100b		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D°$	2 - 3	D4
Zn III	1641.257	2b		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3D°$	3 - 2	D4
Zn III	1644.820	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P°$	2 - 1	D4
Zn III	1648.406	2		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^3F$	2 - 3	D4
Zn III	1651.739	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P°$	1 - 0	D4
Zn III	1652.541	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^3D$	2 - 3	D4
Zn III	1653.697	60		$3d^9(^2D)4p - 3d^84s^2$	$^1P° - ^1D$	1 - 2	D4
Zn III	1654.950	5		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^3P$	2 - 2	D4
Zn III	1662.279	2		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P° - ^3S$	2 - 1	D4
Zn III	1663.344	40		$3d^9(^2D)4p - 3d^84s^2$	$^1D° - ^1D$	2 - 2	D4
Zn III	1665.352	6		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P° - ^3D$	2 - 3	D4
Zn III	1669.297	2		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3F$	2 - 2	D4
Zn III	1669.699	2		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3F$	3 - 3	D4
Zn III	1670.456	20		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^1F$	2 - 3	D4
Zn III	1670.617	2b		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P° - ^3D$	0 - 1	D4
Zn III	1671.779	3		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3G°$	2 - 3	D4
Zn III	1672.120	5		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3D$	3 - 2	D4
Zn III	1673.049	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P°$	3 - 2	D4
Zn III	1674.291	12		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3F$	4 - 4	D4
Zn III	1675.059	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3F$	4 - 3	D4
Zn III	1675.788	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3G$	2 - 3	D4
Zn III	1676.443	20b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3G$	3 - 4	D4
Zn III	1676.692	2b		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3F°$	3 - 3	D4
Zn III	1677.216	5		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3G - ^3F°$	3 - 3	D4
Zn III	1678.728	2		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^1F - ^3F°$	3 - 2	D4
Zn III	1679.180	0		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3F - ^3D°$	4 - 3	D4
Zn III	1679.321	2		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3D$	4 - 3	D4
Zn III	1681.858	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F° - ^3G$	4 - 4	D4

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn III	1682.656	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F^\circ - ^3G$	4 - 5	D4
Zn III	1684.381	6		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	2 - 2	D4
Zn III	1685.196	4		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	3 - 2	D4
Zn III	1685.942	5b		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^1P - ^3D^\circ$	1 - 2	D4
Zn III	1686.039	6		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1F^\circ - ^3F$	3 - 2	D4
Zn III	1688.240	15b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1688.589	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 1	D4
Zn III	1689.818	25b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P^\circ - ^3P$	1 - 1	D4
Zn III	1690.111	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3P^\circ - ^3P$	1 - 2	D4
Zn III	1692.554	8		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3F^\circ - ^3D$	4 - 3	D4
Zn III	1695.407	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3F^\circ$	2 - 2	D4
Zn III	1697.433	1		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^1P^\circ - ^3D$	1 - 1	D4
Zn III	1699.036	2		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3P^\circ - ^3D$	1 - 2	D4
Zn III	1700.053	5		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^1F^\circ - ^1D$	3 - 2	D4
Zn III	1700.976	1		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3G - ^3F^\circ$	4 - 4	D4
Zn III	1702.210	10b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3F$	1 - 2	D4
Zn III	1702.540	7		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	1704.178	2b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3F$	3 - 4	D4
Zn III	1704.475	0		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	4 - 3	D4
Zn III	1704.971	10b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3F$	3 - 3	D4
Zn III	1705.115	2		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3G - ^3F^\circ$	5 - 4	D4
Zn III	1705.997	15b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1D^\circ - ^3F$	2 - 2	D4
Zn III	1706.659	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	2 - 2	D4
Zn III	1707.191	20b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1D^\circ - ^1F$	2 - 3	D4
Zn III	1708.259	3		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1708.896	0		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1D^\circ - ^3D$	2 - 1	D4
Zn III	1709.401	4		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1711.982	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3P$	3 - 2	D4
Zn III	1714.800	0		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3S$	2 - 1	D4
Zn III	1716.090	4		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	2 - 2	D4
Zn III	1716.467	1		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^1D$	1 - 2	D4
Zn III	1716.589	2		$3d^84s^2 - 3d^84s(^4F)4p$	$^1G - ^3F^\circ$	4 - 3	D4
Zn III	1717.212	1		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^1G - ^3D^\circ$	4 - 3	D4
Zn III	1717.880	1		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	1 - 1	D4
Zn III	1720.339	2		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^1D^\circ - ^1D$	2 - 2	D4
Zn III	1721.151	2		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	3 - 2	D4
Zn III	1723.111	6		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^3D^\circ - ^3D$	3 - 3	D4
Zn III	1724.558	2		$3d^84s^2 - 3d^84s(^2D)4p$	$^3P - ^1F^\circ$	2 - 3	D4
Zn III	1725.230	0		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	2 - 3	D4
Zn III	1729.918	3		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	4 - 4	D4
Zn III	1736.138	0		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3D - ^3F^\circ$	3 - 4	D4
Zn III	1737.473	10		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^1D - ^3D^\circ$	2 - 2	D4
Zn III	1747.872	0		$3d^9(^2D)4d - 3d^84s(^4F)4p$	$^3F - ^3F^\circ$	4 - 4	D4
Zn III	1749.629	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3F^\circ$	2 - 3	D4
Zn III	1750.770	10		$3d^84s^2 - 3d^84s(^2F)4p$	$^3F - ^3G^\circ$	3 - 4	D4
Zn III	1753.824	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 2	D4
Zn III	1754.498	0		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F^\circ - ^3P$	2 - 1	D4
Zn III	1754.777	0		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F^\circ - ^3P$	2 - 2	D4
Zn III	1760.192	2		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	3 - 2	D4
Zn III	1763.032	6		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3F^\circ - ^3S$	2 - 1	D4
Zn III	1767.684	90		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 1	D4
Zn III	1777.404	40b		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1P^\circ - ^3S$	1 - 1	D4
Zn III	1777.911	3		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	3 - 3	D4
Zn III	1791.180	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^3D^\circ - ^3P$	1 - 2	D4
Zn III	1792.523	1		$3d^9(^2D)5p - 3d^9(^2D)7d$	$^1D^\circ - ^3D$	2 - 3	D4
Zn III	1800.147	15b		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	2 - 1	D4
Zn III	1805.599	3		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	3 - 4	D4
Zn III	1807.566	1		$3d^9(^2D)5p - 3d^9(^2D)8s$	$^1D^\circ - ^3D$	2 - 3	D4
Zn III	1809.253	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5F^\circ$	2 - 2	D4
Zn III	1821.676	35		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3F$	2 - 3	D4
Zn III	1825.020	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5G^\circ$	4 - 4	D4
Zn III	1839.334	150		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 2	D4
Zn III	1843.953	25		$3d^9(^2D)4p - 3d^84s^2$	$^3P^\circ - ^3F$	1 - 2	D4
Zn III	1864.006	50		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3F$	3 - 2	D4
Zn III	1886.405	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5G^\circ$	3 - 3	D4

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Zn III	1888.968	3		$3d^84s^2 - 3d^9(^2D)4f$	$^1D - ^3G^\circ$	2 - 3	D4
Zn III	1899.793	12		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^3P - ^1F^\circ$	2 - 3	D4
Zn III	1908.436	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5D^\circ$	4 - 3	D4
Zn III	1909.424	6		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5G^\circ$	3 - 4	D4
Zn III	1919.068	20		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3F$	3 - 3	M5,D4
Zn III	1921.012	20		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^3D - ^1F^\circ$	3 - 3	D4
Zn III	1927.005	2		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	2 - 1	D4
Zn III	1928.098	0		$3d^9(^2D)5s - 3d^84s(^2D)4p$	$^1D - ^1F^\circ$	2 - 3	D4
Zn III	1929.774	80		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3F$	2 - 2	M5,D4
Zn III	1930.525	15		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3P^\circ - ^3G$	2 - 3	D4
Zn III	1935.354	5		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^3F - ^1F^\circ$	4 - 3	D4
Zn III	1942.392	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5D^\circ$	3 - 2	D4
Zn III	1944.160	60		$3d^9(^2D)4p - 3d^84s^2$	$^3F^\circ - ^3F$	4 - 3	D4
Zn III	1946.637	0		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3F^\circ - ^3F$	3 - 2	D4
Zn III	1954.183	1		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^3D - ^1F^\circ$	2 - 3	D4
Zn III	1962.974	1		$3d^84s^2 - 3d^84s(^4F)4p$	$^3F - ^5D^\circ$	4 - 4	D4
Zn III	1967.230	1		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3F^\circ - ^3G$	4 - 3	D4
Zn III	1971.416	2		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3P^\circ - ^1D$	1 - 2	D4
Zn III	1974.863	0		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3P^\circ - ^3D$	1 - 1	D4
Zn III	1986.020	4		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^1G - ^1F^\circ$	4 - 3	D4
Zn III	1989.190	10b		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3D^\circ - ^1F$	2 - 3	D4
Zn III	1990.637	25		$3d^9(^2D)4d - 3d^84s(^2P)4p$	$^3F - ^3D^\circ$	2 - 3	D4
Zn III	1994.454	1		$3d^9(^2D)5p - 3d^9(^2D)6d$	$^3D^\circ - ^1D$	2 - 2	D4
Zn III	1998.150	10		$3d^84s^2 - 3d^84s(^2F)4p$	$^1D - ^1D^\circ$	2 - 2	D4
Zn III	1998.653	10		$3d^84s^2 - 3d^9(^2D)4f$	$^1D - ^3D^\circ$	2 - 3	D4
Zn III	1998.977	25b		$3d^9(^2D)4d - 3d^84s(^2D)4p$	$^3G - ^1F^\circ$	3 - 3	D4

ZINC IV (Zn^{3+}), Z = 30

Ground State $1s^22s^22p^63s^23p^63d^9\ ^2D_{5/2}$ (27 electrons)

Ionization Potential [508 000] cm^{-1}; [63] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	412.671	3		$3d^9 - 3d^8(^1G)4p$	$ga^2D - y^2G^\circ$	5/2 - 7/2	C19
Zn IV	423.424	0		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4S^\circ$	5/2 - 3/2	C19
Zn IV	423.533	5		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	5/2 - 5/2	C19
Zn IV	425.891	40		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	5/2 - 7/2	C19
Zn IV	428.541	30		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	3/2 - 5/2	C19
Zn IV	428.788	10		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^2S^\circ$	3/2 - 1/2	C19
Zn IV	429.299	25		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	5/2 - 3/2	C19
Zn IV	430.586	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	5/2 - 3/2	C19
Zn IV	431.535	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 1/2	C19
Zn IV	431.613	25		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	5/2 - 5/2	C19
Zn IV	434.407	0		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 3/2	C19
Zn IV	435.023	5		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D^\circ$	5/2 - 7/2	C19
Zn IV	435.762	20		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 3/2	C19
Zn IV	436.248	15		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D^\circ$	5/2 - 3/2	C19
Zn IV	436.381	8		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D^\circ$	5/2 - 5/2	C19
Zn IV	436.812	10		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 5/2	C19
Zn IV	441.146	15		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	5/2 - 3/2	C19
Zn IV	441.543	8		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D^\circ$	3/2 - 3/2	C19
Zn IV	441.693	20		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^4D^\circ$	3/2 - 5/2	C19
Zn IV	442.381	40		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 5/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	444.383	60		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	5/2 - 7/2	C19
Zn IV	444.455	30		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 3/2	C19
Zn IV	446.582	40		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	3/2 - 3/2	C19
Zn IV	447.850	8		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 5/2	C19
Zn IV	449.131	1		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	3/2 - 1/2	C19
Zn IV	449.970	40		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 3/2	C19
Zn IV	450.985	50		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 5/2	C19
Zn IV	451.624	10		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 3/2	C19
Zn IV	452.803	50		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	3/2 - 5/2	C19
Zn IV	456.671	35		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 5/2	C19
Zn IV	457.315	50		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 3/2	C19
Zn IV	466.924	60		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 5/2	C19
Zn IV	468.426	40		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 3/2	C19
Zn IV	472.086	75		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 7/2	C19
Zn IV	472.655	70		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 5/2	C19
Zn IV	473.014	60		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	3/2 - 5/2	C19
Zn IV	473.501	75		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2G^\circ$	5/2 - 7/2	C19
Zn IV	474.558	60		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	3/2 - 3/2	C19
Zn IV	475.768	8		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 3/2	C19
Zn IV	476.413	60		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 5/2	C19
Zn IV	478.646	75		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 7/2	C19
Zn IV	478.898	60		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	3/2 - 5/2	C19
Zn IV	482.089	50		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	3/2 - 3/2	C19
Zn IV	482.668	2		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4G^\circ$	5/2 - 5/2	C19
Zn IV	485.476			$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4G^\circ$	5/2 - 7/2	C19
Zn IV	489.183	1		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4G^\circ$	3/2 - 5/2	C19
Zn IV	490.956	3		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4D^\circ$	5/2 - 5/2	C19
Zn IV	493.365	2		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4D^\circ$	3/2 - 3/2	C19
Zn IV	496.719	1		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4D^\circ$	5/2 - 7/2	C19
Zn IV	497.701	3		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4D^\circ$	3/2 - 5/2	C19
Zn IV	986.960	2h		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - x^2D^\circ$	7/2 - 5/2	C19
Zn IV	988.667	5		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	9/2 - 7/2	C19
Zn IV	1001.156	2		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - x^2D^\circ$	5/2 - 5/2	C19
Zn IV	1004.931	2		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	7/2 - 7/2	C19
Zn IV	1011.003	0		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - x^2D^\circ$	3/2 - 5/2	C19
Zn IV	1011.605	7		$3d^8(^3F)4s - 3d^8(^1G)4p$	$a^2F - x^2F^\circ$	7/2 - 7/2	C19
Zn IV	1012.192	5		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	7/2 - 5/2	C19
Zn IV	1024.255	2		$3d^8(^3F)4s - 3d^8(^1G)4p$	$a^2F - x^2F^\circ$	5/2 - 5/2	C19
Zn IV	1026.414	4		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	5/2 - 3/2	C19
Zn IV	1027.118	6		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	5/2 - 5/2	C19
Zn IV	1036.551	3		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	3/2 - 1/2	C19
Zn IV	1036.773	2		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - y^4D^\circ$	3/2 - 3/2	C19
Zn IV	1044.502	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - x^2D^\circ$	7/2 - 5/2	C19
Zn IV	1062.240	1		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - y^2G^\circ$	5/2 - 7/2	C19
Zn IV	1066.520	1		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - x^2D^\circ$?	5/2 - 3/2	C19
Zn IV	1072.496	1		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^4F - y^2F^\circ$	7/2 - 5/2	C19
Zn IV	1073.027			$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^4F - y^2D^\circ$	5/2 - 3/2	C19
Zn IV	1089.334	0		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^4F - y^2F^\circ$	5/2 - 5/2	C19
Zn IV	1094.128			$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - y^4D^\circ$	5/2 - 7/2	C19
Zn IV	1094.429	8		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - z^4P^\circ$	7/2 - 5/2	C19
Zn IV	1101.896	2h		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - y^4D^\circ$	5/2 - 3/2	C19
Zn IV	1109.919	35		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	7/2 - 5/2	C19
Zn IV	1111.935	2		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - z^4P^\circ$	5/2 - 5/2	C19
Zn IV	1115.801	3		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^4F - z^4P^\circ$	5/2 - 3/2	C19
Zn IV	1122.587	3		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2F^\circ$	7/2 - 7/2	C19
Zn IV	1133.744	15		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - z^2P^\circ$	5/2 - 3/2	C19
Zn IV	1136.406	40		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4S^\circ$	5/2 - 3/2	C19
Zn IV	1137.243	3		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 5/2	C19
Zn IV	1140.849	8		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2F^\circ$	7/2 - 5/2	C19
Zn IV	1141.955	20b		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	5/2 - 5/2	C19
Zn IV	1149.610	25		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4S^\circ$	3/2 - 3/2	C19
Zn IV	1150.481	30		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	3/2 - 5/2	C19
Zn IV	1152.278	20		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^2S^\circ$	3/2 - 1/2	C19
Zn IV	1154.402	25		$3d^8(^1D)4s - 3d^8(^1G)4p$	$b^2D - x^2F^\circ$	5/2 - 7/2	C19
Zn IV	1155.384	5		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2F^\circ$	5/2 - 7/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	1155.850	40		$3d^8(^3F)4s - 3d^8(^1D)4p$	$a^2F - y^2D^\circ$	5/2 - 3/2	C19
Zn IV	1172.304	30		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^2P^\circ$	3/2 - 1/2	C19
Zn IV	1177.484	60		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4S^\circ$	3/2 - 3/2	C19
Zn IV	1178.391	15		$3d^8(^3P)4s - 3d^8(^1G)4p$	$a^4P - x^2F^\circ$	3/2 - 5/2	C19
Zn IV	1179.478	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4S^\circ$	1/2 - 3/2	C19
Zn IV	1179.814	25		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^2P^\circ$	5/2 - 3/2	C19
Zn IV	1180.274	4		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^2S^\circ$	3/2 - 1/2	C19
Zn IV	1182.016	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4S^\circ$	5/2 - 3/2	C19
Zn IV	1189.565	35		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - x^2D^\circ$	5/2 - 3/2	C19
Zn IV	1194.068	30		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^2P^\circ$	3/2 - 3/2	C19
Zn IV	1197.440	30		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - x^2D^\circ$	5/2 - 5/2	C19
Zn IV	1201.292	25		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^2P^\circ$	3/2 - 1/2	C19
Zn IV	1201.489	50		$3d^8(^3P)4s - 3d^8(^1G)4p$	$a^4P - x^2F^\circ$	5/2 - 7/2	C19
Zn IV	1203.430	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	9/2 - 7/2	C19
Zn IV	1204.038	30		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - x^2D^\circ$	3/2 - 3/2	C19
Zn IV	1205.594	25		$3d^8(^3F)4s - 3d^8(^3P)4p$	$a^2F - z^4P^\circ$	5/2 - 3/2	C19
Zn IV	1212.110	12		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - x^2D^\circ$	3/2 - 5/2	C19
Zn IV	1212.693	25		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	9/2 - 7/2	C19
Zn IV	1214.121	15		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	5/2 - 5/2	C19
Zn IV	1223.181	60		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 9/2	C19
Zn IV	1223.680	30		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 9/2	C19
Zn IV	1224.052	50		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	5/2 - 7/2	C19
Zn IV	1224.179	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^2P^\circ$	3/2 - 3/2	C19
Zn IV	1224.348	20		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	5/2 - 3/2	C19
Zn IV	1226.325	8		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^2P^\circ$	1/2 - 3/2	C19
Zn IV	1227.615	15		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	7/2 - 7/2	C19
Zn IV	1228.003	1		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	9/2 - 7/2	C19
Zn IV	1228.482	60		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - y^2G^\circ$	7/2 - 7/2	C19
Zn IV	1228.646	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	3/2 - 5/2	C19
Zn IV	1229.062	15		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^2P^\circ$	5/2 - 3/2	C19
Zn IV	1231.458	25		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	7/2 - 5/2	C19
Zn IV	1233.806	10		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	5/2 - 3/2	C19
Zn IV	1234.857	20		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	5/2 - 5/2	C19
Zn IV	1236.768	1		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^2D^\circ$?	1/2 - 3/2	C19
Zn IV	1237.250	25		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	7/2 - 7/2	C19
Zn IV	1239.102	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	3/2 - 3/2	C19
Zn IV	1239.602	40b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^2D^\circ$	5/2 - 3/2	C19
Zn IV	1243.157	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^2D^\circ$	3/2 - 5/2	C19
Zn IV	1246.260	3		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	9/2 - 9/2	C19
Zn IV	1247.000	10		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	9/2 - 7/2	C19
Zn IV	1248.184	15		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - x^2D^\circ$	5/2 - 5/2	C19
Zn IV	1249.083	3		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 1/2	C19
Zn IV	1249.402	5		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 3/2	C19
Zn IV	1249.676	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2F^\circ$	5/2 - 7/2	C19
Zn IV	1250.466	30		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - y^4D^\circ$	3/2 - 5/2	C19
Zn IV	1253.664	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	5/2 - 5/2	C19
Zn IV	1257.291	30		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 5/2	C19
Zn IV	1259.673	5		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	5/2 - 7/2	C19
Zn IV	1264.205	0		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^4S^\circ$	3/2 - 3/2	C19
Zn IV	1265.223	3		$3d^8(^3P)4s - 3d^8(^1G)4p$	$a^2P - x^2F^\circ$	3/2 - 5/2	C19
Zn IV	1265.716	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	9/2 - 9/2	C19
Zn IV	1267.397	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^2S^\circ$	3/2 - 1/2	C19
Zn IV	1269.144	4		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2D^\circ$	3/2 - 5/2	C19
Zn IV	1272.192	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^2G^\circ$	7/2 - 9/2	C19
Zn IV	1272.963	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 7/2	C19
Zn IV	1273.818	30		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	5/2 - 3/2	C19
Zn IV	1275.756	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 3/2	C19
Zn IV	1277.110	60		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 7/2	C19
Zn IV	1278.491	20		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 5/2	C19
Zn IV	1280.443	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 5/2	C19
Zn IV	1281.292	15		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^2S^\circ$	1/2 - 1/2	C19
Zn IV	1282.027	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 1/2	C19
Zn IV	1282.363	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 3/2	C19
Zn IV	1283.497	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	3/2 - 5/2	C19
Zn IV	1284.185	40		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$	5/2 - 5/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	1284.382	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 1/2	C19
Zn IV	1284.715	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	1/2 - 3/2	C19
Zn IV	1288.875	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - y^4D^\circ$	5/2 - 5/2	C19
Zn IV	1290.440	40		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	3/2 - 3/2	C19
Zn IV	1291.795	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	3/2 - 3/2	C19
Zn IV	1292.484	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	7/2 - 9/2	C19
Zn IV	1294.306	10		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 7/2	C19
Zn IV	1296.589	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	3/2 - 5/2	C19
Zn IV	1296.730	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4F^\circ$	5/2 - 7/2	C19
Zn IV	1301.082	30		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$?	3/2 - 5/2	C18,K8
Zn IV	1301.204	50		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2F^\circ$	5/2 - 7/2	C19
Zn IV	1301.865	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 5/2	C19
Zn IV	1306.097	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	1/2 - 1/2	C19
Zn IV	1306.641	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 11/2	C19
Zn IV	1311.939	50		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - z^2P^\circ$	3/2 - 1/2	C19
Zn IV	1317.975	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	7/2 - 7/2	C19
Zn IV	1319.200	5		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2D^\circ$	3/2 - 3/2	C19
Zn IV	1320.699	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	9/2 - 9/2	C19
Zn IV	1321.188	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 5/2	C19
Zn IV	1322.308	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 7/2	C19
Zn IV	1322.414	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	7/2 - 5/2	C19
Zn IV	1325.659	5		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	3/2 - 3/2	C19
Zn IV	1325.831	30b		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2F^\circ$?	5/2 - 5/2	C19
Zn IV	1326.708	50b		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	5/2 - 5/2	C19
Zn IV	1329.061	5		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	7/2 - 7/2	C19
Zn IV	1329.923	40b		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 5/2	C19
Zn IV	1330.297	40b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	3/2 - 3/2	C19
Zn IV	1331.390	40		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	5/2 - 3/2	C19
Zn IV	1333.168	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^2P^\circ$	1/2 - 3/2	C19
Zn IV	1333.296	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	5/2 - 3/2	C19
Zn IV	1336.889	40		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	3/2 - 5/2	C19
Zn IV	1340.162	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	3/2 - 5/2	C19
Zn IV	1342.720	50		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	5/2 - 5/2	C19
Zn IV	1343.794	50		$3d^8(^1D)4s - 3d^8(^1D)4p$	$b^2D - y^2F^\circ$	3/2 - 5/2	C19
Zn IV	1344.063	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	3/2 - 5/2	C19
Zn IV	1345.622	10		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - x^2D^\circ$	1/2 - 3/2	C19
Zn IV	1347.949	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	5/2 - 7/2	C19
Zn IV	1348.354	40		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	3/2 - 1/2	C19
Zn IV	1349.872	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4G^\circ$	7/2 - 9/2	C19
Zn IV	1350.968	10b		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - z^2P^\circ$	1/2 - 1/2	C19
Zn IV	1352.247	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 5/2	C19
Zn IV	1352.876	60		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - x^2F^\circ$	9/2 - 7/2	C19
Zn IV	1353.476	3		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - x^2F^\circ$	7/2 - 7/2	C19
Zn IV	1355.967	40		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	3/2 - 3/2	C19
Zn IV	1356.178	50		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 11/2	C19
Zn IV	1357.787	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	5/2 - 3/2	C19
Zn IV	1358.608	30		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	1/2 - 3/2	C19
Zn IV	1359.460	50		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	5/2 - 5/2	C19
Zn IV	1361.321	50		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2F^\circ$	5/2 - 7/2	C19
Zn IV	1361.979	60b		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2D^\circ$	5/2 - 3/2	C19
Zn IV	1363.413	60b		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2F^\circ$	5/2 - 7/2	C19
Zn IV	1363.913	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	7/2 - 5/2	C19
Zn IV	1365.233	60		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	5/2 - 3/2	C19
Zn IV	1368.135	8		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2D^\circ$	5/2 - 5/2	C19
Zn IV	1369.497	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	7/2 - 9/2	C19
Zn IV	1370.385	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 7/2	C19
Zn IV	1371.176	50		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	3/2 - 1/2	C19
Zn IV	1375.304	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^2G^\circ$	5/2 - 7/2	C19
Zn IV	1375.954	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	3/2 - 3/2	C19
Zn IV	1377.621	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	9/2 - 7/2	C19
Zn IV	1382.035	15		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2F^\circ$	3/2 - 5/2	C19
Zn IV	1384.341	40		$3d^8(^1D)4s - 3d^8(^3P)4p$	$b^2D - z^4P^\circ$	3/2 - 3/2	C19
Zn IV	1385.473	4		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	3/2 - 1/2	C19
Zn IV	1385.908	6		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	3/2 - 3/2	C19
Zn IV	1387.046	50		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	9/2 - 9/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	1387.215	50b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	3/2 - 5/2	C19
Zn IV	1387.695	50		$3d^8(^1G)4s - 3d^8(^1G)4p$	$a^2G - z^2H^\circ$	7/2 - 9/2	C19
Zn IV	1388.258	50		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^4P - y^2F^\circ$	5/2 - 5/2	C19
Zn IV	1391.216	60b		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	5/2 - 5/2	C19
Zn IV	1393.019	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	7/2 - 9/2	C19
Zn IV	1394.509	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 3/2	C19
Zn IV	1400.111	50		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 5/2	C19
Zn IV	1402.097	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	1/2 - 1/2	C19
Zn IV	1402.500	35		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - y^4D^\circ$	1/2 - 3/2	C19
Zn IV	1403.954	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	7/2 - 5/2	C19
Zn IV	1409.370	60		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	7/2 - 7/2	C19
Zn IV	1410.310	25		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	3/2 - 5/2	C19
Zn IV	1411.015	60		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 1/2	C19
Zn IV	1412.996	10		$3d^8(^1G)4s - 3d^8(^3P)4p$	$a^2G - x^2D^\circ$	7/2 - 5/2	C19
Zn IV	1413.867	50		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 1/2	C19
Zn IV	1418.667	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 5/2	C19
Zn IV	1419.572	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4F^\circ$	5/2 - 7/2	C19
Zn IV	1425.002	25b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	3/2 - 3/2	C19
Zn IV	1425.210	50b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 5/2	C19
Zn IV	1427.759	10		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	7/2 - 7/2	C19
Zn IV	1427.879	40		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	1/2 - 3/2	C19
Zn IV	1431.592	8		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^4P - z^4P^\circ$	5/2 - 3/2	C19
Zn IV	1436.577	40		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	3/2 - 3/2	C19
Zn IV	1438.558	15		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^4F - z^4D^\circ$	5/2 - 7/2	C19
Zn IV	1449.496	40		$3d^8(^1G)4s - 3d^8(^3P)4p$	$a^2G - y^4D^\circ$	9/2 - 7/2	C19
Zn IV	1449.832	40b		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - y^2D^\circ$	3/2 - 5/2	C19
Zn IV	1454.465	25		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	1/2 - 3/2	C19
Zn IV	1455.630	30		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	5/2 - 5/2	C19
Zn IV	1459.964	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	7/2 - 9/2	C19
Zn IV	1463.283	30		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	3/2 - 1/2	C19
Zn IV	1465.386	20		$3d^8(^1G)4s - 3d^8(^3P)4p$	$a^2G - y^4D^\circ$	7/2 - 5/2	C19
Zn IV	1472.256	20		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - y^2D^\circ$	3/2 - 3/2	C19
Zn IV	1476.410	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4D^\circ$	7/2 - 5/2	C19
Zn IV	1481.232	30		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4G^\circ$	5/2 - 7/2	C19
Zn IV	1481.837	25		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - z^2P^\circ$	1/2 - 1/2	C19
Zn IV	1493.146	40		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4D^\circ$	5/2 - 3/2	C19
Zn IV	1503.079	30		$3d^8(^3P)4s - 3d^8(^1D)4p$	$a^2P - y^2F^\circ$	3/2 - 5/2	C19
Zn IV	1515.425	15		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2F^\circ$	5/2 - 5/2	C19
Zn IV	1529.833	25		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4D^\circ$	7/2 - 7/2	C19
Zn IV	1531.372	25b		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2D^\circ$	5/2 - 3/2	C19
Zn IV	1533.667	20		$3d^8(^3F)4s - 3d^8(^3F)4p$	$a^2F - z^4D^\circ$	5/2 - 5/2	C19
Zn IV	1535.415	25		$3d^8(^1G)4s - 3d^8(^1D)4p$	$a^2G - y^2D^\circ$	7/2 - 5/2	C19
Zn IV	1539.068	6		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2F^\circ$	3/2 - 5/2	C19
Zn IV	1546.454	20b		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^4P^\circ$	3/2 - 5/2	C19
Zn IV	1553.941	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^4P^\circ$	3/2 - 3/2	C19
Zn IV	1555.431	20		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2D^\circ$	3/2 - 3/2	C19
Zn IV	1557.881	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^4P^\circ$	1/2 - 1/2	C19
Zn IV	1558.971	25		$3d^8(^1G)4s - 3d^8(^1D)4p$	$a^2G - y^2F^\circ$	9/2 - 7/2	C19
Zn IV	1559.709	15b		$3d^8(^1G)4s - 3d^8(^1D)4p$	$a^2G - y^2F^\circ$	7/2 - 7/2	C19
Zn IV	1571.207	5		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2F^\circ$	5/2 - 7/2	C19
Zn IV	1574.833	20		$3d^8(^3P)4s - 3d^8(^3P)4p$	$a^2P - z^4P^\circ$	1/2 - 3/2	C19
Zn IV	1577.504	20		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2D^\circ$	5/2 - 5/2	C19
Zn IV	1587.036	5		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2G^\circ$	5/2 - 7/2	C19
Zn IV	1595.258	30		$3d^8(^1G)4s - 3d^8(^1D)4p$	$a^2G - y^2F^\circ$	7/2 - 5/2	C19
Zn IV	1597.563	50b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2F^\circ$	5/2 - 5/2	C19
Zn IV	1603.088	6		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^2D^\circ$	3/2 - 5/2	C19
Zn IV	1606.907	12		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 3/2	C19
Zn IV	1610.574	3		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2D^\circ$	1/2 - 3/2	C19
Zn IV	1612.688	10b		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4F^\circ$	5/2 - 3/2	C19
Zn IV	1615.345	8		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 3/2	C19
Zn IV	1620.165	40		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4F^\circ$	5/2 - 5/2	C19
Zn IV	1639.318	100b		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4F^\circ$?	3/2 - 3/2	C19
Zn IV	1646.290	8		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4F^\circ$	5/2 - 7/2	C19
Zn IV	1647.161	2		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4F^\circ$	3/2 - 5/2	C19
Zn IV	1657.790	5		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2D^\circ$	3/2 - 5/2	C19

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn IV	1666.760	60		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2D^\circ$	5/2 - 5/2	C19
Zn IV	1677.399	2		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^2G^\circ$	5/2 - 7/2	C19
Zn IV	1700.788	2		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4F^\circ$	1/2 - 3/2	C19
Zn IV	1704.971	10b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4F^\circ$	3/2 - 5/2	C19
Zn IV	1705.997	15b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 3/2	C19
Zn IV	1714.457	15b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 5/2	C19
Zn IV	1729.760	10		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4G^\circ$	5/2 - 7/2	C19
Zn IV	1743.734	15		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4F^\circ$	5/2 - 7/2	C19
Zn IV	1744.502	12		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	3/2 - 1/2	C19
Zn IV	1745.998	25		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	5/2 - 3/2	C19
Zn IV	1751.463	8		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^2P - z^2F^\circ$?	3/2 - 5/2	C19
Zn IV	1772.843	1		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^2P - z^2D^\circ$	3/2 - 3/2	C19
Zn IV	1777.404	40b		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	3/2 - 3/2	C19
Zn IV	1788.015	0		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4G^\circ$	3/2 - 5/2	C19
Zn IV	1800.147	15b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^2P - z^2D^\circ$	1/2 - 3/2	C19
Zn IV	1801.704	80		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	5/2 - 5/2	C19
Zn IV	1809.521	20		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 1/2	C19
Zn IV	1814.222	75		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 1/2	C19
Zn IV	1834.966	30		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^2P - z^2D^\circ$	3/2 - 5/2	C19
Zn IV	1835.124	50		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	3/2 - 5/2	C19
Zn IV	1837.680	1		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4G^\circ$	5/2 - 7/2	C19
Zn IV	1844.909	75		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 3/2	C19
Zn IV	1849.791	75		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	1/2 - 3/2	C19
Zn IV	1856.025	5		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 3/2	C19
Zn IV	1877.976	50		$3d^8(^1G)4s - 3d^8(^3F)4p$	$a^2G - z^2F^\circ$	7/2 - 5/2	C19
Zn IV	1881.861	90		$3d^8(^1D)4s - 3d^8(^3F)4p$	$b^2D - z^4D^\circ$	5/2 - 7/2	C19
Zn IV	1907.168	90		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	3/2 - 5/2	C19
Zn IV	1913.521	1		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^2P - z^4F^\circ$	1/2 - 3/2	C19
Zn IV	1919.019	100b		$3d^8(^3P)4s - 3d^8(^3F)4p$	$a^4P - z^4D^\circ$	5/2 - 5/2	C19
Zn IV	1963.112	60		$3d^8(^1G)4s - 3d^8(^3F)4p$	$a^2G - z^2F^\circ$	9/2 - 7/2	C19
Zn IV	1974.254	15		$3d^8(^1G)4s - 3d^8(^3F)4p$	$a^2G - z^2D^\circ$	7/2 - 5/2	C19
Zn IV	1987.874	35		$3d^8(^1G)4s - 3d^8(^3F)4p$	$a^2G - z^2G^\circ$	9/2 - 7/2	C19
Zn IV	1989.190	10b		$3d^8(^1G)4s - 3d^8(^3F)4p$	$a^2G - z^2G^\circ$	7/2 - 7/2	C19

ZINC V (Zn^{4+}), Z = 30

Ground State $1s^22s^22p^63s^23p^63d^8\ ^3F_4$ (26 electrons)

Ionization Potential [702 000] cm^{-1}; [87] eV

ZINC VI (Zn^{5+}), Z = 30

Ground State $1s^22s^22p^63s^23p^63d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential [919 000] cm^{-1}; [114] eV

ZINC VII (Zn^{6+}), Z = 30
Ground State $1s^22s^22p^63s^23p^63d^6$ $^5D_4$ (24 electrons)
Ionization Potential [1 161 000] cm^{-1}; [144] eV

ZINC VIII (Zn^{7+}), Z = 30
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [1 420 000] cm^{-1}; [176] eV

ZINC IX (Zn^{8+}), Z = 30
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [1 670 000] cm^{-1}; [207] eV

ZINC X (Zn^{9+}), Z = 30
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [2 033 000] cm^{-1}; [241] eV

ZINC XI (Zn^{10+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^2$ $^3F_2$ (20 electrons)

Ionization Potential [2 226 000] cm^{-1}; [276] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XI	74.173	60		$3d^2$ - $3d4f$	g^3F - $^3G°$	2 - 3	E37
Zn XI	74.213	80		$3d^2$ - $3d4f$	g^3F - $^3G°$	3 - 4	E37
Zn XI	74.337	160		$3d^2$ - $3d4f$	g^3F - $^3G°$	4 - 5	E37
Zn XI	74.412	10		$3d^2$ - $3d4f$	g^3F - $^3G°$	4 - 4	E37
Zn XI	74.669	10		$3d^2$ - $3d4f$	g^3F - $^3F°$	2 - 3	E37
Zn XI	74.724	20		$3d^2$ - $3d4f$	g^3F - $^3F°$	2 - 2	E37
Zn XI	74.836	20		$3d^2$ - $3d4f$	g^3F - $^3F°$	3 - 3	E37
Zn XI	74.896	10		$3d^2$ - $3d4f$	g^3F - $^3F°$	3 - 2	E37
Zn XI	74.940	20		$3d^2$ - $3d4f$	g^3F - $^3F°$	4 - 4	E37
Zn XI	75.050	10		$3d^2$ - $3d4f$	g^3F - $^3F°$	4 - 3	E37
Zn XI	75.406	20		$3d^2$ - $3d4f$	^1D - $^1F°$	2 - 3	E37
Zn XI	75.590	120		$3d^2$ - $3d4f$	^1D - $^1D°$	2 - 2	E37
Zn XI	75.635	10		$3d^2$ - $3d4f$	^3P - $^3D°$	0 - 1	E37
Zn XI	75.668	20		$3d^2$ - $3d4f$	^3P - $^3D°$	1 - 2	E37

ZINC XII (Zn^{11+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d$ $^2D_{3/2}$ (19 electrons)

Ionization Potential [2 508 400] cm^{-1}; [311] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XII	54.409	10		$3d$ - $5f$	g^2D - $^2F°$	3/2 - 5/2	E37
Zn XII	54.544	10		$3d$ - $5f$	g^2D - $^2F°$	5/2 - 7/2	E37
Zn XII	68.271	40		$3d$ - $4f$	g^2D - $^2F°$	3/2 - 5/2	E37
Zn XII	68.495	120		$3d$ - $4f$	g^2D - $^2F°$	5/2 - 7/2	E37
Zn XII	126.786	40		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2D°$	3/2 - 3/2	G17
Zn XII	127.346	40		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2P°$	5/2 - 3/2	G17
Zn XII	127.631	40		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2D°$	5/2 - 5/2	G17
Zn XII	128.518	20		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2P°$	3/2 - 1/2	G17
Zn XII	138.448	40		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2F°$	5/2 - 7/2	G17
Zn XII	140.283	40		$3p^6 3d$ - $3p^5 3d^2$	g^2D - $^2F°$	3/2 - 5/2	G17

ZINC XIII (Zn^{12+}), Z = 30

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6$ $^1S_0$ (18 electrons)

Ionization Potential [3 395 700] cm^{-1}; [421] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XIII	60.248	20		$3p^6$ - $3p^5(^2P°)4s$	g^1S - 1/2[1/2]°	0 - 1	E37
Zn XIII	61.356	10		$3p^6$ - $3p^5(^2P°)4s$	g^1S - 3/2[3/2]°	0 - 1	E37
Zn XIII	131.082	40		$3p^6$ - $3p^5(^2P°)3d$	g^1S - $^1P°$	0 - 1	G17

ZINC XIV (Zn^{13+}), Z = 30
Ground State $1s^22s^22p^63s^23p^5$ $^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential [3 661 900] cm^{-1}; [454] eV

ZINC XV (Zn^{14+}), Z = 30
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [3 944 200] cm^{-1}; [489] eV

ZINC XVI (Zn^{15+}), Z = 30
Ground State $1s^22s^22p^63s^23p^3$ $^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [4 323 000] cm^{-1}; [536] eV

ZINC XVII (Zn^{16+}), Z = 30
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [4 637 800] cm^{-1}; [575] eV

ZINC XVIII (Zn^{17+}), Z = 30
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [4 952 400] cm^{-1}; [614] eV

ZINC XIX (Zn^{18+}), Z = 30
Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)
Ionization Potential [5 622 000] cm^{-1}; [697] eV

ZINC XX (Zn^{19+}), Z = 30
Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)
Ionization Potential [5 950 700] cm^{-1}; [738] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XX	26.33	10		3p - 5d	$^2P^\circ$ - ^2D	½ - 3/2	F30
Zn XX	26.62	30		3p - 5d	$^2P^\circ$ - ^2D	3/2 - 5/2	F30
Zn XX	30.08	20		3d - 5f	^2D - $^2F^\circ$	3/2 - 5/2	F30
Zn XX	30.14	30		3d - 5f	^2D - $^2F^\circ$	5/2 - 7/2	F30
Zn XX	34.08	60		3s - 4p	g^2S - $^2P^\circ$	½ - 3/2	F30
Zn XX	34.27	30		3s - 4p	g^2S - $^2P^\circ$	½ - ½	F30
Zn XX	36.20	50		3p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	F30
Zn XX	36.74	70		3p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	F30
Zn XX	42.83	70		3d - 4f	^2D - $^2F^\circ$	3/2 - 5/2	F30
Zn XX	42.93	80		3d - 4f	^2D - $^2F^\circ$	5/2 - 7/2	F30

ZINC XXI (Zn^{20+}), Z = 30
Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)
Ionization Potential 14 969 000 cm^{-1}; 1855.9 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XXI	9.77	1		$2s^22p^6$ - $2s2p^63p$	^1S - $^1P^\circ$	0 - 1	F29
Zn XXI	10.47	60		$2p^6$ - $2p^53d$	^1S - $^1P^\circ$	0 - 1	F29
Zn XXI	10.67	40		$2p^6$ - $2p^53d$	^1S - $^3D^\circ$	0 - 1	F29
Zn XXI	10.80	20		$2p^6$ - $2p^53d$	^1S - $^3P^\circ$	0 - 1	F29
Zn XXI	11.51	40		$2p^6$ - $2p^53s$	^1S - $^1P^\circ$	0 - 1	F29
Zn XXI	11.76	60		$2p^6$ - $2p^53s$	^1S - $^3P^\circ$	0 - 1	F29

ZINC XXII (Zn^{21+}), Z = 30
Ground State $1s^22s^22p^5$ $^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [15 753 000] cm^{-1}; [1953] eV

ZINC XXIII (Zn^{22+}), Z = 30
Ground State $1s^22s^22p^4$ $^3P_2$ (8 electrons)
Ionization Potential [16 696 000] cm^{-1}; [2070] eV

ZINC XXIV (Zn^{23+}), Z = 30
Ground State $1s^22s^22p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [17 874 000] cm^{-1}; [2216] eV

ZINC XXV (Zn^{24+}), Z = 30
Ground State $1s^22s^22p^2$ $^3P_0$ (6 electrons)
Ionization Potential [18 954 000] cm^{-1}; [2350] eV

ZINC XXVI (Zn^{25+}), Z = 30
Ground State $1s^22s^22p$ $^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [19 995 000] cm^{-1}; [2479] eV

ZINC XXVII (Zn^{26+}), Z = 30
Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)
Ionization Potential [21 350 000] cm^{-1}; [2647] eV

ZINC XXVIII (Zn^{27+}), Z = 30
Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [22 423 000] cm^{-1}; [2780] eV

ZINC XXIX (Zn^{28+}), Z = 30
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [95 692 000] cm^{-1}; [11864] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XXIX	1.18			$1s^2 - 1s3p$	$g\,^1S - ^3P^\circ$	0 - 1	C11
Zn XXIX	1.39			$1s^2 - 1s2p$	$g\,^1S - ^3P^\circ$	0 - 1	C11

ZINC XXX (Zn^{29+}), Z = 30
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [99 910 000] cm^{-1}; [12387] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Zn XXX	1.34 P			1s - 2p	$g\,^2S - ^2P^\circ$	½ - 3/2	K8

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GALLIUM I (Ga^{0+}), Z = 31

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p$ $^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential 48 387.63 cm^{-1}; 5.999 eV

GALLIUM II (Ga^{1+}), Z = 31

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2$ $^1S_0$ (30 electrons)

Ionization Potential 165 458 cm^{-1}; 20.51 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ga II	829.60	100	3	$4s^2$ - 4s5p	g^1S - $^1P^\circ$	0 - 1	S4
Ga II	958.67	100		4s4p - 4s7d	$^3P^\circ$ - ^3D	2 - 3	S4
Ga II	960.57	20		4s4p - 4s8s	$^3P^\circ$ - ^3S	1 - 1	S4
Ga II	969.29	100		4s4p - 4s8s	$^3P^\circ$ - ^3S	2 - 1	S4
Ga II	998.52	100		4s4p - 4s6d	$^3P^\circ$ - ^3D	0 - 1	S4
Ga II	1002.95	150		4s4p - 4s6d	$^3P^\circ$ - ^3D	1 - 2	S4
Ga II	1012.32	250		4s4p - 4s6d	$^3P^\circ$ - ^3D	2 - 3	S4
Ga II	1019.10	150	7	4s4p - 4s7s	$^3P^\circ$ - ^3S	0 - 1	S4
Ga II	1023.80	250	7	4s4p - 4s7s	$^3P^\circ$ - ^3S	1 - 1	S4
Ga II	1033.69	400	7	4s4p - 4s7s	$^3P^\circ$ - ^3S	2 - 1	S4
Ga II	1113.78	50		4s4p - 4s5d	$^3P^\circ$ - ^3D	0 - 1	S4
Ga II	1119.20	150		4s4p - 4s5d	$^3P^\circ$ - ^3D	1 - 2	S4
Ga II	1130.81	250		4s4p - 4s5d	$^3P^\circ$ - ^3D	2 - 3	S4
Ga II	1167.62	50	6	4s4p - 4s6s	$^3P^\circ$ - ^3S	0 - 1	S4
Ga II	1173.78	100	6	4s4p - 4s6s	$^3P^\circ$ - ^3S	1 - 1	S4
Ga II	1186.81	150	6	4s4p - 4s6s	$^3P^\circ$ - ^3S	2 - 1	S4
Ga II	1227.10	20		4s4p - 4s8s	$^1P^\circ$ - ^1S	1 - 0	S4
Ga II	1286.38	250		4s4p - 4s7d	$^1P^\circ$ - ^1D	1 - 2	S4
Ga II	1327.81	250		4s4p - 4s7s	$^1P^\circ$ - ^1S	1 - 0	S4
Ga II	1414.44	1000	2	$4s^2$ - 4s4p	g^1S - $^1P^\circ$	0 - 1	S4
Ga II	1449.40	250		4s4p - 4s6d	$^1P^\circ$ - ^1D	1 - 2	S4
Ga II	1463.65	100		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 2	S4
Ga II	1473.73	150		4s4p - $4p^2$	$^3P^\circ$ - ^3P	0 - 1	S4
Ga II	1483.48	150		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 1	S4
Ga II	1483.95	150		4s4p - $4p^2$	$^3P^\circ$ - ^3P	2 - 2	S4
Ga II	1495.11	150		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 0	S4
Ga II	1504.31	150		4s4p - $4p^2$	$^3P^\circ$ - ^3P	2 - 1	S4
Ga II	1505.00	150	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	0 - 1	S4
Ga II	1514.57	250	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	1 - 2	S4
Ga II	1515.15	150	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	1 - 1	S4
Ga II	1535.50	400	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 3	S4
Ga II	1536.31	250	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 2	S4
Ga II	1536.91	50	5	4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 1	S4
Ga II	1669.38	150		4s4p - 4s4d	$^3P^\circ$ - ^1D	1 - 2	S4
Ga II	1695.81	250		4s4p - 4s4d	$^3P^\circ$ - ^1D	2 - 2	S4
Ga II	1770.2	500		4s4p - 4s5d	$^1P^\circ$ - ^1D ?	1 - 2	C3,K8
Ga II	1799.42	250	4	4s4p - 4s5s	$^3P^\circ$ - ^3S	0 - 1	S4
Ga II	1813.98	500	4	4s4p - 4s5s	$^3P^\circ$ - ^3S	1 - 1	S4
Ga II	1845.26	750	4	4s4p - 4s5s	$^3P^\circ$ - ^3S	2 - 1	S4

GALLIUM III (Ga^{2+}), Z = 31

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential 247 700 cm^{-1}; 30.71 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ga III	619.96 P	100		4s - 5p	$g^2S - {}^2P^\circ$	½ - ⅜	L2
Ga III	622.04 P	100		4s - 5p	$g^2S - {}^2P^\circ$	½ - ½	L2
Ga III	1267.25	150		4p - 4d	${}^2P^\circ - {}^2D$	½ - ⅜	L2
Ga III	1293.50	200		4p - 4d	${}^2P^\circ - {}^2D$	⅜ - ⅝	L2
Ga III	1295.45	100		4p - 4d	${}^2P^\circ - {}^2D$	⅜ - ⅜	L2
Ga III	1323.15	300		4p - 5s	${}^2P^\circ - {}^2S$	½ - ½	L2
Ga III	1353.94	400		4p - 5s	${}^2P^\circ - {}^2S$	⅜ - ½	L2
Ga III	1495.10	500		4s - 4p	$g^2S - {}^2P^\circ$	½ - ⅜	L2
Ga III	1534.51	500		4s - 4p	$g^2S - {}^2P^\circ$	½ - ½	L2

GALLIUM IV (Ga^{3+}), Z = 31

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}\ ^1S_0$ (28 electrons)

Ionization Potential 517 600 cm^{-1}; 64.2 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ga IV	422.5	200		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^3D^\circ$	0 - 1	M1
Ga IV	423.6	250		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^1P^\circ$	0 - 1	M1
Ga IV	440.3	50		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^3P^\circ$	0 - 1	M1
Ga IV	1137.1	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1D^\circ$	3 - 2	M1
Ga IV	1156.2	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1D^\circ$	2 - 2	M1
Ga IV	1163.6	150		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	2 - 1	M1
Ga IV	1170.6	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1F^\circ$	3 - 3	M1
Ga IV	1171.7	20		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1P^\circ$	2 - 1	M1
Ga IV	1185.3	400		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1D^\circ$	1 - 2	M1
Ga IV	1186.0	20		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	3 - 2	M1
Ga IV	1190.9	450		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1F^\circ$	2 - 3	M1
Ga IV	1193.0	450		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	1 - 1	M1
Ga IV	1195.1	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	3 - 3	M1
Ga IV	1201.6	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^1P^\circ$	1 - 1	M1
Ga IV	1206.9	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	2 - 2	M1
Ga IV	1216.2	0		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	2 - 3	M1
Ga IV	1228.0	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^1D^\circ$	2 - 2	M1
Ga IV	1236.4	150		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^3D^\circ$	2 - 1	M1
Ga IV	1238.6	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3D^\circ$	1 - 2	M1
Ga IV	1241.7	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	3 - 2	M1
Ga IV	1245.5	600		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^1P^\circ$	2 - 1	M1
Ga IV	1258.7	750		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	3 - 4	M1
Ga IV	1264.6	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	2 - 2	M1
Ga IV	1267.2	900		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^1F^\circ$	2 - 3	M1
Ga IV	1279.2	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	3 - 3	M1
Ga IV	1285.3	600		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^3D^\circ$	2 - 2	M1
Ga IV	1295.9	750		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^3D^\circ$	2 - 3	M1
Ga IV	1299.5	750		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	1 - 2	M1
Ga IV	1303.5	750		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3F^\circ$	2 - 3	M1
Ga IV	1309.6	500		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3P^\circ$	2 - 1	M1
Ga IV	1314.8	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3P^\circ$	1 - 0	M1
Ga IV	1338.1	750		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3P^\circ$	3 - 2	M1
Ga IV	1347.0	150		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3P^\circ$	1 - 1	M1
Ga IV	1351.0	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^1D - {}^3F^\circ$	2 - 2	M1
Ga IV	1364.7	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	${}^3D - {}^3P^\circ$	2 - 2	M1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ga IV	1395.5	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3F^\circ$	2 - 3	M1
Ga IV	1402.5	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 1	M1
Ga IV	1405.4	20		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 2	M1
Ga IV	1465.9	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 2	M1

GALLIUM V (Ga^{4+}), Z = 31

Ground State $1s^22s^22p^63s^23p^63d^9\ ^2D_{5/2}$ (27 electrons)

Ionization Potential [726 000] cm^{-1}; [90] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ga V	296.75	100		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 5/2	K16
Ga V	298.36	1000		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	K16
Ga V	299.41	800		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	5/2 - 3/2	K16
Ga V	299.95	900		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	K16
Ga V	300.51	900		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	5/2 - 3/2	K16
Ga V	300.73	200		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	5/2 - 5/2	K16
Ga V	301.15	800		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 1/2	K16
Ga V	302.65	10		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 3/2	K16
Ga V	303.81	800		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	3/2 - 3/2	K16
Ga V	304.01	10		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	3/2 - 5/2	K16
Ga V	306.20	100		$3d^9 - 3d^8(^1D)4p$	$a^2D - z^2P^\circ$	5/2 - 3/2	K16
Ga V	306.99	1000		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 5/2	K16
Ga V	308.24	700		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2F^\circ$	5/2 - 7/2	K16
Ga V	308.32	200		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 3/2	K16
Ga V	309.61	200		$3d^9 - 3d^8(^1D)4p$	$a^2D - z^2P^\circ$	3/2 - 3/2	K16
Ga V	310.42	10		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	3/2 - 5/2	K16
Ga V	311.77	800		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	3/2 - 3/2	K16
Ga V	312.39	400		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 5/2	K16
Ga V	312.91	10		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 3/2	K16
Ga V	313.66	300		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2F^\circ$	3/2 - 5/2	K16
Ga V	315.94	100		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	3/2 - 5/2	K16
Ga V	316.47	200		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	3/2 - 3/2	K16
Ga V	319.40	800		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 5/2	K16
Ga V	320.53	100		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 3/2	K16
Ga V	322.30	600		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	K16
Ga V	322.92	300		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2G^\circ$	5/2 - 7/2	K16
Ga V	322.98	800		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	K16
Ga V	323.10	300		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	K16
Ga V	324.24	500		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 3/2	K16
Ga V	324.94	500		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$	5/2 - 5/2	K16
Ga V	326.13	400		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$	5/2 - 7/2	K16
Ga V	326.76	400		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 5/2	K16
Ga V	328.64	300		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$	3/2 - 3/2	K16

GALLIUM VI (Ga^{5+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^8$ $^3F_4$ (26 electrons)
Ionization Potential [944 000] cm^{-1}; [117] eV

GALLIUM VII (Ga^{6+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^7$ $^4F_{9/2}$ (25 electrons)
Ionization Potential [1 186 000] cm^{-1}; [147] eV

GALLIUM VIII (Ga^{7+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^6$ $^5D_4$ (24 electrons)
Ionization Potential [1 444 000] cm^{-1}; [179] eV

GALLIUM IX (Ga^{8+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [1 726 000] cm^{-1}; [214] eV

GALLIUM X (Ga^{9+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [2 000 000] cm^{-1}; [248] eV

GALLIUM XI (Ga^{10+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [2 420 000] cm^{-1}; [284] eV

GALLIUM XII (Ga^{11+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [2 589 000] cm^{-1}; [321] eV

GALLIUM XIII (Ga^{12+}), Z = 31
Ground State $1s^22s^22p^63s^23p^63d$ $^2D_{3/2}$ (19 electrons)
Ionization Potential [2 887 500] cm^{-1}; [358] eV

GALLIUM XIV (Ga^{13+}), Z = 31
Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)
Ionization Potential [3 831 300] cm^{-1}; [475] eV

GALLIUM XV (Ga^{14+}), Z = 31
Ground State $1s^22s^22p^63s^23p^5$ $^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential [4 113 600] cm^{-1}; [510] eV

GALLIUM XVI (Ga^{15+}), Z = 31
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [4 404 000] cm^{-1}; [546] eV

GALLIUM XVII (Ga^{16+}), Z = 31
Ground State $1s^22s^22p^63s^23p^3$ $^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [4 807 000] cm^{-1}; [596] eV

GALLIUM XVIII (Ga^{17+}), Z = 31
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [5 137 900] cm^{-1}; [637] eV

GALLIUM XIX (Ga^{18+}), Z = 31
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [5 460 600] cm^{-1}; [677] eV

GALLIUM XX (Ga^{19+}), Z = 31
Ground State $1s^22s^22p^63s^2$ $^1S_0$ (12 electrons)
Ionization Potential [6 170 000] cm^{-1}; [765] eV

GALLIUM XXI (Ga^{20+}), Z = 31
Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)
Ionization Potential [6 517 100] cm^{-1}; [808] eV

GALLIUM XXII (Ga^{21+}), Z = 31
Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)
Ionization Potential [16 293 000] cm^{-1}; [2020] eV

GALLIUM XXIII (Ga^{22+}), Z = 31
Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [17 100 000] cm^{-1}; [2120] eV

GALLIUM XXIV (Ga^{23+}), Z = 31
Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)
Ionization Potential [18 083 000] cm^{-1}; [2242] eV

GALLIUM XXV (Ga^{24+}), Z = 31
Ground State $1s^22s^22p^3\ ^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [19 301 000] cm^{-1}; [2393] eV

GALLIUM XXVI (Ga^{25+}), Z = 31
Ground State $1s^2 2s^2 2p^2\ ^3P_0$ (6 electrons)
Ionization Potential [20 431 000] cm^{-1}; [2533] eV

GALLIUM XXVII (Ga^{26+}), Z = 31
Ground State $1s^2 2s^2 2p\ ^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [21 519 000] cm^{-1}; [2668] eV

GALLIUM XXVIII (Ga^{27+}), Z = 31
Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)
Ionization Potential [22 901 000] cm^{-1}; [2840] eV

GALLIUM XXIX (Ga^{28+}), Z = 31
Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [24 052 000] cm^{-1}; [2982] eV

GALLIUM XXX (Ga^{29+}), Z = 31
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [102 395 000] cm^{-1}; [12695] eV

GALLIUM XXXI (Ga^{30+}), Z = 31
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential [106 774 000] cm^{-1}; [13238] eV

GERMANIUM I (Ge^{0+}), Z = 32

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^2$ $^3P_0$ (32 electrons)

Ionization Potential 63 715 cm^{-1}; 7.899 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge I?	1546.234						A6
Ge I?	1546.581						A6
Ge I?	1546.883						A6
Ge I?	1547.069						A6
Ge I?	1547.412						A6
Ge I?	1579.405						A6
Ge I	1579.899			$4p^2$ - 4p8d	g^3P - $^1P°$	0 - 1	A6
Ge I	1580.989			$4p^2$ - 4p8d	g^3P - $^3P°$	0 - 1	A6
Ge I?	1587.63						A6
Ge I	1591.07			$4p^2$ - 4p8d	g^3P - $^3P°$	1 - 2	A6
Ge I?	1591.87						A6
Ge I?	1591.98						A6
Ge I	1592.842			$4p^2$ - 4p8d	g^3P - $^3F°$	1 - 2	A6
Ge I	1593.950			$4p^2$ - 4p8d	g^3P - $^1P°$	1 - 1	A6
Ge I	1595.046			$4p^2$ - 4p8d	g^3P - $^3P°$	1 - 1	A6
Ge I	1596.443			$4p^2$ - 4p11d	g^3P - $^3D°$	0 - 1	A6
Ge I?	1596.711						A6
Ge I	1598.020			$4p^2$ - 4p9s	g^3P - $^1P°$	0 - 1	A6
Ge I	1600.824			$4p^2$ - 4p10d	g^3P - $^3D°$	0 - 1	A6
Ge I?	1604.28						A6
Ge I?	1608.500						A6
Ge I	1610.774			$4p^2$ - 4p11d	g^3P - $^3D°$	1 - 1	A6
Ge I	1610.866			$4p^2$ - 4p11d	g^3P - $^3D°$	1 - 2	A6
Ge I	1612.974			$4p^2$ - 4p8d	g^3P - $^3P°$	2 - 2	A6
Ge I	1613.557			$4p^2$ - 4p9s	g^3P - $^3P°$	1 - 2	A6
Ge I?	1613.818						A6
Ge I	1614.792			$4p^2$ - 4p8d	g^3P - $^3F°$	2 - 2	A6
Ge I	1615.234			$4p^2$ - 4p10d	g^3P - $^3D°$	1 - 1	A6
Ge I	1615.571	3		$4p^2$ - 4p10d	g^3P - $^3D°$	1 - 2	A6
Ge I	1615.715	2		$4p^2$ - 4p10s	g^3P - $^3P°$	2 - 2	A6
Ge I?	1616.509						A6
Ge I?	1617.29						A6
Ge I	1624.1300 st	2		$4p^2$ - 4p8d	g^3P - $^3D°$	0 - 1	K5
Ge I	1624.78			$4p^2$ - 4p10s	g^3P - $^3P°$	0 - 1	A6
Ge I	1625.46			$4p^2$ - 4p9d	g^3P - $^3D°$?	1 - 1	A6
Ge I	1629.600			$4p^2$ - 4p7d	g^3P - $^3P°$	0 - 1	A6
Ge I	1630.1733 st	2		$4p^2$ - 4p8s	g^3P - $^1P°$	0 - 1	K5,K3
Ge I	1633.312			$4p^2$ - 4p11d	g^3P - $^3D°$	2 - 2	A6
Ge I	1633.468	2		$4p^2$ - 4p11d	g^3P - $^3D°$?	2 - 3	W10,A6
Ge I	1635.2590 st	2		$4p^2$ - 4p7d	g^3P - $^3D°$	0 - 1	K5,A6
Ge I	1636.062			$4p^2$ - 4p9s	g^3P - $^3P°$	2 - 2	A6
Ge I	1636.312	5		$4p^2$ - 4p10d	g^3P - $^3D°$	2 - 3	A6
Ge I	1637.74			$4p^2$ - 4p10d	g^3P - $^3D°$	2 - 1	A6
Ge I	1638.138			$4p^2$ - 4p10d	g^3P - $^3D°$	2 - 2	A6
Ge I	1638.958	3		$4p^2$ - 4p8d	g^3P - $^3D°$	1 - 1	A6
Ge I	1639.641	2		$4p^2$ - 4p10s	g^3P - $^3P°$	1 - 1	A6
Ge I	1639.7300 st	6		$4p^2$ - 4p8d	g^3P - $^3D°$	1 - 2	K5,A6
Ge I	1640.394			$4p^2$ - 4p7d	g^3P - $^1F°$	2 - 3	A6
Ge I	1643.1931 st	4		$4p^2$ - 4p9s	g^3P - $^3P°$	0 - 1	K5,K3
Ge I	1644.52			$4p^2$ - 4p7d	g^3P - $^3P°$	1 - 1	A6
Ge I	1645.1146 st	1		$4p^2$ - 4p8s	g^3P - $^1P°$	1 - 1	K5,K3
Ge I	1647.1222 st	2		$4p^2$ - 4p7d	g^3P - $^3D°$	1 - 2	K5,K3
Ge I	1647.5310 st	3		$4p^2$ - 4p8s	g^3P - $^3P°$	1 - 2	K5,K3
Ge I	1650.2945 st	4		$4p^2$ - 4p7d	g^3P - $^3D°$	1 - 1	K5,A6
Ge I	1651.5288 st	3		$4p^2$ - 4p6d	g^3P - $^3P°$	0 - 1	K5,K3
Ge I	1651.9547 st	6		$4p^2$ - 4p7d	g^3P - $^1D°$	1 - 2	K5,K3
Ge I	1652.347	1		$4p^2$ - 4p7d	g^3P - $^3F°$	2 - 3	A6
Ge I	1658.3752 st	3		$4p^2$ - 4p9s	g^3P - $^3P°$	1 - 1	K5,K3
Ge I	1660.7956 st	2		$4p^2$ - 4p9s	g^3P - $^3P°$	1 - 0	K5,K3
Ge I	1661.3453 st	5		$4p^2$ - 4p6d	g^3P - $^1P°$	1 - 1	K5,K3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge I	1662.9860 st	3		$4p^2 - 4p8d$	$g^3P - {}^3D^\circ$	2 - 2	K5,A6
Ge I	1663.5393 st	10		$4p^2 - 4p8d$	$g^3P - {}^3D^\circ$	2 - 3	K5,A6
Ge I	1665.2751 st	5		$4p^2 - 4p6d$	$g^3P - {}^3P^\circ$	1 - 0	K5,K3
Ge I	1667.8015 st	6		$4p^2 - 4p6d$	$g^3P - {}^3P^\circ$	1 - 2	K5,K3
Ge I	1670.6085 st	9		$4p^2 - 4p7d$	$g^3P - {}^3D^\circ$	2 - 3	K5,K3
Ge I	1670.9490 st	2		$4p^2 - 4p6d$	$g^3P - {}^3F^\circ$	1 - 2	K5,K3
Ge I	1671.0096 st	3		$4p^2 - 4p8s$	$g^3P - {}^3P^\circ$	2 - 2	K5,K3
Ge I	1673.850	1		$4p^2 - 4p7d$	$g^3P - {}^3D^\circ$	2 - 1	A6
Ge I	1674.2703 st	9		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	0 - 1	K5,K3
Ge I	1675.5605 st	7		$4p^2 - 4p7d$	$g^3P - {}^1D^\circ$	2 - 2	K5,K3
Ge I	1679.9868 st	2		$4p^2 - 4p8s$	$g^3P - {}^3P^\circ$	0 - 1	K5,K3
Ge I	1681.3426 st	7		$4p^2 - 4p6d$	$g^3P - {}^1F^\circ$	2 - 3	K5,K3
Ge I	1685.2221 st	3		$4p^2 - 4p6d$	$g^3P - {}^1P^\circ$	2 - 1	K5,K3
Ge I	1690.0349 st	10		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	1 - 1	K5,K3
Ge I	1690.9030 st	4		$4p^2 - 4p6d$	$g^3P - {}^3P^\circ$	2 - 1	K5,K3
Ge I	1691.0897 st	20		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	1 - 2	K5,K3
Ge I	1691.6254 st	7		$4p^2 - 4p7s$	$g^3P - {}^1P^\circ$	0 - 1	K5,K3
Ge I	1691.8656 st	7		$4p^2 - 4p6d$	$g^3P - {}^3P^\circ$	2 - 2	K5,K3
Ge I	1694.3424 st	4		$4p^2 - 4p6d$	$g^3P - {}^3F^\circ$	2 - 3	K5,K3
Ge I	1695.8597 st	8		$4p^2 - 4p8s$	$g^3P - {}^3P^\circ$	1 - 1	K5,K3
Ge I	1696.7160 st	8		$4p^2 - 4p8s$	$g^3P - {}^3P^\circ$	1 - 0	K5,K3
Ge I	1702.3873 st	4		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	0 - 1	K5,K3
Ge I	1713.0806 st	10		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	1 - 2	K5,K3
Ge I	1714.7497 st	1		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 1	K5,K3
Ge I	1715.8355 st	15		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 2	K5,K3
Ge I	1716.7844 st	40		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 3	K5,K3
Ge I	1718.4933 st	6		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	1 - 2	K5,K3
Ge I	1718.6883 st	10		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	1 - 1	K5,K3
Ge I	1720.7464 st	8		$4p^2 - 4p8s$	$g^3P - {}^3P^\circ$	2 - 1	K5,K3
Ge I	1724.3082 st	10		$4p^2 - 4p6d$	$g^3P - {}^1D^\circ$	1 - 2	K5,K3
Ge I	1732.9586 st	2		$4p^2 - 4p7s$	$g^3P - {}^1P^\circ$	2 - 1	K5,K3
Ge I	1738.1185 st	15		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	2 - 3	K5,K3
Ge I	1738.4791 st	30		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	2 - 2	K5,K3
Ge I	1739.1024 st	25		$4p^2 - 4p5d$	$g^3P - {}^1P^\circ$	1 - 1	K5,K3
Ge I	1742.1951 st	25		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	0 - 1	K5,K3
Ge I	1744.0537 st	15		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	2 - 2	K5,K3
Ge I	1744.2546 st	15		$4p^2 - 4p6d$	$g^3P - {}^3D^\circ$	2 - 1	K5,K3
Ge I	1746.0651 st	30		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	1 - 0	K5,A6
Ge I	1748.8572 st	20		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	0 - 1	K5,K3
Ge I	1750.0432 st	30		$4p^2 - 4p6d$	$g^3P - {}^1D^\circ$	2 - 2	K5,K3
Ge I	1758.2792 st	40		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	1 - 2	K5,K3
Ge I	1759.2712 st	15		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	1 - 1	K5,K3
Ge I	1764.1852 st	30		$4p^2 - 4p5d$	$g^3P - {}^1F^\circ$	2 - 3	K5,K3
Ge I	1765.2843 st	30		$4p^2 - 4p5d$	$g^3P - {}^1P^\circ$	2 - 1	K5,K3
Ge I	1766.0648 st	25		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	1 - 1	K5,K3
Ge I	1766.4330 st	30		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	1 - 0	K5,K3
Ge I	1774.1755 st	40		$4p^2 - 4p5d$	$g^3P - {}^3F^\circ$	1 - 2	K5,K3
Ge I	1779.15	15		$4p^2 - 4p10s$	${}^1D - {}^1P^\circ$	2 - 1	A6
Ge I	1785.0460 st	50		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	2 - 2	K5,K3
Ge I	1786.0686 st	40		$4p^2 - 4p5d$	$g^3P - {}^3P^\circ$	2 - 1	K5,K3
Ge I	1793.0711 st	40		$4p^2 - 4p7s$	$g^3P - {}^3P^\circ$	2 - 1	K5,K3
Ge I	1801.4323 st	50		$4p^2 - 4p5d$	$g^3P - {}^3F^\circ$	2 - 2	K5,K3
Ge I	1802.6246 st	40	7	$4p^2 - 4p5d$	$g^3P - {}^3D^\circ$	0 - 1	K5,K3
Ge I	1804.4523 st	50		$4p^2 - 4p5d$	$g^3P - {}^3F^\circ$	2 - 3	K5,K3
Ge I	1805.135	15		$4p^2 - 4p10d$	${}^1D - {}^3D^\circ$	2 - 3	A6
Ge I	1810.1006 st	4		$4p^2 - 4p7d$	${}^1D - {}^1F^\circ$	2 - 3	K5,A6
Ge I	1813.9087 st	15		$4p^2 - 4p5d$	$g^3P - {}^3D^\circ$	1 - 2	K5,K3
Ge I	1824.3023 st	70	7	$4p^2 - 4p5d$	$g^3P - {}^1D^\circ$	1 - 2	K5,K3
Ge I	1836.649	2		$4p^2 - 4p8d$	${}^1D - {}^3D^\circ$	2 - 1	A6
Ge I	1837.583	2		$4p^2 - 4p8d$	${}^1D - {}^3D^\circ$?	2 - 2	A6
Ge I	1838.321	2		$4p^2 - 4p8d$	${}^1D - {}^3D^\circ$	2 - 3	A6
Ge I	1841.3275 st	70		$4p^2 - 4p5d$	$g^3P - {}^3D^\circ$	2 - 3	K5,K3
Ge I	1842.4098 st	70	7	$4p^2 - 4p5d$	$g^3P - {}^3D^\circ$	2 - 2	K5,K3
Ge I	1844.4102 st	15		$4p^2 - 4p8s$	${}^1D - {}^1P^\circ$	2 - 1	K5,K3
Ge I	1845.8723 st	70		$4p^2 - 4p6s$	$g^3P - {}^1P^\circ$	0 - 1	K5,K3

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge I	1846.9578 st	20	20	$4p^2 - 4p7d$	$^1D - ^3D^\circ$	2 - 3	K5,K3
Ge I	1849.6354 st	20		$4p^2 - 4p5d$	$g^3P - ^3D^\circ$	2 - 1	K5,K3
Ge I	1853.1336 st	80		$4p^2 - 4p5d$	$g^3P - ^1D^\circ$	2 - 2	K5,K3
Ge I	1860.0865 st	50	19	$4p^2 - 4p6d$	$^1D - ^1F^\circ$	2 - 3	K5,K3
Ge I	1861.0945 st	9		$4p^2 - 4p9s$	$^1D - ^3P^\circ$	2 - 1	K5,K3
Ge I	1865.0525 st	70		$4p^2 - 4p6s$	$g^3P - ^1P^\circ$	1 - 1	K5,K3
Ge I	1872.9745 st	6		$4p^2 - 4p6d$	$^1D - ^3P^\circ$	2 - 2	K5,K3
Ge I	1874.2565 st	200	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	1 - 2	K5,K3
Ge I	1876.0104 st	10		$4p^2 - 4p6d$	$^1D - ^3F^\circ$	2 - 3	K5,K3
Ge I	1881.6470 st	8		$4s^24p^2 - 4s4p^3$	$^1D - ^3S^\circ$	2 - 1	K5,K3
Ge I	1895.1968 st	100		$4p^2 - 4p6s$	$g^3P - ^1P^\circ$	2 - 1	K5,K3
Ge I	1901.0607 st	8		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 1	K5,K3
Ge I	1902.3955 st	2		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 2	K5,K3
Ge I	1903.5620 st	10		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 3	K5,K3
Ge I	1904.7015 st	400	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	2 - 2	K5,K3
Ge I	1908.4342 st	50		$4p^2 - 4p8s$	$^1D - ^3P^\circ$	2 - 1	K5,K3
Ge I	1912.4087 st	100	1	$4p^2 - 4p4d$	$g^3P - ^1P^\circ$	1 - 1	K5,K3
Ge I	1917.5924 st	200	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	0 - 1	K5,K3
Ge I	1923.4674 st	100	18	$4p^2 - 4p7s$	$^1D - ^1P^\circ$	2 - 1	K5,K3
Ge I	1929.8262 st	400	17	$4p^2 - 4p6d$	$^1D - ^3D^\circ$	2 - 3	K5,K3
Ge I	1930.2707 st	8		$4p^2 - 4p7s$	$^1D - ^3P^\circ$	2 - 2	K5,K3
Ge I	1934.0482 st	100	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	0 - 1	K5,K3
Ge I	1937.1456 st	8		$4p^2 - 4p6d$	$^1D - ^3D^\circ$	2 - 2	K5,K3
Ge I	1937.4825 st	300	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	1 - 0	K5,K3
Ge I	1938.3003 st	300	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	1 - 1	K5,K3
Ge I	1944.1163 st	150		$4p^2 - 4p4d$	$g^3P - ^1P^\circ$	2 - 1	K5,K3
Ge I	1944.7313 st	300	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 0	K5,K3
Ge I	1953.8018 st	100		$4p^2 - 4p4d$	$g^3P - ^1F^\circ$	2 - 3	K5,K3
Ge I	1955.1150 st	200	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 1	K5,K3
Ge I	1962.0133 st	500	16	$4p^2 - 4p5d$	$^1D - ^1F^\circ$	2 - 3	K5,K3
Ge I	1963.3728 st	100		$4p^2 - 4p5d$	$^1D - ^1P^\circ$	2 - 1	K5,K3
Ge I	1965.3830 st	200	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 2	K5,K3
Ge I	1970.8796 st	500	6	$4p^2 - 4p6s$	$g^3P - ^3P^\circ$	2 - 1	K5,K3
Ge I	1987.8492 st	300		$4p^2 - 4p5d$	$^1D - ^3P^\circ$	2 - 2	K5,K3
Ge I	1988.2668 st	600	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 1	K5,K3
Ge I	1989.1174 st	100		$4p^2 - 4p5d$	$^1D - ^3P^\circ$	2 - 1	K5,K3
Ge I	1997.8064 st	150		$4p^2 - 4p7s$	$^1D - ^3P^\circ$	2 - 1	K5,K3
Ge I	1998.8869 st	1000	5	$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 2	K5,K3

GERMANIUM II (Ge^{1+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p\ ^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential 128 521.3 cm^{-1}; 15.934 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge II	710.487	5h		$4s^24p - 4s4p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	½ - 3/2	S15
Ge II	714.206	2h		$4s^24p - 4s4p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	½ - ½	S15
Ge II	719.487	5h		$4s^24p - 4s4p(^3P^\circ)5p$	$g^2P^\circ - ^2P$	3/2 - 3/2	S15
Ge II	822.968	0		$4p - 9d$	$g^2P^\circ - ^2D$	½ - 3/2	S15
Ge II	828.67	1					S15
Ge II	829.91	3					S15
Ge II	835.083	2		$4p - 9d$	$g^2P^\circ - ^2D$	3/2 - 5/2	S15
Ge II	837.60	0h					S15
Ge II	837.947	20h		$4p - 8d$	$g^2P^\circ - ^2D$	½ - 3/2	S15
Ge II	838.91	2h		$4p - 10s$	$g^2P^\circ - ^2S$?	3/2 - ½	S15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge II	843.7165 st	5h		4p - 9s	$g^2P^\circ - {}^2S$	1/2 - 1/2	K7,S15
Ge II	850.495	15h		4p - 8d	$g^2P^\circ - {}^2D$	3/2 - 5/2	S15
Ge II	856.4880 st	10h		4p - 9s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K7,S15
Ge II	861.68	10f		4p - 6f	$g^2P^\circ - {}^2F^\circ$	1/2 - 5/2	S15
Ge II	862.2339 st	50h	9	4p - 7d	$g^2P^\circ - {}^2D$	1/2 - 3/2	K7,S15
Ge II	872.3075 st	10		4p - 8s	$g^2P^\circ - {}^2S$	1/2 - 1/2	K7,S15
Ge II	874.99	10f		4p - 6f	$g^2P^\circ - {}^2F^\circ$	3/2 - 5/2	S15
Ge II	875.4927 st	100h	9	4p - 7d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K7,S15
Ge II	875.5766 st	10	9	4p - 7d	$g^2P^\circ - {}^2D$	3/2 - 3/2	K7,W10
Ge II	885.9663 st	20		4p - 8s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K7,S15
Ge II	899.649	5		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 4^\circ$	3/2 - 3/2	S15
Ge II	900.618	10		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 3^\circ$	3/2 - 5/2	S15
Ge II	904.90	2f		4p - 5f	$g^2P^\circ - {}^2F^\circ$	1/2 - 5/2	S15
Ge II	905.9771 st	200h	8	4p - 6d	$g^2P^\circ - {}^2D$	1/2 - 3/2	K7,S15
Ge II	908.50	10h		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 1^\circ$	1/2 - 3/2	S15
Ge II	909.050	5					S15
Ge II	909.432	3		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 3^\circ$	5/2 - 5/2	S15
Ge II	911.258	15h		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 2^\circ$	5/2 - 7/2	S15
Ge II	914.444	2		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^4P - 1^\circ$	3/2 - 1/2	S15
Ge II	919.57	15f		4p - 5f	$g^2P^\circ - {}^2F^\circ$	3/2 - 5/2	S15
Ge II	920.5537 st	400h	8	4p - 6d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K7,S15
Ge II	920.7195 st			4p - 6d	$g^2P^\circ - {}^2D$	3/2 - 3/2	K7,K8
Ge II	926.4736 st	20		4p - 7s	$g^2P^\circ - {}^2S$	1/2 - 1/2	K7,S15
Ge II	926.93	2					S15
Ge II	931.32	3					S15
Ge II	940.04	1					S15
Ge II	941.8962 st	50		4p - 7s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K7,S15
Ge II	942.845	8		$4s4p^2 - 4s4p(^3P^\circ)6s$	${}^4P - {}^4P^\circ$	3/2 - 5/2	S15
Ge II	943.75	1					S15
Ge II	952.500	20		$4s4p^2 - 4s4p(^3P^\circ)6s$	${}^4P - {}^4P^\circ$	5/2 - 5/2	S15
Ge II	955.96	0		$4s4p^2 - 4s4p(^3P^\circ)6s$	${}^4P - {}^4P^\circ$	1/2 - 1/2	S15
Ge II	962.537	5		$4s4p^2 - 4s4p(^3P^\circ)6s$	${}^4P - {}^4P^\circ$	3/2 - 1/2	S15
Ge II	965.48	3h		$4s4p^2 - 4s4p(^3P^\circ)6s$	${}^4P - {}^4P^\circ$	5/2 - 3/2	S15
Ge II	999.1011 st	500	7	4p - 5d	$g^2P^\circ - {}^2D$	1/2 - 3/2	K7,S15
Ge II	1014.66	10f		4p - 4f	$g^2P^\circ - {}^2F^\circ$	3/2 - 5/2	S15
Ge II	1016.6377 st	500	7	4p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	K7,S15
Ge II	1017.0600 st	300	7	4p - 5d	$g^2P^\circ - {}^2D$	3/2 - 3/2	K7,S15
Ge II	1044.24	20h		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^2D - {}^2D^\circ$	5/2 - 5/2	S15
Ge II	1046.05	2h		$4s4p^2 - 4s4p(^3P^\circ)5d$	${}^2D - {}^2D^\circ$	3/2 - 3/2	S15
Ge II	1046.88	5h					S15
Ge II	1055.0261 st	100	6	4p - 6s	$g^2P^\circ - {}^2S$	1/2 - 1/2	K7,S15
Ge II	1075.0720 st	300	6	4p - 6s	$g^2P^\circ - {}^2S$	3/2 - 1/2	K7,S15
Ge II	1085.513	100	5	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	1/2 - 3/2	S15
Ge II	1093.01	1h					S15
Ge II	1098.08	2h		$4s4p^2 - 4p^3$	${}^2D - {}^2P^\circ$	3/2 - 1/2	S15
Ge II	1098.710	200	5	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	1/2 - 1/2	S15
Ge II	1100.98	10h		$4s4p^2 - 4p^3$	${}^2D - {}^2P^\circ$	5/2 - 3/2	S15
Ge II	1106.737	200	5	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	S15
Ge II	1120.458	200	5	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	3/2 - 1/2	S15
Ge II	1127.48	5h		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^2P^\circ$	3/2 - 3/2	S15
Ge II	1134.02	20h		$4s4p^2 - 4p^3$	${}^4P - {}^4S^\circ$	1/2 - 3/2	S15
Ge II	1141.36	10h		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^2P^\circ$	5/2 - 3/2	S15
Ge II	1143.25	40h		$4s4p^2 - 4p^3$	${}^4P - {}^4S^\circ$	3/2 - 3/2	S15
Ge II	1146.972	3		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	1/2 - 1/2	S15
Ge II	1149.547	20		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	1/2 - 3/2	S15
Ge II	1156.462	20		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	3/2 - 1/2	S15
Ge II	1157.50	50h		$4s4p^2 - 4p^3$	${}^4P - {}^4S^\circ$	5/2 - 3/2	S15
Ge II	1159.066	50		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	3/2 - 3/2	S15
Ge II	1164.273	100		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2S$	1/2 - 1/2	S15
Ge II	1173.707	75		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	5/2 - 3/2	S15
Ge II	1178.957	100		$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4P^\circ$	5/2 - 5/2	S15
Ge II	1180.10	1h					S15
Ge II	1181.194	150	11	$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4D^\circ$	1/2 - 3/2	S15
Ge II	1181.650	150	11	$4s4p^2 - 4s4p(^3P^\circ)4d$	${}^4P - {}^4D^\circ$	1/2 - 1/2	S15
Ge II	1185.154	3		$4s4p^2 - 4p^3$	${}^2D - {}^2D^\circ$	3/2 - 5/2	S15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge II	1187.323	50		$4s4p^2 - 4p^3$	$^2D - ^2D°$	3/2 - 3/2	S15
Ge II	1187.539	50		$4s4p^2 - 4p^3$	$^2D - ^2D°$	5/2 - 5/2	S15
Ge II	1188.732	200		$4s^24p - 4s4p^2$	$g^2P° - ^2S$	3/2 - 1/2	S15
Ge II	1189.623	150	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	3/2 - 5/2	S15
Ge II	1191.264	100	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	3/2 - 3/2	S15
Ge II	1191.719	15	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	3/2 - 1/2	S15
Ge II	1194.787	500	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	5/2 - 7/2	S15
Ge II	1205.049	15	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	5/2 - 5/2	S15
Ge II	1206.725	3	11	$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4D°$	5/2 - 3/2	S15
Ge II	1237.0589 st	500	4	4p - 4d	$g^2P° - ^2D$	1/2 - 3/2	K7,S15
Ge II	1261.9053 st	1000	4	4p - 4d	$g^2P° - ^2D$	3/2 - 5/2	K7,S15
Ge II	1264.7096 st	300	4	4p - 4d	$g^2P° - ^2D$	3/2 - 3/2	K7,S15
Ge II	1268.444	2		$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4F°$	1/2 - 3/2	S15
Ge II	1274.100	5		$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4F°$	3/2 - 5/2	S15
Ge II	1280.050	2		$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4F°$	3/2 - 3/2	S15
Ge II	1282.345	15		$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4F°$	5/2 - 7/2	S15
Ge II	1290.07	100h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1291.82	2		$4s4p^2 - 4s4p(^3P°)4d$	$^4P - ^4F°$	5/2 - 5/2	S15
Ge II	1311.249	50h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2F°$	3/2 - 5/2	S15
Ge II	1314.15	10h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2F°$	5/2 - 5/2	S15
Ge II	1319.3	10h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2P°$	5/2 - 3/2	S15
Ge II	1340.92	5h		$4s4p^2 - 4p^3$	$^2D - ^4S°$	5/2 - 3/2	S15
Ge II	1380.425	100h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	3/2 - 5/2	S15
Ge II	1392.265	100h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	1/2 - 3/2	S15
Ge II	1401.235	200h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	5/2 - 5/2	S15
Ge II	1406.105	20	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	1/2 - 1/2	S15
Ge II	1406.269	20h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	3/2 - 3/2	S15
Ge II	1420.385	200h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	3/2 - 1/2	S15
Ge II	1427.877	200h	10	$4s4p^2 - 4s4p(^3P°)5s$	$^4P - ^4P°$	5/2 - 3/2	S15
Ge II	1433.48	5h					S15
Ge II	1457.96	2h					S15
Ge II	1458.64	1		$4s^24d - 4p^3$	$^2D - ^2D°$	3/2 - 5/2	S15
Ge II	1461.970	5		$4s^24d - 4p^3$	$^2D - ^2D°$	3/2 - 3/2	S15
Ge II	1462.388	10		$4s^24d - 4p^3$	$^2D - ^2D°$	5/2 - 5/2	S15
Ge II	1465.73	1		$4s^24d - 4p^3$	$^2D - ^2D°$	5/2 - 3/2	S15
Ge II	1538.0907 st	100	3	$4s^24p - 4s4p^2$	$g^2P° - ^2D$	1/2 - 3/2	K7,S15
Ge II	1576.8547 st	500	3	$4s^24p - 4s4p^2$	$g^2P° - ^2D$	3/2 - 5/2	K7,S15
Ge II	1578.598	3		$4s4p^2 - 4p^3$	$^2S - ^2D°$	1/2 - 3/2	S15
Ge II	1581.0698 st	300	3	$4s^24p - 4s4p^2$	$g^2P° - ^2D$	3/2 - 3/2	K7,S15
Ge II	1602.4863 st	500	2	4p - 5s	$g^2P° - ^2S$	1/2 - 1/2	K7,S15
Ge II	1606.29	2h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2D°$	3/2 - 5/2	S15
Ge II	1610.640	3h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2D°$	5/2 - 5/2	S15
Ge II	1615.332	3h		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2D°$	3/2 - 3/2	S15
Ge II	1619.74	1		$4s4p^2 - 4s4p(^3P°)4d$	$^2D - ^2D°$	5/2 - 3/2	S15
Ge II	1621.03	100h		$4s^24d - 4s4p(^3P°)4d$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1649.1942 st	500	2	4p - 5s	$g^2P° - ^2S$	3/2 - 1/2	K7,S15
Ge II	1654.46	75h		$4s^24d - 4s4p(^3P°)4d$	$^2D - ^2F°$	3/2 - 5/2	S15
Ge II	1659.22	3h		$4s^24d - 4s4p(^3P°)4d$	$^2D - ^2F°$	5/2 - 5/2	S15
Ge II	1676.26	0		$4s4p^2 - 4s^211f$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1677.99	5		$4s^24d - 4s4p(^3P°)4d$	$^2D - ^2P°$	3/2 - 1/2	S15
Ge II	1679.335	2		$4s4p^2 - 4s4p(^3P°)5s$	$^2D - ^4P°$	5/2 - 5/2	S15
Ge II	1698.43	0		$4s4p^2 - 4s^210f$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1702.20	0h		$4s^24d - 4p^3$	$^2D - ^4S°$	5/2 - 3/2	S15
Ge II	1729.385	2		$4s4p^2 - 4s^29f$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1750.85	10		$4s4p^2 - 4p^3$	$^2P - ^2D°$	3/2 - 3/2	S15
Ge II	1769.377	5		$4s4p^2 - 4s^28f$	$^2D - ^2F°$	3/2 - 5/2	S15
Ge II	1774.703	10		$4s4p^2 - 4s^28f$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1810.83	1		$4s^24d - 4s4p(^3P°)4d$	$^2D - ^4D°$	5/2 - 3/2	S15
Ge II	1815.09	10h		$4s4p^2 - 4s4p(^3P°)4d$	$^2S - ^2P°$	1/2 - 3/2	S15
Ge II	1837.460	0		$4s4p^2 - 4s^29p$	$^2D - ^2P°$	5/2 - 3/2	S15
Ge II	1839.634	20		$4s4p^2 - 4s^27f$	$^2D - ^2F°$	3/2 - 5/2	S15
Ge II	1845.388	30		$4s4p^2 - 4s^27f$	$^2D - ^2F°$	5/2 - 7/2	S15
Ge II	1856.81	10h					S15
Ge II	1912.376	20	1	$4s^24p - 4s4p^2$	$g^2P° - ^4P$	1/2 - 3/2	M23
Ge II	1938.0077 st	100	1	$4s^24p - 4s4p^2$	$g^2P° - ^4P$	3/2 - 5/2	K7,S15

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge II	1938.8906 st	100	1	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^4P$	½ - ½	K7,S15
Ge II	1947.55	2h		$4s4p^2 - 4s^28p$	$^2D - {}^2P^\circ$	3/2 - ½	S15
Ge II	1952.29	3h		$4s4p^2 - 4s^28p$	$^2D - {}^2P^\circ$	5/2 - 3/2	S15
Ge II	1959.781	30h	14	$4s4p^2 - 4s^26f$	$^2D - {}^2F^\circ$	3/2 - 5/2	S15
Ge II	1966.3173	40h	14	$4s4p^2 - 4s^26f$	$^2D - {}^2F^\circ$	5/2 - 7/2	K3,S15
Ge II	1979.2736 st	30	1	$4s^24p - 4s4p^2$	$g^2P^\circ - {}^4P$	3/2 - 3/2	K7,S15
Ge II	1986.6	3h		$4s^24d - 4s4p(^3P^\circ)4d$	$^2D - {}^4F^\circ$	5/2 - 7/2	S15

GERMANIUM III (Ge^{2+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^2\ {}^1S_0$ (30 electrons)

Ionization Potential 276 036 cm^{-1}; 34.22 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge III	542.57	40		$4s^2 - 4s5p$	$g^1S - {}^1P^\circ$	0 - 1	L6
Ge III	660.50	20		$4s4p - 4s5d$	$^3P^\circ - {}^3D$	0 - 1	L6
Ge III	663.71	40		$4s4p - 4s5d$	$^3P^\circ - {}^3D$	1 - 2	L6
Ge III	669.27	10		$4s4p - 4s6s$	$^3P^\circ - {}^3S$	0 - 1	L6
Ge III	670.83	60		$4s4p - 4s5d$	$^3P^\circ - {}^3D$	2 - 3	L6
Ge III	671.02	5		$4s4p - 4s5d$	$^3P^\circ - {}^3D$	2 - 2	L6
Ge III	672.70	20		$4s4p - 4s6s$	$^3P^\circ - {}^3S$	1 - 1	L6
Ge III	680.22	40		$4s4p - 4s6s$	$^3P^\circ - {}^3S$	2 - 1	L6
Ge III	952.79	40		$4s4p - 4s5s$	$^3P^\circ - {}^1S$	1 - 0	L6
Ge III	988.94	240		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	0 - 1	L6
Ge III	995.76	300		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	1 - 2	L6
Ge III	996.46	200		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	1 - 1	L6
Ge III	1011.22	300		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	2 - 3	L6
Ge III	1012.31	200		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	2 - 2	L6
Ge III	1013.04	40		$4s4p - 4s4d$	$^3P^\circ - {}^3D$	2 - 1	L6
Ge III	1032.60	160		$4s4p - 4s5s$	$^3P^\circ - {}^3S$	0 - 1	L6
Ge III	1040.80	240		$4s4p - 4s5s$	$^3P^\circ - {}^3S$	1 - 1	L6
Ge III	1058.89	240		$4s4p - 4s5s$	$^3P^\circ - {}^3S$	2 - 1	L6
Ge III	1088.46	800		$4s^2 - 4s4p$	$g^1S - {}^1P^\circ$	0 - 1	L6
Ge III	1137.95	200		$4s4p - 4p^2$	$^3P^\circ - {}^3P$	1 - 2	L6
Ge III	1150.60	240		$4s4p - 4p^2$	$^3P^\circ - {}^3P$	0 - 1	L6
Ge III	1159.12	160		$4s4p - 4p^2$	$^3P^\circ - {}^1D$	1 - 2	L6
Ge III	1159.62	160		$4s4p - 4p^2$	$^3P^\circ - {}^3P$	2 - 2	L6
Ge III	1160.79	160		$4s4p - 4p^2$	$^3P^\circ - {}^3P$	1 - 1	L6
Ge III	1173.78	200		$4s4p - 4p^2$	$^3P^\circ - {}^3P$	1 - 0	L6
Ge III	1212.47	160		$4s4p - 4s4d$	$^3P^\circ - {}^1D$	1 - 2	L6
Ge III	1323.15	80		$4s4p - 4s5s$	$^1P^\circ - {}^1S$	1 - 0	L6
Ge III	1499.18	10		$4s4p - 4s5s$	$^1P^\circ - {}^3S$	1 - 1	L6
Ge III	1525.34	200		$4s4d - 4s4f$	$^1D - {}^1F^\circ$	2 - 3	L6
Ge III	1527.10	40		$4s4d - 4s4f$	$^1D - {}^3F^\circ$	2 - 2	L6
Ge III	1542.95	20		$4p^2 - 4p4d$	$^1D - {}^1F^\circ$	2 - 3	L6
Ge III	1569.49	10		$4p^2 - 4p4d$	$^3P - {}^1P^\circ$	1 - 1	L6
Ge III	1572.55	10		$4p^2 - 4p4d$	$^1D - {}^1P^\circ$	2 - 1	L6
Ge III	1600.10	180		$4s^2 - 4s4p$	$g^1S - {}^3P^\circ$	0 - 1	L6
Ge III	1613.27	20		$4p^2 - 4p4d$	$^3P - {}^1P^\circ$	2 - 1	L6
Ge III	1619.09	5		$4p^2 - 4s4f$	$^1D - {}^1F^\circ$	2 - 3	L6
Ge III	1619.88	10f		$4s^2 - 4s4p$	$g^1S - {}^3P^\circ$	0 - 0	L6
Ge III	1620.62	10		$4p^2 - 4s4f$	$^1D - {}^3F^\circ$	2 - 3	L6
Ge III	1621.08	10		$4p^2 - 4s4f$	$^1D - {}^3F^\circ$	2 - 2	L6
Ge III	1709.40	5		$4s4p - 4p^2$	$^1P^\circ - {}^3P$	1 - 2	L6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge III	1883.27	120		4s4p - 4s4d	$^1P^\circ$ - ^1D	1 - 2	L6
Ge III	1917.55	5		4s4d - 4p4d	^1D - $^1D^\circ$	2 - 2	L6
Ge III	1938.01	10		4s5p - $4d^2$	$^1P^\circ$ - ^1D	1 - 2	L6
Ge III	1974.05	20		4s4d - 4p4d	^3D - $^1F^\circ$	2 - 3	L6
Ge III	1978.21	40		4s4d - 4p4d	^3D - $^1F^\circ$	3 - 3	L6

GERMANIUM IV (Ge^{3+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^{10}4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential 368 701 cm^{-1}; 45.71 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge IV	439.77	20		$3d^{10}4s$ - $3d^{10}5p$	g^2S - $^2P^\circ$	½ - ⅜	L6
Ge IV	441.58	20		$3d^{10}4s$ - $3d^{10}5p$	g^2S - $^2P^\circ$	½ - ½	L6
Ge IV	529.83	20		$3d^{10}4p$ - $3d^{10}6s$	$^2P^\circ$ - ^2S	½ - ½	L6
Ge IV	537.78	20		$3d^{10}4p$ - $3d^{10}6s$	$^2P^\circ$ - ^2S	⅜ - ½	L6
Ge IV	847.80	60		$3d^{10}4p$ - $3d^{10}5s$	$^2P^\circ$ - ^2S	½ - ½	L6
Ge IV	868.30	60		$3d^{10}4p$ - $3d^{10}5s$	$^2P^\circ$ - ^2S	⅜ - ½	L6
Ge IV	915.00	160		$3d^{10}4p$ - $3d^{10}4d$	$^2P^\circ$ - ^2D	½ - ⅜	L6
Ge IV	936.70	160		$3d^{10}4p$ - $3d^{10}4d$	$^2P^\circ$ - ^2D	⅜ - ⅝	L6
Ge IV	938.95	80		$3d^{10}4p$ - $3d^{10}4d$	$^2P^\circ$ - ^2D	⅜ - ⅜	L6
Ge IV	1073.38	20		$3d^{10}4d$ - $3d^{10}6p$	^2D - $^2P^\circ$	⅜ - ⅜	L6
Ge IV	1078.02	40f		$3d^{10}4d$ - $3d^{10}6p$	^2D - $^2P^\circ$	⅝ - ½	L6
Ge IV	1183.39	300		$3d^{10}5s$ - $3d^{10}6p$	^2S - $^2P^\circ$	½ - ⅜	L6
Ge IV	1185.50	10		$3d^{10}5s$ - $3d^{10}6p$	^2S - $^2P^\circ$	½ - ½	L6
Ge IV	1188.99	400		$3d^{10}4s$ - $3d^{10}4p$	g^2S - $^2P^\circ$	½ - ⅜	L6
Ge IV	1229.81	400		$3d^{10}4s$ - $3d^{10}4p$	g^2S - $^2P^\circ$	½ - ½	L6
Ge IV	1494.89	40		$3d^{10}4d$ - $3d^{10}4f$	^2D - $^2F^\circ$	⅜ - ⅝	L6
Ge IV	1500.61	120		$3d^{10}4d$ - $3d^{10}4f$	^2D - $^2F^\circ$	⅝ - ⅞	L6
Ge IV	1648.14	60f		$3d^{10}5s$ - $3d^94s^2$	^2S - ^2D	½ - ⅝	L6

GERMANIUM V (Ge^{4+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^{10}\ ^1S_0$ (28 electrons)

Ionization Potential 753 800 cm^{-1}; 93.5 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge V	294.5	300		$3d^{10}$ - $3d^9(^2D)4p$	g^1S - $^3D^\circ$	0 - 1	K26
Ge V	295.6	500		$3d^{10}$ - $3d^9(^2D)4p$	g^1S - $^1P^\circ$	0 - 1	K26
Ge V	305.0	50		$3d^{10}$ - $3d^9(^2D)4p$	g^1S - $^3P^\circ$	0 - 1	K26
Ge V	942.7	100		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^1D^\circ$	3 - 2	C3,M1
Ge V	958.4	150		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^1D^\circ$	2 - 2	C3,M1
Ge V	965.4	100		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^3D^\circ$	2 - 1	C3,M1
Ge V	971.2	300		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^1F^\circ$	3 - 3	C3,M1
Ge V	984.8	200		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^1D^\circ$	1 - 2	C3,M1
Ge V	987.9	250		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^1F^\circ$	2 - 3	C3,M1
Ge V	990.5	250		$3d^9(^2D)4s$ - $3d^9(^2D)4p$	^3D - $^3D^\circ$	3 - 3	C3,M1

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Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge V	992.2	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	1 - 1	C3,M1
Ge V	1004.2	300		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 2	C3,M1
Ge V	1005.1	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^1P^\circ$	1 - 1	C3,M1
Ge V	1007.9	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	2 - 3	C3,M1
Ge V	1024.5	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D^\circ$	2 - 1	C3,M1
Ge V	1033.3	150		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3D^\circ$	1 - 2	C3,M1
Ge V	1038.3	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^1P^\circ$	2 - 1	C3,M1
Ge V	1045.5	350		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	3 - 4	C3,M1
Ge V	1049.9	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^1F^\circ$	2 - 3	C3,M1
Ge V	1054.5	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	2 - 2	C3,M1
Ge V	1068.3	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D^\circ$	2 - 2	C3,M1
Ge V	1069.1	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	3 - 3	C3,M1
Ge V	1072.5	300		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3D^\circ$	2 - 3	C3,M1
Ge V	1086.5	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	1 - 2	C3,M1
Ge V	1088.3	400		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	2 - 1	C3,M1
Ge V	1089.4	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3F^\circ$	2 - 3	C3,M1
Ge V	1092.0	250		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 0	C3,M1
Ge V	1116.8	300		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	3 - 2	C3,M1
Ge V	1122.5	50		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 1	C3,M1
Ge V	1125.4	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3F^\circ$	2 - 2	C3,M1
Ge V	1138.9	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	2 - 2	C3,M1
Ge V	1164.0	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 1	C3,M1
Ge V	1165.2	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3F^\circ$	2 - 3	C3,M1
Ge V	1176.4	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - ^3P^\circ$	1 - 2	C3,M1
Ge V	1222.1	25		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - ^3P^\circ$	2 - 2	C3,M1

GERMANIUM VI (Ge^{5+}), Z = 32

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9\ ^2D_{5/2}$ (27 electrons)

Ionization Potential [968 000] cm^{-1}; [120] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge VI	222.14	100		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 5/2	K16
Ge VI	223.32	600		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	5/2 - 7/2	K16
Ge VI	223.52	400		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	5/2 - 3/2	K16
Ge VI	224.40	1000b		$3d^9 - 3d^8(^1G)4p$	$a^2D - x^2F^\circ$	3/2 - 5/2	K16
Ge VI	224.40	1000b		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	5/2 - 5/2	K16
Ge VI	224.49	1000		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	5/2 - 3/2	K16
Ge VI	224.94	700		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 1/2	K16
Ge VI	225.83	700b		$3d^9 - 3d^8(^3P)4p$	$a^2D - y^2P^\circ$	3/2 - 3/2	K16
Ge VI	226.69	300		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	3/2 - 5/2	K16
Ge VI	226.82	500		$3d^9 - 3d^8(^3P)4p$	$a^2D - x^2D^\circ$	3/2 - 3/2	K16
Ge VI	227.86	300		$3d^9 - 3d^8(^1D)4p$	$a^2D - z^2P^\circ$	5/2 - 3/2	K16
Ge VI	228.41	900		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 5/2	K16
Ge VI	229.26	700		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2F^\circ$	5/2 - 7/2	K16
Ge VI	229.35	400		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	5/2 - 3/2	K16
Ge VI	230.25	500		$3d^9 - 3d^8(^1D)4p$	$a^2D - z^2P^\circ$	3/2 - 3/2	K16
Ge VI	230.82	200		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	3/2 - 5/2	K16
Ge VI	231.78	700		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2D^\circ$	3/2 - 3/2	K16
Ge VI	232.16	500		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 5/2	K16
Ge VI	232.57	200		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	5/2 - 3/2	K16
Ge VI	233.14	500		$3d^9 - 3d^8(^1D)4p$	$a^2D - y^2F^\circ$	3/2 - 5/2	K16
Ge VI	234.65	400		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	3/2 - 5/2	K16
Ge VI	235.05	500		$3d^9 - 3d^8(^3P)4p$	$a^2D - z^4P^\circ$	3/2 - 3/2	K16
Ge VI	235.57	800		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 5/2	K16
Ge VI	236.40	400		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 3/2	K16
Ge VI	237.36	500		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	5/2 - 7/2	K16

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Ge VI	237.80	600		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2G^\circ$	5/2 - 7/2	K16
Ge VI	238.04	800		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	5/2 - 5/2	K16
Ge VI	238.14	500		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2F^\circ$	3/2 - 5/2	K16
Ge VI	238.97	700		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 3/2	K16
Ge VI	239.28	700		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$?	5/2 - 3/2	K16
Ge VI	240.00	700		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$	5/2 - 7/2	K16
Ge VI	240.65	700		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^2D^\circ$	3/2 - 5/2	K16
Ge VI	242.00	700		$3d^9 - 3d^8(^3F)4p$	$a^2D - z^4F^\circ$	3/2 - 5/2	K16

GERMANIUM VII (Ge^{6+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^8\ ^3F_4$ (26 electrons)

Ionization Potential [1 218 000] cm^{-1}; [151] eV

GERMANIUM VIII (Ge^{7+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential [1 476 000] cm^{-1}; [183] eV

GERMANIUM IX (Ge^{8+}), Z = 32

Ground State $1s^22s^22p^63s^23p^63d^6\ ^5D_4$ (24 electrons)

Ionization Potential [1 750 000] cm^{-1}; [217] eV

GERMANIUM X (Ge^{9+}), Z = 32
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [2 057 000] cm^{-1}; [255] eV

GERMANIUM XI (Ge^{10+}), Z = 32
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [2 347 000] cm^{-1}; [291] eV

GERMANIUM XII (Ge^{11+}), Z = 32
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [2 831 000] cm^{-1}; [330] eV

GERMANIUM XIII (Ge^{12+}), Z = 32
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [2 976 000] cm^{-1}; [369] eV

GERMANIUM XIV (Ge^{13+}), Z = 32
Ground State $1s^22s^22p^63s^23p^63d$ $^2D_{3/2}$ (19 electrons)
Ionization Potential [3 298 900] cm^{-1}; [409] eV

GERMANIUM XV (Ge^{14+}), Z = 32
Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)
Ionization Potential [4 299 100] cm^{-1}; [533] eV

GERMANIUM XVI (Ge^{15+}), Z = 32
Ground State $1s^22s^22p^63s^23p^5$ $^2P^o_{3/2}$ (17 electrons)
Ionization Potential [4 581 400] cm^{-1}; [568] eV

GERMANIUM XVII (Ge^{16+}), Z = 32
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [4 896 000] cm^{-1}; [607] eV

GERMANIUM XVIII (Ge^{17+}), Z = 32
Ground State $1s^22s^22p^63s^23p^3$ $^4S^o_{3/2}$ (15 electrons)
Ionization Potential [5 307 000] cm^{-1}; [658] eV

GERMANIUM XIX (Ge^{18+}), Z = 32
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [5 654 100] cm^{-1}; [701] eV

GERMANIUM XX (Ge^{19+}), Z = 32
Ground State $1s^22s^22p^63s^23p\ ^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [6 001 000] cm^{-1}; [744] eV

GERMANIUM XXI (Ge^{20+}), Z = 32
Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)
Ionization Potential [6 743 000] cm^{-1}; [836] eV

GERMANIUM XXII (Ge^{21+}), Z = 32
Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)
Ionization Potential [7 105 900] cm^{-1}; [881] eV

GERMANIUM XXIII (Ge^{22+}), Z = 32
Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)
Ionization Potential [17 680 000] cm^{-1}; [2192] eV

GERMANIUM XXIV (Ge^{23+}), Z = 32
Ground State $1s^22s^22p^5\ ^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [18 503 000] cm^{-1}; [2294] eV

GERMANIUM XXV (Ge^{24+}), Z = 32
Ground State $1s^2 2s^2 2p^4$ $^3P_2$ (8 electrons)
Ionization Potential [19 527 000] cm^{-1}; [2421] eV

GERMANIUM XXVI (Ge^{25+}), Z = 32
Ground State $1s^2 2s^2 2p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [20 785 000] cm^{-1}; [2577] eV

GERMANIUM XXVII (Ge^{26+}), Z = 32
Ground State $1s^2 2s^2 2p^2$ $^3P_0$ (6 electrons)
Ionization Potential [21 963 000] cm^{-1}; [2723] eV

GERMANIUM XXVIII (Ge^{27+}), Z = 32
Ground State $1s^2 2s^2 2p$ $^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [23 092 000] cm^{-1}; [2863] eV

GERMANIUM XXIX (Ge^{28+}), Z = 32
Ground State $1s^2 2s^2$ $^1S_0$ (4 electrons)
Ionization Potential [24 528 000] cm^{-1}; [3041] eV

GERMANIUM XXX (Ge^{29+}), Z = 32
Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [25 746 000] cm^{-1}; [3192] eV

GERMANIUM XXXI (Ge^{30+}), Z = 32
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [109 339 000] cm^{-1}; [13556] eV

GERMANIUM XXXII (Ge^{31+}), Z = 32
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [113 864 000] cm^{-1}; [14117] eV

ARSENIC I (As^{0+}), Z = 33

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^3$ $^4S^\circ_{3/2}$ (33 electrons)

Ionization Potential 79 165 cm^{-1}; 9.81 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As I	1323.2	3		$4p^3$ -	g^4S° - 12 ?	3/2 - 3/2	R7
As I	1350.5	2		$4p^3$ -	g^4S° - 8 ?	3/2 - 5/2	R7
As I	1379.0	4		$4p^3$ -	g^4S° - 4 ?	3/2 - 3/2	R7
As I	1390.4	4		$4p^3$ - $4p^2(^1D)4d$	g^4S° - ^2P ?	3/2 - 1/2	R7
As I	1407.34	2		$4p^3$ -	g^4S° - 3	3/2 - 3/2	M8
As I	1434.77	3		$4p^3$ - $4p^2(^3P)6s$	g^4S° - ^2P	3/2 - 3/2	M8
As I	1442.69	5		$4p^3$ - $4p^2(^3P)6s$	g^4S° - ^4P	3/2 - 5/2	M8
As I	1461.92	3		$4s^2 4p^3$ - $4s4p^4$	g^4S° - ^2D	3/2 - 5/2	M8
As I	1463.9	5		$4p^3$ - $4p^2(^3P)6s$	g^4S° - ^2P ?	3/2 - 1/2	R7
As I	1464.10	2		$4s^2 4p^3$ - $4s4p^4$	g^4S° - ^2D	3/2 - 3/2	M8
As I	1472.32	4		$4p^3$ - $4p^2(^3P)6s$	g^4S° - ^4P	3/2 - 3/2	M8
As I	1492.34	4		$4p^3$ - $4p^2(^3P)6s$	g^4S° - ^4P	3/2 - 1/2	M8
As I	1504.09	2		$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^2P	3/2 - 3/2	M8
As I	1506.99	2		$4p^3$ -	$^2D^\circ$ - 17	5/2 - 5/2	M8
As I	1509.60	3		$4p^3$ -	$^2D^\circ$ - 15	3/2 - 5/2	M8
As I	1510.41	6		$4p^3$ -	$^2D^\circ$ - 16	5/2 - 3/2	M8
As I	1510.70	6					M8
As I	1515.48	20					M8
As I	1516.97	1		$4p^3$ -	$^2D^\circ$ - 15	5/2 - 5/2	M8
As I	1526.78	2		$4s^2 4p^3$ - $4s4p^4$	g^4S° - ^2P	3/2 - 1/2	M8
As I	1533.60	3		$4p^3$ -	$^2D^\circ$ - 13	3/2 - 3/2	M8
As I	1534.65	4		$4p^3$ -	$^2D^\circ$ - 14	5/2 - 3/2	M8
As I	1538.79	20		$4p^3$ -	$^2D^\circ$ - 12	3/2 - 3/2	M8
As I	1542.94	4		$4s^2 4p^3$ - $4s4p^4$	g^4S° - ^2P	3/2 - 3/2	M8
As I	1546.45	2		$4p^3$ -	$^2D^\circ$ - 12	5/2 - 5/2	M8
As I	1554.19	4		$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^2D	3/2 - 3/2	M8
As I	1556.14	40		$4p^3$ -	$^2D^\circ$ - 11	5/2 - 5/2	M8
As I	1557.20	30	14	$4p^3$ - $4p^2 4d$	$^2D^\circ$ - ^2D	3/2 - 3/2	M8
As I	1558.28	4		$4p^3$ -	$^2D^\circ$ - 10	5/2 - 3/2	M8
As I	1559.53	4		$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^2P	3/2 - 1/2	M8
As I	1562.95	10	4	$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^4P	3/2 - 1/2	M8
As I	1565.05	7		$4p^3$ - $4p^2 4d$	$^2D^\circ$ - ^2D	5/2 - 3/2	M8
As I	1566.39	15					M8
As I	1573.85	60	14	$4p^3$ - $4p^2 4d$	$^2D^\circ$ - ^2D	5/2 - 5/2	M8
As I	1574.72	30	4	$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^4P	3/2 - 3/2	M8
As I	1575.87	20		$4p^3$ -	$^2D^\circ$ - 8	3/2 - 5/2	M8
As I	1583.90	2		$4p^3$ -	$^2D^\circ$ - 8	5/2 - 3/2	M8
As I	1587.97	20		$4p^3$ -	$^2D^\circ$ - 6	3/2 - 5/2	M8
As I	1593.60	100r	4	$4p^3$ - $4p^2(^3P)4d$	g^4S° - ^4P	3/2 - 5/2	M8
As I	1594.39	1		$4p^3$ -	$^2D^\circ$ - 7	5/2 - 3/2	M8
As I	1596.13	2		$4p^3$ -	$^2D^\circ$ - 6	5/2 - 3/2	M8
As I	1608.07	3		$4p^3$ -	$^2D^\circ$ - 5	3/2 - 3/2	M8
As I	1614.82	5		$4p^3$ -	$^2D^\circ$ - 4	3/2 - 3/2	M8
As I	1616.44	6		$4p^3$ -	$^2D^\circ$ - 5	5/2 - 3/2	M8
As I	1623.26	2		$4p^3$ -	$^2D^\circ$ - 4	5/2 - 3/2	M8
As I	1625.17	1		$4p^3$ - $4p^2(^1D)4d$	$^2D^\circ$ - ^2P	3/2 - 3/2	M8
As I	1630.48	4		$4p^3$ - $4p^2(^1D)4d$	$^2D^\circ$ - ^2P	3/2 - 1/2	M8
As I	1633.71	5		$4p^3$ - $4p^2(^1D)4d$	$^2D^\circ$ - ^2P	5/2 - 3/2	M8
As I	1643.79	2		$4p^3$ - $4p^2(^1D)5s$	g^4S° - ^2D	3/2 - 3/2	M8
As I	1644.33	5		$4p^3$ - $4p^2(^1D)5s$	g^4S° - ^2D	3/2 - 5/2	M8
As I	1653.92	4		$4p^3$ -	$^2D^\circ$ - 3	3/2 - 3/2	M8
As I	1662.76	2		$4p^3$ -	$^2D^\circ$ - 3	5/2 - 3/2	M8
As I	1691.87	7		$4p^3$ -	$^2D^\circ$ - 2	3/2 - 3/2	M8
As I	1701.16	15		$4p^3$ -	$^2D^\circ$ - 2	5/2 - 5/2	M8
As I	1701.22	15		$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^2P	5/2 - 3/2	M8
As I	1702.94	3		$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^4P	3/2 - 5/2	M8
As I	1705.74	4		$4p^3$ -	$^2P^\circ$ - 17	3/2 - 3/2	M8
As I	1710.16	7		$4p^3$ -	$^2P^\circ$ - 16	3/2 - 5/2	M8
As I	1712.32	10		$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^4P	5/2 - 5/2	M8
As I	1718.55	1		$4p^3$ -	$^2P^\circ$ - 15	3/2 - 3/2	M8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As I	1724.77	7					M8
As I	1727.38	4		$4p^3$ -	$^2P^\circ$ - 14	1/2 - 3/2	M8
As I	1729.80	30	12	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2D	3/2 - 5/2	M8
As I	1732.44	30	13	$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^2P	3/2 - 1/2	M8
As I	1732.86	30	12	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2D	3/2 - 3/2	M8
As I	1735.70	3		$4p^3$ -	$^2P^\circ$ - 13	1/2 - 1/2	M8
As I	1739.49	60	12	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 1/2	M8
As I	1741.28	10		$4p^3$ -	$^2P^\circ$ - 14	3/2 - 3/2	M8
As I	1742.59	10	12	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2D	5/2 - 3/2	M8
As I	1749.72	1		$4p^3$ -	$^2P^\circ$ - 13	3/2 - 1/2	M8
As I	1754.21	10		$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^4P	5/2 - 3/2	M8
As I	1756.51	2		$4p^3$ -	$^2P^\circ$ - 12	3/2 - 3/2	M8
As I	1757.47	4		$4p^3$ -	$^2P^\circ$ - 10	1/2 - 1/2	M8
As I	1758.60	100	3	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 3/2	M8
As I	1767.97	6					M8
As I	1768.97	5		$4p^3$ -	$^2P^\circ$ - 11	3/2 - 3/2	M8
As I	1771.84	2		$4p^3$ -	$^2P^\circ$ - 10	3/2 - 1/2	M8
As I	1772.54	8		$4p^3$ - $4p^2(^3P)6s$	$^2D^\circ$ - ^4P	3/2 - 1/2	M8
As I	1780.52	50	26	$4p^3$ - $4p^24d$	$^2P^\circ$ - ^2D	3/2 - 3/2	M8
As I	1781.48	50	9	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2D	3/2 - 5/2	M8
As I	1785.84	3		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2S	3/2 - 1/2	M8
As I	1787.07	6		$4p^3$ -	$^2P^\circ$ - 9	1/2 - 3/2	M8
As I	1789.14	15		$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2P	3/2 - 3/2	M8
As I	1789.85	50	10	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2F	5/2 - 7/2	M8
As I	1791.77	40	9	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2D	5/2 - 5/2	M8
As I	1798.61	9					M8
As I	1799.51	2		$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2P	5/2 - 3/2	M8
As I	1801.92	3		$4p^3$ -	$^2P^\circ$ - 9	3/2 - 1/2	M8
As I	1803.46	10		$4p^3$ -	$^2P^\circ$ - 7	1/2 - 3/2	M8
As I	1806.15	200	3	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 5/2	M8
As I	1816.72	10					M8
As I	1818.59	5		$4p^3$ -	$^2P^\circ$ - 7	3/2 - 3/2	M8
As I	1821.32	2		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2P	3/2 - 1/2	M8
As I	1831.30	50	2	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^2P	3/2 - 3/2	M8
As I	1831.74	30		$4p^3$ -	$^2P^\circ$ - 5	1/2 - 3/2	M8
As I	1840.48	10		$4p^3$ -	$^2P^\circ$ - 4	1/2 - 3/2	M8
As I	1844.36	40	11	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2P	3/2 - 3/2	M8
As I	1844.57	40	25	$4p^3$ - $4p^25s$	$^2P^\circ$ - ^2S	1/2 - 1/2	M8
As I	1847.32	10		$4p^3$ -	$^2P^\circ$ - 5	3/2 - 3/2	M8
As I	1850.24	40	10	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2F	3/2 - 5/2	M8
As I	1853.21	20					M8
As I	1853.95	3		$4p^3$ - $4p^2(^1D)4d$	$^2P^\circ$ - ^2P	1/2 - 3/2	M8
As I	1855.39	10	11	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2P	5/2 - 3/2	M8
As I	1856.24	2		$4p^3$ -	$^2P^\circ$ - 4	3/2 - 3/2	M8
As I	1860.40	80	25	$4p^3$ - $4p^25s$	$^2P^\circ$ - ^2S	3/2 - 1/2	M8
As I	1860.46	80	9	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2D	3/2 - 3/2	M8
As I	1860.87	5		$4p^3$ - $4p^2(^1D)4d$	$^2P^\circ$ - ^2P	1/2 - 1/2	M8
As I	1865.10	8					M8
As I	1869.94	15		$4p^3$ - $4p^2(^1D)4d$	$^2P^\circ$ - ^2P	3/2 - 3/2	M8
As I	1871.68	30	9	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^2D	5/2 - 3/2	M8
As I	1873.02	40	8	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^4P	3/2 - 1/2	M8
As I	1876.98	2		$4p^3$ - $4p^2(^1D)4d$	$^2P^\circ$ - ^2P	3/2 - 1/2	M8
As I	1881.96	40	2	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^2P	3/2 - 1/2	M8
As I	1889.95	5		$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^4P	3/2 - 3/2	M8
As I	1890.42	1000r	1	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^4P	3/2 - 5/2	M8
As I	1891.47	5		$4p^3$ -	$^2P^\circ$ - 3	1/2 - 3/2	M8
As I	1901.54	5		$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^4P	5/2 - 3/2	M8
As I	1902.31	6					M8
As I	1908.13	1		$4p^3$ -	$^2P^\circ$ - 3	3/2 - 3/2	M8
As I	1917.21	20	8	$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^4P	3/2 - 5/2	M8
As I	1929.14	3		$4p^3$ - $4p^2(^3P)4d$	$^2D^\circ$ - ^4P	5/2 - 5/2	M8
As I	1937.59	900r	1	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^4P	3/2 - 3/2	M8
As I	1941.36	5		$4p^3$ - $4p^2(^3P)6s$	$^2P^\circ$ - ^2P	1/2 - 3/2	M8
As I	1958.82	20		$4p^3$ -	$^2P^\circ$ - 2	3/2 - 3/2	M8
As I	1958.91	40	24	$4p^3$ - $4p^2(^3P)6s$	$^2P^\circ$ - ^2P	3/2 - 3/2	M8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As I	1960.89	2		$4p^3$ -	$^2P^\circ$ - 1	3/2 - 3/2	M8
As I	1972.62	800r	1	$4p^3 - 4p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	M8
As I	1973.65	3		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - {}^4P$	3/2 - 5/2	M8
As I	1990.35	200	7	$4p^3 - 4p^2(^1D)5s$	$^2D^\circ - {}^2D$	3/2 - 3/2	M8
As I	1991.13	100	7	$4p^3 - 4p^2(^1D)5s$	$^2D^\circ - {}^2D$	3/2 - 5/2	M8
As I	1994.89	20	24	$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - {}^2P$	1/2 - 1/2	M8
As I	1995.43	100	23	$4s^24p^3 - 4s4p^4$	$^2P^\circ - {}^2D$	1/2 - 3/2	M8

ARSENIC II (As^{1+}), Z = 33

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^2$ $^3P_0$ (32 electrons)

Ionization Potential 150 290 cm^{-1}; 18.633 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As II	701.915	0		$4p^2 - 4p8d$	$g^3P - (3/2,3/2)^\circ$	1 - 0	L7
As II	706.44	0		$4p^2 - 4p9s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	L7
As II	713.888	0		$4p^2 - 4p9s$	$g^3P - (3/2,1/2)^\circ$	2 - 2	L7
As II	715.789	0		$4p^2 - 4p9s$	$g^3P - (1/2,1/2)^\circ$	0 - 1	L7
As II	719.303	10		$4p^2 - 4p7d$	$g^3P - (3/2,3/2)^\circ$	1 - 0	L7
As II	719.574	1		$4p^2 - 4p7d$	$g^3P - (3/2,3/2)^\circ$	1 - 1	L7
As II	720.59	5		$4p^2 - 4p7d$	$g^3P - (3/2,5/2)^\circ$	1 - 2	L7
As II	721.409	0		$4p^2 - 4p9s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	L7
As II	726.51	25		$4p^2 - 4p7d$	$g^3P - (3/2,3/2)^\circ$	2 - 2	L7
As II	726.661	0		$4p^2 - 4p8s$	$g^3P - (3/2,1/2)^\circ$	1 - 1	L7
As II	727.272	1		$4p^2 - 4p8s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	L7
As II	727.311	20		$4p^2 - 4p7d$	$g^3P - (3/2,3/2)^\circ$	2 - 1	L7
As II	728.042	25		$4p^2 - 4p7d$	$g^3P - (1/2,3/2)^\circ$	0 - 1	L7
As II	729.05	0		$4p^2 - 4p9s$	$g^3P - (1/2,1/2)^\circ$	2 - 1	L7
As II	733.721	0		$4p^2 - 4p7d$	$g^3P - (1/2,3/2)^\circ$	1 - 1	L7
As II	735.09	25		$4p^2 - 4p7d$	$g^3P - (1/2,5/2)^\circ$	1 - 2	L7
As II	735.17	5		$4p^2 - 4p8s$	$g^3P - (3/2,1/2)^\circ$	2 - 2	L7
As II	736.759	1		$4p^2 - 4p7d$	$g^3P - (1/2,3/2)^\circ$	1 - 2	L7
As II	739.990	25		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	0 - 1	L7
As II	742.556	1		$4p^2 - 4p8s$	$g^3P - (1/2,1/2)^\circ$	1 - 1	L7
As II	743.037	25		$4p^2 - 4p7d$	$g^3P - (1/2,5/2)^\circ$	2 - 3	L7
As II	743.101	1		$4p^2 - 4p8s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	L7
As II	743.161	1		$4p^2 - 4p7d$	$g^3P - (1/2,5/2)^\circ$	2 - 2	L7
As II	744.869	2		$4p^2 - 4p7d$	$g^3P - (1/2,3/2)^\circ$	2 - 2	L7
As II	745.855	0		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	1 - 1	L7
As II	750.64	25		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	1 - 0	L7
As II	750.77	75		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	1 - 1	L7
As II	750.937	15		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	1 - 2	L7
As II	752.680	50		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	1 - 2	L7
As II	754.176	0		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	2 - 1	L7
As II	754.270	0		$4p^2 - 4p9s$	$^1D - (3/2,1/2)^\circ$	2 - 1	L7
As II	756.92	50		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	2 - 3	L7
As II	758.047	50		$4p^2 - 4p7s$	$g^3P - (3/2,1/2)^\circ$	0 - 1	L7
As II	759.186	50		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	2 - 1	L7
As II	759.366	150		$4p^2 - 4p6d$	$g^3P - (3/2,5/2)^\circ$	2 - 2	L7
As II	760.766	125		$4p^2 - 4p6d$	$g^3P - (1/2,3/2)^\circ$	0 - 1	L7
As II	761.148	30		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	2 - 2	L7
As II	761.239	170		$4p^2 - 4p6d$	$g^3P - (3/2,3/2)^\circ$	2 - 3	L7
As II	764.209	25		$4p^2 - 4p7s$	$g^3P - (3/2,1/2)^\circ$	1 - 1	L7
As II	766.41	0		$4p^2 - 4p7s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	L7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As II	766.97	1		$4p^2 - 4p6d$	$g^3P - (1/2, 3/2)^\circ$	1 - 1	L7
As II	768.091	150		$4p^2 - 4p6d$	$g^3P - (1/2, 5/2)^\circ$	1 - 2	L7
As II	768.697	25		$4p^2 - 4p7d$	$^1D - (3/2, 3/2)^\circ$	2 - 2	L7
As II	769.60	10		$4p^2 - 4p7d$	$^1D - (3/2, 3/2)^\circ$	2 - 1	L7
As II	770.76	25		$4p^2 - 4p7d$	$^1D - (3/2, 5/2)^\circ$	2 - 2	L7
As II	771.561	25		$4p^2 - 4p6d$	$g^3P - (1/2, 3/2)^\circ$	1 - 2	L7
As II	775.198	50		$4p^2 - 4p7s$	$g^3P - (3/2, 1/2)^\circ$	2 - 2	L7
As II	775.759	0		$4p^2 - 4p6d$	$g^3P - (1/2, 3/2)^\circ$	2 - 1	L7
As II	776.91	75		$4p^2 - 4p6d$	$g^3P - (1/2, 5/2)^\circ$	2 - 2	L7
As II	777.06	15		$4p^2 - 4p7s$	$g^3P - (1/2, 1/2)^\circ$	0 - 1	L7
As II	777.57	150		$4p^2 - 4p6d$	$g^3P - (1/2, 5/2)^\circ$	2 - 3	L7
As II	777.71	15		$4p^2 - 4p8s$	$^1D - (3/2, 1/2)^\circ$	2 - 1	L7
As II	780.46	25		$4p^2 - 4p6d$	$g^3P - (1/2, 3/2)^\circ$	2 - 2	L7
As II	783.542	15		$4p^2 - 4p7s$	$g^3P - (1/2, 1/2)^\circ$	1 - 1	L7
As II	784.26	50		$4p^2 - 4p7s$	$g^3P - (1/2, 1/2)^\circ$	1 - 0	L7
As II	785.799	0		$4p^2 - 4p7d$	$^1D - (1/2, 3/2)^\circ$	2 - 1	L7
As II	787.224	50		$4p^2 - 4p7d$	$^1D - (1/2, 5/2)^\circ$	2 - 3	L7
As II	787.37	15		$4p^2 - 4p7d$	$^1D - (1/2, 5/2)^\circ$	2 - 2	L7
As II	789.288	15		$4p^2 - 4p7d$	$^1D - (1/2, 3/2)^\circ$	2 - 2	L7
As II	789.841	50		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	0 - 1	L7
As II	792.720	60		$4p^2 - 4p7s$	$g^3P - (1/2, 1/2)^\circ$	2 - 1	L7
As II	795.94	1		$4p^2 - 4p8s$	$^1D - (1/2, 1/2)^\circ$	2 - 1	L7
As II	796.528	0		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	1 - 1	L7
As II	799.74	25		$4p^2 - 4p6d$	$^1D - (3/2, 5/2)^\circ$	2 - 1	L7
As II	802.83	170		$4p^2 - 4p6d$	$^1D - (3/2, 5/2)^\circ$	2 - 3	L7
As II	805.576	110		$4p^2 - 4p6d$	$^1D - (3/2, 5/2)^\circ$	2 - 2	L7
As II	806.016	0		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	2 - 1	L7
As II	807.58	60		$4p^2 - 4p6d$	$^1D - (3/2, 3/2)^\circ$	2 - 2	L7
As II	807.68	5		$4p^2 - 4p6d$	$^1D - (3/2, 3/2)^\circ$	2 - 3	L7
As II	809.720	1		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	0 - 1	L7
As II	814.83	10		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	1 - 2	L7
As II	816.607	80		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	1 - 0	L7
As II	816.755	100		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	1 - 1	L7
As II	818.571	100		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	1 - 2	L7
As II	820.651	10		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	2 - 3	L7
As II	820.868	20		$4p^2 - 4p7s$	$^1D - (3/2, 1/2)^\circ$	2 - 1	L7
As II	823.417	30		$4p^2 - 4p7s$	$^1D - (3/2, 1/2)^\circ$	2 - 2	L7
As II	823.998	80		$4p^2 - 4p5d$	$g^3P - (1/2, 3/2)^\circ$	0 - 1	L7
As II	824.055	50		$4p^2 - 4p6d$	$^1D - (1/2, 3/2)^\circ$	2 - 1	L7
As II	824.763	80		$4p^2 - 4p5d$	$g^3P - (3/2, 5/2)^\circ$	2 - 2	L7
As II	825.349	30		$4p^2 - 4p6d$	$^1D - (1/2, 5/2)^\circ$	2 - 2	L7
As II	826.100	60		$4p^2 - 4p6d$	$^1D - (1/2, 5/2)^\circ$	2 - 3	L7
As II	826.733	80		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	2 - 1	L7
As II	828.594	125		$4p^2 - 4p5d$	$g^3P - (3/2, 3/2)^\circ$	2 - 2	L7
As II	829.360	50		$4p^2 - 4p6d$	$^1D - (1/2, 3/2)^\circ$	2 - 2	L7
As II	835.349	150		$4p^2 - 4p5d$	$g^3P - (1/2, 5/2)^\circ$	1 - 2	L7
As II	840.233	80		$4s^2 4p^2 - 4s4p^3$	$g^3P - {}^1P^\circ$	0 - 1	L7
As II	841.625	10		$4p^2 - 4p5d$	$g^3P - (1/2, 3/2)^\circ$	2 - 1	L7
As II	843.215	10		$4p^2 - 4p7s$	$^1D - (1/2, 1/2)^\circ$	2 - 1	L7
As II	845.789	80		$4p^2 - 4p5d$	$g^3P - (1/2, 5/2)^\circ$	2 - 2	L7
As II	847.809	25		$4s^2 4p^2 - 4s4p^3$	$g^3P - {}^1P^\circ$	1 - 1	L7
As II	848.692	80		$4p^2 - 4p5d$	$g^3P - (1/2, 3/2)^\circ$	1 - 2	L7
As II	849.294	60		$4p^2 - 4p6s$	$g^3P - (3/2, 1/2)^\circ$	0 - 1	L7
As II	854.727	150		$4p^2 - 4p5d$	$g^3P - (1/2, 5/2)^\circ$	2 - 3	L7
As II	857.032	25		$4p^2 - 4p6s$	$g^3P - (3/2, 1/2)^\circ$	1 - 1	L7
As II	858.280	125		$4p^2 - 4p5d$	$^1D - (3/2, 5/2)^\circ$	2 - 1	L7
As II	859.472	60		$4p^2 - 4p5d$	$g^3P - (1/2, 3/2)^\circ$	2 - 2	L7
As II	859.682	125		$4p^2 - 4p6s$	$g^3P - (3/2, 1/2)^\circ$	1 - 2	L7
As II	861.467	2		$4p^2 - 4p8s$	$^1S - (3/2, 1/2)^\circ$	0 - 1	L7
As II	868.027	10		$4p^2 - 4p6s$	$g^3P - (3/2, 1/2)^\circ$	2 - 1	L7
As II	870.747	150		$4p^2 - 4p6s$	$g^3P - (3/2, 1/2)^\circ$	2 - 2	L7
As II	871.410	10		$4p^2 - 4p7d$	$^1S - (1/2, 3/2)^\circ$	0 - 1	L7
As II	871.823	125		$4p^2 - 4p6s$	$g^3P - (1/2, 1/2)^\circ$	0 - 1	L7
As II	874.893	150		$4p^2 - 4p5d$	$^1D - (3/2, 5/2)^\circ$	2 - 3	L7
As II	879.563	125		$4p^2 - 4p5d$	$^1D - (3/2, 5/2)^\circ$	2 - 2	L7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As II	879.989	80		$4p^2 - 4p6s$	$g^3P - (1/2,1/2)^\circ$	1 - 1	L7
As II	881.557	125		$4p^2 - 4p6s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	L7
As II	881.805	20		$4p^2 - 4p5d$	$^1D - (3/2,3/2)^\circ$	2 - 1	L7
As II	883.921	125		$4p^2 - 4p5d$	$^1D - (3/2,3/2)^\circ$	2 - 2	L7
As II	886.941	40		$4p^2 - 4p5d$	$^1D - (3/2,3/2)^\circ$	2 - 3	L7
As II	888.584	80		$4p^2 - 4p6d$	$^1S - (3/2,5/2)^\circ$	0 - 1	L7
As II	891.587	125		$4p^2 - 4p6s$	$g^3P - (1/2,1/2)^\circ$	2 - 1	L7
As II	898.768	125		$4p^2 - 4p5d$	$^1D - (1/2,3/2)^\circ$	2 - 1	L7
As II	903.521	150		$4p^2 - 4p5d$	$^1D - (1/2,5/2)^\circ$	2 - 2	L7
As II	905.240	100		$4s^24p^2 - 4s4p^3$	$g^3P - ^1D^\circ$	1 - 2	L7
As II	913.727	125		$4p^2 - 4p5d$	$^1D - (1/2,5/2)^\circ$	2 - 3	L7
As II	914.746	80		$4p^2 - 4p7s$	$^1S - (3/2,1/2)^\circ$	0 - 1	L7
As II	917.131	100		$4s^24p^2 - 4s4p^3$	$g^3P - ^3S^\circ$	0 - 1	L7
As II	917.513	150		$4s^24p^2 - 4s4p^3$	$g^3P - ^1D^\circ$	2 - 2	L7
As II	918.115	150		$4s^24p^2 - 4s4p^3$	$^1D - ^1P^\circ$	2 - 1	L7
As II	918.706	10		$4p^2 - 4p6d$	$^1S - (1/2,3/2)^\circ$	0 - 1	L7
As II	919.152	150		$4p^2 - 4p5d$	$^1D - (1/2,3/2)^\circ$	2 - 2	L7
As II	928.941	100		$4p^2 - 4p6s$	$^1D - (3/2,1/2)^\circ$	2 - 1	L7
As II	942.585	100		$4p^2 - 4p7s$	$^1S - (1/2,1/2)^\circ$	0 - 1	L7
As II	955.976	125		$4p^2 - 4p6s$	$^1D - (1/2,1/2)^\circ$	2 - 1	L7
As II	961.443	0		$4p^2 - 4p5d$	$^1S - (3/2,5/2)^\circ$	0 - 1	L7
As II	974.712	190		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	0 - 1	L7
As II	984.919	200		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 1	L7
As II	985.345	220		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 0	L7
As II	985.847	220		$4s^24p^2 - 4s4p^3$	$^1D - ^1D^\circ$	2 - 2	L7
As II	987.634	125		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 2	L7
As II	991.068	0		$4p^2 - 4p5d$	$^1S - (3/2,3/2)^\circ$	0 - 1	L7
As II	995.772	190		$4p^2 - 4p4d$	$g^3P - ^1P^\circ$	1 - 1	L7
As II	999.465	190		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 1	L7
As II	1000.538	220		$4p^2 - 4p4d$	$g^3P - ^1F^\circ$	2 - 3	L7
As II	1002.261	250		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 2	L7
As II	1009.427	220		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	0 - 1	L7
As II	1010.647	190		$4p^2 - 4p4d$	$g^3P - ^1P^\circ$	2 - 1	L7
As II	1012.546	125		$4p^2 - 4p5d$	$^1S - (1/2,3/2)^\circ$	0 - 1	L7
As II	1015.375	300		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	1 - 2	L7
As II	1020.379	200		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	1 - 1	L7
As II	1021.965	350		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	2 - 3	L7
As II	1030.846	200		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	2 - 2	L7
As II	1036.004	100		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	2 - 1	L7
As II	1037.169	160		$4s^24p^2 - 4s4p^3$	$^1S - ^1P^\circ$	0 - 1	L7
As II	1051.005	150		$4p^2 - 4p6s$	$^1S - (3/2,1/2)^\circ$	0 - 1	L7
As II	1081.090	190		$4p^2 - 4p4d$	$^1D - ^3P^\circ$	2 - 1	L7
As II	1082.350	350		$4p^2 - 4p4d$	$^1D - ^1F^\circ$	2 - 3	L7
As II	1084.370	190		$4p^2 - 4p4d$	$^1D - ^3P^\circ$	2 - 2	L7
As II	1085.729	150		$4p^2 - 4p6s$	$^1S - (1/2,1/2)^\circ$	0 - 1	L7
As II	1094.183	225		$4p^2 - 4p4d$	$^1D - ^1P^\circ$	2 - 1	L7
As II	1107.476	300		$4p^2 - 4p4d$	$^1D - ^3D^\circ$	2 - 3	L7
As II	1117.903	200		$4p^2 - 4p4d$	$^1D - ^3D^\circ$	2 - 2	L7
As II	1123.977	225		$4p^2 - 4p4d$	$^1D - ^3D^\circ$	2 - 1	L7
As II	1139.395	500		$4p^2 - 4p4d$	$g^3P - ^3F^\circ$	1 - 2	L7
As II	1149.306	600		$4p^2 - 4p4d$	$g^3P - ^3F^\circ$	2 - 3	L7
As II	1156.908	10		$4s^24p^2 - 4s4p^3$	$^1S - ^3S^\circ$	0 - 1	L7
As II	1158.908	300		$4p^2 - 4p4d$	$g^3P - ^3F^\circ$	2 - 2	L7
As II	1181.506	550		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	0 - 1	L7
As II	1189.870	550		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 2	L7
As II	1196.383	600		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 0	L7
As II	1196.561	600		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 1	L7
As II	1207.441	350		$4p^2 - 4p5s$	$g^3P - (3/2,1/2)^\circ$	0 - 1	L7
As II	1211.170	800		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	2 - 2	L7
As II	1218.099	800		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	2 - 1	L7
As II	1218.95	225		$4p^2 - 4p4d$	$g^3P - ^1D^\circ$	1 - 2	L7
As II	1223.149	350		$4p^2 - 4p5s$	$g^3P - (3/2,1/2)^\circ$	1 - 1	L7
As II	1241.311	750		$4p^2 - 4p4d$	$g^3P - ^1D^\circ$	2 - 2	L7
As II	1243.081	950		$4p^2 - 4p5s$	$g^3P - (3/2,1/2)^\circ$	1 - 2	L7
As II	1245.668	850		$4p^2 - 4p5s$	$g^3P - (3/2,1/2)^\circ$	2 - 1	L7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As II	1247.949	0		$4s4p^3 - 4s^24p7p$	$^5S^\circ - 3/2[1/2]$	2 - 1	L7
As II	1250.058	300		$4p^2 - 4p4d$	$^1S - ^3P^\circ$	0 - 1	L7
As II	1252.916	5		$4s4p^3 - 4s^24p7p$	$^5S^\circ - 3/2[5/2]$	2 - 3	L7
As II	1258.585	800		$4p^2 - 4p4d$	$^1D - ^3F^\circ$	2 - 3	L7
As II	1263.770	950		$4p^2 - 4p5s$	$g^3P - (1/2,1/2)^\circ$	0 - 1	L7
As II	1266.340	800		$4p^2 - 4p5s$	$g^3P - (3/2,1/2)^\circ$	2 - 2	L7
As II	1267.588	800		$4p^2 - 4p4d$	$^1S - ^1P^\circ$	0 - 1	L7
As II	1270.110	5		$4p^2 - 4p4d$	$^1D - ^3F^\circ$	2 - 2	L7
As II	1280.987	700		$4p^2 - 4p5s$	$g^3P - (1/2,1/2)^\circ$	1 - 1	L7
As II	1287.538	700		$4p^2 - 4p5s$	$g^3P - (1/2,1/2)^\circ$	1 - 0	L7
As II	1305.701	700		$4p^2 - 4p5s$	$g^3P - (1/2,1/2)^\circ$	2 - 1	L7
As II	1307.74	350		$4p^2 - 4p4d$	$^1S - ^3D^\circ$	0 - 1	L7
As II	1333.147	750		$4s^24p^2 - 4s4p^3$	$^1D - ^3P^\circ$	2 - 2	L7
As II	1341.549	950		$4s^24p^2 - 4s4p^3$	$^1D - ^3P^\circ$	2 - 1	L7
As II	1355.933	750		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	0 - 1	L7
As II	1369.770	950		$4p^2 - 4p4d$	$^1D - ^1D^\circ$	2 - 2	L7
As II	1373.650	800		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	1 - 2	L7
As II	1375.074	1000		$4p^2 - 4p5s$	$^1D - (3/2,1/2)^\circ$	2 - 1	L7
As II	1375.783	750		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	1 - 1	L7
As II	1394.64	800		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	2 - 3	L7
As II	1400.306	800		$4p^2 - 4p5s$	$^1D - (3/2,1/2)^\circ$	2 - 2	L7
As II	1402.114	10		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	2 - 2	L7
As II	1404.323	5		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	2 - 1	L7
As II	1419.855	0		$4s4p^3 - 4s^24p4f$	$^5S^\circ - 3/2[3/2]$	2 - 2	L7
As II	1420.624	0		$4s4p^3 - 4s^24p4f$	$^5S^\circ - 3/2[3/2]$	2 - 1	L7
As II	1431.817	0		$4s4p^3 - 4s^24p4f$	$^5S^\circ - 3/2[5/2]$	2 - 3	L7
As II	1433.053	0		$4s4p^3 - 4s^24p6p$	$^5S^\circ - 3/2[1/2]$	2 - 1	L7
As II	1448.593	500		$4p^2 - 4p5s$	$^1D - (1/2,1/2)^\circ$	2 - 1	L7
As II	1493.259	0		$4s4p^3 - 4s^24p7f$	$^3D^\circ - 1/2[5/2]$	2 - 3	L7
As II	1496.598	0		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[3/2]$	1 - 2	L7
As II	1497.547	0		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[3/2]$	1 - 1	L7
As II	1498.058	0		$4s4p^3 - 4s^24p4f$	$^5S^\circ - 1/2[5/2]$	2 - 3	L7
As II	1499.108	0		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[3/2]$	2 - 2	L7
As II	1499.168	0		$4s4p^3 - 4s^24p4f$	$^5S^\circ - 1/2[7/2]$	2 - 3	L7
As II	1500.074	0		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[3/2]$	2 - 1	L7
As II	1502.615	0		$4s4p^3 - 4s^24p7f$	$^3D^\circ - 1/2[5/2]$	3 - 2	L7
As II	1504.20	150		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[5/2]$	2 - 2	L7
As II	1505.556	2		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[5/2]$	2 - 3	L7
As II	1507.145	5		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[7/2]$	2 - 3	L7
As II	1514.260	2		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[5/2]$	3 - 3	L7
As II	1515.207	20		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 3/2[7/2]$	3 - 4	L7
As II	1558.884	500		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 3	L7
As II	1568.225	225		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 2	L7
As II	1569.385	10		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 1/2[5/2]$	1 - 2	L7
As II	1570.993	500		$4s^24p^2 - 4s4p^3$	$^1D - ^3D^\circ$	2 - 1	L7
As II	1572.644	10		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 1/2[5/2]$	2 - 3	L7
As II	1582.406	5		$4s4p^3 - 4s^24p6f$	$^3D^\circ - 1/2[7/2]$	3 - 4	L7
As II	1611.927	225		$4s^24p^2 - 4s4p^3$	$^1S - ^3P^\circ$	0 - 1	L7
As II	1629.565	0		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[3/2]$	1 - 1	L7
As II	1631.725	0		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[3/2]$	2 - 2	L7
As II	1634.298	4		$4p5s - 4p9p$	$(3/2,1/2)^\circ - 3/2[1/2]$	1 - 0	L7
As II	1637.033	0		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 3/2[1/2]$	2 - 1	L7
As II	1637.470	10		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[5/2]$	1 - 2	L7
As II	1639.979	5		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[5/2]$	2 - 3	L7
As II	1640.491	1		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[5/2]$	2 - 2	L7
As II	1643.619	5		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 3/2[3/2]$	2 - 2	L7
As II	1645.590	1		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 3/2[5/2]$	2 - 3	L7
As II	1647.527	10		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[7/2]$	2 - 3	L7
As II	1650.319	1		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[5/2]$	3 - 3	L7
As II	1650.842	0		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[5/2]$	3 - 2	L7
As II	1656.004	5		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 3/2[5/2]$	3 - 3	L7
As II	1656.704	50		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 3/2[7/2]$	3 - 4	L7
As II	1660.554	500		$4p^2 - 4p5s$	$^1S - (3/2,1/2)^\circ$	0 - 1	L7
As II	1714.069	0		$4p5s - 4p6f$	$(1/2,1/2)^\circ - 1/2[5/2]$	1 - 2	L7
As II	1716.962	1		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 1/2[3/2]$	1 - 2	L7

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As II	1719.802	50		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 1/2[5/2]$	1 - 2	L7
As II	1722.680	2		$4p5s - 4p8p$	$(3/2,1/2)^\circ - 3/2[1/2]$	1 - 0	L7
As II	1723.852	0		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 1/2[5/2]$	2 - 3	L7
As II	1725.846	1		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 1/2[7/2]$	2 - 3	L7
As II	1731.671	0		$4s4p^3 - 4s^24p7p$	$^3D^\circ - 1/2[3/2]$	3 - 2	L7
As II	1732.236	0		$4p4d - 4p7f$	$^1D^\circ - 1/2[5/2]$	2 - 3	L7
As II	1735.081	0		$4s4p^3 - 4s^24p5f$	$^3D^\circ - 1/2[7/2]$	3 - 4	L7
As II	1750.945	5		$4p4d - 4p6f$	$^1D^\circ - 3/2[7/2]$	2 - 3	L7
As II	1768.985	225		$4p^2 - 4p5s$	$^1S - (1/2,1/2)^\circ$	0 - 1	L7
As II	1787.885	0		$4s4p^3 - 4s^24p6f$	$^3P^\circ - 3/2[3/2]$	1 - 2	L7
As II	1789.643	5		$4s4p^3 - 4s^24p6f$	$^3P^\circ - 3/2[3/2]$	0 - 1	L7
As II	1794.567	0		$4s4p^3 - 4s^24p7f$	$^3P^\circ - 1/2[5/2]$	2 - 3	L7
As II	1803.028	0		$4s4p^3 - 4s^24p6f$	$^3P^\circ - 3/2[3/2]$	2 - 2	L7
As II	1812.350	5		$4s4p^3 - 4s^24p6f$	$^3P^\circ - 3/2[5/2]$	2 - 3	L7
As II	1814.660	0		$4s4p^3 - 4s^24p6f$	$^3P^\circ - 3/2[7/2]$	2 - 3	L7
As II	1820.009	0		$4p4d - 4p8f$	$^3F^\circ - 3/2[9/2]$	4 - 5	L7
As II	1839.978	5		$4p4d - 4p6f$	$^1D^\circ - 1/2[5/2]$	2 - 3	L7
As II	1860.342	350		$4s^24p^2 - 4s4p^3$	$g^3P - ^5S^\circ$	1 - 2	L7
As II	1891.278	50		$4p5s - 4p7p$	$(3/2,1/2)^\circ - 3/2[1/2]$	1 - 0	L7
As II	1894.661	1		$4p4d - 4p7f$	$^3F^\circ - 3/2[9/2]$	4 - 5	L7
As II	1912.938	500		$4s^24p^2 - 4s4p^3$	$g^3P - ^5S^\circ$	2 - 2	L7
As II	1933.530	0		$4p4d - 4p5f$	$^1D^\circ - 3/2[5/2]$	2 - 2	L7
As II	1937.869	0		$4p4d - 4p7p$	$^1D^\circ - 3/2[3/2]$	2 - 2	L7
As II	1941.876	1		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[3/2]$	1 - 2	L7
As II	1943.305	0		$4p4d - 4p5f$	$^1D^\circ - 3/2[7/2]$	2 - 3	L7
As II	1943.317	40		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[3/2]$	1 - 1	L7
As II	1946.137	1		$4p4d - 4p6f$	$^3F^\circ - 3/2[7/2]$	2 - 3	L7
As II	1947.572	0		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[3/2]$	2 - 1	L7
As II	1951.393	0		$4p4d - 4p7f$	$^3F^\circ - 1/2[5/2]$	3 - 2	L7
As II	1952.541	0		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[5/2]$	1 - 2	L7
As II	1956.835	0		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[5/2]$	2 - 2	L7
As II	1965.036	3		$4p4d - 4p6f$	$^3F^\circ - 3/2[9/2]$	3 - 4	L7
As II	1968.660	20		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[5/2]$	2 - 3	L7
As II	1968.855	20		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[5/2]$	2 - 2	L7
As II	1970.953	0		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[1/2]$	2 - 1	L7
As II	1971.580	0		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[5/2]$	3 - 2	L7
As II	1975.270	1		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[9/2]$	3 - 4	L7
As II	1979.755	10		$4s4p^3 - 4s^24p5f$	$^3P^\circ - 3/2[3/2]$	1 - 2	L7
As II	1980.992	2		$4s4p^3 - 4s^24p5f$	$^3P^\circ - 3/2[3/2]$	1 - 1	L7
As II	1981.466	10		$4s4p^3 - 4s^24p5f$	$^3P^\circ - 3/2[3/2]$	0 - 1	L7
As II	1983.581	100		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[3/2]$	1 - 2	L7
As II	1983.787	3		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[5/2]$	3 - 2	L7
As II	1988.018	20		$4s4p^3 - 4s^24p6p$	$^3D^\circ - 3/2[3/2]$	2 - 2	L7
As II	1988.955	100		$4s4p^3 - 4s^24p4f$	$^3D^\circ - 3/2[7/2]$	2 - 3	L7
As II	1992.682	5		$4s4p^3 - 4s^24p5f$	$^3P^\circ - 3/2[5/2]$	1 - 2	L7
As II	1998.340	10		$4s4p^3 - 4s^24p5f$	$^3P^\circ - 3/2[3/2]$	2 - 2	L7

ARSENIC III (As^{2+}), Z = 33

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p\ ^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential 228 670 cm^{-1}; 28.351 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As III	603.8	90		4p - 5d	$g^2P^\circ - {}^2D$	½ - 3/2	L4
As III	614.4	90		4p - 5d	$g^2P^\circ - {}^2D$	3/2 - 5/2	L4
As III	614.7	15		4p - 5d	$g^2P^\circ - {}^2D$	3/2 - 3/2	L4
As III	849.9	450		4p - 4d	$g^2P^\circ - {}^2D$	½ - 3/2	L4
As III	866.3	300		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	½ - 3/2	L4
As III	871.1	500		4p - 4d	$g^2P^\circ - {}^2D$?	3/2 - 5/2	R10
As III	871.7	750		4p - 4d	$g^2P^\circ - {}^2D$	3/2 - 3/2	L4
As III	877.7	350		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$?	½ - ½	R10
As III	889.0	600		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	3/2 - 3/2	L4,R10
As III	900.9	300		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$?	3/2 - ½	R10
As III	927.6	600		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2S$	½ - ½	L4
As III	937.2	600		4p - 5s	$g^2P^\circ - {}^2S$	½ - ½	L4
As III	953.6	600		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2S$	3/2 - ½	L4
As III	963.8	600		4p - 5s	$g^2P^\circ - {}^2S$	3/2 - ½	L4
As III	1172.2	360		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	½ - 3/2	L4
As III	1209.3	450		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	3/2 - 5/2	L4
As III	1214.0	90		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	3/2 - 3/2	L4
As III	1269.0	150		$4s4p^2 - 4s^24f$	${}^2D - {}^2F^\circ$	3/2 - 5/2	L4
As III	1274.3	240		$4s4p^2 - 4s^24f$	${}^2D - {}^2F^\circ$	5/2 - 7/2	L4

ARSENIC IV (As^{3+}), Z = 33

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^2\ ^1S_0$ (30 electrons)

Ionization Potential 404 369 cm^{-1}; 50.13 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As IV	530.3	100		4s4p - 4s6s	${}^1P^\circ - {}^1S$	1 - 0	R11
As IV?	537.1	150					R11
As IV	550.0	50		4s4p - 4s5d	${}^1P^\circ - {}^1D$	1 - 2	R11
As IV	655.9	20		4s4p - 4s5s	${}^3P^\circ - {}^1S$	1 - 0	R11
As IV	692.9	250		4s4p - 4s5s	${}^3P^\circ - {}^3S$	0 - 1	R11
As IV	698.5	350		4s4p - 4s5s	${}^3P^\circ - {}^3S$	1 - 1	R11
As IV	711.1	400		4s4p - 4s5s	${}^3P^\circ - {}^3S$	2 - 1	R11
As IV	741.9	400		4s4p - 4s4d	${}^3P^\circ - {}^3D$	0 - 1	R11
As IV	747.6	450		4s4p - 4s4d	${}^3P^\circ - {}^3D$	1 - 2	R11
As IV	748.3	400		4s4p - 4s4d	${}^3P^\circ - {}^3D$	1 - 1	R11
As IV	760.8	500		4s4p - 4s4d	${}^3P^\circ - {}^3D$	2 - 3	R11
As IV	762.8	200		4s4p - 4s4d	${}^3P^\circ - {}^3D$	2 - 1	R11
As IV	851.7	500		4s4p - 4s5s	${}^1P^\circ - {}^1S$	1 - 0	R11
As IV	892.7	500		$4s^2 - 4s4p$	$g^1S - {}^1P^\circ$	0 - 1	R11
As IV	925.0	50		4s4p - 4s5s	${}^1P^\circ - {}^3S$	1 - 1	R11
As IV	930.8	400		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	1 - 2	R11
As IV	941.9	250		4s4d - 4s4f	${}^1D - {}^1F^\circ$	2 - 3	R11
As IV	946.4	450		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	0 - 1	R11
As IV	953.2	400		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	2 - 2	R11
As IV	956.9	450		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	1 - 1	R11
As IV	971.1	500		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	1 - 0	R11
As IV	974.6	450		4s4p - 4s4d	${}^3P^\circ - {}^1D$	1 - 2	R11
As IV	980.6	500		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	2 - 1	R11
As IV	999.2	450		4s4p - 4s4d	${}^3P^\circ - {}^1D$	2 - 2	R11
As IV	999.4	100		$4p^2 - 4s4f$	${}^3P - {}^3F^\circ$	2 - 2	R11

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As IV	1003.4	400		$4s4p - 4p^2$	$^1P^\circ - ^1S$	1 - 0	R11
As IV	1079.5	350		$4s4p - 4p^2$	$^1P^\circ - ^1D$	1 - 2	R11
As IV	1299.3	500		$4s^2 - 4s4p$	$g^1S - ^3P^\circ$	0 - 1	R11
As IV	1333.3	100		$4s4d - 4s4f$	$^3D - ^1F^\circ$	2 - 3	R11
As IV	1336.9	20		$4s4d - 4s4f$	$^3D - ^1F^\circ$	3 - 3	R11
As IV	1342.7	350		$4s4d - 4s5p$	$^1D - ^1P^\circ$	2 - 1	R11
As IV	1347.5	450		$4s4d - 4s4f$	$^3D - ^3F^\circ$	3 - 4	R11
As IV	1351.3	350		$4s4d - 4s4f$	$^3D - ^3F^\circ$	2 - 3	R11
As IV	1353.9	300		$4s4d - 4s4f$	$^3D - ^3F^\circ$	1 - 2	R11
As IV	1355.1	100		$4s4d - 4s4f$	$^3D - ^3F^\circ$	3 - 3	R11
As IV	1356.4	100		$4s4d - 4s4f$	$^3D - ^3F^\circ$	2 - 2	R11
As IV	1375.1	500b		$4s4d - 4s5p$	$^1D - ^3P^\circ$	2 - 2	R11
As IV	1381.8	300		$4s4p - 4p^2$	$^1P^\circ - ^3P$	1 - 2	R11
As IV	1390.7	20		$4s4d - 4s5p$	$^1D - ^3P^\circ$	2 - 1	R11
As IV	1435.9	200		$4p^2 - 4s5p$	$^3P - ^1P^\circ$	2 - 1	R11
As IV	1440.0	100		$4s4p - 4p^2$	$^1P^\circ - ^3P$	1 - 1	R11
As IV	1472.5	50		$4s4p - 4p^2$	$^1P^\circ - ^3P$	1 - 0	R11
As IV	1473.0	50		$4p^2 - 4s5p$	$^3P - ^3P^\circ$	2 - 2	R11
As IV	1480.6	450		$4s4p - 4s4d$	$^1P^\circ - ^1D$	1 - 2	R11

ARSENIC V (As^{4+}), Z = 33

Ground State $1s^22s^22p^63s^23p^63d^{10}4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential 505 136 cm^{-1}; 62.63 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As V	600.7	150		4p - 5s	$^2P^\circ - ^2S$	½ - ½	S2
As V	616.0	200		4p - 5s	$^2P^\circ - ^2S$	3/2 - ½	S2
As V	715.5	350		4p - 4d	$^2P^\circ - ^2D$	½ - 3/2	S2
As V	734.8	400		4p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	S2
As V	737.2	250		4p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	S2
As V	987.7	500		4s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	S2
As V	1029.5	500		4s - 4p	$g^2S - ^2P^\circ$	½ - ½	S2
As V	1051.6	200		4d - 4f	$^2D - ^2F^\circ$	3/2 - 5/2	S2
As V	1056.6	250		4d - 4f	$^2D - ^2F^\circ$	5/2 - 7/2	S2

ARSENIC VI (As^{5+}), Z = 33

Ground State $1s^22s^22p^63s^23p^63d^{10}\ ^1S_0$ (28 electrons)

Ionization Potential 1 028 800 cm^{-1}; 127.6 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As VI	220.0	800		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3D^\circ$	0 - 1	K26
As VI	221.0	1000		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^1P^\circ$	0 - 1	K26
As VI	226.8	100		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3P^\circ$	0 - 1	K26
As VI	232.2	100					K26

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ARSENIC VII (As^{6+}), Z = 33

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9$ $^2D_{5/2}$ (27 electrons)

Ionization Potential [1 242 000] cm^{-1}; [154] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
As VII	173.82	600		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	5/2 - 5/2	Z2
As VII	174.60	1000b		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	5/2 - 3/2	Z2
As VII	174.70	1000b		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	5/2 - 7/2	Z2
As VII	175.20	600		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	5/2 - 5/2	Z2
As VII	175.46	1000		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	5/2 - 3/2	Z2
As VII	175.56	1000		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F^\circ$	3/2 - 5/2	Z2
As VII	175.84	800		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 1/2	Z2
As VII	176.32	900		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 3/2	Z2
As VII	176.96	600		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 5/2	Z2
As VII	177.23	1000		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 3/2	Z2
As VII	177.58	900		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	5/2 - 3/2	Z2
As VII	178.00	800		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 5/2	Z2
As VII	178.62	900		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	5/2 - 7/2	Z2
As VII	178.69	700		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 3/2	Z2
As VII	179.38	600		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	3/2 - 3/2	Z2
As VII	179.82	400		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 5/2	Z2
As VII	180.52	900		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 3/2	Z2
As VII	180.79	900b		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 5/2	Z2
As VII	181.08	400		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 3/2	Z2
As VII	181.57	800		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	3/2 - 5/2	Z2
As VII	182.51	900		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 5/2	Z2
As VII	182.68	800b		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 5/2	Z2
As VII	182.97	900		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 3/2	Z2
As VII	183.14	400		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 3/2	Z2
As VII	183.68	1000		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 7/2	Z2
As VII	184.05	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2G^\circ$	5/2 - 7/2	Z2
As VII	184.29	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 5/2	Z2
As VII	184.43	700		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	3/2 - 5/2	Z2
As VII	185.06	700		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	3/2 - 3/2	Z2
As VII	185.19	900		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 5/2	Z2
As VII	185.66	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 7/2	Z2
As VII	186.25	700		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	3/2 - 5/2	Z2
As VII	187.38	900		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	3/2 - 3/2	Z2

ARSENIC VIII (As^{7+}), Z = 33

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8$ $^3F_4$ (26 electrons)

Ionization Potential [1 508 000] cm^{-1}; [187] eV

ARSENIC IX (As^{8+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^7$ $^4F_{9/2}$ (25 electrons)
Ionization Potential [1 791 000] cm^{-1}; [222] eV

ARSENIC X (As^{9+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^6$ $^5D_4$ (24 electrons)
Ionization Potential [2 089 000] cm^{-1}; [259] eV

ARSENIC XI (As^{10+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [2 420 000] cm^{-1}; [300] eV

ARSENIC XII (As^{11+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [2 726 000] cm^{-1}; [338] eV

ARSENIC XIII (As^{12+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [3 275 000] cm^{-1}; [379] eV

ARSENIC XIV (As^{13+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [3 396 000] cm^{-1}; [421] eV

ARSENIC XV (As^{14+}), Z = 33
Ground State $1s^22s^22p^63s^23p^63d$ $^2D_{3/2}$ (19 electrons)
Ionization Potential [3 726 400] cm^{-1}; [462] eV

ARSENIC XVI (As^{15+}), Z = 33
Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)
Ionization Potential [4 791 100] cm^{-1}; [594] eV

ARSENIC XVII (As^{16+}), Z = 33
Ground State $1s^22s^22p^63s^23p^5$ $^2P^o_{3/2}$ (17 electrons)
Ionization Potential [5 081 500] cm^{-1}; [630] eV

ARSENIC XVIII (As^{17+}), Z = 33
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [5 404 100] cm^{-1}; [670] eV

ARSENIC XIX (As^{18+}), Z = 33
Ground State $1s^22s^22p^63s^23p^3$ $^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [5 840 000] cm^{-1}; [724] eV

ARSENIC XX (As^{19+}), Z = 33
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [6 202 600] cm^{-1}; [769] eV

ARSENIC XXI (As^{20+}), Z = 33
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [6 557 500] cm^{-1}; [813] eV

ARSENIC XXII (As^{21+}), Z = 33
Ground State $1s^22s^22p^63s^2$ $^1S_0$ (12 electrons)
Ionization Potential [7 340 000] cm^{-1}; [910] eV

ARSENIC XXIII (As^{22+}), Z = 33
Ground State $1s^22s^22p^63s$ $^2S_{1/2}$ (11 electrons)
Ionization Potential [7 686 700] cm^{-1}; [953] eV

ARSENIC XXIV (As^{23+}), Z = 33
Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)
Ionization Potential [19 132 000] cm^{-1}; [2372] eV

ARSENIC XXV (As^{24+}), Z = 33
Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [19 954 000] cm^{-1}; [2474] eV

ARSENIC XXVI (As^{25+}), Z = 33
Ground State $1s^2 2s^2 2p^4$ $^3P_2$ (8 electrons)
Ionization Potential [21 019 000] cm^{-1}; [2606] eV

ARSENIC XXVII (As^{26+}), Z = 33
Ground State $1s^2 2s^2 2p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [22 326 000] cm^{-1}; [2768] eV

ARSENIC XXVIII (As^{27+}), Z = 33
Ground State $1s^2 2s^2 2p^2$ $^3P_0$ (6 electrons)
Ionization Potential [23 552 000] cm^{-1}; [2920] eV

ARSENIC XXIX (As^{28+}), Z = 33
Ground State $1s^22s^22p\ ^2P^o_{1/2}$ (5 electrons)
Ionization Potential [24 722 000] cm^{-1}; [3065] eV

ARSENIC XXX (As^{29+}), Z = 33
Ground State $1s^22s^2\ ^1S_0$ (4 electrons)
Ionization Potential [26 198 000] cm^{-1}; [3248] eV

ARSENIC XXXI (As^{30+}), Z = 33
Ground State $1s^22s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [27 466 000] cm^{-1}; [3409] eV

ARSENIC XXXII (As^{31+}), Z = 33
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [116 510 000] cm^{-1}; [14445] eV

ARSENIC XXXIII (As^{32+}), Z = 33
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [121 196 000] cm^{-1}; [15026] eV

SELENIUM I (Se^{0+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^4\ ^3P_2$ (34 electrons)

Ionization Potential 78 658.22 cm^{-1}; 9.752 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se I	1313.53	60		$4p^4 - 4p^3(^4S^\circ)8d$	$g^3P - ^3D^\circ$	2 - 3	R23
Se I	1316.26	60		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 3^\circ$	2 - 2	R23
Se I	1322.06	20		$4p^4 - 4p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	2 - 1	R23
Se I	1326.83	40		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	2 - 1	R23
Se I	1327.80	20		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	2 - 3	R23
Se I	1328.75	80		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 2^\circ$	2 - 1	R23
Se I	1330.55	80		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^5D^\circ$	2 - 1	R23
Se I?	1342.04	80					R23
Se I	1345.54	80		$4p^4 - 4p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	2 - 1	R23
Se I	1346.58	10		$4p^4 - 4p^3(^4S^\circ)8d$	$g^3P - ^3D^\circ$	1 - 2	R23
Se I	1347.50	20		$4p^4 - 4p^3(^4S^\circ)8s$	$g^3P - ^5S^\circ$	2 - 2	R23
Se I	1348.40	100		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 1^\circ$	2 - 2	R23
Se I	1351.62	80		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 3^\circ$	1 - 2	R23
Se I?	1353.02	140					R23
Se I	1353.86	140		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	2 - 3	R23
Se I	1354.63	100		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	2 - 2	R23
Se I	1357.79	10		$4p^4 - 4p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	1 - 1	R23
Se I	1359.7	60		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^5D^\circ$	2 - 3	R23
Se I	1363.80	20		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	1 - 2	R23
Se I	1366.78	20		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^5D^\circ$	1 - 1	R23
Se I	1367.91	10		$4p^4 - 4p^3(^4S^\circ)9s$	$g^3P - ^3S^\circ$	0 - 1	R23
Se I	1373.03	40		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^3D^\circ$	0 - 1	R23
Se I	1375.03	40		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 2^\circ$	0 - 1	R23
Se I	1377.04	40		$4p^4 - 4p^3(^4S^\circ)7d$	$g^3P - ^5D^\circ$	0 - 1	R23
Se I	1377.98	200	11	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^1P^\circ$	2 - 1	R23
Se I?	1379.50	10					R23
Se I	1382.56	60		$4p^4 - 4p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	1 - 1	R23
Se I	1384.63	40		$4p^4 - 4p^3(^4S^\circ)8s$	$g^3P - ^5S^\circ$	1 - 2	R23
Se I	1385.54	160		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - 1^\circ$	1 - 2	R23
Se I	1390.99	120		$4p^4 - 4p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	2 - 1	R23
Se I	1391.27	80		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	1 - 1	R23
Se I	1392.13	100		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	1 - 2	R23
Se I	1393.0	80		$4p^4 - 4p^3(^4S^\circ)8s$	$g^3P - ^3S^\circ$	0 - 1	R23
Se I	1395.43	200	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	2 - 2	R23
Se I	1395.88	200	10	$4p^4 - 4p^3(^4S^\circ)7s$	$g^3P - ^5S^\circ$	2 - 2	R23
Se I	1397.5	40		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^5D^\circ$	1 - 2	R23
Se I	1401.92	80		$4p^4 - 4p^3(^4S^\circ)6d$	$g^3P - ^3D^\circ$	0 - 1	R23
Se I?	1402.63	20					R23
Se I	1404.45	160	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	2 - 1	R23
Se I	1405.37	200	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 3	R23
Se I	1406.37	200	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 1	R23
Se I	1406.60	200	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	2 - 2	R23
Se I	1416.84	160	11	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^1P^\circ$	1 - 1	R23
Se I	1420.64	160		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^5D^\circ$	2 - 3	R23
Se I	1427.87	120		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^1P^\circ$	0 - 1	R23
Se I	1430.58	120		$4p^4 - 4p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	1 - 1	R23
Se I	1435.28	240	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	1 - 2	R23
Se I	1435.75	240	10	$4p^4 - 4p^3(^4S^\circ)7s$	$g^3P - ^5S^\circ$	1 - 2	R23
Se I	1441.81	100		$4p^4 - 4p^3(^4S^\circ)7s$	$g^3P - ^3S^\circ$	0 - 1	R23
Se I	1444.85	200	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	1 - 1	R23
Se I	1446.78	200	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	1 - 1	R23
Se I	1446.98	200	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	1 - 2	R23
Se I	1449.16	300	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	1 - 0	R23
Se I	1456.31	240	8	$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	0 - 1	R23
Se I	1458.29	160	9	$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$	0 - 1	R23
Se I	1461.99	120		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^5D^\circ$	1 - 2	R23
Se I	1496.44	60		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - 4^\circ$	2 - 3	R23
Se I	1500.91	300	7	$4p^4 - 4p^3(^4S^\circ)6s$	$g^3P - ^3S^\circ$	2 - 1	R23
Se I	1502.57	40		$4p^4 - 4p^3(^4S^\circ)8d$	$^1D - ^3D^\circ$	2 - 3	R23
Se I	1506.09	60		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - 3^\circ$	2 - 2	R23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se I?	1511.27	40					R23
Se I	1515.33	160		$4p^4 - 4p^3(^4S^\circ)6s$	$g\,^3P - ^5S^\circ$	2 - 2	R23
Se I	1519.99	80		$4p^4 - 4p^3(^4S^\circ)7d$	$^1D - ^3D^\circ$	2 - 1	R23
Se I	1521.20	60		$4p^4 - 4p^3(^4S^\circ)7d$	$^1D - ^3D^\circ$	2 - 2	R23
Se I	1522.45	120		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - 2^\circ$	2 - 1	R23
Se I	1524.88	120		$4p^4 - 4p^3(^4S^\circ)7d$	$^1D - ^5D^\circ$	2 - 1	R23
Se I	1530.39	500	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 3	R23
Se I	1531.33	300	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 1	R23
Se I	1531.84	400	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	2 - 2	R23
Se I	1547.12	240	7	$4p^4 - 4p^3(^4S^\circ)6s$	$g\,^3P - ^3S^\circ$	1 - 1	R23
Se I	1548.29	160		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - 1^\circ$	2 - 2	R23
Se I	1555.55	80		$4p^4 - 4p^3(^4S^\circ)6d$	$^1D - ^3D^\circ$	2 - 3	R23
Se I	1556.54	20		$4p^4 - 4p^3(^4S^\circ)6d$	$^1D - ^3D^\circ$	2 - 2	R23
Se I	1560.28	240	7	$4p^4 - 4p^3(^4S^\circ)6s$	$g\,^3P - ^3S^\circ$	0 - 1	R23
Se I	1562.50	40		$4p^4 - 4p^3(^4S^\circ)6s$	$g\,^3P - ^5S^\circ$	1 - 2	R23
Se I	1563.28	40		$4p^4 - 4p^3(^4S^\circ)6d$	$^1D - ^5D^\circ$	2 - 1	R23
Se I	1575.26	300	5	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^1D^\circ$	2 - 2	R23
Se I	1577.61	300	4	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^5D^\circ$	2 - 3	R23
Se I	1577.90	300	4	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^5D^\circ$	2 - 2	R23
Se I	1579.49	300	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 1	R23
Se I	1580.04	400	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	1 - 2	R23
Se I	1587.46	300	19	$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^1P^\circ$	2 - 1	R23
Se I	1593.19	300	6	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^3D^\circ$	0 - 1	R23
Se I	1604.70	80		$4p^4 - 4p^3(^4S^\circ)7s$	$^1D - ^3S^\circ$	2 - 1	R23
Se I	1606.46	500	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	2 - 3	R23
Se I	1610.72	200	17	$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^3P^\circ$	2 - 2	R23
Se I	1611.26	200	18	$4p^4 - 4p^3(^4S^\circ)7s$	$^1D - ^5S^\circ$	2 - 2	R23
Se I	1617.35	400	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	2 - 2	R23
Se I	1621.21	300	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	2 - 1	R23
Se I	1622.73	200	17	$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^3P^\circ$	2 - 1	R23
Se I	1623.90	100		$4p^4 - 4p^3(^4S^\circ)5d$	$^1D - ^3D^\circ$	2 - 3	R23
Se I	1625.19	140		$4p^4 - 4p^3(^4S^\circ)5d$	$^1D - ^3D^\circ$	2 - 1	R23
Se I	1625.45	120		$4p^4 - 4p^3(^4S^\circ)5d$	$^1D - ^3D^\circ$	2 - 2	R23
Se I	1626.25	240	5	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^1D^\circ$	1 - 2	R23
Se I	1628.85	160	4	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^5D^\circ$	1 - 1	R23
Se I	1629.06	120	4	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^5D^\circ$	1 - 2	R23
Se I?	1635.80	20					R23
Se I	1643.39	300	4	$4p^4 - 4p^3(^4S^\circ)4d$	$g\,^3P - ^5D^\circ$	0 - 1	R23
Se I	1671.15	500	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	1 - 2	R23
Se I	1675.27	500	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	1 - 1	R23
Se I?	1688.79	60					R23
Se I	1690.70	500	3	$4p^4 - 4p^3(^2D^\circ)5s$	$g\,^3P - ^3D^\circ$	0 - 1	R23
Se I?	1699.90	80					R23
Se I?	1706.70	40					R23
Se I?	1708.04	60					R23
Se I?	1742.75	80					R23
Se I?	1745.30	60					R23
Se I?	1750.89	120					R23
Se I?	1751.88	60					R23
Se I	1752.94	120		$4p^4 - 4p^3(^4S^\circ)6s$	$^1D - ^3S^\circ$	2 - 1	R23
Se I?	1759.24	160					R23
Se I	1772.64	100		$4p^4 - 4p^3(^4S^\circ)6s$	$^1D - ^5S^\circ$	2 - 2	R23
Se I?	1790.48	60					R23
Se I	1793.29	500	16	$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	R23
Se I	1794.55	100	16	$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^3D^\circ$	2 - 1	R23
Se I	1795.28	600	16	$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^3D^\circ$	2 - 2	R23
Se I?	1796.04	120					R23
Se I?	1822.15	160					R23
Se I?	1828.65	60					R23
Se I?	1830.41	80					R23
Se I?	1849.55	80					R23
Se I?	1850.51	60					R23
Se I?	1852.02	60					R23
Se I	1855.20	600	15	$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	R23
Se I	1858.84	500	14	$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^5D^\circ$	2 - 2	R23

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se I	1859.69	100		$4p^4 - 4p^3(^4S^\circ)8d$	$^1S - ^3D^\circ$	0 - 1	R23
Se I	1893.50	120		$4p^4 - 4p^3(^2D^\circ)4d$	$^1S - 2^\circ$	0 - 1	R23
Se I	1898.555	800	13	$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 3	R23
Se I	1913.788	700	13	$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 2	R23
Se I	1919.190	600	13	$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 1	R23
Se I	1960.901	1000	2	$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	R23
Se I	1995.112	300	22	$4p^4 - 4p^3(^2P^\circ)5s$	$^1S - ^1P^\circ$	0 - 1	R23

SELENIUM II (Se^{1+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^3\ ^4S^\circ_{3/2}$ (33 electrons)

Ionization Potential 170 900 cm^{-1}; 21.19 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se II	694.83	100		$4p^3$ -	g^4S° - 36	3/2 - 5/2	M2
Se II	697.65	300		$4p^3$ -	g^4S° - 35	3/2 - 5/2	M2
Se II	709.57	700	6	$4p^3$ -	g^4S° - 30	3/2 - 5/2	M2
Se II	710.47	50		$4p^3$ -	g^4S° - 29	3/2 - 3/2	M2
Se II	721.88	20		$4p^3 - 4p^2(^3P)6s$	$g^4S^\circ - ^2P$	3/2 - 1/2	M2
Se II	726.41	50	5	$4p^3 - 4p^2(^3P)6s$	$g^4S^\circ - ^4P$	3/2 - 5/2	M2
Se II	737.30	50	5	$4p^3 - 4p^2(^3P)6s$	$g^4S^\circ - ^4P$	3/2 - 3/2	M2
Se II	746.02	50	5	$4p^3 - 4p^2(^3P)6s$	$g^4S^\circ - ^4P$	3/2 - 1/2	M2
Se II	774.43	200		$4p^3$ -	$^2D^\circ$ - 33	3/2 - 3/2	M2
Se II	775.09	50		$4p^3$ -	g^4S° - 22	3/2 - 3/2	M2
Se II	782.09	20		$4p^3$ -	g^4S° - 20	3/2 - 1/2	M2
Se II	782.66	50		$4p^3 - 4p^2(^3P)6s$	$^2D^\circ - ^2P$	3/2 - 3/2	M2
Se II	783.84	100		$4p^3$ -	$^2D^\circ$ - 29	3/2 - 3/2	M2
Se II	786.49	400		$4p^3 - 4p^2(^3P)6s$	$^2D^\circ - ^2P$	5/2 - 3/2	M2
Se II	797.69	300		$4p^3 - 4p^2(^3P)6s$	$^2D^\circ - ^2P$	3/2 - 1/2	M2
Se II	798.79	20		$4p^3 - 4p^2(^3P)5d$	$^2D^\circ - ^4F$?	3/2 - 3/2	G21,B7
Se II	800.54	100		$4p^3$ -	$^2D^\circ$ - 27	5/2 - 3/2	M2
Se II	801.59	300		$4p^3$ -	$^2D^\circ$ - 26	5/2 - 5/2	M2
Se II	814.86	20		$4p^3$ -	g^4S° - 16	3/2 - 5/2	M2
Se II	816.99	300		$4p^3$ -	$^2D^\circ$ - 25	5/2 - 3/2	M2
Se II	820.68	300		$4p^3 - 4p^2(^3P)6s$	$^2D^\circ - ^4P$	5/2 - 3/2	M2
Se II	828.48	800	13	$4p^3$ -	$^2D^\circ$ - 24	3/2 - 5/2	M2
Se II	832.74	900	13	$4p^3$ -	$^2D^\circ$ - 24	5/2 - 5/2	M2
Se II	838.43	50		$4p^3$ -	$^2P^\circ$ - 33	1/2 - 3/2	M2
Se II	844.00	400		$4p^3$ -	$^2P^\circ$ - 34	3/2 - 3/2	M2
Se II	849.60	400		$4p^3$ -	$^2P^\circ$ - 29	1/2 - 3/2	M2
Se II	854.46	50		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 3/2	M2
Se II	855.81	100		$4p^3$ -	$^2P^\circ$ - 29	3/2 - 3/2	M2
Se II	864.59	20		$4p^3$ -	$^2P^\circ$ - 27	1/2 - 3/2	M2
Se II	865.90	50		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - ^2P$	1/2 - 1/2	M2
Se II	867.83	300		$4p^3$ -	$^2D^\circ$ - 22	5/2 - 3/2	M2
Se II	871.02	200		$4p^3$ -	$^2P^\circ$ - 27	3/2 - 3/2	M2
Se II	871.83	400		$4p^3$ -	$^2D^\circ$ - 20	3/2 - 1/2	M2
Se II	872.27	50		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - ^2P$	3/2 - 1/2	M2
Se II	882.61	600		$4p^3$ -	$^2D^\circ$ - 19	3/2 - 3/2	M2
Se II	883.77	50		$4p^3$ -	$^2P^\circ$ - 25	1/2 - 3/2	M2
Se II	887.48	500		$4p^3$ -	$^2D^\circ$ - 19	5/2 - 3/2	M2
Se II	888.06	200		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - ^4P$	1/2 - 3/2	G21,B7
Se II	890.59	600		$4p^3$ -	$^2P^\circ$ - 25	3/2 - 3/2	M2
Se II	894.99	50		$4p^3 - 4p^2(^3P)6s$	$^2P^\circ - ^4P$	3/2 - 3/2	M2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se II	906.63	800	4	$4p^3$ -	g^4S° - 11	3/2 - 5/2	M2
Se II	907.81	200		$4p^3$ - $4p^2(^3P)6s$	$^2P^\circ$ - ^4P	3/2 - 1/2	M2
Se II	912.89	900	12	$4p^3$ -	$^2D^\circ$ - 17	5/2 - 3/2	M2
Se II	917.94	200		$4p^3$ -	$^2D^\circ$ - 16	5/2 - 5/2	M2
Se II	918.84	400		$4p^3$ -	g^4S° - 10	3/2 - 5/2	M2
Se II	921.12	500		$4p^3$ -	$^2D^\circ$ - 15	3/2 - 5/2	M2
Se II	922.90	50		$4p^3$ - $4p^2(^1D)5s$	g^4S° - ^2D	3/2 - 5/2	M2
Se II	926.38	100		$4p^3$ -	$^2D^\circ$ - 15	5/2 - 5/2	M2
Se II	943.61	200		$4p^3$ -	g^4S° - 9	3/2 - 1/2	M2
Se II	950.02	200		$4p^3$ -	g^4S° - 8	3/2 - 1/2	M2
Se II	951.26	300		$4p^3$ -	$^2P^\circ$ - 22	3/2 - 3/2	M2
Se II	953.88	400		$4p^3$ -	$^2P^\circ$ - 20	1/2 - 1/2	M2
Se II	961.77	200		$4p^3$ -	$^2P^\circ$ - 20	3/2 - 1/2	M2
Se II	974.94	300		$4p^3$ -	$^2P^\circ$ - 19	3/2 - 3/2	M2
Se II	983.94	600	3	$4p^3$ -	g^4S° - 5	3/2 - 5/2	M2
Se II	986.71	50		$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^2P	3/2 - 3/2	M2
Se II	997.06	200		$4s^24p^3$ - $4s4p^4$	g^4S° - ^2P	3/2 - 3/2	M2
Se II	997.14	100		$4p^3$ -	$^2P^\circ$ - 17	1/2 - 3/2	M2
Se II	1011.15	200		$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^2P	3/2 - 1/2	M2
Se II	1011.84	300		$4p^3$ -	$^2P^\circ$ - 16	3/2 - 5/2	M2
Se II	1013.40	900	2	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^4P	3/2 - 5/2	M2
Se II	1014.01	900	11	$4p^3$ -	$^2D^\circ$ - 12	5/2 - 3/2	M2
Se II	1022.11	100		$4p^3$ -	$^2P^\circ$ - 15	3/2 - 5/2	M2
Se II	1029.56	600		$4p^3$ -	$^2D^\circ$ - 11	3/2 - 5/2	M2
Se II	1033.60	1000	2	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^4P	3/2 - 3/2	M2
Se II	1036.16	300		$4p^3$ -	$^2D^\circ$ - 11	5/2 - 5/2	M2
Se II	1038.36	300		$4p^3$ -	$^2P^\circ$ - 13	1/2 - 1/2	M2
Se II	1045.31	400		$4p^3$ -	$^2D^\circ$ - 10	3/2 - 5/2	M2
Se II	1047.67	100		$4p^3$ -	$^2P^\circ$ - 13	3/2 - 1/2	M2
Se II	1049.51	1000		$4p^3$ - $4p^2(^1D)5s$	$^2D^\circ$ - ^2D ?	3/2 - 3/2	K19
Se II	1049.65	1000	2	$4p^3$ - $4p^2(^3P)5s$	g^4S° - ^4P	3/2 - 1/2	M2,K19
Se II	1050.57	200		$4p^3$ - $4p^2(^1D)5s$	$^2D^\circ$ - ^2D	3/2 - 5/2	M2
Se II	1052.09	300		$4p^3$ -	$^2D^\circ$ - 10	5/2 - 5/2	M2
Se II	1057.41	900	10	$4p^3$ - $4p^2(^1D)5s$	$^2D^\circ$ - ^2D	5/2 - 5/2	M2
Se II	1077.54	400		$4p^3$ -	$^2D^\circ$ - 9	3/2 - 1/2	M2
Se II	1085.88	500		$4p^3$ -	$^2D^\circ$ - 8	3/2 - 1/2	M2
Se II	1090.43	100		$4p^3$ -	$^2D^\circ$ - 7	3/2 - 3/2	M2
Se II	1097.82	800	9	$4p^3$ -	$^2D^\circ$ - 7	5/2 - 3/2	M2
Se II	1099.97	300		$4p^3$ -	$^2D^\circ$ - 6	5/2 - 3/2	M2
Se II	1119.04	100		$4p^3$ -	$^2P^\circ$ - 12	1/2 - 3/2	M2
Se II	1129.79	50		$4p^3$ -	$^2P^\circ$ - 12	3/2 - 3/2	M2
Se II	1130.48	100		$4p^3$ -	$^2D^\circ$ - 5	3/2 - 5/2	M2
Se II	1133.89	100		$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^2P	3/2 - 3/2	M2
Se II	1138.36	50		$4p^3$ -	$^2D^\circ$ - 5	5/2 - 5/2	M2
Se II	1141.94	900	7	$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^2P	5/2 - 3/2	M2
Se II	1155.99	700	8	$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^2P	5/2 - 3/2	M2
Se II	1156.91	800	1	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 1/2	M2
Se II	1157.31	400		$4p^3$ -	$^2P^\circ$ - 11	3/2 - 5/2	M2
Se II	1166.53	500	7	$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^2P	3/2 - 1/2	M2
Se II	1168.53	800	1	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 3/2	M2
Se II	1170.76	200		$4p^3$ - $4p^2(^1D)5s$	$^2P^\circ$ - ^2D	1/2 - 3/2	M2
Se II	1177.31	100		$4p^3$ -	$^2P^\circ$ - 10	3/2 - 5/2	M2
Se II	1178.05	400		$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^4P	5/2 - 5/2	M2
Se II	1182.65	300		$4p^3$ - $4p^2(^1D)5s$	$^2P^\circ$ - ^2D	3/2 - 3/2	M2
Se II	1183.99	200		$4p^3$ - $4p^2(^1D)5s$	$^2P^\circ$ - ^2D	3/2 - 5/2	M2
Se II	1192.29	1000	1	$4s^24p^3$ - $4s4p^4$	g^4S° - ^4P	3/2 - 5/2	M2
Se II	1196.40	200		$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^4P	3/2 - 3/2	M2
Se II	1199.72	50		$4p^3$ -	$^2D^\circ$ - 1	3/2 - 1/2	M2
Se II	1205.25	300		$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^4P	5/2 - 3/2	M2
Se II	1205.69	700	17	$4p^3$ -	$^2P^\circ$ - 9	1/2 - 1/2	M2
Se II	1218.01	400		$4p^3$ - $4p^2(^3P)5s$	$^2D^\circ$ - ^4P	3/2 - 1/2	M2
Se II	1218.27	200	17	$4p^3$ -	$^2P^\circ$ - 9	3/2 - 1/2	M2
Se II	1221.94	200	16	$4p^3$ -	$^2P^\circ$ - 7	1/2 - 3/2	M2
Se II	1224.63	300		$4p^3$ -	$^2P^\circ$ - 6	1/2 - 3/2	M2
Se II	1229.04	200		$4p^3$ -	$^2P^\circ$ - 8	3/2 - 1/2	M2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se II	1234.88	700	16	$4p^3$ -	$^2P^\circ$ - 7	3/2 - 3/2	M2
Se II	1237.61	300		$4p^3$ -	$^2P^\circ$ - 6	3/2 - 3/2	M2
Se II	1276.84	200		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^2P	1/2 - 3/2	M2
Se II	1286.41	300		$4p^3$ -	$^2P^\circ$ - 5	3/2 - 5/2	M2
Se II	1290.97	800	14	$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^2P	3/2 - 3/2	M2
Se II	1294.41	300	15	$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^2P	1/2 - 3/2	M2
Se II	1308.89	800	15	$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^2P	3/2 - 3/2	M2
Se II	1318.25	700	14	$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^2P	1/2 - 1/2	M2
Se II	1333.32	300		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^2P	3/2 - 1/2	M2
Se II	1337.23	50		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^4P	3/2 - 5/2	M2
Se II	1347.31	100		$4p^3$ -	$^2P^\circ$ - 3	3/2 - 1/2	M2
Se II	1356.57	50		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^4P	1/2 - 3/2	M2
Se II	1360.86	50		$4p^3$ -	$^2P^\circ$ - 1	1/2 - 1/2	M2
Se II	1364.83	200		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^4P	3/2 - 1/2	M2
Se II	1372.51	100		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^4P	3/2 - 3/2	M2
Se II	1380.96	100		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^4P	3/2 - 3/2	M2
Se II	1392.81	50		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^4P	5/2 - 3/2	M2
Se II	1401.01	50		$4p^3$ - $4p^2(^3P)5s$	$^2P^\circ$ - ^4P	3/2 - 1/2	M2
Se II	1414.25	200		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^4P	3/2 - 5/2	M2
Se II	1426.65	500		$4s^24p^3$ - $4s4p^4$	$^2D^\circ$ - ^4P	5/2 - 5/2	M2
Se II	1577.29	100		$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^4P	1/2 - 1/2	K19
Se II	1598.95	100		$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^4P	1/2 - 3/2	M2
Se II	1621.23	400		$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^4P	3/2 - 3/2	M2
Se II	1667.15	200		$4s^24p^3$ - $4s4p^4$	$^2P^\circ$ - ^4P	3/2 - 5/2	M2

SELENIUM III (Se^{2+}), Z = 34

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^2$ $^3P_0$ (32 electrons)

Ionization Potential 248 583 cm^{-1}; 30.820 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se III	517.57	200		$4p^2$ - $4p5d$	g^3P - $^3P^\circ$	1 - 1	R14
Se III	518.17	50		$4p^2$ - $4p5d$	g^3P - $^3P^\circ$	1 - 2	R14
Se III	522.05	100		$4p^2$ - $4p5d$	g^3P - $^1D^\circ$	1 - 2	R14
Se III	523.53	50		$4p^2$ - $4p5d$	g^3P - $^3P^\circ$	2 - 1	R14
Se III	524.01	200		$4p^2$ - $4p5d$	g^3P - $^3D^\circ$	0 - 1	R14
Se III	524.15	300		$4p^2$ - $4p5d$	g^3P - $^3P^\circ$	2 - 2	R14
Se III	525.13	50		$4p^2$ - $4p6s$	g^3P - $^1P^\circ$	1 - 1	R14
Se III	526.40	400		$4p^2$ - $4p5d$	g^3P - $^3D^\circ$	2 - 3	R14
Se III	531.14	300		$4p^2$ - $4p5d$	g^3P - $^3D^\circ$	1 - 2	R14
Se III	533.07	100		$4p^2$ - $4p6s$	g^3P - $^3P^\circ$	2 - 2	R14
Se III	537.38	50		$4p^2$ - $4p5d$	g^3P - $^3D^\circ$	2 - 2	R14
Se III	538.53	200		$4p^2$ - $4p6s$	g^3P - $^3P^\circ$	1 - 1	R14
Se III	539.31	50		$4p^2$ - $4p6s$	g^3P - $^3P^\circ$	1 - 0	R14
Se III	544.03	200		$4p^2$ - $4p5d$	^1D - $^1F^\circ$	2 - 3	R14
Se III	545.00	100		$4p^2$ - $4p6s$	g^3P - $^3P^\circ$	2 - 1	R14
Se III	550.40	50		$4p^2$ - $4p5d$	^1D - $^3P^\circ$	2 - 2	R14
Se III	554.73	100		$4p^2$ - $4p5d$	^1D - $^1D^\circ$	2 - 2	R14
Se III	558.26	100		$4p^2$ - $4p6s$	^1D - $^1P^\circ$	2 - 1	R14
Se III	565.04	50		$4p^2$ - $4p5d$	^1D - $^3D^\circ$	2 - 2	R14
Se III	566.24	20		$4p^2$ - $4p5d$	^1D - $^3F^\circ$	2 - 3	R14
Se III	573.44	50		$4p^2$ - $4p6s$	^1D - $^3P^\circ$	2 - 1	R14
Se III?	674.47	500					R14
Se III	684.56	100		$4p^2$ -	g^3P - X° ?	1 - 1	B1
Se III	690.89	50		$4p^2$ - $4p4d$	g^3P - $^1F^\circ$?	2 - 3	B7
Se III	695.02	200		$4p^2$ -	g^3P - X° ?	2 - 1	B1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se III	700.51	20		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	0 - 1	B1
Se III	709.16	700		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	1 - 1	B1
Se III	709.40	700		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	1 - 2	B1
Se III	711.04	600		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	0 - 1	B1
Se III	711.38	600		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	1 - 0	B1
Se III	719.97	600		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	1 - 1	B1
Se III	720.38	600		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	2 - 1	B1
Se III	720.65	700		$4p^2 - 4p4d$	$g^3P - {}^3P^\circ$	2 - 2	B1
Se III	724.27	900		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	2 - 3	B1
Se III	726.42	800		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	1 - 2	B1
Se III	727.51	100		$4p^2 - 4p4d$	$g^3P - {}^1D^\circ$	1 - 2	B1
Se III	730.25	200		$4p^2 - 4p4d$	$g^3P - {}^1P^\circ$	0 - 1	B1
Se III	731.54	300		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	2 - 1	B1
Se III	737.23	700		$4p^2 - 4p4d$	${}^1D - {}^1F^\circ$	2 - 3	B1
Se III	738.18	300		$4p^2 - 4p4d$	$g^3P - {}^3D^\circ$	2 - 2	B1
Se III	739.31	300		$4p^2 - 4p4d$	$g^3P - {}^1D^\circ$	2 - 2	B1
Se III	739.64	500		$4p^2 - 4p4d$	$g^3P - {}^1P^\circ$	1 - 1	B1
Se III	741.94	700		$4p^2 -$	${}^1D - X^\circ$?	2 - 1	B1
Se III	751.84	600		$4p^2 - 4p4d$	$g^3P - {}^1P^\circ$	2 - 1	B1
Se III	759.54	200		$4p^2 - 4p5s$	$g^3P - {}^1P^\circ$	0 - 1	B1
Se III	769.74	100		$4p^2 - 4p5s$	$g^3P - {}^1P^\circ$	1 - 1	B1
Se III	770.89	600		$4p^2 - 4p4d$	${}^1D - {}^3P^\circ$	2 - 1	B1
Se III	775.31	50		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 3	B1
Se III	777.31	800		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	1 - 2	B1
Se III	782.96	200		$4p^2 - 4p5s$	$g^3P - {}^1P^\circ$	2 - 1	B1
Se III	783.66	300		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 1	B1
Se III	788.77	600		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	0 - 1	B1
Se III	790.80	700		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	2 - 2	B1
Se III	791.29	50		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 2	B1
Se III	792.58	500		$4p^2 - 4p4d$	${}^1D - {}^1D^\circ$	2 - 2	B1
Se III	799.76	400		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	1 - 1	B1
Se III	803.01	600		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	1 - 0	B1
Se III	807.04	500		$4p^2 - 4p4d$	${}^1D - {}^1P^\circ$	2 - 1	B1
Se III	814.04	600		$4p^2 - 4p5s$	$g^3P - {}^3P^\circ$	2 - 1	B1
Se III	817.60	400		$4p^2 - 4p4d$	$g^3P - {}^3F^\circ$	1 - 2	B1
Se III	823.91	600		$4p^2 - 4p4d$	$g^3P - {}^3F^\circ$	2 - 3	B1
Se III?	828.47	600					R14
Se III?	833.14	500					R14
Se III?	836.06	500					R14
Se III	843.01	900		$4p^2 - 4p5s$	${}^1D - {}^1P^\circ$	2 - 1	B1
Se III	852.10	300		$4p^2 - 4p5s$	${}^1D - {}^3P^\circ$	2 - 2	B1
Se III	879.15	700		$4p^2 - 4p5s$	${}^1D - {}^3P^\circ$	2 - 1	B1
Se III?	882.13	500					R14
Se III?	887.45	300					R14
Se III	890.68	300		$4p^2 - 4p4d$	${}^1D - {}^3F^\circ$	2 - 3	B1
Se III	900.79	100		$4p^2 - 4p4d$	${}^1D - {}^3F^\circ$	2 - 2	B1
Se III	938.16	600		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	0 - 1	B1
Se III	953.74	800		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	1 - 1	B1
Se III	954.44	700		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	1 - 2	B1
Se III	954.74	700		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	1 - 0	B1
Se III	974.11	600		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	2 - 1	B1
Se III	974.84	900		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3P^\circ$	2 - 2	B1
Se III?	1000.36	600					R14
Se III	1068.87	100		$4s^24p^2 - 4s4p^3$	${}^1D - {}^3P^\circ$	2 - 1	B1
Se III	1069.72	100		$4s^24p^2 - 4s4p^3$	${}^1D - {}^3P^\circ$	2 - 2	B1
Se III	1079.76	800		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 3	B1
Se III	1097.82	600		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	0 - 1	B1
Se III	1099.10	900		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	1 - 2	B1
Se III	1119.17	1000		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	1 - 1	B1
Se III	1126.28	300		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 2	B1
Se III?	1206.53	600					R14
Se III	1254.79	20		$4s^24p^2 - 4s4p^3$	${}^1D - {}^3D^\circ$?	2 - 2	B7
Se III	1534.9	200		$4s4p^3 - 4s^24p5p$	${}^3D^\circ - {}^3P$	2 - 2	R14
Se III	1571.5	300		$4s4p^3 - 4s^24p5p$	${}^3D^\circ - {}^3P$	2 - 1	R14
Se III	1644.87	100		$4s4p^3 - 4s^24p5p$	${}^3D^\circ - {}^3D$	2 - 2	R14

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se III	1829.6	100		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^1D$	2 - 2	R14
Se III?	1845.0	300					R14
Se III	1893.2	500		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3S$	0 - 1	R14
Se III	1894.4	400		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3S$	2 - 1	R14
Se III	1897.2	400		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3S$	1 - 1	R14
Se III	1947.1	500		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3P$	2 - 2	R14
Se III	1950.0	500		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3P$	1 - 2	R14
Se III	1993.0	200		$4s4p^3 - 4s^24p5p$	$^3P^\circ - {}^3D$	2 - 3	R14

SELENIUM IV (Se^{3+}), Z = 34

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p\ ^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential 346 375 cm^{-1}; 42.944 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se IV?	630.7	400					R14
Se IV?	631.0	300					R14
Se IV?	631.1	300					R14
Se IV	636.0	800		4p - 5s	$g\,^2P^\circ - {}^2S$	½ - ½	R12
Se IV?	640.5	300					R14
Se IV?	640.9	400					R14
Se IV?	642.7	500					R14
Se IV?	644.8	400					R14
Se IV	652.7	900		4p - 4d	$g\,^2P^\circ - {}^2D$	½ - 3/2	R12
Se IV	654.2	800		4p - 5s	$g\,^2P^\circ - {}^2S$	3/2 - ½	R12
Se IV	670.1	1000		4p - 4d	$g\,^2P^\circ - {}^2D$	3/2 - 5/2	R12
Se IV	671.9	800		4p - 4d	$g\,^2P^\circ - {}^2D$	3/2 - 3/2	R12
Se IV	722.8	700		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2P$	½ - 3/2	R12
Se IV	734.6	800		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2P$	½ - ½	R12
Se IV	746.4	1000		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2P$	3/2 - 3/2	R12
Se IV	759.0	800		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2P$	3/2 - ½	R12
Se IV	776.5	800		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2S$	½ - ½	R12
Se IV?	782.8	500					R14
Se IV	796.8	400		$4s4p^2 - 4s^24f$	$^2D - {}^2F^\circ$	3/2 - 5/2	R12
Se IV?	798.1	600					R14
Se IV	800.1	500		$4s4p^2 - 4s^24f$	$^2D - {}^2F^\circ$	5/2 - 7/2	R12
Se IV	803.8	800		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2S$	3/2 - ½	R12
Se IV	959.6	900		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2D$	½ - 3/2	R12
Se IV	996.7	1000		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2D$	3/2 - 5/2	R12
Se IV	1001.6	400		$4s^24p - 4s4p^2$	$g\,^2P^\circ - {}^2D$	3/2 - 3/2	R12
Se IV	1018.0	200		5p - 7s	$^2P^\circ - {}^2S$	½ - ½	R12
Se IV	1030.6	200		5p - 7s	$^2P^\circ - {}^2S$	3/2 - ½	R12
Se IV	1150.8	100		$4s4p^2 - 4s^25p$	$^2D - {}^2P^\circ$	3/2 - 3/2	R12
Se IV	1157.4	500		$4s4p^2 - 4s^25p$	$^2D - {}^2P^\circ$	5/2 - 3/2	R12
Se IV	1166.8	400		$4s4p^2 - 4s^25p$	$^2D - {}^2P^\circ$	3/2 - ½	R12
Se IV	1307.2	700		4d - 4f	$^2D - {}^2F^\circ$	3/2 - 5/2	R12
Se IV	1314.4	800		4d - 4f	$^2D - {}^2F^\circ$	5/2 - 7/2	R12
Se IV?	1885.3	200					R14
Se IV?	1887.7	200					R14
Se IV?	1920.3	600					R14
Se IV	1967.3	400		5p - 6s	$^2P^\circ - {}^2S$	½ - ½	R12

SELENIUM V (Se^{4+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2$ $^1S_0$ (30 electrons)

Ionization Potential [551 000] cm^{-1}; [68.3] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se V	505.9	200		4s4p - 4s5s	$^3P^\circ$ - ^3S	0 - 1	S2
Se V	510.0	300		4s4p - 4s5s	$^3P^\circ$ - ^3S	1 - 1	S2
Se V	519.6	400		4s4p - 4s5s	$^3P^\circ$ - ^3S	2 - 1	S2
Se V	596.0	500		4s4p - 4s4d	$^3P^\circ$ - ^3D	0 - 1	S2
Se V	601.0	400		4s4p - 4s4d	$^3P^\circ$ - ^3D	1 - 2	S2
Se V	601.7	400		4s4p - 4s4d	$^3P^\circ$ - ^3D	1 - 1	S2
Se V	613.0	500		4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 3	S2
Se V	614.3	400		4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 2	S2
Se V	615.1	100		4s4p - 4s4d	$^3P^\circ$ - ^3D	2 - 1	S2
Se V	642.3	200		4s4p - 4s5s	$^1P^\circ$ - ^3S	1 - 1	R12
Se V	674.6	800		4s4d - 4s4f	^1D - $^1F^\circ$?	2 - 3	R15
Se V	785.8	500		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 2	S2
Se V	804.3	500		4s4p - $4p^2$	$^3P^\circ$ - ^3P	0 - 1	S2
Se V	808.7	700		4s4p - $4p^2$	$^3P^\circ$ - ^3P	2 - 2	S2
Se V	814.8	600		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 1	S2
Se V	820.7	700		4s4p - 4s4d	$^3P^\circ$ - ^1D	1 - 2	R12
Se V	830.3	600		4s4p - $4p^2$	$^3P^\circ$ - ^3P	1 - 0	S2
Se V	839.5	400		4s4p - $4p^2$	$^3P^\circ$ - ^3P	2 - 1	S2
Se V	845.8	900		4s4p - 4s4d	$^3P^\circ$ - ^1D	2 - 2	R12
Se V	1094.7	900		$4s^2$ - 4s4p	g^1S - $^3P^\circ$	0 - 1	R12
Se V	1151.0	700		4s4p - $4p^2$	$^1P^\circ$ - ^3P	1 - 2	R12
Se V	1227.6	1000		4s4p - 4s4d	$^1P^\circ$ - ^1D	1 - 2	R12

SELENIUM VI (Se^{5+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s$ $^2S_{1/2}$ (29 electrons)

Ionization Potential 658 994 cm^{-1}; 81.70 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se VI	452.8	200		4p - 5s	$^2P^\circ$ - ^2S	½ - ½	S2
Se VI	464.8	200		4p - 5s	$^2P^\circ$ - ^2S	3/2 - ½	S2
Se VI	588.0	400		4p - 4d	$^2P^\circ$ - ^2D	½ - 3/2	S2
Se VI	605.9	400		4p - 4d	$^2P^\circ$ - ^2D	3/2 - 5/2	S2
Se VI	608.4	300		4p - 4d	$^2P^\circ$ - ^2D	3/2 - 3/2	S2
Se VI?	634.5	400					R15
Se VI	844.2	500		4s - 4p	g^2S - $^2P^\circ$	½ - 3/2	S2
Se VI	886.8	500		4s - 4p	g^2S - $^2P^\circ$	½ - ½	S2

SELENIUM VII (Se^{6+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}$ $^1S_0$ (28 electrons)

Ionization Potential 1 253 300 cm^{-1}; 155.4 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se VII	172.0	500		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^3D°$	0 - 1	K26
Se VII	172.9	700		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^1P°$	0 - 1	K26
Se VII	176.8	40		$3d^{10} - 3d^9(^2D)4p$	$g^1S - {}^3P°$	0 - 1	K26
Se VII	180.2	80		$3d^9(^2D)4s - 3d^9(^2D)5p$	$^3D - {}^3D°$	3 - 3	K26
Se VII?	561.3	50					R15
Se VII?	563.7	50					R15
Se VII?	572.0	100					R15
Se VII?	591.3	50					R15
Se VII?	599.9	200					R15
Se VII?	607.2	50					R15
Se VII?	611.1	300					R15
Se VII?	613.6	300					R15
Se VII?	622.5	300					R15
Se VII?	626.5	200					R15
Se VII?	635.8	400					R15
Se VII?	643.0	200					R15
Se VII?	655.1	50					R15
Se VII?	665.4	100					R15
Se VII?	678.9	300					R15
Se VII?	680.5	50					R15
Se VII?	684.2	100					R15
Se VII?	686.5	100					R15
Se VII?	687.6	200					R15
Se VII?	690.0	100					R15
Se VII?	690.4	200					R15
Se VII?	705.3	400					R15
Se VII?	714.1	100					R15
Se VII?	716.7	100					R15
Se VII?	721.0	300					R15
Se VII?	728.9	100					R15
Se VII?	756.5	50					R15
Se VII	759.8	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^1D - {}^3D°$?	2 - 2	R15,K8
Se VII	778.2	400		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - {}^3F°$?	3 - 4	R15,K8
Se VII?	798.5	20					R15
Se VII	817.5	200		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - {}^3F°$?	2 - 2	R15,K8
Se VII?	818.6	200					R15
Se VII	819.0	100		$3d^9(^2D)4s - 3d^9(^2D)4p$	$^3D - {}^3F°$?	2 - 3	R15,K8
Se VII?	840.4	50					R15
Se VII?	854.4	600					R15
Se VII?	860.6	300					R15

SELENIUM VIII (Se^{7+}), Z = 34

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9$ $^2D_{5/2}$ (27 electrons)

Ionization Potential [1 541 000] cm^{-1}; [191] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se VIII	140.92	400		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P°$	5/2 - 3/2	Z2
Se VIII	141.09	800		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F°$	5/2 - 7/2	Z2
Se VIII	141.38	500		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	5/2 - 5/2	Z2
Se VIII	141.68	800		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D°$	5/2 - 3/2	Z2
Se VIII	141.82	800		$3d^9 - 3d^8(^1G)4p$	$ga^2D - x^2F°$	3/2 - 5/2	Z2

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Se VIII	142.01	700		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 1/2	Z2
Se VIII	142.28	900		$3d^9 - 3d^8(^3P)4p$	$ga^2D - y^2P^\circ$	3/2 - 3/2	Z2
Se VIII	142.75	800		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 5/2	Z2
Se VIII	143.10	700		$3d^9 - 3d^8(^3P)4p$	$ga^2D - x^2D^\circ$	3/2 - 3/2	Z2
Se VIII	143.44	800		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 5/2	Z2
Se VIII	143.89	700		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	5/2 - 7/2	Z2
Se VIII	143.94	400		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	5/2 - 3/2	Z2
Se VIII	144.55	300		$3d^9 - 3d^8(^1D)4p$	$ga^2D - z^2P^\circ$	3/2 - 3/2	Z2
Se VIII	144.89	300		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 5/2	Z2
Se VIII	145.41	800		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2D^\circ$	3/2 - 3/2	Z2
Se VIII	145.59	600		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 5/2	Z2
Se VIII	145.78	300		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	5/2 - 3/2	Z2
Se VIII	146.22	600		$3d^9 - 3d^8(^1D)4p$	$ga^2D - y^2F^\circ$	3/2 - 5/2	Z2
Se VIII	146.42	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 5/2	Z2
Se VIII	146.92	300		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 3/2	Z2
Se VIII	147.09	500		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 5/2	Z2
Se VIII	147.23	400		$3d^9 - 3d^8(^3P)4p$	$ga^2D - z^4P^\circ$	3/2 - 3/2	Z2
Se VIII	147.29	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	5/2 - 7/2	Z2
Se VIII	147.58	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2G^\circ$	5/2 - 7/2	Z2
Se VIII	147.78	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	5/2 - 5/2	Z2
Se VIII	147.95	400		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2F^\circ$	3/2 - 5/2	Z2
Se VIII	148.48	1000		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 5/2	Z2
Se VIII	148.81	800		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	5/2 - 7/2	Z2
Se VIII	149.34	700		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^2D^\circ$	3/2 - 5/2	Z2
Se VIII	150.30	700		$3d^9 - 3d^8(^3F)4p$	$ga^2D - z^4F^\circ$	3/2 - 3/2	Z2

SELENIUM IX (Se^{8+}), Z = 34

Ground State $1s^22s^22p^63s^23p^63d^8\ ^3F_4$ (26 electrons)

Ionization Potential [1 831 000] cm^{-1}; [227] eV

SELENIUM X (Se^{9+}), Z = 34

Ground State $1s^22s^22p^63s^23p^63d^7\ ^4F_{9/2}$ (25 electrons)

Ionization Potential [2 129 000] cm^{-1}; [264] eV

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SELENIUM XI (Se^{10+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d^6$ $^5D_4$ (24 electrons)
Ionization Potential [2 452 000] cm^{-1}; [304] eV

SELENIUM XII (Se^{11+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [2 799 000] cm^{-1}; [347] eV

SELENIUM XIII (Se^{12+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [3 129 000] cm^{-1}; [388] eV

SELENIUM XIV (Se^{13+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [3 751 000] cm^{-1}; [431] eV

SELENIUM XV (Se^{14+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [3 831 000] cm^{-1}; [475] eV

SELENIUM XVI (Se^{15+}), Z = 34
Ground State $1s^22s^22p^63s^23p^63d\ ^2D_{3/2}$ (19 electrons)
Ionization Potential [4 186 100] cm^{-1}; [519] eV

SELENIUM XVII (Se^{16+}), Z = 34
Ground State $1s^22s^22p^63s^23p^6\ ^1S_0$ (18 electrons)
Ionization Potential [5 299 200] cm^{-1}; [657] eV

SELENIUM XVIII (Se^{17+}), Z = 34
Ground State $1s^22s^22p^63s^23p^5\ ^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential [5 605 800] cm^{-1}; [695] eV

SELENIUM XIX (Se^{18+}), Z = 34
Ground State $1s^22s^22p^63s^23p^4\ ^3P_2$ (16 electrons)
Ionization Potential [5 936 400] cm^{-1}; [736] eV

SELENIUM XX (Se^{19+}), Z = 34
Ground State $1s^22s^22p^63s^23p^3\ ^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [6 396 000] cm^{-1}; [793] eV

SELENIUM XXI (Se^{20+}), Z = 34
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [6 767 200] cm^{-1}; [839] eV

SELENIUM XXII (Se^{21+}), Z = 34
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [7 146 300] cm^{-1}; [886] eV

SELENIUM XXIII (Se^{22+}), Z = 34
Ground State $1s^22s^22p^63s^2$ $^1S_0$ (12 electrons)
Ionization Potential [7 961 000] cm^{-1}; [987] eV

SELENIUM XXIV (Se^{23+}), Z = 34
Ground State $1s^22s^22p^63s$ $^2S_{1/2}$ (11 electrons)
Ionization Potential [8 364 200] cm^{-1}; [1037] eV

SELENIUM XXV (Se^{24+}), Z = 34
Ground State $1s^22s^22p^6$ $^1S_0$ (10 electrons)
Ionization Potential [20 632 000] cm^{-1}; [2558] eV

SELENIUM XXVI (Se^{25+}), Z = 34
Ground State $1s^22s^22p^5$ $^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [21 463 000] cm^{-1}; [2661] eV

SELENIUM XXVII (Se^{26+}), Z = 34
Ground State $1s^22s^22p^4$ $^3P_2$ (8 electrons)
Ionization Potential [22 568 000] cm^{-1}; [2798] eV

SELENIUM XXVIII (Se^{27+}), Z = 34
Ground State $1s^22s^22p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [23 915 000] cm^{-1}; [2965] eV

SELENIUM XXIX (Se^{28+}), Z = 34
Ground State $1s^22s^22p^2$ $^3P_0$ (6 electrons)
Ionization Potential [25 189 000] cm^{-1}; [3123] eV

SELENIUM XXX (Se^{29+}), Z = 34
Ground State $1s^22s^22p$ $^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [26 407 000] cm^{-1}; [3274] eV

SELENIUM XXXI (Se^{30+}), Z = 34
Ground State $1s^2 2s^2\ ^1S_0$ (4 electrons)
Ionization Potential [27 932 000] cm^{-1}; [3463] eV

SELENIUM XXXII (Se^{31+}), Z = 34
Ground State $1s^2 2s\ ^2S_{1/2}$ (3 electrons)
Ionization Potential [29 303 000] cm^{-1}; [3633] eV

SELENIUM XXXIII (Se^{32+}), Z = 34
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [123 930 000] cm^{-1}; [15365] eV

SELENIUM XXXIV (Se^{33+}), Z = 34
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [128 762 000] cm^{-1}; [15964] eV

BROMINE I (Br^{0+}), Z = 35

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^5\ ^2P^\circ_{3/2}$ (35 electrons)

Ionization Potential 95 284.8 cm^{-1}; 11.814 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br I	1067.559	1		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	T1
Br I	1067.805	1		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1068.256	1		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1068.849	0		$4p^5 - 4p^4(^3P)11s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1073.912	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1074.243	2		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	T1
Br I	1074.803	1		$4p^5 - 4p^4(^3P)10s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1075.345	1		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1076.964	1		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	T1
Br I	1077.873	1		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	T1
Br I	1078.124	1		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	T1
Br I	1078.242	2		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	T1
Br I	1079.320	2		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	T1
Br I	1080.882	2		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	T1
Br I	1084.810	1		$4p^5 - 4p^4(^3P)9s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1085.050	1		$4p^5 - 4p^4(^3P)9s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1085.896	0		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1087.468	2		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	T1
Br I	1087.687	2		$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	T1
Br I	1087.819	1		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	T1
Br I	1089.039	2		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1089.203	1		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	T1
Br I	1089.322	1		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	T1
Br I	1090.623	3		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	T1
Br I	1094.722	3		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1095.481	3		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1096.788	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	T1
Br I	1098.881	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	T1
Br I	1101.347	2		$4p^5 - 4p^4(^3P)8s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1101.456			$4p^5 - 4p^4(^3P)8s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1101.498	5		$4p^5 - 4p^4(^1D)6s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	T1
Br I	1103.924	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1104.168	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	T1
Br I	1105.460	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1105.844	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1105.994	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	T1
Br I	1107.442	2		$4p^5 - 4p^4(^3P)8s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1107.512	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1109.422	1		$4p^5 - 4p^4(^3P)10d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1110.904	3		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	T1
Br I	1111.579	2		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1111.751	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	T1
Br I	1112.743	1		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	T1
Br I	1115.448	2		$4p^5 - 4p^4(^3P)9d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1116.105	2		$4p^5 - 4p^4(^3P)9d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	T1
Br I	1118.173	3		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1119.140	2		$4p^5 - 4p^4(^3P)10s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1119.725	3		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1121.473	3		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	T1
Br I	1121.839	2		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1124.038	3		$4p^5 - 4p^4(^3P)8d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	T1
Br I	1125.728	4		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	T1
Br I	1129.979	2		$4p^5 - 4p^4(^3P)9s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1131.171	2		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1132.822	3		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1133.116	4		$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	T1
Br I	1133.251	2		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	T1
Br I	1134.588	5		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1134.888	4		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1136.294	5		$4p^5 - 4p^4(^3P)7d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	T1

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br I	1139.350	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	T1
Br I	1139.544	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1140.732	1		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1141.564	2		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1145.268	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	T1
Br I	1145.854	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	T1
Br I	1147.689	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	T1
Br I	1147.943	2		$4p^5 - 4p^4(^3P)8s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1150.312	2		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	T1
Br I	1151.381	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1152.418	3		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1152.833	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1152.989	2		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	T1
Br I	1154.640	1		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1159.030	2		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1160.332	3		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1168.542	3		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1170.479	3		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1173.827	4		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	T1
Br I	1177.233	5		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	T1
Br I	1178.895	6		$4s^2 4p^5 - 4s\,4p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	T1
Br I	1182.171	3		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1186.161	3		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1189.279	10		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	T1
Br I	1189.378	5		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1189.498	10		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1194.413	4		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	T1
Br I	1196.370	4		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	T1
Br I	1196.477	4		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1198.371	6		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1203.353	4		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1209.756	8		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1210.734	10		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1216.006	8		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1221.128	10		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1221.870	9		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	T1
Br I	1223.240	10		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1224.408	12		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	T1
Br I	1226.899	12		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	T1
Br I	1228.049	8		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1232.431	75		$4s^2 4p^5 - 4s\,4p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	T1
Br I	1243.897	12		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1249.589	8		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	T1
Br I	1251.664	15		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1255.799	10		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	T1
Br I	1259.199	15		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1261.658	12		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	T1
Br I	1266.200	12		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1
Br I	1279.477	10		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	T1
Br I	1286.259	10		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1309.908	30		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	T1
Br I	1316.735	30		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	T1
Br I	1317.372	10		$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	T1
Br I	1317.695	20		$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	T1
Br I	1384.598	120		$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	T1
Br I	1449.903	30	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	T1
Br I	1488.452	500	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	T1
Br I	1495.132	0	1	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	T1
Br I	1531.743	300	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	T1
Br I	1540.654	250	1	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	T1
Br I	1574.841	300	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	T1
Br I	1576.387	200	1	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	T1
Br I	1582.312	250	1	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	T1
Br I	1633.404	750		$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	T1

BROMINE II (Br^{1+}), Z = 35

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^4$ $^3P_2$ (34 electrons)

Ionization Potential 175 870 cm^{-1}; 21.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br II	711.68	300		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^5D^\circ$	2 - 2	R4
Br II	713.65	50		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^3D^\circ$	2 - 2	R4
Br II	718.05	20		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^3D^\circ$	2 - 3	R4
Br II	726.71	100		$4p^4 - 4p^3(^4S^\circ)6s$	$g^3P - {}^3S^\circ$	2 - 1	R4
Br II	727.94	100		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^5D^\circ$	1 - 2	R4
Br II	730.00	100		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^3D^\circ$	1 - 2	R4
Br II	737.37	150		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - {}^3D^\circ$	0 - 1	R4
Br II	740.78	200		$4p^4$ -	$g^3P - 1^\circ$	1 - 1	R4
Br II	743.7	10		$4p^4 - 4p^3(^4S^\circ)6s$	$g^3P - {}^3S^\circ$	1 - 1	R16
Br II	815.48	250		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	2 - 2	R4
Br II	822.67	50		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	2 - 1	R4
Br II	836.90	150		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	1 - 2	R4
Br II	844.47	20		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	1 - 1	R4
Br II	847.35	50		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	1 - 0	R4
Br II	849.52	100		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^3P^\circ$	0 - 1	R4
Br II	856.29	350		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - {}^1P^\circ$	2 - 1	R4
Br II	885.48	100		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^1D^\circ$	2 - 2	R4
Br II	889.23	1000		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 3	R4
Br II	889.7	20		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$?	2 - 1	R16
Br II	896.64	500		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	2 - 2	R4
Br II	906.00	500		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	2 - 3	R4
Br II	910.73	200		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^1D^\circ$	1 - 2	R4
Br II	911.72	250		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	2 - 2	R4
Br II	915.26	200		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 1	R4
Br II	921.16	250		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	0 - 1	R4
Br II	922.56	300		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - {}^3D^\circ$	1 - 2	R4
Br II	938.6	500		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$?	1 - 2	L1,K8
Br II	940.79	150		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	1 - 1	R4
Br II	947.1	20		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - {}^3D^\circ$	0 - 1	R16
Br II	948.97	1000		$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - {}^1P^\circ$	2 - 1	R4
Br II	984.93	500		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - {}^1D^\circ$	2 - 2	R4
Br II	1012.1	500		$4s^2 4p^4 - 4s4p^5$	$g^3P - {}^3P^\circ$?	2 - 1	L1,K8
Br II	1015.54	1000		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	2 - 1	R4
Br II	1017.56	20		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - {}^3D^\circ$	2 - 2	R4
Br II	1049.00	1000		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	1 - 1	R4
Br II	1053.0	50		$4s^2 4p^4 - 4s4p^5$	$g^3P - {}^3P^\circ$?	0 - 1	L1,K8
Br II	1056.77	250		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - {}^3S^\circ$	0 - 1	R4
Br II	1064.66	450		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - {}^5S^\circ$	2 - 2	R4
Br II	1071.8	750		$4s^2 4p^4 - 4s4p^5$	$g^3P - {}^3P^\circ$?	1 - 2	L1,K8
Br II	1101.47	50		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - {}^5S^\circ$	1 - 2	R4

BROMINE III (Br^{2+}), Z = 35

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^3$ $^4S^\circ_{3/2}$ (33 electrons)

Ionization Potential 289 529 cm^{-1}; 35.9 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br III	665.54	1000		$4p^3 - 4p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 5/2	R13
Br III	677.19	1000		$4p^3 - 4p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 3/2	R13
Br III	677.70	800		$4p^3 - 4p^2 4d$	$g^4S^\circ - 7$	3/2 - 3/2	R13
Br III	687.68	900		$4p^3 - 4p^2(^3P)5s$	$g^4S^\circ - {}^4P$	3/2 - 1/2	R13
Br III	688.80	300		$4p^3 - 4p^2 4d$	$g^4S^\circ - 6$	3/2 - 3/2	R13

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br III	696.99	700		$4p^3 - 4p^2(^1D)5s$	$^2D^\circ - ^2D$	3/2 - 3/2	R13
Br III	706.98	400		$4p^3 - 4p^2(^1D)5s$	$^2D^\circ - ^2D$	5/2 - 5/2	R13
Br III	736.33	800		$4p^3 - 4p^2(^3P)5s$	$^2D^\circ - ^2P$	5/2 - 3/2	R13
Br III	745.42	400		$4p^3 - 4p^2(^3P)5s$	$^2D^\circ - ^2P$	3/2 - 1/2	R13
Br III	759.87	300		$4p^3 - 4p^2(^1D)5s$	$^2P^\circ - ^2D$	1/2 - 3/2	R13
Br III	769.63	500		$4p^3 - 4p^2(^1D)5s$	$^2P^\circ - ^2D$	3/2 - 3/2	R13
Br III	774.18	300		$4p^3 - 4p^2(^1D)5s$	$^2P^\circ - ^2D$	3/2 - 5/2	R13
Br III	798.76	400		$4p^3 - 4p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 3/2	R13
Br III	809.52	300		$4p^3 - 4p^2(^3P)5s$	$^2P^\circ - ^2P$	3/2 - 3/2	R13
Br III	817.79	500		$4p^3 - 4p^2(^3P)5s$	$^2P^\circ - ^2P$	1/2 - 1/2	R13
Br III	1296.3	1000		$4s^24p^3 - 4s4p^4$	$^2P^\circ - ^2S$?	1/2 - 1/2	L1,K8
Br III	1308.6	500		$4s^24p^3 - 4s4p^4$	$^2D^\circ - ^2D$?	3/2 - 3/2	L1,K8
Br III?	1313.3	500					L1
Br III	1324.8	500		$4s^24p^3 - 4s4p^4$	$^2P^\circ - ^2S$?	3/2 - 1/2	L1,K8
Br III?	1328.1	750					L1
Br III	1330.5	500		$4s^24p^3 - 4s4p^4$	$^2D^\circ - ^2D$?	5/2 - 3/2	L1,K8
Br III	1590.3	25		$4s^24p^3 - 4s4p^4$	$^2P^\circ - ^2D$?	3/2 - 3/2	L1,K8
Br III	1593.1	150		$4s^24p^3 - 4s4p^4$	$^2P^\circ - ^2D$?	3/2 - 5/2	L1,K8

BROMINE IV (Br^{3+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^2\ ^3P_0$ (32 electrons)

Ionization Potential [387 000] cm^{-1}; [48] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br IV	538.25	200		$4p^2 - 4p5s$	$g^3P - ^1P^\circ$	1 - 1	R8
Br IV	545.43	500		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	1 - 2	R8
Br IV	549.75	900		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	0 - 1	R8
Br IV	554.48	800		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	2 - 2	R8
Br IV	557.94	600		$4p^2$ -	$g^3P - 3^\circ$	1 - 2	R8
Br IV	559.74	900		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	1 - 1	R8
Br IV	563.79	900		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	1 - 0	R8
Br IV	563.92	800		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 1	R8
Br IV	567.40	500		$4p^2$ -	$g^3P - 3^\circ$	2 - 1	R8
Br IV	569.13	1000		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 0	R8
Br IV	569.27	600		$4p^2 - 4p5s$	$g^3P - ^3P^\circ$	2 - 1	R8
Br IV	572.26	300		$4p^2$ -	$g^3P - 2^\circ$	1 - 2	R8
Br IV	573.59	800		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 1	R8
Br IV	576.57	1000		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	1 - 2	R8
Br IV	582.22	600		$4p^2$ -	$g^3P - 2^\circ$	2 - 1	R8
Br IV	585.08	900		$4p^2 - 4p5s$	$^1D - ^1P^\circ$	2 - 1	R8
Br IV	586.69	1000		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$	2 - 2	R8
Br IV	592.03	900		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	0 - 1	R8
Br IV	599.60	800		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	1 - 2	R8
Br IV	600.08	800		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	2 - 3	R8
Br IV	601.26	1000		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	2 - 3	R8
Br IV	603.65	500		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	1 - 1	R8
Br IV	605.74	500		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 0	R8
Br IV	607.02	600		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 1	R8
Br IV	608.56	800		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	1 - 2	R8
Br IV	610.55	200		$4p^2 - 4p4d$	$g^3P - ^3D^\circ$	2 - 2	R8
Br IV	618.25	500		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	2 - 1	R8
Br IV	619.86	700		$4s^24p^2 - 4s4p^3$	$g^3P - ^3P^\circ$	2 - 2	R8
Br IV	625.50	400		$4p^2$ -	$^1D - 2^\circ$	2 - 2	R8
Br IV	630.12	1000		$4s^24p^2 - 4s4p^3$	$g^3P - ^3D^\circ$	1 - 2	R8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br IV	642.22	1000		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 2	R8
Br IV	646.15	100		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 3	R8
Br IV	649.78	600		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	0 - 1	R8
Br IV	658.28	100		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 2	R8
Br IV	663.19	200		$4p^2 - 4p4d$	${}^1D - {}^3D^\circ$	2 - 1	R8
Br IV	663.80	1000		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	1 - 1	R8
Br IV	677.24	500		$4s^24p^2 - 4s4p^3$	$g^3P - {}^3D^\circ$	2 - 1	R8
Br IV	718.50	1000		$4p^2 -$	$g^3P - 1^\circ$	0 - 1	R8
Br IV	735.66	1000		$4p^2 -$	$g^3P - 1^\circ$	1 - 0	R8

BROMINE V (Br^{4+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p\ {}^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential [481 600] cm^{-1}; [59.7] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br V	468.36	500		4p - 5s	$g^2P^\circ - {}^2S$	½ - ½	R9
Br V	482.11	1000		4p - 5s	$g^2P^\circ - {}^2S$	³⁄₂ - ½	R9
Br V	532.00	1000		4p - 4d	$g^2P^\circ - {}^2D$	½ - ³⁄₂	R9
Br V	547.94	1000		4p - 4d	$g^2P^\circ - {}^2D$	³⁄₂ - ⁵⁄₂	R9
Br V	549.81	600		4p - 4d	$g^2P^\circ - {}^2D$	³⁄₂ - ³⁄₂	R9
Br V	621.11	1000		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	½ - ³⁄₂	R9
Br V	632.30	900		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	½ - ½	R9
Br V	645.49	1000		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	³⁄₂ - ³⁄₂	R9
Br V	657.60	600		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2P$	³⁄₂ - ½	R9
Br V	813.40	600		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	½ - ³⁄₂	R9
Br V	850.79	800		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	³⁄₂ - ⁵⁄₂	R9
Br V	855.79	100		$4s^24p - 4s4p^2$	$g^2P^\circ - {}^2D$	³⁄₂ - ³⁄₂	R9

BROMINE VI (Br^{5+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^2\ {}^1S_0$ (30 electrons)

Ionization Potential [714 800] cm^{-1}; [88.6] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br VI	499.20	400		4s4p - 4s4d	${}^3P^\circ - {}^3D$	0 - 1	R9
Br VI	503.70	800		4s4p - 4s4d	${}^3P^\circ - {}^3D$	1 - 2	R9
Br VI	504.52	600		4s4p - 4s4d	${}^3P^\circ - {}^3D$	1 - 1	R9
Br VI	515.16	800		4s4p - 4s4d	${}^3P^\circ - {}^3D$	2 - 3	R9
Br VI	516.45	800		4s4p - 4s4d	${}^3P^\circ - {}^3D$	2 - 2	R9
Br VI	517.29	100		4s4p - 4s4d	${}^3P^\circ - {}^3D$	2 - 1	R9
Br VI	661.05	1000		$4s^2 - 4s4p$	$g^1S - {}^1P^\circ$	0 - 1	R9
Br VI	678.14	500		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	1 - 2	R9
Br VI	698.81	600		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	0 - 1	R9
Br VI	701.46	800		$4s4p - 4p^2$	${}^3P^\circ - {}^3P$	2 - 2	R9

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br VI	709.31	400		$4s4p - 4p^2$	$^3P^\circ - ^3P$	1 - 1	R9
Br VI	726.16	600		$4s4p - 4p^2$	$^3P^\circ - ^3P$	1 - 0	R9
Br VI	734.91	600		$4s4p - 4p^2$	$^3P^\circ - ^3P$	2 - 1	R9
Br VI	939.57	800		$4s^2 - 4s4p$	$g^1S - ^3P^\circ$	0 - 1	R9

BROMINE VII (Br^{6+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^{10}4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential [814 600] cm^{-1}; [101] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br VII	502.69	400		4p - 4d	$^2P^\circ - ^2D$	½ - 3/2	R9
Br VII	520.26	400		4p - 4d	$^2P^\circ - ^2D$	3/2 - 5/2	R9
Br VII	522.60	50		4p - 4d	$^2P^\circ - ^2D$	3/2 - 3/2	R9
Br VII	736.09	1000		4s - 4p	$g^2S - ^2P^\circ$	½ - 3/2	R9
Br VII	779.58	800		4s - 4p	$g^2S - ^2P^\circ$	½ - ½	R9

BROMINE VIII (Br^{7+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^{10}\ ^1S_0$ (28 electrons)

Ionization Potential 1 554 700 cm^{-1}; 192.8 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br VIII	138.9	750		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3D^\circ$	0 - 1	K26
Br VIII	139.8	750		$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^1P^\circ$	0 - 1	K26
Br VIII	142.5 P			$3d^{10} - 3d^9(^2D)4p$	$g^1S - ^3P^\circ$	0 - 1	M22

BROMINE IX (Br^{8+}), Z = 35

Ground State $1s^22s^22p^63s^23p^63d^9\ ^2D_{5/2}$ (27 electrons)

Ionization Potential [1 871 000] cm^{-1}; [232] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Br IX	104.85			$3p^63d^9 - 3p^53d^{10}$	$g^2D - ^2P^\circ$	3/2 - ½	M22
Br IX	109.59			$3p^63d^9 - 3p^53d^{10}$	$g^2D - ^2P^\circ$	5/2 - 3/2	M22
Br IX	110.66			$3p^63d^9 - 3p^53d^{10}$	$g^2D - ^2P^\circ$	3/2 - 3/2	M22

BROMINE X (Br^{9+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^8$ $^3F_4$ (26 electrons)
Ionization Potential [2 178 000] cm^{-1}; [270] eV

BROMINE XI (Br^{10+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^7$ $^4F_{9/2}$ (25 electrons)
Ionization Potential [2 500 000] cm^{-1}; [310] eV

BROMINE XII (Br^{11+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^6$ $^5D_4$ (24 electrons)
Ionization Potential [2 839 000] cm^{-1}; [352] eV

BROMINE XIII (Br^{12+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [3 210 000] cm^{-1}; [398] eV

BROMINE XIV (Br^{13+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [3 557 000] cm^{-1}; [441] eV

BROMINE XV (Br^{14+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [4 251 000] cm^{-1}; [486] eV

BROMINE XVI (Br^{15+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [4 299 000] cm^{-1}; [533] eV

BROMINE XVII (Br^{16+}), Z = 35
Ground State $1s^22s^22p^63s^23p^63d$ $^2D_{3/2}$ (19 electrons)
Ionization Potential [4 670 100] cm^{-1}; [579] eV

BROMINE XVIII (Br^{17+}), Z = 35
Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)
Ionization Potential [5 839 700] cm^{-1}; [724] eV

BROMINE XIX (Br^{18+}), Z = 35
Ground State $1s^22s^22p^63s^23p^5$ $^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential [6 146 200] cm^{-1}; [762] eV

BROMINE XX (Br^{19+}), Z = 35
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [6 501 100] cm^{-1}; [806] eV

BROMINE XXI (Br^{20+}), Z = 35
Ground State $1s^22s^22p^63s^23p^3$ $^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [6 969 000] cm^{-1}; [864] eV

BROMINE XXII (Br^{21+}), Z = 35
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [7 364 100] cm^{-1}; [913] eV

BROMINE XXIII (Br^{22+}), Z = 35
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [7 751 300] cm^{-1}; [961] eV

BROMINE XXIV (Br^{23+}), Z = 35
Ground State $1s^22s^22p^63s^2$ $^1S_0$ (12 electrons)
Ionization Potential [8 614 000] cm^{-1}; [1068] eV

BROMINE XXV (Br^{24+}), Z = 35
Ground State $1s^2 2s^2 2p^6 3s$ $^2S_{1/2}$ (11 electrons)
Ionization Potential [9 033 600] cm^{-1}; [1120] eV

BROMINE XXVI (Br^{25+}), Z = 35
Ground State $1s^2 2s^2 2p^6$ $^1S_0$ (10 electrons)
Ionization Potential [22 197 000] cm^{-1}; [2752] eV

BROMINE XXVII (Br^{26+}), Z = 35
Ground State $1s^2 2s^2 2p^5$ $^2P^\circ_{3/2}$ (9 electrons)
Ionization Potential [23 028 000] cm^{-1}; [2855] eV

BROMINE XXVIII (Br^{27+}), Z = 35
Ground State $1s^2 2s^2 2p^4$ $^3P_2$ (8 electrons)
Ionization Potential [24 173 000] cm^{-1}; [2997] eV

BROMINE XXIX (Br^{28+}), Z = 35
Ground State $1s^2 2s^2 2p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [25 568 000] cm^{-1}; [3170] eV

BROMINE XXX (Br^{29+}), Z = 35
Ground State $1s^2 2s^2 2p^2$ $^3P_0$ (6 electrons)
Ionization Potential [26 891 000] cm^{-1}; [3334] eV

BROMINE XXXI (Br^{30+}), Z = 35
Ground State $1s^2 2s^2 2p$ $^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [28 149 000] cm^{-1}; [3490] eV

BROMINE XXXII (Br^{31+}), Z = 35
Ground State $1s^2 2s^2$ $^1S_0$ (4 electrons)
Ionization Potential [29 714 000] cm^{-1}; [3684] eV

BROMINE XXXIII (Br^{32+}), Z = 35
Ground State $1s^2 2s$ $^2S_{1/2}$ (3 electrons)
Ionization Potential [31 174 000] cm^{-1}; [3865] eV

BROMINE XXXIV (Br^{33+}), Z = 35
Ground State $1s^2$ $^1S_0$ (2 electrons)
Ionization Potential [131 577 000] cm^{-1}; [16313] eV

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BROMINE XXXV (Br^{34+}), Z = 35
Ground State 1s $^2S_{1/2}$ (1 electron)
Ionization Potential [136 577 000] cm^{-1}; [16933] eV

KRYPTON, Z = 36

Unclassified Lines

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr	430.15	50					S6
Kr	434.28	100					S6
Kr	435.01	60					S6
Kr	440.27	80					S6
Kr	442.33	50					S6
Kr	443.88	60					S6
Kr	445.33	150					S6
Kr	448.61	120					S6
Kr	449.12	120					S6
Kr	458.61	60					S6
Kr	461.91	100					S6
Kr	462.35	120					S6
Kr	466.44	150					S6
Kr	469.26	100					S6
Kr	471.19	120					S6
Kr	473.55	80					S6
Kr	475.68	100					S6
Kr	479.34	120					S6
Kr	481.43	120					S6
Kr	487.35	60					S6
Kr	489.59	80					S6
Kr	492.56	50					S6
Kr	493.89	100					S6
Kr	495.72	200					S6
Kr	498.01	150					S6
Kr	499.72	150					S6
Kr	503.66	150					S6
Kr	514.85	80					S6
Kr	515.36	60					S6
Kr	517.70	50					S6
Kr	521.15	60					S6
Kr	525.33	150					S6
Kr	535.71	60					S6
Kr	536.14	80					S6
Kr	539.59	120					S6
Kr	540.35	200					S6
Kr	547.37	60					S6
Kr	551.48	300					S6
Kr	563.53	400					S6
Kr	573.65	300					S6
Kr	578.47	60					S6
Kr	582.42	80					S6
Kr	588.08	800					S6
Kr	594.84	300					S6
Kr	604.89	60					S6
Kr	606.79	120					S6
Kr	610.89	80					S6
Kr	617.27	600					S6
Kr	626.06	150					S6
Kr	626.49	300					S6
Kr	627.75	300					S6
Kr	641.86	50					S6
Kr	645.77	400					S6
Kr	652.90	400					S6
Kr	674.29	250					S6
Kr	690.86	120					S6
Kr	691.73	300					S6
Kr	693.48	300					S6
Kr	700.58	80					S6
Kr	710.72	200					S6

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr	733.17	50					S6
Kr	738.90	400					S6
Kr	744.28	150					S6
Kr	750.25	80					S6
Kr	776.81	150					S6
Kr	781.64	150					S6
Kr	794.11	150					S6
Kr	810.20	600					S6
Kr	822.53	100					S6
Kr	883.00	60					S6
Kr	898.39	200					S6
Kr	918.34	400					S6
Kr	927.37	120					S6
Kr	931.47	250					S6
Kr	944.28	60					S6

KRYPTON I (Kr^{0+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6$ $^1S_0$ (36 electrons)

Ionization Potential 112 914.5 cm^{-1}; 13.999 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr I	923.713			$4p^6 - 4p^5(^2P^\circ)6d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,M22
Kr I	928.711			$4p^6 - 4p^5(^2P^\circ)6d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	E6,M22
Kr I	945.441	50	10	$4p^6 - 4p^5(^2P^\circ)7s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B30
Kr I	946.535	50	9	$4p^6 - 4p^5(^2P^\circ)5d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B30
Kr I	951.056	20	7	$4p^6 - 4p^5(^2P^\circ)6s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E6,B30
Kr I	953.404	50	5	$4p^6 - 4p^5(^2P^\circ)4d$	$g^1S - 1/2[3/2]^\circ$	0 - 1	E6,B30
Kr I	963.374	50	8	$4p^6 - 4p^5(^2P^\circ)5d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	E6,B30
Kr I	1001.061	100	6	$4p^6 - 4p^5(^2P^\circ)6s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B30
Kr I	1003.550	100	4	$4p^6 - 4p^5(^2P^\circ)4d$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B30
Kr I	1030.023	100	3	$4p^6 - 4p^5(^2P^\circ)4d$	$g^1S - 3/2[1/2]^\circ$	0 - 1	E6,B30
Kr I	1164.867	200	2	$4p^6 - 4p^5(^2P^\circ)5s$	$g^1S - 1/2[1/2]^\circ$	0 - 1	E6,B30
Kr I	1235.838	650	1	$4p^6 - 4p^5(^2P^\circ)5s$	$g^1S - 3/2[3/2]^\circ$	0 - 1	E6,B30

KRYPTON II (Kr^{1+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^5$ $^2P^\circ_{3/2}$ (35 electrons)

Ionization Potential 196 474.8 cm^{-1}; 24.359 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr II	551.328	40		$4p^5 - 4p^4(^3P)8s$	$g^2P^\circ - ^4P$	3/2 - 3/2	M17
Kr II	559.315	120		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - ^2P$	3/2 - 1/2	M17
Kr II	560.792	40		$4p^5 - 4p^4(^1D)5d$	$g^2P^\circ - ^2D$	3/2 - 5/2	M17
Kr II	561.932	40		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - ^2P$	3/2 - 3/2	M17
Kr II	562.792	40		$4p^5 - 4p^4(^1D)5d$	$g^2P^\circ - ^2P$	3/2 - 3/2	M17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr II	570.013	240		$4p^5 - 4p^4(^3P)6d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	M17
Kr II	575.907	80		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M17
Kr II	576.653	40		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M17
Kr II	576.998	20		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M17
Kr II	579.101	20		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M17
Kr II	579.414	40		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	580.345	20		$4p^5 - 4p^4(^1D)5d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	581.219	40		$4p^5 - 4p^4(^1D)6s$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M17
Kr II	581.500	120		$4p^5 - 4p^4(^1D)6s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	585.688	80		$4p^5 - 4p^4(^1D)5d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	586.269	40		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M17
Kr II	589.265	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	594.286	40		$4p^5 - 4p^4(^3P)7s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M17
Kr II	595.539	320		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M17
Kr II	596.956	160		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M17
Kr II	598.643	40		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M17
Kr II	598.805	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	M17
Kr II	598.978	160		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M17
Kr II	599.954	200		$4p^5 - 4p^4(^1D)6s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	605.331	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	605.547	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	M17
Kr II	605.782	120		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	M17
Kr II	608.134	240		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M17
Kr II	613.374	200		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M17
Kr II	615.138	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	M17
Kr II	615.227	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	617.065	320		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 3/2	M17
Kr II	617.758	240		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M17
Kr II	618.048	240		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M17
Kr II	618.511	240		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M17
Kr II	618.882	240		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M17
Kr II	619.385	240		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	M17
Kr II	619.548	200		$4p^5 - 4p^4(^1S)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M17
Kr II	621.074	320		$4p^5 - 4p^4(^1S)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	621.911	280		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M17
Kr II	625.901	200		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	M17
Kr II	633.380	280		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M17
Kr II	634.272	240		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M17
Kr II	636.152	280		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	M17
Kr II	636.630	280		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M17
Kr II	638.215	280		$4p^5 - 4p^4(^3P)5d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	M17
Kr II	638.960	240		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M17
Kr II	639.263	280		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	640.871	280		$4p^5 - 4p^4(^1S)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	643.399	200		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M17
Kr II	655.681	280		$4p^5 - 4p^4(^3P)6s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M17
Kr II	657.095	360		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M17
Kr II	658.649	320		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M17
Kr II	665.879	280		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M17
Kr II	668.835	320		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	681.133	280		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M17
Kr II	682.800	320		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	685.820	240		$4p^5 - 4p^4(^1S)5s$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M17
Kr II	690.572	200		$4p^5 - 4p^4(^1D)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	712.042	360		$4p^5 - 4p^4(^1S)5s$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M17
Kr II	729.404	480	8	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	742.825	280	8	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	3/2 - 3/2	M17
Kr II	743.125	280	7	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M17
Kr II	752.045	400		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2F$	3/2 - 5/2	M17
Kr II	752.078	200	7	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M17
Kr II	761.175	600		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M17
Kr II	763.977	480		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M17
Kr II	766.205	480	5	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 3/2	M17
Kr II	771.027	600	5	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	3/2 - 5/2	M17
Kr II	772.112	240	7	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr II	773.688	480	8	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	782.096	600	6	$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2D$	3/2 - 5/2	M17
Kr II	783.724	480	7	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M17
Kr II	793.617	280		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	796.668	240		$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^2P$	1/2 - 1/2	M17
Kr II	799.087	360	5	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4F$	1/2 - 3/2	M17
Kr II	805.507	240	7	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M17
Kr II	818.149	480	6	$4p^5 - 4p^4(^1D)5s$	$g^2P^\circ - {}^2D$	1/2 - 3/2	M17
Kr II	821.154	360	4	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 1/2	M17
Kr II	826.434	400	3	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 1/2	M17
Kr II	830.375	480	4	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	3/2 - 5/2	M17
Kr II	844.064	480	3	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	3/2 - 3/2	M17
Kr II	850.319	400	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 1/2	M17
Kr II	859.037	400	4	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 1/2	M17
Kr II	864.821	480	4	$4p^5 - 4p^4(^3P)4d$	$g^2P^\circ - {}^4D$	1/2 - 3/2	M17
Kr II	868.871	480	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 3/2	M17
Kr II	884.141	600	3	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^2P$	1/2 - 3/2	M17
Kr II	886.300	800	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	3/2 - 5/2	M17
Kr II	891.006	720	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 1/2	M17
Kr II	911.394	600	2	$4p^5 - 4p^4(^3P)5s$	$g^2P^\circ - {}^4P$	1/2 - 3/2	M17
Kr II	917.427	1000	1	$4s^24p^5 - 4s4p^6$	$g^2P^\circ - {}^2S$	3/2 - 1/2	M17
Kr II	964.971	1000	1	$4s^24p^5 - 4s4p^6$	$g^2P^\circ - {}^2S$	1/2 - 1/2	M17
Kr II	1330.948	20		$4s4p^6 - 4s^24p^4(^3P)6f$	${}^2S - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1331.402	20		$4s4p^6 - 4s^24p^4(^3P)6f$	${}^2S - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1413.894	20		$4p^4(^3P)4d - 4p^4(^3P)9f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1422.512	40		$4p^4(^3P)5s - 4p^4(^3P)5f$	${}^4P - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1435.085	120		$4s4p^6 - 4s^24p^4(^3P)5f$	${}^2S - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1435.676	40		$4s4p^6 - 4s^24p^4(^3P)5f$	${}^2S - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1444.343	120		$4p^4(^3P)4d - 4p^4(^3P)8f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1464.072	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1466.460	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 1[3]^\circ$	5/2 - 5/2	M17
Kr II	1468.021	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1490.928	40		$4p^4(^3P)4d - 4p^4(^3P)7f$	${}^4D - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1491.104	200		$4p^4(^3P)4d - 4p^4(^3P)7f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1495.769	120		$4p^4(^3P)4d - 4p^4(^3P)7f$	${}^4D - 2[4]^\circ$	5/2 - 7/2	M17
Kr II	1514.585	20		$4p^4(^3P)4d - 4p^4(^3P)10f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1525.486	20		$4p^4(^3P)5s - 4p^4(^3P)6f$	${}^2P - 2[3]^\circ$	3/2 - 5/2	M17
Kr II	1539.075	20		$4p^4(^3P)4d - 4p^4(^3P)9f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1568.050	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1569.135	240		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1571.876	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[2]^\circ$	5/2 - 3/2	M17
Kr II	1572.340	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[3]^\circ$	5/2 - 5/2	M17
Kr II	1573.404	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[4]^\circ$	5/2 - 7/2	M17
Kr II	1574.103	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 0[3]^\circ$	7/2 - 5/2	M17
Kr II	1574.340	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 0[3]^\circ$	7/2 - 7/2	M17
Kr II	1574.733	120		$4p^4(^3P)4d - 4p^4(^3P)8f$	${}^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1575.375	20		$4p^4(^3P)5s - 4p^4(^3P)5f$	${}^4P - 2[2]^\circ$	3/2 - 5/2	M17
Kr II	1576.155	20		$4p^4(^3P)4d - 4p^4(^3P)8f$	${}^4F - 2[4]^\circ$	9/2 - 9/2	M17
Kr II	1579.513	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 0[3]^\circ$	5/2 - 5/2	M17
Kr II	1579.731	240		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 0[3]^\circ$	5/2 - 7/2	M17
Kr II	1584.563	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[1]^\circ$	3/2 - 1/2	M17
Kr II	1586.093	20		$4p^4(^3P)4d - 4p^4(^3P)9f$	${}^4F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1586.170	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[2]^\circ$	3/2 - 3/2	M17
Kr II	1586.621	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[3]^\circ$	3/2 - 5/2	M17
Kr II	1589.384	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[3]^\circ$	7/2 - 7/2	M17
Kr II	1592.565	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[4]^\circ$	7/2 - 7/2	M17
Kr II	1593.946	240		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[2]^\circ$	7/2 - 5/2	M17
Kr II	1594.895	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1598.082	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1599.492	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[2]^\circ$	5/2 - 5/2	M17
Kr II	1603.721	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1606.026	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	${}^4D - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1608.902	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1613.853	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	${}^4D - 1[2]^\circ$	3/2 - 3/2	M17
Kr II	1613.898	80		$4p^4(^3P)5s - 4p^4(^3P)5f$	${}^2P - 1[2]^\circ$	1/2 - 3/2	M17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr II	1614.274	200		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 1[2]^\circ$	3/2 - 5/2	M17
Kr II	1623.948	120		$4p^4(^3P)4d - 4p^4(^3P)8f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1629.867	280		$4p^4(^3P)4d - 4p^4(^3P)7f$	$^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1632.037	40		$4p^4(^3P)4d - 4p^4(^3P)7f$	$^4F - 2[4]^\circ$	9/2 - 9/2	M17
Kr II	1634.396	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 1[2]^\circ$	1/2 - 3/2	M17
Kr II	1637.981	40		$4p^4(^3P)5s - 4p^4(^3P)5f$	$^4P - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1638.807	200		$4p^4(^1D)5s - 4p^4(^3P)6f$	$^2D - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1650.630	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1658.358	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1668.416	20		$4s4p^6 - 4s^24p^4(^1S)5p$	$^2S - ^2P^\circ$	1/2 - 3/2	M17
Kr II	1674.577	80		$4s4p^6 - 4s^24p^4(^3P)4f$	$^2S - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1677.058	160		$4s4p^6 - 4s^24p^4(^3P)4f$	$^2S - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1682.622	120		$4p^4(^3P)4d - 4p^4(^3P)7f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1684.845	20		$4p^4(^3P)4d - 4p^4(^3P)7f$	$^4F - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1687.456	80		$4s4p^6 - 4s^24p^4(^1S)5p$	$^2S - ^2P^\circ$	1/2 - 1/2	M17
Kr II	1697.189	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 1[3]^\circ$	5/2 - 5/2	M17
Kr II	1699.297	160		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1713.509	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[2]^\circ$	7/2 - 5/2	M17
Kr II	1716.582	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[1]^\circ$	5/2 - 3/2	M17
Kr II	1716.657	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[3]^\circ$	7/2 - 7/2	M17
Kr II	1718.431	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[3]^\circ$	7/2 - 5/2	M17
Kr II	1719.638	240		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1719.908	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[2]^\circ$	5/2 - 5/2	M17
Kr II	1720.208	360		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1721.632	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[2]^\circ$	5/2 - 3/2	M17
Kr II	1722.701	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[5]^\circ$	9/2 - 9/2	M17
Kr II	1722.936	200		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1724.864	200		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[3]^\circ$	5/2 - 5/2	M17
Kr II	1725.982	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[4]^\circ$	9/2 - 9/2	M17
Kr II	1726.078	280		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[4]^\circ$	5/2 - 7/2	M17
Kr II	1727.854	20		$4p^4(^3P)4d - 4p^4(^3P)8f$	$^2F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1733.649	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[1]^\circ$	3/2 - 3/2	M17
Kr II	1733.681	20		$4p^4(^3P)5s - 4p^4(^3P)5f$	$^2P - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1734.507	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[1]^\circ$	3/2 - 1/2	M17
Kr II	1738.804	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[2]^\circ$	3/2 - 3/2	M17
Kr II	1738.861	40		$4p^4(^3P)5s - 4p^4(^3P)5f$	$^2P - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1742.093	240		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[3]^\circ$	3/2 - 5/2	M17
Kr II	1749.687	40		$4s4p^6 - 4s^24p^4(^3P)6p$	$^2S - ^4D^\circ$	1/2 - 3/2	M17
Kr II	1754.821	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2F - 1[3]^\circ$	7/2 - 5/2	M17
Kr II	1757.384	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1758.077	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2F - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1758.265	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1762.686	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4D - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1769.546	20		$4p^4(^1D)5s - 4p^4(^3P)6f$	$^2D - 2[1]^\circ$	3/2 - 1/2	M17
Kr II	1781.888	200		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1782.594	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[3]^\circ$	7/2 - 5/2	M17
Kr II	1783.997	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1785.419	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1794.421	40		$4p^4(^3P)4d - 4p^4(^3P)7f$	$^2F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1797.020	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2F - 1[3]^\circ$	5/2 - 5/2	M17
Kr II	1797.515	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[2]^\circ$	5/2 - 5/2	M17
Kr II	1804.070	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[3]^\circ$	5/2 - 7/2	M17
Kr II	1808.713	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[4]^\circ$	5/2 - 7/2	M17
Kr II	1809.454	20		$4p^4(^1D)5s - 4p^4(^3P)5f$	$^2D - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1811.674	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[3]^\circ$	7/2 - 7/2	M17
Kr II	1817.602	200		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1830.842	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4P - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1833.847	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4P - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1842.091	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[4]^\circ$	5/2 - 7/2	M17
Kr II	1850.093	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4P - 1[3]^\circ$	5/2 - 5/2	M17
Kr II	1850.773	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 0[3]^\circ$	5/2 - 7/2	M17
Kr II	1852.603	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4P - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1867.889	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[1]^\circ$	3/2 - 1/2	M17
Kr II	1868.662	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^4F - 2[3]^\circ$	3/2 - 5/2	M17
Kr II	1870.645	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[3]^\circ$	5/2 - 5/2	M17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr II	1871.619	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1873.761	80		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[2]^\circ$	3/2 - 5/2	M17
Kr II	1875.296	20		$4p^4(^3P)5s - 4p^4(^3P)6p$	$^4P - ^4D^\circ$	5/2 - 3/2	M17
Kr II	1875.999	200		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1876.491	20		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[2]^\circ$	3/2 - 3/2	M17
Kr II	1877.613	40		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 0[3]^\circ$	5/2 - 5/2	M17
Kr II	1878.041	240		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 0[3]^\circ$	5/2 - 7/2	M17
Kr II	1878.256	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2P - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1878.830	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 0[3]^\circ$	3/2 - 5/2	M17
Kr II	1879.141	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2P - 2[1]^\circ$	1/2 - 1/2	M17
Kr II	1881.418	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2P - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1888.783	160		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[3]^\circ$	7/2 - 5/2	M17
Kr II	1889.679	80		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[3]^\circ$	7/2 - 7/2	M17
Kr II	1895.408	20		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2P - 2[1]^\circ$	3/2 - 3/2	M17
Kr II	1897.457	160		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[3]^\circ$	5/2 - 7/2	M17
Kr II	1898.048	200		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 0[3]^\circ$	3/2 - 5/2	M17
Kr II	1898.631	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2P - 2[2]^\circ$	3/2 - 3/2	M17
Kr II	1899.501	40		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[4]^\circ$	7/2 - 7/2	M17
Kr II	1899.629	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1901.490	280		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1902.778	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[5]^\circ$	9/2 - 9/2	M17
Kr II	1903.193	360		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[5]^\circ$	9/2 - 11/2	M17
Kr II	1906.543	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 1[2]^\circ$	3/2 - 3/2	M17
Kr II	1907.356	160		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1907.760	120		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1909.788	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2P - 0[3]^\circ$	3/2 - 5/2	M17
Kr II	1909.840	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[4]^\circ$	9/2 - 7/2	M17
Kr II	1910.421	20		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[2]^\circ$	5/2 - 5/2	M17
Kr II	1910.539	200		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[4]^\circ$	9/2 - 9/2	M17
Kr II	1911.797	80		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2F - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1914.673	40		$4p^4(^3P)5s - 4p^4(^3P)6p$	$^4P - ^4D^\circ$	5/2 - 5/2	M17
Kr II	1917.387	80		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1918.567	40		$4p^4(^3P)5s - 4p^4(^3P)6p$	$^4P - ^4D^\circ$	5/2 - 7/2	M17
Kr II	1919.199	160		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 0[3]^\circ$	7/2 - 5/2	M17
Kr II	1919.522	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 0[3]^\circ$	7/2 - 7/2	M17
Kr II	1920.467	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2P - 1[2]^\circ$	1/2 - 3/2	M17
Kr II	1931.277	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2P - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1931.565	240		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[2]^\circ$	3/2 - 5/2	M17
Kr II	1933.784	120		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[2]^\circ$	3/2 - 3/2	M17
Kr II	1933.852	80		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^2P - 1[2]^\circ$	1/2 - 3/2	M17
Kr II	1938.427	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2P - 1[2]^\circ$	3/2 - 3/2	M17
Kr II	1939.037	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2P - 1[2]^\circ$	3/2 - 5/2	M17
Kr II	1940.112	20		$4p^4(^3P)5s - 4p^4(^3P)6p$	$^4P - ^4P^\circ$	5/2 - 5/2	M17
Kr II	1941.944	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 1[3]^\circ$	7/2 - 7/2	M17
Kr II	1943.765	40		$4p^4(^3P)4d - 4p^4(^3P)6f$	$^2D - 1[4]^\circ$	5/2 - 7/2	M17
Kr II	1946.677	20		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 1[4]^\circ$	7/2 - 7/2	M17
Kr II	1948.752	240		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 1[4]^\circ$	7/2 - 9/2	M17
Kr II	1956.412	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[1]^\circ$	1/2 - 3/2	M17
Kr II	1957.542	20		$4p^4(^1D)5s - 4p^4(^3P)5f$	$^2D - 2[1]^\circ$	3/2 - 3/2	M17
Kr II	1958.427	40		$4p^4(^3P)5s - 4p^4(^3P)6p$	$^4P - ^4D^\circ$	3/2 - 3/2	M17
Kr II	1961.863	40		$4p^4(^1D)5s - 4p^4(^3P)5f$	$^2D - 2[2]^\circ$	3/2 - 5/2	M17
Kr II	1963.361	240		$4p^4(^3P)4d - 4p^4(^3P)4f$	$^4D - 1[2]^\circ$	1/2 - 3/2	M17
Kr II	1969.278	40		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^4P - 2[2]^\circ$	1/2 - 3/2	M17
Kr II	1970.125	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 0[3]^\circ$	5/2 - 7/2	M17
Kr II	1974.015	20		$4p^4(^3P)5s - 4p^4(^1S)5p$	$^4P - ^2P^\circ$	1/2 - 1/2	M17
Kr II	1975.251	280		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[5]^\circ$	7/2 - 9/2	M17
Kr II	1976.252	40		$4p^4(^1D)5s - 4p^4(^3P)5f$	$^2D - 2[3]^\circ$	5/2 - 7/2	M17
Kr II	1978.904	80		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[3]^\circ$	7/2 - 7/2	M17
Kr II	1981.264	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[3]^\circ$	7/2 - 5/2	M17
Kr II	1981.653	40		$4p^4(^3P)5s - 4p^4(^1S)5p$	$^2P - ^2P^\circ$	3/2 - 3/2	M17
Kr II	1982.866	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[4]^\circ$	7/2 - 7/2	M17
Kr II	1983.634	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4F - 2[4]^\circ$	7/2 - 9/2	M17
Kr II	1990.341	20		$4p^4(^3P)5s - 4p^4(^3P)4f$	$^2P - 2[1]^\circ$	3/2 - 3/2	M17
Kr II	1992.464	40		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^4P - 1[3]^\circ$	3/2 - 5/2	M17
Kr II	1993.763	120		$4p^4(^3P)4d - 4p^4(^3P)5f$	$^2F - 1[3]^\circ$	5/2 - 7/2	M17

KRYPTON III (Kr^{2+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^4$ $^3P_2$ (34 electrons)

Ionization Potential 298 020 cm^{-1}; 36.95 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr III	447.77	20		$4p^4 - 4p^3(^2D^\circ)5d$	$^1D - 1^\circ$?	2 - 1	S6,K8
Kr III	453.06	80		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$?	2 - 3	S6,K8
Kr III	457.23	50		$4p^4 - 4p^3(^2D^\circ)5d$	$^1D - ^1D^\circ$?	2 - 2	S6,K8
Kr III	462.79	150		$4p^4 - 4p^3(^2P^\circ)6s$	$^1S - ^3P^\circ$?	0 - 1	S6,K8
Kr III	467.35	300		$4p^4 - 4p^3(^4S^\circ)5d$	$g^3P - ^3D^\circ$?	0 - 1	S6,K8
Kr III	474.09	100		$4p^4 - 4p^3(^4S^\circ)6s$	$g^3P - ^5S^\circ$?	1 - 2	S6,K8
Kr III	516.38	80		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	2 - 2	B30
Kr III	525.69	80		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	2 - 1	B30
Kr III	528.809	100		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	1 - 2	M17
Kr III	530.308	200		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1D^\circ$	2 - 2	M17
Kr III	531.255	50		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1P^\circ$	2 - 1	M17
Kr III	538.54	160		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	1 - 1	B30
Kr III	540.79	100		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3P^\circ$	0 - 1	B30
Kr III	540.860	300		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	M17
Kr III	543.417	250		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1D^\circ$	1 - 2	M17
Kr III	544.410	200		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1P^\circ$	1 - 1	M17
Kr III	546.549	250		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1F^\circ$	2 - 3	M17
Kr III	546.687	150		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^1P^\circ$	0 - 1	M17
Kr III	548.654	150		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	2 - 1	M17
Kr III	551.685	200		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^1P^\circ$	2 - 1	M17
Kr III	554.796	250		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	2 - 2	M17
Kr III	558.642	250		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3P^\circ$	2 - 2	M17
Kr III	560.984	200		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	2 - 1	M17
Kr III	562.69	100		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	1 - 1	B30
Kr III	565.128	200		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	M17
Kr III	565.645	300		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	2 - 2	M17
Kr III	565.88	80		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^1P^\circ$	1 - 1	B30
Kr III	569.160	300		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	1 - 2	M17
Kr III	570.735	50		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3F^\circ$	2 - 2	M17
Kr III	571.98	300		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3F^\circ$	2 - 3	B30
Kr III	573.231	250		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	M17
Kr III	574.958	100		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^1D^\circ$	2 - 2	M17
Kr III	575.72	100		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	1 - 0	B30
Kr III	576.08	80		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^1P^\circ$	2 - 1	B30
Kr III	578.09	10		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3S^\circ$	2 - 1	B30
Kr III	578.212	150		$4p^4 - 4p^3(^2P^\circ)5s$	$g^3P - ^3P^\circ$	0 - 1	M17
Kr III	579.831	300		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	2 - 2	M17
Kr III	580.580	250		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	M17
Kr III	585.141	300		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^1D^\circ$	2 - 2	M17
Kr III	585.955	300		$4p^4 - 4p^3(^2P^\circ)4d$	$g^3P - ^3F^\circ$	1 - 2	M17
Kr III	587.378	50		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	M17
Kr III	587.536	50		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	2 - 1	M17
Kr III	593.703	300		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3S^\circ$	1 - 1	M17
Kr III	594.098	300		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^1F^\circ$	2 - 3	M17
Kr III	595.53	140		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	B30
Kr III	596.412	300		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3S^\circ$	0 - 1	M17
Kr III	596.584	200		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3D^\circ$	2 - 1	M17
Kr III	597.19	120		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^1P^\circ$	1 - 1	B30
Kr III	600.172	400		$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^1P^\circ$	2 - 1	M17
Kr III	601.142	250		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^1D^\circ$	1 - 2	M17
Kr III	603.667	300		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	1 - 1	M17
Kr III	603.856	200		$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^3P^\circ$	2 - 2	M17
Kr III	604.365	150		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^1D^\circ$	2 - 2	M17
Kr III	605.863	500		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	2 - 3	M17
Kr III	606.466	350		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	M17
Kr III	611.115	500		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	2 - 2	M17
Kr III	611.19	160		$4p^4 - 4p^3(^2P^\circ)5s$	$^1D - ^3P^\circ$	2 - 1	B30
Kr III	612.488	150		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	2 - 1	M17
Kr III	616.725	350		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3D^\circ$	2 - 2	M17
Kr III	621.451	400		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^1D^\circ$	1 - 2	M17

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr III	622.795	450		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3F^\circ$	2 - 2	M17
Kr III	624.27	60		$4p^4 - 4p^3(^2P^\circ)4d$	$^1D - ^3F^\circ$	2 - 3	B30
Kr III	625.016	500		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3G^\circ$	2 - 3	M17
Kr III	625.760	300		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	M17
Kr III	628.588	450		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	1 - 2	M17
Kr III	630.040	500		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	1 - 1	M17
Kr III	631.559	200		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3S^\circ$	2 - 1	M17
Kr III	633.090	350		$4p^4 - 4p^3(^2D^\circ)5s$	$g^3P - ^3D^\circ$	0 - 1	M17
Kr III	633.630	250		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3D^\circ$	2 - 2	M17
Kr III	636.35	20		$4p^4 - 4p^3(^2P^\circ)4d$	$^1S - ^3P^\circ$	0 - 1	B30
Kr III	639.983	500		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^1D^\circ$	2 - 2	M17
Kr III	642.84	20		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3D^\circ$	2 - 1	B30
Kr III	644.52	20		$4p^4 - 4p^3(^2P^\circ)4d$	$^1S - ^1P^\circ$	0 - 1	B30
Kr III	646.412	600		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3F^\circ$	2 - 3	M17
Kr III	651.201	500		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3F^\circ$	2 - 2	M17
Kr III	659.718	500		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	2 - 1	M17
Kr III	664.855	300		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 3	M17
Kr III	670.301	150		$4p^4 - 4p^3(^2P^\circ)4d$	$^1S - ^3D^\circ$	0 - 1	M17
Kr III	670.820	150		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 1	M17
Kr III	671.06	140		$4p^4 - 4p^3(^2D^\circ)4d$	$g^3P - ^3F^\circ$	1 - 2	B30
Kr III	671.182	150		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 2	M17
Kr III	672.335	400		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 3	M17
Kr III	672.852	350		$4p^4 - 4p^3(^2D^\circ)5s$	$^1D - ^3D^\circ$	2 - 1	M17
Kr III	674.835	250		$4p^4 - 4p^3(^2P^\circ)5s$	$^1S - ^1P^\circ$	0 - 1	M17
Kr III	676.568	350		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	2 - 2	M17
Kr III	680.126	350		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	1 - 1	M17
Kr III	683.683	350		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^3S^\circ$	0 - 1	M17
Kr III	686.254	450		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^5S^\circ$	2 - 2	M17
Kr III	687.985	450		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3G^\circ$	2 - 3	M17
Kr III	691.930	450		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 1	M17
Kr III	695.610	500		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	0 - 1	M17
Kr III	698.052	300		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^3D^\circ$	1 - 2	M17
Kr III	704.843	250		$4s^24p^4 - 4s4p^5$	$g^3P - ^1P^\circ$	2 - 1	M17
Kr III	708.365	500		$4p^4 - 4p^3(^4S^\circ)5s$	$g^3P - ^5S^\circ$	1 - 2	M17
Kr III	714.003	500		$4p^4 - 4p^3(^2D^\circ)4d$	$^1D - ^3F^\circ$	2 - 3	M17
Kr III	714.77	40		$4p^4 - 4p^3(^2D^\circ)4d$	$^1S - ^3S^\circ$	0 - 1	B30
Kr III	719.843	100		$4p^4 - 4p^3(^2D^\circ)4d$	$^1S - ^1P^\circ$	0 - 1	M17
Kr III	722.04	1000b		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^5D^\circ$	2 - 3	B30
Kr III	729.25	40		$4p^4 - 4p^3(^2D^\circ)4d$	$^1S - ^3D^\circ$?	0 - 1	S6,K8
Kr III	730.267	100		$4p^4 - 4p^3(^4S^\circ)5s$	$^1D - ^3S^\circ$	2 - 1	M17
Kr III	732.257	250		$4s^24p^4 - 4s4p^5$	$g^3P - ^1P^\circ$	0 - 1	M17
Kr III	743.901	200		$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^3D^\circ$	2 - 1	M17
Kr III	745.765	150		$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^3D^\circ$	2 - 3	M17
Kr III	746.700	300		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^5D^\circ$	1 - 1	M17
Kr III	746.83	100		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^5D^\circ$	1 - 0	B30
Kr III	750.99	80		$4p^4 - 4p^3(^4S^\circ)4d$	$g^3P - ^5D^\circ$	0 - 1	B30
Kr III	768.132	50		$4p^4 - 4p^3(^2D^\circ)5s$	$^1S - ^3D^\circ$	0 - 1	M17
Kr III	785.968	600		$4s^24p^4 - 4s4p^5$	$^1D - ^1P^\circ$	2 - 1	M17
Kr III	807.583	100		$4p^4 - 4p^3(^4S^\circ)4d$	$^1D - ^5D^\circ$	2 - 1	M17
Kr III	837.662	500		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	2 - 1	M17
Kr III	854.73	500		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	1 - 0	B30
Kr III	862.582	600		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	2 - 2	M17
Kr III	870.842	400		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	1 - 1	M17
Kr III	876.676	500		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	0 - 1	M17
Kr III	897.806	750		$4s^24p^4 - 4s4p^5$	$g^3P - ^3P^\circ$	1 - 2	M17
Kr III	919.146	150		$4s^24p^4 - 4s4p^5$	$^1S - ^1P^\circ$	0 - 1	M17
Kr III	948.843	50		$4p^4 - 4p^3(^4S^\circ)4d$	$^1S - ^5D^\circ$	0 - 1	M17
Kr III	954.775	250		$4s^24p^4 - 4s4p^5$	$^1D - ^3P^\circ$	2 - 1	M17
Kr III	987.289	500		$4s^24p^4 - 4s4p^5$	$^1D - ^3P^\circ$	2 - 2	M17
Kr III	1158.737	300		$4s^24p^4 - 4s4p^5$	$^1S - ^3P^\circ$	0 - 1	M17
Kr III	1206.35	100		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	2 - 1	B30
Kr III	1216.90	100		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	2 - 2	B30
Kr III	1258.74	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	1 - 1	B30
Kr III	1259.31	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	1 - 0	B30
Kr III	1265.32	80		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3F$	2 - 3	B30

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr III	1270.20	100		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	1 - 2	B30
Kr III	1278.94	20		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^1P$	2 - 1	B30
Kr III	1283.31	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3F$	2 - 2	B30
Kr III	1283.80	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3D$	2 - 3	B30
Kr III	1293.99	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3P$	0 - 1	B30
Kr III	1302.59	40		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3D$	2 - 2	B30
Kr III	1342.68	20		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3F$	1 - 2	B30
Kr III	1363.85	40		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^3D$	1 - 2	B30
Kr III	1377.83	40		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^3P^\circ - ^1P$	0 - 1	B30
Kr III	1400.90	20		$4p^3(^4S^\circ)4d - 4p^3(^2P^\circ)5p$	$^5D^\circ - ^3D$	2 - 3	B30
Kr III	1423.55	20		$4s4p^5 - 4s^24p^3(^2P^\circ)5p$	$^1P^\circ - ^1D$	1 - 2	B30
Kr III	1483.43	40		$4s4p^5 - 4s^24p^3(^2P^\circ)5p$	$^1P^\circ - ^1P$	1 - 1	B30
Kr III	1558.80	40		$4s4p^5 - 4s^24p^3(^4S^\circ)5p$	$^3P^\circ - ^3P$	2 - 2	B30
Kr III	1569.89	40		$4s4p^5 - 4s^24p^3(^4S^\circ)5p$	$^3P^\circ - ^3P$	2 - 1	B30
Kr III	1638.82	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^1P^\circ - ^1D$	1 - 2	B30
Kr III	1647.36	40		$4s4p^5 - 4s^24p^3(^4S^\circ)5p$	$^3P^\circ - ^3P$	1 - 2	B30
Kr III	1659.81	40		$4s4p^5 - 4s^24p^3(^4S^\circ)5p$	$^3P^\circ - ^3P$	1 - 1	B30
Kr III	1721.64	20		$4s4p^5 - 4s^24p^3(^4S^\circ)5p$	$^3P^\circ - ^3P$	0 - 1	B30
Kr III	1914.09	60		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^1P^\circ - ^1P$	1 - 1	B30
Kr III	1923.88	10		$4s4p^5 - 4s^24p^3(^2D^\circ)5p$	$^1P^\circ - ^3F$	1 - 2	B30

KRYPTON IV (Kr^{3+}), Z = 36

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^3\ ^4S^\circ_{3/2}$ (33 electrons)

Ionization Potential [427 500] cm^{-1}; [53] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr IV	805.76	140		$4s^24p^3 - 4s4p^4$	$g^4S^\circ - ^4P$	3/2 - 1/2	B30
Kr IV	816.82	360		$4s^24p^3 - 4s4p^4$	$g^4S^\circ - ^4P$	3/2 - 3/2	B30
Kr IV	842.04	440		$4s^24p^3 - 4s4p^4$	$g^4S^\circ - ^4P$	3/2 - 5/2	B30
Kr IV	1087.29 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4D^\circ$	5/2 - 7/2	M22
Kr IV	1109.62 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4S^\circ$	5/2 - 3/2	M22
Kr IV	1110.64 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 5/2	M22
Kr IV	1114.95 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4P^\circ$	5/2 - 3/2	M22
Kr IV	1157.78 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4P^\circ$	3/2 - 5/2	M22
Kr IV	1176.49 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4D^\circ$	3/2 - 5/2	M22
Kr IV	1247.93 P			$4s4p^4 - 4s^24p^2(^3P)5p$	$^4P - ^4D^\circ$	1/2 - 3/2	M22

KRYPTON V (Kr^{4+}), Z = 36

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^2\ ^3P_0$ (32 electrons)

Ionization Potential [524 300] cm^{-1}; [65] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr V?	472.16	150					F21,S6
Kr V	484.39	100		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$?	0 - 1	S6,K8
Kr V	496.25	250		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$?	2 - 2	S6,K8
Kr V	500.77	120		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$?	1 - 0	S6,K8
Kr V	507.20	200		$4p^2 - 4p4d$	$g^3P - ^3P^\circ$?	2 - 1	S6,K8

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr V	548.04	60		$4p^2 - 4p4d$	$^1D - ^3P^\circ$?	2 - 1	S6,K8
Kr V	637.87	120		$4p^2 - 4p4d$	$^1S - ^3P^\circ$?	0 - 1	S6,K8
Kr V?	708.85	600					F21,S6

KRYPTON VI (Kr^{5+}), Z = 36

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p\ ^2P^\circ_{1/2}$ (31 electrons)

Ionization Potential [633 300] cm^{-1}; [78.5] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr VI	450.20	200		4p - 4d	$g^2P^\circ - ^2D$	1/2 - 3/2	F21,S6
Kr VI	465.27	400		4p - 4d	$g^2P^\circ - ^2D$	3/2 - 5/2	F21,S6
Kr VI	544.03	600		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2P$	1/2 - 3/2	F21,S6
Kr VI	554.52	500		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2P$	1/2 - 1/2	F21,S6
Kr VI	569.13	800		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2P$	3/2 - 3/2	F21,S6
Kr VI	580.63	600		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2P$	3/2 - 1/2	F21,S6
Kr VI	705.84	1000		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2D$	1/2 - 3/2	F21,S6
Kr VI	742.83	1000		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2D$	3/2 - 5/2	F21,S6
Kr VI	748.68 ?	150		$4s^24p - 4s4p^2$	$g^2P^\circ - ^2D$	3/2 - 3/2	K8,S6,F21

KRYPTON VII (Kr^{6+}), Z = 36

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^2\ ^1S_0$ (30 electrons)

Ionization Potential [895 500] cm^{-1}; [111.0] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr VII	585.37	1000		$4s^2 - 4s4p$	$g^1S - ^1P^\circ$	0 - 1	F21,S6
Kr VII	618.67	400		$4s4p - 4p^2$	$^3P^\circ - ^3P$	2 - 2	F21,S6
Kr VII	793.44	600		$4s^2 - 4s4p$	$g^1S - ^3P^\circ$?	0 - 1	S6,K8
Kr VII	852.00	100		$4s4p - 4p^2$	$^1P^\circ - ^3P$?	1 - 2	S6,K8

KRYPTON VIII (Kr^{7+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s\ ^2S_{1/2}$ (29 electrons)

Ionization Potential [992 100] cm^{-1}; [123] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr VIII	468.20	80		4p - 5d	$^2P^\circ - ^2D$?	½ - 3/2	S6,K8
Kr VIII	490.67	150		4p - 4d	$^2P^\circ - ^2D$?	3/2 - 5/2	S6,K8
Kr VIII	614.86	200		4p - 5s	$^2P^\circ - ^2S$?	½ - ½	S6,K8
Kr VIII	651.57	400		4s - 4p	$g\,^2S - ^2P^\circ$	½ - 3/2	F21,S6
Kr VIII	654.19	300		4p - 5s	$^2P^\circ - ^2S$?	3/2 - ½	S6,K8
Kr VIII	695.91	800		4s - 4p	$g\,^2S - ^2P^\circ$	½ - ½	F21,S6

KRYPTON IX (Kr^{8+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}\ ^1S_0$ (28 electrons)

Ionization Potential 1 862 400 cm^{-1}; 230.9 eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr IX	75.45			$3d^{10} - 3d^9(^2D)4f$	$g\,^1S - ^3D^\circ$	0 - 1	F12
Kr IX	76.29			$3d^{10} - 3d^9(^2D)4f$	$g\,^1S - ^1P^\circ$	0 - 1	F12
Kr IX	76.80			$3d^{10} - 3d^9(^2D)4f$	$g\,^1S - ^3P^\circ$	0 - 1	F12
Kr IX	114.95	750		$3d^{10} - 3d^9(^2D)4p$	$g\,^1S - ^3D^\circ$	0 - 1	M22
Kr IX	115.74	1000		$3d^{10} - 3d^9(^2D)4p$	$g\,^1S - ^1P^\circ$	0 - 1	M22
Kr IX	117.71	200		$3d^{10} - 3d^9(^2D)4p$	$g\,^1S - ^3P^\circ$	0 - 1	M22
Kr IX	374.54	20		$3d^9(^2D)4d - 3d^9(^2D)4f$	$^3D - ^3P^\circ$?	3 - 2	S6,K8
Kr IX	446.76	80		$3d^9(^2D)4d - 3d^9(^2D)4f$	$^1D - ^3D^\circ$?	2 - 2	S6,K8
Kr IX	477.93	80		$3d^9(^2D)4d - 3d^9(^2D)4f$	$^1D - ^1P^\circ$?	2 - 1	S6,K8
Kr IX	498.68	100		$3d^9(^2D)4d - 3d^9(^2D)4f$	$^1D - ^3P^\circ$?	2 - 2	S6,K8

KRYPTON X (Kr^{9+}), Z = 36

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^9\ ^2D_{5/2}$ (27 electrons)

Ionization Potential [2 218 000] cm^{-1}; [275] eV

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr X	99.06			$3d^9 - 3d^8 4p$			F12
Kr X	99.57			$3d^9 - 3d^8 4p$			F12
Kr X	99.69			$3d^9 - 3d^8 4p$			F12
Kr X	99.86			$3d^9 - 3d^8 4p$			F12
Kr X	100.11			$3d^9 - 3d^8 4p$			F12
Kr X	100.30			$3d^9 - 3d^8 4p$			F12
Kr X	101.20			$3d^9 - 3d^8 4p$			F12
Kr X	101.39			$3d^9 - 3d^8 4p$			F12
Kr X	102.16			$3d^9 - 3d^8 4p$			F12
Kr X	102.24			$3d^9 - 3d^8 4p$			F12

Element	Wavelength	Intensity	Multiplet	Configuration	Term	J - J	References
Kr X	102.30			$3d^9 - 3d^8 4p$			F12
Kr X	102.72			$3d^9 - 3d^8 4p$			F12
Kr X	102.86			$3d^9 - 3d^8 4p$			F12
Kr X	103.27			$3d^9 - 3d^8 4p$			F12
Kr X	103.60			$3d^9 - 3d^8 4p$			F12

KRYPTON XI (Kr^{10+}), Z = 36
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^8$ $^3F_4$ (26 electrons)
Ionization Potential [2 549 000] cm^{-1}; [316] eV

KRYPTON XII (Kr^{11+}), Z = 36
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7$ $^4F_{9/2}$ (25 electrons)
Ionization Potential [2 888 000] cm^{-1}; [358] eV

KRYPTON XIII (Kr^{12+}), Z = 36
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^6$ $^5D_4$ (24 electrons)
Ionization Potential [3 250 000] cm^{-1}; [403] eV

KRYPTON XIV (Kr^{13+}), Z = 36
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5$ $^6S_{5/2}$ (23 electrons)
Ionization Potential [3 638 000] cm^{-1}; [451] eV

KRYPTON XV (Kr^{14+}), Z = 36
Ground State $1s^22s^22p^63s^23p^63d^4$ $^5D_0$ (22 electrons)
Ionization Potential [4 009 000] cm^{-1}; [497] eV

KRYPTON XVI (Kr^{15+}), Z = 36
Ground State $1s^22s^22p^63s^23p^63d^3$ $^4F_{3/2}$ (21 electrons)
Ionization Potential [4 775 000] cm^{-1}; [545] eV

KRYPTON XVII (Kr^{16+}), Z = 36
Ground State $1s^22s^22p^63s^23p^63d^2$ $^3F_2$ (20 electrons)
Ionization Potential [4 783 000] cm^{-1}; [593] eV

KRYPTON XVIII (Kr^{17+}), Z = 36
Ground State $1s^22s^22p^63s^23p^63d$ $^2D_{3/2}$ (19 electrons)
Ionization Potential [5 178 200] cm^{-1}; [642] eV

KRYPTON XIX (Kr^{18+}), Z = 36
Ground State $1s^22s^22p^63s^23p^6$ $^1S_0$ (18 electrons)
Ionization Potential [6 404 300] cm^{-1}; [794] eV

KRYPTON XX (Kr^{19+}), Z = 36
Ground State $1s^22s^22p^63s^23p^5$ $^2P^\circ_{3/2}$ (17 electrons)
Ionization Potential [6 718 800] cm^{-1}; [833] eV

KRYPTON XXI (Kr^{20+}), Z = 36
Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$ (16 electrons)
Ionization Potential [7 081 800] cm^{-1}; [878] eV

KRYPTON XXII (Kr^{21+}), Z = 36
Ground State $1s^22s^22p^63s^23p^3$ $^4S^\circ_{3/2}$ (15 electrons)
Ionization Potential [7 574 000] cm^{-1}; [939] eV

KRYPTON XXIII (Kr^{22+}), Z = 36
Ground State $1s^22s^22p^63s^23p^2$ $^3P_0$ (14 electrons)
Ionization Potential [7 977 100] cm^{-1}; [989] eV

KRYPTON XXIV (Kr^{23+}), Z = 36
Ground State $1s^22s^22p^63s^23p$ $^2P^\circ_{1/2}$ (13 electrons)
Ionization Potential [8 380 400] cm^{-1}; [1039] eV

KRYPTON XXV (Kr^{24+}), Z = 36
Ground State $1s^22s^22p^63s^2\ ^1S_0$ (12 electrons)
Ionization Potential [9 284 000] cm^{-1}; [1151] eV

KRYPTON XXVI (Kr^{25+}), Z = 36
Ground State $1s^22s^22p^63s\ ^2S_{1/2}$ (11 electrons)
Ionization Potential [9 727 300] cm^{-1}; [1206] eV

KRYPTON XXVII (Kr^{26+}), Z = 36
Ground State $1s^22s^22p^6\ ^1S_0$ (10 electrons)
Ionization Potential [23 818 000] cm^{-1}; [2953] eV

KRYPTON XXVIII (Kr^{27+}), Z = 36
Ground State $1s^22s^22p^5\ ^2P^{\circ}_{3/2}$ (9 electrons)
Ionization Potential [24 649 000] cm^{-1}; [3056] eV

KRYPTON XXIX (Kr^{28+}), Z = 36
Ground State $1s^22s^22p^4\ ^3P_2$ (8 electrons)
Ionization Potential [25 835 000] cm^{-1}; [3203] eV

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KRYPTON XXX (Kr^{29+}), Z = 36
Ground State $1s^2 2s^2 2p^3$ $^4S^\circ_{3/2}$ (7 electrons)
Ionization Potential [27 270 000] cm^{-1}; [3381] eV

KRYPTON XXXI (Kr^{30+}), Z = 36
Ground State $1s^2 2s^2 2p^2$ $^3P_0$ (6 electrons)
Ionization Potential [28 641 000] cm^{-1}; [3551] eV

KRYPTON XXXII (Kr^{31+}), Z = 36
Ground State $1s^2 2s^2 2p$ $^2P^\circ_{1/2}$ (5 electrons)
Ionization Potential [29 940 000] cm^{-1}; [3712] eV

KRYPTON XXXIII (Kr^{32+}), Z = 36
Ground State $1s^2 2s^2$ $^1S_0$ (4 electrons)
Ionization Potential [31 553 000] cm^{-1}; [3912] eV

KRYPTON XXXIV (Kr^{33+}), Z = 36
Ground State $1s^2 2s$ $^2S_{1/2}$ (3 electrons)
Ionization Potential [33 110 000] cm^{-1}; [4105] eV

KRYPTON XXXV (Kr^{34+}), Z = 36
Ground State $1s^2\ ^1S_0$ (2 electrons)
Ionization Potential [139 473 000] cm^{-1}; [17292] eV

KRYPTON XXXVI (Kr^{35+}), Z = 36
Ground State $1s\ ^2S_{1/2}$ (1 electron)
Ionization Potential [144 627 000] cm^{-1}; [17931] eV

SECTION II

Finding List

Element	Wavelength		Intensity	Multiplet
Kr (Kα)	0.9801			
Br (Kα)	1.0397			
Se (Kα)	1.1048			
As (Kα)	1.1759			
Zn XXIX	1.18			
Ge (Kα)	1.2541			
Cu XXVIII	1.27			
Zn XXX	1.34	P		
Ga (Kα)	1.3401			
Ni XXVII	1.36			
Zn XXIX	1.39			
Zn (Kα)	1.4352			
Cu XXIX	1.44	P		
Fe XXV	1.456			
Co XXVI	1.47			
Cu XXVIII	1.49			
Fe XXV	1.509			
Cu XXVIII	1.52	?	f	
Ni XXVIII	1.54	P		
Cu (Kα)	1.5406			
Fe XXV	1.59			
Ni XXVII	1.60			
Ni XXVII	1.63	?	f	
Ni (Kα)	1.6579			
Co XXVII	1.66	P		
Mn XXIV	1.72			
Co XXVI	1.72			
Co XXVI	1.75	?	f	
Co (Kα)	1.7890			
Fe XXVI	1.79			
Fe XXV	1.852			
Fe XXV	1.857			
Fe XXIV	1.862			
Fe XXV	1.867		f	
Cr XXIII	1.87			
Fe XXIV	1.874			
Fe (Kα)	1.9360			
Mn XXV	1.94	P		
Mn XXIV	2.01	P		
Mn XXIV	2.02			
V XXII	2.04			
Mn XXIV	2.05	?	f	
Cr XXIV	2.10	P		
Mn (Kα)	2.1018			
Cr XXIII	2.18	P		
Cr XXIII	2.19			
Cr XXIII	2.22	?	f	
Ti XXI	2.23			
Cr (Kα)	2.2897			
V XXIII	2.29	P		
Ca XX	2.314	P		
Ca XX	2.331	P		
Ca XX	2.361	P		
V XXII	2.39	P		
V XXII	2.40			
Ca XX	2.417	P	10	
V XXII	2.43	?	f	
Sc XX	2.46			
Ti XXII	2.50	P		
V (Kα)	2.5036			
Ca XIX	2.516			
Ca XX	2.549	P	30	
Ca XIX	2.573			
K XIX	2.584	P		
K XIX	2.617	P		

Element	Wavelength		Intensity	Multiplet
Ti XXI	2.62	P		
Ti XXI	2.63	P		
Ti XXI	2.66	?	f	
K XIX	2.680	P	10	
Ca XIX	2.706			
Sc XXI	2.74	P		
Ti (Kα)	2.7485			
K XVIII	2.80	P		
K XIX	2.826	P	30	
K XVIII	2.86	P		
Sc XX	2.87	P		
Sc XX	2.88			
Ar XVIII	2.881	P		
Ar XVIII	2.918	P		
Sc XX	2.92	?	f	
Ar XVIII	2.987	P	10	
K XVIII	3.02			
Ca XX	3.020	P	100	
Sc (Kα)	3.0309			
Ar XVII	3.095		5	
Ar XVII	3.138		5	
Ar XVIII	3.151	P	30	
Ca XIX	3.173			
Ca XIX	3.186			
Ca XVIII	3.197			
Ar XVII	3.203		130	
Ca XVIII	3.206			
Ca XIX	3.225		f	
Cl XVII	3.231	P		
Ar XVI	3.25		5	
Ar XVI	3.268		5	
Cl XVII	3.272	P		
Ar XV	3.33		5	
K XIX	3.348	P	100	
Cl XVII	3.351	P	10	
Ca (Kα)	3.3584			
Ar XVII	3.366		190	
Ar XVI	3.42		5	
Ar XVI	3.430		150	
Ar XV	3.45		5	
Cl XVI	3.53	P		
K XVIII	3.53	P		
Cl XVII	3.534	P	30	
K XVIII	3.55	P		
K XVIII	3.59	?	f	
Cl XVI	3.60	P		
S XVI	3.649	P		
S XVI	3.696	P		
Ar XVIII	3.733	P	100	
K (Kα)	3.7414			
S XVI	3.784	P	10	
Cl XVI	3.80	P		
Ar XVII	3.948		1000	
Ar XVII	3.968		550	
Ar XVI	3.989		260b	
S XVI	3.991	P	30	
Ar XVI	3.992		260b	
S XV	4.00	P		
Ar XVII	4.014		f	
Ar XV	4.015		70	
S XV	4.104			
P XV	4.154	P		
Cl XVII	4.187	P	100	
Ar (Kα)	4.1918			
P XV	4.207	P		

Element	Wavelength		Intensity	Multiplet
S XV	4.299			
P XV	4.308	P	10	
S XIV	4.394			
Cl XVI	4.44	P		
Cl XVI	4.46	P		
Cl XVI	4.51	?	f	
P XV	4.543	P	30	
P XIV	4.58	P		
P XIV	4.68	P		
Cl (Kα)	4.7278			
S XVI	4.729	P	100	
Si XIV	4.770	P		
Si XIV	4.831	P		
P XIV	4.92	P		
Si XIV	4.947	P	10	
S XV	5.039			
S XV	5.067			
S XIV	5.083			
S XV	5.099		f	
S XIV	5.137			
Si XIV	5.217	P	30	
Si XIII	5.283			
S (Kα)	5.3722			
P XV	5.383	P	100	
Si XIII	5.410			
Al XIII	5.534	P		
Al XIII	5.605	P		
Si XIII	5.68	P		
Al XIII	5.739	P	10	
P XIV	5.76	P		
P XIV	5.79	P		
Si XII	5.816			
P XIV	5.84	?	f	
Al XIII	6.053	P	30	
P (Kα)	6.157			
Al XII	6.18	P		
Si XIV	6.182	P	100	
Si XIII	6.224			
Si XIII	6.272			
Al XII	6.314			
Mg XII	6.497	P		
Mg XII	6.580	P		
Al XII	6.635			
Si XIII	6.650			
Si XIII	6.690			
Si XII	6.717			
Si XIII	6.737		f	
Mg XII	6.738	P	10	
Si XII	6.787			
Mg XII	7.106	P	30	
Si (Kα)	7.1254			
Al XIII	7.173	P	100	
Fe XXIV	7.233			
Mg XI	7.310			
Mg XI	7.473			
Fe XXIII	7.52	?		
Mn XXIII	7.59	P		
Mn XXIII	7.65	P		
Na XI	7.677	P		
Na XI	7.735	P		
Al XII	7.757			
Al XI	7.776			
Mn XXIII	7.79	P		
Al XII	7.806	P		
Na XI	7.833	P		
Mg XI	7.850			
Mg XI	7.864			
Al XII	7.873		f	
Fe XXIV	7.990			
Mn XXIII	8.02	P		
Na XI	8.021	P	10	
Cu XX	8.056		10	
Mn XXIII	8.09	P		
Cu XXII?	8.158		10	
Mn XXII	8.19	?		
Fe XXIV	8.233			
Cu XXII?	8.260		10	
Cr XXII	8.29	P		
Fe XXIV	8.290			
Fe XXIII	8.307			
Fe XXIV	8.317			
Cu XX	8.320		10	
Al (Kα)	8.3393			
Cr XXII	8.36	P		
Fe XXIV	8.378			
Cu XXI	8.379		10	
Fe XXIII	8.38	?		
Co	8.414		10	
Mg XII	8.421	P	100	
Cu XX	8.437		10	
Cu XXI	8.450		10	
Mg XI	8.458			
Na XI	8.459	P	30	
Mg XI	8.490			
Cr XXII	8.51	P		
Ni	8.516		0	
Mg XI	8.518			
Co	8.518		10	
Cu XXI	8.524		10	
Ni	8.549		30	
Mg XI	8.550			
Cu XXI	8.577		10	
Ni	8.605		30	
Cu XXI	8.647		10	
Ni	8.649		20	
Mn XXIII	8.68	P		
Cu XXI	8.690		10	
Ni	8.694		20	
Co	8.715		20	
Ni XIX	8.725		10	
Cu XXI	8.743		10	
Cr XXII	8.77	P		
Cu XXI	8.790		10	
Co	8.795		20	
Ni XXII?	8.798		10	
Ni XIX	8.838		20	
Cr XXII	8.84	P		
Cu XXI	8.876		0	
Co	8.880		20	
Ni XXI?	8.886		10	
Cu	8.931		0	
Cr XXI	8.96	?		
Mn XXIII	8.96	P		
Co	8.966		20	
Ni XXI?	8.993		20	
Mn XXIII	9.00	P		
Co	9.028		20	
Cu	9.040		0	
Cu	9.060		0	
Co	9.087		20	

Element	Wavelength		Intensity	Multiplet
Cu XX	9.11		20	
Fe XXII	9.126			
Mn XXII	9.13	?		
Ni XIX	9.130		30	
Co	9.139		40	
Mg XI	9.168			
Fe XXII	9.229		0	
Mg XI	9.23			
Cu XX	9.230		20	
Ni XIX	9.236		30	
Co	9.245		20	
Fe ?	9.25		0	
Cu	9.280		10	
Ne X	9.291	P		
Ni	9.291		10	
Cu	9.309		10	
Mg XI	9.32	?	f	
Ne X	9.362	P		
Cu	9.375		10	
Cu XX	9.429		10	
Na X	9.43			
Cu	9.448		10	
Co	9.475		20	
Cr XXII	9.48	P		
Ne X	9.481	P		
Fe	9.507		0	
Cu XX	9.522		10	
Fe XXII	9.568		0	
Cu	9.582		0	
Co XVIII	9.611		20	
Cu	9.640		0	
Fe XXII	9.646		0	
Cu	9.653		0	
Cu XXIII	9.670		0	
Fe XXII	9.703		10	
Ne X	9.708	P	10	
Co XVIII	9.743		20	
Cu	9.752		0	
Ni	9.755		10	
Zn XXI	9.77		1	
Cu XXIII?	9.772		0	
Cu	9.792		0	
Fe XXII	9.793		10	
Cr XXII	9.80	P		
Cu XXIV?	9.802		0	
Co XX?	9.830		20	
V XX	9.84	?		
Fe XXII	9.841		10	
Ca XX	9.88	P		
Cr XXII	9.88	P		
Ni	9.883		0	
Mg (Kα)	9.8900			
Cu	9.892		0	
Co	9.900		20	
Cu XXIV?	9.906		0	
Cu XXIV	9.961		10	
Ni XIX	9.97		30	
Cr XXI	9.98	?		
Cu XXIII	9.982		10	
Fe	9.990		10	
Cu	10.010		10	
Co XIX	10.023		30	
Na XI	10.025	P	100	
Cu	10.037		10	
Ti XX	10.04	P		
Mn XXI	10.04	?		
Fe XXII	10.053		10	
Cu XXII	10.057		10	
Co XVIII	10.060		40	
Fe XXII	10.10		20	
Ni XIX	10.102		30	
Cu XXIV	10.103		10	
Ti XX	10.11	P		
Cu XXIII	10.123		10	
Fe XXII	10.127		30	
Co XIX	10.130		30	
Cu XXIV	10.170		0	
Co XVIII	10.178		40	
Ni	10.195		20	
Co	10.198		40	
Ca XX	10.21	P		
Ni	10.215		20	
Cu XXII?	10.229		0	
Fe XXII	10.230		10	
Co XIX	10.230		20	
Ne X	10.239	P	30	
Ni	10.261		10	
Cu XXIV	10.267		10	
Ti XX	10.27	P		
Co XIX	10.287		40	
Ni XIX	10.306		20	
Cu XXIII	10.311		10	
Fe XXII	10.344		10	
Ni	10.354		20	
Cu XXIV	10.359		10	
Co XIX	10.367		20	
Co XIX	10.392		40	
Cu XXIV	10.400		10	
Ni XIX	10.417		20	
Fe XXII	10.443		10	
Ni	10.450		20	
Cu XXII	10.450		10	
Zn XXI	10.47		60	
Co XIX	10.477		40	
Ni	10.49		10	
Ni	10.500		10	
Fe	10.501		20	
Cu XXII	10.506		10	
Co XIX	10.507		40	
Ne IX	10.513		50	
Fe	10.530		10	
Ni	10.530		10	
Cu XXII	10.546		10	
Ne IX	10.565		70	
Fe XX?	10.571		10	
Ni	10.580		10	
Co XIX	10.583		30	
Cu XX	10.587		50	
Ti XX	10.62	P		
Fe ?	10.623			
Co	10.624		30	
Cu XX	10.641		40	
Co XIX?	10.644		30	
Ne IX	10.646		120	
Fe XVII	10.649		20	
Fe XXIV	10.658		10	
Zn XXI	10.67		40	
Co	10.674		40	
Ti XX	10.68	P		
Ni XXIII?	10.680		10	

Element	Wavelength		Intensity	Multiplet
Fe XXIII	10.685			
Co XIX	10.704		40	
Cu XXII	10.717		10	
Ni	10.724		10	
Fe ?	10.741			
Fe XVII	10.762		10	
Ni XXIII?	10.762		20	
Ne IX	10.765		230	
Cu XXI	10.769		10	
Cu XXII	10.799		30	
Ca XX	10.80	P		
Zn XXI	10.80		20	
Fe	10.811		20	
Ni XXII	10.820		20	
Co	10.840		30	
Ni	10.841		20	
Cu XXI	10.847		40	
Ti XIX	10.85	?		
Fe	10.873		10	
Cu XXI	10.874		30	
Co	10.880		30	
Ni XXI	10.902		20	
Fe ?	10.905			
Fe	10.926		10	
Cu XXI	10.933		30	
K XIX	10.95	P		
V XX	10.95	?		
Cu	10.963		30	
Ni XXIII	10.967		20	
Fe	10.97		0	
Co XVIII	10.97		50	
Cu XXI	10.995		40	
Na X	11.00			
Ne IX	11.001		350	
Ni XXIII?	11.002		20	
Cr XX	11.01	?		
Fe XVIII	11.021		20	
Ni XXIII	11.023		20	
Fe XXIV	11.026		40	
Cu XXI	11.055		20	
Ni XXIII	11.073		0	
Fe	11.074		0	
Na X	11.08			
Co XVIII	11.103		70	
Cu XXI	11.110		30	
Ni XXI?	11.123		20	
Fe XVII	11.125		20	
Fe XXIV	11.129		40	
Sc XIX	11.14	P		
Cu XXI	11.152		10	
Ni XXIII	11.159		20	
Fe XXIII	11.164		10	
Cu XXI	11.175		10	
Na X	11.20	?	f	
Sc XIX	11.20	P		
Ni XXII	11.203		30	
Cu	11.229		10	
Co	11.237		50	
Fe XVII	11.247		40	
Fe XXIV	11.250		60	
Co	11.257		50	
Ni XXIII	11.262		30	
Fe XVIII	11.280		20	
Cu XXI	11.280		10	
Ni XXIII	11.298		40	

Element	Wavelength		Intensity	Multiplet
Fe XVIII	11.318		30	
K XIX	11.32	P		
Co XVIII	11.324		50	
Ni XXI	11.342		20	
Co	11.357		50	
Fe	11.360			
Sc XIX	11.37	P		
Cu XX	11.38		100	
Co	11.399		50	
Ni XXI	11.403		20	
Fe XXIV	11.419		30	
Cu XXII	11.429		40	
Fe XVIII	11.440		40	
Ti XX	11.45	P		
Ni XXI	11.457		20	
Co XVIII	11.458		70	
Cu	11.479		40	
Fe	11.480		10	
Zn XXI	11.51		40	
Cu XXII	11.518		50	
Fe	11.521		40	
Ni XIX	11.522		60	
Co	11.542		20	
Ne IX	11.544		570	
Mn XXIII	11.55	P		
F IX	11.560	P		
Fe XVIII	11.571		20	
Cu XXII	11.576		40	
Co	11.581		20	
Ni XIX	11.582		50	
Mn XXII	11.59	?		
Cu XX	11.593		100	
Mn XXIII	11.60	P		
Co XXI?	11.612		20	
Fe XVIII?	11.637		10	
Co XXII?	11.672		20	
Cu	11.678		30	
Ni XX	11.691		20	
Fe	11.698		10	
F IX	11.707	P		
Co	11.712		20	
Fe XVIII	11.730		10	
Cu XX	11.732		60	
Fe XXII	11.742		10	
Co XXII?	11.742		30	
Ni XX	11.760		40	
Zn XXI	11.76		60	
Fe	11.772		10	
Cu XVIII	11.774		20	
Sc XIX	11.78	P		
Co XXI	11.801		30	
Cu XXI	11.814		20	
Ni XX	11.818		60	
Sc XIX	11.84		20	
Co	11.851		20	
Mn XVI	11.853		20	
Ni XX	11.854		40	
Fe XXII	11.865		20	
Ti XX	11.87	P		
Co XX	11.886		20	
Cu	11.904		10	
Ne VIII	11.905		40	-A
Na (Kα)	11.9101			
Cu XXI	11.924		10	
Co XXII	11.936		30	

Element	Wavelength		Intensity	Multiplet
Ti XX	11.94	P		
Cu XXI	11.942		10	
Ni XX	11.946		60	
Fe XXII	11.956		10	
Ni XX	11.963		20	
K XIX	11.97	P		
Mn XVI	11.971		10	
F IX	11.988	P	10	
Fe	11.994		10	
Co XXII?	11.995		30	
Cu	12.003		10	
Mn XXIII	12.01	P		
Fe	12.016		20	
Sc XVIII	12.03	?		
Ni XX	12.043		30	
Cu XXI	12.045		10	
Co XXII	12.067		30	
Ti XIX	12.07	?		
Fe	12.076		10	
Ca XX	12.09	P		
Ni XX	12.103		40	
Fe XVII	12.122		150	
Cu XXI	12.125		20	
Ne X	12.134	P	100	
Ni XX	12.139		0	
V XIX	12.14	?		
Co XX?	12.144		40	
Fe XXI	12.145		10	
Mn XXIII	12.158		20	
Ni XX	12.164		10	
Cu XXI	12.171		20	
Mn XVII	12.181		20	
Co	12.190		30	
Cr	12.201		0	
Cu XXI	12.204		10	
Ar XVIII	12.21	P		
Mn XXIII	12.222		20	
Fe XXI	12.233		0	
Co XXI	12.234		30	
Cu XXI	12.24	P		
Ni XX	12.250		20	
Fe XVII	12.262		150	
Fe XVII	12.274		20	
Co XXII	12.285		30	
Ne IX	12.303		50	
Ni XX	12.315		0	
Fe XVII	12.319		30	
Cu XXI	12.328		10	
Cr	12.329		0	
Co XX	12.338		20	
Ne IX	12.355		50	
Fe XXI	12.362	?		
Mn XVI	12.373		20	
Mn XXIII	12.385		200	
Fe XXII	12.385		0	
Ca XVIII	12.40	P		
Fe XXII?	12.401		20	
Fe XXI	12.411		20	
Co XX	12.42		30	
Ni XIX	12.42		100	
Fe XXI	12.427		10	
Cr	12.435		0	
Fe XXI	12.438		10	
Cu	12.439		0	
Fe	12.454		10	

Element	Wavelength		Intensity	Multiplet
Ni XXI	12.467		30	
Co	12.47		30	
Ca XVIII	12.478		10	
Fe XXI	12.494		10	
Co XX	12.50		30	
Mn XVI	12.510		50	
Fe XVII	12.514		20	
Fe XXI	12.521		20	
Co	12.54		30	
Fe XXI	12.548		20	
Ni XXI	12.552		30	
Cu XX	12.558		80	
Fe XXII	12.573		20	
Ni XXI	12.581		30	
Fe XXI?	12.585		20	
Cr	12.589		0	
Co XVIII	12.593		70	
Fe XXI	12.599		20	
Ar XVIII	12.61	P		
Cr XXII	12.620		100	
Cr XXI	12.63	?		
Ca XVIII	12.636		20	
Ni XIX	12.641		90	
Mn XVII	12.643		40	
F IX	12.644	P	30	
Co XVIII	12.656		60	
Sc XIX	12.66		20	
Cr XXII	12.662		200	
Fe XVII	12.681		20	
Co XIX	12.689		40	
Ni	12.693		30	
Fe XXI	12.726		10	
Fe XX	12.741		10	
Mn	12.742		30	
Fe XX?	12.756		10	
Ni	12.759		20	
Cr	12.778		0	
Fe	12.780		20	
Co XIX	12.781		30	
Ni XIX	12.805		50	
Fe XXI	12.808		30	
Cu XX	12.82		40	
Ni XVII	12.830		30	
Fe XX	12.834		30	
Co XIX	12.864		40	
Fe	12.882		20	
Cr	12.909		10	
Fe	12.915		10	
Ni XX	12.915		30	
Co XIX	12.922		70	
Fe XX	12.924		10	
Co XIX	12.973		40	
Fe XX	12.980		10	
Fe XIX	12.990		20	
Cr XVIII?	13.000			
Mn XXI	13.01	?		
Fe XX	13.012		20	
Fe XXI	13.052		20	
Ni XX	13.065		10	
Co XIX	13.078		50	
Fe XXI	13.084		20	
Cu XIX	13.11			-A
Co XIX	13.114		30	
Ca XVIII	13.118		20	
Ni XX	13.120		10	

Element	Wavelength	Intensity	Multiplet
Mn	13.134	0	
Fe XX	13.141	20	
Cr XVII?	13.143	0	
Cr XXII	13.147	200	
Ni XX	13.151	10	
Fe XXI	13.158	20	
Sc XIX	13.160	20	
Fe XX	13.183	20	
Co XIX	13.183	40	
Ca XVIII	13.191	20	
Fe XXII	13.196	10	
Cr	13.217	10	
Sc XIX	13.236	100	
Co XIX	13.238	40	
Ni XX	13.240	20	
Fe XXI	13.249	20	
Fe XXI	13.265	10	
Co XIX	13.272	30	
Cr XV	13.294	10	
Cr XXII	13.294	200	
Fe XXI	13.296	10	
Ni XX	13.303	10	
Fe XIX	13.307	20	
Fe XIX	13.322	20	
Ar XVIII	13.35 P		
Fe XX	13.351	30	
Sc XVIII	13.37 ?		
Ni XX	13.37 ?		
Fe XX	13.374	30	
Cr XXII	13.393	20	
Fe XIX	13.399	50	
K XIX	13.41 P		
Ca XVII	13.41 ?		
Cr XV	13.416	10	
Fe XXII	13.416	20	
Co XIX	13.417	30	
Fe XXI	13.422	20	
Fe XXII	13.442	10	
Ne IX	13.447	1000	
Ti XVIII	13.45 ?		
Mn XVI	13.46	60	
Fe XIX	13.464	40	
F VIII	13.49		
Fe XIX	13.497	10	
Co XIX	13.500	20	
Fe XIX	13.518	60	
Fe XXI	13.518	60	
Mn XX	13.53 ?		
Fe XIX	13.547	10	
Ne IX	13.549	150	
Cr XXII	13.549	200	
Cr XVI	13.556	10	
Fe XIX	13.575	20	
Mn XVI	13.61	50	
Co XX	13.628	100	
Fe XIX	13.631	10	
Fe XIX	13.644	20	
Cr	13.652	10	
Ne VIII	13.654	70 -A	
Ni	13.658	10	
Fe XIX	13.667	30	
Fe XX	13.667	30	
Mn XX	13.67 ?		
Mn XX	13.68 ?		
Cl XVII	13.69 P		
Fe XIX	13.695	20	
Co XX	13.705	20	
Ne VIII	13.710	70 -A	
Ne IX	13.71 ?	f	
Mn XX	13.71 ?		
Fe XXII	13.711	10	
Fe XX	13.720	10	
Mn XXI	13.73 ?		
Fe XIX	13.733	20	
Fe XXII	13.750	0	
Cr	13.760	0	
Ni XIX	13.768	50	
Co XX	13.769	40	
Fe XXII	13.770	0	
F VIII	13.780		
Fe XXII	13.780	0	
Fe	13.793	30	
Mn	13.814	10	
V XX	13.82 ?		
Co	13.822	40	
Fe XVII	13.823	100	
Mn XX	13.86 ?		
Cr XV	13.862	20	
Co XVIII	13.862	90	
Co XIX	13.862	90	
Fe XVII	13.888	100	
K XVII	13.92 P		
Co	13.921	30	
Fe XVIII	13.934	20	
Mn	13.950	10	
Cr XVI	13.953	10	
Fe XX	13.953	30	
K XVII	13.98 P		
Cr XV	13.991	20	
Co	13.997	0	
Cr	14.024	10	
Ni XIX	14.03	70	
Fe XVIII	14.031	10	
Cr	14.039	10	
Co	14.040	50	
Fe XXII	14.053	0	
Co XVI	14.080	30	
Ca XVIII	14.082	100	
Cr XVI	14.084	20	
Mn XVI	14.098	30	
Ni XVIII	14.10	-A	
Fe XVIII	14.129	30	
K XVII	14.14 P		
Cl XVII	14.15 P		
Fe XXII	14.160	20	
Co XIX	14.178	30	
Cr	14.205	10	
Mn XIX	14.205	20	
Fe XVIII	14.207	70	
Cr XX	14.26 ?		
Fe XVIII	14.260	30	
Mn XX	14.325	20	
Fe XVIII	14.351	40	
Co XIX	14.355	20	
Ni XVIII	14.37	-A	
Fe XVIII	14.373	50	
Fe XVIII	14.422	20	
Co XIX	14.425	20	
O VIII	14.453		
Fe XVIII	14.453	10	

Element	Wavelength		Intensity	Multiplet
F VIII	14.458			
Mn XX	14.47	?		
Co XIX	14.476		10	
Fe XVIII	14.481		0	
Co XIX	14.513		10	
O VIII	14.524			
Mn XX	14.53	?		
Fe XVIII	14.535		40	
Co XIX	14.539		20	
Fe XVIII	14.549		40	
Fe XVIII	14.580		40	
Co XIX	14.599		10	
Fe	14.609		20	
Ne (Kα)	14.610			
O VIII	14.634			
Cr	14.641		0	
Mn XX	14.650		20	
Ca XVIII	14.658		100	
Co XIX	14.664		10	
Fe XVIII	14.669		30	
Mn XX	14.698		20	
K XVII	14.70	P		
Fe XVIII	14.703		30	
Fe XXII	14.711		0	
Fe	14.733		10	
Ca XVIII	14.738		300	
Fe	14.750		20	
Mn XIX	14.752		40	
K XVII	14.76	P		
Co XIX	14.761		10	
Fe XVIII	14.770		10	
Cr XIX	14.775		10	
Fe XVIII	14.804		10	
Mn	14.816		30	
O VIII	14.821			
Co	14.824		10	
Cr XIX	14.845		10	
Fe XXII	14.857		0	
Fe	14.870		20	
Mn XVIII	14.877		70	
Ca XVII	14.90	?		
Fe	14.908		20	
Cr XIX	14.925		0	
Fe XIX	14.927		10	
Ar XVIII	14.94	P		
Cl XVII	14.97	P		
Fe XIX	14.971		10	
F IX	14.984	P	100	
Sc XVII	14.99	?		
Cr XIX	14.99	?		
Cr XIX	15.00	?		
Fe XVII	15.013		150	
Mn	15.024		50	
Fe	15.042		50	
K XVI	15.05	?		
Cr XV	15.06		50	
Cr XX	15.06	?		
Fe XIX	15.069		30	
Cr XIX	15.08	?		
Fe XIX	15.083		20	
Fe XIX	15.110		20	
Fe XIX	15.132		0	
Fe XIX	15.158		10	
Co XVIII	15.169		40	
Fe XIX	15.173		30	

Element	Wavelength		Intensity	Multiplet
O VIII	15.176	P	10	
Ti XIX	15.18	?		
Cr XV	15.21		50	
Ti XX	15.217		200	
Cr XIX	15.23	?		
Fe XIX	15.237		30	
Mn XVI	15.238		20	
Ti XX	15.252		200	
Fe XVII	15.260		100	
Fe XVIII	15.260		100	
Fe XIX	15.288		20	
Fe XIX	15.306		0	
Mn XVI	15.312		20	
Fe XIX	15.341		10	
Fe XIX	15.361		20	
Mn XVII	15.403		20	
Fe XIX	15.413		20	
Co XVIII	15.432		70	
Fe XVII	15.453		90	
Fe XIX	15.453		90	
S XVI	15.46	P		
Fe XV	15.490		40	-A
Cr XV	15.509		10	
Co XVII	15.551			-A
Fe	15.558		10	
Fe XVIII	15.567		10	
Mn XVII	15.584		80	
Cr XIX?	15.587		20	
Fe XIX	15.598		10	
Fe XVIII	15.624		60	
Mn XVII	15.675		40	
Cr XIX	15.680		10	
V XIX	15.70	?		
Mn XVII	15.738		50	
V XIV	15.748		100	
K XVII	15.75	P		
Fe XVIII	15.764		20	
Cr XV	15.788		20	
Mn XVII	15.822		100	
Fe XVIII	15.828		80	
Co XVII	15.828			-A
Fe XVIII	15.869		80	
V XV	15.87			
Mn XVII	15.881		20	
Cr XIX	15.888		30	
Ti XX	15.914		200	
Mn XVII	15.936		50	
S XVI	15.97	P		
Fe XVIII	15.979		0	
Mn XVII	15.98	P		
Cr XIX	16.00	?		
Fe XVIII	16.004		80	
O VIII	16.006	P	30	
Fe XVIII	16.024		50	
Mn XVII	16.048		30	
Ti XX	16.059		300	
Fe XVIII	16.074		50	
Mn XVII	16.121		20	
Fe XVIII	16.164		40	
Mn XVII	16.20		10	
Ti XX	16.218			
Fe XVIII	16.236		20	
Fe XVIII	16.270		10	
Mn XVII	16.28		0	
Fe	16.303		10	

Element	Wavelength		Intensity	Multiplet
Ca XX	16.31	P		
V XVIII	16.321		100	
Fe	16.336		20	
V XVIII	16.341		100	
V XVIII	16.378		100	
Ti XX	16.379			
V XVIII	16.423		40	
K XVII	16.43	P		
Cr XVII	16.455		90	
V XVIII	16.467		160	
K XVII	16.50	P		
Fe	16.506		10	
Mn XVIII	16.53	?		
V XVIII	16.558		140	
V XIX	16.59	?		
Mn XVI	16.616		100	
K XVI	16.70	?		
Mn XVIII	16.73	?		
Cl XVII	16.76	P		
Sc XVIII	16.76	?		
Fe XVII	16.775		200	
F VIII	16.807			
Ca XVI	16.81	?		
V XVIII	16.816		60	
Sc XIX	16.819		200	
Sc XIX	16.861		200	
Mn XVI	16.882		80	
Cr XV	16.889		100	
Fe	16.892		20	
S XVI	16.90	P		
V XIV	16.939		500	
F VIII	16.951			
Cr XV	16.965		50	
V XVIII	17.018		40	
Fe XVII	17.051		200	
Cr XVI	17.09		10	
V XIV	17.094		400	
Mn XVI	17.095		40	
Cl XV	17.10		50	
Fe	17.127		20	
F VIII	17.15		f	
Fe	17.162		10	
O VII	17.200		50	
Fe XVI	17.207		20 -A	
Cl XV	17.25		50	
V XIV	17.26		200	
V XVII	17.27			
Cr XVI	17.27		20	
Mn XVII	17.29		20	
Fe XV	17.345		10 -A	
Fe	17.367		20	
Ti XVIII	17.37	?		
Cr XVI	17.38		50	
O VII	17.396		100	
V XVIII	17.400		180	
Fe	17.402		20	
V XVIII	17.442		80	
Fe	17.450		20	
Cl XV	17.46		50	
Cr XVI	17.46		20	
Fe	17.469		20	
V XVIII	17.482		160	
Mn XVII	17.50			
Fe XVI	17.500		40 -A	
Cr XVI	17.54		40	

Element	Wavelength		Intensity	Multiplet
V XVIII	17.545		40	
Fe	17.548		10	
V XIV	17.575		100	
Ti XIV	17.58			
Mn XVII	17.59			
Fe	17.597		10	
P XV	17.60	P		
V XVII	17.6			
Cr XVI	17.62		40b	
Fe	17.622		20	
Sc XIX	17.634		200	
V XVIII	17.678		80	
Cr XVI	17.69		10	
V XVIII	17.717		20	
Mn XVII	17.72		30	
Ti XIII	17.727		100	
Ti XIV	17.73			
Cr XVI	17.75		0	
V XIV	17.754		100	
O VII	17.768		200	
Sc XIX	17.779		300	
Ti XIV	17.80			
Mn XVII	17.80			
Cr XVI	17.81		30	
Cr XVI	17.86		20	
Ti XIII	17.869		50	
Ti XIV	17.88			
Mn XVII	17.90	?		
Cl XV	17.96		50	
Cr XVI	17.96		10	
Cr XVI	18.01		0	
Sc XIX	18.026			
V XVI	18.076		200	
K XIX	18.08	P		
Ti XVII	18.091		80	
V XVIII	18.12	P		
Cl XV	18.13		50	
Ti XVII	18.154		60	
Ti XVII	18.172		40	
P XV	18.18	P		
Sc XIX	18.182			
Ti XVII	18.215		40	
V XVI	18.223		50	
Ti XVII	18.268		100	
F (Kα)	18.32			
Cr XVII	18.34	?		
V XVI	18.344		400	
Ti XVIII	18.38	?		
Ti XVII	18.387		60	
Cr XV	18.497		400	
V XVI	18.529		400	
Cr XVII	18.54	?		
Ca XVII	18.60	?		
O VII	18.627		500	
Cl XIV	18.63		50	
V XVI	18.630		600	
Mn XVI	18.654			
Ti XVII	18.665		20	
N VII	18.670	P		14
N VII	18.682	P		13
Ca XVIII	18.691		500	
N VII	18.698	P		12
V XVI	18.713		200	
N VII	18.717	P		11
Ca XVIII	18.732		300	

Element	Wavelength		Intensity		Multiplet
N VII	18.742	P			10
N VII	18.774	P			9
V XIV	18.782		700		
Cr XV	18.782		200		
N VII	18.819	P			8
V XIV	18.870		300		
N VII	18.882	P			7
V XVI	18.890		200		
S XVI	18.93	P			
Mn XVI	18.935				
Ti XVII	18.939		20		
O VIII	18.969	P	100		
N VII	18.974	P			6
Cl XV	18.99		100		
Cr XV	19.015		50		
V XV	19.04		40		
Ti XVI	19.1				
N VII	19.118	P			5
Mn XV	19.155	P		-A	
Ti XIII	19.204		250		
V XV	19.21		60		
P XV	19.24	P			
Ti XVI	19.26				
Cr XVI	19.27		40		
Sc XVII	19.32	?			
N VII	19.361	P			4
Ti XIII	19.366		200		
Ca XVII	19.368		20		
Ti XVII	19.369		180		
V XV	19.38		80		
Ti XVII	19.415		40		
Ca XVII	19.438		200		
V XV	19.45		60		
Mn XV	19.450	P		-A	
Ca XVII	19.459		300		
Ti XVII	19.459		60		
Cr XVI	19.46		0		
Ti XVII	19.501		40		
V XV	19.53		70		
Cr XVI	19.53		40		
Ca XVII	19.539		200		
Cr XVI	19.55		40		
Cl XIV	19.58		50		
Ca XVII	19.638		300		
Ca XVIII	19.642		600		
Ti XVII	19.651		20		
V XV	19.66		60b		
V XV	19.69				
Ti XVII	19.718		40		
Cr XVI	19.72		50		
V XVI	19.730		300		
V XV	19.74		10		
Ca XVIII	19.789		600		
V XV	19.79		30		
Cr XVI	19.82		40		
N VII	19.826	P	10		3
V XV	19.86		70		
V XV	19.91		40b		
Sc XIII	19.93				
Ti XIII	19.943		50		
Cr XVI	19.96		10		
V XV	20.00		10		
V XV	20.03		30		
Ca XVIII	20.052		100		
Ca XVII	20.082		100		

Element	Wavelength		Intensity		Multiplet
V XVI	20.082		600		
Cl XV	20.13		150		
Ti XIII	20.135		50		
Ar XVIII	20.16	P			
Ti XV	20.169		100		
Ti XVII	20.183		20		
Sc XVI	20.200		80		
Si XIV	20.21	P			
Ca XVIII	20.220		100		
Sc XVI	20.224		20		
V XVI	20.282		400		
Sc XVI	20.291		40		
Sc XII	20.298		100		
Ti XV	20.317		300		
Ca XVII	20.330		200		
Sc XVI	20.330		80		
Sc XVI	20.392		80		
Ti XV	20.422		450		
Ca XVII	20.433		300		
Sc XII	20.438		50		
V XVI	20.447		600		
Sc XVI	20.458		80		
Sc XVII	20.47	?			
Ca XVII	20.502		100		
V XVI	20.516		400		
Cl XIV	20.55		50		
V XVI	20.663		250		
Ca XVII	20.665		200		
Ca XVII	20.700		100		
Ti XV	20.704		200		
V XIV	20.716				
Ca XVII	20.754		200		
K XVI	20.76	?			
Ca XVII	20.768		100		
Ca XVII	20.827		300		
Ti XV	20.829		300		
Sc XVI	20.831		40		
Cl XIV	20.84		50		
Ca XVII	20.855		200		
Cr XV	20.863		400		
Si XIV	20.88	P			
K XVII	20.88	P			
Ca XVII	20.880		300		
N VII	20.910	P	30		2
K XVII	20.93	P			
Ti XV	20.932		150		
V XIV	21.018				
Ti XIII	21.035		350		
Ti XV	21.094		50		
Cl XV	21.10		100		
Sc XVI	21.114		20		
Ti XIII	21.127		100		
Cr XV	21.153		300		
Ar XVII	21.17		100		
Cl XV	21.18		150		
Ca XVII	21.212		200		
Ca XVII	21.267		200		
V XIV	21.294		1000		
Ca XVII	21.303		100		
Cl XV	21.41		50		
Sc XV	21.41				
Cr XIV	21.467			-A	
Sc XV	21.49				
Sc XV	21.51				
P XV	21.54	P			

Element	Wavelength	Intensity	Multiplet
V XV	21.58	60	
O VII	21.6020	1000	
Ca XVII	21.606	200	
Ar XIV	21.61 ?		
Ca XVI	21.61 ?		
Sc XVI	21.637	40	
Sc XVI	21.670	60	
Sc XVI	21.732	80	
Cr XIV	21.770	-A	
S XIV	21.79	50	
O VII	21.804	300	
Sc XVI	21.816	40	
V XV	21.83	50	
V XV	21.92	50	
Sc XVI	21.927	40	
Sc XII	21.940	250	
Cl XIV	22.00	50	
Sc XVI	22.016	20	
K XVII	22.020	100	
Ca XIV	22.07		
Si XIV	22.09 P		
V XV	22.09	60	
O VII	22.10	f	
Ti XV	22.109	100	
Cl XIV	22.11	50	
Ca XVII	22.113	200	
Sc XII	22.119	200	
K XVII	22.163	100	
V XV	22.20	30	
Ti XIV	22.28	20	
Ca XVII	22.347	100	
Cl XIV	22.37	50	
Ar XVII	22.37	40	
V XV	22.38	20	
Cl XIV	22.42	100	
Ti XV	22.471	350	
Cu XIX	22.475	1	
Sc XVI	22.522	20	
K XVII	22.53 P		
Cl XVII	22.61 P		
P XIII	22.64	50	
Sc XIV	22.650	150	
Cu XIX	22.661	1	
Ti XV	22.688	200	
K XVII	22.70 P		
Ca XV	22.73		
Sc XIV	22.825	50	
Sc XII	22.837	50	
Cl XIV	22.86	100	
Ti XV	22.936	300	
Ca XVI	22.95 ?		
Sc XIV	22.964	300	
Ti XV	22.967	200	
Ar XIII	23.03	50	
S XIV	23.04	150	
Ti XV	23.040	150	
Sc XII	23.045	50	
P XIII	23.08	50	
Ti XV	23.187	200	
S XIII	23.25	150	
Sc XIV	23.274	250	
Ti XIII	23.356		
Ar XIII	23.39	50	
Sc XIV	23.430	200	
Al XIII	23.44 P		
V XIV	23.490		
Cu XIX	23.503	10	
Sc XIV	23.568	100	
Ar XIII	23.57	200	
Cu XIX	23.599	10	
O (Kα)	23.62		
Cu XIX	23.621	1	
V XIII	23.678	0	
Ti XIII	23.698		
S XIII	23.70	250	
Cu XIX	23.704	10	
Sc XII	23.725	350	
Sc XIV	23.740	100	
N VI	23.771	10	4
V XIV	23.794		
P XIII	23.810	10	
Sc XII	23.821	50	
Ar XIII	23.93	50	
V XIII	23.96	20	
Ti XIII	23.991		
V XIII	24.083	20	
Cl XIII	24.09	50	
Sc XIII	24.09	20	
Ca XIV	24.11		
V XIII	24.202	-A	
Al XIII	24.22 P		
S XIV	24.26	100	
Sc XIII	24.28	30	
Cl XIII	24.29	200	
Ca XIV	24.30		
Ti XIV	24.32	60	
V XIII	24.330	30	
K XV	24.34 ?		
Cl XIII?	24.40	50	
S XIV	24.43	150	
V XIII	24.440	0	
V XIII	24.517	-A	
Sc XIII	24.56	60	
Ca XIV	24.6		
Ar XIII	24.61	80	
Sc XIII	24.65	10	
V XIII	24.654	0	
Sc XIII	24.71	40	
Ti XIV	24.73	50	
Si XIV	24.74 P		
V XIII	24.758	0	
N VII	24.781 P	100	1
Cl XIII	24.79	50	
Cl XIII	24.83 ?		
Cl XIII	24.86	50	
Ni XVIII	24.881	1	
Sc XIII	24.89	10	
N VI	24.898	30	3
Cl XIII	24.97	50	
Sc XIII	24.97	30	
Sc XIV	24.971	50	
Ar XV	25.05	100	
Ca XX	25.05 P		
Ni XVIII	25.070	3	
Sc XIII	25.08	20	
P XIII	25.103	20	
Sc XIII	25.12	20	
Cu XIX	25.142		
P XIII	25.169	20	
Cu XIX	25.175	1	

Element	Wavelength		Intensity	Multiplet
Ar XII	25.19		100	
Sc XIII	25.19		20	
Sc XIII	25.23		20	
Ar XII	25.24		100	
Cu XIX	25.295		20	
Ca XI	25.327		100	
Sc XIII	25.33		10	
Ar XIV	25.42		60	
Sc XIII	25.43		10	
Sc XIV	25.441		300	
Ca XI	25.517		100	
Cu XIX	25.525		60	
S XVI	25.54	P		
S XII	25.55		50	
Ar XIV	25.58		60	
Ar XV	25.60		100	
Al XIII	25.63	P		
Sc XIV	25.647		150	
Si XII	25.655		1	
Ar XVI	25.71		400	
Ar XV	25.72		40	
Ca XIII	25.76			
P XII	25.788		0	
S XIII	25.80		100	
Ar XV	25.84		60	
K XV	25.91	?		
Sc XIV	25.923		300	
Sc XIV	25.988		250	
Ar XV	26.00		80	
Ca XIII	26.02			
Ni XVIII	26.020		6	
C VI	26.026	P		5
Si XII	26.03			
Ni XVIII	26.046		3	
Sc XIV	26.059		150	
Sc XIV	26.200		150	
Ni XVIII	26.218		10	
Sc XIV	26.226		100	
Ar	26.30		100	
Zn XX	26.33		10	
S XIII	26.35		150	
C VI	26.357	P		4
Ar XIII	26.36		110	
Ca XIII	26.36			
Cu XIX	26.416		20	
Ca XI	26.442		20	
Cu XIX	26.452		20	
Si XII	26.460		3	
Ar XIII	26.53		60	
Sc XII	26.544			
P XIII	26.608		10	
Zn XX	26.62		30	
Ca XI	26.639		20	
Ti XIII	26.641			
Cl XV	26.66		350	
Cl XV	26.67		350	
Ar XIV	26.72		40	
Ar XIII	26.82		40	
Ti XII	26.86		0	
Sc XII	26.920			
Ti XIII	26.960			
Ca XI	26.962		100	
Si XII	26.98			
C VI	26.990	P	10	3
Cu XIX	27.025		60	

Element	Wavelength		Intensity	Multiplet
Si XII	27.035		1	
P XII	27.049		10	
Cu XIX	27.076		35	
Ca XI	27.079		20	
P XII	27.101		10	
Ar XV	27.14	P		
Ar XIII	27.17		60	
Ti XII	27.20		20	
Ar XIV	27.22		50	
Sc XII	27.260			
Ca XX	27.27	P		
Ti XII	27.306		20	
Ar XV	27.41		120	
Ca XII	27.412		20	
Ar XIV	27.42		200	
Ar XIV	27.47		300	
Ti XII	27.489			-A
Mg XII	27.52	P		
Ti XII	27.590		20	
Ar XIII	27.60		100	
Ca XII	27.606		20	
Ar XIV	27.63		300	
Sc XIII	27.63		20	
Cl XIV	27.65		250	
P XII	27.677		0	
K XIX	27.77	P		
Ar	27.79		50	
Ti XII	27.818			-A
Si XII	27.850		3	
Cl XIV	27.88		250	
Fe XVI	27.88			
Ar	27.90		50	
Sc XIII	27.90		30	
Co XVII	27.902		3	
Si XII	27.909		10	
Sc XIII	27.97		10	
Ca XII	27.978		100	
Ni XVIII	27.98			
Ni XVIII	27.982		20	
Ti XII	28.000		0	
P XII	28.017		10	
Ni XVIII	28.018		3	
P XIII	28.044		50	
Ar XII	28.05		100	
Cl XIV	28.12		250	
Ti XII	28.120		0	
P XIII	28.128		70	
Sc XIII	28.13		40	
Ca XII	28.134		50	
Ni XVIII	28.220		35	
Ar XV	28.26		120	
Cl XV	28.27		300	
Sc XIII	28.27		10	
S XII	28.29		50	
P XII	28.304		30	
Ar XV	28.32		150	
Sc XIII	28.32		10	
S XII	28.41		100	
Cl XV	28.42		450	
Mg XII	28.43	P		
Sc XIII	28.45		20	
C VI	28.466	P	30	2
P XII	28.549		10	
Cu XIX	28.626		20	
P XIII	28.66		10	

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Element	Wavelength		Intensity	Multiplet
Fe XVI	28.67			
Cu XIX	28.671		35	
Ar XIII	28.68		80	
Al XIII	28.70	P		
Sc XIII	28.75		20	
N VI	28.787		100	2
Co XVII	28.85			
Co XVII	28.874		6	
Cl XIV	28.9	?		
Cl XV	28.93		200	
Co XVII	28.960		6	
Cu XIX	28.978		125	
P XV	29.07	P		
N VI	29.084			1
Cl XV	29.09		200	
Ar X	29.1		100	
Co XVII	29.171		10	
Ar X	29.2		50	
Ar XIII	29.20		100	
S XII	29.23		50	
Cu XIX	29.277		200	
Ar XIII	29.32		150	
Ar XIV	29.33		150	
Ar XIII	29.37		250	
Ni XVIII	29.383		3	
Cl XIV	29.40		350	
Al XI	29.416		6	
Ni XVIII	29.422		3	
Si XII	29.439		10	
Ar XI	29.48		150	
Ar XIV	29.49		150	
Si XII	29.509		20	
Cl XIV	29.52		450	
N VI	29.53		f	
Ar XIII	29.56		250	
Ar XV	29.57		500	
Si XII	29.574		1	
K X	29.588		100	
P XII	29.622		10	
Si XII	29.645		3	
Ar XIII	29.67		50	
Ni XVIII	29.779		35	
Al XI	29.793		10	
K X	29.794		50	
Ni XVIII	29.829		20	
Ar XIII	29.85		100	
Ar XIV	29.90		50	
Fe XVI	29.93			
P XII	29.970		10	
P XII	29.996		40	
Cl XIV	30.00		200	
Cu XVIII	30.019		10	
P XII	30.060		60	
Cl XIV	30.07		250	
Zn XX	30.08		20	
Mg XII	30.09	P		
Cl XIV	30.10		150	
Fe XVI	30.10			
Cu XVIII	30.104		20	
Si XI	30.126		5	
Cl XIV	30.13		350	
Zn XX	30.14		30	
S XIII	30.2	P		
Ar XIII?	30.21		50	
K XIX	30.22	P		
Ar XIII?	30.24		50	
Cl XIV	30.25		300	
Si XI	30.322		5	
Cu XVIII	30.325		35	
Fe XVI	30.33			
P XI	30.34		150	
Ar XIII	30.34		50	
Si XI	30.368		10	
Al XI	30.376		20	
Ar XI	30.40		150	
S XIV	30.43		250	
Ca XI	30.448		600	
Sc XII	30.480			
Ar XIII?	30.58		100	
Ar XII	30.65			
P XII	30.667		0	
Ar XIII	30.68		50	
P XII	30.722		40	
P XII	30.749		40	
Ar XIII?	30.77		50	
Sc XII	30.816			
Ar XIII?	30.84		50	
Ca XI	30.867		300	
K X	30.887		50	
Cl XIV	30.90		200	
Ni XVII	30.91			
K X	30.937		20	
Ar XVIII	30.94	P		
Ar X	30.96		150	
Cl XIV	30.98		200	
Cl XIV	31.0	?		
Si XII	31.015		60	
S XI	31.02		150b	
Fe XVI	31.041		3	
K X	31.062		20	
Ar X	31.08		100	
P XII	31.090		40	
Ar XI	31.10		200	
Cl XIII	31.12		250	
Co XVII	31.142		20	
Ar XII?	31.18		50	
K X	31.200		20	
Cl XIII	31.24		150	
Fe XVI	31.242		20	
Ca XI	31.257		200	
Al XI	31.313		35	
P XII	31.327		10	
Cl XIII	31.35		300	
Ar XII	31.35		250	
Ar XI	31.36		300	
Co XVII	31.386		35	
Ar XII	31.39		300	
Al XI	31.426		3	
Cl XIII	31.44		450	
Cl XIII	31.47			
Ar XII?	31.47		300	
Al XI	31.483		6	
Ar IX	31.52		600	
P XII	31.527		30	
Ar XII	31.55		100	
Ar XIII	31.56		100	
N (Kα)	31.6			
S XIII	31.6		150	
Cl XIII?	31.60		250	
Ar XII	31.65		350	

Element	Wavelength	Intensity	Multiplet
Ar IX	31.66	700	
Ar XIII	31.66 ?	100	
Ca XII	31.660	100	
Ar XIII	31.70 ?	80	
Ar XIII	31.78 ?	300	
Ni XVIII	31.845	20	
Ar XIII	31.86 ?	80	
Ni XVIII	31.890	20	
Ar XIII	31.92 ?	100	
Si XI	31.924	10	
S XIII	31.94	350	
Ca XX	31.95 P		
Ca XII	31.960	50	
Si XI	31.980	20	
Ar XII	31.99	200	
Ni XVIII	32.034	60	
Cl XIII?	32.05	150	
C V	32.064		11
Al XI	32.068	6	
Al XI	32.128	10	
Ar XII	32.16	50	
Fe XVI	32.166	10	
K XI	32.180	100	
C V	32.188		10
Fe XVI	32.192	6	
Ar XII	32.20	50	
Ar XIII	32.25	200	
Ca XII	32.280	100	
P XII	32.304	0	
Cl XIII	32.32	150	
K XI	32.339	50	
Ni XVIII	32.340	90	
Ar XII	32.35	250	
C V	32.3998	4	9
S XIV	32.40	200	
S XIII	32.41	250b	
Cl XIII	32.43	200	
Fe XVI	32.433	10	
Ar X	32.45	320	
Ca XII	32.498	50	
S XIV	32.55	300	
Cl XIII	32.55	200	
Ar X	32.55	50	
Ar XIV	32.55	150	
Ar X	32.61	200	
Ar IX	32.64	400	
Fe XVI	32.652	35	
Ca XII	32.655	20	
Ar X	32.70	230	
Si XI	32.735	10	
Ar X	32.74	50	
Ar XIV	32.74	100	
C V	32.7542	10	8
Na XI	32.76 P		
C V	32.773		7
K XI	32.810	50	
Fe XVI	32.84		
Si XII	32.888	35	
Co XVII	32.910	6	
Co XVII	32.951	6	
Si XII	32.972	90	
Co XVII	32.995	35	
Al XI	33.007	200	
P XI	33.01	200	
Ca XII	33.01 P		
Ar XI?	33.03	50	
Cl XIII	33.04	150	
Fe XVI	33.04		
Co XVII	33.046	20	
Al XI	33.109	10	
Si XI	33.153	10	
Al XI	33.172	35	
S XIII	33.2 P		
Si XI	33.222	20	
P XI	33.23	100	
Ni XVII	33.249	6	
Cu XIX	33.260	35	
S XIV	33.28	150	
Si XI	33.298	20	
Cu XIX	33.317	60	
Ni XVII	33.340	3	
S XIV	33.38	50	
Si XIV	33.39 P		
C V	33.4257	30	6
C V	33.463		5
Si XI	33.515	20	
Ar XI	33.53	100	
Cl XII	33.54	250	
Ni XVII	33.567	3	
Si XI	33.573	10	
Cl XII	33.58	350	
Ar XI	33.65	300	
Ar XVIII	33.68 P		
Mg XII	33.70 P		
C VI	33.736 P	100	1
Cl XII	33.74	350	
Cl XII	33.81	450	
Ar XI	33.84	200	
Na XI	33.85 P		
Cl XIII	33.87 ?		
S XIII	33.89		
C V	33.925	3	
Ar XIII	33.95	300	
Ar XI	33.96	100	
Ni XVII	33.96		
S XIII	33.99		
Cl XII	34.00	300	
C V	34.022	1	
Cl XII	34.03	350	
Si X	34.040	5	
Zn XX	34.08	60	
Ar XI	34.10	100	
Fe XVI	34.21		
Si X	34.238	5	
Ar XI	34.24	150	
Zn XX	34.27	30	
C V	34.283	1	
Cl XIII	34.31	200	
Ar XI	34.33	300	
P XI	34.35	150	
Cl XIII	34.44	250	
Al X	34.445	25	
C V	34.520	2	
Ar XI	34.52	100	
C V	34.598	1	
Cl XII	34.66	300	
S XIII	34.67	400	
Ar XII	34.67	300	
C V	34.699	2	
Cl XVII	34.70 P		

Element	Wavelength	Intensity	Multiplet
Cl XII	34.79	350	
Ar XI	34.80	500	
Ar XII	34.80	250	
Fe XVI	34.857	20	
Ar XII	34.88	200	
Si XI	34.910	20	
C V	34.9728	100	4
Al XI	34.994	200	
Ar IX	35.02	700	
Al XI	35.065	250	
C V	35.070		3
Ar XI	35.07	100	
P XIII	35.095	150	
Fe XVI	35.106	60	
P XIII	35.136	100	
Al XI	35.163	6	
Ca XI	35.212	800	
Cu XVIII	35.238	6	
Al XI	35.239	6	
Cu XVIII	35.256	6	
Ar IX	35.28	300	
Cu XVIII	35.294	10	
Al X	35.301	10	
K X	35.307	400	
Si X	35.310	10	
Fe XVI	35.333	1	
Al X	35.340	10	
Si X	35.353	10	
Si XI	35.353	10	
Mg X	35.366	3	
Fe XVI	35.368	3	
Ar XI	35.37	200	
Si XI	35.383	60	
K XIX	35.41 P		
Si XI	35.446	100	
Ca XI	35.576	800	
Ar XI	35.58	150	
Co XVII	35.617	6	
Si X	35.656	5	
Co XVII	35.660	10	
Ar XII	35.68	220	
S XIII	35.7 P		
Ar XI	35.70	100	
Co XVII	35.707	20	
Si X	35.709	20	
Fe XVI	35.71		
K X	35.779	200	
Na XI	35.82 P		
Ar IX	35.82	500	
Mg X	35.827	6	
Si X	35.838	40	
Al X	35.888	50	
Si X	35.932	20	
Co XVII	35.932	20	
S XII	35.94	200	
Si XIII	35.96 P		
Ar XI	35.96	100	
Fe XVI	36.01		
Ar XI?	36.16	200	
Al X	36.188	25	
S XIII	36.2 P		
Zn XX	36.20	50	
K X	36.229	100	
Si XI	36.238	10	
Cl XI	36.29		
Ar XI?	36.31	200	
Si XI	36.311	80	
S XII	36.33	300	
Si XI	36.335	80	
Al X	36.350	25	
Ar X?	36.39	100	
Al X	36.403	50	
Mg X	36.518	35	
P XII	36.520	30	
S XII	36.54	150	
Ar X?	36.56	100	
P XII	36.562	50	
P XII	36.613	80	
P XII	36.655	60	
K XI	36.662	70	
Cl XI	36.67		
Ar XII	36.67	500	
Al XI	36.675	400	
Cl XII	36.68	350	
Ar X	36.69	200	
P XII	36.697	40	
S XIII	36.7 P		
S XII	36.71	150	
Zn XX	36.74	70	
Fe XVI	36.749	60	
P X	36.75	50b	
Si XI	36.772	70	
Ar X	36.78	150	
P XII	36.792	70	
Fe XVI	36.803	20	
Cl XII	36.86	300	
Al X	36.925	100	
Ar IX	36.96	100	
K XI	36.971	50	
P XII	36.975	100	
Ni XVIII	36.990	60	
P XII	37.041	10	
Ni XVIII	37.049	60	
Cl XI	37.05		
Cl XII	37.05	300	
Si XI	37.060	10	
Co XVI	37.070	3	
P XII	37.074	10	
Fe XVI	37.096	6	
Ar X?	37.10	50	
Fe XVI	37.138	10	
Si X	37.159	20	
Co XVI	37.165	6	
Si X	37.206	20	
Si X	37.248	10	
Cu XIX	37.290	250	
Si XI	37.340	50	
P XII	37.347	150	
Co XVI	37.401	10	
Ar X	37.43	250	
K XI	37.435	70	
B V	37.483 P		
Cu XIX	37.492	90	
P XIII	37.561	150	
S XII	37.59	100	
S XIII	37.6 P		
Ar X	37.60	200	
Mg X	37.644	60	
Cl XII	37.67	200	
K XI	37.696	50	

Element	Wavelength		Intensity	Multiplet
P XIII	37.706		200	
P XIII	37.723		20	
S XII	37.74		150	
Cl XVII	37.77	P		
Ar XI	37.79		150	
K XI	37.870		20	
Cl XII	37.88		200	
B V	37.960	P		
Ar XI	38.00		150	
S XIII	38.2	P		
Ar X	38.23		150	
Al X	38.255		100	
Al X	38.310		125	
K XI	38.31	P		
Ar XI	38.33		380	
Si XI	38.336		20	
S XII	38.34		100	
Ar X	38.40		500	
Ar X	38.51		420	
Ar XI	38.62		400	
P XII	38.629		90	
Ar X	38.64		700	
Al XIII	38.73	P		
P XIII	38.754		30	
Mg X	38.769		60	
Ar XI	38.79		300	
Mg X	38.823		120	
Si X	38.830		60	
Ar XI	38.87		250	
B V	38.871	P	10	
Cu XVIII	38.876		35	
Ar X	38.88		500	
P XIII	38.921		50	
Fe XV	38.95			
Ni XVII	38.96			
S XI	38.99		450	
Cl X	39.01		250	
Al XI	39.091		250	
Cl XII	39.15		250	
Si X	39.175		40	
Al XI	39.180		400	
S XVI	39.18	P		
Si X	39.203		50	
Cl X	39.253		10	
S XI	39.26		350	
Si X	39.264		50	
Al X	39.291		75	
Ar XI?	39.30		200	
Si X	39.305		80	
P XII	39.310		120	
Ni XVII	39.346		3	
P XII	39.354		300	
Ni XVII	39.373		6	
Ni XVII	39.415		10	
Si X	39.443		50	
P XII	39.456		500	
Cl VIII	39.462		100	
Ar XVIII	39.47	P		
Ar XI	39.49		300	
Al XI	39.530		60	
Al X	39.535		100	
Si X	39.552		70	
Al XI	39.623		90	
Al X	39.628		125	
Ar XI	39.64		300	
Ne X	39.65	P		
S XI	39.65		350	
Cl VIII	39.655		10	
P XII	39.664		40	
Mg X	39.669		250	
S XIII	39.7	P		
Cu XIX	39.728		200	
Ar XI	39.75		250	
Cl X	39.77		250	
Ar XI?	39.79		150	
Fe XVI	39.827			
Al X	39.853		50	
Cl X	39.956		100	
Ar XI	39.98		150	
Ar XI	40.02		100	
Mg X	40.022		120	
Ar XI	40.04		250	
Mg X	40.080		200	
Cl X	40.085		200	
Na XI	40.11	P		
Cl X	40.136		1	
Fe XVI	40.153			
P XII	40.157		10	
P XII	40.171		30	
Fe XVI	40.199		10	
Fe XVI	40.245		10	
C V	40.2680		500	2
Cu XIX	40.270		90	
P XII	40.301		200	
Cu XIX	40.312		35	
P XII	40.348		50	
P XII	40.388		120	
Cl XI	40.392		10	
Si X	40.407		10	
Ar	40.42		50	
Al X	40.421		25	
P XII	40.429		150	
P XII	40.478		20	
Cl X	40.49		250	
Si X	40.503		5	
P XII	40.613		120	
Cu XVIII	40.613		6	
Mg IX	40.638		10	
Ar	40.64		100	
Cl X	40.660		100	
C V	40.7306		30	1
Cu XVIII	40.749		35	
Cu XVIII	40.769		10	
Cl XI	40.787		10	
Al IX	40.904		10	
Si XII	40.911		200	
Si XII	40.951		200	
Ne X	40.96	P		
Cl X	40.994		10	
B V	40.996	P	30	
Ni XVIII	41.015		125	
Si X	41.023		30	
Al IX	41.037		20	
Ar	41.08		50	
Si X	41.086		30	
Cu XVIII	41.134		60	
K X	41.148		700	
Fe XVI	41.17			
Cu XVIII	41.173		10	
Ni XVIII	41.218		90	

Element	Wavelength	Intensity	Multiplet
Ar	41.38	150	
Cl X	41.390	100	
Co XVII	41.404	10	
Co XVII	41.462	10	
C V	41.47	f	
P XII	41.471	50	
Ar IX	41.48	600	
P XII	41.518	60	
K X	41.541	700	
Al IX	41.543	20	
P IX	41.556	150	
Fe XV	41.559	3	
Ar X	41.57	200	
Cl X	41.589	10	
P XII	41.634	120	
Cl VIII	41.636	1	
Fe XV	41.663	10	
P XII	41.700	70	
Al X	41.730	100	
Mg IX	41.803	40	
Ar X	41.89	100	
Fe XV	41.903	20	
Fe XVI	41.91		
P XI	42.006	150	
Ar IX	42.02	200	
S X	42.16	100b	
Cl VIII	42.166	10	
Cl VIII	42.220	200	
Al XII	42.23		P
Mg X	42.294	250	
Fe XVI	42.30		
Al X	42.310	75	
Al X	42.340	200	
Mg X	42.363	400	
Al X	42.403	350	
Cl VIII	42.430	100	
P XI	42.468	100	
P XI	42.479	150	
S X	42.51	15	P
Mg X	42.523	6	
S X	42.54	35	P
P XII	42.553	20	
Ar IX	42.56	200	
S X	42.58	50	P
Mg X	42.596	10	
P XI	42.599	150	
P XII	42.647	40	
S XVI	42.65		P
P XII	42.679	20	
Al IX	42.708	10	
Si XI	42.730	40	
Al IX	42.744	10	
P XII	42.763	140	
P XI	42.764	200	
Si XI	42.773	10	
P XII	42.779	20	
Si XI	42.826	70	
Zn XX	42.83	70	
Ni XVII	42.855	20	
Si XI	42.866	30	
Si XI	42.910	10	
Al IX	42.928	20	
Fe XV	42.93		
Zn XX	42.93	80	
Cl IX	42.940	100	
Ar X	42.94	250	
Si XI	42.950	20	
Si XI	43.046	20	
Mg IX	43.087	10	
Mg IX	43.138	20	
Cl IX	43.168	120	
Al IX	43.195	40	
Al IX	43.237	40	
Al IX	43.261	80	
Ar X	43.27	150	
Si XI	43.290	10	
Si XI	43.329	10	
Ne X	43.35		P
Si XI	43.385	10	
Fe XV	43.39		
Ar	43.42	150	
Al X	43.460	75	
Mg IX	43.481	50	
P XI	43.488	50	
S X	43.5		
P XI	43.529	70	
Al IX	43.549	10	
Al X	43.549	350	
S XI	43.56	150	
Al X	43.577	100	
Fe XV	43.65		
Ar X	43.69	350	
S XI	43.75	150	
Si XI	43.763	10	
P XI	43.808	100	
Ni XVIII	43.814	200	
Mg IX	43.843	60	
Ar X	43.92	450	
Cl IX	44.003	200	
Si XII	44.021	200	
P XII	44.044	10	
Mg X	44.050	400	
Ar X	44.05	350	
Cl IX	44.088	400	
P XI	44.115	300	
Al X	44.136	10	
Si XII	44.165	250	
Cl IX	44.183	200	
Ar	44.19	100	
Si IX	44.215	10	
Si IX	44.249	10	
Cl XVII	44.26		P
Cl IX	44.267	300b	
Ar X	44.27	450	
S VIII	44.350	20	
Cl VIII	44.361	200b	
Cl IX	44.361	200b	
Cl X	44.361	200b	
P X	44.364	250	
Ni XVIII	44.365	250	
Mg IX	44.373	40	
S VIII	44.374	100b	
S X	44.374	100b	
S X	44.387	20	
Ni XVIII	44.405	35	
Mg IX	44.420	60	
Ar X	44.45	450	
Al X	44.493	75	
S X?	44.5	350	
Si X	44.521	30	

Element	Wavelength	Intensity	Multiplet
Cl IX	44.530	100	
S VIII	44.547	50	
P XV	44.59	P	
Cl VIII	44.603	200	
Ar X	44.63	400	
Si X	44.655	30	
C (Kα)	44.7		
Al IX	44.704	60	
Si X	44.719	20	
Na IX	44.723	10	
Al IX	44.743	80	
Ar	44.79	150	
Si X	44.830	30	
Ar X	44.84	300	
Ni XVII	44.850	6	
Si X	44.855	30	
Al X	44.902	10	
Si X	44.979	60	
Mg IX	44.983	20	
P XI	44.987	100	
Ni XVII	44.995	10	
Ni XVII	45.018	1	
Ar X	45.03	350	
Al IX	45.077	10	
Cl IX	45.112	400	
Mn XV	45.137		
Cl IX	45.261	200	
S VIII	45.279	50	
S VIII	45.290	50	
Co XVII	45.319		
Cu XIX	45.329	10	
Cl IX	45.332	100	
Al IX	45.344	40	
S VIII	45.370	20	
Cl IX	45.378	300	
Ar XII	45.38	50	
Ni XVII	45.382	20	
Cl IX	45.396	300b	
Cl X	45.396	300b	
Si XI	45.398	10	
Ni XVII	45.424	6	
Cl X	45.431	10	
S VIII	45.458	20	
Cl IX	45.465	10	
Mg XII	45.47	P	
Ar XII	45.49	100	
S VIII	45.508	20	
Si XII	45.519	10	
Cl IX	45.519	200	
Co XVII	45.527		
Cl IX	45.539	200	
Si X	45.606	5	
Cl X	45.626	15	
Mg IX	45.635	40	
Cl IX	45.657	100	
Ar	45.67	150	
Si X	45.684	60	
P VIII	45.69	P	
Si XII	45.692	20	
Cl IX	45.745	10	
P X	45.905	75	
P X	45.931	125	
P X	45.963	200	
Mg IX	45.980	20	
S X	45.99	100	
P XI	45.997	400	
Cu XIX	46.086	60	
Na IX	46.090	100	
Cl IX	46.098	100	
P XI	46.203	450	
S VII	46.212	10	
Al X	46.223	75	
S X	46.24	100	
Cl IX	46.242	10	
Ar	46.26	50	
Si XI	46.264	10	
P X	46.294	450	
Ne IX	46.3	P	
Si XI	46.300	50	
P X	46.334	450	
Mg IX	46.340	40	
S IX	46.373	50	
Ar	46.39	100	
Si XI	46.401	100	
S X	46.41	100b	
S IX	46.413	50	
Cr XIV	46.468		
Cl X	46.476	200	
Cr XIV	46.527		
Ar	46.53	150	
Si X	46.563	30	
S IX	46.585	10d	
S IX	46.624	10	
P X	46.636	300	
Mg IX	46.657	160	
Fe XVI	46.661		
Si XI	46.662	40	
Ca XX	46.7	P	
Mg IX	46.711	10	
S IX	46.713	50	
Fe XVI	46.718		
S IX	46.765	50	
P X	46.769	350	
Cu XVIII	46.781	3	
Cl X	46.845	100	
Si X	46.895	20	
Al IX	46.896	40	
Cl X	46.908	10	
Cu XVIII	47.012	6	
Mg IX	47.041	60	
Si X	47.043	50	
S IX	47.052	50	
Cl X	47.085	15	
S VII	47.098	50	
S IX	47.188	10	
Mg X	47.231	250	
S IX	47.249	50	
Si XI	47.293	20	
S VII	47.307	50	
Mg X	47.310	400	
Cu XIX	47.329	200	
Si XI	47.350	50	
Si XI	47.385	10	
Al IX	47.417	80	
S IX	47.433	200	
Cu XIX	47.437	250	
Si XI	47.453	10	
Al IX	47.455	170	
Co XVI	47.483	100	
Al IX	47.489	200	

Element	Wavelength	Intensity	Multiplet
Si X	47.489	50	
Si XI	47.489	50	
S IX	47.518	30	
Al IX	47.534	100	
Si X	47.545	50	
S VIII	47.566	10	
Cu XVIII	47.585	10	
S VIII	47.594	10	
Si XI	47.607	50	
S IX	47.616	10	
Si XI	47.653	50	
S X	47.654	20	
Ne IX	47.7	P	
Si XI	47.702	5	
P X	47.702	100	
Si XI	47.735	20	
Al IX	47.755	10	
Na IX	47.776	10	
S VIII	47.793	10b	
S X	47.793	10b	
Mg IX	47.818	10d	
Na IX	47.836	100	
Al IX	47.856	50	
P X	47.896	50	
Si XI	47.899	50	
Mg IX	47.947	100d	
Ne IX	48.0	P	
Mg IX	48.024	10d	
S IX	48.160	100b	
Al XI	48.297	700	
Al XI	48.338	700	
Mg IX	48.340	100	
S IX	48.362	20	
Si X	48.381	20	
Si X	48.440	40	
P XV	48.53	P	
Ne X	48.55	P	
Na IX	48.553	200	
Si X	48.553	10	
S IX	48.564	20	
Co XVII	48.564		
B V	48.587	P	100
Si X	48.596	20	
S VII	48.647	150	
Ar IX	48.73	500	
Al IX	48.765	20	
Mg IX	48.794	10	
P VIII	48.86	P	
S VII	48.874	100	
P IX	48.925	350	
B IV	48.939		
F IX	48.96	P	
Fe XVI	48.97		
Si XI	48.991	20	
Si XI	49.052	30	
Al IX	49.094	40	
S IX	49.119	100	
Co XVII	49.133		
Co XVII	49.171		
Ar IX	49.18	500	
Si XI	49.181	30	
Si X	49.182	10	
Si XI	49.222	50	
Cl IX	49.234	100	
Si XI	49.265	10	
Na IX	49.326	100	
S IX	49.328	50	
Na IX	49.386	200	
Si X	49.441	50	
Cu XVIII	49.452	10	
B IV	49.4549		
P VIII	49.47	P	
Cl VIII	49.487	700	
Fe XV	49.49		
Cu XVIII	49.490	20	
Ne IX	49.5	P	
Cu XVIII	49.558	20	
Cl IX	49.568	100	
Mg IX	49.586	1	
Si X	49.701	100	
P X	49.765	50	
P X	49.803	25	
Co XVI	49.808	100	
Al IX	49.854	100	
P X	49.865	15	
Al IX	49.916	100	
Co XVI	49.958	100	
S XVI	49.97	P	
Co XVI	49.979	20	
Si X	49.984	60	
Si VIII	49.987	10	
S VII	49.990	120	
Si X	50.018	90	
Si VIII	50.019	50d	
S VII	50.027	70	
Fe XV	50.062	1	
Cl VIII	50.074	500	
Fe XV	50.085	10	
Fe XV	50.120	100	
Si X	50.124	70	
Si X	50.154	50	
Mg VIII	50.219	20	
Ni XVIII	50.253	20	
Si X	50.254	70	
Ne IX	50.3	P	
Si X	50.305	50	
Si X	50.333	50	
Fe XVI	50.350		
Co XVI	50.357	200	
Mg VIII	50.386	20	
Si X	50.390	10	
Co XVI	50.393	20	
B IV	50.4347	100	
Mg XI	50.48	P	
P VIII	50.48	P	
P IX	50.511	200	
Si VIII	50.524	50b	
Si X	50.524	50b	
Si XI	50.524	100	
Fe XVI	50.555		
P IX	50.560	300	
F IX	50.58	P	
Si XI	50.617	40	
P IX	50.626	100	
Al X	50.670	50	
Si X	50.691	100	
Cl VIII	50.700	200	
Al X	50.717	75	
Al X	50.762	350	
Mg IX	50.777	10	

Element	Wavelength	Intensity	Multiplet
Al X	50.802	50	
Cr XIV	50.812		
Al X	50.903	50	
Al X	50.946	10	
P VIII	50.95		P
Cl IX	51.026	400	
Al X	51.039	10	
Mg VIII	51.040	10	
Ni XVIII	51.042	35	
Mg VIII	51.098	40	
Si IX	51.113	50	
P X	51.155	450	
P IX	51.156	450	
Cr XIV	51.162		
Si XIV	51.20		P
S VIII	51.227	100	
Na VIII	51.316	10	
Al X	51.362	350	
Si IX	51.362	100	
Cl IX	51.378	300	
Mg VIII	51.389	20	
Al X	51.400	1	
Al X	51.454	1	
Mg VIII	51.470	40	
S VIII	51.470	70	
Mg IX	51.560	10	
Mg IX	51.591	300	
Si X	51.635	10	
Mg IX	51.654	400	
Si X	51.676	20	
Si VIII	51.718	20	
Na VIII	51.789	10	
K XIX	51.8		P
S VII	51.807	350	
Si VIII	51.819	20	
P IX	51.861	300	
P IX	51.889	100	
Al X	51.979	300	
Ni XVII	52.000	6	
Cl IX	52.055	200	
Si X	52.070	50	
S VII	52.097	200	
Na IX	52.116	100	
Si X	52.155	100d	
P X	52.158	250	
P IX	52.160	300	
Na IX	52.186	200	
Ti XI	52.218	1	
Ni XVII	52.224	10	
Si XI	52.296	100	
Al XI	52.299	400	
Cl IX	52.303	400	
Cr XIV	52.363		
Mg VIII	52.395	10	
Ne IX	52.4		P
Cl IX	52.426	300	
Al XI	52.446	700	
Mg XI	52.47		P
Si X	52.485	100	
Na IX	52.487	1	
P IX	52.552	150	
Si VIII	52.554	20	
Co XV	52.583	100	
P X	52.594	200	
Si X	52.611	50	
Ni XVIII	52.615	200	
Mg VIII	52.628	40	
Si IX	52.671	10	
Cl IX	52.677	200	
S VIII	52.681	20	
B IV	52.6853	330	
Mg VIII	52.692	80	
S VIII	52.702	20	
P IX	52.709	150	
Ni XVIII	52.720	250	
Cl IX	52.726	300	
S VIII	52.756	300	
S VIII	52.789	300	
Ni XVII	52.802	6	
Si IX	52.810	20	
Si IX	52.838	50	
S VIII	52.854	100	
S IX	52.854	100	
V XIII	52.870		
Ti XII	52.896	1	
Fe XV	52.911	300	
V XIII	52.928		
Cl IX	52.939	10	
S VIII	52.958	350	
Cl IX	52.959	1	
Al IX	52.966	10	
Mn XV	52.977		
P IX	52.980	250	
S VIII	52.985	70	
Si	53.025	20	
Mn XV	53.032		
Si	53.063	20	
S VIII	53.073	50	
Al IX	53.098	10	
Cl IX	53.108	1	
Mg IX	53.112	10	
Ti XII	53.140	1	
Co XV	53.173	200	
Mg IX	53.188	200d	
Mg IX	53.222	200d	
Al IX	53.237	60	
S VIII	53.239	30	
Al IX	53.267	60	
Al IX	53.376	10	
Al	53.412	10	
Al IX	53.424	10	
Ti XII	53.433	3	
Mg VIII	53.438	20	
Cl IX	53.448	10	
Ti XII	53.457	1	
Si X	53.463	10	
Mg VIII	53.484	10d	
Al IX	53.488	1	
Cr XIII	53.506	50	
Mg VIII	53.512	100d	
F IX	53.53		P
Al IX	53.554	10	
Si X	53.573	50d	
Si X	53.595	50d	
Al	53.598	10	
Cl IX	53.696	100	
Mg VIII	53.744	10	
Na VIII	53.750	10	
Cr XIII	53.765	100	
Si VIII	53.770	10	

Element	Wavelength	Intensity	Multiplet
Al VIII	53.785	10	
Al VIII	53.800	10	
Ne VIII	53.81	20	
Mg VIII	53.812	10	
Al VIII	53.823	10	
Na IX	53.860	300	
Mg VIII	53.905	100	
Si IX	53.992	10	
Mg IX	54.011	200	
Ca XX	54.03		P
Al X	54.115	220	
S VIII	54.118	500	
P IX	54.124	150	
Mg	54.131	10	
Na XI	54.14		P
Fe XVI	54.142		
S IX	54.178	100	
Al VIII	54.217	200b	
Al VIII	54.258	200	
S VIII	54.266	100	
Ne VIII	54.31	70	
Al IX	54.312	10d	
Ti XI	54.322	1	
S VIII	54.370	20	
Na VIII	54.380	100	
S VIII	54.385	100	
Al XI	54.388	60	
S IX	54.396	50	
Si IX	54.403	50d	
Zn XII	54.409	10	
S VIII	54.424	150	
Al IX	54.457	200	
Si VII	54.462	50b	
Si X	54.462	50b	
Mg IX	54.463	10	
S VIII	54.501	20	
Ni XVII	54.52		
Si VII	54.522	50d	
Si X	54.522	50d	
Zn XII	54.544	10	
S VIII	54.566	50	
Si X	54.571	50	
Si X	54.599	50d	
S VIII	54.604	50	
S VII	54.652	100	
Si X	54.664	10	
Si X	54.702	10	
P VII	54.708	50	
Fe XVI	54.728		
Fe XVI	54.769		
Si IX	54.841	100	
Mg VIII	54.853	60	
Si IX	54.870	100	
Mg VIII	54.886	100	
P VII	54.887	100	
Si IX	54.907	100	
S VII	54.938	100	
Ne VIII	55.01	130	
Mg IX	55.060	200	
P IX	55.066	100	
Si IX	55.094	50	
Si X	55.096	100	
Si IX	55.116	50	
Ni XVII	55.14	6	
Al	55.143	10	
Ni XVII	55.18	10	
Ti XII	55.181	1	
P IX	55.220	100	
Mg VIII	55.222	10d	
Al X	55.227	150	
Si IX	55.234	50	
Ni XVII	55.25	20	
Al X	55.272	500	
Si IX	55.272	150	
P IX	55.299	50	
Si IX	55.305	50	
Na VIII	55.345	10	
Si IX	55.356	100	
Al X	55.376	750	
Na VIII	55.396	100	
Si IX	55.401	100	
Ti XII	55.443	3	
Cu XII	55.466	1	
Si IX	55.511	50	
S IX	55.540	100	
Al	55.622	1	
Fe XV	55.635	100	
Al IX	55.667	10	
P VIII	55.672	120	
P VIII	55.710	70	
Si XIV	55.72		P
Al X	55.731	50	
Si IX	55.781	150	
Fe XV	55.793	200	
Fe XV	55.815	10	
P VIII	55.876	300	
P VIII	55.926	100	
Co XVII	56.021		
Si IX	56.027	150	
Ne VIII	56.043	320	
S IX	56.081	50	
Ne IX	56.1		P
S IX	56.125	20	
Si	56.145	50	
Al IX	56.150	50b	
P VII	56.174	50	
Fe XV	56.200	300	
Fe XV	56.236	1	
Mn XV	56.270		
Al	56.274	30	
P VII	56.282	10	
Al IX	56.304	70	
P VII	56.322	120	
S IX	56.332	20d	
Cu XII	56.333	1	
Mg VIII	56.358	10d	
Mg VIII	56.403	10d	
Mn XV	56.484		
Si VII	56.528	50	
Al	56.545	10	
Al X	56.590	75	
P X	56.597	150	
Si VII	56.645	50d	
Al X	56.650	10d	
Si X	56.680	50d	
Al X	56.696	75	
Al X	56.762	10	
Al X	56.802	200	
Si X	56.804	50	
Co XVII	56.833		

Element	Wavelength	Intensity	Multiplet
Mg IX	56.861	10	
P XV	56.87		P
Al IX	56.899	100b	
Cu XI	56.915	1	
Al IX	56.945	250	
Al X	56.945	250	
Al X	56.964	150	
Al X	57.024	250	
P VIII	57.042	450	
Cu XI	57.047	1	
Al X	57.072	10	
P IX	57.083	450	
Na VIII	57.096	10	
Al X	57.116	75	
Na VIII	57.119	10	
Si IX	57.157	50	
Si X	57.209	20	
Mn XIV	57.224	20	
Na VIII	57.230	10d	
P VIII	57.230	350	
Al	57.244	50	
P IX	57.266	350	
Al	57.271	50	
Si VII	57.325	50	
P IX	57.339	150	
Si X	57.365	80	
Al X	57.368	350	
P VII	57.42		P
Si VII	57.434	50	
Si IX	57.434	50	
Al VIII	57.553	10	
Si VII	57.589	50b	
Si IX	57.589	50b	
Mg VIII	57.590	10	
Al VIII	57.624	10	
P VII	57.66		P
Al	57.663	10	
P IX	57.683	100	
Ar XVIII	57.7		P
P IX	57.711	50	
Mg VIII	57.736	100	
Ne VIII	57.747	470	
Si IX	57.778	100	
Mg X	57.876	700	
Ti XI	57.891	1	
Mg X	57.920	700	
P VI	57.93		P
P VIII	58.018	350	
Al IX	58.060	10	
Na VIII	58.070	10	
Al IX	58.112	50	
V XIII	58.116		
Si IX	58.150	50	
Na IX	58.201	500b	
Al IX	58.222	100	
Al IX	58.276	1	
Na IX	58.279	600	
P VI	58.29		P
Mg VII	58.316	10	
Al VII	58.384	10	
Si VII	58.388	50	
Ne VIII	58.407	180	
Si VII	58.445	100	
Ne IX	58.468	100	
V XIII	58.482		
P VIII	58.506	150	
Si VII	58.526	10	
Mg VIII	58.537	10d	
Be IV	58.574		P
Si VII	58.580	100	
Mg VIII	58.614	200d	
Mg VIII	58.667	300d	
Cl VIII	58.673	1000	
Si VII	58.719	50	
P VI	58.73		P
Al VII	58.752	1	
P VIII	58.776	50	
Si VII	58.782	50	
Al X	58.808	1	
Co XVII	58.842		
Al X	58.858	100	
Si VIII	58.885	150d	
Si IX	58.906	50d	
Co XVII	58.948		
Co XVI	58.95		P
Na IX	58.954	100	
P VI	58.96		P
Fe XIV	58.963	200	
P VII	58.972	35	
Al X	58.987	150	
Si IX	59.004	100	
Na VIII	59.009	100	
P VII	59.028	15	
Mg VIII	59.038	200	
Na IX	59.042	200	
Si IX	59.077	50	
Na VIII	59.101	10	
Al X	59.107	400	
Ti XII	59.133	6	
Mg VIII	59.153	300	
Ne VIII	59.19	290	
Cl VIII	59.191	900	
Na VIII	59.204	300	
S VIII	59.236	70	
Na VIII	59.249	10	
Al	59.298	10	
P VIII	59.302	350	
Be IV	59.320		P
Mn XIV	59.325	100	
Al IX	59.381	10d	
Al XIII	59.39		P
Fe XV	59.404		
Ti XII	59.435	10	
Al	59.481	10d	
P VIII	59.516	250	
Fe XIV	59.579	300	
S VIII	59.593	20	
Mg VII	59.640	1	
Na VIII	59.759	200	
Al IX	59.761	300	
P VI	59.78		P
Al VII	59.821	10	
K XIX	59.88		P
Si VII	59.884	50	
Al VII	59.911	10	
F IX	59.95		P
Al IX	59.960	60	
Si VII	59.966	100b	
Si IX	59.966	100b	
Na VIII	59.992	10	

Element	Wavelength	Intensity	Multiplet
P VI	60.02 P		
Al	60.052	50	
Na VIII	60.053	100	
Na VIII	60.073	100	
Mg VII	60.138	10	
Si X	60.151	20	
S VII	60.161	1000	
Al IX	60.162	10d	
Al IX	60.197	50	
Si VII	60.221	100	
Al IX	60.222	10	
Zn XIII	60.248	20	
Al IX	60.262	10	
Al IX	60.312	50	
B IV	60.3144	1000	
Mg VIII	60.316	40	
Al IX	60.347	100	
Ne VIII	60.351	300	
Mg VIII	60.384	10	
Ne VIII	60.413	400	
Si	60.421	20	
Si IX	60.459	20	
Ne VIII	60.49	10	
Al IX	60.504	150	
Al IX	60.549	200	
P VI	60.57 P		
Al IX	60.588	300	
Al IX	60.645	10	
Si	60.673	100	
Cr XIV	60.699		
Al X	60.700	10	
Ti XII	60.701	10	
Mn XV	60.720		
Be IV	60.743 P	10	
Cr XIV	60.756		
Ti XII	60.762	3	
Al	60.788	50	
Ne VIII	60.796	630	
S VII	60.804	750	
Mg VIII	60.806	10	
Al	60.809	50	
Si VII	60.837	100	
Al IX	60.896	300	
Al X	60.896	300	
Ti XII	60.971	1	
Si VII	60.989	100b	
Si VIII	60.989	100b	
Si IX	60.989	100b	
Si VIII	61.019	100	
Mg IX	61.038	200	
P IX	61.065	50	
Al IX	61.069	600	
Si VIII	61.070	200	
B IV	61.088		
Na VIII	61.088	200	
Mg IX	61.088	100	
Si IX	61.109	50	
Mg IX	61.127	300	
Mg IX	61.175	200	
Si VIII	61.175	50d	
Si IX	61.190	50d	
Si VIII	61.223	100	
Al	61.262	10	
P IX	61.270	50	
Ti XII	61.286	1	
Si VII	61.306	50	
Mn XV	61.319		
P IX	61.320	50	
Na VIII	61.347	1	
Si IX	61.355	50	
Zn XIII	61.356	10	
Mg IX	61.359	10	
Mn XV	61.361		
Al	61.373	50	
Mg IX	61.393	100	
Si VIII	61.395	50	
Si VIII	61.446	100d	
V XII	61.455	50	
Al	61.472	100	
Mg IX	61.489	200	
Si IX	61.502	50	
Si IX	61.546	100	
S VII	61.547	200	
Si IX	61.600	50	
S VIII	61.600	500	
P VI	61.622	50	
Al IX	61.647	10	
Si IX	61.649	100	
Fe XIII?	61.659		
Al VIII	61.694	150	
V XII	61.717	100	
Si VIII	61.798	100	
Ni X	61.809	1	
Si VIII	61.852	100b	
Si IX	61.852	100b	
P VI	61.869	50	
Co XVI	61.875	100	
Fe XIII	61.876		
Mg VIII	61.891	200	
Si VIII	61.895	150d	
Al	61.900	10	
Si VIII	61.914	150d	
Ni X	61.915	1	
Co XVI	61.916	200	
Mg IX	61.924	400	
Al	61.933	50	
Mg VIII	61.964	100b	
Mg IX	61.964	100b	
P VI	61.970	50	
O VIII	61.977 P		
S VIII	61.978	250	
Co XVI	61.982	200	
Al VIII	62.016	100	
Mg IX	62.020	10	
Al	62.070	50	
Fe XV	62.099	60	
Sc XI	62.132	40	
Si	62.154	50	
Mg VII	62.166	10d	
P VII	62.245	150	
Si X	62.251	100	
Na VIII	62.276	100	
Mg VIII	62.291	10	
Al VII	62.296	200b	
Ne VIII	62.297	350	
Al IX	62.327	250	
Fe XIII?	62.354	60	
Ne VIII	62.361	500	
Al IX	62.369	150	
Si	62.386	50d	

Element	Wavelength	Intensity	Multiplet
Fe XIII	62.387		
Al VII	62.432	10	
Ti XII	62.433	1	
B IV	62.44	f	
Si IX	62.454	20	
Fe XIII?	62.466		
Ti XII	62.470	1	
Al VII	62.474	100b	
Al IX	62.474	100b	
P VII	62.515	50	
Mn XIV	62.526	50	
Ne VIII	62.58	150	
Si VIII	62.586	50d	
Al IX	62.587	100	
Mg VII	62.615	10	
Mn XIV	62.694	100	
Fe XIII	62.694	100	
Mg VII	62.696	100	
Mn XIV	62.713	20	
Na VII	62.725	10d	
Ni XI	62.730	20	
Mg IX	62.751	500	
Fe X	62.8	P	
Si VIII	62.808	100	
Si VIII	62.849	150d	
Fe XVI	62.879	20	
Si VIII	62.884	50	
Al IX	62.916	150	
Si VII	62.940	50	
Si IX	62.974	50	
Fe XIII	62.975	100	
Al VII	63.025	500b	
Al IX	63.025	500b	
S VIII	63.026	50	
Cu XI	63.038	40	
Fe XIII	63.048	10	
Mn XIV	63.109	200	
Na VIII	63.114	100	
Al X	63.134	200	
Mn XIV	63.146	20	
Mg X	63.152	400	
P VI	63.18	P	
Si	63.183	50d	
Na VII	63.185	10	
Fe XIII	63.191	120	
Cu XI	63.192	40	
Al VIII	63.203	10	
Na VII	63.227	10	
Si VIII	63.229	150	
Si VIII	63.266	50	
Mg X	63.295	700	
S VIII	63.304	500	
Cr XIV	63.309		
Na VII	63.361	10	
Mg VII	63.396	100d	
S VIII	63.431	100	
Na VII	63.442	10	
P VI	63.45	P	
Si IX	63.478	20	
Al IX	63.509	500d	
Cr XIV	63.525		
Al VIII	63.560	10	
Fe XII	63.56	60	
Si IX	63.586	100	
Al IX	63.632	300	
Ni XI	63.641	40	
Na VIII	63.695	10	
S VIII	63.711	50	
Al VIII	63.714	100	
Fe XVI	63.719	30	
Si VIII	63.732	150	
Na VII	63.778	10	
Si VIII	63.879	50	
S VIII	63.886	250	
Si VIII	63.903	150	
Al VIII	63.933	10	
Al VIII	63.965	150d	
Al VIII	64.004	200	
O VIII	64.03	P	
P VIII	64.051	80	
Be IV	64.065	P	30
Al VII	64.066	10	
Al VIII	64.086	10	
P VIII	64.100	20	
Na VII	64.113	10	
S VIII	64.120	50	
Mg VII	64.122	200	
S VIII	64.137	100	
Na VIII	64.205	200	
Na VIII	64.237	400	
Mg VIII	64.246	10	
Al	64.269	10	
Si VIII	64.281	100	
P VII	64.286	150	
Na VIII	64.302	500	
S VIII	64.305	20	
Al VII	64.325	50	
Si VIII	64.327	150	
P VIII	64.337	100	
Si VIII	64.355	50	
Al VII	64.358	50	
P VII	64.361	250	
P VIII	64.361	300	
Mg VII	64.377	100b	
Mg VIII	64.377	100b	
Al	64.418	10	
Al VII	64.481	10	
Mg VIII	64.488	100d	
Al VII	64.513	10	
Mg VIII	64.518	100d	
P VII	64.579	150	
P VII	64.587	100	
Al IX	64.625	50	
Mg VIII	64.635	200	
P VII	64.635	200	
Al XIII	64.64	P	
Sc XI	64.70	10	
Mg VIII	64.702	200	
Al VII	64.704	150	
Cl XVII	64.72	P	
Si X	64.772	50	
Mg VIII	64.811	10	
Al VII	64.815	120	
S VIII	64.874	20	
Mg VIII	64.878	100	
Al IX	64.885	150	
Na VII	64.904	10	
Al VII	64.904	100b	
Al IX	64.904	100b	
Sc XI	64.98	40	

Element	Wavelength	Intensity	Multiplet
Si VI	65.004	20d	
Al VII	65.014	10d	
Al VIII	65.128	10d	
S VIII	65.149	50	
Si VI	65.211	10	
Si IX	65.236	10	
Al VIII	65.298	10	
Si XIV	65.30	P	
P VI	65.308	150	
Fe XV	65.370	1	
Al VIII	65.381	50	
Na VII	65.388	100	
Ti XI	65.403	3	
Na VII	65.474	100	
Al VIII	65.494	50	
Ca XX	65.50	P	
Ne X	65.52	P	
Ti XII	65.540	1	
Ti XII	65.577	3	
Si VII	65.595	50	
Mg IX	65.609	400	
Fe XV	65.612	3	
Fe XII	65.63	40	
Al	65.632	50	
P VI	65.640	350	
Na VIII	65.672	10	
Mg X	65.672	35	
Si	65.711	50	
Na VIII	65.730	10	
Mg VIII	65.735	100	
P VIII	65.788	350	
Fe XII	65.805		
Mg VIII	65.806	200	
Al	65.821	50	
Ne VIII	65.822	600	
Si VIII	65.833	50	
Mg X	65.847	60	
Ne VII	65.85		
Al VII	65.865	50	
Al VII	65.882	50	
Ne VIII	65.895	700	
Fe XII	65.905		
P VI	65.940	350	
Cr XIII	65.968	50	
Fe XII	65.98	60	
Al IX	66.038	50	
Fe XII	66.047	10	
P VIII	66.051	350	
Na VIII	66.059	200	
Mg VIII	66.069	300	
Al IX	66.092	50	
Al IX	66.142	120	
P VII	66.17	P	
Fe XII	66.225		
Fe XV	66.238	3	
Al IX	66.239	150	
Ne VIII	66.259	300	
Fe XVI	66.263	20	
Al IX	66.275	50	
Fe XII	66.297	40	
Al VIII	66.321	60b	
Al IX	66.321	60b	
Ne VIII	66.330	350	
Na VIII	66.358	10	
Al VIII	66.363	10	
Fe XVI	66.368	30	
Fe XII	66.43		
P VII	66.432	150	
Na VIII	66.433	200d	
P VII	66.488	50	
Na VIII	66.498	400	
Fe XII	66.526		
Ni X	66.542	10	
Mn XIII	66.574	100	
P VII	66.576	100	
Al IX	66.624	10	
Ni X	66.687	10	
P VII	66.691	150	
Al VIII	66.704	150	
Si	66.726	100	
Ar XVIII	66.73	P	
Al VIII	66.731	200	
P VII	66.75	P	
Al VIII	66.771	350	
Si VI	66.772	20	
Mg VII	66.788	10	
Si VI	66.796	10	
Al IX	66.836	100d	
Si IX	66.912	100	
Fe XII	66.960		
Si X	66.977	20d	
Cr XIII	66.983	200	
Al	66.996	10d	
Mn XIV	67.02		
Na	67.027	100	
Al VIII	67.044	10	
Mg IX	67.090	500	
Al VIII	67.096	100	
Al VIII	67.121	100	
Mg IX	67.135	600	
Si VIII	67.157	150	
Fe XII	67.164		
Al VIII	67.166	10	
Ti XII	67.171	10	
Fe XIV	67.21	60	
Mn XIII	67.215	200	
Mg IX	67.239	700	
Al VIII	67.244	150	
Al VIII	67.288	500	
Fe XII	67.291		
Si VIII	67.318	100	
Al VIII	67.360	250	
Ne VIII	67.382	770	
Al VIII	67.408	500	
Si VIII	67.408	150	
Al VIII	67.437	50	
Mg VII	67.453	10	
Al VIII	67.464	600	
Mg VII	67.470	100d	
Na VIII	67.48	200	
Mg VII	67.497	200	
Al VIII	67.529	10	
Ti XII	67.555	35	
Al VIII	67.565	150b	
Si IX	67.574	50d	
P VIII	67.587	300	
Na VIII	67.672	400	
Fe XII	67.702		
Mg VIII	67.731	400b	
Mg IX	67.731	400b	

Element	Wavelength	Intensity	Multiplet
O VIII	67.76 P		
Fe XII	67.78	20	
Ne VII	67.80	50	
Fe XII	67.821		
Na VII	67.826	100d	
Al IX	67.828	10	
Al	67.873	10	
Na VII	67.877	100d	
Cu XII	67.882	30	
Na VII	67.912	200d	
Al VIII	67.946	500	
Fe XII	67.972		
P VII	67.989	50	
Mg VII	67.993	100d	
Al	68.000	10	
Si VII	68.026	10	
Mg VII	68.064	200	
Mg VII	68.100	200	
Mg VII	68.144	300d	
P VII	68.147	50	
Si VII	68.148	250	
Al VI	68.167	50d	
Si VII	68.190	50	
Na VIII	68.193	100	
Si VII	68.212	50	
Al VI	68.223	10	
Si VII	68.270	50d	
Zn XII	68.271	40	
Ne VII	68.28	160	
Al VI	68.289	1	
Si VII	68.340	50	
Mg VII	68.352	200	
Al VIII	68.375	750	
Fe XII	68.382		
P VIII	68.384	200	
P VIII	68.385	100	
Si VII	68.408	100	
Na VII	68.422	10d	
Al	68.439	50	
Mg VIII	68.450	100	
Si VII	68.456	10	
Al	68.458	50	
Zn XII	68.495	120	
Si	68.497	50d	
Na VII	68.519	100d	
Si	68.522	50d	
Al VII	68.531	100b	
Al IX	68.531	100b	
Mg VIII	68.550	100	
Cr XIV	68.565		
Mg VIII	68.580	10	
Si VII	68.593	50	
Mg VIII	68.606	200	
Al VII	68.637	50b	
Al IX	68.637	50b	
Si VII	68.642	50	
P VIII	68.654	100	
Si VII	68.669	50	
Al VII	68.681	10b	
Si VII	68.715	100	
Al	68.783	10	
Si	68.786	100	
Al VIII	68.825	50b	
Al IX	68.825	50b	
Si	68.833	20	
Fe XV	68.849		
Si VIII	68.853	100	
Na VII	68.866	10	
Fe XV	68.883		
Al	68.904	10	
Na VII	68.908	100	
Ne VII	68.92	100	
Mg IX	68.949	10	
Al IX	68.958	50	
Mg IX	68.986	100	
Mg IX	69.009	100	
Fe XV	69.036		
Mg IX	69.058	10	
Mg IX	69.116	100	
Na VIII	69.120	300	
P VI	69.121	50	
Cu XII	69.128	30	
Mg IX	69.161	300	
Al	69.165	200	
Fe XIV	69.176		
Cr XIV	69.183		
Si VI	69.204	50d	
Cr XIV	69.221		
Si VI	69.236	250	
Sc XI	69.252	40	
Al IX	69.258	50d	
Na VII	69.314	10	
Mg VIII	69.327	10	
Mg IX	69.374	200	
Al	69.379	50	
Si VII	69.385	150	
Fe XIV	69.386		
Na VII	69.395	10d	
Mg VIII	69.413	400b	
Mg IX	69.413	400b	
Al VIII	69.420	50	
Si VI	69.421	50	
Si VI	69.448	100d	
Mg VIII	69.467	500b	
Mg IX	69.467	500b	
Al VIII	69.502	100	
Mg IX	69.513	100	
Fe XV	69.54		
Sc XI	69.575	100	
Mg VIII	69.577	100	
Si VII	69.580	100	
Fe XII	69.60	100	
Si VII	69.602	100	
Al VIII	69.611	200	
Mg VII	69.615	300b	
Mg IX	69.615	300b	
Al	69.631	200	
Si VIII	69.632	150	
Si VII	69.663	200	
Fe XIV	69.667		
Mg XII	69.71 P		
Al IX	69.716	100	
Al VIII	69.773	150	
Si VII	69.790	200b	
Si VIII	69.790	200b	
Al IX	69.850	50d	
Si VII	69.861	100	
Si VII	69.872	100	
Mg VII	69.900	10	
Si VIII	69.905	50	

Element	Wavelength	Intensity	Multiplet
Fe XV	69.945	200	
Mg IX	69.950	600	
Fe XV	69.987	300	
Fe XII	70.01	60	
Si VII	70.027	250	
Al	70.040	50	
Fe XV	70.054	400	
Si VII	70.072	250	
Al	70.090	100	
Si VII	70.123	20	
Al VIII	70.161	300	
Mg VII	70.193	100	
Fe XV	70.22		
Si VII	70.222	200	
Si VII	70.250	200	
Fe XIV	70.251		
V XIII	70.262		
Ti X	70.265	0	
Na	70.320	10	
Al VIII	70.323	200	
Si VII	70.323	50	
V XIII	70.323		
Al VIII	70.402	1	
Si VII	70.427	50	
Sc XI	70.445	200	
Si VIII	70.458	100	
Si VIII	70.473	100	
Sc XI	70.509	100	
Mg	70.512	10	
Fe XV	70.53		
Cu XI	70.550	40	
Mg	70.563	10	
Fe XV	70.59		
Si VII	70.594	100	
Fe XIV	70.613		
Na IX	70.615	700	
Ti X	70.625	1	
Na IX	70.653	600	
Cu XI	70.654	30	
Al VIII	70.727	250	
Si VII	70.730	50	
Na VIII	70.741	10	
Mg	70.762	100d	
Si	70.771	100d	
Mg	70.787	100d	
Cr XIII	70.792	100	
Al	70.802	50	
Mg IX	70.878	10d	
Cu XI	70.895	1	
Co IX	70.92	0	
Mg VIII	70.953	100	
Cr XIII	70.973	300d	
Ti XII	70.986	3	
Ne VII	70.990	300	
Mg VIII	71.007	200d	
Fe XIII	71.029		
Ti XII	71.031	6	
Ne VII	71.038	300	
Mn XV	71.038		
Cu XI	71.045	1	
Co IX	71.05	10	
Al	71.077	10	
Mg VIII	71.118	300	
Al	71.139	50	
Mg VIII	71.168	100	
Si VI	71.181	250	
Ti XI	71.201	1	
Si VI	71.273	100	
Al VIII	71.277	50	
Si VI	71.304	10	
Ti XI	71.323	3	
Si VI	71.340	10	
Si VI	71.366	150	
Fe XIV	71.377	10	
Si VI	71.384	200b	
Si VII	71.384	200b	
Na	71.386	10	
Cr XIII	71.398	300	
Cr XIII	71.435	50	
Mg VIII	71.454	100	
Si VI	71.474	50	
Co X	71.48	30	
Si VI	71.534	50	
Cu XI	71.536	20	
Ti XII	71.545	1	
Si VI	71.561	50	
Al	71.590	70	
Ti XI	71.603	6	
Cu XI	71.612	10	
Mg	71.621	10d	
Al	71.625	70	
Si VI	71.644	10	
Cu XI	71.707	10	
Si VI	71.718	10	
Mg	71.724	10d	
Al	71.774	10d	
Mg VII	71.786	100	
V XIII	71.799		
Cu XI	71.823	10	
Mg IX	71.841	100	
Cu XI	71.847	10	
Al	71.867	10d	
Fe XIV	71.87	8	
Sc XI	71.887	40	
Si VII	71.900	200	
Mg IX	71.901	200	
Mn XV	71.927		
Cu XI	71.951	1	
Si VII	71.955	200	
Al	71.987	10	
Ti XII	71.987	3	
Na VII	72.020	100	
V XIII	72.025		
Mg VIII	72.027	300b	
Mg IX	72.027	300b	
S VII	72.029	1000	
Co IX	72.04	10	
Na VII	72.079	100	
Ti	72.093	1	
Cu XI	72.098	30	
Fe XI	72.166		
Co IX	72.17	20	
Al VIII	72.223	200	
Mg IX	72.226	300	
Si VIII	72.228	200	
Ti XII	72.234	1	
Al VII	72.270	500d	
O VII	72.3	P	
Fe XI	72.310		
Mg IX	72.312	400	

Element	Wavelength	Intensity	Multiplet
Al VIII	72.324	200	
Si VII	72.324	300b	
Si VIII	72.324	300b	
Cu XI	72.369	2	
Al VIII	72.401	150	
Si VIII	72.420	200d	
Mg VI	72.430	100	
Co X	72.45	40	
Mg VII	72.546	10b	
Mg VIII	72.546	10b	
Cu XI	72.580	15	
K XIX	72.59		P
Fe XI	72.635		
S VII	72.663	1000	
Al	72.674	300	
Mg VIII	72.684	100d	
P VII	72.684	100	
Al VI	72.714	1	
Ti	72.772	1	
Mg VII	72.787	100	
Cu XI	72.792	5	
Fe XIV	72.796		
Al VI	72.810	250	
Fe IX	72.85	10	
Mg VII	72.852	10	
Na VII	72.865	200	
Al VI	72.865	50	
Mg VII	72.896	1d	
Si VI	72.896	50	
Al VI	72.926	100	
Fe XIV	72.95		
Cu XI	72.956	5	
Ti	72.991	1	
O VII	73.0		P
P VII	73.070	100	
Al VI	73.076	100	
Fe XIV	73.08		
S XVI	73.1		P
Mg VII	73.112	10	
Si VII	73.123	500	
Na	73.128	10	
Fe XV	73.198		
Mg VIII	73.250	400	
Al	73.278	100	
Ti XI	73.281	1	
Al VI	73.334	1	
Si VII	73.350	250	
Si VII	73.433	200	
Al IX	73.451	1	
Ne VIII	73.470	700	
Fe XV	73.473	30	
Cu XI	73.516	1	
Ne VIII	73.563	750	
Al IX	73.625	1	
Fe IX	73.63	20	
Co IX	73.66	20	
Al VIII	73.703	150	
Mg VIII	73.710	10	
Al VIII	73.733	100	
Cu XI	73.735	5	
Al VIII	73.760	10	
Mg VIII	73.773	10	
Co IX	73.79	30	
Mn IX	73.8		P
Mg VIII	73.825	100	
Mg VIII	73.862	200	
Al VIII	73.879	200	
Mg VIII	73.890	100	
O VII	73.9		P
Mg VIII	73.927	100	
Mg VIII	73.981	200	
Cu XI	73.982	2	
Al	74.016	120	
Mg VIII	74.021	300	
Mn XIV	74.063	20	
Al VII	74.095	100d	
Na VII	74.097	100	
Ni X	74.097	20	
Zn XI	74.173	60	
Na VII	74.180	200	
Si VIII	74.186	100	
Zn XI	74.213	80	
Na VII	74.217	200	
Ne VII	74.23	80	
Na VII	74.255	300	
Al	74.259	10	
Ni X	74.266	30	
Na VII	74.268	300	
Mg VIII	74.274	200b	
Mg IX	74.274	200b	
Mg VI	74.319	300b	
Mg VIII	74.319	300b	
Mg IX	74.319	300b	
Al	74.321	50	
Mn XIV	74.327	50	
Fe XIII	74.327	92	
Zn XI	74.337	160	
Al VI	74.346	50	
Mg VIII	74.366	400b	
Mg IX	74.366	400b	
Si VIII	74.371	20	
Ne VII	74.40		
Ne IX	74.4		P
Mg VIII	74.411	100b	
Mg IX	74.411	100b	
Zn XI	74.412	10	
Al VI	74.444	300	
Mg VI	74.461	10b	
Mg IX	74.461	10b	
Al VI	74.504	50d	
Mg IX	74.520	100	
Ne VIII	74.541	650	
Mg VI	74.574	200	
Al VI	74.592	150	
Cu XI	74.633	15	
Ne VIII	74.637	650	
Al VI	74.656	250	
Zn XI	74.669	10	
Mg VIII	74.676	100	
Zn XI	74.724	20	
Mg IX	74.738	100	
Al IX	74.785	50	
Al VI	74.813	50	
Cl XVII	74.82		P
Zn XI	74.836	20	
Al VIII	74.841	200	
Fe XIII	74.845	250	
Cu XI	74.856	1	
Mg VIII	74.858	600	
Na VII	74.861	300	

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Element	Wavelength	Intensity	Multiplet
Al VI	74.892	100	
Zn XI	74.896	10	
Zn XI	74.940	20	
P VI	74.951	400	
Na VIII	74.956	300	
Mn XIV	74.961	100	
Ne VII	74.962	380	
Al VIII	74.965	150	
Na VII	74.980	300b	
Na VIII	74.980	300b	
Mg VIII	75.034	700	
Na VIII	75.043	400	
Zn XI	75.050	10	
Al VIII	75.058	50	
Mn XI	75.059		
Na VIII	75.096	300	
Mg	75.112	100	
Al	75.164	100	
Mn XV	75.182		
Si VI	75.193	200b	
Si VII	75.193	200b	
Al	75.226	100d	
Mn XI	75.227		
Mg VI	75.248	100	
Al VII	75.270	250	
Mn XV	75.286		
Al VII	75.302	350	
Cu XI	75.325	25	
Mg VI	75.334	100d	
O VII	75.35	P	
Al VII	75.360	600	
Na VIII	75.385	100	
Al VIII	75.397	70	
Si VI?	75.398	150	
Zn XI	75.406	20	
Ti XI	75.415	1	
Na VIII	75.428	200	
Kr IX	75.45		
Cu XI	75.472	2	
Mn XI	75.477		
Si VI	75.486	50	
Al VIII	75.488	200b	
Ne VII	75.49	130	
O VII	75.5	P	
Na VIII	75.518	300	
Mg	75.528	10d	
Al VII	75.532	200	
Ne VII	75.55	120	
Al VIII	75.577	150	
Si VI	75.587	50	
Zn XI	75.590	120	
Al VIII	75.623	100	
Zn XI	75.635	10	
P VI	75.648	200	
Mg	75.666	300	
Zn XI	75.668	20	
Al VIII	75.734	50	
Al XIII	75.74	P	
Ne VII	75.765	500	
Al VIII	75.778	250	
Al VII	75.809	100	
Cr XII	75.815	200	
Mn XI	75.819		
Mg VI	75.834	200	
Al VII	75.850	100b	
Fe X	75.865		
Cu XI	75.866	2	
Mg XII	75.87	P	
Mn XI	75.879		
O VIII	75.89	P	
Mg VI	75.890	10	
Fe XIII	75.892	93	
Al VII	75.894	100b	
Al VIII	75.894	100b	
P VII	75.924	450	
Be IV	75.928	P 100	
Mg VII	75.975	400	
Al VIII	75.985	50	
Si VIII	75.986	50	
Fe X	76.006		
Al VII	76.010	50	
Fe XIV	76.022	35	
Cu XI	76.022	1	
Ti	76.030	1	
Al VII	76.086	10	
Fe XIII	76.117	20	
Na VIII	76.123	500	
Cr XIII	76.15		
Fe XIV	76.152		
Co IX	76.16	30	
Mg	76.169	100	
Na VIII	76.173	100	
Si VIII	76.198	20	
Mg VIII	76.199	100	
Na VIII	76.217	200	
Al VII	76.221	50	
Cu XI	76.256	5	
Al VII	76.257	100	
Kr IX	76.29		
O VII	76.3	P	
Co IX	76.30	40	
V XII	76.307	300	
Al VII	76.342	10	
Sc X	76.343	100	
P VII	76.344	200	
Mn XI	76.380		
Al VII	76.383	500	
Mg VII	76.392	300	
Ti XI	76.403	1	
Cu XI	76.406	10	
Al VII	76.422	500	
Mg IX	76.459	100	
Cr XII	76.488	300	
Ti	76.490	1	
Fe X	76.495	30b	
Na VII	76.501	10	
Fe XVI	76.502	30b	
Ne VII	76.515	140	
Fe X	76.53	P	
P VI	76.534	50	
Al VII	76.543	1000	
Na VII	76.565	10	
Al VII	76.572	1000	
Al VI	76.618	200	
Na VII	76.626	10d	
Al VI	76.697	200	
Mg VIII	76.714	100	
Ti XI	76.731	1	
Mg VIII	76.740	200	
Mn XI	76.763		

Element	Wavelength	Intensity	Multiplet
Mg VIII	76.788	300	
Al	76.794	200	
Fe XVI	76.796		
Kr IX	76.80		
Fe X	76.822		
Na VII	76.827	10	
Al	76.853	200	
Mn XI	76.858		
Na VII	76.862	10	
Mg VI	76.908	1	
Al VI	76.953	50	
V XII	76.960	50	
Al	76.984	100	
Fe XI	77.00	40	
Mg VII	77.033	100	
Al	77.052	50	
Na	77.076	10	
Mg VII	77.144	200	
Ne VII	77.25	220	
Na VIII	77.267	600	
Mn XI	77.270		
Ne VII	77.30	220	
Mg VI	77.301	10	
O VII	77.31		P
Al	77.315	10	
Na VII	77.353	100	
Al IX	77.381	150	
Ni XI	77.393	80	
Mn XI	77.402		
Mg VI	77.405	200b	
Mg VIII	77.405	200b	
Si VI	77.429	500	
Ti	77.435	1	
Al VII	77.448	150b	
Al IX	77.448	150b	
Fe X	77.45		P
Ti	77.506	1	
Mg VI	77.511	100b	
Mg VIII	77.511	100b	
Ti	77.541	1	
Mn XI	77.556		
Na VII	77.558	10	
Mg VIII	77.572	500	
Fe XII	77.58	60	
Al VIII	77.605	300	
Fe X	77.627		
Mg VI	77.639	10	
Mg VIII	77.671	500	
O VII	77.68		P
Si VI	77.718	300	
Fe X	77.728		
Mg VIII	77.737	600b	
Mg IX	77.737	600b	
Na IX	77.764	700	
Al VII	77.770	300	
Al VII	77.806	70	
Fe X	77.812		
Ti	77.823	1	
Fe X	77.865	20	
Al VII	77.896	500	
Na IX	77.911	800	
Sc XI	77.917	40d	
Ti	77.935	1	
Al VI	77.945	500b	
Al VII	77.945	500b	
P VII	77.969	250	
Na	78.023	10	
Mn XI	78.056		
V XIII	78.101		
Al VI	78.112	100	
Al	78.149	100	
Fe X	78.151		
Al VI	78.178	50	
Al VIII	78.225	1	
Mg VI	78.239	10	
Al	78.256	70	
P VII	78.285	400	
Ne IX	78.300	100	
Al VII	78.327	1000	
Mn XIV	78.35		
Al VII	78.351	1000b	
Al VIII	78.351	1000b	
Mg VII	78.376	10	
Mg VII	78.405	10	
P VII	78.414	150	
Mn XIV	78.42		
Al	78.421	10	
Mg VIII	78.446	600d	
Na VII	78.459	10	
Al VI	78.459	70	
Fe XIII	78.462	80	
Al	78.508	150	
Sc XI	78.509	100	
Mg VII	78.521	200	
Mn XIV	78.54		
Cu XI	78.542	120	
Fe XIII	78.56		
Al	78.573	70	
Mg VIII	78.574	600d	
Si V	78.611	50	
Al VI	78.628	10	
Mg	78.643	100d	
Ti X	78.655	1	
Mg	78.668	100d	
Al VI	78.712	10	
P VII	78.734	250	
Ni XI	78.744	60	
V XIII	78.746		
Fe X	78.769	20b	
Fe X	78.770	20b	
Na VII	78.771	10	
V XIII	78.783		
Cu XI	78.786	130	
Al	78.836	100	
Si V	78.903	50	
Na VII	78.907	300	
Sc XI	78.917	300	
Al	78.938	300	
O VII	78.94	50	
Na VII	78.982	200	
Al VII	79.012	500	
Ti XI	79.028	1	
Cu XXI	79.05		P
Mg VI	79.059	10d	
Ti XI	79.076	1	
Mn XIV	79.10		
Ti X	79.110	3	
Mg VII	79.131	500	
Mn XIII	79.16		
Mg VII	79.168	500	

Element	Wavelength	Intensity	Multiplet
Al VII	79.197	500	
Si VII	79.236	250	
Mg VII	79.248	100	
Si VII	79.262	50	
Al VIII	79.455	120	
Na VII	79.477	200	
Fe XII	79.488	30	
Si VII	79.491	100	
Si VII	79.523	100	
Al	79.557	10	
Na VII	79.571	100	
Si VII	79.615	100	
Na VII	79.620	100	
Al VII	79.635	10	
Al VII	79.690	150	
Mg VIII	79.695	200	
Mn XIV	79.720	100	
Na VII	79.761	10	
Mn XIV	79.761	200	
Al	79.783	50	
Na VII	79.786	10	
Mg VI	79.817	200	
Mn XIV	79.826	300	
Mg VI	79.830	400	
Mg VI	79.857	400	
Mg VIII	79.880	200	
Na VII	79.893	300d	
Al VII	79.919	300	
Al VII	79.952	250	
Na VII	80.008	300	
Al	80.014	10	
Fe XII	80.022	15	
Mg VI	80.032	200	
Mn XIV	80.06		
Mg VI	80.075	200	
Na VII	80.133	10	
Fe XII	80.160		
Na VII	80.174	10	
Mg VIII	80.229	400d	
Fe XII	80.23	24	
Na VII	80.245	100	
Mg VIII	80.255	400d	
Al VIII	80.320	10	
Na VI	80.345	10	
Mn XIV	80.38		
Co IX	80.38	50	
Si VI	80.395	250	
Al	80.403	10	
Mg IX	80.428	100	
Si VI	80.449	500	
Mn XIV	80.46		
Al VIII	80.483	10d	
Si VI	80.491	250	
Si VI	80.501	500	
P VII	80.507	50	
Ne VII	80.533	520	
Co IX	80.54	60	
Fe XII	80.55	35	
Mg VI	80.563	100	
Si VI	80.577	600	
Na VI	80.645	10d	
Si VI	80.698	500	
Al VIII	80.704	100	
Mg VI	80.724	10	
Si VI	80.725	500	
Na VIII	80.756	10	
Al VI	80.770	70	
Mg VIII	80.806	10d	
Si V	80.807	100	
P VII	80.813	100	
Si VI	80.821	400	
Mg VIII	80.889	100	
V XII	80.896	100	
Ar XVIII	80.9	P	
Si VI	80.908	400	
F IX	80.91	P	
Cr XIV	80.916		
Mg VI	80.930	200	
N VII	80.96	P	
Mg VII	81.024	100	
Si VI	81.030	350	
Mn XIV	81.05		
V XII	81.077	200	
V XII	81.098	50	
Mg VI	81.106	300	
Si V	81.113	100	
Ti XI	81.119	1	
Mg VII	81.133	300	
Fe XIII	81.161		
Na IX	81.175	500	
Al VI	81.176	50	
Na VIII	81.210	500	
Al VII	81.234	50	
Mg VIII	81.304	100	
Ti	81.306	1	
Al VI?	81.339	10	
Na IX	81.350	500	
Mg VIII	81.368	10	
Ne VII	81.37	110	
Na VII	81.430	100	
Si VII	81.449	50	
Na VI	81.498	200b	
Na VII	81.498	200b	
O VII	81.50	100	
Co XI	81.507	300	
V XII	81.513	400	
Na VI	81.543	100d	
V XII	81.550	50	
Si VII	81.558	250	
Al	81.560	100	
Na VI	81.584	100d -A	
Si VII	81.620	600	
Fe XII	81.651	80	
Al	81.667	100	
Mg VIII	81.732	300	
Al VI	81.738	50b	
Al VII	81.738	50b	
Mg VIII	81.790	200	
Al VII	81.806	200d	
Cr XIV	81.838		
Mg VIII	81.844	400	
Na VII	81.855	400	
Be III	81.89		
O VII	81.89	150	
Si VII	81.895	500	
Mg VIII	81.943	200	
Fe XII	81.943	93	
Mg VIII	81.979	200	
Si VII	81.998	150	
Al VI	82.082	70	

Element	Wavelength	Intensity	Multiplet
Al	82.105	70	
Mg	82.111	10	
Ti XII	82.121	90	
Al	82.128	70	
Ne VII	82.198	500	
Fe XII	82.226		
Mg VI	82.238	200b	
Mg VIII	82.238	200b	
Al VI	82.267	50	
Ne VII	82.268	700	
Ti XII	82.307	6	
Mg VIII	82.317	300	
Al VI	82.338	10	
Ti XII	82.344	20	
Ti XII	82.368	6	
Be III	82.38		
Al	82.423	50	
Fe IX	82.43	30	
Mg VI	82.475	100	
Na VII	82.516	10	
Co XI	82.527	70	
Al VIII	82.543	150	
Al	82.582	50	
Mg VIII	82.598	200	
Si	82.622	50d	
Na VII	82.636	10	
Na VII	82.685	10	
Mg VIII	82.709	200	
Fe XII	82.744		
Co XI	82.759	200	
Mn X	82.78	400	
Mg VIII	82.822	300	
Fe XII	82.837	35	
Mg VI	82.853	100	
Ni X	82.892	2	
Al	82.908	50d	
Mg VII	82.940	400	
Mg VII	82.969	400	
Na XI	82.97		P
Si VI	83.006	200	
Mg VII	83.015	500d	
Mn X	83.03	200	
Al	83.102	10	
Ni X	83.108	25	
Si VI	83.128	750	
Na VII	83.180	100	
Co XI	83.190	300	
Be III	83.20		
P XV	83.2		P
Mn XIII	83.23		
Na VIII	83.240	700	
Si VI	83.258	250	
Si VI	83.283	50	
Na VIII	83.288	800	
Fe XX	83.3		
Ni X	83.326	2	
Al	83.335	10	
Si VI	83.358	400	
Na VIII	83.391	900	
Mg VI	83.403	400b	
Mg VII	83.403	400b	
Mn XIII	83.41		
Fe IX	83.45	40	
Al VIII	83.465	50	
Mn X	83.48	350	
Mg VI	83.519	300b	
Mg VII	83.519	300b	
Mn XIII	83.52		
Si VI	83.526	400	
Mg VI	83.560	200b	
Mg VII	83.560	200b	
Mg VII	83.587	200	
Si VI	83.611	400	
Mg VII	83.635	10	
Al VIII	83.635	10	
Na VI	83.639	100	
Si VI	83.639	150	
N VII	83.65		P
Ni X	83.676	10	
Si VI	83.684	50	
Mg VII	83.716	300	
Si VI	83.729	50	
Sc X	83.760	40	
Mg VII	83.766	500	
Mn XIV	83.78		
Si VI	83.802	300	
Ni XX	83.82		P
Al VII	83.831	350	
Co XI	83.861	100	
Sc X	83.901	100	
Mg VII	83.910	300	
Sc XI	83.958	40	
Mg VII	83.959	400d	
Si VI	83.965	10	
Al VII	84.007	200	
Mg VII	84.025	500	
Co XI	84.039	200	
Na VIII	84.050	500	
Si VI	84.082	600b	
Si VII	84.082	600b	
Mg VII	84.087	300b	
Mg VIII	84.087	300b	
Mn XIV	84.09		
Al VII	84.098	100	
Mg VII	84.189	10	
Ni X	84.194	2	
Mn X	84.2		P
Sc X	84.204	200	
Ne VII	84.212	200	
Na VII	84.221	400	
Fe XIII	84.275		
Mn X	84.28	200	
Ne VII	84.292	200	
Sc XI	84.351	40	
Sc XI	84.393	50	
Ni X	84.418	5	
Sc XI	84.433	100	
Al	84.479	10	
S XVI	84.48		P
Fe XII	84.491	25	
Cr XIII	84.616	50	
Mg VII	84.642	500	
Al VI?	84.650	100	
Ni X	84.659	5	
Ti X	84.711	6	
Mg VI	84.745	200d	
Be III	84.758	100	
Fe XII	84.768		
Sc	84.777	100	
Al VI?	84.801	20	

Element	Wavelength	Intensity	Multiplet
Mg VIII	84.827	10d	
Al VI?	84.828	70	
Na VII	84.832	10	
Ti XI	84.835	6	
Cr XIII	84.898	200	
Mg VIII	84.919	100	
Al VI?	84.928	10	
Al	85.046	1	
Mg VIII	85.064	10	
Mg	85.091	10	
Fe XII	85.14		
Mg VI	85.153	10b	
Mg VIII	85.153	10b	
Si V	85.175	500	
Al	85.189	10	
Ne VII	85.19	150	
Si VII	85.219	100	
Mg VIII	85.248	200	
Na VII	85.260	300	
Ti X	85.262	10	
Si VII	85.289	500	
Ne VII	85.29	190	
Ti XI	85.290	3	
Na VII	85.297	300	
Mg VII	85.336	10	
Mg VII	85.407	700	
Al VI	85.423	100	
Ne VII	85.43	340	
Na VII	85.458	400	
Fe XII	85.477	30	
Al VI	85.515	1000	
Ni X	85.523	25	
Cr XIII	85.566	300	
Al VI	85.569	200	
Mg VI	85.577	200	
Si V	85.579	300	
Si VII	85.584	500	
Mg VIII	85.599	300	
Si	85.614	20	
Mg VI	85.622	300	
Al VI	85.622	300	
Al V	85.662	50	
Fe XII	85.669		
Si VII	85.698	100	
Al VI	85.724	300	
Mg VIII	85.749	400	
Ni X	85.753	5	
Al VI	85.764	400	
Al V	85.804	350	
Al VI	85.817	350	
Na VIII	85.826	200	
Na VIII	85.861	300	
Al VI	85.865	100b	
Na VIII	85.887	300	
Al V	85.922	10b	
Na VIII	85.936	100	
Al VI?	85.970	10	
Na VIII	85.992	300	
Al VI	86.020	150	
Mg VII	86.032	200d	
Na VIII	86.039	500	
Cr XIV	86.057		
O VII	86.07	200	
Al VI	86.070	150	
Al VI	86.097	150	
Mg VII	86.147	10	
Al VI	86.147	200	
Fe XI	86.149	10	
Cu X	86.160	100	
Cr XIV	86.164		
Cu X	86.204	100	
Mg VIII	86.234	100	
Al	86.282	50	
Ni X	86.300	60	
Cu X	86.336	140	
Mg VIII	86.359	100	
Al	86.360	100	
Na VIII	86.381	400	
Al	86.393	100	
Na VIII	86.417	500	
Mg VIII	86.417	200d	
Cu X	86.422	10	
Al	86.427	100	
Mg VIII	86.440	200d	
Ni X	86.464	5	
Ne VII	86.47		
Na VIII	86.479	600	
Fe XI	86.513	100	
Na VIII	86.530	100	
Al	86.540	10	
Na VII	86.596	400	
Na VII	86.652	500	
Al VII	86.671	10	
Al VII	86.689	50	
Cu X	86.720	10	
F VII	86.728	10	
Na VII	86.758	300b	
Na VIII	86.758	300b	
Mg VII	86.762	100	
Fe XI	86.772	200	
Cu X	86.776	90	
Cu X	86.792	10	
Mg VI	86.807	200	
Ne VII	86.818	190	
Mg VIII	86.847	200	
Ni X	86.865	2	
Al VII	86.887	750	
Na	86.890	10	
Cu X	86.907	90	
Cu X	86.964	1	
Al	86.975	10	
Mg VIII	87.017	100	
Cu X	87.018	90	
Al V	87.020	100	
Fe XI	87.025	120	
Al VII	87.060	600	
Ni X	87.077	1	
Mg VII	87.131	500d	
Cu X	87.135	1	
Na VI	87.141	100b	
Na VII	87.141	100b	
V XI	87.166	600	
Mg VII	87.175	400d	
Al VII	87.176	300	
Na VI	87.211	700b	
Na VIII	87.211	700b	
Mn IX	87.24	150	
Al V	87.279	50d	
Mn XIII	87.30		
Ni X	87.317	25	

Element	Wavelength	Intensity	Multiplet
Al VI	87.334	400	
V XII	87.36		
Mn XIII	87.40		
Mg VI	87.406	10	
Mn XV	87.47		
Na VII	87.471	10	
Cu X	87.516	50	
Mn IX	87.52	200	
Na	87.524	200	
Al VI	87.544	350	
Al VI	87.592	500	
Al VI	87.629	100	
Al VI	87.655	650	
Mg	87.660	10	
Ni X	87.680	15	
Cu X	87.703	100	
Mg VII	87.722	600	
Ti XI	87.725	35	
Mg VII	87.767	400	
Al VI	87.783	250	
Mn IX	87.79	100	
Mn XV	87.80		
Al VI	87.802	250	
Ne VII	87.85	200	
Al VI	87.866	350	
V XI	87.868	800	
Al VI	87.887	250	
Mg VII	87.889	500	
Al	87.932	100	
Cu X	87.932	100	
Mn IX	87.94	300	
Ti	87.972	6	
Cu X	87.983	40	
Fe XI	87.995	10	
Si VII	88.008	150	
Mg VIII	88.016	200	
Cu X	88.020	60	
Fe XI	88.029	10	
Cu X	88.032	120	
Al VII	88.033	900	
Na VI	88.038	100	
Ne VIII	88.092	850	
Al	88.108	100	
Na VI	88.143	200d	
Fe XI	88.167	10	
Al VI	88.170	1000	
Na VI	88.223	100	
Mn IX	88.23	250	
Al	88.241	10	
Na VI	88.246	200	
Na VI	88.270	300d	
Al VI	88.273	750	
Ti	88.284	1	
Be III	88.314	330	
Al VI	88.325	100	
Na VI	88.340	100d	
Al VI	88.376	750	
Na VI	88.387	10	
Mn IX	88.40	300	
Al V	88.425	100	
Co IX	88.44	70	
Na VI	88.460	100	
Al VI	88.469	250	
N VII	88.51	P	
Al V	88.539	400b	
Na VI	88.583	100	
Co IX	88.63	80	
Al V	88.636	100b	
Ti	88.642	1	
Mg VII	88.680	600	
Al V	88.688	200b	
Al VI	88.688	100b	
Na VII	88.698	200	
Mn IX	88.74	200	
Na VII	88.747	300	
Co XIX	88.81	P	
Al V	88.817	50	
Mg VI	88.827	200	
Si XII	88.84		
Na VII	88.865	400	
Mn IX	88.89	200	
Mg XII	88.91	P	
Na VII	88.914	200	
Al V	88.945	1	
Mg VI	88.952	200	
Ti	88.961	1	
Co X	88.99	90	
Ne VII	89.02	130	
Mg VI	89.021	10	
Fe XI	89.104	200	
Ti	89.181	1	
Fe XI	89.185	100	
Mg	89.256	100	
Mn XIX	89.3		
Ne VII	89.368	500	
Mn IX	89.39	P	
Mg VII	89.407	200	
Mg VII	89.448	200	
Mg VII	89.476	10	
Mg	89.556	10	
Fe X	89.577	10	
Mg VI	89.649	10	
Fe XI	89.703	10	
Sc X	89.736	40d	
Na VIII	89.759	200	
Mn IX	89.77	200	
Fe XI	89.771	10	
Ti	89.814	3	
Na VIII	89.818	300	
Ti XII	89.844	60	
Mn IX	89.89	200	
Na VIII	89.948	400	
Cr XIII	89.99		
Mn IX	89.99	400	
Fe XIX	90.0		
Cr XIII	90.07		
Mn IX	90.08	450	
Mg	90.165	10	
Cr XIII	90.17		
Fe XI	90.170	10	
Na VII	90.173	100	
Al VI	90.200	1000	
Fe XI	90.205	100	
Na VII	90.252	400b	
Na VIII	90.252	400b	
Na XI	90.31	P	
Mg VII	90.338	100	
Fe XI	90.345	10	
Mn XII	90.373		
Si V	90.453	200	

Element	Wavelength	Intensity	Multiplet
Mg	90.463	10	
Na VI	90.468	300	
Co X	90.47	80	
Fe XV	90.503	10	
Ti XII	90.512	90	
Na VIII	90.536	500	
Ti XII	90.547	6	
Al VII	90.550	300	
Mn IX	90.60		
Al V	90.630	250b	
Al VII	90.630	250b	
Al V	90.646	100	
P VI	90.647	500	
Cl XVII	90.7		P
Al V	90.701	200	
Mn XII	90.701		
Mg VII	90.706	400	
Na VI	90.746	10	
Al VII	90.772	200	
Cu XXI	90.81		P
Mg VII	90.815	300	
Na VII	90.830	10	
Cr XIII	90.85		
Si V	90.852	200	
Al VI	90.858	600	
Cr XII	90.86		
Mg VI	90.897	600b	
Mg VII	90.897	600b	
Ti XI	90.908	1	
Al V	90.914	200	
Ti XI	90.927	3	
Ti XI	90.966	3	
Al V	90.982	50d	
Fe XIV	91.009	20	
Mg	91.013	10	
O VII	91.02	250	
Mn IX	91.02	400	
Al	91.023	500	
Na VII	91.064	200	
Al V	91.078	10	
Mg	91.129	10d	
Na VI	91.268	100	
Fe XIV	91.273		
Mg VII	91.302	10d	
Al VI	91.332	500	
Si VI	91.369	200	
Mg IX	91.385	10d	
Fe XI	91.394		
Na VI	91.414	10d	
Mg VII	91.460	10d	
P VI	91.471	500	
Fe XI	91.472		
Na VI	91.475	10	
Al VIII	91.487	50	
Ni X	91.527	40	
Ne VII	91.564	260	
Mg VII	91.573	100	
Fe XI	91.63		
Mn XI	91.646		
Fe XI	91.733		
Na VI	91.737	10	
Cr XIII	91.749	200	
Al V	91.750	50	
Ni X	91.790	60	
Cr XIII	91.792	300	
Si VI	91.798	200	
Ti X	91.806	0	
Na VI	91.836	10	
Ti X	91.855	0	
Cr XIII	91.855	400b	
Na VII	92.003	500	
Cr XIII	92.01		
Al V	92.039	10	
Mg VIII	92.123	100d	
Cr XIII	92.16		
Mn XI	92.240		
Mg VII	92.256	300	
Ti	92.272	1	
Mg VIII	92.324	10	
Mg V	92.409	10d	
Mg V	92.428	10d	
Mg VII	92.503	10	
Mg V	92.534	10	
Cr XIII	92.54		
Ti	92.581	1	
Mg V	92.588	10	
Na VI	92.608	10d	
Cr XIII	92.61		
Al VI	92.626	750	
Al VI	92.636	200	
Mn XI	92.640		
Mg V	92.641	10	
Mg	92.685	10	
Na VII	92.774	200	
Na VII	92.809	100	
Fe XI	92.81		
Na VII	92.843	100	
Ne VII	92.850	90	
Fe XI	92.87		
Al VI	92.875	500	
Na VII	92.883	100	
Mg VII	92.898	200	
Na VII	92.930	200	
Mg VII	92.934	200	
Si	92.957	50d	
Mg VI	92.964	100b	
Mg VII	92.964	100b	
Al VI	92.970	250	
Na VII	92.976	400	
Fe XI	93.02		
V XIII	93.025		
O VI	93.03	100	
Ca X	93.069	25	
Na	93.070	10	
Mg V	93.109	100b	
Mg VI	93.109	100b	
Na VIII	93.120	100	
Na VIII	93.197	10	
Na VIII	93.242	200	
Al VII	93.269	10	
Al VII	93.295	120	
Na VIII	93.339	10	
Na VII	93.393	400	
Sc IX	93.393	100	
Ti XI	93.395	6	
Cr XIII	93.42		
Fe XI	93.433		
Na VII	93.434	400	
Fe VIII	93.46	100	
Na VII	93.486	500	

Element	Wavelength	Intensity	Multiplet
Mg VI	93.493	300	
Ca X	93.502	50	
Al VII	93.516	100	
Na VII	93.528	100	
Al VII	93.542	1	
Ti XI	93.589	20	
Fe VIII	93.61	200	
Ti XI	93.626	10	
Mg VIII	93.650	200d	
Al V	93.654	20	
Na VIII	93.670	400	
Mg	93.720	100d	
Al V	93.755	350	
Fe XX	93.8		
O VI	93.84	150	
Al V	93.855	200	
Al V	93.880	70	
Sc IX	93.889	100d	
Na VIII	93.898	200	
Ti	93.909	10	
Mg VIII	93.911	10	
Fe XVIII	93.94	400	
Al V	93.955	300	
Mg VIII	93.972	10	
Al V	93.981	100	
V XIII	93.994		
Fe X	94.012	400	
Na VII	94.020	10	
Mg VII	94.043	400b	
Mg VIII	94.043	400b	
Ti XI	94.053	35	
Ti XI	94.085	3	
Al V	94.089	70	
Al V	94.117	120	
Al V	94.160	100	
Mg VII	94.174	300	
Al V	94.187	100	
Na VI	94.208	100	
Mg VII	94.276	200b	
Mg VIII	94.276	200b	
Na VII	94.288	600	
Ne VII	94.29	400	
Al V	94.321	10	
Mn XI	94.327		
Ne VII	94.36	500	
Al V	94.394	10	
Ne VII	94.40	400	
Na VII	94.468	700	
Ti	94.570	3	
Mg	94.721	100	
Mg V	94.793	10	
Na VI	94.827	10d	
Sc XI	94.888	600	
Ne VII	94.890	300	
Al	94.970	150	
Ni XX	94.97	P	
Ne VII	94.986	300	
O VI	95.02	200	
Sc X	95.02	40	
Mg VII	95.027	400	
Sc X	95.05	40	
Mg VII	95.089	10	
Sc X	95.09	40	
Sc XI	95.117	500	
Mg VII	95.139	100	
Na VI	95.182	100	
Mg VII	95.233	100	
Mg VII	95.259	200	
Na VI	95.263	100	
Ti	95.293	3	
Mn XI	95.299		
Na VI	95.319	10	
Fe X	95.338	100	
Fe X	95.374	300	
Mg VI	95.385	400b	
Mg VII	95.385	400b	
Mn XI	95.390		
Al	95.405	10	
Mg VI	95.421	400b	
Mg VII	95.421	400b	
Al VI	95.436	100	
Mg VI	95.483	500b	
Mg VII	95.483	500b	
Si XIV	95.5	P	
Na VIII	95.551	200	
Mg V	95.556	100b	
Mg VII	95.556	100b	
Mg V	95.592	10	
Al	95.624	100	
Mg VI	95.637	300b	
Mg VII	95.637	300b	
Ti	95.640	3	
Mg VI	95.675	300	
F VII	95.697	10	
Al	95.720	200	
Ne VII	95.75	700	
Cr XVIII	95.76		
F VII	95.775	100	
Na	95.796	10	
Mg V	95.803	200	
Mg VI	95.803	200	
Al V	95.835	100	
Ne VII	95.84	250	
Co IX	95.852	2	
Al	95.859	10	
Mg V	95.909	100d	
Ti	95.929	3	
Na VI	95.933	300	
Mg V	95.965	100	
Al VII	95.965	200d	
Ti	96.017	3	
Na	96.018	100	
Mg V	96.019	200b	
Mg VII	96.019	200b	
Si VI	96.020	500	
Al VI?	96.071	10	
Co IX	96.076	40	
Mg V	96.085	100b	
Mg VI	96.085	100b	
Cr XII	96.11		
O VII	96.12	300	
Fe X	96.122	400	
Na VI	96.124	10	
P XV	96.13	P	
Al V	96.150	50	
Mg V	96.159	10b	
Mg VI	96.159	100	
Ti	96.170	1	
Na VI	96.196	100	
Al VII	96.198	50	

Element	Wavelength	Intensity	Multiplet
Mn XVIII	96.22		
Mg VI	96.240	100	
Ti	96.246	1	
Mg VI	96.256	200	
Mg VI	96.303	200	
Co IX	96.305	5	
Na VI	96.307	100	
Al VII	96.319	10	
Mn VIII	96.33	60	
Cr XII	96.35		
Mg VI	96.388	100	
Si V	96.439	750	
Al VI	96.442	10	
Mg VI	96.467	10	
Na VI	96.475	300	
Si VI	96.488	500	
Cr XII	96.50		
Co IX	96.541	10	
Na	96.572	10	
Mg VI	96.670	200	
Al VI	96.673	50d	
Mg VI	96.704	200	
Ti	96.731	3	
O VI	96.78	250	
Fe X	96.788	200	
Mg VI	96.797	100	
Na VII	96.845	100	
Mg VI	96.857	100	
Cr XIII	96.86		
Na VII	96.872	200	
Mg VI	96.903	10	
Na VII	96.922	300	
Mg VI	96.939	400	
Al	96.939	10	
Mg VI	96.973	400	
Fe X	97.122	300	
Ti	97.142	1	
Si V	97.143	500	
Cr XIII	97.25		
Mg VI	97.251	500	
Mg VI	97.278	500	
Co IX	97.355	5	
Mg V	97.391	100	
N VI	97.4		P
Mn VIII	97.41	70	
Mg V	97.439	200	
Mg VIII	97.465	200	
Ne VII	97.502	730	
Mg VIII	97.525	10	
Mg V	97.563	100	
Co IX	97.587	15	
Fe X	97.591	10	
Mg V	97.606	200b	
Mg VIII	97.606	200b	
Na VI	97.636	10	
V XII	97.642	50	
Mg V	97.686	100b	
Mg VIII	97.686	100b	
Sc XI	97.777	300	
Na VII	97.790	100	
Sc XI	97.830	400	
Fe X	97.838	10	
Co IX	97.854	15	
Na VII	97.907	200	
V XII	97.938	200	
Na VII	98.016	100	
Mn XI	98.023		
Mg VII	98.032	300	
Mn XI	98.064		
Na VII	98.080	300b	
Na VIII	98.080	300b	
Ne VIII	98.115	850	
Fe XIII	98.128	25	
Sc	98.180	200	
Na VII	98.188	300	
Sc	98.192	100	
Si V	98.209	100	
Mg V	98.235	100	
Ne VIII	98.260	870	
Mg V	98.271	200	
N VI	98.3		P
Na VI	98.3	20	
Sc	98.323	300	
Fe VIII	98.37	200	
Na VII	98.378	300	
Fe XIII	98.387		
Na VII	98.394	300	
Mg V	98.406	100	
Mg V	98.444	100	
Mn XI	98.477		
Mg VI	98.508	300	
Fe XIII	98.523	15	
Mn XI	98.538		
Fe VIII	98.54	300	
V XII	98.630	300	
Mg V	98.636	200	
Al VI?	98.684	10	
F VIII	98.707	10	
F VIII	98.799	10	
Mg V	98.805	200	
Fe XIII	98.826		
Mg V	98.872	100	
Sc	98.889	300d	
Sc	98.911	100	
Mg V	98.983	400b	
Mg VI	98.983	400b	
Mg VII	98.983	400b	
Na VI	99.004	10	
Mn XI	99.02		
Mg V	99.025	200b	
Mg VI	99.025	200b	
Co IX	99.042	40	
F VI	99.044	10	
Kr X	99.06		
Mg V	99.067	200	
Si VI	99.095	500	
Mn XIX	99.1		
F VI	99.105	15	
N VII	99.13		P
Mg V?	99.149	10	
Al V	99.200	50	
F VI	99.203	10	
Mg V	99.205	1	
Mg VI	99.279	400	
Co IX	99.284	1	
Al V	99.290	500	
Co XIX	99.30		P
Mg VI	99.333	400	
Mn XI	99.356		
Ti	99.377	6	

Element	Wavelength	Intensity	Multiplet
Na VII	99.421	400	
Al V	99.427	200	
Si VI	99.460	750	
N VI	99.5		P
Na VI	99.500	10	
V XIII	99.523		
Mg V	99.535	100	
Al V	99.544	100	
Na VII	99.556	400	
Kr X	99.57		
Si VI	99.598	500	
Mg V	99.610	200	
Al V	99.616	350	
Na VI	99.617	100	
V XIII	99.625		
O VI	99.68	250	
Na VI	99.680	100b	
Na VII	99.680	100b	
Kr X	99.69		
Mg VI	99.713	300	
Mg VI	99.738	300	
Al V	99.769	20	
Mg V	99.788	100	
Kr X	99.86		
Co IX	99.921	90	
Si VI	99.966	500	
Mn XVII	100.00		
Kr X	100.11		
Mn X	100.173	100	
Mg	100.196	100	
Ti	100.208	6	
Co IX	100.210	15	
Be III	100.2552	1000	
Kr X	100.30		
Na VII	100.337	100	
Ti	100.359	3	
Mg VII	100.374	100	
Ne X	100.41		P
Mg VII	100.421	100	
Na VI	100.469	200	
Na VI	100.519	300	
Mg VIII	100.519	10	
Mg	100.545	200	
Mn X	100.585	200	
Na VI	100.590	100	
Fe X	100.590	400	
Ti XI	100.591	6	
Mg VIII	100.597	200	
Al VI	100.616	600	
Co IX	100.636	2	
Ti	100.638	3	
Al VI	100.639	100	
Si VI	100.640	500d	
Ca IX	100.645	40	
Sc	100.676	100	
Mg VI	100.702	500	
Na VII	100.718	200	
Sc X	100.739	100	
Sc	100.781	100	
Mn X	100.787	100	
Ti	100.835	20	
Co IX	100.856	1	
Na V	100.88	10	
Al VI	100.894	200	
Mg VI	100.904	400	

Element	Wavelength	Intensity	Multiplet
Al VI	100.919	200	
Sc	100.924	100	
Na V	100.945	10	
Mg V	100.949	10	
Ca IX	100.958	80	
Si VI	100.963	50	
Al VI	101.027	150	
Cr XIV	101.05		
Ca XX	101.1		P
Co IX	101.107	2	
Ti	101.111	3	
Si VI	101.160	10	
Kr X	101.20		
Na VII	101.201	10	
Mg	101.322	100	
Na VI	101.348	10	
Ti X	101.353	35	
Cr XII	101.39		
Kr X	101.39		
Mg	101.398	10	
Co IX	101.410	2	
Cr XIV	101.42		
Fe X	101.435		
N VI	101.46		P
Cr XII	101.46		
Fe XIX	101.5		
Mg VI	101.508	200d	
Mg VI	101.556	300	
O VI	101.57	100	
Ni IX	101.657	80	
Mg V	101.671	300	
Be III	101.7		P
Ni IX	101.701	80	
Fe X	101.733		
Mg V	101.782	300	
Na VII	101.785	300	
Mn X	101.808	50	
Na VII	101.816	300	
Mg V	101.845	100	
Fe X	101.846		
Ni IX	101.846	100	
Mn X	101.854	50	
Cr XVII	101.91		
Sc	101.918	200	
Ni IX	101.932	20	
Mg VII	101.956	200	
Ca X	101.977	50	
Sc X	101.978	600	
Mn X	102.030	50	
Na VIII	102.043	10	
Sc IX	102.047	50	
Mg VII	102.053	10	
Ca VIII	102.067	10	
Mg V	102.079	200	
Fe X	102.095		
Ti X	102.106	20	
Mg VII	102.138	100	
Kr X	102.16		
Mg VI	102.189	500	
Fe X	102.192		
Na VII	102.226	100	
Mg VI	102.239	500	
Kr X	102.24		
Sc	102.251	300	
Ni IX	102.283	10	

Element	Wavelength		Intensity	Multiplet
O VI	102.30		150	
Kr X	102.30			
Ni IX	102.340		60	
Fe X	102.348			
Ni IX	102.364		1	
Na VII	102.390		100	
S XVI	102.4	P		
O VIII	102.43	P		
Na VII	102.448		10	
Mg VII	102.471		300	
Ni IX	102.480		60	
Ca VIII	102.482		50	
Ni IX	102.539		1	
Ti	102.576		6	
N VI	102.6	P		
Ni IX	102.602		100	
Sc IX	102.653		100	
Ni IX	102.710		1	
Kr X	102.72			
Fe X	102.829			
Sc	102.835		230	
V XVII	102.84			
Si VI	102.846		50	
Li III	102.856	P		
Kr X	102.86			
Sc	102.868		100	
Mg VII	102.906		300	
Ne VIII	102.911		790	
Sc	102.975		100	
Na VI	103.002		10	
Al VI	103.062		10	
Na VI	103.078		100	
Ne VIII	103.085		830	
Ne VII	103.09			
Si VI	103.163		100	
Fe X	103.164			
Na VI	103.210		200	
O VI	103.26		200	
Mn X	103.269		300	
Kr X	103.27			
Fe X	103.319			
Mg V	103.333		10	-A
Na VII	103.354		100	
Li III	103.359	P		
Na VII	103.400		10	
Ni IX	103.428		40	
Na V	103.482		10	
Mn X	103.521		200	
Fe IX	103.566		80	
N VI	103.6	P		
Kr X	103.60			
Ni IX	103.620		80	
Fe X	103.724			
Mg VII	103.743		10	
Na VII	103.779		300	
Al V	103.805		500	
Na VII	103.842		200	
Mg VII	103.859		10	
Ni IX	103.871		60	
Al V	103.881		700	
Na VII	103.891		400d	
Mg V	103.904		400	
Ni IX	103.926		1	
Al VI	103.940		300	
Mg V	103.947		300	

Element	Wavelength		Intensity	Multiplet
Fe XVIII	103.96		200	
Ni IX	103.981		100	
Al V	103.990		200	
Ni IX	103.993		100	
Na VII	104.000		200	
Ti	104.015		6	
Na VII	104.036		220	
Al VI	104.047		1000	
Al V	104.073		500	
Mg V	104.100		200	
Al V	104.121		600	
Cr VII	104.13		40	
Mg V	104.140		200	
Li III	104.142	P		
Sc XI	104.142		40	
Al V	104.180		700	
Mg V	104.182		100	
Mg V	104.214		100	
Sc XI	104.219		40	
Al	104.227		10	
Fe X	104.248			
Mn X	104.310		50	
Na	104.314		10	
Mg	104.342		300	
Al VI	104.344		800	
Ti	104.348		6	
Al V	104.363		500	
Mg V	104.432		200	
Sc XI	104.435		500	
Na	104.440		10	
Al V	104.447		500	
V XII	104.45			
Al VI	104.466		400	
Ti	104.466		1	
Al V	104.495		400	
Be III	104.5		f	
Ti X	104.516		0	
Mg VI	104.519		300	
Ti X	104.568		0	
N VI	104.58	P		
V XII	104.58			
Sc	104.592		300	
Mg VI	104.597		500	
Mn X	104.608		100	
Fe X	104.638			
Sc	104.658		100	
Ti	104.659		3	
V XII	104.66			
O VI	104.67		250	
V XI	104.74			
Mn X	104.806		50	
O VI	104.811		350	
Br IX	104.85			
Ti	104.861		3	
Na VII	104.871		200	
Cr XVIII	104.94			
Na VII	104.955		300	
Al	104.960		10	
N VI	105.0	P		
Mg	105.066		500	
V XI	105.08			
Na VII	105.111		300	
Sc XI	105.140		600	
Cr VII	105.14		160	
Mg VII	105.159		100	

Element	Wavelength	Intensity	Multiplet
Sc XI	105.170	200	
Na VII	105.205	200	
Fe IX	105.208	60	
Mn IX	105.256	50	
V XI	105.34		
Na VII	105.354	400	
Mg VI	105.410	200	
Li III	105.468		P
V XII	105.49		
Mg VI	105.502	300	
Sc	105.578	300	
Mg VI	105.778	100	
Na XI	105.82		P
Mg VI	105.830	100	
V XI	106.00		
Ne VII	106.040	300	
Na VI	106.040	300	
Na VI	106.077	300	
Ne VII	106.086	800	
Na VI	106.125	400	
Ne VII	106.192	800	
Na V	106.278	100	
Fe XIX	106.3		
Na V	106.302	100	
Na	106.345	200	
Na V	106.399	100	
V XI	106.42		
Mg	106.453	200	
Al	106.471	10	
Na V	106.490	100	
Mg VII	106.524	200d	
Sc X	106.557	100	
Na VI	106.580	10	
Cr XVI	106.60		
Sc	106.655	100d	
Na	106.703	10d	
Mg VII	106.707	100	
V XII	106.781	200	
O VI	106.79	300	
Mg VII	106.809	10	
V XII	106.820	300	
V XII	106.885	400	
Na VI	107.014	200	
Na VI	107.061	300b	
Na VII	107.061	300b	
Na VI	107.093	300b	
Na VII	107.093	300b	
Ne VII	107.099	200	
N VI	107.15		P
Na VI	107.158	100b	
Na VIII	107.158	100b	
Na VI	107.227	300	
V XII	107.25		
Sc	107.273	100	
Na VI	107.288	400	
Mn X	107.34		
Mn X	107.36		
Fe XIII	107.384		
Mn X	107.39		
Mn X	107.472		
Na VI	107.535	300	
Na VI	107.553	300	
V XI	107.57		
Na VI	107.608	400	
Al VI	107.620	700	
Mg V	107.661	200	
Na VI	107.683	500	
Al V	107.711	300	
Na VI	107.742	200	
Ti	107.801	3	
Mg VI	107.820	400	
V XII	107.83		
Fe VIII	107.872	400	
Sc	107.929	200	
Na V	107.934	200b	
Na VI	107.934	200b	
Al V	107.945	1000	
Li III	107.999		P
Al V	108.004	250	
Mg VI	108.015	300	
Na V	108.017	200	
Sc	108.026	100d	
Al V	108.057	600	
Na VII	108.079	10	
Fe VIII	108.083	400	
Ti XII	108.086	10	
Al V	108.112	600	
Mg VI	108.114	200	
Mg VI	108.148	100	
V XVI	108.15		
Na VII	108.159	10	
Na VII	108.193	200	
Sc	108.296	100	
V VII	108.3		
Al V	108.315	200	
Mg VI	108.338	100	
Na VII	108.373	100	
Al V	108.385	500	
Co IX	108.39	90	
Fe XIX	108.4		
Al V	108.404	250	
Fe XII	108.440		
Mg VI	108.441	10	
Al V	108.446	150	
Al V	108.462	500	
Ti	108.493	3	
Al V	108.526	20	
Al IV	108.535	50	
Na VI	108.555	400	
Fe XII	108.605		
Al V	108.616	50	
Co IX	108.66	100	
Na VI	108.678	10	
Mn XVIII	108.70		
Al V	108.707	300	
Na VII	108.733	200	
Na VII	108.829	100	
Al V	108.851	50	
Fe XII	108.862		
Ti	108.886	3	
Al IV	108.907	50d	
V XII	108.93		
Mn X	108.93		
Mn X	108.97		
F VI	108.975	100	
Fe XII	109.015		
Al V	109.021	150	
F VI	109.040	150	
Sc X	109.072	100	
Ti XII	109.107	35	

Element	Wavelength		Intensity	Multiplet
Ti	109.153		1	
Mg V	109.174		10	
Sc X	109.202		40	
Cu	109.215		120	
Sc X	109.227		100	
Ne X	109.28	P		
Al VI	109.284		350	
Sc X	109.285		300	
Sc X	109.307		10	
Mn XVII	109.35			
Na VII	109.362		100	
Mg	109.420		100	
Ti	109.509		3	
Fe XII	109.509			
Al VI	109.514		1000	
Na VII	109.519		200	
Br IX	109.59			
Ti	109.593		3	
Sc	109.609		200	
Fe XII	109.712			
Na VI	109.763		10	
Sc X	109.765		400	
Mn IX	109.783		500	
Sc X	109.805		200	
Mg V	109.812		200	
Ne VII	109.820		320	
Al VI	109.843		600	
Na VI	109.896		500	
Sc	109.897		300	
Fe XIX	109.9			
Ti	109.904		6	
Ti	109.963		1	
Al VI	109.974		200	
Ne VII	109.995		470	
Ti	110.019		1	
Mg V	110.029		100	
Ti XV	110.072		1	
Na VI	110.085		200	
Mg V	110.121		10b	
Mg VII	110.121		10b	
O VI	110.148		120	
C VI	110.22	P		
O VI	110.220		250	
N VI	110.23			8
Fe XXI	110.28	?		
Ti	110.283		10	
Sc	110.306		100	
Si XIV	110.37	P		
Na	110.474		10	
Sc	110.498		300	
Ne VI	110.5		20	
Fe XX	110.5			
Ti XVI	110.56			
Ne VII	110.562		400	
Na	110.577		100	
N VI	110.59	P		
Fe XII	110.591			
Ne VII	110.630		600	
Na VII	110.647		200	
Br IX	110.66			
O VI	110.69		150	
Sc IX	110.718		100d	
Fe XII	110.732			
Na VI	110.750		200	
Na VII	110.778		300	

Element	Wavelength		Intensity	Multiplet
Al XIII	110.8	P		
Mg V	110.809		200	
Na V	110.817		200b	
Na VII	110.817		200	
Mg V	110.859		400	
Na V	110.878		200	
Sc	110.920		200	
Na V	110.921		10	
Mg V	110.939		200	
Si XIII	110.957		100	
Ca X	110.962		75	
Mg V	111.031		300	
Mg V	111.091		300	
Ne VII	111.152		220	
Mg VI	111.160		300	
Al IV	111.196		100	
Ca X	111.197		50	
Mg V	111.199		400b	
Mg VI	111.199		400b	
Ne VI	111.2		10	
Na VII	111.211		300	
Mg V	111.247		200	
Mn IX	111.262		400	
V XVII	111.27			
Ti	111.345		20	
Na VII	111.390		200	
Sc	111.402		200	
Mg V	111.419		200	
Mg V	111.467		200	
Mg V	111.496		200	
Mn IX	111.500		200	
Na V	111.512		100	
Na V	111.552		10	
Mg VI	111.552		500	
Al IV	111.589		150	
Ti XI	111.664		6	
Sc	111.711		200	
Fe IX	111.713		10	
Na VI	111.725		100	
Mg VI	111.746		400	
Sc	111.757		100	
Al IV	111.781		50	
Fe IX	111.791		20	
Na VI	111.793		100	
Ne VII	111.807		430	
Mg VI	111.864		400	
Na V	111.879		10	
Mn VII	111.889		20	
Mn XVIII	111.93	?		
Sc XIV	111.937		40d	
Ti	111.942		3	
Mg VII	111.984		10d	
K XIX	112.0	P		
Ti	112.002		1	
Na V	112.009		300b	
Na VI	112.009		300b	
Fe IX	112.01		10	
Mn VII	112.060		10	
Na V	112.077		10	
Fe IX	112.096		40	
K IX	112.113		50	
Ti	112.116		1	
Mg VII	112.135		10	
Ti	112.153		1	
Ti	112.178		3	

Element	Wavelength	Intensity	Multiplet
Na V	112.186	10	
Sc	112.210	300	
Fe VIII	112.25	250	
Fe XX	112.25 ?		
Mg VII	112.269	1	
Sc XV	112.337	100	
V XI	112.34		
Na V	112.347	10	
Fe IX	112.37	10	
Mn IX	112.415	500	
Sc	112.434	100	
Na VI	112.448	300d	
Fe VIII	112.47	350	
Fe VIII	112.49	350	
Na	112.526	10	
Cu	112.532	120	
Sc	112.544	300	
K IX	112.581	100	
V XI	112.63		
Na	112.641	10	
Sc X	112.677	200	
Fe VIII	112.70	250	
V XI	112.76		
Sc XV	112.895	40	
Ca VIII	112.906	50	
Mg IV?	112.914	10	
Fe VIII	112.93	500	
F VII	112.935	400	
Na VI	112.950	400	
F VII	112.976	300	
Fe XX	112.99 ?		
Sc	113.014	300	
Na	113.061	100	
Mn IX	113.080	200	
Na VI	113.125	400	
Al	113.140	50	
Ti XI	113.151	3	
Mg VI	113.189	500	
Mg V	113.217	200	
Mg V	113.279	10	
Ti	113.289	3	
Mn XVIII	113.3		
Al VI	113.314	50	
Ti	113.374	1	
V XII	113.39		
Mg V	113.414	200	
Al VI	113.437	150	
Ca VIII	113.453	100	
Fe XX	113.5		
Mg V	113.518	100	
Na V	113.574	10	
Al VI	113.623	50d	
Mn IX	113.627	300	
Ti	113.643	1	
Mg V	113.703	400	
Al VI	113.756	50	
Sc	113.767	100d	
V XII	113.78		
Fe IX	113.793	60	
Mg V	113.823	100	
F VI	113.840	10d	
C VI	113.87 P		
V XV	113.87		
Ne VI	113.9	10	
Li III	113.905 P	30	
Mg V	113.934	300	
Sc XV	113.937	200	
Ti XI	113.940	6	
Na V	113.952	10	
Mg V	113.990	300	
Mn IX	114.023	50	
Fe IX	114.024	40	
Mg V	114.029	200	
Fe VIII	114.05	150	
Ti	114.053	3	
Mg V	114.059	400	
Fe IX	114.111	20	
Mg V	114.199	300	
Mn VII	114.216	10	
Cr VII	114.22	60	
Mg V	114.226	300	
Ti XI	114.272	10	
Mg V	114.285	300	
Fe VIII	114.29	300	
Al IV	114.313	10	
Mg V	114.324	300	
Mn VII	114.393	20	
Mg VI	114.412	10	
Mn IX	114.472	50	
Mg V	114.498	10	
Fe VIII	114.56	300	
Ca VIII?	114.566	40	
Mg VI	114.624	10	
Na VI	114.666	400	
Na V	114.700	100d	
Mg VI	114.725	10	
Al IV	114.737	50	
Na V	114.738	100	
Mg V	114.785	600d	
Kr IX	114.95	750	
Mn XX	114.98 ?		
Mg V	115.013	600d	
Ti XI	115.015	20	
Ti XV	115.02		
Mg V	115.093	400b	
Ca VIII?	115.107	80	
Cr XVI	115.27		
Mn XVIII	115.33		
Ne VII	115.331	600	
Fe IX	115.353	30	
Na VII	115.361	10	
Ne VII	115.392	600	
Mg V	115.399	400	
Cr VII	115.40	70	
Na VII	115.475	10	
Ne VII	115.522	700	
Mg V	115.537	400	
Na VI	115.729	200	
Kr IX	115.74	1000	
Na VI	115.780	10d	
O VI	115.824	350	
Ne VII	115.955	330	
Fe IX	115.996	30	
F VI	116.094	10	
Ca XX	116.1 P		
Sc	116.158	300	
Fe VIII	116.18	400	
Fe IX	116.193		
Ti XVI	116.21		
O VI	116.347	120	

Element	Wavelength		Intensity	Multiplet
O VI	116.419		250	
Fe IX	116.42		40	
Fe VIII	116.43		50	
Al IV	116.464		250	
Ti XII	116.497		60	
P XV	116.5	P		
Fe XIX	116.5			
Cr XVII	116.53			
Ti XII	116.597		90	
Ne VII	116.693		770	
Sc	116.770		200	
Fe IX	116.803		50	
N VI	116.81			11
Ti	116.910		6	
Al IV	116.921		150	
Mg VI	116.968		500	
Fe VIII	117.18		500	
V VII	117.2		150	
Mn XVIII	117.2			
Mg VI	117.226		300	
V XVII	117.23			
Sc	117.373		100	
O VI	117.40		300	
Al IV	117.410		10	
Cr IX	117.435		200	
Na VI	117.491		400	
Mg VI	117.527		100	
Mn XIX	117.6			
Na VI	117.609		300	
Fe VIII	117.65		300	
Na VI	117.699		300	
V VI	117.7		60	
Na V	117.703		10	
Kr IX	117.71		200	
Cr XVII	117.72	?		
Mn VII	117.808		30	
Si V	117.860		1000	
Na V	117.876		10	
Mg	117.880		10	
Na VIII	117.909		10	
Cr IX	117.942		600	
Na V	117.990		400	
Mn VII	117.992		50	
Sc	118.048		200d	
V XIII	118.08			
Mg V	118.083		500	
Ti	118.131		6	
Mg IV?	118.158		10d	
Cr IX	118.165		200	
Ca X	118.174		50	
Sc	118.179		100	
Mn XVIII	118.2			
Ti XVI	118.21			
Ca X	118.223		100	
Fe VIII	118.28		300	
Sc	118.297		300	
Mn XIX	118.41	?		
Mg IV	118.421		10	
Na VI	118.500		10	
Al V	118.500		500	
V XIII	118.50			
Sc	118.552		400	
Na VI	118.585		10	
Mg IV?	118.603		100	
Sc	118.616		300	
Fe VIII	118.63		150	
V VI	118.7		70	
Mg IV	118.740		5	
Ne V	118.8		50	
Mg V	118.810		500	
Na VII	118.840		10	
Fe VIII	118.89		400	
Ne V	118.9		10	
Na VII	118.902		10	
Mg V	118.914		10	
Ti	118.915		6	
Si V	118.968		1000	
Al V	118.984		300	
Sc XV	118.99			
Na VII	119.014		100	
Sc X?	119.049		400	
Ti	119.050		6	
Na VII	119.100		10	
Na VI	119.204		10b	
Na VII	119.204		10b	
Ti	119.268		10	
Cr IX	119.269		400	
V XI	119.28			
V VI	119.3		60	
Cr IX	119.320		200	
Sc X	119.332		100	
V XI	119.36			
Fe VIII	119.37		400	
Mg V	119.401		400	
Sc IX	119.444		400	
Mg V?	119.447		400	
Cr IX	119.569		100	
Cr XIX	119.67	?		
Na VI	119.684		300	
Fe XIX	119.8			
Ti X	119.822		1	
Ti X	119.891		6	
Mg V	119.978		10	
F V	119.986		10	
F V	120.032		15	
Na V	120.040		100	
Mg IV?	120.086		10d	
Ar VIII	120.09		100	
F VI	120.116		100	
Fe XXI	120.15	?		
Ar VIII	120.16		50	
Ne VII	120.192		500	
Na	120.220		100	
Ti	120.226		1	
Sc IX	120.236		500	
Mg IV?	120.283		100d	
Na	120.298		100	
Fe VIII	120.31		150	
Sc IX	120.324		50	
O VII	120.331		350	
Ne VII	120.337		700	
Na VI	120.355		10	
Ti	120.406		1	
Mg VI	120.415		10d	
Na	120.430		10	
Ne VII	120.487		500	
C VI	120.50	P		
Mn XIX	120.5			
Ti	120.559		20	
Cu	120.594		150	

Element	Wavelength	Intensity	Multiplet
V XVII	120.82		
Cr XVII	120.84		
Sc	120.881	100	
Na VI	120.931	300	
Na VI	120.973	200	
Na VI	121.004	100	
Na VI	121.004	100	
Sc	121.022	200	
Mg VI	121.025	500	
Ne VII	121.13	500	
Ne VI	121.14	50d	
Na V	121.263	10	
Mg VI	121.290	300	
Cr IX	121.293	600	
Mn IX	121.351		
Fe XI	121.419		
Mn IX	121.442		
Ti	121.464	6	
Mg IV	121.549	20	
Ti	121.622	3	
Mn IX	121.633		
Mg V	121.644	600	
Fe XI	121.747		
Na VI	121.773	400	
Ne VII	121.774	260	
Cr IX	121.781	400	
Ti	121.783	1	
V VII	121.80		
Mg IV	121.881	10	
Na VI	121.913	320	
Mg V	121.922	500	
Ti	121.922	3	
V VII	121.93	300	
V XV	121.97		
Ti XIV	121.994	1	
Na VI	122.018	300b	
Na VII	122.018	300b	
Mg V	122.034	400	
F V	122.042	10	
F VI	122.122	100	
O V	122.128	10	
Ti	122.136	1	
Mn VIII	122.168	150	
F VI	122.169	10	
F VI	122.200	200	
F VI	122.251	15	
Na VII	122.252	100	
Co VIII	122.27	50	
Co VIII	122.32	50	
Na	122.330	10	
O V	122.372	10	
Ti	122.376	6	
N VI	122.44		7
Co VIII	122.47	70	
Ne VI	122.49	200b	
Co VIII	122.49	20	
Ne V	122.52	200b	
V VII	122.56	250	
Co VIII	122.58	40	
Ar VIII	122.62	10	
Sc XIV	122.66		
Sc	122.676	400	
Ne VI	122.69	100	
Cr IX	122.720	200	
Sc	122.741	100	
Ti	122.847	6	
Ti	122.894	10	
Cr XVII	122.91		
V VII	122.95	200	
Co VIII	122.96	30	
Cr IX	122.964	200	
Ca X	122.995	50	
Co VIII	123.02	40	
Ar VIII	123.03	50	
Ti X	123.036	6	
Co VIII	123.05	20	
F VI	123.051	10	
Ti	123.063	6	
F VI	123.090	10	
V VII	123.13		
Na VI	123.134	400	
Co VIII	123.17	50	
Mg IV	123.171	5	
F VI	123.175	100	
Ti	123.196	3	
Fe XXI	123.22 ?		
Sc	123.223	200	
Cr IX	123.226	50	
Co VIII	123.24	10	
Ti	123.253	6	
Mg IV	123.266	50	
Co VIII	123.31	50	
Ti X	123.331	3	
Mg IV	123.372	5	
Mg IV?	123.418	10	
Co VIII	123.44	10	
Mn XX	123.48 ?		
Fe XI	123.49	200	
Mg IV	123.508	5	
Mg IV	123.569	2	
Fe XI	123.572		
Mg VI	123.590	100d	
Cr XVIII	123.60 ?		
Ti X	123.657	6	
F V	123.665	10	
Ti X	123.703	3	
Ne V	123.71	30	
V VII	123.72		
V XVI	123.72		
Mg IV	123.721	4	
Ca X	123.733	125	
Na VI	123.744	400	
Mg IV?	123.770	0	
F V	123.774	100	
Mn VII	123.799	100	
Fe XI	123.822		
Fe XII	123.822		
Na VI	123.868	300	
Mg IV	123.913	1	
Na VI	123.929	500	
Ti XI	123.946	6	
F IX	123.97 P		
Na VI	123.970	200	
Mn VII	124.005	150	
Al IV	124.034	400	
Mn VIII	124.055	100	
Na VI	124.059	400	
Ti	124.104	3	
Sc XV	124.14		
Ti X	124.143	3	

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Element	Wavelength	Intensity	Multiplet
Na VI	124.153	400	
Cr VIII	124.184	200	
V VII	124.30		
Cr XVIII	124.38 ?		
F VI	124.387	300d	
Ti X	124.391	6	
Mg IV	124.415	100	
F VI	124.440	10	
Sc	124.464	100	
F VI	124.474	10	
Mg IV	124.52	1	
Na VII	124.532	10	
Mg IV	124.539	100	
Al IV	124.543	300	
Ti	124.555	1	
O V	124.6159	200	
Ti	124.632	1	
Mg IV	124.64	40	
Mg IV	124.650	240	
Co VIII	124.65	50	
Fe XI	124.725		
Mg IV	124.761	80	
Fe XXI	124.77 ?		
Ar XVIII	124.8 P		
Ti XVI	124.82		
Na VI	124.850	10	
Mg IV	124.870	100	
Co VIII	124.88	80	
Ti	124.940	6	
V XVIII	124.94 ?		
Mg IV	124.989	70	
Mg IV	124.994	90	
Cr XVII	125.00		
V XVI	125.11		
Co VIII	125.16	80	
Na V	125.178	400	
V VII	125.19		
Ti	125.195	1	
Mg VI	125.206	300	
Na V	125.216	400	
Co VIII	125.27	60	
Na V	125.286	500	
Co VIII	125.34	100	
Cr XVII	125.35		
Co VIII	125.35	100	
Na VI	125.383	10	
V IX	125.420	600	
Na V	125.428	300	
Cr XVIII	125.44		
Ti VI	125.456	10	
Ti X	125.456	10	
Mg IV	125.459	100	
Mg VI	125.459	300b	
Na V	125.461	300	
Fe XXII	125.47 ?		
Al V	125.525	750	
Co VIII	125.57	30	
Fe XI	125.587	10	
Mg V	125.600	400b	
Mg VI	125.600	400b	
Sc	125.610	100	
V VII	125.62		
Ti VI	125.689	6	
Cr VIII	125.728	100	
Ti	125.744	3	
Mg IV	125.810	30	
Sc XV	125.83		
V VII	125.87		
Na V	125.899	200	
Ne V	125.9	20	
Ti XI	125.940	6	
Ti XI	125.979	20	
V VII	125.98	400	
Mn XVIII	126.0		
Ti XI	126.042	35	
Al V	126.065	750	
Na V	126.090	10	
V IX	126.152	400	
Na V	126.210	100	
Ti	126.276	1	
Mg V	126.280	400	
Ti VI	126.330	3	
Na V	126.368	10	
Si XII	126.43		
Mg VI	126.450	100	
Na V	126.458	10	
Mg VI	126.488	100	
Mg V	126.544	200	
Na V	126.557	200	
Ti VI	126.566	1	
Mg IV	126.600	4	
Na V	126.608	100	
K VII	126.650	10	
Ti X	126.651	20	
Mg V	126.677	10b	
V XVII	126.71		
V IX	126.732	250	
V IX	126.765	250	
Si XII	126.77		
Na V	126.779	10b	
Na VII	126.779	10	
Zn XII	126.786	40	
Mg IV	126.800	20	
V IX	126.810	20	
Na V	126.814	100b	
Na VII	126.814	100	
Na V	126.920	10	
F VI	126.923	500	
Mg IV	126.960	10	
Na V	126.985	10	
Mg	127.013	10	
Na V	127.036	10	
V IX	127.068	500	
Cu	127.105	200	
V VII	127.11	200	
K VII	127.151	20	
Sc XI	127.156	500	
Mg IV	127.165	5	
Zn XII	127.346	40	
Cr XIX	127.41 ?		
Na V	127.444	400	
Na V	127.473	400	
Zn XII	127.631	40	
F VII	127.653	400	
Ne VII	127.663	710	
F VII	127.796	500	
Na VI	127.837	400	
Sc XVI	127.844	200	
Na	127.953	100	
Sc IX	127.985	50	

Element	Wavelength	Intensity	Multiplet
Al XIII	128.02 P		
Na V	128.025	400	
Sc IX	128.035	50	
Na V	128.051	400	
Ne X	128.06 P		
Sc	128.088	100	
Cr XVIII	128.10		
Ti	128.111	6	
Na	128.112	300	
Cu	128.123	250	
N V	128.229	1 -A	3.13
O V	128.235	10	
Sc XI	128.247	500	
Cu	128.255	300	
Ti VII	128.269	1	
Ca XIV	128.28		
O V	128.297	20	
V VI	128.382	100	
O VII	128.412	150	
Ti XVI	128.42		
N V	128.430	1 -A	3.12
Ti VI	128.450	1	
O VII	128.500	200	
Zn XII	128.518	20	
Ti	128.591	3	
N V	128.662	10 -A	3.11
K XIX	128.7 P		
Ti	128.731	3	
Sc XVI	128.780	40	
Ne V	128.79	10	
Ti	128.871	3	
N V	128.954	10 -A	3.10
Ne V	129.03	50	
Na VI	129.040	200	
Ti XVI	129.07		
Ti VI	129.148	3	
V XVI	129.16		
Ca IX	129.197	120	
Ti VI	129.249	6	
Sc	129.283	100	
Ti	129.288	0	
N V	129.337	20 -A	3.09
Ti XIV	129.384	1	
Cu	129.398	100	
Ti	129.418	1	
Mn XX	129.42 ?		
Ca IX	129.425	240	
Ca IX	129.445	40	
Sc	129.454	200	
Na IV	129.464	10	
Cu	129.567	400	
V VI	129.574	200	
Ti VII	129.603	1	
Cu	129.697	200	
Mg IV	129.710	100	
Ti VII	129.722	3	
Al IV	129.729	700	
O VI	129.786	150	5
N V	129.811	30 -A	3.08
Mg IV	129.858	300	
O VI	129.872	250	5
Si XII	129.89		
Ca IX	129.934	400	
Na V	129.942	100	
Mg IV	129.968	200	
Ca IX	129.970	40	
Mg IV	129.98	30	
Cr VIII	129.998	700	
Mg XII	130.0 P		
Si XII	130.02		
Mn XX	130.06 ?		
Mg IV	130.087	100	
Ti VI	130.113	3	
Mg IV	130.116	90	
Sc	130.213	200	
Mg IV	130.246	70	
Mg VI	130.294	200b	
Sc	130.304	200	
N VI	130.32		10
Mg IV	130.349	100	
Mg IV	130.36	20	
Al V	130.413	1000	
Sc XV	130.42		
N V	130.431	40 -A	3.07
Mg IV?	130.541	0	
Sc	130.558	100	
Mg IV	130.625	60	
Mg VI	130.630	100b	
Sc	130.642	300	
Na V	130.680	200	
Sc	130.683	100	
Mg VI	130.701	10	
Fe XI	130.713	10	
Na V	130.723	100	
Al V	130.848	1000	
Ti XVII	130.87 ?		
Sc	130.886	200	
V XVII	130.91		
Fe VIII	130.939	400	
Sc XIII	130.96	300	
Al V	131.003	1000	
Sc	131.068	270	
Zn XIII	131.082	40	
Ti	131.102	3	
Ti XV	131.12		
Ca XIII	131.22		
V XVI	131.22		
Fe VIII	131.242	450	
N V	131.254	50 -A	3.06
Ti VII	131.284	1	
Na V	131.345	300	
Sc	131.354	100	
Na V	131.413	200	
Ca VIII	131.420	10	
Al V	131.441	1000	
Ca VIII	131.470	10	
Ti	131.474	1	
F V	131.516	10	
Cu	131.533	150	
Mn XXI	131.55 ?		
Cu	131.590	350	
Ti	131.623	3	
Na V	131.635	300d	
F V	131.638	10	
Cr VIII	131.638	600	
K IX	131.646	150	
Al IV	131.652	150	
Sc XVI	131.69		
O V	131.750	100	
O V	131.807	100	

Element	Wavelength	Intensity	Multiplet
K IX	131.896	100	
Ti VII	131.937	6	
V XVIII	132.00 ?		
Ti XVI	132.04		
Ti VII	132.093	1	
Mg IV	132.126	20	
Ti VII	132.149	3	
Mg V	132.171	600	
F V	132.207	10	
Na IV	132.211	10	
O VI	132.219	100	
F V	132.310	100	
O VI	132.312	200	
Cr VIII	132.321	200	
Ti VII	132.322	1	
Ti VII	132.351	1	
N V	132.383	60 -A	3.05
F V	132.389	10d	
F V	132.453	200	
Na IV	132.465	10d	
F V	132.484	300	
Mg V	132.485	500	
Mg IV	132.51		
F V	132.511	300	
Ti VII	132.522	6	
Mg V	132.623	300	
Al V	132.630	500	
Sc XVI	132.67		
F V	132.699	100d	
Sc	132.714	400	
Ti VII	132.733	10	
Na IV	132.740	10	
Cr XVII	132.76		
O V	132.800	100	
Mg IV	132.800		
Mg IV	132.8134	300	
F V	132.819	200	
Ti VII	132.837	3	
O V	132.851	150	
O V	132.885	10	
Ti	132.924	1	
Ca XIV	132.93		
Ti VII	132.982	1	
Al V	133.013	200	
Ti	133.053	3	
F V	133.082	10	
K VII	133.084	10	
Cl VII	133.11		
Sc XV	133.12		
Na V	133.162	500	
Ti	133.170	1	
Mg IV	133.1966	200	
F V	133.208	100	
Ti VII	133.218	6	
Al V	133.242	100	
V XVI	133.29		
O VII	133.31	250	
O V	133.328	10	
Ti VII	133.385	1	
Na V	133.388	400	
O V	133.395	20	
Cr VIII	133.395	600	
Mn VII	133.43	100	
V XVI	133.48		
Ti	133.482	6	
O V	133.521	200	
Ti	133.568	1	
F V	133.599	110	
Ti VII	133.633	3	
Ne VII	133.64	150	
Mn VII	133.66	300	
F V	133.662	100	
Mn VII	133.68	400	
Ti	133.721	1	
Si XIV	133.8 P		
N VII	133.82 P		
Na VI	133.825	200	
Ti	133.866	0	
Sc	133.882	300	
Mn VII	133.90	100	
Cu	133.916	400	
Ti	133.990	0	
N V	133.994	70	3.04
V XVII	134.01		
Na VI	134.021	100d	
Cr VIII	134.076	300	
Na VI	134.135	10	
Na V	134.183	10	
Mn VII	134.21	250	
Na V	134.272	200	
Ti	134.287	1	
Ca XIV	134.30		
F V	134.407	400	
Na VI	134.532	300	
F V	134.539	500	
Cu	134.550	600	
Ti XV	134.57		
Mn VIII	134.69	20	
Ti	134.701	3	
F VII	134.703	100	
Sc X	134.767	300	
Mn VIII	134.79	40	
Sc	134.794	300	
F VII	134.882	200	
Ti	134.894	3	
Cu XI	134.933	400	
F IX	134.94 P		
Cr VIII	134.942	400	
C VI	134.95 P		
Sc	134.971	200	
Li III	134.998 P	100	
Cu XI	135.006	5	
Mn VIII	135.06	30	
Sc X	135.128	400	
Mn VIII	135.15		
Mn VII	135.177	200	
Ti XI	135.179	10	
Cr VIII	135.185	100	
Al	135.231	10	
Cr XIX	135.27 ?		
Ti	135.326	1	
Cu XI	135.335	1	
Mn VII	135.393	250	
F VI	135.397	300	
Mn VII	135.425	20	
Ti	135.458	1	
Mn VIII	135.48		
Cr XIX	135.51 ?		
O V	135.5232	300	
Ca	135.597	50	

Element	Wavelength	Intensity	Multiplet
Al	135.620	50	
Sc XVI	135.62		
F V	135.621	1	
Mg V	135.638	200	
Cu XI	135.669	5	
F V	135.692	10	
Cu XI	135.747	500	
V VIII	135.751	200	
Na V	135.791	300	
Ti VII	135.801	20	
Cu IV	135.846	30 -A	
Na V	135.854	300	
Cr VIII	135.892	50	
Sc X	135.921	500	
Mn VII	135.93	200	
Mg V	135.953	100	
Ne VI	136.00	40	
Cu XI	136.073	90	
V VIII	136.078	100	
Mg V	136.128	10	
Ne V	136.21	20	
Mn VII	136.21	250	
Al V	136.249	50	
Ti VII	136.267	6	
N V	136.429	80	3.03
Na IV	136.435	10	
V XVII	136.45		
Na IV	136.550	100	
Cu XI	136.572	15	
Ti IX	136.595	6	
Sc XV	136.62		
Na IV	136.645	10	
Al V	136.668	100	
Ti VI	136.714	6	
Cu	136.724	450	
Na IV	136.748	10	
Ti VII	136.815	3	
Na IV	136.854	100	
V VIII	136.867	120	
F V	136.902	300	
Cu	136.936	400	
F V	136.955	10	
Fe X	137.027		
Na IV	137.062	10	
Na IV	137.144	10	
Ti IX	137.153	3	
V VIII	137.194	50	
Ca XV	137.21		
Mg V	137.234	600	
Ti XVII	137.31 ?		
V VIII	137.316	100	
Sc	137.352	100	
Ti IX	137.377	20	
Mg V	137.414	800	
Sc	137.418	70	
V VIII	137.491	120	
Mn VIII	137.50	100	
Mg	137.509	10	
Na VI	137.589	10	
Ti VII	137.661	20	
Fe XX	137.70 ?		
Na IV	137.714	10	
Ti IX	137.743	1	
Mg V	137.748	700	
Sc XIII	137.80	300	

Element	Wavelength	Intensity	Multiplet
Ti VI	137.813	3	
Mg VI	137.814	10	
Mn VIII	137.82	70	
Mg V	137.880	600	
Mn VIII	137.92	60	
Ar VIII	137.93	150	
Na IV	137.945	10	
Mg IV	137.970	80	
Ti IX	137.991	3	
O V	138.0255	150	
O V	138.0510	200	
O V	138.0514 P	70	
O V	138.1089	250	
O V	138.1095 P	70	
F V	138.181	100d	
C V	138.2 P		
Cr XX	138.21 ?		
F V	138.256	10d	
V VI	138.26	60	
Mg IV	138.265	150	
Sc XI	138.283	500	
Ti XV	138.33		
Sc XI	138.380	500	
Ne VI	138.39	30	
Mg IV	138.395	100	
Ar VIII	138.44	250	
Zn XII	138.448	40	
Cu XIII	138.481	0	
Mn VII	138.49	450	
K XIII	138.50	250	
Ti VII	138.548	10	
Ti IX	138.548	10	
Na	138.628	200	
Ne VI	138.64	30	
Sc	138.662	200	
Sc XV	138.68		
Mg IV	138.6884	100	
Na VI	138.693	200	
Mn VII	138.74	100	
Ti XVI	138.76		
Ti XVI	138.79		
Na V	138.812	200	
Ti VII	138.814	1	
Br VIII	138.9	750	
Na V	138.917	300	
Mg IV	138.939	1	
O V	139.0289	300	
V VIII	139.188	50	
Cu XII	139.210	100	
Sc	139.319	100d	
Sc XIV	139.46		
K VII	139.480	20	
C V	139.5 P		
V VI	139.55	70	
Ni	139.55	20	
Sc XVI	139.60		
Mn VII	139.65	500	
Mg	139.705	10	
V VIII	139.730	200	
F VI	139.758	500	
F VI	139.800	600	
Br VIII	139.8	750	
Na IV	139.867	200b	
Na VII	139.867	200b	
Fe X	139.868		

Element	Wavelength		Intensity		Multiplet
Ti XII	139.884		3		
F VI	139.900		700		
Ti VI	139.911		3		
Mn VIII	139.93		50		
Sc	139.980		100		
Mg IV	139.993		70		
Cl XVII	140.0	P			
O V	140.045		10		
K VII	140.085		50		
O V	140.109		20		
Mg IV	140.121		120		
Ne IV	140.13		15		
Na V	140.171		10		
Mg IV	140.176		200		
Ca XIV	140.20				
Ti	140.240		3		
V XVI	140.25				
Na V	140.258		10		
F V	140.266		10		
Zn XII	140.283		40		
Fe X	140.296				
Ti XV	140.34				
N V	140.356	P	160		3.02
Ti XII	140.361		1		
Mn VII	140.38		250		
F V	140.414		100		
Mg IV	140.427		100		
Ti VI	140.443		20		
Ti IX	140.443		35		
V VIII	140.451		600		
Mg IV	140.475		120		
Ni	140.52		20		
Mg IV	140.525		120		
Ca XV	140.55				
Mg IV	140.560		120		
V VIII	140.665		200		
Fe X	140.678				
Ne V	140.72		50		
Mn VIII	140.73		50		
Ne V	140.76		150		
F IV	140.781		1	-A	
Ne V	140.79		150		
F IV	140.816		1	-A	
Ni	140.83		30		
Na VI	140.833		200		
K XII	140.85				
Mg IV	140.868		200		
Mg IV	140.915		80		
Se VIII	140.92		400		
V VIII	140.934		50		
Mg IV	140.965		100		
Na VI	141.040		10		
Ca XII	141.05		60		
Ni	141.06		50		
Ti VI	141.061		3		
Se VIII	141.09		800		
Ca VIII	141.110		50		
Ti VI	141.113		10		
V XVIII	141.15	?			
Ca VIII	141.153		50		
F VI	141.154		200		
Mn VII	141.17		50		
Ti	141.208		1		
C V	141.27	P			
Mn VIII	141.29		70		

Element	Wavelength		Intensity		Multiplet
Ni	141.35		60		
Se VIII	141.38		500		
Ca XV	141.66				
Se VIII	141.68		800		
Cu	141.694		300		
Ni	141.70		30		
Mn VIII	141.76		100		
Mn VII	141.81		200		
Se VIII	141.82		800		
V VIII	141.864		200		
Ni	141.87		60		
V VIII	141.924		100		
Ti VI	141.988		3		
Se VIII	142.01		700		
Fe X	142.019		20		
Ti XV	142.09				
O V	142.12		10		
Cu	142.158		200		
Ni	142.22		40		
V XVIII	142.23	?			
Na IV	142.232		200b		
Na V	142.232		200b		
V VIII	142.247		100		
Se VIII	142.28		900		
Na IV	142.363		100		
Ca XIV	142.37				
Ca XIII	142.39				
Na V	142.415		10		
Ni	142.42		50		
F V	142.422		100		
Ne V	142.44		100		
Br VIII	142.5	P			
Ne V	142.52		100		
Ti	142.543		1		
Ti X	142.595		3		
Ne V	142.66		40		
K XIII	142.68		250		
Mn VII	142.68		200		
Ti X	142.687		10		
Na IV	142.688		10		
Ne V	142.72		150		
Ti XV	142.72				
Se VIII	142.75		800		
N V	142.797		1	-A	26
Sc	142.836		200		
Cu	142.892		600		
Ne IV	142.93		15		
Cu XIII	142.930		5		
Mg V	142.933		600		
N V	142.981		1	-A	25
Cu	143.033		500		
Se VIII	143.10		700		
Sc	143.120		200		
Ca	143.173		100		
Ti VI	143.176		1		
Ca VIII	143.216		250		
Ne V	143.22		50		
N V	143.241		10	-A	24
Ne V	143.27		100		
Sc IX	143.324		230		
Cu XIII	143.334		2		
Ne V	143.34		150		
Sc IX	143.393		200		
Ar XVIII	143.4	P			
Ti XVI	143.42				

Element	Wavelength	Intensity	Multiplet
Sc XV	143.44		
Se VIII	143.44	800	
Sc XVI	143.487	100	
N V	143.520	10 -A	23
Cu	143.634	150	
K XIII	143.76	500	
Ni	143.80	50	
Mn VII	143.87	20	
Se VIII	143.89	700	
F V	143.897	100	
N V	143.914	20 -A	22
C V	143.94		
Se VIII	143.94	400	
F V	143.965	15	
Ne IV	144.02	10	
Ca	144.038	150	
Ca VIII	144.069	200	
Ti	144.092	1	
Ca VIII	144.111	50	
Ne IV	144.15	10	
Cu XIII	144.186	2	
Ni X	144.271	150	
Ne IV	144.28	5	
Ca XV	144.29		
Fe X	144.328		
Na V	144.330	200	
Ni X	144.379	15	
N V	144.392	30 -A	21
Ti	144.461	1	
Na V	144.546	200	
Se VIII	144.55	300	
Ti V	144.551	6	
F V	144.637	100	
V VIII	144.653	600	
Na V	144.661	100	
F V	144.673	90	
Cu	144.728	250	
O V	144.802	100	
Cr VI	144.81	100	
O V	144.837	100	
Mn XIX	144.86 ?		
Se VIII	144.89	300	
Ni X	144.933	15	
N V	144.978	40 -A	20
Na IV	144.979	10	
Cr VI	145.01	200	
Sc XIV	145.035	200	
Ni X	145.040	300	
Ni X	145.110	2	
F V	145.177	100d	
F V	145.392	200	
Se VIII	145.41	800	
F VI	145.462	100	
Mg V	145.485	500	
F VI	145.489	100	
Cu XXVII	145.5 P		
V VIII	145.507	400	
V XIX	145.54 ?		
F V	145.547	300	
F VI	145.585	100	
Se VIII	145.59	600	
Ti XVI	145.62		
F VI	145.630	100	
Cu	145.651	350	
Fe XVIII	145.656	10	
Cu	145.671	100	
F VI	145.691	300	
K IX	145.702	125	
N V	145.742	50 -A	19
K IX	145.753	125	
Ni X	145.777	60	
Se VIII	145.78	300	
Ti V	145.79	1	
Ca XIV	145.80		
Na IV	145.846	10	
Na IV	146.060	300	
Mg V	146.083	600	
Ni X	146.119	15	
Se VIII	146.22	600	
Ne IV	146.26	10	
Na IV	146.298	100	
O V	146.345	100	
Na IV	146.398	10	
Na VI	146.398	10	
Se VIII	146.42	800	
Mg V	146.464	500	
Mg IV	146.526	250	
Cr VII	146.532	1000	
F VI	146.576	200	
F VI	146.613	300	
V VIII	146.613	180	
Mg V	146.621	400	
Sc IX	146.628	300	
Cu	146.669	1000	
F VI	146.676	400	
Sc XV	146.71		
N V	146.716	30 -A	18
F VI	146.718	200	
N V	146.767	60 -A	18
V VIII	146.789	200	
Cr VI	146.82	200	
Sc	146.825	300	
Mg IV	146.837	200	
Ti V	146.897	3	
Se VIII	146.92	300	
N V	146.921	30 -A	3.01
Mg IV	146.954	400	
Sc IX	146.954	400	
Ni	147.00	70	
Mg IV	147.005	200	
Cr VI	147.02	300	
Mg IV	147.050	200	
Se VIII	147.09	500	
C V	147.1 P		
V VIII	147.126	100	
Ne V	147.13	150	
Fe XXII	147.14 ?		
K IX	147.157	150	
Ti IX	147.157	1	
Fe XXI	147.20 ?		
Se VIII	147.23	400	
Mg IV	147.252	150	
Mg V	147.252	300	
O V	147.261	200	
Ca XII	147.27	50	
Se VIII	147.29	800	
Sc IX	147.310	300	
Ti	147.316	1	
Mg IV	147.319	160	
Sc IX	147.346	200	

Element	Wavelength		Intensity		Multiplet
Mg IV	147.4062		300		
N V	147.424	P	240		3.01
Mg IV	147.500		4		
Mg IV	147.535		300		
Sc XV	147.54				
Cu	147.544		200		
K XIV	147.57		50		
Se VIII	147.58		800		
Si XI	147.60				
Mg IV	147.630		60		
Sc VI	147.740		100		
Mg IV	147.748		150		
Cu XI	147.748		60		
Ti XVII	147.78	?			
Se VIII	147.78		800		
Sc IX	147.834		200		
Ni XII	147.847		1		
Mg IV	147.881		80		
Na V	147.897		200		
Sc VI	147.90		100		
K IX	147.943		200		
F V	147.946		400		
Se VIII	147.95		400		
K IX	147.973		25		
F V	148.002		500		
Ti	148.014		1		
Sc IX	148.103		200		
Ti VI	148.104		3		
F V	148.108		100		
Mg IV	148.114		120		
N V	148.116		40	-A	16
Ca XIV	148.15				
N V	148.168		70	-A	16
Sc VI	148.18		150		
Sc	148.249		100		
Sc	148.287		200		
Ti VI	148.303		20		
N V	148.328		10	-A	15
C V	148.35				
N V	148.387		40	-A	15
Ni XI	148.402		100		
Sc XIV	148.47				
Se VIII	148.48		1000		
Ti VIII	148.498		1		
C V	148.5	P			
Sc VI	148.536		100d		
Ti XV	148.54				
Sc	148.580		100d		
Ni	148.62		50		
Na V	148.642		400		
F VI	148.653		400		
Ne IV	148.66		5		
Ar VIII	148.73		100		
Cr VII	148.736		600		
Sc	148.743		100d		
Ne V	148.78		15b		
Ne IV	148.79		15b		
Sc	148.805		200		
Se VIII	148.81		800		
Ti VIII	148.820		1		
Ni	148.83		40		
Cu	148.846		800		
Fe XXIII	148.85	?			
Na V	148.856		300		
V VII	148.903		300		
Ne IV	148.94		20		
Mg IV	148.958		7		
Na V	149.001		200		
Ti VI	149.010		20		
Mg IV	149.024		1		
O V	149.034		10		
O VIII	149.06	P			
O V	149.078		150		
Ni	149.21		30		
Ar VIII	149.33		150		
Se VIII	149.34		700		
Sc	149.357		100d		
Cl VII	149.37				
Ti VI	149.392		10		
Mg IV	149.400		5		
Cl VII	149.43				
Na VI	149.442		10		
Cu XI	149.460		40		
Ni	149.47		50		
Ti VI	149.560		10		
Ne IV	149.59		10		
Na VI	149.621		10		
Ti VIII	149.653		3		
Ti XVII	149.66	?			
Cu	149.703		800		
Cr VI	149.72		300		
Ti	149.842		3		
Ar XII	149.93				
Cr VI	149.93		400		
Ni	149.97		40		
Ti VIII	149.981		1		
V XVII	150.03				
Ti VIII	150.039		60		
O VI	150.089		500		2
Sc IX	150.092		500		
N V	150.116		70	-A	14
O VI	150.124		250		2
N V	150.171		140	-A	14
Fe VII	150.185		50		
Ti VI	150.213		3		
Mg XII	150.26	P			
Fe VII	150.280		100		
Na IV	150.297		400		
Se VIII	150.30		700		
Al XI	150.31				
Ti VI	150.315		3		
F IV	150.335		10		
Cu XI	150.356		1		
Fe VII	150.402		50		
F IV	150.422		10		
N V	150.429		20	-A	13
Sc XIV	150.46				
K XIV	150.48		100		
N V	150.488		50	-A	13
C V	150.51	P			
Fe VII	150.524		100		
Na IV	150.545		300		
Ni	150.56		40		
Al XI	150.61				
V VII	150.625		200		
Na IV	150.647		200		
Na IV	150.695		200		
Fe VII	150.806		500		
Fe VII	150.851		500		
Ti VIII	150.867		35		

Element	Wavelength	Intensity	Multiplet
Sc X	150.900	300	
Ne IV	150.93	5	
Sc X	150.939	400	
Sc XVI	150.94		
Na IV	150.968	200b	
Na V	150.968	200b	
F IV	150.977	100	
Sc X	150.995	500	
F IV	151.005	100	
Fe VII	151.022	600	
Fe VII	151.044	100	
Na IV	151.048	10	
K XIII	151.05	50	
F IV	151.079	1	
Na V	151.127	400	
Fe VII	151.143	200	
Na V	151.188	100	
Mn XXI	151.21 ?		
Fe VII	151.268	50	
Na IV	151.303	100b	
Na V	151.303	100b	
Sc IX	151.401	400	
Ne V	151.42	120	
Fe VII	151.430	400	
O V	151.4470	250	
Ne IV	151.46 P		
O V	151.4772	300	
O V	151.4782 P	100	
Ti VIII	151.484	10	
Fe VII	151.485	50	
Fe VII	151.510	400	
O V	151.5465	330	
O V	151.5476 P	100	
Fe VII	151.673	420	
K XIV	151.68	100	
Ar VII	151.70	50	
Ni	151.70	30	
Mn XX	151.74 ?		
Fe VII	151.748	100	
Fe VII	151.780	500	
Mg	151.808	10	
Ne IV	151.82	75	
Ca X	151.832	75	
Ni	151.85	30	
Ar XI	151.86		
Ti VIII	151.864	10	
Ar VII	151.88	100	
Sc XIV	151.89		
Ti VI	151.897	1	
Co	151.91	600	
Ti VIII	151.915	1	
Fe VII	151.968	100	
Mg V	152.019	10	
F V	152.035	50	
Fe VII	152.069	300	
Mg V	152.149	300	
Ni XII	152.152	1	
Ni XII	152.153	15	
Ti VIII	152.164	20	
F V	152.174	50	
Ne IV	152.23	75	
Ar VII	152.26	150	
O IV	152.264	1 -A	
Ti VI	152.338	10	
F V	152.339	200	
O IV	152.355	1 -A	
Mg V	152.384	100	
F V	152.391	300	
K XI	152.46		
Co	152.50	600	
F V	152.511	400	
Mg V	152.527	100	
F V	152.563	200	
Mg V	152.591	10d	
Sc VI	152.60	250	
Co	152.66	200	
Sc	152.681	200	
Co IX	152.71	5	
Cr XVIII	152.74 ?		
K XIII	152.77	300	
Sc XIV	152.85		
K VII	152.888	20	
Fe VII	152.906	50	
Ti VI	152.960	10	
Co	152.96	700	
F IV	152.997	1	
Ca X	153.012	150	
Ca XIV	153.03		
F IV	153.102	10	
N V	153.136	180	12
F IV	153.141	10	
O IV	153.162	1 -A	
Sc	153.172	300	
Ni XII	153.174	5	
N V	153.192	280	12
Ti VI	153.255	3	
K XII	153.26		
Co IX	153.29	150	
Ti VI	153.384	3	
C V	153.53		
Ti VI	153.550	35	
N V	153.624	30	11
K VII	153.624	100	
Ar XII	153.63		
Ti XVIII	153.64 ?		
Fe VII	153.658	50	
F VI	153.678	200	
N V	153.683	60	11
F VI	153.741	300	
Fe VII	153.742	20	
Co IX	153.78	60	
Sc XV	153.80		
F VI	153.880	400	
Co	153.89	800	
K XIV	153.91	200	
O V	153.9516	200	
Sc	154.006	230	
Fe VII	154.039	300	
Ti VI	154.161	1	
Ni XII	154.175	15	
Cr VI	154.19	400	
Fe VII	154.214	50	
Sc VI	154.25	50	
Fe VII	154.269	100	
Sc VI	154.29	250	
Fe VII	154.304	200	
Fe VII	154.334	400	
Fe VII	154.359	100	
Cr VI	154.41	500	
Ar XII	154.43		

Element	Wavelength		Intensity	Multiplet
Fe VII	154.446		50	
Ne IV	154.49		25	
F VI	154.506		300	
Sc	154.507		100	
Fe VII	154.562		200	
Sc	154.643		300	
Fe VII	154.648		500	
Al XI	154.66			
Fe VII	154.701		400	
Ti VI	154.768		6	
Cu	154.785		400	
Na XI	154.8	P		
Fe VII	154.846		300	
Fe VII	154.885		100	
Sc XV	154.89			
Fe VII	154.920		400	
Co IX	154.92		150	
Fe VII	154.945		400	
Co IX	155.06		25	
Na IV	155.090		100	
Sc VI	155.10		150	
Ni XIII	155.12			
Fe VII	155.122		50	
Al XIII	155.2	P		
Fe VII	155.243		200	
Na IV	155.248		200	
Co	155.27		400	
Cl VII	155.32			
Na IV	155.354		10	
Sc VI	155.36		50	
Fe VII	155.412		50	
Na IV	155.445		300	
Ti VIII	155.456		1	
Mn XXII	155.46	?		
Ti	155.494		1	
Fe XV	155.50			
Co IX	155.51		25	
Na IV	155.515		400	
Ti	155.545		1	
Fe VII	155.548		50	
Ca XIV	155.62			
Na IV	155.622		10	
F IV	155.624		10 -A	
Co IX	155.65		150	
F IV	155.673		10 -A	
Ti VIII	155.675		20	
Na IV	155.693		200d	
K VIII	155.715		125	
Cu	155.718		150	
Sc XV	155.73			
Cl VII	155.78			
Fe	155.78			
Na IV	155.781		100	
Fe	155.81			
Na IV	155.832		10	
K VIII	155.961		175	
K VIII	155.985		100	
Fe VII	155.991		500	
Cr XX	156.01	?		
K XIII	156.03		50	
O V	156.1189		100	
O V	156.1521		150	
O V	156.2269		200	
C V	156.233		4	15
F VI	156.247		600	
Ni	156.30		30	
Ti VIII	156.444		10	
Ne IV	156.48		25d	
K VIII	156.507		225	
Na IV	156.536		800	
K VIII	156.543		75	
Cu	156.557		200	
K VIII	156.566		25	
Co	156.59		400	
V VII	156.608		700	
Ne V	156.61		20	
Ca XIII	156.68			
Ni	156.68		40	
Na IV	156.780		500	
Cu	156.847		200	
Ne IV	156.87		15	
Na IV	156.887		300	
O VIII	156.92	P		
Na V	157.036		200	
Cr XIX	157.08	?		
Na IV	157.090		400	
Ti VIII	157.112		3	
C V	157.2	P		
Na V	157.209		300	
Ni	157.24		40	
Ca XIV	157.30			
Cu	157.359		400	
Ti	157.378		6	
K VI?	157.433		50	
Ti VIII	157.472		3	
Ni XXVI	157.5	P		
Na V	157.511		200	
F V	157.515		100d	
Ti VIII	157.528		3	
Ni XIII	157.55		50	
Na IV	157.599		100	
Ne IV	157.63		25	
Ni XIII	157.730		40	
Ne IV	157.78		15	
Na IV	157.782		300	
Ni XII	157.798		2	
Ti XVI	157.81			
Ne IV	157.86		10	
K XIII	157.86		200	
Sc XIV	157.86			
Sc XVI	157.94	?		
S XVI	158.0	P		
Ni	158.00		40	
N V	158.024	P	240	10
Ti	158.042		3	
Ne IV	158.06		25	
N V	158.088	P	360	10
Ne IV	158.11		10	
K XI	158.11			
F IX	158.12	P		
Fe VII	158.163		300	
Co XI	158.27		1	
C V	158.374			20
Ni X	158.374		150	
Ti	158.391		3	
F IV	158.398		10	
V VII	158.467		600	
C V	158.47			
Fe VII	158.477		400	
Fe XXI	158.52	?		

Element	Wavelength		Intensity	Multiplet
Mg III	158.530		10d	
F IV	158.537		400b	
F V	158.537		400b	
Ni	158.54		50	
O IV	158.553		1 -A	
F IV	158.601		100	
O IV	158.606		2 -A	
Ne IV	158.65		75	
Sc XVI	158.68			
B V	158.73	P		
Ni XIII	158.77		50	
Co	158.80		900	
O V	158.813		100d	
Ne IV	158.82		75	
N V	158.862	P	40	9
Co X	158.88			
Ar VIII	158.92		400	
F IV	158.925		100	
O V	158.926		150	
N V	158.928	P	70	9
Co IX	158.94		15	
Ti	158.952		3	
Cu	159.072		100	
Ar XIII	159.08			
Ar VIII	159.18		250	
Mg III	159.209		10d	
V XVII	159.30			
O V	159.343		250	
N IV	159.366		1d -A	6.38
O V	159.380		250	
Cu	159.462		100	
F V	159.558		1	
Co IX	159.56		150	
F V	159.658		10	
Mg III	159.755		10d	
Ca XIII	159.82			
N IV	159.833		1d -A	6.37
V VII	159.855		300	
Ni XIII	159.97			
Ni X	159.975		60	
Ni XII	159.975		1	
Al IV	160.073		800	
O V	160.141		10	
Mg IV	160.2358		200	
Sc	160.337		230	
Ni	160.38		30	
Sc	160.387		200	
N IV	160.451		1d -A	6.36
Ne IV	160.47		50	
C V	160.53	P		
Ni XII	160.554		2	
Ca VIII	160.592		50	
Sc VI	160.637		300	
Ca VIII	160.640		50	
Sc XVI	160.725		330	
Cu	160.763		500	
Ni X	160.798		5	
Cl XVII	160.8	P		
Mg IV	160.8088		150	
Ti VIII	160.914		1	
Sc	160.949		230	
Ca XV	160.96			
V VII	161.122		600	
Mg III	161.135		10	
Sc	161.162		200	
Ti XVI	161.17			
F VI	161.174		120	
N VI	161.22			6
N IV	161.256		2d -A	6.35
F VI	161.257		100	
N IV	161.286		2d -A	6.34
Ti VIII	161.290		6	
F VI	161.308		300	
F VI	161.341		90	
Sc VIII?	161.353		300	
F VI	161.414		100	
Co	161.46		300	
F VI	161.477		120	
Cu	161.551		300	
Ni XIII	161.56		50	
Ar XIII	161.61			
V XIX	161.61	?		
Fe XXI	161.61	?		
Cr VI	161.65		600	
Cr VI	161.68		600	
Al IV	161.686		700	
Co	161.70		200	
Cu	161.748		250	
Ca XIII	161.75			
Ni XIII	161.78			
V VII	161.836		400	
Co	161.88		800	
Cr VI	161.90		200	
Sc	161.908		200d	
Cr VI	161.93		100	
Ni	161.94		30	
Ca IX	161.979		80	
F V	162.013		200	
Ti VIII	162.016		1	
F V	162.053		300	
Co	162.07		700	
Cu	162.078		200	
F V	162.082		300	
F V	162.121		200	
Mn XX	162.16	?		
Ni	162.16		40	
F V	162.172		300	
Sc	162.172		200d	
F V	162.215		300	
Sc	162.236		200	
F V	162.270		400	
Co	162.32		400	
Mn VII	162.349		800	
Ca IX	162.371		160	
N IV	162.374		2 -A	6.33
Ti VIII	162.401		1	
N IV	162.423		10 -A	6.32
Na IV	162.445		800	
O V	162.494		250	
Ti XVI	162.51			
N V	162.556	P	480	3
Co XI	162.56		500	
Sc XVII	162.65	?		
Cu	162.651		100	
Mn VII	162.667		600	
Cr XXI	162.67	?		
Mn VII	162.707		300	
Cr VI	162.76		400	
N IV	162.816		1d	2.16
Cl XI	162.83			

Element	Wavelength	Intensity	Multiplet
Ni	162.90	50	
Ca XIII	162.91		
Cu IV	162.926	20 -A	
Ar XIII	162.96		
Ti V	162.984	20	
Co XI	162.99	1	
Sc	163.006	300	
Cr VI	163.01	500	
V VII	163.135	200	
F VI	163.138	200	
V VII	163.182	400	
Na IV	163.187	600	
Ca IX	163.229	240	
Ar XII	163.23		
Cu	163.271	300	
V XVIII	163.29 ?		
N IV	163.311	1d	2.15
Co XI	163.32	150	
Sc VIII	163.416	400	
Sc XVI	163.44		
F V	163.456	300	
F V	163.501	400	
Fe	163.52		
F V	163.558	500	
Ne IV	163.56	60	
Mg III	163.586	10	
F V	163.596	200	
Cu	163.598	250	
Ne IV	163.60	10	
Na V	163.616	300	
Cr VI	163.80	400	
Na IV	163.840	400	
Co	163.85	500	
Na V	163.930	200	
N IV	163.949	10d	2.14
N IV	163.972	2 -A	6.31
B V	163.99 P		
F VI	164.015	100	
Ne V	164.02	100	
N IV	164.048	50 -A	6.30
Ca XIII	164.09		
K XIII	164.13	250	
Ni XIV	164.146	35	
Ne V	164.15	100	
Ni XIII	164.15		
Mg III	164.159	10	
Ti VII	164.173	10	
O V	164.1766	150	
Cu	164.259	200	
Ne V	164.29	80	
Cr VI	164.30	100	
V VII	164.302	100	
Mg III	164.384	200	
Sc VIII?	164.444	100	
Ti V	164.446	35	
Ti VII	164.478	3	
Cl X	164.5		
Ar XII	164.51		
V VII	164.523	50	
Cr VI	164.56	300	
O V	164.5739	300	
O V	164.5887	250	
F IV	164.612	200	
O V	164.6256	200	
O V	164.6570	330	
Sc XVI	164.67		
O V	164.7087	300	
Sc VIII	164.772	300	
N IV	164.794	30	2.13
Ar XIII	164.80		
Ni XIV	164.80		
Cr VI	164.84	300	
Na IV?	164.841	400	
Co XI	164.91	120	
Ca XV	164.94 P		
Mg III	164.954	200	
O V	164.986	150	
Fe VII	165.081	300	
Sc XVI	165.11		
Cu	165.127	300	
Mg III	165.195	10	
Mn XX	165.22 ?		
F IV	165.350	10	
Ca XIV	165.36		
Sc VIII	165.395	300	
Ti VII	165.403	6	
Ni	165.43	70	
Fe	165.47	500	
F IV	165.479	1	
Cu	165.481	250	
Ar X	165.53	400	
Ti	165.653	1	
Sc VIII	165.654	400	
Fe XVI	165.656	20	
Ni	165.69	30	
Ti VII	165.716	1	
Ni	165.81	40	
Ti VII	165.836	3	
Co XII	165.86		
C V	165.91 P		
N IV	165.945	50	2.12
Fe VII	165.95	600	
F V	165.983	900	
Sc VIII	166.022	200	
Cl XI	166.07		
Ni	166.08	50	
Ti VII	166.087	10	
O V	166.1128	200	
O V	166.1504	250	
F V	166.177	1000	
K XIII	166.19	100	
O V	166.2351	300	
Ni	166.29	50	
Cu	166.308	120	
Sc VIII	166.317	300	
N IV	166.337	10 -A	6.29
Sc VI	166.35	350	
Fe	166.35	600	
N IV	166.377	20 -A	6.29
F IV	166.444	200	
Ni	166.46	50	
Cr VII	166.49	50	
N IV	166.496	20 -A	6.28
F IV	166.499	200	
N IV	166.540	75 -A	6.28
Ti	166.566	1	
Cr VII	166.57	70	
Fe VII	166.629	50	
Cl XI	166.63		
Cu	166.645	100	

Element	Wavelength	Intensity	Multiplet
Cr XIX	166.67 ?		
Co	166.71	400	
N V	166.875 P	440	8
Ni XII	166.88		
Sc VIII	166.916	300	
Ca X	166.945	200	
N V	166.946 P	520	8
Cr VII	166.95	50	
Sc VI	166.957	200	
Ca XIV	167.00		
Cr VII	167.03	80	
Ca X	167.034	250	
Ni VIII	167.07	80	
O IV	167.145	1d -A	
Sc VI	167.17	200	
C V	167.218		19
Ti XVI	167.22		
Ni VIII	167.35	20	
Cu IV	167.392	10 -A	
C V	167.402	4	24
Ne V	167.47	150	
Fe VIII	167.49	700	
Cr VII	167.50	70	
Na V	167.510	100	
Ne V	167.61	30	
Ar XII	167.62		
Ti	167.625	1	
Fe VIII	167.64	700	
Ni VIII	167.66	10	
Ne V	167.67	250	
N IV	167.709	150	2.10
Ne V	167.83	25	
F V	167.858	100	
Ne IV	167.92	25b	
Ne V	167.92	25b	
Ti	167.930	1	
Ni VIII	167.97	40	
O V	167.9883	400	6
O V	167.9910	300	6
O V	168.0084	250	6
Fe VIII	168.03	700	
O V	168.0469	200	6
O V	168.0776	200	6
Ni VIII	168.08	20	
Na IV	168.084	1000	
Cr VI	168.09	700	
Ne IV	168.10	10	
Cu	168.111	150	
Ni XIV	168.12		
Ti XVIII	168.13 ?		
Ti	168.162	10	
Sc XI	168.165	100	
Fe VIII	168.18	800	
Ti	168.192	10	
Co XI	168.327	90	
Ni VIII	168.33	10	
Co XII	168.34		
Cr VI	168.35	300	
Ni XIV	168.37		
Sc XI	168.396	400	
Ca XIII	168.40		
Na IV	168.409	800	
F IV	168.450	200	
N V	168.514 P	50	7
Fe VIII	168.54	800	
Na IV	168.544	500	
Ni VIII	168.58	150	
N V	168.587 P	120	7
Ni VIII	168.62	10	
Ti VII	168.652	10	
Co XII	168.68		
Ni VIII	168.87	40	
Fe VIII	168.90	700	
Sc XI	168.942	200	
Ni VIII	168.95	20	
Ar XII	169.00		
Ti	169.036	1	
Co XII	169.04		
Sc	169.105	100	
Mg III	169.150	100	
Ni VIII	169.16	400	
F IV	169.166	200 -A	
Sc VI	169.26	350	
Ni VIII	169.27	40	
Ti VII	169.301	20	
Cr VI	169.44	800	
Sc	169.451	200	
O IV	169.47	0	
F IV	169.481	100	
Cu	169.488	150	
F IV	169.502	100	
O IV	169.58	1	
F IV	169.610	100	
Sc XVI	169.65		
F IV	169.661	200	
Ni XIV	169.69		
K XII	169.71		
Cr XIX	169.72 ?		
Ti XVI	169.74		
Mg III	169.746	100	
F IV	169.748	200	
Sc VIII	169.759	400	
Cu	169.765	150	
F IV	169.790	300	
F IV	169.839	300	
Fe	169.88	600	
Co XII	169.91		
Sc XV	170.00		
Cu	170.007	150	
N IV	170.074	200	2.09
Sc	170.105	100	
Ni VIII	170.17	80	
F IV	170.187	200	
N IV	170.208	50 -A	6.27
Mg X	170.21 P		
O V	170.2194	330	
N IV	170.249	100 -A	6.27
Sc VI	170.25	250	
Ni VIII	170.27	20	
Co XI	170.33	2	
Co XII	170.33		
Ti VII	170.358	125	
Cr VII	170.39	100	
N IV	170.463	50 -A	6.26
Ti XVII	170.48 ?		
Co XXV	170.5 P		
Ni XIV	170.50		
N IV	170.505	100 -A	6.26
Ni VIII	170.52	250	
Sc VI	170.54	150	

Element	Wavelength	Intensity	Multiplet
Ti VII	170.559	20	
Cr VI	170.57	200	
V XX	170.58 ?		
Fe X	170.58	100	
Ar X	170.63	200	
Na V	170.631	100	
Co IX	170.70	500	
Sc	170.735	100	
O VIII	170.80 P		
Mg III	170.802	500	
Ni VIII	170.84	10	
Cr VII	170.85	80	
Na V	170.923	100	
Ti VII	170.938	3	
O IV	170.940	1 -A	
Cr VII	170.98	70	
O IV	170.988	1 -A	
F IV	171.066	300	
O IV	171.071	5	
Fe IX	171.075	900	
Na V	171.076	100d	
O IV	171.121	5	
O IV	171.191	1	
F V	171.214	10	
F V	171.241	100	
F V	171.302	200	
S VI	171.33	20	
Fe XV	171.359	40	
Ar XI	171.36 P		
Ni XIV	171.37		
Cr VI	171.39	400	
Ti	171.392	3	
Mg III	171.395	400	
Sc	171.530	200	
Ca XV	171.58		
Li II	171.582	100	3
Mg IV	171.657	250	
Fe XVI	171.66	300	
Co XI	171.66	2	
Ti	171.723	3	
Sc	171.823	100	
Ti VII	171.888	20	
Mg III	171.896	10	
Ti VII	171.952	6	
Se VII	172.0	500	
Cu	172.036	400	
Cl XII	172.06		
V XVIII	172.10 ?		
Ni VIII	172.10	40	
Ni XIV	172.16		
O V	172.169	700	2
Co IX	172.19	150	
Cr VI	172.20	200	
K XIV	172.26	100	
Mg IV	172.311	150	
Ni VIII	172.32	20	
Co XII	172.33		
Ti VII	172.353	6	
Co XII	172.41		
Cr VI	172.48	600	
Ne IV	172.49	200	3
Ne IV	172.53	250	3
K XII	172.57		
Ne IV	172.62	400	3
F IV	172.653	10	
Ni VIII	172.67	40	
Ca XVI	172.73 ?		
Cr VI	172.83	500	
Se VII	172.9	700	
Co IX	172.91	1	
Ni VIII	172.93	20	
O VI	172.935	950	4
F V	173.020	100	
O VI	173.082	1000	4
F VI	173.145	100	
Cu	173.193	100	
Sc XV	173.27		
C V	173.281	10	14
Sc	173.346	100	
Ni VIII	173.41	750	
Sc XV	173.49		
B V	173.54 P		
F V	173.656	10	
F V	173.714	10	
Ni XV	173.73		
Sc IX	173.771	300	
O IV	173.803	1	
As VII	173.82	600	
O IV	173.851	2	
Sc IX	173.858	400	
O IV	173.917	5	
N VI	173.92		9
Ne V	173.93	500	6
Ni VIII	173.95	40	
O IV	173.968	1	
Na IV	174.008	10	
Fe VIII?	174.03	100	
Cl VII	174.04	150	
K XIV	174.09	50	
O IV	174.105	5	
Ne IV	174.12 P		
Cr VI	174.17	300	
Cl XII	174.21		
O IV	174.220	10	
Ni VIII	174.22	10	
Ni VIII	174.24	750	
Cr VII	174.28	80	
Ne IV	174.30	15	
Ni VIII	174.36	400	
K XII	174.40		
Ni VIII	174.46	250	
F V	174.490	300	
Ni VIII	174.50	10	
F V	174.513	300	
O V	174.560	150	
F V	174.568	300	
Sc IV	174.57	200	
Fe X	174.58	700	
Cl VII	174.60	200	
As VII	174.60	1000b	
N IV	174.602	200	2.07
Co	174.67	300	
F V	174.698	400	
As VII	174.70	1000b	
Co	174.71	300	
Ni VIII	174.75	40	
Ni VIII	174.79	150	
Co XIII	174.82		
Ne IV	174.88	50	
Ni VIII	174.88	80	

Element	Wavelength	Intensity	Multiplet
Ca VIII	174.910	50	
Ne IV	174.92	40	
Ni VIII	174.92	750	
Ni VIII	174.95	40	
Ca VIII	174.976	50	
Ni XV	174.99		
F IV	175.033	10	
Ni VIII	175.13	400	
F IV	175.132	1	
V XVIII	175.16 ?		
As VII	175.20	600	
K VII	175.210	100	
Fe X	175.26	600	
Ni VIII	175.26	40	
Ni VIII	175.28	40	
Cr VII	175.31	80	
Ni VIII	175.32	400d	
K XII	175.35		
Co XII	175.44		
As VII	175.46	1000	
Fe X	175.48		
Cu	175.484	300	
Ni VIII	175.49	20	
Ni VIII	175.54	40	
Ni VIII	175.56	750	
As VII	175.56	1000	
Sc XVII	175.61 ?		
Ni VIII	175.62	20	
Cu	175.633	250	
Ni VIII	175.64	400	
C V	175.67		
Ni VIII	175.67	400	
K XV	175.68	50	
Cl XII	175.71		
Cr VI	175.75	600	
Co XIII	175.77		
Ni VIII	175.80	1000	
Cr VII	175.81	80	
Ti VII	175.812	90	
Ni VIII	175.82	1000	
As VII	175.84	800	
Sc IV	175.89	200	
Ni VIII	175.91	40	
Ni VIII	175.94	750	
Ca	175.963	50	
Ne IV	176.01	250	
Ni VIII	176.03	400	
Cr VI	176.04	800	
Ni XV	176.10		
Ti	176.105	1	
K VII	176.122	200	
Ni VIII	176.13	250	
K VII	176.181	20	
Ni VIII	176.21	10	
Cu	176.232	150	
Ni VIII	176.25	80	
Ni VIII	176.29	250	
Fe	176.32	400	
As VII	176.32	900	
Sc	176.325	300	
Ni VIII	176.35	20	
F IV	176.367	400	
Ni VIII	176.42	40	
F V	176.472	10	
Ni VIII	176.50	150	
Ti	176.538	1	
Ar VII	176.57	500	
Cr VII	176.61	100	
Ar XII	176.62		
K XII	176.68		
Ni VIII	176.69	80	
Fe XI	176.694	40	
Ni XV	176.70		
Ni VIII	176.74	250	
Se VII	176.8	40	
Cu	176.824	100	
Ni VIII	176.87	750	
Ca XV	176.88		
Ni VIII	176.95	250	
As VII	176.96	600	
Ni VIII	176.98	40	
Cl XI	177.00		
Ni VIII	177.10	10	
Cl XII	177.11		
N IV	177.119	100b -A	6.25
N IV	177.142	100b -A	6.25
Ne IV	177.16	400	
N IV	177.163	200 -A	6.25
N IV	177.182	100b -A	6.25
Ni VIII	177.19	400b	
As VII	177.23	1000	
Ti VII	177.238	60	
Fe X	177.24	800	
Ni XIV	177.28		
Ni VIII	177.29	80	
Ni VIII	177.32	40	
Ni VIII	177.43	80	
Cu	177.466	200	
Sc XV	177.47		
S X	177.55	250	
Ni XIV	177.56		
Co XI	177.58	1	
As VII	177.58	900	
O IV	177.598	1 -A	
N IV	177.602	100b -A	6.24
N IV	177.621	100b -A	6.24
Ni VIII	177.63	10	
N IV	177.646	250 -A	6.24
O IV	177.659	1 -A	
Sc	177.686	200	
O IV	177.698	2 -A	
Ti	177.729	1	
Ni VIII	177.73	40	
O IV	177.761	5 -A	
Al X	177.80		
O IV	177.808	6 -A	
Ni VIII	177.83	10	
Ni VIII	177.87	10	
Ca VIII	177.886	200	
Cl XI	177.96		
Ni VIII	177.97	20	
F IV	177.971	200	
As VII	178.00	800	
Li II	178.015	100	2
Fe XI	178.060	400	
Ni VIII	178.06	20	
F IV	178.126	100	
Ar XII	178.15		
K XIII	178.15	300	
Fe	178.15	600	

Element	Wavelength	Intensity	Multiplet
Ti XVI	178.23		
Ca VIII	178.241	200	
F V	178.434	500	
Cu	178.489	150	
Ni VIII	178.52	80	
F IV	178.540	100	
N IV	178.547	1 -A	12.29
Ca	178.557	50	
Ti XVII	178.57 ?		
Ti VII	178.572	10	
F V	178.590	400	
F V	178.612	300	
As VII	178.62	900	
Ca VIII	178.639	200	
F IV	178.670	300	
Ti VII	178.673	20	
Ca VIII	178.684	50	
As VII	178.69	700	
O V	178.713	150	
F IV	178.724	100	
Ca VIII	178.747	10	
Ni XV	178.75		
Ni VIII	178.77	400	
F IV	178.805	100	
Sc VIII	178.821	200	
Na XI	178.83 P		
Ni XV	178.87		
Ni VIII	178.91	250	
Co XIII	178.98		
Fe	179.00	500	
Co	179.08	500	
Ti VII	179.107	10	
Co	179.16	500	
Ca VIII	179.215	100	
Cu	179.223	150	
Fe	179.23	400	
Ni XV	179.28		
Ti XIX	179.31 ?		
S IX	179.32	450	
V VI	179.323	1000	
As VII	179.38	600	
Ar VIII	179.40	500	
Sc V	179.42	150	
K XIII	179.46	400	
Ca VIII	179.509	150	
N IV	179.554	2 -A	12.28
Co XIII	179.59		
Cu IV	179.630	15 -A	
Fe XI	179.762	600	
Ni VIII	179.77	40	
P XV	179.8 P		
As VII	179.82	400	
F IV	179.827	100	
Ti	179.842	1	
F IV	179.907	1	
F IV	179.943	200	
Ni VIII	179.97	550	
F IV	180.029	10	
Ni XV	180.06		
Ar VI	180.07	80	
Mg IV	180.071	350	
Ni VIII	180.12	250	
Sc V	180.14	350	
Se VII	180.2	80	
Ar VIII	180.25	750	
Sc VII	180.260	200	
Ar XIV	180.29		
O IV	180.351	2	
S X	180.36	150	
K XII	180.37		
Ni VIII	180.39	250	
Ne IV	180.40	75	
Fe XI	180.407	700	
Fe X	180.45	700b	
Co XII	180.45		
O IV	180.481	5	
As VII	180.52	900	
Fe XI	180.600	300	
Mg IV	180.618	400	
Cl IX	180.71		
S X	180.72	350	
Ar VI	180.72	120	
Ni VIII	180.74	40	
As VII	180.79	900b	
Mg IV	180.797	400	
Sc V	180.82	200	
Cl XI	180.85		
Co XIII	180.87		
N IV	180.928	5 -A	12.27
Sc V	180.96	200	
Cu	180.986	200	
As VII	181.08	400	
Ni VIII	181.10	40	
Fe XI	181.140	400	
O IV	181.150	15	
Sc XV	181.21		
O IV	181.275	25	
Mg IV	181.345	350	
Mn	181.37	300	
Mg X	181.50		
S XVI	181.5 P		
F IV	181.521	400	
Sc V	181.55	50	
As VII	181.57	800	
F IV	181.571	400	
Ne IV	181.61	100	
Ne IV	181.65	100	
Ti XVII	181.65 ?		
F IV	181.655	200	
N IV	181.746	400	2.06
Na IV	181.758	800	
Cl XI	181.84		
Mg X	181.86		
O IV	181.876	10	
Ca XV	181.90		
N IV	181.943	10d	6.23
O IV	181.995	15	
V VI	182.050	750	
Co XIII	182.09		
Mg XII	182.1 P		
Na IV	182.128	600	
Ti VI	182.151	90	
C VI	182.17 P		
Fe XI	182.173	500	
O V	182.205	150	
Mg III	182.240	300	
Ni VIII	182.27	20	
Na IV	182.282	400	
Fe X	182.31	300	
N IV	182.323	20d	6.22

Element	Wavelength	Intensity	Multiplet
Sc V	182.392	200	
Ni VIII	182.44	400	
Mn VII	182.50	700	
As VII	182.51	900	
Co XIII	182.52		
Ni VIII	182.55	40	
Sc	182.618	100	
As VII	182.68	800b	
Mn VII	182.69	600	
Ca VIII	182.707	200	
O IV	182.711	10	
Sc VII	182.743	100	
Ni VIII	182.76	20	
Ni VIII	182.79	20	
N IV	182.827	30d	6.21
Ne IV	182.83 P		
O IV	182.832	15	
Ni VIII	182.87	80	
N IV	182.894	10 -A	12.26
Ni VIII	182.94	40	
Mn VII	182.96	600	
Ni VIII	182.96	80	
As VII	182.97	900	
Mg III	182.973	200	
F V	182.979	400	
Ni VIII	182.99	40	
Sc VII	182.993	400	
F V	183.016	300	
Ni VIII	183.02	40	
As VII	183.14	400	
N IV	183.146	5d -A	12.25
Mn VII	183.15	700	
Ni VIII	183.16	10	
Ne IV	183.17	75	
F V	183.208	10	
Ni VIII	183.23	10	
Ne IV	183.25	60	
O IV	183.353	1	
Ni VIII	183.39	20	
O IV	183.395	2	
N IV	183.402	50d	6.20
Ar XIV	183.41		
Ni VIII	183.44	40	
Mg IV	183.442	150	
N IV	183.450	50d	6.20
O IV	183.454	3	
Ca XIV	183.46		
Ni VIII	183.51	150	
Na III	183.575	10	
Sc	183.593	370	
Sc	183.626	130	
Ni VIII	183.63	10	
Co XIII	183.65		
Sc	183.673	100	
As VII	183.68	1000	
Mn	183.72	600	
Na III	183.747	100	
Ni VIII	183.80	40	
Ni VIII	183.83	900	
Ni VIII	183.91	80d	
Mg IV	183.921	50	
O VI	183.937	650	3
Sc VII	183.96	200	
Ni VIII	183.97	20	
As VII	184.05	800	

Element	Wavelength	Intensity	Multiplet
K XV	184.07 ?		
Ti VI	184.106	35	
O VI	184.117	850	3
Ni VIII	184.12	900	
Ca VIII	184.158	200	
Mn	184.19	700	
Mg IV	184.199	30	
N IV	184.200	75d	6.19
Ni VIII	184.20	10	
Na III	184.218	10	
N IV	184.247	75d	6.19
Ar VIII	184.27	150	
Ca V	184.280	150	
As VII	184.29	800	
Ar VIII	184.32	250	
Ca IX	184.338	120	
Ca XVI	184.37 ?		
Ca IX	184.377	240	
Ni VIII	184.40	10	
Fe XI	184.41		
Co XIV	184.41		
Ca V	184.415	50	
As VII	184.43	700	
Ca IX	184.433	320	
N IV	184.437	1	6.18
Ni VIII	184.44	550	
N IV	184.485	2	6.18
Ar XI	184.51		
Fe X	184.53	600	
Ni VIII	184.58	10	
K IX	184.586	175	
Sc VII	184.607	200	
Ni VIII	184.62	10	
Fe XXIV	184.63 P		
Ni VIII	184.68	40	
Ne V	184.73	100	
Mn IX	184.80		
Fe XI	184.800	600	
Ni XV	184.89		
Ar XIII	184.90		
Cu IV	184.938	7 -A	
Ni VIII	184.95	40	
As VII	185.06	700	
Ca V	185.102	100	
Ni VIII	185.18	20	
As VII	185.19	900	
Sc	185.219	100	
Fe VIII	185.22	800	
Ni VIII	185.23	10	
Ni XVI	185.23		
N IV	185.237	150d	6.17
N IV	185.257	150d	6.17
Cl IX	185.26		
Ca V	185.288	50	
N IV	185.306	200d	6.17
O IV	185.384	1	
Co XIII	185.39		
Mn VIII	185.46	900	
Ne IV	185.48	100	
F IV	185.484	300	
Sc VII	185.526	300	
Ca V	185.540	100	
O IV	185.544	2	
N IV	185.568	3	6.16
Sc VII	185.575	40	

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Element	Wavelength	Intensity	Multiplet
N IV	185.623	5	6.16
Ni VIII	185.65	80	
As VII	185.66	800	
Ca XIV	185.74		
O V	185.745	500	12
Sc VII	185.808	330	
Ni VIII	185.82	10	
N IV	185.853	75 -A	12.24
K IX	185.883	250	
Cl X	186.06		
K XIV	186.06 P		
N V	186.063 P	520	6
Ca XX	186.1 P		
N V	186.149 P	620	6
Ni VIII	186.16	10	
Ni VIII	186.18	80	
N IV	186.218	50 -A	12.23
As VII	186.25	700	
Cu	186.296	150	
Ni VIII	186.31	10	
C V	186.329		18
Mn	186.35	500	
Ar XIII	186.38		
Ti	186.417	1	
Ni VIII	186.49	250	
Mg III	186.510	900	4
F IV	186.558	100	
Ne IV	186.58	750	7
Fe VIII	186.60	800	
Ca XIV	186.62		
N IV	186.690	250d	6.15
C V	186.697	30	23
N IV	186.709	250d	6.15
F V	186.715	400	
C V	186.745	30	23
N IV	186.759	300d	6.15
Ni VIII	186.76	10	
F V	186.788	400	
Ne IV	186.79	25	
Co XIV	186.79		
F V	186.842	500	
S XI	186.85	200	
Ni VIII	186.86	10	
O IV	186.872	2	
F V	186.879	300	
Fe XII	186.885	60	
Ne IV	186.92	75	
Ni VIII	186.93	40	
O IV	186.936	5	
F V	186.968	400	
O IV	186.982	1	
F V	187.008	400	
Ar XI	187.08		
Ni VIII	187.08	10	
F IV	187.105	200	
N IV	187.123	10	6.14
N IV	187.142	10	6.14
Mg X	187.17		
N IV	187.194	20	6.14
Mg III	187.194	800	3
Ni VIII	187.20	20	
Ni VIII	187.23	10	
F IV	187.240	300	
Fe VIII	187.27	600	
Ne X	187.3 P		
As VII	187.38	900	
Mn	187.45	500	
Ca	187.515	40	
Mn	187.63	400	
Ti	187.671	1	
Mg IV	187.697	15	
Ti	187.752	1	
Mn	187.76	500	
Ti	187.819	1	
Ni VIII	187.87	10	
Co XIV	187.89		
F IV	187.916	100	
Ar XIV	187.95		
Mn	187.96	500	
F IV	188.004	10	
Ni VIII	188.06	20	
Mn	188.09	500	
Mg IV	188.146	15	
O IV	188.152	5	
O IV	188.190	1	
Mn	188.19	600	
Fe XII	188.219	70	
Fe XI	188.305	400	
Co XIII	188.42		
Mn IX	188.48	900	
Sc XVI	188.50		
Mg III	188.526	300	
Ni VIII	188.58	150	
N IV	188.583	200b	6.13
Co XIV	188.60		
N IV	188.606	200b	6.13
N IV	188.656	250	6.13
F IV	188.656	200	
Mn	188.67	600	
S XI	188.68	225	
N IV	188.743	300b	6.12
F IV	188.758	100	
N IV	188.762	300b	6.12
N IV	188.818	300	6.12
Ar XI	188.82		
F IV	188.834	10	
Fe	188.86	500	
Na III	188.870	200	
Co XIII	188.89		
Sc XVIII	188.98 ?		
Ca XIV	189.00		
Mn	189.06	800	
Mn IX	189.16	800	
Ni XV	189.21		
Na III	189.346	100	
N IV	189.365	1	6.11
N IV	189.386	5	6.11
N IV	189.437	10	6.11
Mn	189.49	500	
Ar XI	189.57		
Mn	189.82	400	
F V	189.943	200	
Mn IX	189.98		
S X	189.99	150	
Fe X	190.02	400	
Cl XI	190.03		
K XIV	190.07 P		
Na IV	190.126	600	
N V	190.155 P	200	5.01
Ti	190.181	1	

Element	Wavelength	Intensity	Multiplet
N V	190.249 P	320	5.01
Ca V	190.363	200	
S XI	190.37	250	
Na IV	190.440	1000	
Fe	190.45		
Ca V	190.457	250	
Sc XV	190.49		
Ca V	190.558	150	
Al	190.560	50	
Ne IV	190.57	125	
F V	190.571	600	
Cl VII	190.59	100	
N IV	190.625	200 -A	12.22
Ne IV	190.65	75	
Co XIV	190.65		
Sc VII	190.654	400	
Mn	190.73	600	
K XIV	190.75 P		
Ti	190.762	1	
Co XIV	190.82		
Na IV	190.835	800	
F V	190.839	700	
Cl XI	190.94		
Ar XI	190.96		
Na IV	191.000	600	
Fe XII	191.051	20	
Fe XIV	191.20	200	
Na VI	191.205	10	
N IV	191.228	100 -A	12.21
S XI	191.26	250	
Cl VII	191.28	200	
Fe XIII	191.34		
Ar XIV	191.35		
O V	191.397	10	
Ca V	191.439	150	
O V	191.458	100	
S VI	191.48	20	
Ca V	191.480	100	
O V	191.556	150	
S VI	191.56	50	
Ne VI	191.59 ?	20	
Mn IX	191.60	700	
Sc VII	191.602	300	
O IV	191.609	5d	
O IV	191.640	1	
N IV	191.651	400b	6.10
N IV	191.676	400b	6.10
O IV	191.695	5	
N IV	191.702	400b	6.10
N IV	191.727	400b	6.10
N IV	191.748	400b	6.10
O IV	191.752	10	
Ar VII	191.76	150	
Co XIV	191.76		
Ne VI	191.77 ?	20	
Ca V	191.801	100	
N IV	191.868	350b	6.09
F V	191.892	300	
N IV	191.898	350b	6.09
N IV	191.951	350	6.09
F V	191.973	400	
Ar VII	192.04	250	
Cl XI	192.06		
Mn X	192.09	600	
Ti	192.102	3	
O IV	192.139	15	
O IV	192.169	20	
O IV	192.206	25	
Mn	192.22	600	
O IV	192.244	10	
S VI	192.27	20	
Ti	192.272	3	
Fe XII	192.402	70	
Mn	192.42	500	
Ti	192.474	6	
N IV	192.533	10d -A	15.23
Cu IV	192.585	7 -A	
Sc VII	192.607	150	
Ar VII	192.64	350	
Ar XII	192.66		
Ti VI	192.710	20	
O V	192.751	600	5
Ti VI	192.754	250	
O V	192.799	700	5
Fe XI	192.819	250	
N IV	192.859	400b	6.08
S X	192.88	50	
N IV	192.888	400b	6.08
O V	192.906	800	5
N IV	192.908	400b	6.08
N IV	192.941	400b	6.08
O V	193.003	300	
Sc VII	193.004	300	
N IV	193.139	300b	6.07
N IV	193.160	300b	6.07
N IV	193.214	350	6.07
Sc	193.332	200d	
Mn X	193.43	600	
Fe XI	193.46	200	
S X	193.49	150	
Ti	193.501	1	
Fe XII	193.517	80	
Ti	193.534	3	
Ti	193.585	6	
Mn	193.59	500	
Ti	193.668	10	
Ar XII	193.68		
Ti	193.737	1	
Ti	193.791	1	
Na	193.807	10	
Ca XIV	193.88		
Na III	194.032	100	
Ti	194.039	1	
Ni XVI	194.04		
N IV	194.083	75d -A	15.22
Ar XI	194.09		
F V	194.108	300	
Na III	194.166	10	
Ne IV	194.28	500	11
Mn X	194.30	600	
Na III	194.306	100d	
Fe	194.31		
B V	194.36 P		
Mn X	194.37		
Fe XXI	194.38 ?		
Ar XIV	194.39		
Ti	194.420	1	
K XV	194.44 ?		
Ne IV	194.48	200	
Ti	194.490	3	

Element	Wavelength	Intensity	Multiplet
O V	194.593	420	11
P IX	194.61	300	
Mn IX	194.61	600	
Ne IV	194.62	250b	
N VII	194.71 P		
Sc XVI	194.72		
Fe VIII	194.762	250	
Cl VI	194.80	100	
Sc VII	194.813	40	
F VI	194.840	100	
Mn	194.88	600	
Ti VI	194.900	200	
Mn X	195.03	600	
Fe XII	195.127	90	
N IV	195.202	20d -A	15.21
Cl XIII	195.22		
Cl VI	195.23	150	
N IV	195.258	100d -A	15.20
Ne V	195.37	50	
Fe VIII	195.476	1000	
Ni XV	195.52		
Na III	195.538	10	
Ne V	195.55	30	
K XIV	195.59 P		
N IV	195.610	1 -A	15.19
Ne V	195.62	20	
Co XIV	195.66		
Cl XI	195.69		
Mn X	195.85	500	
O IV	195.863	60	
O IV	196.009	90	
Fe VIII	196.046	750	
Cl VII	196.12	500	
S X	196.14	100	
C IV	196.27	2	5.07
K XIV	196.31 P		
Cl XII	196.33		
O IV	196.348	1d -A	
F IV	196.351	400	
Mn IX	196.38	500	
F IV	196.390	500	
Cl VII	196.39	400	
O IV	196.435	1d -A	
Ti	196.443	1	
F IV	196.448	600	
Co XIV	196.48		
Fe XIII	196.531	50	
Mn	196.54	500	
Cu IV	196.585	30 -A	
Fe XII	196.649	50	
F V	196.713	200	
P VIII	196.76	400	
Ti	196.785	1	
N IV	196.802	100d -A	15.18
S X	196.83	200	
N IV	196.866	500b -A	15.17
F V	196.870	100	
N IV	196.921	400b	6.06
N IV	196.944	400b	6.06
C IV	196.96	2	5.06
F IV	196.968	100	
Ca V	196.970	250	
N IV	197.000	400	6.06
Co XIV	197.01		
C V	197.024	4	26
F IV	197.108	200	
Cu	197.128	300	
Ti	197.178	3	
N IV	197.230	500	2.04
P IX	197.25	400	
F IV	197.298	100d	
N IV	197.343	2 -A	15.16
Fe XIII	197.443	30	
Ti VI	197.460	200	
Ca V	197.531	100	
Co XV	197.54		
Cl XII	197.55		
Cu	197.598	300	
F V	197.615	1	
Ti	197.629	6	
Mn	197.64	500	
Ca V	197.648	100	
Ca V	197.685	20	
Ti	197.697	6	
F V	197.780	10	
C IV	197.82	5	5.05
Mn XX	197.82 ?		
Ti	197.843	3	
Sc VII	197.875	50	
O V?	198.031	150	
Ti	198.079	1	
Ti	198.137	3	
Mn	198.23	400	
Sc VII	198.232	200	
Ti	198.311	3	
Cl XIII	198.40		
Mn X	198.42		
F V	198.476	100	
K XIII	198.49	150	
K VIII	198.536	125	
Ti	198.540	3	
S VIII	198.550	50	
Fe XII	198.58		
N IV	198.740	250b	6.05
N IV	198.764	250b	6.05
F V	198.765	1	
N IV	198.821	300	6.05
K VIII	198.975	250	
Ti VI	198.977	400	
F IV	199.004	300	
C IV	199.04	10	5.04
Mn X	199.08	800	
F IV	199.086	300	
N IV	199.087	200d -A	15.15
N IV	199.159	450b -A	15.14
Sc VII	199.166	100	
Fe XVII	199.26		
Li II	199.282	300	1
Mn IX	199.32	600	
Cl XII	199.37		
Sc VII	199.522	50	
K XIII	199.54	50	
Ca V	199.553	300	
F IV	199.607	100	
Cu	199.723	100	
Ca XVII	199.74 ?		
Ti VI	199.759	200	
F IV	199.761	500	
Na IV	199.769	600	
F IV	199.804	500	

Element	Wavelength	Intensity	Multiplet
N IV	199.806	20 -A	15.13
F IV	199.849	500	
N IV	199.857	50 -A	15.13
Ca V	199.890	150	
K VIII	199.921	375	
Mn XXIII	199.93 P		
F IV	199.934	500	
Ti	199.960	3	
Ti	199.993	1	
F IV	200.001	500	
Fe XIII	200.033	60	
F IV	200.089	700	
O VIII	200.15 P		
N IV	200.340	300 -A	12.20
K VI?	200.341	50	
Fe	200.37		
Ca V	200.512	250	
Cu VII	200.665	1000	
Mn XI	200.67	600	
C IV	200.68	25d	5.03
Ti	200.691	1	
Co XIV	200.75		
Fe XVII	200.80	100	
Sc VI	200.810	100	
O IV	200.827	2 -A	
Cu VII	200.851	750	
Ca V	200.860	150	
F V	200.861	100	
O IV	200.915	2	
Cr VI	200.94	600	
Cu VII	200.948	500	
Cl XII	200.96		
O IV	200.966	2	
O IV	200.995	5	
F IV	201.011	600	
O IV	201.022	1	
F IV	201.063	700	
O IV	201.073	2	
O IV	201.098	2	
F IV	201.101	600	
Fe XII	201.134	70b	
Fe XIII	201.134	70b	
Cr VI	201.15	300	
F IV	201.160	800	
F IV	201.222	600	
Sc XVI	201.25		
Ti VI	201.311	90	
Cu	201.329	150	
Cr VI	201.33	300	
F IV	201.465	400	
Sc VII	201.476	40	
K XIII	201.48	200	
Cl X	201.50		
Cr VI	201.54	600	
Cr VIII	201.54		
Cu	201.615	200	
Ar XIII	201.69		
Fe XII	201.745	30	
Ti VI	201.865	125	
N IV	201.988	100d -A	18.22
K XIII	202.01	50	
Fe XIII	202.056	80	
Cu	202.065	200	
Cl XIII	202.10		
O V	202.161	300	14
Na III	202.184	400	
O V	202.191	300	14
O V	202.224	300	14
O V	202.283	300	14
Ti	202.303	1	
O V	202.334	300	14
Mn XI	202.38		
O V	202.393	380	14
Cr XIX	202.42 ?		
N IV	202.485	300d -A	15.12
Na III	202.490	200	
Cl XII	202.54		
N IV	202.595	500b -A	15.11
S VIII	202.605	50	
S IX	202.62	250b	
Sc VI	202.638	50	
Fe XI	202.67		
Na III	202.720	300	
Fe XI	202.723	30	
Na III	202.760	300	
Cr VII	202.78	900	
Mn VII	202.86	900b	
Mn X	202.86	900b	
O IV	202.885	15	
Sc VI	202.921	200	
F IV	202.989	10	
Ca VII	202.989	150	
O IV	203.044	25	
Na III	203.050	300	
C IV	203.057	50d	5.02
F IV	203.152	100	
Ti VI	203.200	6	
Sc VI	203.216	50	
Na III	203.282	200	
Na III	203.324	200	
Ar XIV	203.35		
Cu	203.432	600	
Ti VI	203.434	3	
N IV	203.642	50b -A	15.10
N IV	203.694	50b -A	15.10
Ca VII	203.701	100	
N IV	203.780	50 -A	15.10
O V	203.783	330	13
Cl X	203.80		
Fe XIII	203.81	70	
O V	203.821	380	13
O V	203.851	330	13
P X	203.87		
O V	203.890	420	13
O V	203.935	330	13
Na IV	203.959	200	
Ca VII	204.002	250	
Cu	204.056	150	
Mn VII	204.13	900	
S VI	204.19	50	
Fe XIII	204.26		
Ne IV	204.27	75	
Mn XI	204.29		
N IV	204.302	150d -A	18.21
Sc VI	204.310	100	
Ca VII	204.376	50	
Mn IX	204.43	600	
Ne IV	204.53	125	
Sc VI	204.610	50	
Ar XIV	204.64		

Element	Wavelength		Intensity		Multiplet
O IV	204.708		1d		
Sc VI	204.719		200		
Cu	204.725		400		
Ca VII	204.736		150		
Fe	204.77		400		
Ne IV	204.79		75		
O IV	204.905		1	-A	
Ne IV	204.91		25		
Mn XII	204.92				
Fe XIII	204.951		50		
N VII	204.98	P			
Mn XI	204.98				
O IV	204.996		1	-A	
Cr VIII	205.01		700		
Sc VI	205.072		100		
O V	205.105		150		
Ar XIII	205.24				
Mn	205.27		900		
Ni VII	205.275		100		
Cu IV	205.278		60	-A	
Fe	205.31				
Ni VII	205.359		20		
P X	205.38		50		
Co XIII	205.38				
Cl X	205.40				
Ca VII	205.402		150		
Cl XIII	205.47				
Na IV	205.487		600		
F V	205.552		400		
Cu	205.610		300		
Ni VII	205.637		320		
Cr VIII	205.65		400		
Ni VII	205.689		10		
Ar XIII	205.77				
K IX	205.772		300		
F V	205.778		300		
Ni VII	205.807		200		
O IV	205.842		1		
Co XV	205.85				
K IX	205.862		375		
Ti	205.880		1		
Ni VII	205.885		240		
N IV	205.940		500b		6.04
Ar XIII	205.94				
Na IV	205.956		400		
N IV	205.968		500b		6.04
O IV	206.002		2		
Cl X	206.02				
N IV	206.028		500		6.04
Ni VII	206.030		100		
Na IV	206.155		300		
Co VII	206.23		150		
K XIX	206.3	P			
Cu	206.355		600		
Si XIV	206.4	P			
F V	206.430		200		
Cr	206.53		100		
F V	206.594		300		
P XV	206.6	P			
Co VII	206.60		10		
C IV	206.641		150d		5.01
N IV	206.707		10d		12.19
Ca X	206.746		50		
Cu	206.842		350		
Na III?	206.871		10		
Co XV	206.94				
Mn XI	207.02				
Mn X	207.06				
Cr VIII	207.07		300		
O IV	207.183		40		
O IV	207.239		60		
Cu IV	207.282		20	-A	
Cu XIX	207.31		20		
O IV	207.348		15		
P X	207.35				
Ca X	207.386		25		
Cl X	207.41				
Cr VI	207.44		200		
Na III?	207.458		10		
N IV	207.500		20d		12.18
S X	207.53		200		
K VII	207.568		20		
Cr VI	207.61		300		
P X	207.67		200		
Cu	207.733		150		
Cl VII	207.76		200d		
O V	207.794		550		16
N IV	207.812		200d	-A	18.20
Co XIV	207.85				
Cu	207.925		350		
Mn X	207.98		400		
Mn XI	208.02				
N IV	208.066		400d	-A	15.09
Al VII	208.1	?			
N IV	208.113		400b	-A	15.08
K XIII	208.12		150		
N IV	208.131		400b	-A	15.08
N IV	208.150		400b	-A	15.08
Ni VII	208.182		240		
V XVIII	208.22	?			
F IV	208.254		900		
Ar XIV	208.31				
S X	208.33		200		
Fe	208.44		200		
Ne IV	208.49		500		2
Cu IV	208.502		15	-A	
N III	208.510		30d	-A	
N IV	208.510		100d		12.17
Cr IX	208.53				
F IV	208.549		200		
Ni VII	208.580		200		
Cr VIII	208.63		200		
Ca XV	208.66				
N III	208.670		50d	-A	
Ni VII	208.679		80		
Fe XIII	208.690		20		
N III	208.730		50	-A	
Ne IV	208.73		500		2
Ne IV	208.90		400		2
Ni VII	208.940		240		
Sc VI	209.050		100		
Cl XI	209.18				
Ni XV	209.18				
N V	209.274	P	800		2
N V	209.308	P	800		2
N IV	209.378		400b		6.03
Al VII	209.4	?			
N IV	209.407		400b		6.03
Cr IX	209.44		200		
N IV	209.471		400b		6.03

Element	Wavelength	Intensity	Multiplet
Mn XI	209.57		
Fe XIII	209.634	40	
Ca VII	209.723	250	
Fe	209.75	300	
Cl XIII	209.81		
Co VII	209.815	10	
Sc VI	209.821	200	
N IV	209.842	150b	12.16
Fe XIII	209.927	50	
Cl XI	209.93		
N IV	209.976	100b -A	15.07
P V	210.00	10	
N IV	210.028	200 -A	15.07
Cl X	210.08		
N IV	210.092	100b -A	15.07
Li II	210.1	f	
N IV	210.111	100b -A	15.07
Mn XI	210.16		
Cu	210.217	150	
Co XVI	210.23		
Mn XII	210.34		
Co VII	210.37	40	
Fe	210.40	300	
Ar XIII	210.46		
F IV	210.480	100	
Sc VI	210.523	40	
F IV	210.545	100	
Sc	210.550	200	
Cu	210.612	150	
Cr IX	210.62		
Fe X	210.67	200	
Co VII	210.68	10	
Co VII	210.71	10	
Co VII	210.77	80	
Ar XIII	211.00		
Cu XXVII	211.0 P		
Ni VII	211.037	160	
Cu IV	211.109	50 -A	
F IV	211.152	10	
Co VII	211.25	10	
Ni VII	211.298	80	
Cr IX	211.32		
Fe XIV	211.32	80	
N IV	211.405	400	2.03
Sc VI	211.416	400	
Cr VIII	211.42	200	
Ni VII	211.433	240	
Sc	211.505	170	
Ni VII	211.539	10	
Mn XI	211.54		
Sc VI	211.612	200	
Ni VII	211.649	240w	
Co VII	211.65	40	
N IV	211.679	250d	12.15
Sc VI	211.696	50	
Cu	211.707	200	
Fe XII	211.749	30	
Ni VII	211.759	280	
O IV	211.808	1d -A	
K XVI	211.81 ?		
Cr IX	211.97		
Ni VII	211.993	180	
N III	212.019	20d -A	
N III	212.049	50 -A	
N III	212.087	80 -A	
Sc VI	212.121	50	
S XII	212.14	150	
Co VII	212.15	1000	
Co VII	212.23	80	
Ni VII	212.316	160	
N III	212.359	50d -A	
C IV	212.421	250	5
N III	212.465	100 -A	
Ni VII	212.516	700b	
Ne IV	212.56	750	6
Ni VII	212.560	20	
O IV	212.578	5d	
S X	212.60		
Co VII	212.61	250	
Ni VII	212.625	60	
Co VII	212.64	1000	
Co XVI	212.78		
Mn XII	212.81		
Ni VII	212.856	20	
Ni VII	212.904	600	
Co VII	212.91	900	
Ni VII	212.949	400	
O IV	212.974	10d	
Cr VIII	213.03	200	
V VI	213.04	20	
Co VII	213.06	20d	
O IV	213.061	10d	
N III	213.086	100d -A	
Ni VII	213.096	300	
Sc VI	213.118	200	
K V?	213.121	50	
Ni VII	213.133	80	
N III	213.164	200d -A	
Sc VI	213.192	100	
Ca VII	213.194	10	
Ni VII	213.258	100	
V VI	213.32	30	
Ni VII	213.339	200	
N III	213.364	50d -A	
Ar XIV	213.42		
Ni VII	213.422	240	
N IV	213.443	300d -A	18.19
N III	213.447	100d -A	
Ni VII	213.496	300	
Ni VII	213.515	500	
S XI	213.55	125	
V VI	213.61	10	
Cu IV	213.617	8 -A	
F V	213.684	10d	
Sc VI	213.702	100	
Ni VII	213.714	500	
Mn XI	213.75		
Fe XIII	213.781	40	
F IV	213.848	700	
V VI	213.87	60	
Ni VII	213.908	600	
Ni VII	213.924	200	
O IV	213.975	15	
O IV	214.028	25	
Ni VII	214.042	300	
F IV	214.062	700	
Ni VII	214.111	140	
O IV	214.152	40	
Ni VII	214.166	40	
O IV	214.205	15	

Element	Wavelength	Intensity	Multiplet
Na III	214.235	400	
Ni VII	214.237	20	
O IV	214.249	2	
S VI	214.28	20	
O IV	214.290	2	
N IV	214.291	250	12.14
K V?	214.351	100	
N IV	214.414	50d -A	18.17
Fe XII	214.415	20	
Ni VII	214.440	120	
Ni VII	214.492	140d	
V VI	214.50	10	
Na III	214.596	200	
Si VIII	214.756	100	
F III	214.804	3	
N IV	214.843	10	12.13
S XI	214.85	125	
F III	214.862	3	
Na III	214.868	400	
S XI	214.98	100	
Mn XII	215.03		
O V	215.040	380	4
Cr IX	215.04		
Na III	215.042	200	
O V	215.103	420	4
S XII	215.18	150	
Na III	215.230	400	
O V	215.245	500	4
Co VII	215.26	80d	
Ti XVII	215.31 ?		
Na III	215.340	400	
Ca XV	215.37		
Cr	215.38	300	
Ne IV	215.40	25	
Ar XII	215.49		
Na III?	215.498	10	
Sc IV	215.522	100	4
Cu	215.611	500	
Na III	215.671	400	
F V	215.676	10	
Ne IV	215.71	15	
N IV	215.755	75	12.12
Ni VII	215.759	600	
Ne IV	215.84	75	
Mn XI	215.86		
Na III	215.870	100	
Ni XV	215.94		
S XI	215.95	250	
Cr IX	215.97		
O V	216.018	500	15
Cu IV	216.063	50 -A	
Ni VII	216.064	400	
Na III?	216.120	100	
Mn XII	216.12		
Co VII	216.205	20	
Ni VII	216.408	300	
Ne X	216.41 P		
Cu	216.454	250	
Cr XXII	216.51 P		
Ni VII	216.550	140	
Mn XI	216.60		
Cr VIII	216.67		
Co VII	216.70	250	
Cr X	216.72	400	
Na XI	216.8 P		
Si VIII	216.800	20d	
Fe XIII	216.88	35	
Si VIII	216.918	100	
Fe XIV	216.95		
Ca VIII	216.955	100	
O IV	216.960	1	
Ni VII	217.018	160	
Ca VIII	217.040	200	
Mn XII	217.10		
Fe IX	217.108	400	
Co VII	217.13	20	
Ni VII	217.138	240	
Sc IV	217.189	40	3
Cr	217.19	300	
Ar XII	217.21		
N IV	217.218	500	13.11
P V	217.22	20	
Fe XII	217.283	30	
Ne IV	217.34	75	
Na	217.385	10	
Cr	217.55	200	
Cr	217.61	200	
S XI	217.63	200	
Ne IV	217.64	75	
Ni VII	217.658	160	
Cu	217.743	200	
Cl XIII	217.77		
Ne IV	217.78	75	
Ni VII	217.781	10	
Si VII	217.826	350	
Ne IV	217.83	125	
Mn X	217.88		
Co VII	217.88	20	
N IV	217.895	500d -A	15.06
N IV	218.044	400b -A	15.05
N IV	218.067	400b -A	15.05
N IV	218.088	400b -A	15.05
V VI	218.09	90	
Mn X	218.11		
Co VII	218.11	20	
N IV	218.116	400b -A	15.05
Ne IV	218.13	100	
Cr	218.15	100	
Ne IV	218.18	50	
S XII	218.20	250	
Fe XIV	218.21		
N IV	218.250	400	12.10
Ar XII	218.29		
Ne IV	218.34	75	
N III	218.349	50 -A	
N III	218.378	70 -A	
Ni XVI	218.39		
N III	218.416	100 -A	
Co VII	218.42	40	
Ne IV	218.48	100d	
Ni VII	218.531	100	
Mn XII	218.56		
Co VII	218.56	10	
Ne IV	218.64	125	
V VI	218.64	60	
Mn XII	218.70		
Ni VII	218.766	100	
Ne IV	218.77	250	
Sc VI	218.837	400	
Ni VII	218.846	20	

Element	Wavelength	Intensity	Multiplet
Cr X	218.88		
N III	218.949	100d -A	
K VII	218.987	20	
S XI	218.99	125	
V VI	219.00	30	
K VII	219.063		
Co VII	219.09	10	
Ni VII	219.127	40	
S XI	219.13	200	
Fe XIV	219.13	60	
N III	219.168	250 -A	
F III	219.277	1	
Cr	219.29	400	
Fe XII	219.453	40	
Ni VII	219.497	100	
Cl XII	219.53		
Mn XII	219.54		
F III	219.588	0	
Co VII	219.64	40	
Ni VII	219.782	20	
Ar VI	219.90	120	
P VII	219.91	450	
Cu IV	219.927	6 -A	
Cr	219.94	200	
Co XVI	219.94		
As VI	220.0	800	
Cr IX	220.02		
Ti	220.045	1	
Co VII	220.07	400	
Fe XIV	220.09	60	
Co VII	220.10	10	
N IV	220.124	50	12.09
Co VII	220.23	10	
N IV	220.280	400	12.08
Co VII	220.34	150	
O V	220.352	800	10
Co VII	220.37	150	
Co VII	220.405	150	
Ni XVIII	220.41	10	
Cr X	220.42		
Cr XI	220.42		
Co VII	220.515	150	
Co VII	220.62	1000	
K VII	220.629	100	
Ti	220.739	1	
F IV	220.765	700	
Co VII	220.77	40	
Co VII	220.81	20d	
N IV	220.885	2d -A	18.42
Co VII	220.89	20	
Ar VI	220.95	200	
Co VII	220.96	40	
Co VII	220.98	150	
As VI	221.0	1000	
Co VII	221.02	750	
K VII	221.035	100	
Co VII	221.06	150	
Ar XV	221.10		
Co VII	221.15	20	
Cr X	221.18		
Sc VI	221.204	330	
Co VII	221.24	80	
S IX	221.26	100	
Co VII	221.30	80	
Co VII	221.37	10	

Element	Wavelength	Intensity	Multiplet
Cu XIX	221.37	35	
Cl XIII	221.38		
Cr VIII	221.41	200	
S XII	221.44	175	
Co VII	221.45	1000	
K VII	221.480	150	
Ti	221.497	1	
Co VII	221.52	1000	
Al	221.543	10	
K VII	221.567	10	
K VII	221.597	10	
Ni XXVI	221.6 P		
Co VII	221.62	250	
O IV	221.648	15	
N IV	221.729	300b -A	15.04
Co VII	221.75	1000	
N IV	221.789	450 -A	15.04
Fe XIII	221.830	40	
N IV	221.854	300b	15.04
N IV	221.871	300b -A	15.04
Ni XV	221.93		
V VII	221.95	200	
Co VII	221.96	900	
Ti	222.021	1	
K VII	222.122	100	
Ge VI	222.14	100	
Cr XIV	222.16	200	
Fe VIII	222.189	200	
O V	222.235	200	
Co VII	222.37	10	
Ca VII	222.373		
K VII	222.450	100	
Co VII	222.53	10	
Co VII	222.57	1000	
Ne IV	222.60	200	
Co VII	222.67	750	
Cl XII	222.72		
Co VII	222.72	10	
O IV	222.763	25	
O IV	222.777	15	
C IV	222.791	350	4
Co VII	222.84	80	
Sc VI	222.844	150	
Sc VI	222.855	300	
N IV	222.893	30d -A	18.41
Co VII	223.08	1000	
Ni XVI	223.09		
Cl XII	223.10		
N VII	223.12 P		
Cl XII	223.14		
Co VII	223.19	900	
Ne IV	223.235	125	
Ni VII	223.248	20	
S IX	223.27	100	
V VI	223.30	100	
Co VII	223.30	1000	
Ge VI	223.32	600	
Co VII	223.37	750	
Ni VII	223.377	100	
F IV	223.394	300	
Sc VI	223.408	100	
N IV	223.421	500d -A	18.16
F IV	223.456	200	
P VII	223.48	350	
F IV	223.497	100	

Element	Wavelength	Intensity	Multiplet
Ge VI	223.52	400	
Co VII	223.54	1000	
Mn XII	223.56		
Ne IV	223.601	125	
Si IX	223.72 P	80	
O IV	223.728	1	
Co VII	223.73	1000	
Ni VII	223.762	60	
Ni VII	223.819	60	
O IV	223.841	1	
Cr X	223.86		
Co VII	223.86	750	
Cr IX	223.87		
Fe VIII	223.870	200	
C IV	223.9	2	11.11
Co VII	223.91	550	
Ni VII	223.948	20	
Co VII	223.99	250	
F V	223.999	1	
Ni XV	224.04		
Co VII	224.08	80	
Co XIV	224.13		
Cl VII	224.14	300	
Ti	224.169	1	
Cu XIX	224.22	3	
Ar XII	224.25		
Co VII	224.335	550	
Co VII	224.36	10	
Ni VII	224.381	320	
Ge VI	224.40	1000b	
Ge VI	224.40	1000b	
Ge VI	224.49	1000	
C IV	224.5	2	11.10
V VI	224.50	900	
V VI	224.59	90	
Cl XIII	224.60		
Co VII	224.60	10	
Mn XII	224.62		
N IV	224.629	450b	12.07
Co VII	224.71	1000	
Ni VII	224.724	280	
Cr X	224.74		
Fe XV	224.745	40	
S IX	224.75	450	
Ti	224.818	1	
N III	224.873	50d -A	
V V	224.90	30	
Ni VII	224.919	240	
Co VII	224.93	10	
Ge VI	224.94	700	
Si IX	225.033	800	
Ti	225.033	1	
Cl VII	225.08	500	
N IV	225.110	800b	6
F V	225.114	10d	
Co VII	225.12	80	
N IV	225.142	800b	6
V VII	225.16	800	
Ni VII	225.182	20	
N IV	225.212	800	6
S IX	225.23	50	
Co VII	225.23	150	
Ni VII	225.238	60	
O IV	225.299	25	
N III	225.302	70d -A	
Ti V	225.347	400	
Co VII	225.43	40	
Ni VII	225.476	40	
V V	225.48	30	
C IV	225.49	4	11.09
Cu IV	225.497	25 -A	
Co VII	225.68	80	
Co VII	225.71	40	
Ni VII	225.734	200	
N IV	225.741	50d -A	18.40
Ni VII	225.760	40	
V VII	225.79	500	
Co VII	225.83	750	
Ge VI	225.83	700b	
N III	225.837	300d -A	
Co VII	225.87	10	
Ni VII	225.889	60	
V VI	225.90	70	
N III	226.030	300 -A	
Co VII	226.03	1000	
O III	226.038	50d	
F III	226.055	6	
Ni VII	226.062	180	
F III	226.094	10	
N III	226.122	300 -A	
F III	226.169	20	
Cr VI	226.20	500	
Ni VII	226.215	20	
Cr X	226.24		
Ni VII	226.268	40	
Ca VII	226.292	50	
F V	226.341	200	
Ni VII	226.347	140	
Ni VII	226.399	20	
Ti	226.409	1	
Cr XI	226.45		
Ti	226.462	1	
N III	226.520	50d -A	
Ti	226.561	10	
S IX	226.59	100	
F V	226.608	90	
Ti	226.629	1	
Ni VII	226.658	40	
V VI	226.66	60	
Ti	226.680	1	
Ge VI	226.69	300	
C IV	226.72	6	11.08
Ti	226.722	1	
As VI	226.8	100	
Ge VI	226.82	500	
Co VII	226.83	20	
N III	226.832	350 -A	
N III	226.910	400 -A	
Mn XIII	226.91		
F IV	226.944	600	
Co VII	226.98	150d	
Si IX	227.007	800	
N IV	227.026	100	12.06
F IV	227.079	300	
F IV	227.101	500	
Co VII	227.11	20	
Ni VII	227.191	140	
C V	227.192	100	13
S VI	227.20	200	
Cr VI	227.20	400	

Element	Wavelength		Intensity	Multiplet
F IV	227.211		400	
Fe XV	227.22		20	
Si IX	227.30			
O V	227.372		300	
Ni VII	227.377		40	
Cr X	227.42			
O V	227.469		300	
Cl XII	227.47			
N III	227.479		250b -A	
S XII	227.50		150	
O V	227.511		380	
N III	227.515		250b -A	
O V	227.549		300	
Ni VII	227.570		10	
K VII	227.625		100	
O V	227.634		300	
Ni VII	227.636		180	
Ti	227.639		1	
Ca VI	227.642		20	
O V	227.689		300	
Fe XV	227.70			
Ni VII	227.734		40	
Cl XII	227.83			
Ni VII	227.831		20	
S VI	227.84		200	
Ge VI	227.86		300	
V VII	227.88		400	
Co VII	227.88		20	
Ni VII	227.889		160	
Ca VI	227.922		100	
Ni VII	228.023		200	
Ni VII	228.039		80	
Ti	228.135		1	
V VIII	228.15			
S X	228.18		250	
P IX	228.25	P		
Ni VII	228.255		100	
C IV	228.27		25d	11.07
Cl XII	228.29			
Ni VII	228.299		10	
Ge VI	228.41		900	
Co VII	228.425		40	
Ni VII	228.484		80	
F IV	228.496		1	
Mn XI	228.52			
Ni VII	228.541		100	
F IV	228.552		10	
Sc V	228.565		300	
Mn XII	228.61			
Ca VI	228.628		350	
F IV	228.645		100	
V VIII	228.67		400	
S X	228.70		350	
Cr X	228.71			
N III	228.762		250b -A	
N III	228.790		250b -A	
S IX	228.84		100	
N III	228.844		250b -A	
Ni VII	228.864		40	
Fe VII	228.866		20	
O III	228.893		10	
Ti V	228.909		250	
Ni VII	228.927		20	
O III	228.988		10	
Co XVI	229.07			

Element	Wavelength		Intensity	Multiplet
Co VII	229.13		20	
Cl XIII	229.15			
K VII	229.258		150	
Ge VI	229.26		700	
Ge VI	229.35		400	
V VII	229.38		600	
He II	229.431	P	5	11
Ar VIII	229.44		250	
Ni VII	229.569		80	
Co VII	229.61		1000	
Ti	229.619		3	
Ca VI	229.734		350	
He II	229.736	P	6	10
P V	229.83		200	
Na III	229.868		300	
Co VII	229.87		1000	
O IV	229.896		1	
Ar XVIII	229.9	P		
V VIII	230.00			
N IV	230.035		100d -A	18.39
O IV	230.040		1	
F III	230.117		35	
V VIII	230.12		500	
He II	230.139	P	9	9
Ti	230.155		1	
Ge VI	230.25		500	
Cr XI	230.29			
Ti	230.304		1	
Co XIV	230.34			
Co VII	230.36		40	
Ti	230.425		1	
C IV	230.43		25d	11.06
Co VII	230.45		20	
Ca VI	230.495		250	
F III	230.553		1	
N III	230.591		300b -A	
Ti	230.591		1	
Na III	230.593		200	
F III	230.603		1	
N III	230.626		300b -A	
K VIII	230.678		250	
N III	230.681		300b -A	
O IV	230.682		2	
He II	230.686	P	12	8
K VIII	230.706		300	
K VIII	230.745		375	
O IV	230.755		5	
N III	230.765		250b -A	
N III	230.789		250b -A	
V VIII	230.82		200	
Ge VI	230.82		200	
Sc V	230.848		100	
N III	230.861		250b -A	
N III	230.879		250b -A	
Ar VIII	230.88		350	
C IV	230.9		2	11.05
F III	231.011		6	
O IV	231.031		10	
Fe VII	231.043		100	
O IV	231.070		60b	
O V	231.070		380b	
O IV	231.101		40	
O IV	231.140		15	
O IV	231.200		40	
Cr X	231.21			

Element	Wavelength		Intensity	Multiplet
O IV	231.239		40	
O IV	231.299		60	
F IX	231.3	P		
Co VII	231.32		40	
V VIII	231.33			
F III	231.381		1	
He II	231.454	P	17	7
N III	231.465		150 -A	
Co VII	231.48		20	
N III	231.497		150 -A	
N III	231.540		200 -A	
Ti	231.553		1	
P XI	231.67		100	
Co VII	231.68		40	
Fe VII	231.726		300	
Mg III	231.730		1000	2
Ge VI	231.78		700	
Co VII	231.79		20	
O V	231.823		380	
V VII	231.99		300	
N IV	232.112		100	5.07
Mn XIII	232.12			
N IV	232.145		150	5.07
Ge VI	232.16		500	
Cr XI	232.18			
As VI	232.2		100	
N IV	232.223		200	5.07
Fe VII	232.256		200	
Ca VI	232.275		300	
Co VII	232.35		150	
Ti	232.361		1	
Co VII	232.425		40	
Fe VII	232.442		200	
Ti	232.466		1	
Ni XVI	232.49			
Co VII	232.51		250	
Ca VI	232.531		250	
Co VII	232.56		900	
Ge VI	232.57		200	
He II	232.584	P	24	6
Co VII	232.65		900	
K V?	232.673		50	
Ti	232.711		1	
Co VII	232.80		80	
Ti	232.847		1	
N III	232.854		300d -A	
Si VIII	232.864		10	
Co XXV	232.9	P		
Fe VII	232.948		100	
Cr X	232.96			
Fe VII	233.021		300	
Co VII	233.06		20	
Ge VI	233.14		500	
F IV	233.159		200	
Si VIII	233.159		10	
Cl XI	233.17			
F IV	233.222		600	
Cr XI	233.26			
F IV	233.297		200	
N III	233.332		400b -A	
N III	233.368		400b -A	
N III	233.393		350b -A	
F IV	233.393		500	
N III	233.424		400b -A	
Co VII	233.425		20	
O IV	233.457		60	7
N III	233.459		350b -A	
V VII	233.47		700	
O IV	233.496		60	7
N III	233.498		350b -A	
O IV	233.521		40	7
F IV	233.526		400	
C IV	233.53		100d	11.04
O IV	233.561		90	7
O IV	233.596		40	7
N III	233.599		300b -A	
N III	233.620		300b -A	
N III	233.696		300b -A	
N III	233.716		300b -A	
Mn XIII	233.73			
Co VII	233.75		250	
Fe VII	233.762		50	
Ti	233.787		1	
Ni XVIII	233.79		35	
Cr X	233.80			
Fe XV	233.865		30	
Co VII	234.01		40	
Co VII	234.05		10	
N IV	234.124		600b	5.05
Ti	234.184		3	
C IV	234.19		4	11.03
N IV	234.195		600b	5.05
Mn XIII	234.24			
N IV	234.249		600b	5.05
Mg III	234.258		850	1
Co VII	234.27		20	
Ne IV	234.319		125	
Fe VII	234.336		200	
Co VII	234.34		1000	
He II	234.347	P	40	5
Co XV	234.41			
S XII	234.48		75	
V XXI	234.49	P		
Cl XII	234.64			
Ge VI	234.65		400	
Cl XI	234.67			
Ti	234.680		1	
Cr XI	234.68			
Ne IV	234.704		125	
Fe VII	234.754		200	
Co VII	234.79		1000	
P XI	234.84		400	
Cl XI	234.84			
Ti	234.902		1	
Co XVII	234.91	P		
P IX	234.94	P		
O IV	234.988		10	
Ge VI	235.05		500	
Mn XIII	235.08			
Ti	235.096		10	
Co VII	235.13		10	
Si VIII	235.221		10	
P X	235.27		400	
Cu IV	235.299		30	
Ti	235.316		3	
Ti	235.353		6	
Ti	235.450		6	
Cr XI	235.52			
Mn XI	235.55			
Si VIII	235.563		20	

Element	Wavelength	Intensity	Multiplet
Ge VI	235.57	800	
Fe VII	235.659	200	
Ti	235.683	20	
V IX	235.72	400	
Cr XI	235.74		
F V	235.840	100	
Ti	235.887	10	
V VIII	236.01	300	
N IV	236.068	550	12.05
O IV	236.071	2d	
Co VII	236.09	250	
Co XIV	236.11		
Cr XI	236.26		
Ar XIII	236.27		
Cu IV	236.343	5	
Ni XVIII	236.36	3	
Fe VII	236.388	50	
Ge VI	236.40	400	
Cl V	236.44	100	
Co VII	236.45	80	
Co VII	236.51	150	
O III	236.710	50d	
Fe VII	236.779	20	
Co VII	236.82	10	
Fe VII	236.865	20	
Ti	236.914	1	
P X	236.95		
N IV	236.954	150d -A	18.38
P XI	237.00	400	
Ti	237.059	3	
Si XIV	237.2 P		
Cl V	237.23	200	
Cr XI	237.24		
Ti	237.250	1	
He II	237.331 P	70	4
Ge VI	237.36	500	
Cl XI	237.42		
V VII	237.50	300	
Ti	237.519	1	
N III	237.532	450b -A	
N III	237.565	450b -A	
Co VII	237.575	10	
N III	237.624	450b -A	
V IX	237.66		
Cl XIV	237.70		
Co VII	237.73	10	
Mn XII	237.78		
Cr XI	237.79		
Ge VI	237.80	600	
Ti	237.826	1	
Ni XVI	237.87		
N IV	237.873	400b	5.04
N IV	237.908	400b	5.04
F IV	237.913	300	
F IV	237.955	400	
N IV	237.991	500	5.04
F IV	238.012	300	
N III	238.034	350 -A	
Fe VII	238.040	20	
Ge VI	238.04	800	
F IV	238.042	200	
Ti	238.054	6	
N III	238.093	350 -A	
F IV	238.099	100	
Co VII	238.11	40	
N III	238.134	300 -A	
Ge VI	238.14	500	
Co VII	238.17	20	
C IV	238.200	100d	11.02
C IV	238.250	150d	11.02
Co VII	238.27	80	
Ti	238.294	1	
O IV	238.360	400	
Co VII	238.37	900	
Fe VII	238.386	100	
P X	238.53		
O IV	238.571	500	
N IV	238.657	500b	15.03
N IV	238.683	500b	15.03
Ti	238.689	3	
N IV	238.694	500b	15.03
N IV	238.731	500b	15.03
N IV	238.769	500b	15.03
N IV	238.802	600	15.03
Cu XVIII	238.87 P		
Ge VI	238.97	700	
Al VII	239.030	100d	
N IV	239.146	450b	15.02
N IV	239.174	450b	15.02
C IV	239.196	25	11.01
N IV	239.212	450b	15.02
N IV	239.243	450b	5.03
Ge VI	239.28	700	
Ca VI	239.296	20	
Co XIV	239.33		
Co VII	239.37	10	
Ti	239.404	3	
Co XV	239.42		
V	239.44	300	
Al XIII	239.5 P		
Ni XVI	239.53		
Ca VI	239.535	350	
O IV	239.592	10	
N IV	239.616	500b	5.03
N IV	239.632	400b	5.03
N IV	239.659	400b	5.03
N IV	239.679	400b	5.03
N IV	239.708	400b	5.03
Fe VII	239.728	100	
N IV	239.763	400b	5.03
S XI	239.81	150	
Fe VII	239.851	50	
F IV	239.856	700	
Ti	239.933	1	
O IV	239.935	1	
Ge VI	240.00	700	
Ti	240.009	1	
F IV	240.017	700	
Fe VII	240.049	50	
Fe VII	240.076	50	
O IV	240.079	2	
F IV	240.079	900	
F IV	240.146	700	
Fe VII	240.216	200	
V VIII	240.22	300	
F III	240.231	3	
S XII	240.26	175	
F III	240.264	1	
F IV	240.275	700	
V IX	240.30		

Element	Wavelength	Intensity	Multiplet
P XI	240.31	100	
Ti	240.321	3	
N IV	240.363	200	12.04
F IV	240.371	700	
F III	240.546	3	
Cr XI	240.56		
Fe VII	240.565	50	
Ge VI	240.65	700	
Fe XIII	240.713	50	
F III	240.720	6	
Ca VI	240.721	300	
F III	240.735	1	
Co VII	240.745	10	
Al VII	240.770	200d	
Cl VII	240.83	300	
F III	240.857	1	
Cl VII	240.87	200	
Ti	240.926	10	
O III	240.979	100d	
Ti	241.013	1	
O III	241.037	100d	
Mn XIV	241.07		
F III	241.135	1	
V	241.14	200	
Ti	241.240	1	
Ti	241.271	1	
Cr XI	241.48		
Cu	241.583	150	
Fe XIV	241.739	60	
Ti	241.750	1	
O III	241.819	50	
Cr XI	241.87		
O III	241.875	50	
Ar XIII	241.90		
V VII	241.91	200	
Ti	241.917	3	
Ge VI	242.00	700	
O IV	242.045	5	
Ti	242.059	1	
O IV	242.140	10	
O IV	242.183	1	
Ar XIII	242.22		
Ca VI	242.265	150	
F V	242.324	300	
Ca	242.384	150	
Ti	242.403	1	
F V	242.439	200	
Ti	242.475	3	
S XI	242.57	125	
Ca VI	242.592	150	
Ti	242.604	1	
Ca VI	242.631	250	
Cl XI	242.76		
S XI	242.82	175	
Ti	242.847	3	
Cl VI	242.89	250	
He II	243.027 P	130	3
Ti	243.035	3	
S XII	243.06	200	
Cl VI	243.19	400	
Cl VI	243.21	100	
Ti	243.259	1	
F III	243.357	3	
Fe VII	243.370	400	
F III	243.407	1	
Mn XIV	243.45		
Ti	243.503	1	
V IX	243.58		
V VIII	243.69	100	
F IV	243.736	200	
Ar XIV	243.74		
Al VI	243.760	600d	
Fe XV	243.783	50	
F IV	243.796	300	
Sc V	243.823	40	
Cl VI	243.85	600	
Sc V	243.872	500	
Cl VI	243.88	150	
Mn XIV	243.88		
F IV	243.922	400	
Ti	243.968	3	
O III	244.049	100d	
N IV	244.100	300b	18.14
Fe XVII	244.152	10	
Ti	244.291	1	
V IX	244.46	100	
Ti	244.482	1	
Fe VII	244.535	100	
P VIII	244.55	100	
Cr XII	244.70		
F III	244.701	6	
F III	244.769	20	
Ti	244.779	1	
V IX	244.89		
C IV	244.907	500	3
Fe XXIV	245.00 P		
F III	245.005	10	
N III	245.021	400d -A	
N III	245.115	400d -A	
Fe VII	245.151	120	
Ti	245.258	1	
V X	245.35	100	
Fe VII	245.492	120	
Ti	245.535	1	
Ti	245.637	1	
O IV	245.7	2d	
Cr XI	245.70		
C IV	245.775	200d	11
C IV	245.830	250d	11
F III	245.866	3	
V	245.89	200	
Ti	245.894	1	
Ti	245.937	1	
S XI	245.94	75	
Si VI	246.001	400	
Fe VII	246.005	20	
Si VII	246.06		
Ti	246.198	6	
N III	246.206	650b -A	
Fe XIII	246.210	50	
Ti	246.235	1	
N III	246.249	650b -A	
O III	246.265	150	
N III	246.311	650b -A	
P VIII	246.32	50	
Ti	246.395	3	
Sc V	246.424	400	
O IV	246.465	5 -A	
O IV	246.503	10 -A	
O IV	246.563	15 -A	

Element	Wavelength	Intensity	Multiplet
Ti	246.564	10	
Ti	246.699	1	
Ti	246.743	1	
S XI	246.90	200	
O III	247.080	50	
S XI	247.12	250	
S XII	247.12	250	
Ti	247.135	1	
N IV	247.205	900	2
Ti	247.278	1	
C V	247.31		17
C IV	247.357	25	10.01
Ti	247.385	1	
Al VIII	247.40	45	
C IV	247.415	50	10.01
Ne IV	247.42	50	
Ti VI	247.450	250	
Fe VII	247.458	50	
Ti	247.536	1	
N V	247.561	85	5
Co XVII	247.62 P		
P VIII	247.64	250	
Cr X	247.67		
V IX	247.70		
N V	247.706	100	5
Ti	247.719	3	
Co XV	247.76		
Ne IV	247.81	40	
S XI	247.83	75	
Ti	247.929	3	
P XI	247.94		
Ne IV	248.00	40	
Ti VII	248.037	3	
Be IV	248.04 P		
P VIII	248.04	150	
S XI	248.09	75	
Ti	248.150	1	
Cu	248.153	100	
N III	248.320	350 -A	
O III	248.320	50d	
N III	248.371	350 -A	
N IV	248.383	500	15.01
N III	248.428	350 -A	
N IV	248.433	500b	15.01
Al VIII	248.45	83	
O V	248.459	330	9
N IV	248.461	500b	15.01
N III	248.478	350 -A	
Ti	248.481	1	
N IV	248.484	500b	15.01
O III	248.538	50	
N IV	248.540	500	15.01
N IV	248.563	500	15.01
O III	248.574	60	
Ti	248.592	1	
O III	248.618	100	
N IV	248.654	450	18.13
C V	248.661	200	22
C V	248.668	10	22
Ar XIII	248.68		
C V	248.738	200	22
C V	248.744	20	22
Ti	248.908	20	
V IX	248.91		
Ti	248.980	6	
S VI	248.99	400	2
Si VI	249.125	400	
Ni XVII	249.180		
O IV	249.223	10	
F IV	249.228	100	
Ti	249.229	1	
S VI	249.27	400	2
Ti	249.278	1	
N IV	249.316	300d -A	18.37
P VIII	249.32	100	
O IV	249.365	15	
Ar VII	249.38	100	
Ca IV	249.408	150	
Cu	249.415	150	
Ar XIII	249.46		
Ti	249.471	1	
Ti	249.529	1	
Ti	249.589	3	
Ti	249.632	1	
Mn XIV	249.64		
Ti	249.688	1	
F IV	249.744	10	
Ti	249.785	1	
Co XVII	249.85 P		
Ar VII	249.886	250	
Cu	249.908	100	
Ca VI	249.914	150	
Ti	249.920	20	
Mn VII	249.929	20	
Ti	249.984	3	
P IX	250.05 P		
Ti	250.050	1	
N IV	250.121	300	18.12
Al VIII	250.139	100	
Ca IV	250.153	150	
Ca VI	250.265	200	
Ti	250.339		
P IX	250.37	150	
Cu	250.400	300	
Si VIII	250.45		
Ti VI	250.482	1000	
Na III	250.515	800	
P IX	250.73	200	
Mn VII	250.771	40	
Si VIII	250.79		
Ti	250.790	3	
Ti VII	250.913	3	
Ar VII	250.940	350	
Sc V	250.978	400	
Ti	250.999	10	
F IV	251.026	1000	
Fe XVI	251.058	20	
Ti VI	251.071	700	
O IV	251.114	2 -A	
Ne III	251.12	200b	5
O IV	251.148	2 -A	
P VIII	251.23	150	
Ti	251.266	6	
Cu IV	251.278	20	
Al VIII	251.347	10	
Ca IV	251.354	150	
Na III	251.371	600	
Ca VI	251.465	200	
Mn VII	251.479	10	
Cr XII	251.52		

Element	Wavelength	Intensity	Multiplet
Ti	251.533	6	
Ne III	251.54	200	5
Mg V	251.600	100	
V V	251.60	20	
V IX	251.61		
Ti	251.622	35	
Cu	251.670	200	
Ti	251.715	1	
Ne III	251.72	200	5
Ti	251.800	6	
Ca VI	251.816	50	
V	251.87	100	
S VI	251.91	200	
Cu	251.947	200	
Fe XIII	251.949	50	
Ti	252.065	20	
Ti VII	252.162	200	
V X	252.17	100	
Fe XIV	252.190	40	
Cu	252.223	150	
Ti VII	252.275	800	
V V	252.40	20	
O IV	252.564	40d -A	
Ti VII	252.571	60	
Cr X	252.62		
Cu	252.780	750	
Si VIII	252.79		
Sc V	252.846	500	
Ti	252.874	3	
S XI	252.93	25	
O IV	252.948	40	
Ti V	252.958	900	
V IX	252.96		
O IV	253.082	60	
Ti XII	253.142	35	
Co XV	253.34		
S XI	253.36	50	
Ti	253.427	1	
Cu	253.465	150	
Ti	253.518	1	
V X	253.53		
O III	253.548	10	
Ti	253.591	1	
S XI	253.62	150	
Ti	253.674	1	
Ni XIV	253.69		
Sc V	253.733	500	
Si X	253.772	70	
Cu	253.786	150	
Ti VII	253.811	200	
P XI	253.90		
V IX	253.90		
Ti	253.906	3	
S X	254.00		
Ti XX	254.01 P		
Ti VII	254.022	800	
Ti VI	254.03	200	
P XI	254.05		
Cr X	254.15		
F III	254.165	20	
Ti	254.188	3	
F III	254.197	10	
Ti	254.288	20	
N IV	254.338	100 -A	18.36
Ti	254.485	6	
F IV	254.491	200	
Cu	254.510	500	
P XI	254.54		
Ti	254.574	1	
F IV	254.595	100	
F IV	254.681	10	
Ti VII	254.687	200	
Cu	254.772	700	
Ti	254.859	1	
O III	255.044	10	
Ti VII	255.076	250	
S X	255.08	20	
N IV	255.148	380	18.10
O III	255.158	50	
V X	255.24		
O IV	255.252	25	
O III	255.302	10	
O IV	255.302	1 -A	
Ti VI	255.375	300	
Sc V	255.379	50	
Cu	255.417	350	
Ti	255.439	1	
K	255.530	50	
V X	255.54		
V X	255.54		
P V	255.60	500	
Ti	255.628	3	
F III	255.632	3	
Sc V	255.636	300	
F III	255.667	1	
P V	255.69	500	
F III	255.723	35	
Ti	255.754	1	
F III	255.770	60	
Ti	255.813	10	
F III	255.863	100	
Ti	255.875	6	
Co XV	255.88		
Ti	256.149	6	
Be IV	256.27 P		
Ti	256.305	10	
He II	256.317 P	320	2
Cr XI	256.32		
Ti	256.338	3	
F III	256.358	35	
Cu	256.365	300	
Fe XIII	256.42		
O III	256.425	100 -A	
Ti	256.454	10	
O III	256.460	150 -A	
O III	256.506	150 -A	
Ti	256.525	1	
F III	256.526	3	
Si VIII	256.53		
Si X	256.569	10	
Ti	256.586	20	
S XIII	256.66	250	
F III	256.675	3	
Ti	256.685	3	
F III	256.723	1	
Ti	256.732	6	
Ti	256.815	1	
K VI	256.831	150	
Ti	256.869	1	
F III	256.894	6	

Element	Wavelength	Intensity	Multiplet
Cu	256.898	400	
Fe XV	256.919	40	
V X	257.00		
Ti	257.003	10	
Ti	257.155	6	
Sc V	257.157	200	
S X	257.16	100	
Si IX	257.27		
Cu	257.315	200	
Ar XIV	257.37		
Ti	257.382	1	
Fe XIV	257.385	50	
Cl XII	257.43		
Ti	257.430	6	
N III	257.502	300d -A	
Cu	257.626	200	
Ti	257.645	6	
K VI	257.657	100	
Cl XVII	257.8 P		
Ti VI	257.855	250	
N III	257.953	500d -A	
Ca V	257.976	265	
Ar XIV	257.98		
Cu	258.004	150	
Ti	258.008	1	
K VI	258.018	200	
Mn XXIII	258.02 P		
Ti	258.056	1	
Si IX	258.10 P		
O IV	258.116	5	
Ti	258.178	1	
O IV	258.207	10	
Sc V	258.238	150	
Ca V	258.251	150	
Cu	258.265	450	
Ti	258.267	1	
V X	258.28		
N IV	258.320	150	18.09
Si X	258.347	120	
Si IX	258.36		
K VI	258.411	50	
Ti	258.467	1	
N III	258.499	650d -A	
Ti VIII	258.610	700	
Sc V	258.808	40	
Ti	258.868	3	
K VI	258.873	150	
Cu	258.927	800	
Ti	258.930	3	
Ti	258.969	3	
Al VII	259.035	10	
Cr VII	259.18		
N III	259.189	700d -A	
Al VII	259.219	10	
Ti VI	259.232	250	
Ti	259.311	6	
Mn XII	259.33		
Ti	259.448	35	
C IV	259.471	300	10
S X	259.52	150	
C IV	259.542	350	10
Ca V	259.576	150	
Cr XIII	259.59		
K VI	259.609	100	
Ti	259.649	20	
Si IX	259.75		
N IV	259.824	450	12.03
Ti	259.835	10	
Ca V	259.856	150	
Cu	259.871	250	
Ti	259.895	3	
Ca V	259.978	150	
K IX	260.052	125	
Sc V	260.054	50	
N III	260.090	800d -A	
C V	260.136	4	21
Ti XII	260.145	1	
C V	260.229	4	21
Cu	260.245	250	
Ar VIII	260.25	200	
Ti	260.251	60	
F III	260.307	20	
Ar VIII	260.33	300	
Ni VI	260.348	400	
F III	260.372	10	
O IV	260.389	150	9
Ti	260.408	1	
Mn XIV	260.41		
Ca V	260.446	165	
N IV	260.447	600	12.02
F III	260.496	10	
Ti	260.522	6	
O IV	260.555	120	9
Ti	260.566	1	
Ni VI	260.591	300	
Ti VII	260.704	250	
Ni VI	260.713	250	
F III	260.782	3	
Ti	260.829	1	
K IX	260.834	75	
Ti IX	260.916	6	
V X	260.93		
Ti	260.986	3	
Ti	261.026	10	
O III	261.027	200d	
Al VII	261.053	10	
K II?	261.200	50	
Al VII	261.219	10	
Ti	261.224	1	
Si X	261.27 P	200	
Ti	261.280	1	
N III	261.282	800d -A	
Ti	261.365	1	
Si IX	261.41		
N VII	261.45 P		
Ti	261.493	10	
Ti	261.578	1	
Cu	261.606	300	
F III	261.713	100	
Ti VIII	261.725	60	
F III	261.749	60	
Cu	261.806	200	
S VI	261.81	50	
Cr XIII	261.83		
Ti VII	261.851	60	
Ti	261.916	1	
P XI	261.92		
V X	262.04		
O III	262.113	100	
N III	262.184	800b	

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Element	Wavelength	Intensity	Multiplet
Cr XIII	262.22		
N III	262.233	800b	
N III	262.289	800b	
O III	262.289	10	
Ne X	262.3 P		
Ti	262.300	3	
Cl XII	262.32		
B V	262.37 P		
Cu	262.442	200	
Ti	262.499	1	
C IV	262.550	150	9.01
Cl XII	262.60		
C IV	262.624	200	9.01
Ti	262.651	10	
Ti VIII	262.718	10	
O III	262.729	10	
N III	262.867	400d -A	
O III	262.882	50	
Ti	262.894	1	
N III	262.914	500d -A	
Ti	262.967	1	
Fe XVI	262.967	60	
P X	263.22		
Ti VI	263.246	250	
Ti	263.384	6	
Co XIII	263.41		
Ti VIII	263.564	120	
Ti	263.658	6	
O III	263.692	150	
O III	263.728	200	
O III	263.768	150	
F III	263.808	150	
O III	263.818	250	
Ti	263.822	1	
O III	263.861	150	
O III	263.903	10	
Ti VII	263.944	35	
Cu	264.029	150	
S X	264.24	200	
O III	264.257	200	
Mn XII	264.26		
Ti	264.272	20	
O III	264.338	250d	
Ti	264.367	3	
P XI	264.41		
O III	264.480	300	
Ti	264.650	1	
Ti	264.739	1	
Cl XIII	264.78		
Fe XIV	264.799	60	
N III	264.822	400b	
Ti VII	264.823	250	
N III	264.846	400b	
P V	264.94	300	
N III	264.945	400b	
Ti	264.958	1	
N III	264.966	400b	
Ti VII	264.997	35	
Fe XVI	265.007	3	
C III	265.029	10d -A	7.27
C VI	265.05 P		
Ti VII	265.059	90	
O IV	265.062	1 -A	
Ti	265.145	3	
N III	265.232	500d -A	
Ti	265.255	1	
N III	265.271	500d -A	
C III	265.287	10d -A	7.26
V XI	265.31		
N III	265.339	200b	
K	265.353	50	
O V	265.550	250	
Ti	265.574	6	
P X	265.62		
Ti	265.666	1	
V X	265.70		
Co XVI	265.74		
P X	265.79		
N III	265.852	200b	
Ti VII	265.951	60	
N III	265.978	200b	
Cu	266.061	200	
Co VI	266.114	100	
Ti	266.180	3	
N V	266.196	120	4
N III	266.255	500d	
K VI	266.344	200	
N V	266.379	150	4
Co VI	266.498	600	
Ti VII	266.502	200	
Cu	266.584	100	
N III	266.613	200b	
Co VI	266.634	400	
Ti	266.670	3	
O IV	266.690	1 -A	
O IV	266.729	1 -A	
N III	266.737	250b	
Sc VII	266.800	200	
N III	266.805	350	
N III	266.847	400	
Ca V	266.863	150	
Na III	266.893	500	
Co VI	266.905	400	
N III	266.930	400	
O IV	266.932	40	
O III	266.967	250b	
O IV	266.967	25b	
Co VI	266.973	800	
N III	266.974	350	
O III	266.985	350	
Ti	267.024	3	
O III	267.030	350	
O III	267.050	150	
Ne III	267.07	300b	4
O III	267.121	200	
Co VI	267.131	500	
Ti VII	267.136	60	
Ti	267.187	1	
F IX	267.19 P		
N III	267.199	500d	
C V	267.267	30	25
Co VI	267.297	600	
Ti VI	267.343	200	
Ti VIII	267.401	60	
Co VI	267.402	500	
Ne III	267.53	300b	4
Cu	267.562	250	
Na III	267.642	800	
Cr XIII	267.65		
N III	267.661	250	

Element	Wavelength	Intensity	Multiplet
Ne III	267.71	200	4
Ca V	267.772	400	
N III	267.787	300b	
N III	267.848	500	
Na III	267.868	600	
Ti IX	267.941	120	
N III	267.952	500b	
N III	267.966	500b	
P XI	268.02		
Ti VII	268.035	200	
Ti VII	268.106	35	
Ti VIII	268.178	120	
N III	268.212	300 -A	
N III	268.255	300 -A	
Ti	268.269	6	
N III	268.314	400 -A	
N III	268.347	600d	
O III	268.451	50d	
N III	268.473	600d	
Ti VII	268.493	1	
Ti	268.566	1	
Ca V	268.583	100	
Na III	268.623	500	
Ti	268.699	1	
N III	268.703	500 -A	
Ti	268.748	1	
N III	268.756	400 -A	
Cl XII	268.77		
Cu	268.773	500	
F IV	268.785	400	
F IV	268.817	100	
Mg VI	268.986	650	
Ti	269.010	1	
Cu	269.044	400	
N III	269.072	250	
F IV	269.076	300	
Mn XV	269.11		
N III	269.199	300	
Cl XII	269.21		
F IV	269.225	200	
Mg VIII	269.295	10	
Ti	269.314	1	
P X	269.48		
Ti VIII	269.533	175	
O IV	269.559	1d -A	
Cu	269.653	200	
Ti	269.708	1	
Ti VII	269.759	90	
Mn XII	269.82		
Ti	269.939	10	
Na II	269.993	10	
N III	270.004	400b	
Ti	270.067	3	
N III	270.073	650d	
N III	270.201	650d	
F IV	270.225	600	
Ti	270.281	10	
Ca V	270.305	300	
C III	270.324	10d	3.09
V IX	270.38		
Mg VI	270.394	750	
Co XV	270.43		
Ti	270.443	1	
Ca V	270.494	150	
Fe XIV	270.512	50	
Ti VIII	270.530	1	
N III	270.554	50 -A	
Ca V	270.570	100	
C III	270.583	100d -A	7.25
N III	270.613	150 -A	
Ti	270.675	10	
F III	270.677	20	
N III	270.685	50 -A	
Cu	270.740	200	
Ti VII	270.748	10	
Ti	270.913	6	
Na II	270.947	7	
O V	270.982	10	
N IV	270.994	650	12
C III	271.014	100d -A	7.24
Ti	271.030	6	
N III	271.077	300	
Ca V	271.141	200	
Co XIII	271.16		
Be IV	271.18 P		
N III	271.209	350	
Ti	271.234	6	
Na II	271.373	5	
Co XVI	271.38		
O III	271.403	50	
Ca V	271.440	50	
Ti	271.488	6	
O III	271.523	50	
Ti VIII	271.591	3	
Co VI	271.595	500	
O III	271.611	10	
Co VI	271.711	50	
V XI	271.75		
K IV	271.820	150	
Ti	271.892	1	
O IV	271.990	40	
Si X	271.995	40	
Co VI	272.022	600	
Ti VIII	272.037	90	
Cr XXII	272.06 P		
O IV	272.076	40	
Mn XIII	272.09		
O IV	272.127	60	
Co VI	272.149	50	
O IV	272.174	25	
Ca V	272.265	250	
O IV	272.273	40	
O IV	272.310	40	
Ca V	272.336	150	
Ti VIII	272.369	10	
Ti	272.417	3	
Cu	272.424	150	
Na III	272.441	10d	
Co VI	272.481	700	
N III	272.523	650d	
Ti	272.569	3	
Si VII	272.641	200	
N III	272.654	650d	
Ti	272.707	1	
F III	272.712	20	
F III	272.756	10	
Cu	272.807	100	
Ti VIII	272.843	6	
Ca VII?	272.866	150	
F III	272.919	10	

Element	Wavelength	Intensity	Multiplet
Ca V	272.982	200	
K IV	273.065	100	
P V	273.13	10	
N IV	273.140	300	18.07
Ti VIII	273.178	90	
F III	273.206	6	
Cu XIX	273.34	10	
Cu	273.417	200	
N III	273.462	400 -A	
N III	273.503	100 -A	
N III	273.524	450 -A	
K IV	273.546	50	
N III	273.562	300 -A	
Ti	273.562	6	
Ca III	273.695	50	
Ti	273.916	3	
Na II	273.940	12	
N III	273.977	400	
Na II	274.023	12	
Ti	274.028	6	
C III	274.051	200d	3.08
N III	274.108	400	
Si VII	274.175	200	
Fe XIV	274.22	60	
N III	274.258	400b -A	
F III	274.260	60	
N III	274.276	400b -A	
N III	274.316	400b -A	
N III	274.374	400b -A	
Ti IX	274.411	10	
N IV	274.451	250	11.04
Ca III	274.461	10	
Ti VIII	274.514	3	
Co VI	274.534	100	
K IV?	274.552	150	
Cu	274.601	150	
Na II	274.931	20	
Na II	275.003	20	
Al XIII	275.1 P		
Ti	275.128	3	
Na II	275.218	5	
Cu	275.244	100	
Sc XIX	275.25 P		
O III	275.281	100	
Al VI	275.350	300d	
Si VII	275.352	250	
N IV	275.354	450	18.35
O III	275.366	150	
O III	275.513	200	
Si VII	275.665	200	
Mn XII	275.78		
Co VI	275.818	500	
N III	275.829	400b -A	
N III	275.852	400b -A	
Ti IX	275.867	60	
N III	275.871	400b -A	
N III	275.883	400b -A	
N III	275.931	400b -A	
Co VI	275.944	300	
Ti	275.979	1	
V IX	276.08		
Cl XIV	276.13		
Mg VII	276.145	200	
Co VI	276.167	200	
N III	276.193	700	
Co VI	276.285	700	
N III	276.326	700	
Co VI	276.424	50	
Cr XIII	276.5		
Ti	276.565	35	
Co VI	276.570	400	
Mg V	276.581	1000	
Ti VIII	276.701	10	
Co VI	276.721	700	
N IV	276.741	10	18.06
F III	276.780	35	
Ti IX	276.785	20	
Si VII	276.839	200b	
Si VIII	276.839	200b	
F III	276.897	20	
Ti	276.909	1	
Fe VI	276.947	300	
Mg VII	277.007	300	
Ti	277.034	1	
Si VIII	277.054	200	
Co VI	277.079	500	
Ti	277.111	3	
Ti	277.168	1	
Cl XIII	277.17		
Si X	277.261	50	
O III	277.385	350	12
Mn XIII	277.42		
O III	277.514	50	
Fe VI	277.569	600	
Co VI	277.579	400	
Cl XIII	277.59		
Fe VI	277.610	200	
Ti	277.760	1	
Cu	277.761	100	
Sc	277.809	200	
N III	277.813	300 -A	
Ti VIII	277.813	35	
Co VI	277.853	200	
Ti	277.866	3	
N III	277.873	300b -A	
N III	277.901	300b -A	
Sc VI?	277.943	300	
Fe VI	277.951	300	
N III	277.961	300 -A	
Ti	277.984	3	
Co VI	278.013	200	
Ti	278.065	35	
Co VI	278.113	300	
Fe VI	278.149	500	
Si X	278.15		
Co VI	278.184	700	
Co VI	278.298	200	
P XII	278.30		
Ti	278.331	60	
Fe VI	278.339	500	
Co VI	278.360	100	
Mg VII	278.406	400	
N III	278.436	400	
Si VII	278.445	200	
Fe VI	278.471	300	
N III	278.572	400	
Si X	278.61		
Ti	278.627	10	
Co VI	278.632	700	
Co VI	278.685	500	

Element	Wavelength	Intensity	Multiplet
Al V	278.699	800	
Ti IX	278.713	225	
Co VI	278.790	600	
Ti VIII	278.806	20	
Ti	278.926	6	
Al VII	278.95		
Co VI	278.981	500	
C VI	279.02 P		
Co VI	279.040	200	
Ti IX	279.074	20	
Ti	279.140	35	
Cu	279.150	100	
Al VII	279.16		
Ti	279.195	3	
Co VI	279.210	400	
Al VII?	279.256	10	
Co VI	279.301		
Cr XIII	279.32		
Co VI	279.400	500	
K VII	279.433	20	
O IV	279.456	5 -A	
Co VI	279.508	700	
Ti VII	279.516	200	
K VII	279.521	20	
O IV	279.631	150	4
Ti	279.654	6	
F III	279.689	100	
Co VI	279.780	500	
O III	279.787	150	
F IV	279.834	300	
K IV	279.877		
O IV	279.933	200	4
Ti VIII	279.940	20	
Co VI	280.003	700	
F III	280.007	60	
Ti IX	280.027	20	
O III	280.030	100	
C III	280.043	300	3.07
Co VI	280.060	600	
O III	280.116	50	
Ti IX	280.141	3	
Al IX	280.16		
Co VI	280.199	600	
O III	280.234	50	
O III	280.265	150	
Ti	280.284	20	
Co VI	280.309	400	
O III	280.328	50	
Mn XV	280.35		
Co VI	280.350	200	
O III	280.412	50	
Co VI	280.464	400	
O III	280.483	50	
C III	280.522	200d -A	7.23
P V	280.61	150	
Fe XIV	280.69		
Co VI	280.706	300	
Mg VII	280.744	300	
Co VI	280.775	300	
F III	280.802	1	
F III	280.905	3	
Ca V	280.992	400	
Sc V	280.997	400	
Mg XII	281.1 P		
Ti	281.193	1	
F III	281.204	10	
Sc VI	281.327	200	
F III	281.343	20	
C III	281.390	200 -A	7.22
Al V	281.397	700	
S XI	281.40	175	
Ar VI	281.43	120	
Ti IX	281.446	6	
Cu	281.492	500	
Na II	281.691	25	
Cu	281.744	400	
Na II	281.788	25	
Co XVI	281.88		
Ti VII	281.898	200	
Ar VI	281.92	160	
N III	282.070	700	
Ti	282.086	6	
Mn VII	282.095	30	
Mn XV	282.18		
N III	282.209	700	
Sc VI	282.209	700	
O IV	282.213	2	
Ti VI	282.215	1	
K V?	282.355	150	
Ar VI	282.42	240	
Al IX	282.45		
Ne III	282.49	10	8
Sc VI	282.497	600	
Ti	282.520	1	
Ar VI	282.56	40	
Sc VI	282.587	300	
Ti IX	282.613		
Al VII	282.65		
Na II	282.709	35	
Ti IX?	282.720	40	
Na II	282.803	35	
Ti VII	282.898	1	
Co VI	283.089	800	
Ne III	283.15	300b	3
Ar VI	283.16	120	
Ne III	283.17	600	3
Ti	283.204	1	
Na II	283.258	15	
V XII	283.28		
Ti	283.316	1	
Co VI	283.405	500	
N IV	283.419	900b	5
N IV	283.476	900b	5
S VI	283.50	300	
N IV	283.583	900	5
Ti VI	283.586	20	
Fe XII	283.64		
Ne III	283.66	500b	3
Fe VI	283.770	500	
O VIII	283.83 P		
N III	283.863	400b -A	
Ne III	283.87	300	3
Co VI	283.883	300	
N III	283.898	400b -A	
Mn XIII	283.91		
Sc V	283.911	900	
N III	283.937	400b -A	
N III	283.977	400b -A	
Sc VI	283.99	40	
N III	283.996	400b -A	

Element	Wavelength	Intensity	Multiplet
P IV	284.0	20h	
N III	284.040	400b -A	
Al IX	284.042	10d	
Mn VII	284.059	100	
Fe XV	284.15	80	
Sc VI	284.263	900	
N III	284.277	400b -A	
N III	284.308	400b -A	
Cl XIV	284.31		
N III	284.336	400b -A	
Ti	284.349	20	
N III	284.365	400b -A	
Co VI	284.366	500	
Fe XXIII	284.41 ?		
Co XVI	284.42		
Sc V	284.450	800	
Fe VI	284.504	400	
Ca V	284.794	100	
Ti	284.829	1	
K VI	284.860	20	
Sc VI	284.884	600	
Co VI	284.885	400	
Cr XI	284.97		
Ca V	284.978	300	
Co VI	285.034	300	
Ti IX	285.128	20	
Sc VI	285.191	800	
P IX	285.36		
Ti	285.417	90	
Al VIII	285.467	50d	
Ti	285.543	35	
N IV	285.561	600	11
S XI	285.58	250	
Co VI	285.645	300	
Ti	285.672	6	
O IV	285.710	40	
Co VI	285.713	200	
Ti	285.726	3	
Al VII	285.81		
S XI	285.83	200	
O IV	285.834	60	
N III	285.855	450	
Ti	285.860	10	
Sc	285.966	300	
Ti IX	285.981		
N III	286.000	450	
O III	286.038	10	
Ti IX	286.112	20	
Cl V	286.13	200	
Ti	286.233	1	
Cl XIV	286.26		
Ti	286.333	1	
V V	286.36		
O V	286.448	330	
Ne IV	286.45	75	
Al IX	286.45		
Ti	286.532	20	
Co XII	286.64		
Al VIII	286.65		
Sc IV?	286.677	40	
V V	286.88		
Sc VII	286.927	1000	
Ne IV	286.93	75	
Ca V	286.96	450b	
Ti	287.041	10	
Al VIII	287.13		
Si X	287.16		
Ne IV	287.21	50	
V XXI	287.25 P		
Cl V	287.33	300	
Fe VI	287.333	100	
Ti	287.355	6	
Ti	287.400	6	
Sc VII	287.48	40	
Sc VIII	287.55	50	
N III	287.56	300d -A	
Ca V	287.657	150	
Co VI	287.666	400	
Sc	287.873	400	
F IV	287.994	1	
Co VI	288.031	400	
F IV	288.078	10	
Sc	288.104	300	
Ti	288.125	6	
Ti	288.232	6	
F IV	288.267	100	
Sc V	288.286	600	
Ti VI	288.355	60	
C III	288.423	10	3.05
S XII	288.45	175	
Fe XIV	288.45		
Ti X	288.462	1	
Co VI	288.509	300	
Fe XIII	288.52 ?		
Fe VI	288.551	400	
Mg VI	288.652	10	
V XII	288.69		
Ti	289.019	3	
S VI	289.09	200	
Fe VI	289.112	500	
Al VIII	289.12		
C IV	289.143	450	9
Fe XIV	289.17		
Ti	289.178	1	
Si X	289.186	100	
C IV	289.230	500	9
O IV	289.292	10	
Fe VI	289.302	400	
Ti	289.318	10	
Cu IV	289.358	0 -A	
Ti VIII	289.375	1	
Ti	289.456	1	
Fe VI	289.468	300	
O IV	289.469	5	
N IV	289.479	300	18.33
Fe VI	289.520	400	
P IX	289.53		
Ti IX	289.579	90	
Ti X	289.579	90	
Sc V	289.589	900	
O IV	289.590	2	
Fe VI	289.672	200	
Cr XIV	289.70		
Ti	289.731	1	
Mn XIII	289.74		
Sc IV	289.850	900	
Fe VI	289.851	400	
O IV	289.898	5	
O IV	289.933	2	
Ti	289.992	1	

Element	Wavelength		Intensity	Multiplet
Fe VI	290.038		400	
Fe VI	290.089		400	
S VI	290.13		300	
Fe VI	290.146		400	
F IV	290.147		400	
Ti	290.215		10	
Sc VII	290.232		800	
Cr XI	290.27			
Fe VI	290.271		600	
Ti X	290.294		1	
Fe VI	290.302		500	
Ti	290.344		3	
Ti	290.385		20	
F IV	290.440		300	
F IV	290.461		200	
Sc IV?	290.487		300	
Fe VI	290.499		200	
Ti	290.506		1	
Cl XIV	290.51			
Fe VI	290.577		400	
Ti	290.601		6	
F IV	290.608		200	
Si IX	290.63	P	20	
Cl XIII	290.7	?		
Sc VII	290.700		600	
Ti	290.726		3	
Fe VI	290.737		400	
Ti X	290.815		1	
F III	290.846		60	
N III	290.865		400b -A	
Fe VI	290.890		200	
N III	290.916		400b -A	
N III	290.930		400b -A	
F III	290.945		35	
N III	290.965		400b -A	
Ti VIII	290.971		35	
Fe XII	290.997			
S XVI	291.0	P		
Fe VI	291.020		500	
N III	291.023		400b -A	
N III	291.031		400b -A	
O IV	291.054		2 -A	
Fe VI	291.184		600	
Ti	291.186		60	
O IV	291.203		3 -A	
Fe VI	291.229		600	
C III	291.3261		500	3.03
Mg VI	291.348		300	
Ti	291.403		6	
Mg VI	291.458		200	
Fe VI	291.473		500	
Ti	291.585		3	
S XI	291.59		200	
Fe VI	291.632		200	
Fe VI	291.800		500	
Fe VI	291.829		500	
S XI	291.83		0	
Fe VI	291.931		50	
Sc V	291.932		1000d	
Ti	291.958		1	
Ca VI?	291.976		50	
Ni XVIII	292.00		10	
Ni XIV	292.03			
Fe VI	292.038		200	
Ar VI	292.15		200	
Si X	292.220		60	
Fe VI	292.343		100	
Sc VI	292.344		600	
Sc VII	292.344		600	
Fe XV	292.36			
Ti	292.401		1	
N III	292.447		750	
N III	292.595		750	
Fe VI	292.597		400	
Fe VI	292.736		700	
O VIII	292.8	P		
Si IX	292.83	P	80	
Ti XI	292.901		1	
Fe VI	292.925		500	
Mg VI	293.026		200	
Ti	293.033		1	
Fe VI	293.046		200	
K V	293.050		100	
Ne IV	293.12		75	
Mg VI	293.124		400d	
Fe VI	293.214		100	
Ti	293.240		1	
Sc V	293.248		800	
Cl VII	293.25		400	
Cu	293.257		100	
Fe VI	293.292		400	
K V	293.332		150	
Fe VI	293.384		400	
Ne IV	293.43		50	
K VI?	293.438		100	
Fe VI	293.488		400	
Ti	293.549		1	
Ti	293.640		1	
Ne IV	293.65		25	
Ti X	293.684		10	
Fe VI	293.745		800	
Ti X	293.798		1	
Fe VI	293.820		100	
Ti	293.944		20	
Ne IV	293.95		5	
Fe VI	293.966		800	
Fe VI	294.040		50	
Ar VI	294.05		240	
Ne IV	294.10		15	
Ti	294.239		1	
Fe VI	294.265		700	
Sc VI	294.292		700	
Ti	294.302		3	
Fe VI	294.339		500	
Ne IV	294.39		15	
Ge V	294.5		300	
K	294.515		50	
Fe VI	294.520		700	
Cr XII	294.63			
Fe VI	294.665		400	
K V	294.836		300	
Fe VI	294.850		400	
Cl VII	294.90		500	
Mn XIII	294.95			
Fe VI	294.960		400	
Fe VI	295.014		400	
Fe VI	295.042		200	
Cl XIV	295.05			
O IV	295.051		2	
Ti	295.070		6	

Element	Wavelength		Intensity	Multiplet
O IV	295.140		2	
Ca VII?	295.171		150	
Ti	295.207		6	
Co VI	295.268		100	
F III	295.369		6	
Mg VIII	295.393		10	
Ca VII?	295.396		150	
F III	295.404		3	
Co VI	295.419		400	
Sc VI	295.478		900b	
Sc VIII	295.478		900b	
O III	295.511		150	
Ti X	295.584		35	
Ge V	295.6		500	
O III	295.619		250	
S XI	295.63		200	
Fe VI	295.634		400	
O III	295.657		300	
F III	295.703		35	
O III	295.716		300	
O IV	295.874		5	
F III	295.889		60	
O III	295.944		150	
Co VI	295.976		100	
O III	296.012		200	
Co VI	296.050		300	
Ti VII	296.056		35	
P V	296.11		70	
Sc V	296.166		400	
K V	296.169		200	
Si IX	296.19	P	150	
Co VI	296.206		100	
O III	296.22		50d -A	
Fe XV	296.226		20	
Sc IV	296.316		500	2
Fe VI	296.317		100	
Sc VII	296.539		400	
Ca IV	296.554		250	
Co XIV	296.68			
Co VI	296.719		400	
Fe VI	296.723		300	
Ga V	296.75		100	
Fe VI	296.808		500	
C IV	296.857		300	8
Co VI	296.923		700	
C IV	296.951		350	8
Ca III	296.958		300	
Fe VI	296.988		600	
Cu	297.057		100	
K V	297.064		200	
Mn XXII	297.07	?		
Ti	297.106		3	
Fe VI	297.131		200	
Ti VIII	297.197		20	
Sc VII	297.269		700	
Fe VI	297.308		700	
Ti	297.312		1	
Co VI	297.372		700	
Ti	297.418		1	
Ti	297.527		6	
Fe VI	297.568		800d	
N IV	297.595		600b	15
Cr XIII	297.6			
Ar VII	297.62		150	
N IV	297.634		600b	15
Co VI	297.651		600	
N IV	297.657		600b	15
Ar VII	297.66		200	
Ar VII	297.70		300	
N IV	297.704		600b	15
N IV	297.770		600b	15
V XII	297.77			
N IV	297.816		700	15
Ti	297.858		1	
Ti	298.014		3	
Cr XI	298.03			
Sc VI	298.194		800	
Co VI	298.318		300	
Si IX	298.32			
Ga V	298.36		1000	
Ti	298.380		1	
Co XIV	298.38			
Ca XVIII	298.40	P		
Sc VI	298.428		800	
Sc VII	298.557		600	
Co VI	298.649		300	
Sc	298.66		200	
Cu	298.901		200	
Co VI	298.989		500	
Sc IV	299.041		900	1
Co VI	299.051		200	
Co VI	299.157		200	
Cu	299.217		150	
O III	299.275		100d -A	
Ca IV	299.315		200	
Ga V	299.41		800	
Co VI	299.456		500	
O IV	299.499		10	
S XII	299.50		175	
Ti	299.563		3	
Fe VI	299.579		100	
Co VI	299.586		200	
O IV	299.620		5	
Co VI	299.659		200	
N III	299.661		550	
O IV	299.710		5	
Fe VI	299.803		100	
N III	299.818		550	
Co VI	299.822		500	
O IV	299.853		15	
Ti	299.889		1	
S XIII	299.89		75	
N III	299.903		200b -A	
Cr XII	299.95			
Ga V	299.95		900	
Sc V	300.004		700	
Na II	300.153		160	4
Na II	300.202		160	
Cr XIV	300.23			
K V	300.252		200	
N IV	300.318		650	18.05
Ti	300.416		1	
O III	300.455		150d -A	
K V	300.503		200	
Ga V	300.51		900	
Co VI	300.537		500	
Al IX	300.60			
Sc VI	300.677		300	
Ga V	300.73		200	
Sc	300.817		200	

Element	Wavelength	Intensity	Multiplet
Fe VI	300.997	200	
Ne III	301.12	400	7
Ca V	301.139	20	
Ga V	301.15	800	
Co VI	301.203	400	
C III	301.206	200	7.21
C III	301.243	300	7.21
Ti	301.244	1	
C III	301.279	100	7.21
Ti VIII	301.297	6	
Sc VII	301.301	300	
Na II	301.318	90	
Sc VI	301.426	400	
Na II	301.436	100	3
V XII	301.50		
Co VI	301.604	50	
Co VI	301.713	100	
Ca III	301.741	200	
Cr XIV	301.78		
Sc VII	301.820	500	
Ti VI	301.913	20	
Co VI	301.955	500	
Ti	302.007	1	
Co VI	302.061	50	
Co VI	302.123	400	
Co VI	302.157	200	
Cl XIII	302.24		
Co VI	302.261	100	
Ni XIV	302.27		
Ti VIII	302.272	60	
Co VI	302.408	400	
Sc VI	302.436	100d	
Sc VII	302.436	100	
Na II	302.446	60	
Fe XV	302.45		
Co VI	302.471	400	
Si IX	302.51		
Ti	302.558	1	
Ga V	302.65	10	
K VI?	302.657	100	
Co XVI	302.69		
Co VI	302.736	300	
Ti	302.906	1	
N IV	303.006	500b	14
N IV	303.048	500b	14
Co VI	303.071	100	
N IV	303.078	500b	14
N IV	303.124	500b	14
Sc VIII	303.157		
N IV	303.162	500b	14
N IV	303.191	500b	14
Co VI	303.191	300	
N IV	303.280	500	18.04
Si XI	303.31	500	
Ni XIII	303.31		
S XIII	303.37	50	
Fe XV	303.40		
Co VI	303.410	200	
O III	303.411	350	6
C III	303.432	400d	7.20
O III	303.460	350	6
C III	303.468	100	7.20
Cu XIX	303.51 P		
O III	303.515	350	6
Fe VI	303.558	400	
Co VI	303.565	100	
Co VI	303.619	200	
O III	303.621	350	6
Co VI	303.685	300	
O VIII	303.69 P		
O III	303.693	350	6
C VI	303.70 P		
Be IV	303.72 P		
Ti XX	303.75 P		
He II	303.781	665	1
He II	303.786	335	1
Ti	303.791	1	
O III	303.799	450	6
Ga V	303.81	800	
N III	303.825	450b -A	
N III	303.856	450b -A	
N III	303.880	450b -A	
Ti	303.891	35	
N III	303.910	450b -A	
Co VI	303.943	200	
N III	303.960	450b -A	
N III	303.985	450b -A	
Ga V	304.01	10	
N III	304.035	450b -A	
N III	304.103	300b -A	
Co VI	304.116	200	
N III	304.203	300d -A	
Fe VI	304.221	700	
Ca III	304.330	150	
Co VI	304.374	50	
Cu	304.434	100	
Sc VIII	304.456	100	
Ti IX	304.498	1	
Co VI	304.531	50	
Fe VI	304.551	700	
Co VI	304.607	100	
N III	304.786	500b -A	
N III	304.812	500b -A	
Mn XIV	304.85		
N III	304.877	500b -A	
Ca III	304.910	150	
N III	304.921	500b -A	
Fe XV	305.00		
Ge V	305.0	50	
Co VI	305.037	400	
Al IX	305.10		
Fe VI	305.200	400	
Sc VIII	305.260	100	
Co VI	305.322	100	
O III	305.596	400	5
Co VI	305.612	100	
O III	305.656	450	5
O III	305.703	400	5
Ti VII	305.730	1	
N III	305.761	500	
O III	305.769	500	5
Cr XII	305.81		
O III	305.836	400	5
Fe VI	305.837	100	
O III	305.879	200	5
N III	305.920	500	
Ti	306.083	1	
Ti XI	306.144	1	
Co VI	306.145	100	
Ga V	306.20	100	

Element	Wavelength	Intensity	Multiplet
Mn XI	306.46		
Fe VI	306.460	100	
Co VI	306.567	100	
O IV	306.623	90	
Fe VI	306.823	200	
O IV	306.884	60	
Fe VI	306.922	500	
Al IX	306.95		
Ga V	306.99	1000	
Fe VI	307.013	200	
Sc VIII	307.083	600	
Mn VI	307.109	100	
Na V	307.152	800	
Al VI	307.248	350d	
Sc VII	307.320	200d	
Al IX	307.33		
S XIII	307.36	50	
Fe VI	307.375	400	
Fe VI	307.404	300	
Sc VIII	307.447	40	
Ti	307.493	1	
Ca VII?	307.563	100	
Si VIII	307.65 P	20	
Fe XV	307.78		
Fe VI	307.800	300	
C IV	307.806	50f	2.01
Mn VI	307.842	60	
Fe VI	307.884	50	
Mn VI	307.999	400	
Fe VI	308.007	300	
O III	308.051	50	
Sc VII	308.180	600	
Fe VI	308.187	200	
Ga V	308.24	700	
Ti XI	308.250	10	
Si VIII	308.26 P	50	
Na V	308.264	1000	
O III	308.306	100	
Ga V	308.32	200	
Fe VI	308.383	200	
Ti	308.408	3	
Fe VI	308.534	400	
Ne III	308.56	100	10
Al VI	308.560	300d	
Mn VI	308.560	400	
Ti IX	308.568	35	
Ti XI	308.568	35	
Fe XI	308.61		
Fe VI	308.644	500	
Mn XIII	303.75		
Ca XX	308.8 P		
Mn VI	308.853	300	
Sc	308.895	300	
V X	308.90		
S XIII	308.91	125	
Mn XIII	308.92		
Fe VI	308.960	300	
Fe VI	308.993	300	
Al VII	309.012	100d	
Al VII	309.122	100d	
Sc VII	309.161	500	
Ni XVI	309.40		
P X	309.44		
Mn VI	309.440	240	
Mn VI	309.579	200	
Al VI	309.596	400d	
S XII	309.6 P		
Ga V	309.61	200	
Fe VI	309.627	100	
Al VI	309.852	300d	
Sc VIII	310.042	500	
Sc VII	310.043	100	
Mn VI	310.058	200	
C III	310.1697	700	3
Mn VI	310.182	180	
Fe VI	310.274	500	
Cu IV	310.380	20 -A	
Ga V	310.42	10	
Ti	310.518	1	
P V	310.58	200	
Fe VI	310.601	400	
Mn XI	310.61		
Mn XII	310.63		
Co XV	310.69		
Cu	310.727	150	
N III	310.746	50b -A	
N III	310.803	100b -A	
Fe VI	310.807	50	
Cr XXI	310.90 ?		
Al VI	310.908	300d	
Mn VI	310.908	800b	
N III	311.007	350d -A	
N III	311.113	350d -A	
Sc VIII	311.138	200	
Fe VI	311.138	100	
C III	311.157	10d	7.19
Fe VI	311.236	200	
K V	311.243	200	
Sc VIII?	311.332	100	
P V	311.35	250	
F III	311.413	20	
O IV	311.499	25	
N III	311.550	500	
Cr XII	311.55		
N III	311.636	500	
Ti XI	311.659	1	
O IV	311.682	40	
Fe VI	311.702	700	
N III	311.721	400	
O IV	311.726	10	
Ni XV	311.73		
Mn VI	311.748	200	
Ga V	311.77	800	
Mg VIII	311.806	10d	
Na VI	311.921	400	
Sc VI	311.947	400	
Sc VIII	312.239	200	
Al VI	312.241	300d	
Fe VI	312.263	700	
Mg V	312.311	1000	
Ga V	312.39	400	
C IV	312.422	750	2
P IV	312.44	160	
C IV	312.453	700	2
Cu	312.505	200	
Co XVII	312.57 P		
Na VI	312.608	300	
S XIII	312.68	25	
Mn VI	312.692	160	
K V	312.770	250	

Element	Wavelength	Intensity	Multiplet
P X	312.87		
Ga V	312.91	10	
Ne III	313.05	400	2
Ti XI	313.229	10	
V XIII	313.38		
Ca VII?	313.478	100	
Ga V	313.66	300	
Ne III	313.68	300	2
Ti XI	313.710	1	
Mg VIII	313.743	100d	
Na VI	313.748	500	
Mn XI	313.80		
Ne III	313.92	100	2
Co XIII	313.95		
V X	314.00		
Sc VI	314.049	400	
Fe VI	314.299	300	
Si VIII	314.31	50	
N IV	314.324	20	18.01
C III	314.41	100d	7.18
Sc VIII	314.53	200d	
Mg VI	314.554	300	
Ca VII?	314.609	100	
Mg VI	314.676	400	
N III	314.715	800	7
Fe VI	314.814	100	
N III	314.850	800b	7
N III	314.877	800b	7
Ti	314.940	3	
Mn VI	314.979	120	
Mg VIII	315.022	200d	
Fe VI	315.027	400	
N IV	315.060	600	18
Sc VIII	315.163	350	
K V	315.181	200	
F III	315.219	150	
Sc VIII	315.420	300	
Fe VI	315.506	300	
F III	315.536	100	
K V	315.537	150	
P XI	315.64		
Ti	315.670	1	
Ca VII?	315.702	100	
F III	315.747	60	
Ti	315.779	3	
Sc	315.786	300	
Ti XI	315.844	3	
Mn XIV	315.88		
Sc	315.890	200	
Ga V	315.94	100	
Ca V	316.115	150	
Si VIII	316.202	100	
Ca VI?	316.389	20	
Ga V	316.47	200	
F III	316.484	20	
Ni XIV	316.53		
Sc	316.567	200	
Cr XIII	316.6		
Al IX	316.78		
F III	316.822	10	
S XIII	316.84	50	
Ca VI?	316.947	165	
O III	316.967	150	
Ti	316.987	1	
F III	316.995	6	
Mg VIII	317.029	100d	
O III	317.24	50d -A	
P XI	317.24		
Fe VI	317.319	300	
Sc VIII?	317.437	400	
N IV	317.596	200	18.31
Fe XV	317.62		
Na VI	317.641	600	
F III	317.791	3	
Ti VIII	317.992	1	
Ca IV	318.094	200	
F III	318.126	1	
Fe XIII	318.21		
P X	318.29		
Fe VI	318.364	300	
Ca IV	318.385	50	
Sc VIII	318.408	500	
Al IX	318.50		
Ti	318.543	1	
Sc IX	318.615	400	
Cl IV	318.75	100	
Cr XII	318.82		
Co XI	318.85		
K V?	318.969	50	
Ni XV	319.01		
Mg VII	319.016	400d	
C III	319.29	300d	7.16
Ga V	319.40	800	
Ti VIII	319.463	1	
Cl IV	319.51	100	
Cl IV	319.62	300	
Na IV	319.638	1000	
F IV	319.695	300	
F IV	319.740	10	
Si VIII	319.829	100d	
Ti	319.887	1	
Cl IV	319.99	10	
O III	319.996	150	
F IV	320.004	200	
Mn VI?	320.146	120	
F IV	320.192	100	
Cr XII	320.20		
Cl IV	320.25	100	
He I	320.392	20 -A	
Sc VII?	320.406	100	
Ca VI?	320.445	100	
Mg VII	320.50		
Ga V	320.53	100	
Ni XVIII	320.56		
Mn VI	320.598	180	
V XI	320.60		
Mn VI	320.681	180	
O III	320.720	100d -A	
Mn VI	320.874	180	
Cl IV	320.88	100	
Fe XIII	320.93		
O III	320.979	600	11
Mn VI	320.979	180	
Mg IV	320.994	1000	
Mg VII	321.00		
Al IX	321.05		
N III	321.079	500b	
N III	321.135	500b	
N III	321.162	500b	
Mn VI	321.176	220	

Element	Wavelength	Intensity	Multiplet
N III	321.198	500b	
N III	321.278	500b	
C III	321.372	10d	7.15
O IV	321.457	2	
Mn VI	321.541	180	
Ca IV	321.593	120	
Ca V	321.609	120b	
Sc XIX	321.77 P		
Fe XV	321.82		
V XII	321.9		
K	322.146	50	
Ca V	322.166	500	
Ga V	322.30	600	
Sc	322.35	150	
N IV	322.506	700	4
N IV	322.572	700	4
C III	322.5741	800	2.03
Cu	322.617	150	
F III	322.647	20	
F III	322.675	10	
Ti VIII	322.698	1	
N IV	322.722	700	4
V X	322.74		
Ti XI	322.75		
Ca V	322.757	250	
Mg XII	322.9 P		
Ga V	322.92	300	
Ga V	322.98	800	
Ga V	323.10	300	
N IV	323.178	600b	17
S XII	323.18		
Ca V	323.223	300	
Ca VI	323.223	300	
V XIII	323.23		
N III	323.263	600d -A	
Mg VII	323.29		
Mg IV	323.307	900	
Cl VI	323.36	600	
Ti V	323.365	85	
N III	323.436	500	6
N III	323.493	500	6
Al VIII	323.54		
N III	323.620	500	6
N III	323.675	500	6
K XVII	323.74 P		
Cu	323.816	600	
F IX	323.9 P		
Cl VI	323.94	800	
Ti	324.047	1	
Ca V	324.110	150	
Sc IX	324.199	600	
Ti VIII	324.207	1	
Ga V	324.24	500	
Ca V	324.477	250	
Cu IV	324.485	70 -A	
Ne II	324.570	20	
Sc IX	324.570	50	
V XIII	324.58		
Cu	324.607	500	
Ti IX	324.712	1	
Ga V	324.94	500	
Ca V	325.020	150	
Cu	325.038	200	
Sc VII?	325.121	200	
Cr XII	325.13		
Mn VI	325.146	400	
Cl VI	325.16	1000	
K III	325.278	20	
Ca V	325.282	250	
Al VIII	325.29		
P XI	325.31		
Mn XIV	325.34		
Ne II	325.393	10	
P XI	325.52		
C III	325.570	100d -A	11.13
Cu	325.687	200	
Co XIII	325.70		
Ti	325.767	1	
N III	325.788	20d -A	
N III	325.841	50d -A	
V XI	325.97		
V XX	326.07 ?		
Ga V	326.13	400	
Co XII	326.17		
Ti	326.259	1	
P XI	326.45		
Ne II	326.542	40	
Mn VI	326.571	40	
Cu	326.575	200	
Ga V	326.76	400	
Ne II	326.787	50	
Sc	326.791	400	
P XII	327.0		
K V	327.031	100	
C III	327.112	400d	7.13
Mn VI	327.131	20	
Si IV	327.137 P		2.02
C III	327.176	400d	7.13
Si IV	327.181 P		2.02
Ti XI	327.192	3	
Ne II	327.262	30	
P XII	327.27		
Ne II	327.355	20	
K V	327.376	250	
Cu	327.383	150	
K III	327.605	50	
Ne II	327.626	20	
C III	327.784	100 -A	11.12
Ca VI	327.806	200	
Mn XIV	327.84		
Ne II	328.090	20	
Mn VI?	328.129	40	
Al VIII	328.200	10d	
F IV	328.213	10	
Mn VI	328.232	200	
Ti	328.248	1	
Cr XIII	328.29		
S XII	328.39		
Cu	328.412	500	
Mn VI	328.431	400	
O III	328.448	500	10
P V	328.46	300	
S VI	328.51	600	
Cu	328.536	250	
Mn VI	328.558	180	
Ca IV?	328.577	50	
Ga V	328.64	300	
O III	328.742	450	
P V	328.77	300	
Cu	328.831	200	

Element	Wavelength	Intensity	Multiplet
K III?	328.845	100	
K III?	328.933	150	
K V	328.973	100	
Mn VI	329.043	100	
Cu	329.047	1000	
K III	329.053	100	
Ca IV	329.116	250	
Mn VI	329.177	40	
N III	329.242	50d -A	
Mn XII	329.28		
Ca VI	329.298	150	
N III	329.307	100d -A	
K V	329.307	50	
Mn VI	329.320	100	
Ca IV	329.391	150	
Al VIII	329.63		
Sc VII	329.640	300	
Cu IV	329.805	30 -A	
Cu	329.851	300	
Ca VII	330.010	200	
Ne II	330.146	5	
Ne II	330.205	5	
Co XV	330.25		
N III	330.26	300d -A	
P XII	330.29		
Sc	330.39	100	
Ca VII?	330.403	100	
Mn XIV	330.49		
C III	330.617	100	7.12
Ne II	330.626	5	
K III	330.684	250	
C III	330.687	100	7.12
Ti VI	330.703	60	
Na V	330.718	10	
Ne II	330.790	20	
Ca	330.809	50	
Ca V	330.937	300	
V XI	330.94		
Al VIII	331.03		
Ne II	331.069	1	
Ti	331.074	1	
P XV	331.1 P		
K V?	331.168	50	
Sc VI	331.309	200	
K III	331.416	50	
Ca IV	331.442	200	
Ne II	331.515	2	
Ca VII?	331.650	160	
Sc X	331.679	40d	
Ti VI	331.767	6	
Cl IV	331.84	200	
Cl XII	331.94		
Cr XII	331.95		
K	331.966	50	
Ca IV	331.991	250	
Cr XII	332.06		
Ti VII	332.081	6	
N III	332.140	650	
Ca VII?	332.184	60	
N III	332.333	650	
Cu	332.405	100	
Ca IV	332.531	235	
Na V	332.550	800	
Ti	332.554	1	
Al X	332.78		
Ca IV	332.808	150	
Cu	332.893	1000	
Cr X	332.97		
Ti IX	333.385	3	
Sc VII	333.386	200	
Ca V	333.438	200	
Ca VI	333.44		
Sc X	333.521	200	
Cu	333.562	300	
Ca V	333.570	200	
Mn X	333.73		
Ca V	333.857	150	
P XII	333.88		
Na V	333.910	900	
Ca VII?	334.136	200	
Sc VII	334.138	500	
Ca VI	334.14		
Fe XIV	334.15		
Cu	334.204	300	
Co XIV	334.22		
Ca VII?	334.357	100	
N III	334.407	200 -A	
Ti VI	334.457	20	
N III	334.476	250 -A	
Na XI	334.5 P		
Al VIII	334.51		
Ca V	334.545	300	
Ti	334.859	1	
Ca VII?	334.904	40	
N IV	335.052	850	10
Fe XII	335.06		
P XII	335.07		
K VI?	335.175	150	
Sc	335.18	100	
Cr VI	335.20		
Mg VIII	335.230	10d	
F VII	335.27		
Ca VI	335.33		
Ca V	335.344	250b	
Fe XVI	335.407	6	
Cu	335.470	150	
Sc	335.58	50	
Sc	335.89	50	
Cu	335.919	250	
Cr XI	336.06		
Cu	336.279	250	
Cr VI	336.30		
Ca V	336.554	200	
Ar V	336.56	150	6
V XI	336.68		
Ti IX	336.895	6	
Ca	337.020	50	
Ar VIII	337.26	100d	
Cr VI	337.28		
Mn XII	337.29		
Ca	337.396	100	
Ca V	337.541	200	
Ar V	337.56	150	6
Sc X	337.911	200d	
Ar V	338.00	300	6
Sc X	338.03		
Ca V	338.056	250	
K VI?	338.161	150	
O VIII	338.19 P		
Ar VIII	338.22	10d	

Element	Wavelength	Intensity	Multiplet
Fe XII	338.27		
N III	338.349	500 -A	
P XII	338.41		
Si VIII	338.43		
Ar V	338.43	100	6
Sc X	338.447	200	
N III	338.808	250d -A	
Co XIII	338.82		
Ca VII	338.824	100	
Ca IV	338.828	200	
N III	338.937	300d -A	
Mg VIII	339.007	100d	
Ar V	339.01	150	6
Cu IV	339.038	10	
Mn XIV	339.19		
O IV	339.330	2	
O IV	339.436	1	
Ca VI	339.463	150	
Sc VIII	339.52	200	
Co XVII	339.58 P		
Ca IV	339.790	150	
Ar V	339.89	150	6
Ca VI	339.953	150	
Ca VII	339.965	150	
Ca VI	340.037	200	
Cr X	340.05		
N III	340.20	500d -A	
Al VIII	340.23		
Cl VII	340.23	750	
Ca IV	340.286	200	
Cl VII	340.30	900	
Ca V	340.389	150	
K IV	340.462	300	
Ca VI	340.516	150	
Ti XII	340.66		
Ca VII	340.700	50	
K IV	340.745	150	
Ti VI	341.109	20	
Fe XI	341.115	10	
C III	341.143	500	7.10
C III	341.179	600	7.10
C III	341.242	700	7.10
Ca IV	341.284	200	
O V	341.391	10	
Ca IV	341.455	200	
Cu	341.483	250	
Ca XVIII	341.54 P		
Sc VI	341.62	200	
Ti IX	341.691	10	
Mg VIII	341.75		
Mg	341.790	10	
F III	341.921	10	
K III?	341.924	300	
P XII	342.06		
Mg VIII	342.07		
K XIX	342.2 P		
Co XIV	342.25		
Ca VII	342.394	150	
K IV	342.410	150	
Cu IV	342.432	20 -A	
Ca IV	342.447	250b	
Sc X	342.53		
Mn XIV	342.56		
Ti VI	342.595	35	
N III	342.665	250 -A	
Mn XII	342.67		
Cr XIII	342.69		
K V?	342.703	100	
Cu	342.713	800	
N III	342.741	300 -A	
K IV	342.805	100	
Ca VII	342.818	50	
Ti XIX	342.82 ?		
Sc	342.91	50	
Si IX	342.97		
V XII	343.12		
O V	343.168	40	
Ca IV	343.194	100	
Ca V	343.194	100	
Al VII	343.290	10	
Ca IV	343.438	200	
K V?	343.468	150	
Si VIII	343.49		
Mn XIV	343.60		
Ca V	343.640	200	
Al VII	343.650	10d	
Ti	343.668	1	
F III	343.893	35	
Co XII	343.93		
Ca IV	343.933	250	
F III	343.934	3	
Ca V	344.219	100	
K III?	344.270	200	
F III	344.385	20	
Cu XVIII	344.59 P		
K III?	344.635	200	
N IV	344.916	600b	13
Ca IV	344.958	200	
N IV	345.025	600b	13
N IV	345.062	600b	13
Si VIII	345.10		
Si IX	345.10	20	
N IV	345.111	600b	13
Ca IV	345.130	215	
N IV	345.207	600b	13
N IV	345.261	600b	13
O III	345.309	500	15
Cu	345.368	900	
K III	345.405	100	
K III	345.545	100	
Fe X	345.75	10	
Cu	346.004	600	
Mn XII	346.04		
V XI	346.11		
Ca VI	346.335	100	
O IV	346.372	15	
O IV	346.374	15	
S XI	346.52		
O IV	346.692	10	
Ti VI	346.728	1	
Fe XII	346.859	20	
Ca VI	347.005	200b	
Ca VII	347.021	100	
N III	347.072	100 -A	
N III	347.148	200 -A	
P V	347.24	150	
Ca VI?	347.334	50	
Si X	347.43	100	
Si X	347.71		
C III	347.777	300	7.08

Element	Wavelength	Intensity	Multiplet
C III	347.854	300	7.08
Ca VI	347.967	150b	
Ca VII	347.972	100	
K III	347.999	150	
Ca VII?	348.043	150	
Sc X	348.14		
P V	348.19	250	
Fe XIII	348.20	40	
Cu	348.413	150	
Ca VI	348.650	50	
N III	348.683	800b -A	
F II	348.795	1 -A	
N III	348.816	800b -A	
Ca VI?	348.927	50	
Fe XI	348.97		
Ca VII	348.999	20	
Mg VI	349.155	700d	
Ti	349.299	1	
K V	349.504	200	
Ti VI	349.574	6	
Mn XIV	349.64		
K V	349.793	150	
O III	349.825	150	
Ti XI	349.91		
O III	349.918	100	
Ti XII	349.933	1	
Si IX	349.96	50	
O III	349.961	50	
Cu	350.056	100	
C III	350.132	10d -A	11.27
C III	350.35	200d -A	11.26
Si VIII	350.38		
S XI	350.40		
Cu IV	350.421	8	
Ti X	350.596	6	
Na VII	350.645	500	
Ti XI	350.732	1	
Ar V	350.88	150	8
Ti XII	351.06		
Mg V	351.089	850	
Ti	351.126	6	
Cr XIII	351.14		
Ti	351.351	1	
Ca VII	351.373	100	
Ca VII	351.469	100	
Ar XVI	351.60 P		
N IV	351.931	500b	16
N III	351.979	500b -A	
Ca VII	352.008	50	
N III	352.114	20 -A	
Fe XII	352.115	30	
Al VII	352.160	100d	
Mg V	352.202	700	
Ne II	352.2466 st	30	
P XI	352.26		
Na VII	352.275	600	
Ti	352.348	1	
V XI	352.43		
Mg VIII	352.46		
K V	352.463	100	
Ti	352.574	1	
Fe XI	352.680	30	
K V	352.750	100	
Ca V	352.915	450	
Ne II	352.9561 st	90	
Ca VIII	352.998		
C III	353.000	300d	11.11
Cu	353.031	150	
N IV	353.056	700	18.30
Mg V	353.094	1000	
Ne II	353.2149 st	50	
Cr X	353.22		
Na VII	353.294	800	
Mg V	353.300	650	
K	353.325	150	
F II	353.423	2 -A	
K	353.455	150	
Sc X	353.55		
Cu	353.568	100	
P XI	353.59		
Ca VIII	353.699	20	
Ti	353.757	1	
Al VII	353.776	200d	
Cr XIII	353.81		
Fe XIV	353.84	30	
Sc VII	353.845	200	
Mg VIII	353.86		
Ti VI	353.877	6	
Ne II	353.9349 st	30	
Ti IX	353.939	6	
K IV	354.139	100	
Ca VIII	354.165	150	
Mg V	354.223	700	
Sc XI	354.24	100	
Sc XI	354.350	100	
K	354.397	50	
Ca VII	354.418	150	
Ca VIII	354.488	50	
K	354.627	20	
Ti	354.843	1	
K IV	354.927	300b	
Na VII	354.950	400	
Cr X	354.96		
Ne II	354.9622 st	60	
Ca VIII	354.975	100	
F IV	355.045	200	
V XII	355.11		
O III	355.137	300	
Sc	355.16	50	
O III	355.293	150	
Mg V	355.326	850	
O III	355.333	250	
Ne II	355.4541 st	20	
O III	355.469	250	
Co V	355.52	1000	
Ne II	355.6559 st	40	
Ca VIII	355.704	100	
K V	355.800	50	
Ti X	355.811	1	
Ne II	355.839	1	
Co V	355.88	900	
C VI	355.89 P		
Ne II	355.9476 st	40	
Cu IV	355.977	5	
Mg VIII	356.000	10	
Co V	356.06	600	
Si X	356.07	100	
Cr XIII	356.12		
Ne II	356.1290 st	40	
Ca V	356.246	250	

Element	Wavelength	Intensity	Multiplet
K IV	356.260	150	
K V	356.372	50	
Ne II	356.4410 st	30	
Ne II	356.5405 st	30	6
Fe XI	356.55		
O III	356.558	10	
Fe XIV	356.60		
K V	356.615	150	
O III	356.625	50	
O III	356.725	100	
O III	356.768	10	
Ne II	356.7995 st	50	6
Ne II	356.8769 st	20	
Al VII	356.885	250d	
Ca VIII	356.907	50	
Cu	357.052	100	
N III	357.238	400 -A	
N III	357.324	450 -A	
Ca VIII	357.348	150	
Ca VIII	357.492	50	
Si X	357.51		
Ne II	357.5355 st	40	6
K V	357.685	150	
Ne IV	357.831	250	5
Sc X	357.85		
Cu IV	357.897	100	
Ne V	357.95	400	3
Ca VIII	357.977	100	
Ca III	357.980	150b	
Sc VIII	358.107	50	
Ca VI?	358.153	150	
Sc	358.22	250	
V XI	358.23		
N III	358.278	600b	11
Si IX	358.29		
Si XI	358.29		
Si X	358.30		
N III	358.327	600b	11
N III	358.356	600b	11
N III	358.401	600b	11
N III	358.469	600b	11
Ne V	358.48	500	3
N III	358.509	600b	11
N III	358.578	600b	11
Si XI	358.63		
Fe XI	358.64		
Ne IV	358.72	1000d	5
C III	358.740	400	11.10
Cu	358.865	900	
V XI	358.89		
P XI	358.94		
O III	359.016	400	
O III	359.223	400	
Ca VIII	359.364	200	
O III	359.384	350	
Ne V	359.39	500	3
Fe XV	359.53		
P IV	359.63	20	
Fe XIII	359.63	10	
Ca VIII	359.647	50	
K IV	359.730	300	
Fe XIII	359.85		
Cu	359.873	500	
K IV	359.907	200	
Ti X	360.133	10	
Ca VII?	360.296	100	
Ca VIII	360.298	100	
Na V	360.319	800	
P XI	360.36		
Na V	360.367	800	
C III	360.557	600	7.05
K IV	360.568	100	
C III	360.623	700	7.05
F IV	360.635	100	
C III	360.675	500	7.05
Na IV	360.761	600	
Fe XVI	360.798	3	
Mn XV	360.97		
N III	361.061	100 -A	
Ca VI?	361.114	200	
N III	361.143	50 -A	
N III	361.205	50 -A	
F IV	361.208	10	
Cu	361.220	250	
Ca VI	361.241	20	
Na VI	361.250	800d	
N III	361.288	200 -A	
Sc XVIII	361.36 ?		
Si XI	361.41		
Ne II	361.4326 st	90	5
Si IV	361.560 P		2.01
S XI	361.57		
Mn XIII	361.57		
Ca VI?	361.645	100	
Si IV	361.659 P		2.01
Cu	361.838	150	
Ca VIII	361.984	20	
K IV	362.085	250	
K IV	362.154	150	
Sc VIII	362.308	100	
S XI	362.34	0	
Na VI	362.444	400	
Ne II	362.4554 st	60	5
Ti IV	362.520	1	
Ca VI	362.617	100	
Ca VI?	362.788	50	
N III	362.831	700b	10
N III	362.876	700b	10
N III	362.902	700b	10
N III	362.949	700b	10
N III	362.982	700b	10
Ti IV	363.003	1	
N III	363.004	700b	
K IV	363.021	150	
Ti V	363.145	1	
Cr IX	363.26		
Sc	363.31	50	
K XVII	363.37 P		
Ca VIII	363.391	50	
Mn XI	363.46		
Ca VI?	363.525	100	
K	363.647	50	
C III	363.7538	400	7.04
Mg VII	363.770	10	
Na VI	363.774	200	
C III	363.7852	500	7.04
Sc	363.82	50	
C III	363.8598	600	7.04
Cr XIII	363.96		
Cu	363.967	100	

Element	Wavelength	Intensity	Multiplet
V IX	364.18		
V X	364.18		
Fe V	364.292	300	
Na VI	364.477	300	
Fe XII	364.477	40	
Si XI	364.50		
O III	364.739	150	
Fe V	364.795	400	
O III	364.867	100	
O III	364.940	50	
Fe V	364.973	300	
Mg VII	365.230	200d	
Fe V	365.339	300	
Si XI	365.42		
Fe V	365.440	600	
Fe X	365.57		
Ni XVII	365.60 P		
Ne V	365.61	1000	5
Fe V	365.634	300	
Ti X	365.636	1	
C III	365.778	100d -A	11.25
Fe V	365.858	600	
Fe VIII	365.873	400	
F III	365.876	60	
Sc	365.89	50	
Fe V	366.001	300	
Mn XI	366.01		
Na VI	366.110	400	
C III	366.19	400d -A	11.24
Na VI	366.240	10	
F III	366.391	35	
Ca VII?	367.011	150	
Sc VIII	367.083	50	
O IV	367.192	5	
K VI?	367.378	100	
F VII	367.43		
Na V	367.557	200	
Mg VII	367.679	400d	
F VII	367.87		
K IV	368.030	100	
Cr XIII	368.06		
Mg IX	368.071	100d	
Sc VIII?	368.088	100d	
N IV	368.108	450	18.29
Fe XIII	368.12		
Si XI	368.28		
Ca	368.303	150	
K	368.465	50	
K	368.580	100	
Ti	368.818	3	
Cr XIII	369.13		
Fe XI	369.23		
C III	369.415	500	7.02
Sc	369.42	50	
C III	369.472	200	7.02
Ca	369.647	250	
Na V	369.743	300	
Ca VI	370.033	250	
Sc IV	370.034	400	
K VI?	370.115	100	
Sc VIII	370.174	150	
Ti	370.408	1	
Fe VIII	370.432	500	
K V?	370.523	150	
K V?	370.580	150	
Cu	370.622	100	
N III	370.640	300 -A	
N VII	370.74 P		
Ti XI	370.789	1	
N III	370.794	350 -A	
Cr XI	370.87		
Mg VII	371.08		
Sc VIII?	371.184	300	
Ca V?	371.225	300	
Cu	371.267	100	
Ti	371.332	1	
V IX	371.38		
Ti	371.410	6	
Si XI	371.48		
C III	371.694	1000	7
C III	371.747	1000	7
C III	371.784	800	7
Mn X	371.88		
Ca IX	371.902	100b	
Ca X	371.902	100b	
Na II	372.074	200	2
K V	372.148	500	
Sc IV?	372.415	300	
K V	372.462	200	
Sc XI	372.507	300	
Cl V	372.59	200	
K V	372.774	200	
Fe XV	372.78		
Ca V?	372.904	300	
K V	373.074	100	
Cl V	373.17	200	
V XII	373.20		
Fe VIII?	373.20	300	
K V?	373.318	150	
Ca VI	373.417	100	
Fe V	373.720	500	
Cl V	373.78	300	
Ca IX	373.802	400	
O III	373.805	400	4
Cl V	373.91	10	
Ca IX	373.979	600	
Mg VII	373.99		
Ca VI	374.000	200	
Ti XI	374.00		
O III	374.005	400	4
O III	374.075	500	4
O III	374.165	400	4
N III	374.204	900	5
Fe V	374.240	400	
O III	374.331	400	4
O III	374.436	400	4
N III	374.441	900	5
Fe V	374.464	200	
Kr IX	374.54	20	
Sc VIII	374.658	250	
Cl V	374.66	100	
Ca IV	374.744	250	
Fe V	374.864	500	
Cr XI	374.90		
K VI	374.940	250	
Sc V	375.048	400	
Cl V	375.10	200	
F II	375.237	10	
F II	375.303	100	
Ca V?	375.333	150	

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Element	Wavelength	Intensity	Multiplet
F II	375.432	10	
Ti	375.508	1	
F II	375.702	40	
Sc VIII?	375.705	300	
F II	375.784	10	
F II	375.927	40	
K IV	375.955	300	
K V	375.955	300	
K	376.061	150	
Ca VI?	376.279	135	
B III	376.330	100	
Na II	376.377	200	1
Sc IV?	376.449	300	
Mg	376.665	100	
F II	376.684	10	
O II	376.693	10	
O II	376.745	10	
Mn XI	376.81		
Mn IX	376.86		
O II	377.045	10	
F II	377.133	1	
Ca V	377.181	250	
K VI?	377.263	100	
N III	377.286	100 -A	
Cu	377.355	100	
N III	377.380	100 -A	
N III	377.444	100 -A	
N III	377.540	250 -A	
Cr XIII	377.60		
Cu	377.756	150	
K V	377.763	250	
Sc	377.79	50	
Ca IX	378.089	800	
Ti X	378.09		
Na III	378.143	1000	
K V	378.219	150	
Na VII	378.22		
Ca VII	378.258	150	
Ca IX	378.382	40	
Ca IX	378.551	50b	
F III	378.580	10	
Ti XI	378.630	1	
Ca VI?	378.653	50	
Sc V	378.677	100	
Ca VI?	378.745	50	
Fe V	379.032	100	
C III	379.065	100 -A	11.43
K III	379.118	300	
K V	379.118	300	
Ca VI?	379.138	100	
C III	379.254	10d	11.09
K IV	379.279	100	
Fe V	379.294	300	
Ne III	379.31	700	6
O III	379.505	200	
O III	379.575	150	
O III	379.631	100	
F II	379.719	1	
Ti X	379.74		
Sc	379.77	50	
O IV	379.780	15	
K IV	379.877	300	
O IV	379.923	10	
Ca VI?	380.003	50	
Na III	380.107	800	
Si XIV	380.2 P		
Ca V?	380.396	250	
Mn XIII	380.42		
K III	380.477	250b	
K IV	380.477	250b	
Fe V	380.664	300	
V XII	380.87		
F II	380.896	100	
Al VIII	381.15		
Sc XI	381.151	700	
Fe V	381.152	200	
Fe V	381.260	300	
Na VII	381.300	300	
Ar XVIII	381.4 P		
Ca VI?	381.464	100	
Fe V	381.467	50	
Sc	381.540	100	
Ca V?	381.601	150	
Fe V	381.671	50	
Al VII	381.689		
Al VIII	381.689	10	
B V	381.70 P		
K IV	381.702	200	
F II	381.824	1	
Ca VI?	381.849	100	
F VII	381.87		
Fe V	381.881	400	
Ca XVII	382.03 ?		
Mn V	382.061	100	
Mn XI	382.07		
O III	382.214	50d	
K III	382.229	300	
K IV	382.229	300	
N VII	382.45 P		
K IV	382.487	150	
Ar III	382.61	125	
K IV	382.646	200	
Sc X	382.650	200	
Mg VII	382.72		
O V	382.757	20	
Mn XIII	382.76		
Fe XII	382.83		
O III	382.903	50d	
K IV	382.906	300	
Mn V	382.907	600	
Mn V	382.980	100	
Mn X	383.00		
K V	383.318	100	
Mn V	383.422	200	
Fe V	383.484	300	
Sc X	383.58		
V XII	383.63		
Mn V	383.681	400	
Al VIII	383.70		
Zn III	383.759	1	
Al VIII	383.785	50	
Ti X	383.83		
Mn V	383.939	500	
Cl XV	383.96		
C IV	384.032	800	7
K IV	384.095	250	
C IV	384.178	850	7
Fe V	384.212	300	
Na XI	384.3 P		
K V?	384.400	100	

Element	Wavelength	Intensity	Multiplet
K VI	384.514	100	
Fe V	384.610	200	
K	384.689	50	
Mn XV	384.74		
Fe V	384.826	100	
Al IX	384.95		
Fe V	384.957	600	
K V	385.020	50	
Fe V	385.023	400	
C III	385.043 P		2.01
Na VII	385.061	10	
Ca VI?	385.091	100	
Ti	385.211	1	
Na VII	385.254	10	
V XII	385.54		
K VI	385.547	200b	
Ca IX	385.61		
K V	385.689	100	
Fe V	385.740	500	
Fe V	385.869	500	
Sc IX	385.878		
Ca VI?	385.941	50	
Al VII	386.09		
Ca VI?	386.106	50	
Ti XI	386.140	3	
Fe V	386.156	400	
K VI	386.193		
C III	386.2028	850	2
Ca VI?	386.254	50	
Fe V	386.256	50	
Mn X	386.27		
Mn XII	386.27		
Fe V	386.483	100	
K VI?	386.505	100	
Fe V	386.585	100	
K IV	386.610	200	
Fe V	386.737	300	
Fe V	386.783	400	
Fe V	386.897	400	
Fe XV	387.00		
Ca V	387.080	200	
Ne IV	387.141	700	10
Fe V	387.199	500	
N IV	387.353	500	9
O III	387.398	100	
Ar III	387.45	100	
O III	387.482	150	
N III	387.483	500b -A	
Fe V	387.500	600	
Al VII	387.52		
Fe V	387.616	400	
O III	387.639	200	
Ar XVI	387.66 P		
Zn III	387.740	1	
Fe V	387.775	400	
Mg VI	387.787	200d	
K V	387.800	300	
K VI	387.809	300	
Al VIII	387.83		
Sc IX	387.906	40	
Al VIII	387.970	100	
Fe V	387.983	300	
Mg VI	388.020	300d	
Ne IV	388.218	500	10
Zn III	388.224	0	
K VI	388.241	150	
P IV	388.32	240	
K VI?	388.485	100	
Fe V	388.500	200	
Fe V	388.607	200	
Si X	388.62		
F VII	388.65		
Sc V	388.682	200	
Ca VI?	388.685	150	
Ca IX	388.77		
Mn X	388.91		
Mn XII	388.91		
K IV	388.920	250	
S VI	388.94	600	4
C III	388.9687	500	6.02
C III	389.0045	600	6.02
K IV	389.069	250b	
K V	389.069	250b	
C III	389.0898	700	6.02
Co XVI	389.17 P		
Ca VII?	389.195	50	
Ti X	389.25		
K V	389.428	100	
Ar III	389.49	25	
Ca VI?	389.495	20	
P V	389.50	200	
K VI?	389.531	100	
Si X	389.59		
K V	389.750	100	
Cr XIV	389.81		
Sc VIII	389.866	200	
Ti X	389.99		
C III	390.055	300	11.08
K V	390.114	250	
Cl V	390.15	400	
K IV	390.415	250	
K IV	390.574	300	
P V	390.70	550	
O V	390.755	120	
S VI	390.86	800	4
Sc IX	390.888	400	
K IV	391.462	200	
F VII	391.76		
O II	391.912	50	
O II	391.943	100	
O II	392.002	150	
Al VII	392.07		
K IV	392.274	100	
O II	392.322	150	
Al IX	392.40		
Cl V	392.43	500	
K IV	392.467	200	
V XII	392.60		
Fe V	392.907	600	
Cr XII	392.94		
K IV	393.142	500	
V X	393.16		
Cu IV	393.172	3	
Fe V	393.270	500	
Mn V	393.324	300	
F II	393.680	40	
Mn XI	393.69		
Sc	393.71	200	
Fe V	393.911	400	
K	394.063	50	

Element	Wavelength	Intensity	Multiplet
Ti	394.153	1	
F II	394.207	10	
Mn V	394.322	100	
F II	394.438	1	
K VI	394.480	150	
Sc IX	394.652	600	
Si X	394.71		
Al X	394.83		
K V	394.909	150	
Ca IX	395.01		
Fe V	395.155	300	
Sc V	395.317	400	
Al X	395.36		
K V	395.395	250b	
K VI	395.407	150	
Al IX	395.44		
F III	395.443	6	
Mn IX	395.47		
O III	395.558	600	9
Si X	395.68		
Fe V	395.789	200	
Ar III	395.92	50	
Cr X	395.92		
F III	395.972	3	
Ca VII	396.038	50	
Ca VI	396.044	100	
Al IX	396.05		
N III	396.186	450	
K VI	396.242	50	
F III	396.244	1	
Ti	396.288	1	
Na VII	396.335	200	
Ar III	396.37	200	
Sc	396.440	400	
V XII	396.61		
N VII	396.68 P		
K III	396.763	20	
Fe V	396.773	300	
Ar IV	396.87	160	
Fe V	396.902	50	
Ca VI	396.918	100	
O III	397.120	100	
O III	397.231	50	
O III	397.310	10	
Mn XII	397.46		
Na VII	397.490	300	
Ar III	397.67	50	
K VII	397.691	20	
Al X	397.76		
Cr X	398.09		
K VI	398.104	150	
Ar III	398.17	125	
V VIII	398.26		
Mn X	398.28		
K VII	398.354	50	
K V	398.363	200	
C III	398.42	200d -A	11.23
Ar IV	398.55	160	
Mn V	398.604	200	
Ca VII	398.623	50	
K III	398.633	150	
K V	398.878	200	
N III	398.885	500 -A	
Ar III	398.91	50	
K VII	398.943	200	
K VII	399.006		
N III	399.045	600b -A	
N III	399.06	600b -A	
K VI	399.075	100	
Na VII	399.182	400	
Mg VI	399.289	600	
K V	399.400	150	
K VI	399.419	100	
K VII	399.495	50	
Sc V	399.501	200	
Mn V	399.538	400	
Al VIII	399.57		
C III	399.612	600d -A	11.22
Ar IV	399.63	120	
C III	399.688	600d -A	11.22
V X	399.74		
K V	399.754	200	
V XII	399.76		
Ne VI	399.82	50	
Sc IX	399.890	200	
Ca VI	399.928	50	
Cl VI	399.94	250	
Cl VI	399.96	350	
Cl VI	400.00	400	
Ti IX	400.009	1	
K VII	400.147	100	
K IV	400.210	400	
Al X	400.43		
F II	400.582	10	
Fe V	400.625	400	
Fe XV	400.65		
Mg VI	400.676	700	
Na V	400.722	1000	
Ca VI	400.827	200	
K VI	400.963	200	
Fe V	401.030	200	
Al X	401.12		
Ne VI	401.14	150	
K VII	401.553	150	
Fe V	401.639	200	
Ti VIII	401.739	1	
Mn V	401.787	300	
K VII	401.790	100	
B V	401.83 P		
Ne VI	401.93	250	
K III	402.104	200	
K VII	402.132	100	
Fe V	402.197	100	
K VII	402.291	20	
Mn V	402.525	400	
Ca VII	402.552	50	
Mn V	402.754	300	
K IV	402.907	300	
Mn XIV	402.99		
Mn V	403.007	50	
O II	403.035	10	
O II	403.087	10	
Ne VI	403.26	100	
O II	403.273	10	
Mn V	403.281	50	
Mg VI	403.315	800	
O II	403.372	10	
Al X	403.55		
Mn V	403.552	300	
Mn V	403.680	100	

Element	Wavelength	Intensity	Multiplet
Ca III	403.724	450	
Mn V	403.754	400	
K VII	403.800	300	
Sc	403.84	100	
K IV	403.967	250	
K VII	403.991	150	
Mn V	404.358	800	
K IV	404.412	150	
Mn V	404.455	400	
K VI?	404.684	200	
Ne X	404.8 P		
Mn V	405.094	500	
V X	405.15		
K VI?	405.178	100	
K XVI	405.20 ?		
K VII	405.345	100	
K VI?	405.475	50	
F II	405.638	100	
Mn V	405.654	800	
K VI?	405.675	100	
K IV	405.773	100	
Ne II	405.8538 st	150	4
Mn V	406.037	700	
K VI?	406.102	100	
F VI	406.12		
Mn V	406.240	100	
Cl III	406.27	100	
Al X	406.31		
Mn V	406.417	700	
Cu IV	406.439	8	
K III	406.484	300	
Mn V	406.845	600	
K VII	406.850	20	
K	406.912	50	
F II	407.041	200	
Ne II	407.1376 st	120	4
Mn V	407.301	200	
Cl XIII	407.48		
Cr IX	407.50		
F II	407.503	100	
Cl III	407.51	10	
Ca VII	407.780	100	
Sc	407.85	150	
K IV	408.076	250	
K VII	408.210	50	
Ti XI	408.28		
Mn V	408.322	600	
V X	408.38		
Mn V	408.390	100	
Ti VIII	408.535	3	
Na IV	408.682	800	
Mn V	408.733	400	
K III	408.959	400	
Mn V	409.217	100	
C III	409.325	600	11.07
Mn V	409.335	200	
Mn V	409.546	300	
Na IV	409.615	800	
K	409.737	400	
Mn V	409.795	400	
Ca III	409.954	350	
O VIII	409.97 P		
Be IV	410.01 P		
P V	410.07	150h	
K III	410.102	400	
Mn V	410.311	800	
Na IV	410.371	1000	
Mn V	410.459	500	
Ca VII	410.501	150	
Na IV	410.540	600	
Mn V	410.611	800	
Cr XII	410.88		
Sc X	410.89		
Mn V	410.990	800	
N III	411.056	350 -A	
V XII	411.12		
Na VIII	411.145	100	
Cl III	411.16	300	
N III	411.173	200 -A	
N III	411.243	200 -A	
Mn V	411.329	700	
Na IV	411.333	700	
N III	411.361	400 -A	
Cl III	411.37	400	
Mn V	411.585	700	
Ca X	411.690	75	
C III	411.697	10 -A	11.42
Mn V	411.789	300	
B III	411.804	300	
Cl III	411.81	400	
Mn V	411.920	300	
C III	411.9577	300	11.06
Cr XIV	411.99		
K V?	412.080	300	
Si IV	412.155 P		9
Ca VII?	412.175	100	
Na IV	412.240	800	
K III	412.289	250	
Mn V	412.534	500	
Co	412.59	100	
Zn IV	412.671	3	
K VI?	412.790	50	
Si IV	412.939 P		9
Cr VIII	412.99		
O V	413.30	160	
Mn V	413.384	400	
N III	413.681	450	
K III	413.792	500	6
N III	413.797	450	
Na VI	414.370	200	
K V	414.465	150	
Cr IX	414.47		
Co	414.52	50	
P IV	414.60	10h	
O V	414.612	40	
Ca VII	414.666	200	
Fe V	414.790	100	
K III	414.870	300	
Mn V	414.933	300	
Fe V	415.006	400	
P IV	415.02	20	
K V	415.052	250	
Ti XI	415.07		
Cl III	415.20	100	
Mn V	415.207	500	
Cl III	415.33	100	
Mn V	415.336	50	
Fe XV	415.41 ?		
K V	415.465	150	
Cl XV	415.50		

Element	Wavelength	Intensity	Multiplet
Na VI	415.505	400	
Mn V	415.622	700	
K V	415.793	200	
P IV	415.82	40	
Fe V	415.825	100	
Co	415.94	10	
Fe V	415.972	300	
Mn V	415.980	800	
K III	416.001	300	
Sc IX	416.036	200	
Ne V	416.20	800	4
Fe V	416.208	500	
Mn XIV	416.42		
K VI?	416.509	50	
Cr X	416.62		
K VIII	416.628	75	
C III	416.769	500	11.41
Ne V	416.82	250	
Fe V	416.910	200	
Fe V	417.048	100	
K IV	417.280	150	
Fe V	417.382	600	
Sc IX	417.46		
Fe V	417.516	50	
K III	417.535	300	6
Na VI	417.595	600	
S XIV	417.60		
Ti XI	417.85		
F II	417.872	10	
Fe V	418.033	600	
Cr IX	418.15		
K VI?	418.160	100	
K VIII	418.443	175	
Fe V	418.457	500	
K VIII	418.571	25	
O II	418.598	50	
C III	418.609	200d	11.21
K III	418.623	300	
N III	418.712	650	16
O II	418.812	10	
N III	418.919	650	16
K V	419.045	100	
K V	419.310	100	
Ti XI	419.45		
Cl XIII	419.46		
C IV	419.525	650	6
F IV	419.645	800	
C IV	419.714	700	6
K V	419.731	50	
Ca X	419.757	200	
Zn III	419.807	1	
Fe V	419.915	300	
F IV	420.045	900	
Ca VII?	420.191	50	
Ne V	420.39	100	
Ca X	420.493	25	
Fe V	420.546	500	
F IV	420.729	1000	
N IV	420.769	500	18.27
Sc	420.82	250	
Fe V	420.874	200	
Ne V	420.94	150	
Cr IX	420.94		
Zn III	421.035	3	
Fe V	421.045	500	
Sc IX	421.18		
Na VI	421.465	100	
Ne IV	421.609	750	9
Fe V	421.682	200	
Fe V	421.765	400	
Cl III	421.77	300	
Cl III	421.99	300	
Cr XI	421.99		
F II	422.013	40	
Sc	422.07	100	
K V	422.178	400	
Ne V	422.21	150	
Mn V	422.228	100	
Fe V	422.287	600	
Ne V	422.34	50	
Ga IV	422.5	200	
K VIII	422.511	250	
F II	422.623	10	
K VIII	422.642	50	
Cl III	422.71	100	
V XIII	422.81		
Sc X	422.850	400	
F II	422.884	1	
K	423.371	50	
Zn IV	423.424	0	
C III	423.438 P		11.05
Ar IV	423.48	10	
Ti IV	423.487	6	
Zn IV	423.533	5	
K	423.558	50	
Ga IV	423.6	250	
Si III	423.817 P		3.04
Na VI	423.821	200	
Fe V	423.833	200	
Cr IX	424.03		
Ti IV	424.160	6	
Ca IX	424.34		
O II	424.577	10	
N V	424.61	35	35
Fe V	424.733	300	
N V	424.75	40	35
Ca V	425.000	750	
K V	425.159	300	
Na	425.245	10	
O II	425.273	10	
C II?	425.326	10	
Fe V	425.476	100	
Na VII	425.493	100	
K V	425.588	500	
Fe V	425.589	100	
Ti XI	425.74		
Zn III	425.799	15	
Fe V	425.840	50	
Zn IV	425.891	40	
Fe V	426.045	500	
Fe V	426.097	500	
Sc IX	426.252	200	
K VI	426.338	100	
O II	426.526	50d	
Fe V	426.609	100	
Si III	426.644 P		3.03
Fe V	426.745	300	
Fe V	426.814	400	
Sc IX	426.86		
Fe V	426.969	300	

Element	Wavelength	Intensity	Multiplet
Si IX	427.10		
Fe V	427.190	300	
Fe V	427.320	100	
Fe V	427.442	200	
Cr X	427.51		
Cl XVII	427.6 P		
Ca	427.655	50	
Fe V	427.782	100	
Ne III	427.84	300	9
Fe V	427.918	200	
Fe V	428.000	50	
Ca VIII	428.100	150	
Fe V	428.131	300	
N III	428.180	600b	15
N III	428.244	600b	15
Mg VIII	428.27		
Fe V	428.292	50	
K VI?	428.315	100	
K VI	428.538	250	
Zn IV	428.541	30	
Mn V	428.600	500	
Fe V	428.763	500	
Zn IV	428.788	10	
Ca VII?	428.819	50	
Fe V	428.909	500	
Mn V	429.054	500	
Mg VII	429.134	100d	
Fe V	429.206	100	
Mn XIV	429.24		
V XI	429.29		
Zn IV	429.299	25	
K VI?	429.438	100	
F III	429.512	250	
O II	429.557	100	
Ti XI	429.60		
O II	429.647	250	
O II	429.716	200	
O II	429.918	250	3
Mn V	429.984	100	
O II	430.041	300	3
Fe V	430.053	100	
Kr	430.15	50	
F III	430.152	300	
O II	430.177	300	3
F III	430.222	150	
K VIII	430.31		
Si IX	430.37		
Mg VIII	430.467	10d	
Zn IV	430.586	15	
Cr VIII	430.60		
Fe V	430.624	200	
Sc	430.74	150	
F IV	430.759	900	
Mg	430.767	10	
F II	430.914	300	
Ar XV	431.03 P		
Cr XI	431.07		
Mg VII	431.318	200d	
Ne IV	431.47	125	
Zn IV	431.535	15	
Fe V	431.541	300	
F II	431.552	200	
Zn IV	431.613	25	
K III	431.622	50	
Sc	431.82	50	
F II	431.832	100	
Mn V	431.973	50b	
Al IX	432.03		
Cr IX	432.33		
Fe V	432.340	300	
Al IX	432.66		
Ca VIII	432.866	150	
Fe V	432.919	100	
Cr V	433.13	50	
Ne VI	433.18	400	
Ne IV	433.24	250	
C III	433.3391	800	11.04
Ti IX	433.54		
Mn V	433.558	700	
Ca VII	433.599	250	
Cl III	433.66	10	
Cl III	433.77	10	
N III	433.911	650b	9
V IX	433.97		
K VIII	434.01		
N III	434.014	650b	9
N III	434.066	650b	9
N III	434.129	650b	9
Mn V	434.210	300	
Cr V	434.22		
N III	434.246	650b	9
O III	434.256	200	
N III	434.280	650b	9
Kr	434.28	100	
Cr V	434.33	400	
Mn V	434.403	50	
Zn IV	434.407	0	
Sc	434.43	150	
B III	434.561		
Ca IV	434.570	600	
Mn V	434.575	200	
B III	434.625	100	
O III	434.646	150	
Mg VII	434.710	10d	
K III	434.722	750	
O III	434.840	100	
Mg VII	434.923	200d	
Ti XI	434.94		
O III	434.975	500	14
Kr	435.01	60	
Zn IV	435.023	5	
Mn V	435.069	200	
Cr V	435.16	300	
Mn V	435.291	100	
Mn V	435.594	100	
F II	435.636	200	
Ne VI	435.65	400	
Cr V	435.66	250	
K III	435.676	500	
Zn IV	435.762	20	
V IX	435.80		
Mn V	436.093	200	
Mg VI	436.13		
Ca VIII	436.134	200	
Mn V	436.174	800	
Sc	436.20	50	
Zn IV	436.248	15	
F II	436.281	100	
Cr V	436.37	250	
Zn IV	436.381	8	

Element	Wavelength		Intensity		Multiplet
O II	436.510		50		
F II	436.565		40		
Cr V	436.61		200		
O II	436.649		10		
Mn V	436.660		100		
Ar V	436.67		120		
Mg VIII	436.726		100d		
Zn IV	436.812		10		
N V	436.85		60		42
Mn V	436.857		100		
Na V	436.946		10		
Na VI	436.96				
Cr XIII	437.05				
C II?	437.102		100d		
K III?	437.216		150		
Si III	437.255	P			3.02
Ca IV	437.271		100		
O II	437.332		150		
B V	437.36	P			
S V	437.37		100		4
Cr V	437.43		200		
Al IX	437.46				
O II	437.683		150		
Cr V	437.69		200		
Ca IV	437.773		250		
Cl IV	437.83		400		
Si IV	437.849	P			8
K V	438.023		250		
Al IX	438.09				
S V	438.19		100		4
O V	438.197		20		
Cu IV	438.265		10		
Cr V	438.62		300		
K V	438.647		100		
Cr V	438.65		400		
Cr V	438.66		500		
Mg IX	438.69				
Si IV	438.734	P			8
Mn V	438.735		500		
Sc	438.800		200		
C II	438.824	P		-A	6.09
C II	438.897	P	100	-A	6.09
Ca IV	438.930		200		
Cu IV	438.930		14		
Si IX	438.94				
K VI?	439.047		150		
Mg IX	439.180		10		
Cl IV	439.26		300		
Sc	439.28		150		
Ti IX	439.30				
Mn V	439.352		500		
O V	439.517		120		
Cu IV	439.599		10		
Ti IX	439.60				
S V	439.65		100		4
Ca III	439.691		250		
Ge IV	439.77		20		
Mg VI	439.82				
Ca	440.118		100		
Cl IV	440.25		200		
Na VI?	440.266		300		
Kr	440.27		80		
Sc	440.29		50		
Ga IV	440.3		50		
Ti VII	440.361		125		

Element	Wavelength		Intensity	Multiplet
Ne VI	440.40		100	
K III?	440.429		750	
O II	440.552		150	
O II	440.598		100	
Ne VI	440.60		10	
Al XIII	440.9	P		
K IV?	440.905		100	
Li III	441.00	P		
Mn V	441.008		100	
Si IX	441.03			
Ca VIII	441.084		150	
Cr V	441.11		400	
Zn IV	441.146		15	
Sc VIII	441.197			
Mg IX	441.20			
Mg VI	441.22			
Mg VIII	441.22			
K VIII	441.33			
K VI?	441.370		150	
Cl III	441.40		300	
Zn IV	441.543		8	
Ge IV	441.58		20	
Zn IV	441.693		20	
Sc	441.72		200	
Mn V	441.725		700	
N VII	441.75	P		
Mg VIII	441.76			
K II?	441.812		250	
O II	442.001		200	
O II	442.048		200	
K IV	442.300		200b	
Sc	442.30		50	
Kr	442.33		50	
Zn IV	442.381		40	
Mn V	442.495		700	
K IV	442.518		100b	
Ca	442.607		50	
O IV	442.705		2	
Cu IV	442.753		10	
O IV	442.873		1	
K III?	442.913		150	
Cl III	442.95		200	
Mg IX	443.40			
Ar IV	443.40		80	
V XIII	443.48			
K IV	443.567		300	
Cu IV	443.677		26	
O II	443.681		10	
Ca IV	443.821		750	
Kr	443.88		60	
Mg IX	443.981		10d	
S XII	444.16			
Cu IV	444.212		14	
P IV	444.25		20	
Ca	444.254		50	
K III	444.344		750	5
Zn IV	444.383		60	
Zn IV	444.455		30	
F VI	444.47			
Cu IV	444.745		13	
Ca IV?	444.766		150	
Mg VI	444.90			
Cu IV	444.996		36	
Ca IV	445.018		50	
Ne II	445.0397	st	200	3

Element	Wavelength	Intensity	Multiplet
Na V	445.046	500	
Na V	445.190	600	
P IV	445.19	20	
Kr	445.33	150	
Cu IV	445.391	15	
O II	445.601	200	
K IV	445.607	200	
Cu IV	445.612	12	
O II	445.638	200	
S XIV	445.78		
K V?	445.878	50	
Ca V?	445.933	50	
Mg IX	445.97		
Ar V	445.997	250	5
K VI?	446.009	200	
Ca V?	446.036	50	
Mn XIV	446.07 ?		
Ne II	446.2256 st	300	3
Cu IV	446.264	18	
V XI	446.32		
Cu	446.359	100	
F VI	446.39		
Cu IV	446.412	37	
Zn IV	446.582	40	
Ne II	446.5901 st	250	3
Ti XI	446.69		
Cr V	446.71	50	
Kr IX	446.76	80	
K IV	446.830	250	
K IV	446.926	100	
Ar V	446.949	400	5
Cu IV	446.995	25	
K V?	447.085	150	
O V	447.226	120h	
O V	447.356	160	
Cu IV	447.371	10	
Ti IX	447.49		
Mn V	447.498	400	
Ar V	447.53	200	5
Sc VII	447.554	400	
Ca VII	447.681	20	
Ti IX	447.69		
O VI	447.712	10	
Kr III	447.77	20	
Ne II	447.8150 st	180	3
O VI	447.840	10	
Zn IV	447.850	8	
Cu IV	448.039	14	
Mn V	448.262	300	
N III	448.285	350 -A	
Mg IX	448.29		
N III	448.384	450 -A	
Cu IV	448.428	34	
N III	448.549	450 -A	
K III	448.595	750b	5
K IV	448.595	750b	
Kr	448.61	120	
K VI	449.009	50	
K V	449.013	150b	
Ar V	449.065	900	5
Kr	449.12	120	
Zn IV	449.131	1	
Sc X	449.28		
Ar V	449.49	200	5
N III	449.559	450	
Cu IV	449.658	10	
K V	449.708	200	
V VIII	449.74		
Cr XIII	449.76		
Zn IV	449.970	40	
Cu IV	450.024	37	
N V	450.08	50	28
Ar V	450.08	50	5
Kr VI	450.20	200	
Ar	450.44	80	
Ca IV	450.565	500	
Mg VII	450.69		
C III	450.7338	800	11.03
Cu IV	450.935	14	
Zn IV	450.985	50	
Mn V	451.065	300	
K IX	451.078	50	
Cu IV	451.159	48	
Ar IV	451.20	15	
K VI?	451.320	100	
Zn IV	451.624	10	
Ne VI	451.84	200	
N III	451.869	900	4
Ar IV	451.87	45	
Cu IV	452.202	28	
N III	452.226	900	4
K V	452.227	100	
Cu IV	452.502	34	
K VI	452.658	10	
Sc VII	452.704		
Ne VI	452.74	300	
Mn V	452.758	200	
Se VI	452.8	200	
Zn IV	452.803	50	
K V	452.900	200	
Ar IV	452.91	80	
Kr III	453.06	80	
Cu IV	453.127	42	
N II	453.257	20	
V IX	453.33		
N II	453.340	100	
Cu IV	453.425	66	
K IX	453.882	20	
Ne VI	454.07	300	
Sc VII	454.106	500	
Si IV	454.112 P		7
Ca IV	454.553	50	
Ne II	454.6535 st	150	2
Cu	454.791	100	
Cu IV	454.982	14	
Si IV	455.065 P		7
Cl VII	455.27	100	
Ne II	455.2738 st	200	2
Sc X	455.32		
Ca IX	455.34		
Li III	455.63 P		
K V	455.670	250	
P XIII	455.78		
Ar VI	455.81	80	
N III	456.077	600	
Cu IV	456.081	13	
Ne II	456.2749 st	10	2
V VII	456.29		
Cr V	456.31	200	
K IV	456.328	400b	

Element	Wavelength	Intensity	Multiplet
K V	456.328	400b	
Ne II	456.3483 st	120	2
Cr V	456.36	100	
Ar VI	456.38	120	
S XII	456.55		
Cl VII	456.56	50	
Zn IV	456.671	35	
Cr V	456.68	150	
Cu IV	456.734	20	
Cr V	456.79	150	
Sc	456.83	50	
Ne II	456.8962 st	90	2
V IX	456.96		
Ca IV	456.981	250	
O II	456.997	50	
V VIII	457.0		
Ar VI	457.01	200	
Cr V	457.08	400	
Cl III	457.17	300	
F II	457.179	600	
Kr III	457.23	50	
Cl III	457.24	200	
V X	457.29		
Zn IV	457.315	50	
K VI?	457.323	50	
K VI?	457.427	20	
Cl III	457.44	10	
Ar VI	457.48	800b	
Cr V	457.56	150	
Cu IV	457.759	26	
Si IV	457.818	250	2
Ar VI	458.04	40	
K VI	458.043	50	
Ar IV	458.1		
Ar V	458.12	150	4
Si IV	458.155	200	2
Sc X	458.18		
Cu IV	458.222	12	
Cl XIV	458.39		
O II	458.422	10	
Cu IV	458.423	31	
Kr	458.61	60	
B III	458.646		
Cu IV	458.712	43	
B III	458.716	100	
Ar V	458.98	100	4
K V?	459.005	150	
Ar VI	459.32	400	
Sc X	459.38		
C III	459.462	900	6
K IX	459.498	50	
Cu IV	459.510	46	
C III	459.521	950	6
Ar VI	459.60	100	
C III	459.633	1000	6
Ar V	459.73	50	4
Ca	459.811	50	
V VIII	459.82		
Na V	459.897	600	
Cu IV	459.995	42	
C III	460.0487	800	11.02
Ar VI	460.06	40	
Ar VI	460.20	40	
K VI	460.438	150	
Cu IV	460.651	39	
Ti XII	460.69		
Ne II	460.7284 st	1000	1
Cl XIV	460.8 ?		
V X	461.04		
Na V	461.051	850	
Ca IV	461.085	250	
Cu IV	461.115	27	
C II	461.120	100d -A	6.08
Ar V	461.23	300b	4
Ar VI	461.23	300b	
Cu IV	461.321	46	
Cr XIII	461.60		
Ca VIII	461.705	150	
K VI?	461.737	150	
Ar VI	461.90	40	
Sc	461.91	50	
Kr	461.91	100	
Ar VI	462.007	1000d	
V VIII	462.11		
Ar VI	462.15	160	
Cr V	462.26	50	
Cu IV	462.275	19	
Kr	462.35	120	
Mn VII	462.363	150	
Cu IV	462.387	23	
Ne II	462.3908 st	500	1
Ar V	462.42	150	4
Cu IV	462.545	10	
Ca VIII	462.591	50	
Sc	462.61	200	
Kr III	462.79	150	
Cl IV	463.01	300	
Na V	463.263	1000	
Cu IV	463.714	60	
N IV	463.740	650	15.24
Sc	463.74	50	
Cu IV	463.922	43	
Ar V	463.938	350	4
Cr V	464.03	1000	
O II	464.194	100	
Ar VI	464.26	160	
K VI	464.274	250	
F III	464.288	200	
Cl IV	464.29	300	
O II	464.310	50	
F V	464.367	400	
Cu IV	464.642	62	
S VI	464.68	1000	5
O II	464.785	150	
Se VI	464.8	200	
Cu IV	464.823	67	
Cl IV	464.86	400	
Ne X	465.0 P		
Sc X	465.01		
Ar	465.02	150	
K II	465.078	50	
F III	465.113	250	
Cu IV	465.185	27	
Ne VII	465.221	700	
Kr VI	465.27	400	
Cl IV	465.35	300	
F V	465.374	500	
O II	465.529	50	
Sc	465.54	250	
V VIII	465.55		

Element	Wavelength	Intensity	Multiplet
Ar VI	465.59	80	
O II	465.760	100	
Ar II	465.8365 st	15	
Mg VIII	465.972	10	
F V	465.976	600	
Ca VIII	465.993	100	
Si III	466.129	80	3.01
Cl IV	466.13	300	
Ca IX	466.227	300	
Sc	466.24	300	
C II	466.352 P	10 -A	6.07
C II	466.407 P	100 -A	6.07
Kr	466.44	150	
C II	466.491 P	200 -A	6.07
Ar III	466.53	250	
C II	466.547 P	10 -A	6.07
Cu IV	466.593	28	
K III	466.793	750	4
Ar V	466.82	60	
Zn IV	466.924	60	
Ar VI	466.93	160	
K IX	466.943	100	
F V	466.994	400	
Cu	467.106	150	
Cl IV	467.19	300	
V IX	467.19		
Cu IV	467.282	34	
Kr III	467.35	300	
Ar III	467.39	300	
N III	467.432	500 -A	
Zn III	467.630	0	
N III	467.649	450 -A	
Mn VII	467.662	300	
N III	467.795	350 -A	
O II	467.926	10	
Kr VIII	468.20	80	
Br V	468.36	500	
Ar	468.38	80	
Zn IV	468.426	40	
K V?	468.447	100	
Ar III	468.47	200	
Cu IV	468.499	23	
Ca	468.540	50	
Sc X	468.74		
O II	468.766	100	
Cu IV	468.880	27	
C III	468.94	10	11.38
Ar III	468.96	150	
O V	469.150	40	
Kr	469.26	100	
Cr V	469.34	300	
F VI?	469.48		
K II	469.50		
Ar II	469.6301 st	30	
Cr V	469.65	300	
Ne IV	469.773	700	4
Ne IV	469.820	1000	4
Ar III	469.83	200	
Ne IV	469.866	900	4
Ne IV	469.921	700	4
Cr V	469.95	200	
Ar III	469.97	200	
K III	470.089	1000	4
Zn III	470.211	1	
Sc	470.25	300	
V X	470.25		
O II	470.408	200	
Cr V	470.56	100	
Ar	470.57	80	
Sc VII	470.68		
Cr V	470.75	50	
Cr V	471.03	40	
Ca VIII	471.070	100	
Ar IV	471.09	60	
Ca VIII	471.183	100	
Kr	471.19	120	
O IV	471.273	2	
K III	471.569	750	4
Ti X	471.595		
O IV	471.603	1	
Sc	471.83	400	
F II	471.921	10	3
F II	471.952	200	3
Ar IV	471.97	60	
F II	471.999	450	3
Zn IV	472.086	75	
Kr V?	472.16	150	
C V	472.21		29
N III	472.239	550	18
Cu IV	472.332	54	
N III	472.399	550	18
Zn IV	472.655	70	
F II	472.681	100	
F II	472.711	300	
Cu IV	472.767	29	
Sc VII	472.77		
V VII	472.80		
Ar II	472.8114 st	30	
V VIII	472.91		
P IV	472.96	80	
Zn IV	473.014	60	
F II	473.015	200	
Ar III	473.03	300	
Sc	473.03	150	
K IV	473.207	100	
C III	473.410 P		11.37
Zn IV	473.501	75	
Kr	473.55	80	
Cu IV	473.664	20	
Ar III	473.92	300	
Ar VII	473.938	200	
Kr III	474.09	100	
Cu IV	474.176	20	
Cu IV	474.397	20	
N II	474.493 P	10	
O VIII	474.54 P		
N II	474.546 P	10	
Zn IV	474.558	60	
N II	474.602 P	10	
N II	474.706 P	20	
Sc	474.76	150	
N II	474.787 P	20	
K VIII	474.83		
N II	474.891 P	200	
K III	474.920	450	4
Cu IV	475.370	19	
Sc	475.41	150	
Cu IV	475.486	31	
P V	475.61	550h	
N II	475.647 P	100	

Element	Wavelength	Intensity	Multiplet
Ar VII	475.656	400	
Kr	475.68	100	
N II	475.698 P	200	
Ar VII	475.73	100	
N II	475.757 P		
Zn IV	475.768	8	
N II	475.803 P	250	
N II	475.884 P	100	
Ar II	475.9054 st	180	
K II?	476.029	100	
Ca	476.177	100	
Cu IV	476.192	46	
Zn IV	476.413	60	
Ar III	476.43	350	
Ca V?	476.606	100	
V XII	476.85		
Cu IV	477.083	31	
Ar II	477.1048 st	120	
Ca	477.300	50	
F VI	477.55		
Ar II	477.6068 st	30	
C III	477.6246	300	11.01
Kr IX	477.93	80	
Ca	478.305	200	
Zn IV	478.646	75	
Zn IV	478.898	60	
Ti VIII	479.01		
Ar II	479.1678 st	30	
K III	479.185	400	
Ar II	479.2177 st	60	
Kr	479.34	120	
Ar VII	479.379	600	
Ar VII	479.49	100	
Zn III	479.743	1	
K VII	479.780	200	
F VI	479.85		
Ti XII	479.86		
Al VIII	480.11		
Ca	480.345	100	
Ti VIII	480.35		
K VI?	480.397	50	
Ne V	480.41	250	2
P XIII	480.42		
Ca	480.471	150	
Sc	480.51	200	
Ar II	480.8108 st	30	
Cr XIII	480.82 ?		
O III	480.955	200	
O V	481.14	240	
Ne V	481.28	150	2
Sc VIII	481.33	300	
O III	481.354	150	
Ne V	481.36	250	2
O III	481.381	100	
Kr	481.43	120	
Fe XV	481.52		
O II	481.587	200b	10
O III	481.587	200b	
O II	481.635	10	10
V V	481.657	2	
O II	481.704	50	10
O II	481.755	150	10
N III	481.778	500	
Ar III	481.85	300	
Cu IV	481.888	29	
N III	482.030	500	
Zn IV	482.089	50	
K III	482.107	100	
Br V	482.11	1000	
Li III	482.14 P		
Sc	482.220	400	
K	482.281	50	
K III	482.408	100	
Ar II	482.4451 st	15	
Ar III	482.55	400	
Ca	482.663	50	
Zn IV	482.668	2	
S XVI	482.7 P		
K V	482.706	200	
Ca	482.769	100	
Ne V	482.99	500	2
Al VIII	483.03		
V V	483.099	25	
Na VII	483.216	200	
Na VII	483.328	300	
Sc	483.40	200	
Cu IV	483.415	34	
C III	483.567	300	11.19
C III	483.618	400	11.19
Cu IV	483.678	30	
C III	483.733	500	11.19
K V	483.745	200	
O II	483.752	200	9
O II	483.976	250	9
O II	484.025	100	9
Ar III	484.12	250	
K III	484.200	50	
K VII	484.261	250	
Cu IV	484.353	36	
Ca	484.368	150	
Kr V	484.39	100	
Ar III	484.45	250	
Cu IV	484.524	62	
S III	484.58	50	
F II	484.601	850	
V V	484.621	10	
Sc	484.69	50	
Cu IV	485.051	34	
O II	485.086	300	8
Mg VIII	485.13		
Ar III	485.15	300	
S III	485.22	50	
K IV	485.359	100	
O II	485.465	10	8
Zn IV	485.476		
O II	485.515	250	8
Ar III	485.52	200	
O II	485.572	50	
Mg VIII	485.59		
O II	485.631	200	
Ar	485.79	60	
N II	485.849 P	10	
Cl IV	486.17	800	
F III	486.430	10	
Ar	486.60	300	
Sc VIII	486.618	200	
Na VII	486.740	400	
Ca VII?	486.838	100	
Cu IV	486.851	10	
Al III	486.8839	70	

Element	Wavelength	Intensity	Multiplet
Al III	486.9124	30	
Ne V	487.07	30d	
K VII	487.102	350	
F III	487.223	6	
Ar II	487.2272 st	300	
Kr	487.35	60	
P XI	487.43		
F III	487.643	3	
Ti X	487.672		
Sc	487.89	250	
Ar III?	487.99	350	
Ne III	488.10	800	1
K VI	488.134	250	
Ar III	488.45	350	
V XII	488.53		
Ar II	488.7926 st	270	
Ne III	488.87	700	1
Ne V	488.94 P		
Ar II	488.9615 st	120	
Zn IV	489.183	1	
Ar II	489.1953 st	240	
Cu IV	489.297	10	
Ne III	489.50	1000	1
Na VI	489.580	500	
Kr	489.59	80	
Ne III	489.64	400	1
Ca VII?	489.700	50	
Sc VII?	489.77		
Mg VIII	489.86		
Cu IV	490.030	20	
Sc X	490.23		
Cu IV	490.257	18	
Mg VIII	490.29		
Ne III	490.31	700	1
K VI?	490.423	100	
Al VIII	490.44		
Ca III	490.549	200	
F IV	490.568	700	
Ar II	490.6495 st	290	
Kr VIII	490.67	150	
Ar II	490.7012 st	70	
Zn IV	490.956	3	
Cu IV	490.999	10	
F IV	491.001	1000	
Mg VIII	491.045	10	
Ne III	491.05	900	1
Ca VII?	491.097	50	
Ar III	491.12	200	
Sc VII	491.140		
Na VI	491.240	300	
Na VI	491.340	600	
Ca VII	491.386	100	
O III	491.714	10	
K VII	491.722	200	
Cu IV	491.829	67	
Sc VII?	491.90		
Na VII	491.950	400d	
O III	491.980	50	
Cu IV	492.229	53	
Ar III	492.23	150	
Na VIII	492.329	10	
Ar II	492.4083 st	150	
Sc VI	492.423	600	
Sc VIII	492.423	600	
Kr	492.56	50	
Ar IV	492.64	50	
Ar II	492.6454 st	30	
C III	492.6500	700	11.36
Na VIII	492.79		
Al VIII	493.18		
C III	493.341	500	11.18
Sc VII	493.350		
C III	493.364	500	11.18
Zn IV	493.365	2	
C III	493.396	500	11.18
C III	493.464	500	11.18
C III	493.519	500	11.18
C III	493.587	700	11.18
Kr	493.89	100	
Cu IV	494.115	41	
Na VI	494.160	300	
Na VI	494.382	700	
Sc VIII	494.446	600	
Ar II	494.6676 st	15	
S XIII	495.0 P		
K II?	495.144	300	
Cu IV	495.242	10	
Cu IV	495.315	13	
Ar IV	495.55	80	
Kr	495.72	200	
Na VIII	495.81		
Sc VII?	495.89		
Na VIII	496.249	100	
Kr V	496.25	250	
Zn III	496.423	1	
Sc	496.52	300	
Ar II	496.6592 st	15	
Zn IV	496.719	1	
Sc	496.84	150	
Ar V	496.91	40	
Cu IV	496.983	64	
C V	497.09		33
K III	497.104	750	3
Sc	497.19	150	
Sc VII	497.349		
F IV	497.375	60	
Zn IV	497.701	3	
F IV	497.830	100	
C III	497.910	100	11.35
Ca IX	497.996	40	
Kr	498.01	150	
O VI	498.090	10d	
Sc VII?	498.15		
O VI	498.431	100d	
Cu IV	498.457	28	
Kr IX	498.68	100	
Cu IV	498.748	65	
F IV	498.796	150	
F IV	498.907	35	
Br VI	499.20	400	
Si XII	499.37		
V XII	499.41		
C III	499.425	700	11.17
Cu IV	499.454	25	
C III	499.462	800	11.17
C III	499.530	900	11.17
C III	499.583	700	11.17
Sc VII	499.615		
Zn III	499.678	2	
Sc	499.70	100	

Element	Wavelength	Intensity	Multiplet
Kr	499.72	150	
Na VIII	499.78		
F IX	499.8 P		
Cu IV	499.836	55	
Ti VII	499.853	125	
Ti VIII	499.86		
O II	499.871	100	
Zn III	499.915	2	
Ar II	499.9192 st	0	
S III	499.98	300	
K IV	499.993	100	
K IV?	500.047	100	
K IV?	500.125	150	
Zn III	500.342	2	
O II	500.343	50	
S XIII	500.42		
Kr V	500.77	120	
Ar II	500.8016 st	30	
F III	500.953	10	
Ar IV	501.01	120	
Ca VII	501.168	20	
Ar II	501.1897 st	60	
Zn III	501.264	5	
Ar II	501.3872 st	15	
F III	501.425	6	
Cu IV	501.650	10	
K VI	501.664	20	
Cu IV	501.799	10	
F III	501.804	6	
Cu IV	501.999	41	
Ar II	502.0276 st	15	
Ar II	502.1629 st	60	
F III	502.280	3	
F III	502.511	6	
Zn III	502.632	5	
Cu IV	502.665	20	
Br VII	502.69	400	
F III	502.713	6	
K	502.798	50	
Cu IV	502.868	12	
Ca IX	503.261	20	
Cu IV	503.469	29	
Ar II	503.6503 st	60	
Kr	503.66	150	
K	503.697	50	
Br VI	503.70	800	
Cu IV	503.861	26	
Cu IV	503.924	40	
Zn III	504.227	1	
Br VI	504.52	600	
Cu IV	504.584	74	
Ca VII?	504.591	150	
C VI	504.65 P		
Ti VIII	504.70		
Ar II	504.8117 st		
Cu IV	504.858	49	
Ar II	505.0121 st	30	
Sc XI	505.117	400	
Ca VI	505.199	400	
Cu IV	505.4	8	
Ar	505.45	60	
He I	505.5001	4	
He I	505.6840	6	
Cu IV	505.711	68	
K IV?	505.761	50	
Ti VII	505.899	100	
Se V	505.9	200	
He I	505.9122	8	
Cu IV	505.955	70	
N II	505.986 P	100 -A	
N II	506.054 P	200 -A	
V V	506.11		
N II	506.153 P	300 -A	
F V	506.159	300	
Ca IX	506.163	160	
Cu IV	506.189	38	
He I	506.2000	10	
C V	506.31		32
Cu IV	506.567	62	
He I	506.5702	15	
C III	506.63	10	11.34
Zn III	506.646	3	
F III	506.674	3	
Cu IV	506.748	74	
Cu IV	506.767	77	
He I	507.0576	20	10
Ca IX	507.105	20	
Ti IX	507.12		
Kr V	507.20	200	
Zn III	507.202	5	
Sc	507.32	350	
Cu IV	507.367	31	
O III	507.391	800	3
O III	507.683	850	3
He I	507.7178	30	9
F V	508.075	400	
Sc	508.16	100	
O III	508.182	900	3
F III	508.386	400	
Cu IV	508.423	23	
Ar III	508.44	450	
N II	508.484 P	10	
F III	508.506	6	
Ti VI	508.575	1000	
Ar III	508.61	300	
Cu IV	508.642	20	
He I	508.6431	40	8
N II	508.668 P		
Ar III	508.68	180	
N II	508.697 P	150	
Cu IV	508.848	49	
N II	508.928 P	10	
N II	509.006 P	15	
Ti VII	509.127	60	
F VI	509.26		
Ca V?	509.293	100	
Cu IV	509.372	51	
V V	509.38		
O V	509.415	120	
Ti VII	509.511	550	
N III	509.586	400	14
N III	509.897	350	14
He I	509.9979	50	7
Se V	510.0	300	
Si III	510.079 P		6.08
Na V	510.102	10	
He I	510.2586	f	
Si III	510.414 P		6.08
Ca VI	510.435	150	
Ar II	510.5509 st	30	

Element	Wavelength	Intensity	Multiplet
Ar II	510.5564 st	200	
N II	510.758 P	250	
B III	510.768	200	
B III	510.854	300	
Si III	511.096 P		6.08
Al III	511.1384	250	
Al III	511.1907	150	
Na V	511.193	100	
F VI	511.33		
K	511.371	50	
Ti VII	511.442	125	
Ar III	511.51	300	
C III	511.5225	1000	11.33
Ca VI	511.523	50	
Ar III	511.57	180	
N V	511.86	70	41
Ar V	511.89	25	
Si III	511.994 P		6.07
Ca IX	512.060	20	
He I	512.0982	70	6
Si III	512.219 P		6.07
He I	512.5183	f	
B V	512.53 P		
Si III	512.557 P		6.07
Zn	512.656	20	
Cu IV	512.674	30	
Si III	512.681 P		6.07
Ar III	512.77	180	
Si III	512.772 P		6.07
Zn	512.812	15	
Si III	513.245 P		6.07
F II	513.644	300	
N II	513.849 P		
Ar V	513.91	50	
F V	513.969	150	
F V	514.082	100	
Ti VIII	514.17		
Ar II	514.3100 st	210	
Na V	514.350	10	
Ca	514.498	50	
O VIII	514.80 P		
Kr	514.85	80	
K III?	514.943	100	
F II	514.944	600	
Ti VII	515.008	125	
Si IV	515.118	150	6
Br VI	515.16	800	
K V?	515.320	50	
Kr	515.36	60	
O II	515.498	250	17
Ca IX	515.576	40	
He I	515.6165	100	5
O II	515.640	200	17
Na	515.952	100	
Na VI	516.00		
Ti IX	516.14		
Si IV	516.348	200	6
He I	516.3592	f	
Kr III	516.38	80	
Br VI	516.45	800	
C II	516.652	10d -A	9.09
Zn III	516.837	8	
K VII?	516.853	50	
C II	517.07	100d -A	9.08
Ar V	517.25	25	
Br VI	517.29	100	
Mg XII	517.5 P		
Se III	517.57	200	
Kr	517.70	50	
K VII	517.794	50	
K VII	517.926	100	
O II	517.937	200	16
Mn XIV	518.16		
Se III	518.17	50	
B III	518.238	450	
O II	518.242	250	16
B III	518.265	250	
Zn	518.550	20	
Ar II	518.9088 st	150	12
S IV	519.30	200	
Ar II	519.3269 st	300	12
K VIII	519.372	250	
Ar VIII	519.43	150	
Se V	519.6	400	
O VI	519.610	200d	
Cu IV	519.667	14	
O VI	519.723	200d	
Zn III	519.998	8	
S IV	520.11	200	
Br VII	520.26	400	
K	520.493	150	
C VI	520.6 P		
K III	520.611	500	2
Si XII	520.66		
Si III	520.79	10	6.06
S IV	520.83	300	
K VII	520.857	100	
Si III	520.92	20	6.06
S IV	521.03	100	
V XII	521.10 ?		
Si III	521.149 P		6.06
Kr	521.15	60	
Si III	521.510 P		6.06
Ti VII	521.561	250	
Ne IV	521.741	125	8
Ne IV	521.820	125	8
Si III	521.861 P		6.06
Zn III	521.872	4	
Sc IX	521.896		
S IV	521.99	200	
P IV	522.02	10h	
Se III	522.05	100	
Ar V	522.09	150	3
He I	522.2128	160	4
F III	522.285	10	
S IV	522.54	200	
Br VII	522.60	50	
Ti XI	522.66		
Mn IV	522.780	120	
Ar II	522.7924 st	450	12
Sc XI	522.810	200	
K IV	523.001	250	
Mn IV	523.036	80	
Mn IV	523.234	70	
Sc IX	523.490	100	
Se III	523.53	50	
F III	523.662	60	
He I	523.7238	f	
K III	523.792	250	2
Se III	524.01	200	

Element	Wavelength	Intensity	Multiplet
Ti VI	524.113	900	
Se III	524.15	300	
Ar V	524.19	250	3
Zn	524.323	15	
Sc	524.43	100	
F V	524.594	200	
K VII?	524.639	100	
Ar II	524.6803 st	450	
Cu IV	524.787	17	
Zn III	525.109	5	
Se III	525.13	50	
F V	525.292	300	
Kr	525.33	150	
Ca IX	525.43		
Sc	525.49	200	
K VII	525.612	150	
Fe IV	525.68	1000	
Kr III	525.69	80	
Sc	525.79	150	
O III	525.795	900	8
Sc	526.28	200	
Fe IV	526.28	750	
Mn IV	526.293	20	
F V	526.297	400	
Se III	526.40	400	
K IV	526.448	200b	
K VII	526.453	100	
Ar VIII	526.46	250	
Ar II	526.4969 st	210	
Fe IV	526.60	600	
Mn IV	526.858	0	
Ar VIII	526.87	50	
Sc	526.99	200	
K IV	527.064	100	
Mn IV	527.402	0	
K	527.565	50	
K IV	527.617	150	
Ar V	527.69	300	3
Sc	527.89	200	
B III	528.245	10	
Ca	528.286	400	
K	528.519	100	
Sc	528.58	350	
Ar II	528.6511 st	30	
Na VI?	528.730	10	
Ca VI	528.746	150	
Kr III	528.809	100	
K IV	528.879	50	
Sc	529.16	300	
O V	529.20	240w	
N II	529.355	250	6
N II	529.413	250	6
N II	529.491	250	6
N II	529.637	250	6
N II	529.722	250	6
K III	529.796	400	2
Ge IV	529.83	20	
N II	529.867	400	6
Ar III	529.90	450	
N III	530.037	200	
N III	530.268	250	
C II	530.274 P	300	6.06
As IV	530.3	100	
Ca VI	530.303	300	
Kr III	530.308	200	
C II	530.359 P	400	6.06
C II	530.454 P		6.06
Ar II	530.4954 st	450	
Sc	531.13	250	
Se III	531.14	300	
Kr III	531.255	50	
C II	531.721 P	5 -A	9.07
C II	531.742 P	5 -A	9.07
Sc	531.82	250	
C II	531.917	100d -A	9.07
Br V	532.00	1000	
Zn	532.310	12	
Ar III	532.41	350	
C II	532.659 P	100 -A	9.06
Cl VII	532.7		
C II	532.705 P	200 -A	9.06
Se III	533.07	100	
Ar II	533.0794 st	30	
Ni IV	533.155	200	
Si III	533.226 P		6.05
Sc VII	533.43		
N II	533.511	350	5
Zn III	533.517	10	
Si III	533.530 P		6.05
Ti XI	533.55		
N II	533.581	400	5
Si III	533.592 P		6.05
Zn III	533.646	4	
N II	533.650	350	5
N II	533.729	500	5
N II	533.815	350	5
C II?	533.935	100d	
K	534.059	100	
Si III	534.189 P		6.05
Ar III	534.26	50	
Si III	534.276 P		6.05
Si III	534.339 P		6.05
Mn IV	534.396	0	
Ni IV	534.408	210	
Sc VII	534.50		
Mn IV	534.504	90	
Cl IV	534.73	800	
Mn IV	534.780	60	
K V?	534.873	100	
Mn IV	534.876	40	
Cl IV	535.04	400	
Ar II	535.0711 st	15	
S XII	535.1 P		
F VI	535.207	60	
C III	535.2885	850	11.32
Mn IV	535.352	150	
Cl V	535.46	200	
N VII	535.51 P		
Mn IV	535.562	20	
Ar III	535.58	350	
Cl IV	535.67	700	
Kr	535.71	60	
Cl V	535.92	200	
Ca VI?	536.008	20	
Kr	536.14	80	
Cl IV	536.15	600	
K V?	536.216	100	
Ni IV	536.302	630	
Mn IV	536.324	70	
Cl V	536.53	300	

Element	Wavelength	Intensity	Multiplet
Ni IV	536.556	570	
Ca IV?	536.790	85	
Ni IV	536.849	490	
Sc IX	536.901		
Ne IV	536.97	5	
Cl V	537.01	400	
Zn III	537.019	8	
He I	537.0296	400	3
Ni IV	537.073	460	
As IV?	537.1	150	
Ar II	537.1396 st	150	
Cu IV	537.311	17	
He I	537.3309	f	
Se III	537.38	50	
Ar II	537.4193 st	30	
Cl V	537.46	300	
Ar III	537.46	300	
Cl IV	537.61	900	
Sc IX?	537.612	300	
Ge IV	537.78	20	
O II	537.830	450	7
Ni IV	537.976	690	
Cl V	538.03	500	
C III	538.0801	900	5
Cl IV	538.12	600	
C III	538.1487	950	5
Br IV	538.25	200	
O II	538.256	500	7
C III	538.3120	1000	5
O II	538.318	350	7
Ar IV	538.41	40	
Ni IV	538.520	200	
Se III	538.53	200	
Kr III	538.54	160	
Cl IV	538.60	400	
Cl V	538.68	400	
Ar III	538.79	300	
He I	538.8956		
Cl V	538.98	300	
Ni IV	539.027	220	
Zn III	539.072	2	
O II	539.086	400	2
Se III	539.31	50	
Ca VII	539.395	50	
Si X	539.44		
Cl V	539.44	10	
O II	539.547	400	2
Kr	539.59	120	
Ni IV	539.609	610	
Ni IV	539.72	150	
Ne IV	539.73	15	
K III	539.731	150	
Ar	539.79	50	
O II	539.853	350	2
F V	539.91		
C VI	539.95 P		
Li III	540.00 P		
Mn IV	540.103	50	
Kr	540.35	200	
Cu IV	540.647	24	
Kr III	540.79	100	
Ar II	540.8066 st	30	
Ni IV	540.807	450	
Kr III	540.860	300	
Mn IV	540.882	300	
He I	540.9354	f	
Mn IV	541.117	100	
Ne IV	541.127	400	1
Cl V	541.28	300	
Ar II	541.3019 st	60	
Sc	541.31	350	
Ni IV	541.434	280	
Mn IV	541.667	350	
Ni IV	541.709	390	
Mn IV	541.814	100	
Mn IV	541.858	400	
Ne IV	542.073	500	1
Ni IV	542.099	210	
Mn IV	542.101	300	
Cu IV	542.103	13	
Sc	542.11	150	
Cl V	542.23	800	
Ca IX	542.26		
Cl V	542.30	600	
Ni IV	542.33	210	
Cl V	542.40	300	
Mn IV	542.454	400	
Ni IV	542.53	560	
P V	542.57	500	
Ge III	542.57	40	
Mn IV	542.653	300	
Sc	542.68	300	
Zn	542.762	10	
Cu IV	542.810	14	
O IV	542.859	2	
Cl V	542.87	400	
Ar II	542.9123 st	300	
S III	543.03	200	
O IV	543.118	5	
Ni IV	543.20	430	
Ar II	543.2032 st	450	
Ti XI	543.23		
C II	543.257	200d	6.05
Kr III	543.417	250	
C II	543.444	300d	6.05
Ar II	543.508	20	
K IV?	543.640	100	
Ar II	543.7305 st	270	
Ni IV	543.807	100	
Cl V	543.82	100	
Ne IV	543.891	750	1
K IV?	543.973	50	
Ni IV	544.01	110	
Mn IV	544.016	300	
Se III	544.03	200	
Kr VI	544.03	600	
Sc	544.06	300	
Ca VII	544.118	50	
Ca VII	544.174	50	
Zn	544.195	15	
Ca VII	544.269	50	
Kr III	544.410	200	
Mn IV	544.533	350	
K V?	544.537	50	
K V?	544.627	50	
Ar VI	544.73	160	
Mn IV	544.752	350	
K IX	544.855	50	
P V	544.91	550	
Se III	545.00	100	

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Element	Wavelength	Intensity	Multiplet
Ni IV	545.08	130	
Cl V	545.11	1000	
Cu IV	545.110	12	
K IX	545.232	100	
Cu IV	545.410	11	
Br IV	545.43	500	
Mg VII	545.98		
K III	546.123	150	
Ar II	546.1768 st	240	
Cu IV	546.319	20	
Cl V	546.33	600	
Kr III	546.549	250	
Kr III	546.687	150	
Sc	546.75	150	
Ni IV	546.75	110	
Zn III	546.802	0	
F II	546.852	600	2
C II	547.140 P	-A	9.05
C II	547.153	10 -A	9.05
Ar II	547.1650 st	270	
C II	547.277	5 -A	9.05
C II	547.291	5 -A	9.05
Cu IV	547.294	24	
Kr	547.37	60	
Cu IV	547.451	23	
Ar II	547.4605 st	360	
Cl V	547.63	1000	
N II	547.818 P	10	
F II	547.874	450	2
Ca VI?	547.898	150	
Br V	547.94	1000	
Ar II	547.9960 st	120	
Kr V	548.04	60	
F II	548.322	300	2
P XII	548.38		
Sc	548.45	200	
F II	548.516	200	
Mg VII	548.54		
Cu IV	548.650	28	
Kr III	548.654	150	
Ar II	548.7808 st	210	
Ar VI	548.91	200	
Ca V?	549.070	150	
Ni IV	549.10	140	
Cl IV	549.22	500	
P XV	549.3 P		
C II	549.3195 ST	300	6.04
Ni IV	549.33	140	
C II	549.3785 ST	400	6.04
Zn III	549.491	4	
C II	549.5110 ST	500	6.04
C II	549.5700 ST	300	6.04
Br IV	549.75	900	
Br V	549.81	600	
As IV	550.0	50	
Al XI	550.01		
Cl IV	550.02	400	
Ca VII	550.194	200	
K III	550.323	50	
Cl VI	550.36	250	
Se III	550.40	50	
Ar II	550.4810 st	120	
Cl IV	550.71	300	
Ar II	550.9045 st	30	
Cu IV	550.915	32	
Cl IV	551.12	200	
S IV	551.17	200	5
Si X	551.20		
Kr II	551.328	40	
Ar VI	551.37	320	
Ca VII	551.460	250	
Kr	551.48	300	
Cl IV	551.64	100	
Kr III	551.685	200	
C II	551.874	10	6.03
Cl VI	551.99	500	
Cl IV	552.02	700	
Cl VI	552.05	100	
F V	552.06		
Ca III	552.411	10	
Ni IV	552.44	130	
Cl III	552.91	200b	
Ar II	553.1263 st	60	
Cu IV	553.144	17	
Cl IV	553.30	600	
O IV	553.330	900	3
Ar III	553.47	450	4
Cu IV	553.645	12	
O IV	554.075	950	3
K VI	554.136		
Cl IV	554.21	100	
O III	554.275	10	
Br IV	554.48	800	
Ar V	554.50	120	
O IV	554.514	1000	3
Kr VI	554.52	500	
Cl IV	554.62	700	
C III	554.63	200	11.16
Se III	554.73	100	
Kr III	554.796	250	
Mg VII	554.89		
Ni IV	554.90	100	
Ca VI	554.990	50	
O II	555.056	250	6
O II	555.121	250	6
O IV	555.261	900	3
Cl IV	555.49	100b	
Cl VI	555.49	1000b	
Cl VI	555.58	150	
Zn III	555.627	0	
Ar VI	555.64	160	
Ar II	555.7659 st	90	
Cu IV	555.858	17	
Zn III	555.979	0	
Cl III	556.23	600	3
Cl III	556.61	700	3
Zn III	556.763	6	
Ar II	556.8169 st	360	
Ar III	556.89	300	4
K VIII	557.029	50	
Cl III	557.12	700	3
Ca X	557.740	100	
Br IV	557.94	600	
Sc III	557.995	10	
Sc VII	558.023	200	
Cl II	558.14	100	
Mg VII	558.22		
Se III	558.26	100	
Ar III	558.32	250	4
Cl III	558.39	100	

Element	Wavelength	Intensity	Multiplet
Ar V	558.48	250	7
Mn IV	558.495	300	
Ne VI	558.59	50	
Ca V	558.602	500	
Sc III	558.608	10	
Ne VII	558.61	400b	
Mn IV	558.624	0	
Zn III	558.641	0	
Kr III	558.642	250	
Mn IV	559.231	350	
Zn III	559.239	6	
Kr II	559.315	120	
Si IV	559.533	2	5
Mn IV	559.544	0	
Zn III	559.628	2	
Br IV	559.74	900	
N II	559.762 P	10	
Ne VII	559.947	300	
Cr XIII	560.11		
Mn IV	560.181	300	
Ar II	560.2232 st	270	
C II	560.2394 ST	400	6.02
F V	560.24		
Al III	560.3173	500	3
Al III	560.4331	200	3
C II	560.4367 ST	500	6.02
C II	560.4386 ST	40	6.02
Zn III	560.513	8	
Cl III	560.64	100	
Kr II	560.792	40	
Si IV	560.980	5	5
Kr III	560.984	200	
Ar IV	561.06	20	
Sc VI	561.176	300	
Ca VI	561.300		
Se VII?	561.3	50	
Ne VII	561.378	200	
Cl III	561.53	700	5
K VIII	561.593	150	
Mn IV	561.598	90	
Cl III	561.68	700	5
Ne VII	561.728	400	
Cl III	561.74	700	5
Kr II	561.932	40	
O V	561.959	80	
Ca III	561.969	25	
O V	562.080	120	
Ca VI?	562.250	150	
Cl II	562.28	300	
Mn IV	562.288	80	
C II	562.338	150 -A	9.04
C II	562.367	150 -A	9.04
C II	562.473	150 -A	9.04
C II	562.497	150 -A	9.04
Cl II	562.54	10	
Sc VII	562.547	300	
C II	562.562	300 -A	9.04
Ca III	562.607	10	
Kr III	562.69	100	
Ne VI	562.71	10	
Sc VIII	562.75		
Kr II	562.792	40	
Ne VI	562.80	150	
Mn IV	562.806	50	
Ne VII	562.992	200	
Ca VI	563.066		
Sc VII?	563.401	200	
Kr	563.53	400	
Cl II	563.58	10	
Se VII?	563.7	50	
Zn III	563.759	1	
Br IV	563.79	900	
Br IV	563.92	800	
Cl III	564.29	400	
Zn	564.305	10	
K VIII	564.462	300	
Cl III	564.51	200	
Ne VII	564.529	200	
C II	564.565	40 -A	9.03
C II	564.582	40 -A	9.03
C II	564.608	100 -A	9.03
C II	564.635	50 -A	9.03
C II	564.663	200 -A	9.03
C II	564.698	40 -A	9.03
Se III	565.04	50	
K VIII	565.112	150	
Kr III	565.128	200	
Cl III	565.27	300	
Si III	565.289	20	6.04
Ca IV	565.463	150	
Cl III	565.48	400b	
Cl VI	565.48	400b	
C III	565.5280	700	11.31
Kr III	565.645	300	
Si III	565.698	40	6.04
Cl II	565.75	10	
Kr III	565.88	80	
O V	566.232	80	
Se III	566.24	20	
C III	566.48	400	11.30
Si III	566.546 P		6.04
Si III	566.613	160	3
Cl VI	566.63	200	
Mn IV	566.757	30	
Cl II	566.77	10	
Sc VI	566.790	100	
Sc	567.23	350	
Mn IV	567.295	80	
Br IV	567.40	500	
Cl VI	567.48	100	
F III	567.636	150	
F III	567.686	400	
F III	567.752	300	
F III	567.801	150	
Si III	567.878 P		19
P III	568.09	10	
Zn III	568.099	25	
Al XI	568.12		
Sc VII?	568.329	100	
Ne V	568.42	400	1
Ti XI	568.44 ?		
Mn IV	568.774	30	
Ca	569.122	50	
Br IV	569.13	1000	
Kr VI	569.13	800	
Kr III	569.160	300	
Br IV	569.27	600	
K VIII	569.479	100	
Mn IV	569.614	200	
K VIII	569.696	20	

Element	Wavelength	Intensity	Multiplet
Ne V	569.76	250	1
Mn IV	569.781	300	
Ne V	569.83	500	1
P III	569.90	200h	
K VIII	569.915	20	
Zn III	569.987	25	
Kr II	570.013	240	
Cl VI	570.03	400	
Sc VI	570.307	300	
Cl VI	570.53	200	
Ar V	570.61	80	
F IV	570.640	800	
Mn IV	570.675	50	
Kr III	570.735	50	
Cl VI	570.88	10	
Sc VII	571.256	400	
F IV	571.304	800	
Sc VIII	571.34		
Mn IV	571.352	250	
Cl VI	571.38	100	
F IV	571.391	900	
Cl VI	571.44	10	
K VI	571.643	20	
Mn IV	571.696	350	
Mn IV	571.774	350	
Mn IV	571.923	20	
Zn III	571.927	15	
Sc VI	571.937	300	
Cl II	571.95	100	
Kr III	571.98	300	
Se VII?	572.0	100	
Ar II	572.0136 st	270	11
Mn IV	572.021	30	
N II	572.069 P		
Ne V	572.11	250	1
Zn III	572.151	10	
Mn IV	572.203	40	
Br IV	572.26	300	
Ne V	572.34	800	1
Mn IV	572.433	400	
F IV	572.663	1000	
Mn IV	572.671	350	
Cl III	572.69	400	2
Zn III	572.788	20	
K VIII	572.790	125	
Mn IV	572.992	40	
Ni IV	573.06	90	
Zn III	573.187	12	
Kr III	573.231	250	
Zn III	573.338	8	
Mn IV	573.352	80	
Sc V	573.356	1000	
Ar II	573.3619 st	360	11
Se III	573.44	50	
Ar III	573.47	200	
Si III	573.538 P		6.03
Br IV	573.59	800	
Kr	573.65	300	
Mn IV	573.677	500	
Zn III	573.695	8	
Mn IV	573.706	200	
Cr IV	573.82	100	
F III	573.886	20	
F III	573.935	1	
Si III	573.951 P		6.03
Si III	573.961 P		6.03
Ca X	574.007	50	
Zn III	574.037	12	
O III	574.065	1	
F IX	574.1 P		
Sc	574.11	150	
Zn III	574.161	8	
C III	574.2809	1000	11
Cu IV	574.284	14	
Cl II	574.37	300	
F III	574.384	10	
Cl III	574.41	300	2
Sc	574.48	150	
N II	574.650	500	11
Si III	574.799 P		6.03
Si III	574.814 P		6.03
Si III	574.824 P		6.03
Kr III	574.958	100	
Zn	574.967	20	
Cr IV	575.11	250	
Cl II	575.30	10	
Cl III	575.58	300	2
Sc VI	575.580	300	
F IV	575.643	10	
Kr III	575.72	100	
Ni IV	575.816	410	
Cr IV	575.88	50	
Kr II	575.907	80	
Ne I	576.0052 st		
Kr III	576.08	80	
F IV	576.265	15	
Cr IV	576.30	150	
F IV	576.359	10	
Ni IV	576.378	440	
Cl VI	576.42	200	
Br IV	576.57	1000	
Kr II	576.653	40	
Cu IV	576.660	14	
Ca	576.662	50	
Cr IV	576.68	150	
Ar II	576.7364 st	300	11
Sc X	576.79		
Ne I	576.8650 st		
C II	576.8748	100	6.01
Kr II	576.998	20	
Zn III	577.031	25	
C II	577.0859	200	6.01
Ne I	577.1090 st		
Ar III	577.15	150	
Ne I	577.1692 st		
Ni IV	577.203	250	
Cl VI	577.44	100	
Ne I	577.4886 st		
Zn III	577.590	15	
Ne I	577.6047 st		
F IV	577.734	35	
Ni IV	577.788	200	
V XII	577.93 ?		
Ne I	577.9749 st		
Ne I	578.0715 st		
Kr III	578.09	10	
Ar II	578.1071 st	270	11
Ne I	578.1270 st		
Kr III	578.212	150	
Ar III	578.39	200	

Element	Wavelength	Intensity	Multiplet
Kr	578.47	60	
Ne I	578.5129 st		
Zn III	578.559	12	
Ar II	578.6043 st	270	10
Ne I	578.6056 st		
Ne I	578.6185 st		
Ca VI?	578.732	200	
Ne I	578.8224 st		
Ni IV	579.008	690	
Kr II	579.101	20	
Mn IV	579.155	450	
Ni IV	579.172	460	
Ar III	579.21	150	
Kr II	579.414	40	
Ne I	579.4722 st		
Ne I	579.4888 st		
Ne I	579.7711 st		
Ca VI?	579.775	100	
Mn IV	579.787	600	
Kr III	579.831	300	
Ni IV	579.833	450	
Ne I	579.8411 st		
P III	579.98	1h	
Mn IV	580.026	500	
Ca III	580.058	10	
Sc	580.10	350	
Ar II	580.2631 st	360	10
Mn IV	580.298	30	
K V	580.319	750	
Kr II	580.345	20	
Mn IV	580.383	350	
O II	580.400	300	15
Cl VI	580.44	200	
Ne I	580.5119 st		
Kr III	580.580	250	
Kr VI	580.63	600	
Ne I	580.6893 st		
Ne I	580.7137 st		
O II	580.967	350	15
Cu IV	580.970	13	
Mn IV	581.099	300	
Ne I	581.1219 st		
Kr II	581.219	40	
Sc VI	581.404	400	
Mn IV	581.442	600	
Ca VI?	581.466	150	
Kr II	581.500	120	
Mn IV	581.650	600	
P III	581.90	1h	
Mn IV	581.914	40	
Mn IV	582.089	80	
Sc III	582.114	20	
Zn III	582.123	10	
N II	582.156	400	10
Br IV	582.22	600	
Mn IV	582.400	30	
Kr	582.42	80	
Ne I	582.4691 st		
Ne I	582.5064 st		
Ne I	582.5982 st		
Sc III	582.785	30	
Mn IV	582.785	450	
Ca VIII	582.834	150	
Zn	582.852	20	
Si XI	582.9 ?		
Mn IV	582.993	500	
Ne I	583.1261 st		
Ca III	583.350	10	
Mn IV	583.390	450	
Ar II	583.4371 st	300	10
Mn IV	583.480	350	
Mn IV	583.618	40	
Ne I	583.6893 st		
Mn IV	583.824	150	
Mn IV	583.945	100	
O VIII	584.05 P		
Mn IV	584.063	150	
Cl II	584.10	100	
Mn IV	584.124	100	
Mn IV	584.296	150	
He I	584.3340	1000	2
Mn IV	584.443	550	
Cu IV	584.444	12	
Mn IV	584.835	500	
Br IV	585.08	900	
Zn III	585.100	2	
Kr III	585.141	300	
Mn IV	585.208	600	
Ne I	585.2472 st		
K VIII	585.25		
C III	585.261	600	11.15
Ne I	585.3042 st		
Kr VII	585.37	1000	
C III	585.417	800	11.15
C III	585.496	500	11.15
K V	585.510	250	
Mn IV	585.586	500	
C III	585.608	600	11.15
C III	585.666	600	11.15
Kr II	585.688	80	
Mn IV	585.736	450	
Ar VII	585.75	750	
Kr III	585.955	300	
Zn III	586.087	8	
Mn IV	586.245	350	
Cl II	586.25	10	
Kr II	586.269	40	
Sc	586.29	150	
Ne I	586.3140 st		
K V	586.322	500	
Ca III	586.547	10	
Mn IV	586.590	30	
Br IV	586.69	1000	
Cl III	586.87	400	
Mn IV	586.873	450	
Sc X	586.96		
Ar VI	587.01	40	
Cl III	587.08	300	
Mn IV	587.157	350	
Zn III	587.194	4	
Ne I	587.2128 st	35	
Mn IV	587.232	350	
Cl III	587.30	400	
Ca III	587.354	50	
Kr III	587.378	50	
Kr III	587.536	50	
Mn IV	587.574	200	
Ca VI?	587.604	100	
Ca VI?	587.872	50	
Sc V	587.935	600	

Element	Wavelength	Intensity	Multiplet
Se VI	588.0	400	
Zn III	588.048	10	
F III	588.060	3	
Kr	588.08	800	
F III	588.208	6	
Cl II	588.77	10	
F I	588.84 P	-A	
Ar VI	588.92	200	
Ca III	589.013	25	
Zn III	589.146	6	
Ne I	589.1792 st	35	
Kr II	589.265	200	
Ar VI	589.78	80	
Cl II	589.82	10	
Sc	589.83	400	
Ne I	589.9113 st	35	
Ne I	590.0108 st		
F I	590.25 P	-A	
Ca VI?	590.396	150	
Ca III	590.987	25	
Cl III	591.12	300	6
K IV?	591.237	50	
Se VII?	591.3	50	
K IV?	591.311	50	
Sc	591.37	300	
He I	591.4117	40	1
Cl III	591.43	400	6
Ca III	591.584	150	
Cl III	591.65	400	6
Mn IV	591.707	150	
Zn III	591.710	2	
Sc	591.75	300	
Ne I	591.8303 st	70	
Cl III	591.96	200	6
Br IV	592.03	900	
Mn IV	592.230	0	
Mn IV	592.599	120	
Zn III	592.677	0	
Ni IV	593.156	120	
Mn IV	593.279	100	
Mn IV	593.329	80	
Ca V?	593.404	50	
Ca V?	593.472	50	
Kr III	593.703	300	
Ni IV	593.848	100	
Kr III	594.098	300	
Ar VI	594.10	100	
Mn IV	594.106	120	
Ca V?	594.239	50	
Mn IV	594.260	120	
Kr II	594.286	40	
Ni IV	594.291	130	
Cl II	594.49	10	
Mn IV	594.503	350	
Cl III	594.64	400	
Ni IV	594.702	300	
C II	594.8000 ST	600	6
Kr	594.84	300	
Mn III	594.872	0h	
Mn IV	594.959	500	
Ca III	594.978	50w	
C II	595.0219 ST	700	6
C II	595.0245 ST	70	6
Sc	595.06	50	
Cr IV	595.09	150	
Mn IV	595.223	60	
Ni IV	595.248	160	
Mn IV	595.392	0	
Kr III	595.53	140	
Kr II	595.539	320	
Mn IV	595.684	550	
Ne I	595.9200 st	100	
Sc X	595.98		
Cl III	595.99	300	
Se V	596.0	500	
Ni IV	596.050	400	
Mn IV	596.174	450	
Cl III	596.24	400	
Kr III	596.412	300	
Be IV	596.44 P		
Kr III	596.584	200	
Ca III	596.675	50	
Ar VI	596.69	160	
Ca VIII	596.940	150	
Kr II	596.956	160	
Sc	597.10	50	
Mn IV	597.107	400	
Kr III	597.19	120	
Ca III	597.291	100	
Mn IV	597.298	450	
Fe IV	597.54 P		
Mn IV	597.577	500	
Mn IV	597.644	450	
Ar II	597.7000 st	360	9
O III	597.818	750	13
Mn IV	597.820	150	
Ca VIII	597.832		
Cl VII	598.21	600	
Mn IV	598.526	500	
Kr II	598.643	40	
Zn III	598.665	2	
Sc VII	598.67	100	
Ne I	598.7056 st	75	
Kr II	598.805	200	
Fe IV	598.82 P		
Ne I	598.8908 st	35	
Kr II	598.978	160	
Cl II	599.19	10	
Sc	599.57	250	
O III	599.598	900	7
Br IV	599.60	800	
Cl IV	599.73	200	
Mn IV	599.848	40	
Se VII?	599.9	200	
Kr II	599.954	200	
Ne I	600.0365 st	70	
Br IV	600.08	800	
F III	600.104	10	
Kr III	600.172	400	
C II	600.251	100 -A	9.02
Mn IV	600.257	350	
C II	600.337 P	100 -A	9.02
C II	600.353	300 -A	9.02
F III	600.390	6	
C II	600.503	100 -A	9.02
C II	600.518	100 -A	9.02
O II	600.585	300	14
Zn III	600.599	2	
Mn IV	600.614	100	
As V	600.7	150	

Element	Wavelength	Intensity	Multiplet
K II	600.765	300	2
Ca III	600.852	25	
Ca VI	600.917	300	
Mn IV	600.917	40	
Se V	601.0	400	
Mn III	601.035	5h	
Kr III	601.142	250	
Mn IV	601.153	300	
Br IV	601.26	1000	
C VI	601.31 P		
He I	601.4041	f	
N III	601.468	100	
Mn IV	601.499	70	
Cl IV	601.50	500	
Ca VI	601.700	250	
Se V	601.7	400	
Mn IV	601.788	10	
N III	601.878	10	
Mn IV	602.115	80	
Al IX	602.18		
K V	602.269	250	
Ca VI	602.389	20	
Ni IV	602.50	140	
Mn IV	602.535	300	
Ne I	602.7263 st	170	
Mn IV	602.798	40	
Ar II	602.8584 st	300	9
Ne IV	603.00	10	
Mn IV	603.129	0	
K V	603.429	400	
Ca	603.622	150	
Br IV	603.65	500	
Kr III	603.667	300	
Mn IV	603.788	10	
As III	603.8	90	
Kr III	603.856	200	
Mn IV	603.863	100	
Zn III	604.082	1	
Si XI	604.14		
Ar III?	604.15	500	
Mn IV	604.177	40	
Kr III	604.365	150	
O V	604.416	280	
Cl IV	604.59	500	
Cl VII	604.79	1000	
Kr	604.89	60	
Cl VII	605.05	50	
K IV?	605.316	50	
Kr II	605.331	200	
Mn IV	605.377	50	
Kr II	605.547	200	
Ne IV	605.60	10	
K VIII	605.61		
F II	605.670	850	1
Br IV	605.74	500	
Kr II	605.782	120	
Cl III	605.86	100	
Kr III	605.863	500	
Si III	605.873 P		18
Cu IV	605.874	11	
Se VI	605.9	400	
K IV?	605.908	50	
Cl III	606.10	200	4
Zn III	606.164	8	
F II	606.286	700	1
Cl III	606.35	500	4
Kr III	606.466	350	
Ne IV	606.53	25	
Mn IV	606.648	80	
Ca III	606.756	10	
Kr	606.79	120	
F II	606.804	1000	1
Cu IV	606.817	12	
F II	606.922	600	1
Br IV	607.02	600	
Cl IV	607.09	300	
Se VII?	607.2	50	
Zn III	607.364	10	
F IV	607.37		
F II	607.472	700	1
Mn IV	607.478	200	
Fe IV	607.54 P		
K II	607.931	250	3
F II	608.063	850	1
Kr II	608.134	240	
O IV	608.398	800	2
Se VI	608.4	300	
Br IV	608.56	800	
Mn IV	608.577	50	
Fe IV	608.81 P		
Cl IV	608.90	400	
C III	609.04	400	11.48
Ne IV	609.17	5	
Mn IV	609.188	0	
V XII	609.24		
C III	609.275	600	11.29
Cl III	609.67	400	4
O III	609.705	300	16
Mg X	609.76		
O IV	609.829	850	2
Cl III	609.90	10	4
O III	610.043	350	16
Ca III	610.225	10	
Fe IV	610.39 P		
Mn IV	610.509	10	
Br IV	610.55	200	
O III	610.746	400	16
O III	610.850	300	16
Kr	610.89	80	
Mn IV	610.967	450	
Se VII?	611.1	300	
Kr III	611.115	500	
Ca	611.186	50	
Kr III	611.19	160	
Mn IV	611.461	450	
K VI	611.862	150	
Fe IV	612.02 P		
Cl IV	612.07	400	
K VI?	612.272	50	
Mn IV	612.292	500	
Ar II	612.3715 st	300	
Kr III	612.488	150	
K II	612.621	300	1
Cr IV	612.70	250	
Cl II	612.73	10	
Zn III	612.787	0	
V III	612.85	10h	
V	612.99	10h	
Se V	613.0	500	
Al IX	613.10		

Element	Wavelength	Intensity	Multiplet
Mn IV	613.162	10	
Kr II	613.374	200	
Se VII?	613.6	300	
Cr IV	613.76	200	
Ca VI?	614.015	150	
Cr IV	614.09	200	
Mn IV	614.153	400	
Se V	614.3	400	
As III	614.4	90	
Cr IV	614.51	20	
V III	614.63	0	
As III	614.7	15	
Kr VIII	614.86	200	
V III	614.94	0	
Cr IV	614.95	200	
Se V	615.1	100	
Kr II	615.138	200	
Ni III	615.164	0	
Kr II	615.227	200	
Cr IV	615.36	150	
V III	615.48	0	
Ni III	615.554	5	
Ne I	615.6283 st	170	7
Cr IV	615.68	150	
V III	615.90	0	
Mn IV	615.947	40	
Na XI	616.0 P		
As V	616.0	200	
V III	616.09	25	
Mn IV	616.111	300	
K VI	616.140	150	
Mn IV	616.277	300	
O II	616.291	350	5
Zn III	616.310	8	
O II	616.363	200	5
Kr III	616.725	350	
Cr IV	616.82	250	
O IV	616.952	350	
O IV	617.005	150	
O IV	617.036	275	
V III	617.05	10	
Cr IV	617.05	100	4
O II	617.051	300	5
Kr II	617.065	320	
Cl II	617.27	10	
Kr	617.27	600	
V III	617.34	0	
Ca VI?	617.517	200	
Cl II	617.61	100	
Kr II	617.758	240	
O IV	617.786	10	
Cr IV	617.94 P	20	3
Cl II	618.02	200	
V III	618.02	0	
Kr II	618.048	240	
O IV	618.107	15	
Cr IV	618.22	200	4
Br IV	618.25	500	
V III	618.41	0	
Kr II	618.511	240	
Ar	618.63	200	
Kr VII	618.67	400	
Ne I	618.6716 st	170	6
Mn IV	618.780	250	
Kr II	618.882	240	
V III	618.89	0	
Cl III	619.03	100	
Ne I	619.1023 st	120	5
Cr IV	619.12	200	4
Mn IV	619.173	10	
V III	619.29	5	
Kr II	619.385	240	
Kr II	619.548	200	
Mn IV	619.580	90	
N VII	619.84 P		
Br IV	619.86	700	
Cl II	619.95	10	
Ga III	619.96 P	100	
V III	620.17	5	
Mn IV	620.275	200	
Cl II	620.28	100	
Ca	620.566	50	
Cr IV	620.65	500	3
V III	620.69	0	
Fe IV	621.01 P		
Cl III	621.03	300	
Kr II	621.074	320	
Br V	621.11	1000	
Cl II	621.12	400	
Mn IV	621.176	70	
Cl III	621.28	400	
Cr IV	621.33	300	3
K IX	621.422	225	
Kr III	621.451	400	
Kr II	621.911	280	
Mn IV	621.964	80	
Ga III	622.04 P	100	
Cr IV	622.07	200	3
C III	622.13	200	11.47
Se VII?	622.5	300	
Kr III	622.795	450	
V III	622.92	0	
K VI	623.011	250	
V III	623.27	5	
Cr IV	623.59	150	
V III	623.67	5	
Cl III	623.77	300	
Ar IV	623.77	250	
V III	624.08	0	
Cl VI	624.11		
Kr III	624.27	60	
Ca VII	624.380	50	
V III	624.42	0	
O IV	624.617	750	6
Ca III	624.821	50	
Mg X	624.93		
Si III	624.997 P		17
Kr III	625.016	500	
Cr IV	625.08	200	
O IV	625.130	800	6
Ca III	625.269	10	
Ni III	625.306	15	
Cr IV	625.40	100	
K VI	625.405	150	
Br IV	625.50	400	
He I	625.6	f	
Ni III	625.682	100	
Kr III	625.760	300	
O IV	625.852	850	6
Kr II	625.901	200	

Element	Wavelength	Intensity	Multiplet
Ni III	625.938	15	
Cr IV	625.95	200	
Mn IV	625.961	90	
Kr	626.06	150	
Kr	626.49	300	
Se VII?	626.5	200	
Ni III	626.548	10	
Cr IV	626.58	50	
Cl II	626.70	100	
Ne I	626.8232 st	200	4
Ni III	626.923	30	
Sc III	627.069	70	
O V	627.225	80	
O V	627.351	160	
Mn IV	627.432	50	
Ni III	627.541	15	
K VI?	627.560	100	
O V	627.636	200	
Cr IV	627.70	50	2
Kr	627.75	300	
Sc III	627.846	80	
Be IV	627.90 P		
V III	627.90	10	
Sc X	628.111	40	
Mn IV	628.380	30	
Cr IV	628.46	100	2
Kr III	628.588	450	
Ca III	628.663	150	
Zn III	628.682	4	
N V	628.744	70	27
V III	628.86	5	
N V	628.874	50	27
P IV	629.02	120	4
N II	629.167 P	300	
Cr IV	629.26 P	500	2
Cr IV	629.32 P	80	2
Mn IV	629.341	0	
Cl V	629.35	300	
N II	629.447 P	200	
Ca VI	629.594	100	
N II	629.670 P		
Mn IV	629.685	180	
O V	629.730	1000	1
Cr IV	629.73	250	2
Ne I	629.7388 st	200	3
P IV	629.92	160	4
Ca III	629.922	25	
Kr III	630.040	500	
Br IV	630.12	1000	
F III	630.137	150	
F III	630.198	200	
Cr IV	630.28	400	2
Ar VII	630.31	100	
F III	630.327	2	
Mn IV	630.329	150	
F III	630.346	1	
Cl III	630.38	100	
Ca VII	630.517	100	
Mn IV	630.695	100	
Se IV?	630.7	400	
Ni III	630.711	500	
Cl III	630.75	100	
Ca VII	630.766	50	
Cr IV	630.77	100	2
Cr IV	630.92	50	1
K VI?	630.940	50	
Se IV?	631.0	300	
Cl III	631.01	100	
Ca III	631.015	25	
Se IV?	631.1	300	
Cr IV	631.30 P	40	2
Zn III	631.444	5	
Cr IV	631.55 P	40	2
Kr III	631.559	200	
Si XIV	631.6 P		
Ar	631.68	60	
Cr IV	631.74 P	40	2
P IV	631.79	400	4
B II	631.8		
Ca III	632.017	50	
Br V	632.30	900	
Cr IV	632.60	150	1
Fe IV	632.64 P		
O VIII	632.7 P		
Na VI	632.90	10	
Kr III	633.090	350	
Cl V	633.19	400	
Ca III	633.325	25	
V III	633.37	0	
Kr II	633.380	280	
Ca III	633.468	10	
Ca III	633.588	250	
Mn IV	633.607	10	
Kr III	633.630	250	
Ca VI	633.815	100	
V III	633.94	50	
Cr IV	634.13	100	1
V III	634.16	5	
Ar VII	634.21	100	
Cl II	634.24	100	
Si III	634.255 P		16
Kr II	634.272	240	
Fe IV	634.45 P		
Se VI?	634.5	400	
Zn III	634.807	10	
V III	634.81	25	
Zn III	634.979	1	
Ar V	635.12	150	
N II	635.197	400	13
V III	635.22	10	
Cl V	635.32	400	
Ni III	635.406	1	
V III	635.41	40	
Cr IV	635.45	50	1
Ca III	635.481	25	
Zn III	635.498	6	
Fe IV	635.56 P		
Se VII?	635.8	400	
Cl II	635.87	200	
V III	635.97	0	
C II	635.9945 ST	300	5.01
Se IV	636.0	800	
Kr II	636.152	280	
V III	636.21	0	
C II	636.2511 ST	400	5.01
K IX	636.300	125	
Ca III	636.318	25	
Kr III	636.35	20	
Ca III	636.388	10	
Cr IV	636.44 P	1	1

Element	Wavelength	Intensity	Multiplet
Cl II	636.62	200	
Kr II	636.630	280	
Ar III	636.82	150	3
Cr IV	636.92	100	
Ar VII	637.05	200	
Ni III	637.057	15	
Cl II	637.06	100	
V III	637.08	0	
Ca III	637.111	25	
K VI?	637.195	50	
Ar III	637.28	1000	3
Cr IV	637.40	150	
Ar VII	637.47	50	
V III	637.49	5	
Ni III	637.535	200	
Cr IV	637.54	250	10
V III	637.73	0	
Ca III	637.788	10	
Kr V	637.87	120	
Ca V	637.928	400	
Cr IV	638.12	250	10
V III	638.13	10	
Na VI	638.21	10	
Kr II	638.215	280	
Cl II	638.23	200	
Cr IV	638.61	150	
K V	638.668	250	
Kr II	638.960	240	
Zn III	639.060	20	
Ca III	639.124	50	
F IV	639.13	-A	
Ca VII	639.212	200	
Cl V	639.23	300	
Kr II	639.263	280	
Ni III	639.338	10	
Cl II	639.42	200	
Zn III	639.597	2	
Cl III	639.76	100	
Zn III	639.850	4	
K V	639.982	100	
Kr III	639.983	500	
Mn IV	640.069	80	
Zn III	640.263	20	
Ca III	640.280	100	
Ca VII	640.404	20	
S II	640.41	50	
Se IV?	640.5	300	
Kr II	640.871	280	
Se IV?	640.9	400	
Mn IV	640.909	30	
S II	640.93	50	
Cl III	640.93	100	
Mn IV	641.021	20	
Mn IV	641.132	100	
Cl III	641.30	100	
Ar VII	641.32	100	
Ar III	641.36	250	3
B II	641.5		
C II	641.593	250 -A	9.01
C II	641.627	250 -A	9.01
Ni III	641.689	5	
C II	641.771	300 -A	9.01
C II	641.800	300 -A	9.01
S II	641.81	100	
Ar III	641.81	600	3
Zn III	641.821	1	
Kr	641.86	50	
Ni III	641.866	100	
Na VI	641.87		
Ca VI	641.883	100	
C II	641.888	650 -A	9.01
V III	641.91	0	
Mn IV	642.195	40	
Zn III	642.216	6	
Br IV	642.22	1000	
Se V	642.3	200	
Mn IV	642.588	300	
Ni III	642.611	1	
Se IV?	642.7	500	
Zn III	642.702	8	
Ca	642.812	100	
Kr III	642.84	20	
Se VII?	643.0	200	
Zn III	643.026	12	
Ca V	643.118	300	
Sc III	643.133	20	
F V	643.21		
Zn III	643.259	0	
Ar III	643.26	450	3
Kr II	643.399	200	
Sc III	643.597	20	
F VI	643.969	10	
Mn IV	643.983	50	
O II	644.148	600	13
Mn IV	644.273	300	
Al III	644.3339		
Ar VII	644.39	100	
Ni III	644.488	0	
Kr III	644.52	20	
N II	644.634	650	4
Mn IV	644.679	80	
Zn III	644.700	30	
Se IV?	644.8	400	
N II	644.837	750	4
Ni III	644.948	20	
K V	644.963	20	
F VI	644.999	10	
N II	645.178	850	4
Ni III	645.305	30	
Al III	645.3063		
Br V	645.49	1000	
Ni III	645.632	2	
Si IV	645.759	150	15
Kr	645.77	400	
Mn IV	645.832	250	
Zn III	645.836	15	
Mn IV	645.931	10	
F VI	646.092	5	
Mn IV	646.133	80	
Br IV	646.15	100	
K IV	646.188	750	
F VI	646.360	35	
Zn III	646.377	4	
Kr III	646.412	600	
Ca V	646.570	400	
Mn IV	646.794	500	
Zn III	646.802	2	
Ni III	646.890	1	
Mn IV	647.102	40	
Ca VII?	647.292	100	

Element	Wavelength		Intensity	Multiplet
F VI	647.307		10	
Ni III	647.319		0	
F V	647.666		150	
Fe IV	647.68	P		
F V	647.768		400	
F V	647.868		500	
Ca V	647.876		250	
Mn IV	647.921		450	
Zn III	647.927		1	
F V	647.967		150	
Ni III	648.271		3	
F VI	648.496		10	
P IV	648.51		80	
Ca III	648.618		25	
S VI	648.63		100	
Mn IV	648.692		450	
Zn III	648.755		12	
Ni III	649.006		2	
Ar	649.03		50	
Zn III	649.318		6	
Co III	649.342		1	
P IV	649.69		20	
Br IV	649.78		600	
Fe IV	650.12	P		
S VI	650.43		100	
Ni III	650.701		2	
Cl II	650.88		100	
Ar V	651.04		10	
F VI	651.082		5	
Cl II	651.13		100	
Kr III	651.201		500	
C II	651.211		150	9
C II	651.234		150	9
Zn III	651.261		10	
C II	651.269		400	9
C II	651.304	P	300	9
Ca IX	651.31			
C II	651.345		800	9
C II	651.389	P	150	9
Ca V	651.550		250	
Kr VIII	651.57		400	
F III	651.622		3	
Si III	651.668		80	6.02
Zn III	651.975		0	
B II	652.0			
Mn IV	652.195		250	
Si III	652.223		120	6.02
S IV	652.52		300	8
Ni III	652.652		30	
Se IV	652.7		900	
P IV	652.79		80	
Ni III	652.837		1	
Kr	652.90		400	
S IV	653.00		300	8
Cl III	653.01		200	
Cu IV	653.010		15	
Mn IV	653.018		0	
K I	653.31			
Zn III	653.321		1	
Si III	653.332		160	6.02
Ni III	653.496		10	
P IV	653.51		80	
S IV	653.56		400	8
Zn III	653.575		0	
Cl IV	653.70		400	
Cl II	653.80		100	
Mn IV	653.811		180	
F III	653.833		6	
S IV	653.98		300	8
Mn IV	653.988		150	
F V	654.029		700	
Kr VIII	654.19		300	
Se IV	654.2		800	
O V	654.207		80	
Mn IV	654.222		90	
S IV	654.37		100	8
Ni III	654.445		10	
P IV	654.54		40	
Fe IV	654.62	P		
O V	654.712		120b	
Ni III	654.768		5	
P IV	654.86		120	
Mn IV	654.870		400	
Zn III	654.977		0	
O V	655.039		200	
Cl II	655.09		100	
Se VII?	655.1		50	
Ni III	655.120		0	
Mn IV	655.122		250	
Mn IV	655.156		200	
K	655.188		50	
Mn IV	655.424		80	
S IV	655.55		400	8
Kr II	655.681		280	
P IV	655.78		80	
Mn III	655.804		0	
S IV	655.89		200	8
As IV	655.9		20	
Ca IV	655.998		750	
F III	656.121		400	
Mn IV	656.148		400	
S IV	656.30		100	8
Ni III	656.431		1	
Zn III	656.486		2	
P IV	656.55		80	
Ni III	656.724		1	
Ca V	656.763		300	
Cl III	656.77		200	
F III	656.869		500	
Mn IV	657.077		400	
Kr II	657.095		360	
Cl III	657.17		200	
F V	657.227		500	
Ni III	657.304		1	
F V	657.333		800	
S IV	657.34		500	4
Zn III	657.372		6	
Br V	657.60		600	
Ni III	657.668		0	
K VI?	657.931		150	
Ni III	657.998		0	
Zn III	658.115		6	
S V	658.26		300	3
Br IV	658.28		100	
F III	658.329		600	
K VII	658.420		200	
Mn III	658.481		0	
O III	658.578		50	
Kr II	658.649		320	
Ni III	658.810		0	

Element	Wavelength	Intensity	Multiplet
Ca IX	659.48		
O III	659.538	10	
Ca	659.694	50	
Kr III	659.718	500	
S V	659.85	400	3
Ni III	660.079	30	
N II	660.286	750	9
Mn IV	660.344	80	
Ge III	660.50	20	
Ni III	660.620	10	
S IV	660.94	300	7
Br VI	661.05	1000	
Ni III	661.061	5	
Mn III?	661.385	0	
K VI?	661.402	150	
S IV	661.42	600	4
Cl II	661.62	10	
Mn IV	661.726	300	
Cl II	661.82	200	
Ar II	661.8689 st	540	8
Cl II	662.15	100	
Mn IV	662.234	0	
Zn III	662.309	0	
K I	662.329	20	
Ni III	662.366	200	
Cl IV	662.45	300	
Zn III	662.776	20	
O V	662.928	40h	
Cl II	663.08	200	
Mn IV	663.085	80	
V III	663.15	0	
S V	663.16	500	3
Br IV	663.19	200	
Mn IV	663.429	10	
Ni III	663.568	150	
Cl II	663.67	200	
S IV	663.70	300	7
Ge III	663.71	40	
Br IV	663.80	1000	
Mn IV	663.884	450	
V III	664.12	0	
Ar II	664.5622 st	300	8
Cl II	664.67	200	
S IV	664.82	300	7
Mn IV	664.838	400	
Ni III	664.851	100	
Kr III	664.855	300	
Ar	664.93	50	
V III	665.00	0	
Cr IV	665.00	30	7
Mn IV	665.015	40	
Cl II	665.21	100	
Se VII?	665.4	100	
Br III	665.54	1000	
F III	665.809	10	
Kr II	665.879	280	
Ar II	666.0108 st	450	7
Mn IV	666.035	350	
Cl II	666.08	300	
S IV	666.11	400	7
Cl II	666.17	200	
Mn IV	666.255	80	
F III	666.258	6	
Mn IV	666.332	100	
Ni III	666.477	50	
Cr IV	666.55	500	7
Ni III	666.585	30	
F IV	666.662	1	
Mn IV	666.694	400	
Fe IV	666.74 P		
Mn IV	667.004	120	
Ti XI	667.12		
Ca	667.126	100	
F V	667.218	35	
Cr IV	667.31	375	7
F V	667.315	15	
Cl II	667.49	100	
Mn IV	667.706	0	
Ni III	667.783	5h	
Ni III	667.976	1	
F III	668.195	6	
Ni III	668.195	10	
O V	668.225	40	
Cl VI	668.30		
Fe IV	668.31 P		
Mn IV	668.433	80	
Ca	668.462	50	
Mn IV	668.498	120	
Ni III	668.697	1	
Mn IV	668.736	180	
Cl IV	668.77	200	
Kr II	668.835	320	
K VI?	668.864	150	
Cr IV	668.87	80	7
Ge III	669.27	10	
V III	669.33	5	
Ni III	669.458	5	
Mn IV	669.486	60	
O V	669.628	200	
F III	669.648	10	
Ca IV	669.696	500	
Ni III	669.755	5	
Mn IV	669.792	150	
Cl III	669.95	200	
Al X	670.06		
Al III	670.0676	100	
Se IV	670.1	1000	
V III	670.25	5	
N II	670.296 P	220	
Kr III	670.301	150	
Cl III	670.38	300	
Ni III	670.440	0	
N II	670.515 P	120	
Mn IV	670.607	10	
Ni III	670.640	2	
Kr III	670.820	150	
Ge III	670.83	60	
N II	670.884 P	100	
Ar II	670.9455 st	600	8
N II	671.016	500	3
Ge III	671.02	5	
Kr III	671.06	140	
Ni III	671.065	0	
Al III	671.1184	200	
Kr III	671.182	150	
Mn IV	671.353	80	
Cl VI	671.37	400	
N II	671.386	500	3
N II	671.411	650	3
K VII	671.535	250	

Element	Wavelength	Intensity	Multiplet
N II	671.630	500	3
Si III	671.718	40	6.01
N II	671.773	500	3
Ar II	671.8513 st	900	6
Mn IV	671.891	10	
Se IV	671.9	800	
N II	672.001	500	3
C V	672.06		28
Ca	672.083	50	
Si III	672.293	80	6.01
K VII	672.302	20	
Ca VI?	672.315	20	
Kr III	672.335	400	
N VII	672.42 P		
Cl IV	672.43	10	
Ca VI	672.651	50	
Cu III	672.659	50	10
Ge III	672.70	20	
Kr III	672.852	350	
Ar II	672.8562 st	240	6
O II	672.948	400	12
Cl III	673.13	300	
Mn IV	673.208	40	
Ca VI	673.367	50	
Mn IV	673.449	0	
Si III	673.477	100	6.01
Zn III	673.499	2	
Cl III	673.60	100	
O II	673.768	350	12
Mn IV	673.804	0	
Ca VII?	673.885	50	
P V	673.89	650	
Ca VI?	674.046	50	
Mn IV	674.236	60	
Ca VI	674.278	100	
Kr	674.29	250	
Se III?	674.47	500	
Se V	674.6	800	
Kr III	674.835	250	
Cr IV	675.14	150	
K	675.335	50	
Ca III	675.424	10	
V IV	675.469	30	
Cu II	675.6020	2	
Mn IV	675.654	80	
Cu IV	675.879	16	
F IV	676.119	800	
S V	676.21	100	
Ar II	676.2424 st	360	
Cr IV	676.47	100	
Ca VII?	676.563	150	
Cu III	676.564	300	10
Kr III	676.568	350	
Mn IV	676.647	80	
Cl V	676.79	300	
Ni III	676.941	500	
B III	677.000	500	
Al III	677.0819		
B III	677.143	600	
F IV	677.149	700	
Br III	677.19	1000	
F IV	677.219	900	
Br IV	677.24	500	
S V	677.34	100	
V IV	677.345	200	
Cr IV	677.54	200	5
Ca III	677.620	100	
Zn III	677.642	60	
Br III	677.70	800	
S III	677.75	200	7
Ar II	677.9518 st	300	
O V	677.968	80	
Zn III	677.971	60	
Si III	678.055	40	15
S V	678.08	200	
Br VI	678.14	500	
Al III	678.1548		
Al III	678.1564		
S III	678.46	200	7
O V	678.612	120	
V IV	678.740	60	
Se VII?	678.9	300	
Cr IV	678.91	100	5
F IV	678.991	700	
S III	679.11	200	7
Fe III	679.129	200	
O V	679.136	160	
Cr IV	679.19	20	
F IV	679.214	1000	
Ar II	679.2183 st	300	
Cl V	679.26	300	
Mn IV	679.374	150	
Ar II	679.4005 st	450	6
V IV	679.647	50	
Mg VIII	679.77		
Ca III	679.845	10	
Mn IV	679.939	200	
Ca III	680.049	50	
Kr III	680.126	350	
Cr IV	680.15	100	5
Ge III	680.22	40	
Mn IV	680.265	300	
S V	680.33	300	
Mn IV	680.362	350	
Se VII?	680.5	50	
P IV	680.57	20	
Cr IV	680.62	40	5
V IV	680.632	40	
S III	680.69	200	7
F I	680.693	2 -A	
Cu IV	680.698	13	
Fe III	680.700	150	
S V	680.94	500b	
S III	680.95	200b	7
Kr II	681.133	280	
V IV	681.145	40	
Cr IV	681.20	100	5
O V	681.27	480	
Ca VII?	681.363	150	
S III	681.50	100b	6
S V	681.68	300b	
Na IX	681.72	10	
Cr IV	681.88	150	
Cl V	681.92	400	
Co III	682.084	5	
Fe III	682.10	150	
Mn IV	682.120	80	
Cu III	682.171	200	10
V IV	682.455	40	
F I	682.577	2 -A	

Element	Wavelength	Intensity	Multiplet
Ca III	682.632	150	
Kr II	682.800	320	
Cr IV	682.82	200	
V IV	682.923	40	
Ni III	682.947	5	
S III	683.07	50	6
Co III	683.140	3	
Cl V	683.17	400	
Ni III	683.186	10	
Zn III	683.268	0	
Ar IV	683.28	400	3
Be IV	683.42 P		
Ni III	683.455	10	
S III	683.47	100	6
Ni III	683.590	10	
Kr III	683.683	350	
Ni III	683.918	10	
Ca III	684.018	100	
Mn IV	684.183	50	
Se VII?	684.2	100	
Fe III	684.28	70	
Cr IV	684.35	50	
V IV	684.368	500	
Ca VII?	684.383	100	
V IV	684.450	100	
Cl IV	684.49	10	
Se III	684.56	100	
Ca III	684.659	25	
Mn IV	684.707	50	
Ca VII?	684.743	250	
Ar	684.81	100	
Cl II	684.83	10	
Fe III	684.858	70	
N III	684.996	700	3
Cu II	685.1406	8	
S III	685.35	50	6
Cu II	685.3968	2	
Ca III	685.408	250	
N III	685.513	750	3
Cu IV	685.810	21	
N III	685.816	800	3
Kr II	685.820	240	
V III	685.96	5	
S V	686.15	100	
Ca	686.190	100	
Kr III	686.254	450	
N III	686.335	700	3
C II	686.416	120 -A	12.08
C II	686.488	80 -A	12.08
Ar II	686.4883 st	180	
Se VII?	686.5	100	
Fe III	686.63	70	
Cu III	686.903	15	
S V	686.93	100	
K V	686.978	50	
C II	687.0526 ST	800	5
Cr IV	687.13	200	6
C II	687.3453 ST	1000	5
C II	687.3521 ST	110	5
K V	687.495	300	
Cl II	687.55	100	
Se VII?	687.6	200	
Br III	687.68	900	
Ca VII?	687.985	100	
Kr III	687.985	450	
Cu III	687.987	100	9
S V	688.04	50	
K V	688.085	150	
Si IV	688.194	1	14
Si IV	688.200 P		14
Ca VII?	688.223	50	
Ar IV	688.39	300	3
Si IV	688.395 P		14
Cr IV	688.47	250	6
Fe III	688.53	20	
Ca III	688.543	25	
Br III	688.80	300	
Cu IV	688.918	22	
Cl V	688.93	400	
Ar IV	689.01	500	3
Ni III	689.210	100	
Ca VI?	689.539	150	
Mg VIII	689.55		
Ca III	689.602	150	
Ca III	689.708	10	
Zn III	689.790	1	
S V	689.84	100	
Se VII?	690.0	100	
Ar III	690.17	400d	2
Cu III	690.250	75	8
Se VII?	690.4	200	
C III	690.526	700	10
Kr II	690.572	200	
Si III	690.689	40	14
Kr	690.86	120	
Se III	690.89	50	
Ca III	690.963	100	
Ar II	691.0373 st	150	
Ca III	691.136	150	
N III	691.187	100	
Mn IV	691.252	50	
N III	691.388	50	
V IV	691.530	100	
Cu III	691.557	100	9
Kr	691.73	300	
S V	691.74	100	
Kr III	691.930	450	
Ca III	692.148	25	
Sc	692.48	100	
Zn III	692.619	0	
Cr IV	692.70 P	60	9
As IV	692.9	250	
Zn III	692.983	0	
V IV	693.128	50	
Mn IV	693.163	40	
Sc	693.20	100	
Ar II	693.3018 st	180	
Fe IV	693.36 P		
Kr	693.48	300	
Ca III	693.487	200	
Cu III	693.510	50	8
S V	693.52	200	
Cl II	693.55	10	
Zn III	693.571	1	
Ca IX	693.824	100	
Cr IV	693.93	500	9
B II	693.947	200	2
Ca III	694.154	10	
Na IX	694.17		
Ca III	694.370	25	

Element	Wavelength	Intensity	Multiplet
F V	694.40		
K V?	694.477	100	
S II	694.71	50	
F II	694.801	10	
Se II	694.83	100	
Ar IV	694.85	100	
Ca III	694.898	100	
Zn III	694.970	0	
Ca III	694.994	100	
Se III	695.02	200	
K V?	695.042	150	
Ca III	695.219	50	
Cr IV	695.22	250	9
Mn IV	695.248	20	
Ca III	695.382	10	
Ar III	695.54	300	2
Kr III	695.610	500	
Sc	695.72	250	
Al III	695.8289	500	2
Kr VIII	695.91	800	
Ca III	696.031	50	
Cl II	696.11	10	
Al III	696.2170	400	2
K	696.608	50	
Br III	696.99	700	
Ca VII?	697.281	100	
Ar II	697.4890 st	150	5
Ca III	697.551	250	
Se II	697.65	300	
Ar III	697.74	100	2
Ca VII?	697.809	100	
Cu III	697.930	20	9
Ar II	697.9418 st	180	
Ca VII?	697.972	100	
Kr III	698.052	300	
Ar IV	698.08	20	
Zn III	698.157	0	
As IV	698.5	350	
Ca III	698.690	10	
S III	698.73	200	5
Ar II	698.7745 st	270	5
Br VI	698.81	600	
Ca III	699.085	250	
Ar IV	699.41	240	
V IV	699.497	30	
Zn III	699.680	1	
Ar III	699.72	50	
Ca III	699.891	250	
Zn III	699.904	0	
Sc	700.08	350	
S III	700.15	300	5
Ni III	700.168	200	
Cu III	700.182	20	
Cu III	700.271	150	8
Ar IV	700.28	320	
S III	700.29	300	5
Ar VIII	700.40	1000	
Se III	700.51	20	
Fe III	700.575	70	
Kr	700.58	80	
Ar	701.11	150	
Ni III	701.361	1	
Ca III	701.390	300	
Br VI	701.46	800	
Cu III	701.692	15	
Ni III	701.778	100	
As II	701.915	0	
V IV	702.035	1	
Cu III	702.112	20	
O III	702.332	800	2
Zn III	702.594	0	
S III	702.78 P		5
S III	702.82 P		5
O III	702.822	800	2
O III	702.899	850	2
Fe III	703.506	70	
Cu III	703.622	15	8
O III	703.850	900	2
Zn III	704.108	1	
Ar II	704.5237 st	270	5
Ca III	704.772	50	
Kr III	704.843	250	
Fe III	704.923	70	
Se VII?	705.3	400	
Ar V	705.35	150	2
Ca III	705.426	150	
S II	705.62	50	
K IV?	705.641	150	
O III	705.762	100	
Mg IX	705.8 P		
Kr VI	705.84	1000	
Fe III	705.892	150	
Zn III	705.979	1	
Ni III	705.991	0	
Cr IV	706.00	250	8
O III	706.224	150	
O III	706.298	100	
Mn IV	706.383	60	
F V	706.43		
As II	706.44	0	
S VI	706.48	600	3
Zn III	706.667	1	
Br III	706.98	400	
O III	707.315	200	
Cl II	707.43	400	
Fe III	707.444	70	
Zn III	707.671	1	
Sc	707.72	150	
Ni III	707.754	0	
S II	707.86	50	
Kr III	708.365	500	
Co III	708.767	15	
K III?	708.838	200	
Kr V?	708.85	600	
Ni III	708.853	5	
Ca VII?	709.001	100	
Ni III	709.027	100	
Cl II	709.16	200	
Se III	709.16	700	
Ar V	709.20	250	2
Mn IV	709.244	90	
Br VI	709.31	400	
Cu II	709.3129	10	12
Se III	709.40	700	
Se II	709.57	700	6
Mn IV	709.586	10	
Mn IV	709.627	40	
Ca III	709.802	10	
Co III	709.912	10	
Ca VII?	709.932	100	

Element	Wavelength	Intensity	Multiplet
Co III	709.996	15	
Se II	710.47	50	
Ge II	710.487	5h	
K VI	710.525	50	
Cl II	710.53	10	
Co III	710.592	0	
Zn III	710.603	2	
Ca VII?	710.671	100	
Kr	710.72	200	
K VI?	710.932	50	
Co III	711.002	0	
Se III	711.04	600	
As IV	711.1	400	
Si II	711.34	0h -A	6.09
Se III	711.38	600	
Ca VII?	711.390	100	
Ni III	711.518	20	
Br II	711.68	300	
Co III	711.741	5	
Ni III	711.772	100	
Si II	711.83	1h -A	6.09
Cu III	711.834	3	
V IV	711.911	20	
Zn III	711.924	0	
Mn IV	711.978	30	
Cu III	712.040	5	
Kr II	712.042	360	
Co III	712.193	0	
Cu III	712.473	15	
F III	712.524	1	
F V	712.64		
Cl II	712.66	300	
S VI	712.68	400	3
K VI?	712.728	50	
S VI	712.84	300	3
Co III	712.890	2	
Cr IV	712.91	150	
Ni III	712.976	100	
K V?	713.041	50	
Cu III	713.262	10	
Ni III	713.332	300	
Ni III	713.385	300	
N V	713.518	85	30
Br II	713.65	50	
Ca VII?	713.793	150	
N V	713.860	120	30
As II	713.888	0	
Zn III	713.904	10	
Ar VIII	713.99	500	
Kr III	714.003	500	
Cl II	714.03	200	
Se VII?	714.1	100	
Ca VII?	714.176	135	
Ge II	714.206	2h	
Ni III	714.254	100	
Ca III	714.628	25	
Kr III	714.77	40	
Co III	714.836	0	
Sc	714.87	300	
C III	714.879	100	11.46
Ni III	714.965	1	
Co III	715.125	0	
As V	715.5	350	
Cu III	715.530	200	7
Cl V	715.55		
Ni III	715.563	100	
Cl II	715.58	300	
Ar V	715.60	200	2
Ar V	715.65	150	2
Mn IV	715.715	0	
As II	715.789	0	
O V	715.955	120b	
K VI	716.012	100	
Zn III	716.052	0	
Co III	716.055	2	
O V	716.137	120	
Cl V	716.19		
K VI	716.276	20	
Ar	716.42	10	
O V	716.553	200	
Ni III	716.608	20	
Se VII?	716.7	100	
Ni III	716.708	20	
Zn III	716.758	1	
Zn III	717.143	0	
Cl II	717.15	200	
Ca III	717.283	50	
Co III	717.490	1	
C V	717.58		31
Ca III	717.836	50	
Mn IV	717.945	150	
Br II	718.05	20	
Ar II	718.0898 st	450	4
Cu II	718.1787	10	11
Ni III	718.287	10	
Ni III	718.480	500b	
O II	718.484	850	4
Br IV	718.50	1000	
O II	718.562	800	4
Ni III	718.674	100	
Mn IV	718.893	0	
Cl II	719.26	100	
As II	719.303	10	
Ge II	719.487	5h	
Cu III	719.506	150	6
As II	719.574	1	
Zn III	719.765	1	
Kr III	719.843	100	
Se III	719.97	600	
Ni III	720.337	15	
Se III	720.38	600	
K V	720.432	300	
As II	720.59	5	
Se III	720.65	700	
Ar	720.94	10	
Se VII?	721.0	300	
Ni III	721.259	200	
K VIII	721.4		
As II	721.409	0	
Ni III	721.418	100	
Ca VII?	721.514	50	
Mg III	721.592	4	
Se II	721.88	20	
F IV	722.028	500	
Kr III	722.04	1000b	
Ni III	722.094	300	12
Zn III	722.182	0	
Fe III	722.419	250	
Ca VII?	722.456	100	
Se IV	722.8	700	

Element	Wavelength	Intensity	Multiplet
V IV	722.912	40	
V IV	723.045	40	
Ar II	723.3605 st	900	4
V IV	723.537	40	
V IV	723.652	40	
Cu III	723.958	20	
V IV	724.068	40	
Cl VI	724.13	150	
Se III	724.27	900	
K VI	724.278	200	
S III	724.29	300	4
K V	724.420	400b	
Ni III	724.471	20	
Cu II	724.4887	15	10
Ca III	724.762	10	
V IV	724.809	5	
Ca V	725.088	50	
Ar V	725.11	100	
Ni III	725.196	250	12
Cl II	725.27	300	
K VI	725.331	20	
Mg III	725.347	7	
Zn III	725.533	0	
Ar II	725.5485 st	540	4
Cl II	725.64	200	
Al III	725.6826	200	
Zn III	725.694	0	
Be II	725.71	100	
K IV?	725.848	50	
S III	725.86	3	4
Ca III	725.956	50	
Br VI	726.16	600	
Cu III	726.295	10	
Zn III	726.394	0	
Se II	726.41	50	5
Se III	726.42	800	
As II	726.51	25	
O VIII	726.6 P		
As II	726.661	0	
Br II	726.71	100	
B V	726.73 P		
Al III	726.9152	300	
Zn III	727.002	0	
Ni II	727.100	2	
Ca VII?	727.185	50	
As II	727.272	1	
As II	727.311	20	
Ni III	727.313	15	
Zn III	727.332	0	
Se III	727.51	100	
Cl VI	727.54	150	
Ca III	727.656	250	
Fe III	727.681	200	8
Br II	727.94	100	
Ca III	728.004	50	
As II	728.042	25	
Zn III	728.252	0	
Mg III	728.337	20	
Fe III	728.52	70	
Zn III	728.646	0	
S III	728.69	300	4
O V	728.733	320	
Fe III	728.810	400	8
Se VII?	728.9	100	
Cu III	728.906	2	
Zn III	728.921	1	
C VI	728.93 P		
Cl II	728.94	300	
Li III	728.98 P		
As II	729.05	0	
Ni III	729.249	100	12
Kr III	729.25	40	
Fe III	729.349	200	8
Cl II	729.39	300	
Ti IV	729.39	10	
Kr II	729.404	480	8
Cl II	729.52	200	
S III	729.53	400	12
O VIII	729.61 P		
Ni III	729.820	500	
K VIII	729.9		
Fe III	729.996	300	8
Br II	730.00	100	
Ni III	730.014	50	
Zn III	730.064	1	
Ni III	730.109	250	11
Se III	730.25	200	
Ca V?	730.257	250	
Kr III	730.267	100	
Cl VI	730.31	200	
Zn III	730.310	1	
Cu III	730.365	150	7
Ca III	730.474	25	
Sc III	730.600	100	2
S III	730.78	300	3
Mn IV	730.873	0	
Cl II	730.92	300	
Ar II	730.9297 st	360	4
Zn III	730.946	0	
Fe III	730.96	150	8
Fe III	731.130	70	8
Zn III	731.197	0	
Ca III	731.215	100	
B II	731.357	100	
Al XIII	731.4 P		
B II	731.442	100	
Fe III	731.443	70	
Ni III	731.481	150	
Se III	731.54	300	
Fe III	731.612	150	8
Sc III	731.655	150	2
Ni III	731.696	400	
Fe III	731.846	150	8
K V	731.858	600	
Fe III	731.90	70	8
Fe III	732.004	200	8
Cu III	732.026	100	5
Ni III	732.158	300	
Ca III	732.244	100	
Kr III	732.257	250	
S III	732.38	500	3
Fe III	732.425	150	8
Zn II	732.605	1	
Mg III	732.625	20	
Cu III	732.688	5	5
Ca III	732.894	250	
F I	732.960	1	
S III	732.98	50	
Ca III	733.096	10	
Fe III	733.13	70	

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Element	Wavelength	Intensity	Multiplet
Kr	733.17	50	
Mn III	733.298	20	
S III	733.34	50	
As II	733.721	0	
Ni III	733.807	20	
Cl VI	733.89	150	
F III	734.047	6	
S III	734.05 P	100	
Mn III	734.066	10	
Ni III	734.100	5	12
Zn III	734.185	0	
Fe III	734.296	250	
V IV	734.344	20	
Mn III	734.407	0	
Mg III	734.441	60	
Mn III	734.519	0	
Se IV	734.6	800	
F I	734.642	1	
F III	734.767	3	
F I	734.795	1	
As V	734.8	400	
Zn III	734.828	1	
Br VI	734.91	600	
As II	735.09	25	
F I	735.154	1	
As II	735.17	5	
Cu III	735.224	100	6
S III	735.25	400	3
Fe III	735.338	70	
F I	735.469	1	
Cu II	735.5203	20	9
Br IV	735.66	1000	
Co III	735.720	0	
Cr III	735.89	200	
Ne I	735.8962 st	1000	2
Cu II	736.0319	25	8
Br VII	736.09	1000	
Ca III	736.239	50	
S III	736.25	200	11
Br III	736.33	800	
Fe III	736.47	20	
Mg III	736.563	30	
Ca III	736.693	200	
As II	736.759	1	
Cl VI	736.76	150	
Ca III	736.823	25	
F I	736.987	2	
K IV	737.144	500	
K VIII	737.2		
As V	737.2	250	
Se III	737.23	700	
Ni II	737.300	5	
Se II	737.30	50	5
Br II	737.37	150	
Ni III	737.419	50h	11
Ar II	737.4537 st	60	3
Fe III	737.708	300	
K	737.761	50	
V IV	737.854	400	
Co III	738.066	2	
K	738.075	50	
Se III	738.18	300	
Ni II	738.201	2	
Ni III	738.258	200	11
S III	738.47	400	11
Ni II	738.548	1	
Fe III	738.742	70	
Ca III	738.845	100	
Kr	738.90	400	
K VI?	739.177	50	
Fe III	739.264	300	
Mg III	739.276	40	
Se III	739.31	300	
Fe III	739.594	150	
Se III	739.64	500	
Al III	739.6707		
Fe III	739.724	250	
O V	739.84	40h	
F III	739.851	20	
O II	739.949	100	
As II	739.990	25	
Ni III	740.235	100	11
Ar II	740.2691 st	450	3
Sc X	740.32		
Ca III	740.330	100	
Ca III	740.553	400	
Ni III	740.620	30	
Br II	740.78	200	
O II	740.838	10	
Al III	740.9514		
Al III	740.9550		
Co III	741.032	1	
O II	741.293	1	
As IV	741.9	400	
Mg III	741.932	20	
Se III	741.94	700	
K IV	741.950	500	
F III	741.955	35	
Ni III	742.391	3	11
Ca III	742.541	200	
As II	742.556	1	
Ca III	742.672	150	
F III	742.699	60	
Zn II	742.720	3	
Kr II	742.825	280	8
Kr VI	742.83	1000	
Zn III	742.964	1	
As II	743.037	25	
As II	743.101	1	
Kr II	743.125	280	7
As II	743.161	1	
Ni III	743.275	2	11
K V?	743.292	100	
Cu III	743.303	20	5
Be II	743.58	300	
Br II	743.7	10	
Ne I	743.7195 st	400	1
Kr III	743.901	200	
Ni III	743.955	100	
Cu III	743.970	30	5
Kr	744.28	150	
Ca III	744.293	50	
Mg III	744.342	40	
Ni III	744.400	5	
Ni II	744.636	2	
Ni III	744.784	100	
F III	744.818	20	
Ni II	744.867	5	
As II	744.869	2	
S IV	744.92	500	3

Element	Wavelength	Intensity	Multiplet
Ar II	744.9247 st	450	3
F V	744.95		
Ni III	745.058	40	
V IV	745.165	20	
Cl IV	745.21	400	
K IV	745.264	500	
Ar II	745.3222 st	360	3
Ne X	745.4 P		
Br III	745.42	400	
Ni II	745.640	1	
Co III	745.762	0	
Kr III	745.765	150	
F I	745.767	2	
N II	745.841	500	12
As II	745.855	0	
Co III	745.939	0	
Se II	746.02	50	5
Ca III	746.060	50	
Ni II	746.241	5	
Fe III	746.247	200	
Ca III	746.248	300	
Ni III	746.319	50h	
K IV	746.350	400	
F I	746.400	1	
Se IV	746.4	1000	
Ni II	746.525	0	
F I	746.627	3	
Kr III	746.700	300	
Kr III	746.83	100	
Cl III	746.86	100	
N II	746.984	650	8
Ni III	747.015	30	
Ni III	747.213	20	
Zn II	747.358	5	
Cl III	747.42	100	
Cl III	747.55	100	
As IV	747.6	450	
K	747.677	150	
Ni III	747.697	3	
K VI?	747.848	100	
Ca III	747.978	250	
Ni III	747.989	300	9
F I	747.999	2	
Co III	748.019	1	
F I	748.134	1	
N V	748.195	120	39
Ar II	748.1982 st	210	3
N V	748.291	150	39
As IV	748.3	400	
F I	748.338	2	
Cr III	748.35	80	
N II	748.369 P		
O I	748.4	-A	
S IV	748.40	500	3
C V	748.43		35
F I	748.580	4	
Kr VI	748.68 ?	150	
F I	748.709	2	
K	748.783	50	
F I	748.946	3	
O I	749.3	-A	
Ca III	749.479	150	
Mg IX	749.55		
V IV	749.641	40	
C V	749.66		36
Ni III	749.677	200	8
B V	749.74 P		
Si IV	749.941	300	13
K IV	749.993	300	
Ni III	750.053	300	
V IV	750.110	150	
S IV	750.23	500	3
K V?	750.230	150	
Kr	750.25	80	
K V?	750.381	50	
F I	750.418	1	
F I	750.610	3	
As II	750.64	25	
Mg III	750.745	12	
As II	750.77	75	
V IV	750.809	40	
F I	750.885	1	
As II	750.937	15	
Ni III	750.983	150	4
Kr III	750.99	80	
Mg III	751.121	40	
Mg III	751.207	40	
Ni III	751.333	150	6
Fe III	751.427	150	
Ni III	751.573	150	9
Fe III	751.648	150	
Se III	751.84	600	
F I	751.861	4	
V IV	751.908	30	
O V	752.019	40b	
Ni III	752.023	200	9
V IV	752.038	30	
Kr II	752.045	400	
Kr II	752.078	200	7
O IV	752.150	5	
Ni II	752.403	0	
Co III	752.485	0	
V IV	752.568	20	
Ni III	752.603	100	4
Ni II	752.626	4	
As II	752.680	50	
Co III	752.759	3	
O III	752.762	200	
Cu II	752.80	0	
F I	752.884	4	
Mg III	753.247	12	
Ni III	753.252	30	
F I	753.303	4	
Ar II	753.3654 st	15	2
Ni III	753.378	10h	
Cl II	753.66	10	
S IV	753.76	500	3
K VI?	753.877	150	
F I	754.148	2	
As II	754.176	0	
K IV	754.194	150	
Ar IV	754.21	160	
As II	754.270	0	
F V	754.359	35	
Fe III	754.478	150	
F V	754.490	60	
Sc	754.49	250	
Cl II	754.55	10	
K IV	754.673	400	
Co III	754.795	2h	

Element	Wavelength	Intensity	Multiplet
Ar II	754.8239 st	210	2
Ar VI	754.93	100	
Ar IV	755.21	120	
Co III	755.253	5	
Si II	755.362	2 -A	6.08
Co III	755.512	0	
Cl VI	755.55		
F I	755.603	2	
Cr III	755.69	10	
O I	755.8	-A	
Co III	755.972	1	
Co III	756.064	1	
Co III	756.338	5	
Cl VI	756.37		
Se VII?	756.5	50	
P IV	756.51	240	
Cl IV	756.56	100	
Cr III	756.59	10	
Ni III	756.687	100	5
O I	756.7	-A	
Mg III	756.808	7	
C V	756.87		30
As II	756.92	50	
F V	757.037	100	
K V?	757.112	200	
F V	757.158	35	
Fe III	757.167	150	
K VI?	757.199	200	
Ni III	757.201	50	9
Fe III	757.279	150	
Ni III	757.397	5	
Sc	757.56	300	
Cl VI	757.68		
Ni III	757.795	300	4
Ni III	758.039	150	
As II	758.047	50	
Co III	758.212	20	7
Ne IV	758.32	15d	
Ca VI?	758.465	50	
B III	758.476	100	
K V?	758.559	50	
B III	758.668	200	
O V	758.678	840	3
Ni III	758.733	250	4
Ni III	758.773	250	4
Se IV	759.0	800	
Ni III	759.098	100	6
As II	759.186	50	
As II	759.366	150	
O V	759.441	800	3
Se III	759.54	200	
Co III	759.592	3	
Co III	759.644	3	
Se VII	759.8	200	
Br III	759.87	300	
Co III	759.970	0	
Ni III	760.024	15	6
C V	760.18		37
Co III	760.211	1	
O V	760.228	760	3
Ar IV	760.44	120	
O V	760.445	880	3
Ni III	760.452	10	
Ni III	760.684	5	6
As II	760.766	125	
As IV	760.8	500	
Co III	760.825	30	7
Mg III	760.981	7	
O V	761.128	800	3
As II	761.148	30	
Kr II	761.175	600	
Co III	761.202	1	
As II	761.239	170	
Ar IV	761.47	200	
Sc	761.50	400	
Ar II	761.5791 st	60	2
O V	762.003	840	3
Co III	762.038	1	
Ar II	762.2000 st	180	2
Co III	762.529	3	
Co III	762.694	0	
Mg III	762.756	12	
Co III	762.775	50	6
As IV	762.8	200	
N VII	762.88 P		
Ni III	762.951	5	
Co III	763.013	0	
C V	763.07		34
Co III	763.131	25	7
Cu II	763.29	0	
N III	763.340	700	2
Si XIII	763.36 P		
Kr II	763.977	480	
Ni III	764.014	100	
As II	764.209	25	
Co III	764.229	0	
Ni III	764.354	50	6
N III	764.357	750	2
Co III	764.363	2	
Co III	764.418	2	
Ca III	764.699	100	
Co III	764.866	10	6
Co III	764.959	20	7
Co III	765.104	3h	
N IV	765.148	850	1
P IV	765.28	10	
K III?	765.314	200	
Co III	765.561	3	
K III	765.644	300	1
Mg III	765.655	20	
Ni III	765.726	50	
Ni III	766.000	5	6
Kr II	766.205	480	5
As II	766.41	0	
Ca VI?	766.522	50	
Co III	766.667	10h	6
Ni III	766.693	100	
As II	766.97	1	
Zn II	767.050	5	
Ar VI	767.06	200	
Cr III	767.30	10	
Ni III	767.400	5	
Cr III	767.61	10	
Co III	767.703	20	6
Ar VI	767.71	100	
Co III	767.770	15	
Cr III	767.83	20	
Ni II	767.898	1	
As II	768.091	150	
Kr III	768.132	50	

Element	Wavelength	Intensity	Multiplet
Cr III	768.21	20	
Co III	768.458	20	6
Cu II	768.48	0	
Cr III	768.51	30	
Sc	768.62	150	
As II	768.697	25	
Sc III	769.019	10	
Co III	769.128	10	6
Ar III	769.15	600	5
Cr III	769.20	40	
O I	769.3528	-A	
K V?	769.402	100	
O I	769.4083	-A	
Co III	769.459	3	
Sc III	769.524	10	
As II	769.60	10	
Ca	769.602	50	
Br III	769.63	500	
Cr III	769.66	30	
Se III	769.74	100	
Sc	769.80	400	
K VI?	770.022	50	
Co III	770.192	1	
Ni III	770.216	400	
O I	770.2600	-A	
K V	770.287	150	
O I	770.2907	-A	
Ca III	770.321	10	
O I	770.3464	-A	
C IV	770.379	25d	11.17
Ne VIII	770.409	1000	
O I	770.6986	-A	
Co III	770.723	2	
As II	770.76	25	
B II	770.8	-A	
Se III	770.89	600	
Ca VI?	770.928	50	
Co III	770.967	0	
Mn III	770.997	0	
Cl II	771.00	10	
Kr II	771.027	600	5
K VI?	771.103	250	
K V?	771.376	150	
K V	771.456	150	
N III	771.544	500	8
As II	771.561	25	
Ni II	771.626	1	
Co III	771.638	10	
Co III	771.868	30	5
N III	771.901	550	8
Ni III	772.040	200	
Kr II	772.112	240	7
N III	772.385	600	8
Ar IV	772.49	10	
Ca III	772.498	100	
Ca	772.641	100	
N III	772.891	450	13
N III	772.975	400	13
Co III	773.125	1	
Ni III	773.464	100	
Kr II	773.688	480	8
Cl VI	773.89		
Ca V?	774.088	250	
Br III	774.18	300	
K	774.192	50	
Ca V?	774.354	150	
Se II	774.43	200	
O V	774.518	720	8
K VIII	774.738	150	
Cl II	774.76	10	
Al VIII	774.8 ?		
Se II	775.09	50	
As II	775.198	50	
Se III	775.31	50	
Be II	775.362	400	
Ni III	775.364	5	
Co III	775.446	2	
Ca IV?	775.526	150	
As II	775.759	0	
N II	775.965	1000	7
Co III	775.992	10	
Ni II	776.000	3	
Ni II	776.078	5	
Fe III	776.097	150	
P IV	776.37	120	
Cu II	776.48	0	
Se IV	776.5	800	
Co III	776.688	20	5
Co III	776.794	5	
Kr	776.81	150	
Ti IV	776.82	200	1
Ni III	776.884	5	
Cl IV	776.91	10	
As II	776.91	75	
F I	776.926	4	
K VI?	776.957	200	
F I	777.010	5	
As II	777.06	15	
Cu III	777.125	200	3
Ni III	777.181	100	
Se III	777.31	800	
Cr III	777.38	30	
Ca VI?	777.508	50	
F I	777.531	4	
Cl II	777.55	300	
B V	777.57 P		
As II	777.57	150	
As II	777.71	15	
N V	777.712	35	30
Cu II	777.7435	0	
Na VII	777.83		
Cr III	777.86	10	
Cr III	777.97	10	
F I	778.059	6	
Zn II	778.112	5	
Cr III	778.12	10	
N V	778.172	40	30
Se VII	778.2	400	
Cr III	778.29	10	
Cr III	778.40	10	
V IV	778.433	0	
K III	778.528	350	1
Cu III	778.603	50	4
Ca VI?	778.718	50	
Ni III	778.806	500	
Ti IV	779.14	400	1
Zn II	779.163	10	
F I	779.192	2	
Cu II	779.2949	8	
F I	779.365	6	

Element	Wavelength	Intensity	Multiplet
Cr III	779.43	10	
Co III	779.436	3	
Br VII	779.58	800	
Ca III	779.608	250	
Co III	779.683	20	5
O IV	779.734	200	8
O IV	779.821	400	8
Ca III	779.902	10	
F I	779.910	5	
O IV	779.912	500	8
F I	779.972	2	
O IV	779.997	200	8
Ca	780.116	50	
F I	780.134	1	
Ne IV	780.25	15d	
Ne VIII	780.324	500	
F I	780.390	15	
As II	780.46	25	
F I	780.519	10	
Ni III	780.572	30	
Sc III	780.597	60	
F I	780.713	5	
Sc III	780.729	80	
Cr III	780.87	50	
Co III	781.130	20	
Co III	781.250	3	
K	781.338	50	
Cr III	781.42	40	
Ni III	781.486	50	
Kr	781.64	150	
F I	781.654	3	
P III	781.73	100	
Ti IV	781.78	400	1
Cr III	781.88	30	
Co III	781.983	15	5
Fe III	782.035	200	
Se II	782.09	20	
Kr II	782.096	600	6
Cr III	782.26	20	
F I	782.378	10	
Cr III	782.45	10	
F I	782.575	2	
P II	782.59	5	
Se II	782.66	50	
P II	782.72	1	
Se IV?	782.8	500	
P II	782.90	1	
Se III	782.96	200	
F I	782.976	5	
P III	782.98	100	
Fe III	783.069	200	
Ar	783.14	250	
Co III	783.179	10	
Ni III	783.419	30	
As II	783.542	15	
Ar	783.65	120	
Se III	783.66	300	
P II	783.71	5	
Kr II	783.724	480	7
P III	783.75	100	
Se II	783.84	100	
As II	784.26	50	
C III	784.393	300	11.45
P II	784.46	1	
K V?	784.713	100	
O V	784.795	80	
P II	784.81	5	
Cu II	784.9125	0	
Ni III	785.020	200d	
Ca III	785.120	150	
Co III	785.207	10	
Sc	785.21	450	
P III	785.39	100	
Co III	785.426	1	
Co III	785.677	1	
Fe III	785.76	70	
As II	785.799	0	
Se V	785.8	500	
Co III	785.883	15	4
Kr III	785.968	600	
Ne IV	786.14	5	
Ni III	786.145	20	
Ca III	786.159	50	
P II	786.18	5	
P III	786.24	100	
Na VII	786.36		
Cl VI	786.44		
K V?	786.464	100	
S V	786.48	800	1
Se II	786.49	400	
P II	786.52	5	
Co III	786.958	8	
Cl II	787.15	100	
As II	787.224	50	
As II	787.37	15	
Co III	787.406	5	
Co III	787.562	8	4
Cl II	787.62	300	
O IV	787.711	850	1
Ni III	788.039	300	
Cr III	788.05	20	
Co III	788.057	8	
Cu III	788.073	400	4
Ni III	788.298	200	
Cu III	788.462	300	3
O V	788.577	40h	
Co III	788.693	2	
Cl II	788.75	400	5
Se III	788.77	600	
Cr III	788.90	30	
S III	788.98	400	10
Cl II	789.01	700	5
Sc	789.21	450	
As II	789.288	15	
Co III	789.447	30	4
Cr III	789.59	10	
Na VIII	789.6 P		
Co III	789.662	2	
Cr III	789.81	10	
Cu III	789.840	200	3
As II	789.841	50	
Ni III	790.000	20	
F I	790.006	7	
O IV	790.109	750	1
Co III	790.197	50	4
O IV	790.199	900	1
Co III	790.268	3	
Ni III	790.450	20	
Cr III	790.65	10	
Co III	790.688	25	

Element	Wavelength	Intensity	Multiplet
Se III	790.80	700	
Ca III	791.051	25	
Se III	791.29	50	
Cu III	791.371	300	4
Co III	791.440	3	
O I	791.5136	80 -A	
F I	791.875	12	
O I	791.9732	200 -A	
Cl II	792.19	200	
O I	792.2330	60 -A	
O I	792.5063	40 -A	
F I	792.536	10	
Fe III	792.559	200	
Se III	792.58	500	
Co III	792.661	5	
As II	792.720	60	
Co III	792.833	5	
O I	792.9381	60 -A	
O I	792.9671	80 -A	
Cu III	793.065	100	2
F I	793.237	1	
Cl II	793.34	300	5
Kr VII	793.44	600	
Cl II	793.47	300	5
Co III	793.600	2	
Kr II	793.617	280	
Sc	793.93	250	
Fe III	794.01	70	
Kr	794.11	150	
Fe III	794.19	150	
F I	794.417	10	
Zn III	794.474	0	
Co III	794.493	1	
C II	794.964	10 -A	13.05
C II	795.134	100 -A	13.05
Cu III	795.258	2	1
Cl II	795.36	200	5
Co III	795.475	5	
Ni II	795.506	10	
Fe III	795.550	150	
F I	795.774	2	
As II	795.94	1	
Cr III	796.03	10	
As II	796.528	0	
O II	796.661	500	11
Kr II	796.668	240	
S III	796.69	400	9
Se IV	796.8	400	
F I	796.982	3	
Fe III	797.055	150	
Ni II	797.074	200	
Ni II	797.088	150	
Ni III	797.092	30	
Fe III	797.16	150	
Co III	797.166	2	
Co III	797.312	2	
Cu II	797.4552	10	
Cu III	797.566	100	1
Mn IV	797.657	40	
Se II	797.69	300	
Cl II	797.81	10	
Se IV?	798.1	600	
Mn IV	798.121	40	
S IV	798.28	300	6
Cr III	798.31	10	
Se VII?	798.5	20	
Ni II	798.518	30	
Ni III	798.572	2	
Br III	798.76	400	
Se II	798.79	20	
S II	798.92	50	
Co III	799.034	0	
Kr II	799.087	360	5
S II	799.14	50	
Ni II	799.145	2	
Mg IV	799.166	10	
Co III	799.237	2	
Co III	799.361	0	
Ca III	799.529	50	
C II	799.660	500 -A	12.06
As II	799.74	25	
Se III	799.76	400	
Co III	799.919	10h	
C II	799.928 P	25 -A	12.06
C II	799.944	350 -A	12.06
Sc	799.97	250	
S II	800.04	50	
Si III	800.066	100	13
Se IV	800.1	500	
Ca III	800.301	250	
Ni III	800.332	100	
Zn III	800.422	3	
Co III	800.445	2	
S IV	800.47	400	6
Se II	800.54	100	
Ca III	800.550	200	
Ar IV	800.57	200	2
Cl VII	800.70	150	
O VIII	800.8 P		
Be IV	800.88 P		
Ca III	800.886	10	
Cr III	801.04	30	
Ar IV	801.09	400	2
Ni III	801.145	20	
Cu III	801.154	200	4
Mn IV	801.194	0	
Fe III	801.32	70	
P II	801.35	1	
Mn IV	801.355	30	
Ar IV	801.41	400	2
Co III	801.493	30	3
Se II	801.59	300	
Ni III	801.591	100	
Ar IV	801.91	200	2
K V?	802.122	100	
O IV	802.200	200	
P II	802.20	1	
O IV	802.255	150	
Ni II	802.292	100	
Co III	802.434	1h	
As II	802.83	170	
Cu III	802.841	150	1
Co III	802.943	3	
Se III	803.01	600	
Ni II	803.064	15	
Mg IV	803.07	2	
Si II	803.234	3h	6.07
Ca III	803.396	200	
Mn III	803.447	0	
Ni III	803.490	20	

Element	Wavelength	Intensity	Multiplet
Ca III	803.553	10	
Ni III	803.612	3	
Se IV	803.8	800	
K V?	803.826	100	
Co III	803.942	5	
S IV	803.99	400	6
Mn IV	804.052	10	
Zn III	804.077	5	
Se V	804.3	500	
Co III	804.495	1h	
Ar	804.59	60	
Ni III	805.007	200	
Si II	805.101	10h	6.07
Ni II	805.168	150	
Ni III	805.263	20	
Co III	805.345	20	3
Zn III	805.351	0	
Co III	805.379	3	
Kr II	805.507	240	7
As II	805.576	110	
Mn III?	805.578	2	
Kr IV	805.76	140	
As II	806.016	0	
Zn III	806.108	5	
Ni II	806.188	30	
C II	806.384	500	8
C II	806.533	200	8
Cu II	806.5472	3	
C II	806.568	500	8
C II	806.676	250	8
C II	806.686	150	8
C II	806.830	300	8
C II	806.860	300	8
Ar I	806.88	80	
Co III	806.962	3h	
F I	806.970	150	2
Se III	807.04	500	
Ni III	807.055	100	
Co III	807.156	1	
Ni III	807.213	30	
Ar I	807.22	80	
Ni II	807.391	0	
Fe III	807.547	600	19
As II	807.58	60	
Kr III	807.583	100	
As II	807.68	5	
Ar I	807.70	80	
Fe III	807.855	550	19
Co III	807.910	15	3
Co III	808.033	3	
Fe III	808.079	300	7
P II	808.25	50	
Cu III	808.583	20	1
Zn III	808.606	3	
Co III	808.612	5	13
B II	808.7		
Se V	808.7	700	
Ni III	808.711	10	
Fe III	808.840	550	19
Ni II	808.933	5	
Co III	809.221	15	
Br III	809.52	300	
F I	809.607	125	2
Co III	809.609	10	
Ca III	809.642	100	
Fe III	809.675	200	
C II	809.677	400 -A	12.05
S IV	809.69	400	2
C II	809.693 P	30 -A	12.05
Co III	809.706	15	3
As II	809.720	1	
C II	809.747 P	30 -A	12.05
C II	809.764	300 -A	12.05
Ni II	809.772	0	
Co III	809.844	2	
Ar I	809.93	80	
Ca III	809.930	250	
Mg IV	809.99	5	
P II	810.00	30	
Cu III	810.124	0	
Kr	810.20	600	
K V?	810.215	50	
P II	810.24	100	
Ni II	810.292	20	
Ca III	810.434	150	
Co III	810.502	15	12
Cu II	810.635	1	
O I	810.6650	-A	
Ca III	810.687	200	
Co III	810.716	10	
K V?	810.893	50	
Fe III	810.940	450	7
Cu II	810.9984	15	5
O I	811.0512	-A	
P II	811.10	20	
Fe III	811.246	250	
Mg IV	811.26	20	
Fe III	811.284	550	7
Cu II	811.29	1	
O I	811.4968	-A	
Ni III	811.568	500	
O I	811.7064	-A	
P II	811.85	30	
Co III	811.951	10	
O I	812.0936	-A	
O I	812.1594	-A	
Ni II	812.388	100	
K	812.493	50	
Mn IV	812.499	40	
Co III	812.869	10	13
Fe III	812.931	300	
Cl VII	813.00	100	
P II	813.10	40	
Fe III	813.288	250	7
Fe III	813.382	650	6
Br V	813.40	600	
Ni III	813.426	10	
Zn III	813.485	3	
P II	813.768	5	
Fe III	813.862	300	
Cu II	813.8834	20	6
Se III	814.04	600	
Ni II	814.050	5	
Co III	814.066	1	
Zn III	814.120	1	
Fe III	814.148	70	
Fe III	814.242	400	7
Fe III	814.565	300	
Co III	814.649	2h	
Cr III	814.71	10	

Element	Wavelength	Intensity	Multiplet
Se V	814.8	600	
As II	814.83	10	
Se II	814.86	20	
Mg IV	814.88	8	
Cr III	814.90	10	
Si IV	815.049	500	4
Fe III	815.363	200	
Cr III	815.40	10	
Br II	815.48	250	
Fe III	815.52	70	
Co III	815.555	25	12
Ni II	815.570	5	
Fe III	815.612	200	
F IV	815.629	10	
Ni III	815.718	5h	
S IV	815.97	500	2
Cr III	815.99	10	
Ni II	816.024	8	
Ni II	816.150	30	
Ni II	816.156	150	
Fe III	816.163	400	6
Ar I	816.23	160	
Fe III	816.273	400	6
Cu III	816.313	0	
Ar I	816.47	160	
Cr III	816.57	10	
As II	816.607	80	
Co III	816.617	10	
Zn III	816.670	1	
As II	816.755	100	
Ca VI?	816.805	100	
Kr IV	816.82	360	
Co III	816.864	1	
Cr IV	816.92	10	
Se II	816.99	300	
Fe III	817.038	450	6
Ca III	817.056	250	
Fe III	817.166	200	
Ca III	817.223	50	
Cr III	817.25	10	
Fe III	817.348	200	
Ca III	817.480	100	
Se VII	817.5	200	
Ni III	817.544	5	
Se III	817.60	400	
Br III	817.79	500	
Ni III	817.833	20	
Cr III	817.87	10	
Ni II	817.884	1	
Co III	817.937	1	
C III	817.950 P		11.14
Si IV	818.129	550	4
Kr II	818.149	480	6
C III	818.181 P		11.14
Ca III	818.321	200	
Fe III	818.383	200	
Ni III	818.389	1	
Mn IV	818.468	0	
As II	818.571	100	
Si II	818.590	2h	6.06
Fe III	818.598	250	6
Co III	818.600	20	11
Se VII?	818.6	200	
Zn III	818.682	0	
Fe III	818.981	70	
Cu IV	818.988	12	
Se VII	819.0	100	
Fe III	819.066	250	
Ni II	819.090	5	
Ni III	819.237	10	
Si II	819.49	0h -A	8.08
Ni III	819.665	5	
Fe III	819.742	70	
Fe III	819.898	200	
Co III	820.066	3	
Ar I	820.13	10	
Ca III	820.131	150	
Fe III	820.271	200	
Fe III	820.409	200	
Cu IV	820.437	13	
Si II	820.516	20h	6.06
Si II	820.63	3h -A	8.08
As II	820.651	10	
Zn III	820.661	0	
Se II	820.68	300	
Cl VII	820.7		
Se V	820.7	700	
Zn III	820.735	0	
Ni III	820.851	50	
V V	820.866	15	
As II	820.868	20	
Cr III	820.88	10	
Fe III	820.915	200	
Si II	820.9210 st	3h	6.05
Ar	820.98	50	
Zn III	821.070	2	
Kr II	821.154	360	4
Mg III	821.369	4	
Ni III	821.373	15	
Si II	821.450	2h -A	8.07
Ca III	821.572	300	
Ni II	821.612	1	
Ni II	821.634	20	
F IV	821.694	1	
Fe III	821.723	200	
Cr III	821.74	20	
Si III	822.004 P		29
Ar V	822.161	200	1
Fe III	822.314	200	
Ca III	822.432	150	
Zn III	822.498	0	
Cu II	822.500	1	
Kr	822.53	100	
Br II	822.67	50	
Si II	822.8613 st	5h	6.05
Ge II	822.968	0	
K V?	823.047	150	
P IV	823.18	800	3
Fe III	823.257	400	5
N IV	823.273	100	3.01
Ni II	823.277	3	
K V?	823.358	150	
Si III	823.408	180	12
Cu IV	823.416	11	
As II	823.417	30	
Cu II	823.768	2	43
Mg III	823.788	7	
Cu II	823.8378	2	
Se III	823.91	600	
Cr III	823.93	10	

Element	Wavelength	Intensity	Multiplet
As II	823.998	80	
As II	824.055	50	
Ni III	824.292	20	
Cu II	824.635	2	
P II	824.66	30	
Zn III	824.711	0	
P IV	824.73	800	3
As II	824.763	80	
Fe III	824.800	200	5
Ni II	824.856	2	
S III	824.88	400	14
Ni III	825.300	10h	
Zn	825.330	10	
Ar I	825.346	40	
As II	825.349	30	
Co III	825.403	15	11
K V?	825.559	50	
Ca III	825.880	200	
Zn III	825.955	2	
As II	826.100	60	
Ca III	826.108	200	
Ni III	826.138	500	
Ar I	826.364	80	
K V?	826.395	50	
N VII	826.4 P		
Si II	826.42	1h -A	8.06
Kr II	826.434	400	3
Ni III	826.501	200	
F VII	826.54		
As II	826.733	80	
Zn III	826.909	0	
Cu II	826.9961	30	4
Ar V	827.052	250	1
Ar V	827.35	150	1
Cl II	827.75	100	
Fe III	827.777	400	5
P IV	827.93	1000	3
Ni III	828.109	100	
Ni II	828.152	10	
Ca IX	828.451	100	
Se III?	828.47	600	
Se II	828.48	800	13
Ni III	828.491	3	
As II	828.594	125	
Co III	828.608	1	
Ge II	828.67	1	
Ni II	828.786	1	
Ca III	828.920	150	
Co III	829.072	10	
Cu III	829.343	5	
As II	829.360	50	
Fe III	829.375	250	5
Ca III	829.445	50	
V V	829.483	20	
Ga II	829.60	100	3
Mn III	829.635	2	
Zn III	829.866	0	
Ge II	829.91	3	
Se V	830.3	600	
Kr II	830.375	480	4
Fe III	830.500	70	
O IV	830.506	10	
Ni III	830.666	10	
Ni II	830.677	2	
Ca III	830.777	50	
K V?	830.785	50	
Zn III	830.901	0	
O IV	831.070	15	
Ca III	831.077	200	
Ni III	831.229	100	
Zn III	831.380	0	
Cl IV	831.43	400	
Fe III	831.464	300	5
Ni II	831.475	2	
Ni III	831.487	5	
F II	832.035	10	
Co III	832.050	5	
Ni III	832.284	5	
Fe III	832.328	300	18
Zn III	832.426	0	
Se II	832.74	900	13
O II	832.762	700	1
Zn III	832.868	0	
O III	832.927	700	1
Se III?	833.14	500	
Ca III	833.141	150	
O II	833.332	750	1
Fe III	833.532	150	
Zn II	833.600	1b	
Zn III	833.600	1b	
O III	833.742	800	1
Ni III	834.058	20	
Ni II	834.059	100	
Fe III	834.067	250	5
Zn II	834.11	6	
Ar I	834.392	240	
O II	834.462	750	1
Cl IV	834.66	300	
Cl II	834.67	1000	4
Cl IV	834.84	500	
Ar V	834.88	200	1
Fe III	834.944	400	43
Cu IV	834.957	40	
Cl IV	834.97	500	
Ar I	835.00	240	
Ge II	835.083	2	
O III	835.096	700	1
O III	835.292	800	1
As II	835.349	150	
Fe III	835.627	150	
Mn IV	835.657	0	
Sc	835.70	300	
Ni II	835.739	0	
Ar V	835.79	50	1
Ca III	835.861	50	
Fe III	835.917	150	
Mn III	835.971	40	
Ni II	835.983	75	
Ca III	836.024	100	
Cu II	836.0278	0	
Se III?	836.06	500	
Ar V	836.13	100	1
N II	836.187 P		
N II	836.279 P		
N II	836.289 P		
S III	836.31	400	13
S IV	836.34	400	
Fe III	836.521	450	18
N II	836.616 P		
N II	836.627 P		

Element	Wavelength	Intensity	Multiplet
Fe III	836.628	200	33
Ca III	836.769	200	
N II	836.837 P		
Br II	836.90	150	
Ni II	836.954	1	
Mn III	836.994	20	
Ni III	837.025	20	
Zn III	837.054	0	
Ni III	837.266	50	
Co III	837.330	1	
Fe III	837.439	450	17
S IV	837.48	400	
Ge II	837.60	0h	
Zn III	837.613	0	
Ni II	837.624	50	
Kr III	837.662	500	
Sc	837.76	300d	
Fe III	837.803	200	
Mn III	837.854	0	
Ca III	837.918	50	
Ge II	837.947	20h	
Fe III	838.048	550	17
Mn III	838.049	0	
Co III	838.133	25	10
Ni II	838.224	10	
Ca III	838.237	200	
Zn III	838.313	0	
Se II	838.43	50	
Fe III	838.498	150	
Ca III	838.501	25	
Ni II	838.524	1	
Zn III	838.658	0	
Sc	838.70	300d	
Ni II	838.834	50	
Fe III	838.869	150	18
Ge II	838.91	2h	
Fe III	838.936	300	17
Fe III	838.997	250	
Fe III	839.092	150	33
Fe III	839.195	150	17
Co III	839.284	30	19
Cl II	839.30	200	4
Fe III	839.319	300	17
K V?	839.439	50	
Cu II	839.47	1	
Ni III	839.478	5	
Se V	839.5	400	
Mn IV	839.514	0	
Cl II	839.63	200	4
Fe III	839.981	200	
Ar IV	840.03	600	1
P II	840.04	1	
Fe III	840.141	250	18
As II	840.233	80	
Ca III	840.317	25	
Mg IV	840.37	4	
Fe III	840.381	300	25
Se VII?	840.4	50	
Fe III	840.518	250	33
Ca III	840.558	300	
Fe III	840.629	200	
Fe III	840.741	150	33
Cl IV	840.81	400	
Ni II	840.878	5	
Cl IV	840.93	600	
Ni II	841.056	10	
Fe III	841.088	300	25
Cu II	841.1346	2	47
Ni II	841.205	0	
P II	841.21	20	
Ni III	841.256	20	
Cl II	841.41	400	4
Mn IV	841.536	0	
As II	841.625	10	
Zn III	841.664	0	
Fe III	841.688	150	
Ni III	841.825	2	
Fe III	842.020	400	32
Be II	842.025	500	2
Be II	842.031	250	2
Kr IV	842.04	440	
Mg IV	842.09	6	
Fe III	842.09	300	
Ni III	842.142	500	3
Cu II	842.4964	3	
Ni III	842.546	50	
Fe III	842.686	300	
Ar I	842.81	80	
Ca V?	842.950	150	
Se III	843.01	900	
As II	843.215	10	
K	843.317	50	
Cr III	843.37	10	
Ge II	843.7165 st	5h	
Si II	843.7192 st	20h	6.04
C VI	843.72 P		
Ar IV	843.77	800	1
S II	843.82	200	
P IV	843.98	40	
Se II	844.00	400	
P II	844.01	20	
Kr II	844.064	480	3
Co III	844.097	20	18
Se VI	844.2	500	
Fe III	844.284	650	4
Co III	844.310	8	19
Co III	844.411	1	
Br II	844.47	20	
Cu II	844.6128	3	48
P III	844.64	100	5
Ni VI?	844.69	200	
Ni II	844.748	2	
Ni III	844.787	50	
Fe III	844.838	250	
Ni III	844.859	100	
Co III	844.866	10	10
Cu II	844.9122	5	
Fe III	844.954	150	32
P III	845.05	100	5
Sc	845.07	700	
Zn III	845.238	0	
Ni III	845.242	400	3
Fe III	845.408	600	4
P III	845.66	100	5
Ar	845.68	150	
Fe III	845.686	70	
Si II	845.7684 st	40h	6.04
As II	845.789	80	
Se V	845.8	900	
Cr III	845.90	10	

Element	Wavelength	Intensity	Multiplet
Fe III	845.925	450	16
P IV	845.99	80	
Fe III	846.035	200	
Fe III	846.089	150	
P III	846.12	100b	5
P IV	846.12	80b	
Mn III	846.475	0	
P III	846.49	10b	5
P IV	846.49	40b	
Fe III	846.534	400	4
Ca	846.611	150	
Mn III	846.667	0	
Cu IV	846.723	12	
Sc	846.90	600	
P IV	847.00	200	
Br II	847.35	50	
Al XII	847.4 P		
Fe III	847.425	550	
Ni III	847.433	300	3
Zn III	847.525	0	
Fe III	847.578	450	4
P III	847.66	300b	5
P IV	847.66	240b	
Mn III	847.691	0	
Fe III	847.700	400	32
Ca III	847.757	50	
Ge IV	847.80	60	
As II	847.809	25	
Zn III	847.879	0	
Fe III	847.924	400	4
F III	847.962	10	
Fe III	847.984	300	
P III	848.02	200d	5
Si II	848.0700 st	5	6.03
Fe III	848.07	70	32
Co III	848.088	30	18
P III	848.44	100	5
Cu IV	848.546	12	
Fe III	848.601	250	4
P III	848.64	300d	
As II	848.692	80	
Fe III	848.729	250	
Cu II	848.8075	15	48
F III	848.915	3	
Fe III	848.977	200	4
Zn III	849.117	0	
V III	849.15	15	
Mn III	849.175	0	
Co III	849.210	0	
S V	849.24	600	2
As II	849.294	60	
V III	849.32	0	
Cu II	849.3594	3	47
Zn III	849.386	0	
Ni II	849.398	5	
Co III	849.485	5	
Br II	849.52	100	
Fe III	849.524	300	32
Fe III	849.569	250	
Se II	849.60	400	
P IV	849.76	160	
Ni III	849.810	5	
As III	849.9	450	
Co III	850.067	3	
Si II	850.1409 st	10	6.03
Kr II	850.319	400	2
P IV	850.39	120	
Co III	850.424	3	
V III	850.49	0	
Ge II	850.495	15h	
Ar IV	850.60	1000	1
F III	850.707	3	
O I	850.74 P	-A	
Cu II	850.7480	2	
Br V	850.79	800	
Ca	850.966	150	
P IV	851.09	10	
Fe III	851.150	450	31
Cu II	851.3027	25	47
Fe III	851.332	450	16
V III	851.36	0	
Ni III	851.521	15	
Zn III	851.539	0	
Ni VI?	851.66	200	
F III	851.700	6	
Cl II	851.70	700	
As IV	851.7	500	
Cu II	851.7714	2	47
Ni III	851.788	15	
Fe III	851.842	400	31
Fe III	851.992	400	31
Kr VII	852.00	100	
Se III	852.10	300	
S V	852.18	500	2
Zn III	852.306	0	
Fe III	852.644	150	16
P III	852.68	500	
Mn III	852.691	0	
Zn III	852.707	0	
S IV	852.76	300	
Ni III	852.867	10h	
Cu II	852.9061	3	48
Fe III	853.045	70	16
S IV	853.10	300	
Zn III	853.220	0	
P III	853.35	10	
Ni III	853.398	5	
Fe III	853.456	70	31
Cu II	853.5644	1	
Fe III	854.073	300	3
Fe III	854.205	70	2
P III	854.22	100	
Fe III	854.367	400	16
Se VII?	854.4	600	
Mg IV	854.409	20	
K V?	854.416	100	
Se II	854.46	50	
Fe III	854.532	150	
As II	854.727	150	
Kr III	854.73	500	
K V?	854.771	50	
S V	854.80	700	2
P III	854.86	100	
Ca VI?	854.923	150	
Al III	855.0340	400	
Ni II	855.282	5	
Fe III	855.336	70	
Fe III	855.441	200	
Cu II	855.4762	5	48
P III	855.62	500	4

Element	Wavelength	Intensity	Multiplet
Ca III	855.660	100	
Cu II	855.7002	10	48
Ni III	855.719	2	
Br V	855.79	100	
Se II	855.81	100	
K IV?	855.815	100	
Fe III	855.879	150	
Ni III	855.922	100d	
Fe III	855.935	150	
Ca III	855.978	25	
Fe III	856.039	150	
Fe III	856.244	70	
Br II	856.29	350	
Fe III	856.325	300	
Fe III	856.480	70	
Ge II	856.4880 st	10h	
Ni III	856.506	50	2
Ca	856.635	200	
Ni III	856.684	50	
Al III	856.7457	500	
Ca	856.791	200	
P III	856.96	200	
As II	857.032	25	
Ni III	857.087	200	1
Mg IV	857.292	150	
Fe III	857.392	300	2
Ni III	857.550	50h	
Fe III	857.690	300	
N I	857.77	2	
S V	857.87	500	2
C II	858.0918 ST	500	4
P III	858.14	100	
Zn III	858.152	0	
Ni III	858.198	20	
As II	858.280	125	
N II	858.376 P	100	
Mg XII	858.4 P		
Cu II	858.4869	25	47
C II	858.5590 ST	900	4
Fe III	858.565	250	3
Cu II	858.5667	25	
Fe III	858.602	400	2
Co III	858.663	1	
N I	858.80	2	
Ni III	858.861	20h	
Co III	858.975	15	17
Kr II	859.037	400	4
Fe III	859.086	200	
Cu II	859.1509	0	
V III	859.24	15	
Mg IV	859.26	2	
N I	859.35	3	
Ni III	859.387	20	
P III	859.41	10	
As II	859.472	60	
V III	859.57	5	
Fe III	859.626	400	2
P III	859.68	800	4
As II	859.682	125	
Fe III	859.721	550	2
N I	859.76	2	
Zn III	859.760	0	
Fe III	859.838	400	11
Ni III	859.854	50	
Zn III	859.895	0	
V III	860.06	0	
Zn III	860.062	0	
N I	860.15	4	
N II	860.205 P		
Ni III	860.238	150	
Zn III	860.286	0	
Fe III	860.315	300	2
P IV	860.45	80	
S V	860.46	500	2
V III	860.55	0	
Si IV	860.551	20	12
Si IV	860.560 P		12
Fe III	860.565	150	
Se VII?	860.6	300	
Ni III	860.642	300	2
Cu II	860.7217	1	43
Zn III	860.808	0	
Ca VI?	860.827	100	
N I	860.85	4	
Fe III	860.889	150	
Ni III	860.905	10	
Ca	860.983	50	
Fe III	861.087	150	
Si IV	861.118	5	12
N I	861.15	1	
Fe III	861.284	250	11
As II	861.467	2	
P IV	861.55	40	
P II	861.61	10	
O I	861.63 P	-A	
Zn III	861.667	0	
Ge II	861.68	10f	
Fe III	861.761	550	2
V III	861.81	40b	
Fe III	861.832	650	2
Cu II	861.9936	40	42
V III	862.02	15	
Fe III	862.028	300	2
Cu IV	862.12	14	
N I	862.14	5	
Fe III	862.191	150	3
Ge II	862.2339 st	50h	9
Fe III	862.326	150	
Fe III	862.468	200	
Kr III	862.582	600	
Fe III	862.735	300	2
Cu II	862.8226	2	
Ni III	862.882	300	2
N I	862.91	5	
V III	862.92	25	
Fe III	863.004	70	
N I	863.15	3	
Ni III	863.217	300	2
V III	863.22	10	
Fe III	863.232	250	
Fe III	863.302	250	
P IV	863.32	120	
Mg IV	863.70	1	
Fe III	863.730	70	11
Zn III	863.850	1	
V III	863.99	25	
Fe III	864.034	400	3
Ca III	864.035	150	
B II	864.08	10	
Cu II	864.1546	10	

Element	Wavelength	Intensity	Multiplet
Cu II	864.2138	10	
V III	864.27	100	
Fe III	864.375	150	
Fe III	864.425	250	3
Ca III	864.470	50	
V III	864.47	40	
Se II	864.59	20	
Cl II	864.67	500	3
V III	864.68	50	
Kr II	864.821	480	4
Mn IV	864.850	100	
N I	864.92	5	
P IV	865.04	120	
Fe III	865.267	70	
Mn III	865.276	0	
Cl IV	865.3		
Cu II	865.3902	40	
P II	865.44	100	
P V	865.44	1000	
Co III	865.567	0	
N I	865.62	5	
Ca III	865.629	100	
Mg IV	865.724	8	
S II	865.87	50	
Fe III	865.896	250	3
Co III	865.898	0	17
Se II	865.90	50	
B V	865.93 P		
N I	865.93	3	
Mg III	865.935	4	
Cr III	866.19	10	
S II	866.23	100	
As III	866.3	300	
Cu II	866.4427	5	
Mn III	866.471	0	
Mg IV	866.741	30	
Ar I	866.80	200	
P IV	866.84	20	
Fe III	866.905	70	3
Sc	867.01	200	
Ni III	867.023	50	1
S II	867.15	100	
Ni III	867.194	100	1
Cu IV	867.440	18	
S II	867.50	100	
Ni III	867.508	300	1
Ca III	867.545	200	
Fe III	867.639	300	11
Cu II	867.7336	8	
Se II	867.83	300	
K V?	867.921	50	
As II	868.027	10	
K V?	868.140	50	
Ge IV	868.30	60	
Sc	868.32	600	
Fe III	868.450	250	
K V?	868.552	50	
Cu IV	868.649	13	
N I	868.78	5	
Fe III	868.836	300	
Kr II	868.871	480	2
Cu II	869.0641	10	
Sc	869.13	200	
Cu II	869.3360	25	43
N I	869.66	5	
Ni III	869.702	200	2
Ar I	869.75	100	
Ni III	869.926	10	
K V?	869.965	150	
N I	870.00	3	
Co III	870.007	15	16
Fe III	870.041	200	
Ca III	870.152	25	
Mn III	870.169	20	
Fe III	870.235	150	
Fe III	870.274	150	
N I	870.40	3	
Cu II	870.5389	8	42
Mn III	870.596	10	
Fe III	870.621	300	
As II	870.747	150	
Kr III	870.842	400	
Ni III	870.845	200	2
Zn III	870.890	3	
N I	871.01	1	
Se II	871.02	200	
Cu II	871.0676	8	
Ar III	871.10	500	1
As III	871.1	500	
P V	871.40	1000d	
As II	871.410	10	
Fe III	871.552	150	
As III	871.7	750	
Mg III	871.720	40	
As II	871.823	125	
Se II	871.83	400	
N III	871.850	10	
Mn III	871.851	0	
Fe III	871.968	250	
Fe III	872.027	250	
Cl II	872.20	10	3
Mn III	872.261	20	
Se II	872.27	50	
Ge II	872.3075 st	10	
K III	872.313	200	
Zn III	872.633	0	
P II	872.84	5	
Fe III	873.080	200	
Fe III	873.130	150	
Zn III	873.207	0	
Cu II	873.2629	15	43
Fe III	873.462	550	38
Mg III	873.580	20	
K III?	873.865	100	
Fe III	873.988	70	
Ca III	874.009	25	
K III?	874.045	150	
Fe III	874.129	150	
Sc	874.18	300d	
Co III	874.294	10	16
Zn III	874.542	0	
Fe III	874.560	70	
K V?	874.883	50	
As II	874.893	150	
K V?	874.985	50	
Ge II	874.99	10f	
Cr III	875.05	20	
Fe III	875.090	150	
N I	875.092	5	
P IV	875.13	440	

Element	Wavelength	Intensity	Multiplet
N I	875.20	5	
Ca III	875.301	25	
Fe III	875.423	300	
Ge II	875.4927 st	100h	9
Ar III	875.53	450	1
Ge II	875.5766 st	10	9
Mn III	875.627	0	
Ni III	875.641	150	
N I	875.79	5	
Fe III	876.021	300	
Ar I	876.06	200	4
N I	876.07	4	
Mg III	876.312	7	
Fe III	876.483	200	
Fe III	876.564	200	
Co III	876.594	5	
N I	876.64	2	
Kr III	876.676	500	
Fe III	876.679	200	
Cu II	876.7227	20	
Cr III	876.79	10	
Ni II	876.829	0	
Zn II	876.84	4	
N I	876.99	2	
Cu II	877.0121	25	
P IV	877.49	440	
Mg IV	877.495	5	
Cu II	877.5548	20	42
Mn III	877.561	30	
As III	877.7	350	
Mn III	877.777	0	
O I	877.7983	80 -A	
Cr III	877.81	100	
Cu II	877.8471	15	
Ni III	877.852 P		
O I	877.8787	200 -A	
Ni III	878.078	30	
Co III	878.080	0	
Cr III	878.20	100	
O I	878.2007 P	-A	
Fe III	878.287	250	
Cr III	878.39	100	
Co III	878.543	10	9
Cu II	878.6986	50	42
Ar III	878.73	600	1
Mg III	878.847	7	
Co III	878.963	5	
O I	878.9720	60 -A	
O I	879.0194	40 -A	
O I	879.1001	80 -A	
Se III	879.15	700	
Si III	879.233	10	28
P IV	879.31	80	
Zn III	879.380	0	
Mn III	879.466	10	
Ni III	879.471	50	
Fe III	879.505	250	
O I	879.5507	60 -A	
As II	879.563	125	
F III	879.59	6	
Ar III	879.62	400	1
Mn III	879.642	0	
Mn III	879.693	180	
V III	879.76	0	
Cu II	879.8912	2	
Ar I	879.95	120	
As II	879.989	80	
Fe III	880.008	300	
Ni III	880.028	20	
V III	880.08	50	
Mg III	880.107	7	
Cu II	880.3230	5	43
Fe III	880.447	400	24
Mn III	880.648	0	
Fe III	880.949	400	24
Co III	880.950	10	9
Zn II	881.060	15	
Fe III	881.088	450	30
K V?	881.405	150	
Fe III	881.477	200	
Mn III	881.553	0	
As II	881.557	125	
Zn III	881.565	0	
Cu IV	881.589	11	
Ni II	881.608	2	
As II	881.805	20	
Co III	882.025	0	
Se III?	882.13	500	
F III	882.136	3	
Fe III	882.147	250	24
K VI?	882.184	100	
Mn III	882.227	0	
Fe III	882.295	70	
B II	882.543	300	
Se II	882.61	600	
Ni III	882.642	20	
B II	882.681	300	
O I	882.8895 P	-A	
Cr III	883.00	50	
Kr	883.00	60	
Fe III	883.090	200	
F VII	883.110	10	
Cl V	883.13	400	
Co III	883.154	5	
Ar VII	883.17 ?		
Ar III	883.18	450	1
Cu II	883.2800	5	
Co III	883.345	1	
Si III	883.398	100	27
S V	883.59	200	
Fe III	883.688	400	30
Co III	883.703	2	
Se II	883.77	50	
Cu II	883.8390	5	
Ni III	883.849	50	
As II	883.921	125	
Co III	883.960	0	
Cu II	884.1332	10	44
Kr II	884.141	600	3
V IV	884.146	30	
Cr III	884.18	20	
Co III	884.192	2	
Fe III	884.263	250	
Mn III	884.301	0	
Mn III	884.341	200	
V III	884.42	0	
Cu II	884.4346	8	75
S V	884.46	200	
C III	884.516	800	11.28
Fe III	884.600	300	30

Element	Wavelength	Intensity	Multiplet
Mg II	884.6967 P		
Mn III	884.697	0	
Mg II	884.7189 P		
Cu II	884.8262	5	
Mn III	884.978	0	
Co III	885.011	0	
Ni III	885.103	3	
N I	885.387	5	
Ni III	885.455	2	
Br II	885.48	100	
N I	885.682	15	
S V	885.77	100	
Cu II	885.8472	25	42
Ge II	885.9663 st	20	
N I	885.973	6	
Fe III	886.138	70	
Mg III	886.158	7	
N I	886.226	9	
Kr II	886.300	800	2
N I	886.332	8	
Co III	886.378	5	
N I	886.428	8	
Cu II	886.5111	10	42
Se VI	886.8	500	
N I	886.829	6	
Cr III	886.84	10	
Ni III	886.924	10	
As II	886.941	40	
Cu II	886.9434	60	41
N I	887.016	4	
Fe III	887.372	200	
Ar III	887.40	500	1
Se III?	887.45	300	
N I	887.457	11	
Se II	887.48	500	
Cr III	887.57	10	
Mn III	887.681	0	
Co III	887.777	0	
Co III	887.988	0	
N I	888.022	10	
Se II	888.06	200	
Cl II	888.07	400	2
Cr III	888.25	10	
N I	888.372	8	
Cr III	888.54	10	
As II	888.584	80	
Zn II	888.620	6	
Fe III	888.777	150	15
Ni II	888.818	5	
As III	889.0	600	
Br II	889.23	1000	
Cr III	889.33	80	
Mn III	889.608	20	
Br II	889.7	20	
Si II	889.7228 st	100	6.02
Mg III	889.888	20	
Fe III	890.008	150	15
Ni III	890.131	5	
Cu II	890.5669	60	41
Se II	890.59	600	
Se III	890.68	300	
Fe III	890.755	600	15
F VII	890.786	5	
Ca	890.892	100	
Kr II	891.006	720	2
Mg IV	891.01	1	
Fe III	891.172	650	15
Fe III	891.442	550	15
Si III	891.479 P		26
As II	891.587	125	
Co III	891.902	5	
Si II	892.0007 st	200	6.02
Al III	892.0242	400	
Ni III	892.041	3	
Cr III	892.09	10	
Mg IV	892.22	1	
Mn III	892.393	20	1
Cu II	892.4144	50	41
Fe III	892.417	400	
K IV?	892.621	100	
Ca IV?	892.671	150	
As IV	892.7	500	
Zn II	892.914	10	
Co III	893.045	15	15
Co III	893.095	8	15
Ar	893.50	50	
Ni III	893.533	50	
Cl II	893.56	300	2
Cu II	893.6777	80	40
Co III	893.713	8	
Mn III	893.786	10	1
Al III	893.8874	50	
Al III	893.8969	450	
Ni II	894.004	2	
Fe III	894.008	250	
V III	894.13	0	
Cu II	894.2274	40	41
Ar I	894.31	200	3
Cl V	894.34	400	
Mn III	894.586	350	
V III	894.59	0	
Mn III	894.644	8	1
Mg III	894.744	7	
Cr III	894.86	10	
Cl V	894.91	100	
Se II	894.99	50	
Ni II	895.093	1	
Ne VII	895.18 P		
Cr III	895.19	10	
Si IV	895.228 P		17
Mg III	895.324	12	
Ni II	895.458	15	
Si IV	895.558 P		17
V III	895.88	5	
Cl II	895.95	300	2
Fe III	896.072	70	
Ni II	896.168	5	
Fe III	896.380	70	
Fe II	896.504	20	31
Mg III	896.640	4	
Br II	896.64	500	
Cu II	896.7588	60	40
Mn III	896.781	40	
Cr III	896.82	50	
Mn III	896.975	120	
Cu II	896.9762	40	40
Fe III	897.580	70	
Co III	897.686	1	
Mn III	897.714	100	
Fe III	897.747	150	

Element	Wavelength	Intensity	Multiplet
Cu II	897.7932	15	74
Kr III	897.806	750	
Ca	897.972	50	
Mn III	898.103	0	
Mg III	898.207	12	
Kr	898.39	200	
Ni II	898.716	2	
As II	898.768	125	
Fe II	898.776	10	31
Fe III	898.805	70	
Ni II	898.821	5	
O III	898.957	400	17
Co III	899.025	1	
Fe III	899.052	70	
V III	899.18	5	
Si II	899.4063 st	10	6.01
Fe III	899.417	550	37
Ge II	899.649	5	
Cu II	899.7888	50	41
Cu II	899.7922	50	41
Ni III	900.008	100	
Mn III	900.286	120	
Ar IV	900.36	200	
Fe II	900.360	100	31
Fe III	900.432	150	
Ni II	900.510	0	
Mn III	900.594	80	
Ge II	900.618	10	
Se III	900.79	100	
As III	900.9	300	
S V	900.93	200	
Fe III	900.940	200	
Ni II	901.007	10	
Fe III	901.034	300	14
Cu II	901.0731	60	40
Ar IV	901.17	400	
Si II	901.7359 st	20	6.01
Ni II	901.737	2	
Ar IV	901.80	80	
Ni II	901.999	50	
F III	902.239	3	
Mn III	902.316	80	
F III	902.425	3	
Mn III	902.502	150	
Ni II	902.687	1	
Mg IV	902.80	1	
S V	902.80	100	
Mn III	902.832	60	
Fe III	902.869	200	
Mg III	902.923	7	
Ni II	902.996	75	
Sc	903.19	500	
Zn	903.194	15	
As II	903.521	150	
Cu II	903.5290	1	41
C II	903.6235 ST	600	3
F IV	903.64	35	
Co III	903.730	5	
Mn III	903.901	80	
F III	903.96	3	
C II	903.9616 ST	800	3
C II	904.1416 ST	1000	3
Ni II	904.205	2	
Ni III	904.294	50	
Fe III	904.320	200	
C II	904.4801 ST	600	3
F III	904.657	3	
Ar	904.89	80	
Ge II	904.90	2f	
Ni II	904.986	1	
F III	905.048	6	
F IV	905.14		
N I	905.223	6	
F IV	905.224	60	
As II	905.240	100	
Sc	905.28	200	
Fe III	905.338	450	14
Cr III	905.35	50	
N I	905.40	2	
Ni II	905.634	100	
Cr III	905.66	100	
Ni II	905.696	3	
Si II	905.71	0 -A	8.05
N I	905.787	11	
N I	905.839	12	
N I	905.916	11	
S V	905.92	200	
Cr III	905.92	10	
Fe III	905.964	70	
Ge II	905.9771 st	200h	8
Br II	906.00	500	
Cu II	906.1134	40	40
Ni II	906.123	15	
Si II	906.126	0 -A	8.05
N I	906.206	11	
Ni II	906.237	2	
Cr III	906.29	10	
N I	906.433	13	
F III	906.577	3	
Si II	906.586	1 -A	8.05
Cr III	906.59	80	
Cl II	906.60	10	
N I	906.617	12	
Se II	906.63	800	4
N I	906.730	12	
S II	906.87	300	2
P II?	906.89	5	
Cr III	906.90	150	
Ni II	906.906	1	
Sc	906.95	700	
P II	906.987	10	
Si II	907.033	0 -A	8.05
Fe III	907.041	70	
N I	907.07	4	
N I	907.28	4	
N I	907.337	7	
Mg II	907.3752 P		
Mg II	907.4115 P		
P II	907.56	40	
P IV	907.59	80	
Ni II	907.630	50	
Ni II	907.692	10	
Si II	907.762	0 -A	8.05
Se II	907.81	200	
Fe III	907.891	250	
P IV	908.05	160	
Fe III	908.131	300	
Sc	908.18	700	
Sc	908.23	700	
N I	908.2332	3	

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Element	Wavelength	Intensity	Multiplet
Ni II	908.258	40	
P II	908.38	1	
Si II	908.461	1 -A	8.05
Co III	908.491	5	
Ge II	908.50	10h	
Ni II	908.584	20	
Mn III	908.607	10	
Sc	908.73	900	
N I	908.7958	1	
Fe III	908.800	70	
Mn III	908.826	0	
F IV	908.837	100	
Fe III	908.885	150	
F IV	908.958	150	
Ge II	909.050	5	
Fe III	909.178	250	
Si II	909.209	3 -A	8.05
Fe III	909.279	150	
Mg IV	909.37	10	
Ge II	909.432	3	
Mn III	909.628	0	
Ni II	909.683	10	
N I	909.6976 ST	9	
Mg III	909.730	7	
P III	909.85	100	
Cl II	910.25	10	
N I	910.2785 ST	6	
F III	910.334	6	
Co III	910.415	0	
S II	910.49	300	2
Cu II	910.5185	15	40
Fe III	910.639	200	
F III	910.645	6	
N I	910.6456 ST	5	
Fe III	910.693	250	
Co III	910.721	0	
Br II	910.73	200	
Cr III	910.75	50	
P II	910.88	5	
Fe III	910.961	400	
F III	911.164	20	
Cr III	911.17	50	
Ni II	911.187	15	
Fe III	911.205	70	
Ge II	911.258	15h	
Fe III	911.265	150	
Kr II	911.394	600	2
Sc	911.50	200	
Cu II	911.6301	1	
Cu II	911.6793	1	
Br II	911.72	250	
S III	911.77	20	
Cu II	912.0248	0	
F III	912.090	6	
Sc	912.15	200	
Fe III	912.197	150	
Cr III	912.26	10	
Cl II	912.34	10	
Si II	912.375	5 -A	8.04
Cu II	912.4162	3	
Si II	912.459	5 -A	8.04
Cr III	912.57	100	
Fe III	912.683	300	
S II	912.74	300	2
Fe III	912.794	200	
Co III	912.817	2	
Cr III	912.83	10	
Se II	912.89	900	12
Si II	913.012	10 -A	8.04
Fe III	913.132	70	
Cr III	913.18	10	
Ni II	913.187	2	
Co III	913.239	2	
Si II	913.264	3 -A	8.04
Ni II	913.279	3	
F III	913.303	3	
Fe III	913.324	70	
Cu II	913.5018	0	
P II	913.59	10	
Ni II	913.678	75	
As II	913.727	125	
Cr III	913.75	30	
Si II	913.853	20 -A	8.04
Ni II	913.909	15	
Fe III	913.919	150	
P III	913.99	500	3
Cr III	914.08	80	
Mn III	914.199	0	
Cu II	914.2133	80	38
Ni II	914.343	50	
Ge II	914.444	2	
Si II	914.476	2 -A	8.04
Cl V	914.5		
H I	914.576 P	2	17
Cr III	914.67	10	
Ni II	914.743	40	
As II	914.746	80	
F III	914.836	3	
Cl II	914.90	100	
H I	914.919 P	2	16
Ge IV	915.00	160	
Cr III	915.02	20	
Mn III	915.206	0	
Br II	915.26	200	
C VI	915.30 P		
H I	915.329 P	2	15
Fe III	915.455	200	
Ni II	915.471	1	
N II	915.612	700	2
H I	915.824 P	3	14
Sc	915.85	200	
Ni II	915.877	75	
Ni II	915.920	30	
N II	915.962	700	2
N II	916.012	800	2
N II	916.020	600	2
Cr III	916.21	20	
Mn III	916.428	4	
H I	916.429 P	3	13
Ni II	916.449	1	
Mn III	916.649	90	
N II	916.701	1000	2
N II	916.710	800	2
Ca	916.917	100	
Ni II	917.017	10	
P III	917.13	400	3
As II	917.131	100	
Mn III	917.175	2	
H I	917.181 P	4	12
Mn III	917.275	4	

Element	Wavelength	Intensity	Multiplet
Ca	917.278	115	
Cu II	917.3058	20	38
Mn III	917.334	1	
Cr III	917.40	10	
Kr II	917.427	1000	1
K V?	917.498	50	
As II	917.513	150	
Fe III	917.684	150	
Cr III	917.75	20	
Mn III	917.797	8	
Fe III	917.932	250	
Se II	917.94	200	
Ni II	917.962	15	
Ni II	918.022	3	
As II	918.115	150	
Fe II	918.118	20	
H I	918.129 P	5	11
Cr III	918.18	10	
Mn III	918.201	0	
Co III	918.233	1	
Kr	918.34	400	
Mn III	918.43	1	
Cr III	918.50	10	
K VI?	918.581	100	
Cu IV	918.652	11	
Mn III	918.678	3	
As II	918.706	10	
P III	918.71	500	3
Mn III	918.771	0	
Fe III	918.800	70	
S II	918.82	300	
Se II	918.84	400	
Mn III	918.849	3	
Ni II	918.994	150	
Mg IV	919.03	50	
Mn III	919.078	0	
Fe II	919.095	10	
Kr III	919.146	150	
As II	919.152	150	
Cr III	919.19	30	
S II	919.24	100	
Mn III	919.288	0	
H I	919.351 P	7	10
Ge II	919.57	15f	
Ar II	919.7810 st	1000	1
F IX	920.3 P		
Co III	920.371	2	
Ni II	920.451	10	
Ge II	920.5537 st	400h	8
Ge II	920.7195 st		
Cr III	920.73	30	4
H I	920.963 P	9	9
Se II	921.12	500	
Br II	921.16	250	
O IV	921.296	120	
Ni II	921.299	1	
O IV	921.366	150	
Ni II	921.730	75	
P III	921.86	500	3
N IV	921.992	850	3
O I	922.0081 P	-A	8
Cu II	922.0190	60	37
O I	922.0727 P		
Cr III	922.19	50	4
Ni II	922.331	15	
Cu II	922.4161	20	73
Cr III	922.47	100	4
N IV	922.519	800	3
Br II	922.56	300	
O VIII	922.6 P		
Se II	922.90	50	
N IV	923.057	700	3
Co III	923.075	10	14
H I	923.150 P	10	8
Fe III	923.215	70	
N IV	923.220	1000	3
O IV	923.367	200	
O IV	923.433	120	
Cr III	923.55	200	4
N IV	923.675	800	3
Kr I	923.713		
Cr III	923.81	100	4
Fe II	923.884	200	28
Zn II	923.969	0	
Cr III	924.07	200	4
Cu II	924.2386	50	38
N IV	924.283	850	3
Cr III	924.32	200	4
Ni II	924.710	1	
F III	924.716	6	
Ni II	924.783	10	
Ni II	924.912	20	
Fe II	924.970	100	30
As IV	925.0	50	
Cr III	925.03	200	4
Co III	925.045	8	14
Cu II	925.0992	30	38
Ni II	925.100	2	
Cu II	925.1098	30	
Cu II	925.1263	30	38
Be II	925.20	100	
Co III	925.230	0	
Cr III	925.35	150	4
Cr III	925.49	150	27
Ni II	925.578	1	
D I	925.974 P		7
Mn III	925.974	50	
Zn	926.083	10	
Mn III	926.183	80	
Fe II	926.220	400	25
H I	926.226 P	20	7
Se II	926.38	100	
Ge II	926.4736 st	20	
Cr III	926.52	150	27
Co III	926.591	0	
Fe II	926.618	60	30
Zn	926.892	10	
Fe II	926.900	160	24
Ge II	926.93	2	
Cl II	926.96	10	
Cr III	927.16	200	27
Fe II	927.176	40	28
Co III	927.224	5	
Kr	927.37	120	
Sc	927.54	400	
As III	927.6	600	
Fe II	927.632	60	30
P II	927.771	10	
Ni II	927.820	5	
F IV	927.837	10	

Element	Wavelength	Intensity	Multiplet
Fe III	928.004	250	
Fe II	928.107	200	26
Si II	928.297	5 -A	8.03
Fe II	928.470	140b	29
Fe III	928.474	300b	
P II	928.550	10	
Mn III	928.672	150	
Kr I	928.711		
Mn III	928.886	250	
As II	928.941	100	
Ni II	928.953	3	
Fe III	929.163	300	
Si II	929.206	1 -A	8.03
K VI?	929.374	50	
O I	929.5168 P		
Fe II	929.538	200	25
Ni II	929.586	1	
Fe II	929.612	200	28
P II	929.642	10	
Ni II	929.681	3	
Cu II	929.7020	2	
Mg IV	929.784	30	
Si II	929.810	20 -A	8.03
Ni II	929.831	5	
Cu II	929.8930	5	37
Co III	929.970	5	
Fe II	930.030	200	27
Fe II	930.165	200	29
Fe II	930.219	200	24
Si II	930.242	0 -A	8.03
O I	930.2566 P		
K VI?	930.318	50	
D I	930.495 P		6
Fe II	930.558	200	26
Sc	930.67	500	
Ni II	930.707	3	
H I	930.748 P	30	6
Cr III	930.78	10	
As IV	930.8	400	
O I	930.8862 P		
Cl III	930.94	100	
Fe III	931.086	250	
Fe III	931.124	70	
Fe II	931.142	160	29
Ni II	931.191	1	
Si II	931.200	5 -A	8.03
Ge II	931.32	3	
Kr	931.47	250	
O I	931.4820 P		
Ni II	931.501	2	
O I	931.6282 P		
Si II	931.667	5 -A	8.03
Fe II	931.709	60	27
Ar II	932.0537 st	1000	1
O I	932.2249 P		
Fe II	932.244	200	26
Sc	932.40	300	
Sc	932.58	300d	
Fe II	932.687	200	27
Co III	932.733	3	
Cu II	932.9387	60	33
Ni II	933.339	2	
S VI	933.38	400	1
Al II	933.43	0	
Mn III	933.555	20	
Ni II	933.866	1	
Al II	933.95	0	
Mn III	934.594	10	
Fe III	934.703	450	10
Ca III	934.875	50	
Cr III	934.91	10	
Mn III	934.950	20	
Co III	935.003	3	
Cu II	935.0577	60	38
Ni II	935.085	2	
Cu II	935.0855	60	
O I	935.1930 P	-A	
Ni II	935.200	1	
Cu II	935.2325	40	33
Al II	935.29	1	
Cu II	935.3434	20	37
Mn III	935.36	1	
Mn III	935.563	0	
Fe II	935.783	10	22
Cu II	935.8977	60	35
Si III	936.056	25	44
Si III	936.058	2	44
Si III	936.060	1	44
Si III	936.077	18	44
Si III	936.079	2	44
Si III	936.100	12	44
Ni II	936.188	1	
Cl III	936.28	100	
Mg IV	936.30	2	
Fe II	936.484	60	23
O I	936.6295 P		
Co III	936.639	30	2
Ge IV	936.70	160	
Sc	936.77	600	
Cr III	937.06	40h	
As III	937.2	600	
Sc	937.30	700d	
Co III	937.310	20	2
S II	937.41	300	6
D I	937.548 P	40	5
S II	937.69	300	6
H I	937.803 P	40	5
Cu II	937.8175	5	35
O I	937.8405 P		
O I	938.0200 P		
Co III	938.077	10	2
Se III	938.16	600	
K VIII	938.287	100	
Ca III	938.497	25	
F III	938.538	1	
Br II	938.6	500	
O I	938.6249 P		
Co III	938.647	5	2
Ca	938.699	50	
Zn II	938.719	1	
Ge IV	938.95	80	
Fe II	938.967	70	58
Co III	939.060	30	1
Si III	939.093	140	25
Fe II	939.159	140	22
O I	939.2346 P		
Ni II	939.276	30	
Cl III	939.31	10	
Mn III	939.396	40	
Cu II	939.5232	10	35

Element	Wavelength	Intensity	Multiplet
Mn III	939.543	70	
Br VI	939.57	800	
Mn III	939.618	50	
O I	939.8412 P		
Cr III	939.93	10	
Ge II	940.04	1	
Cr III	940.39	40	
Mn III	940.690	0	
Br II	940.79	150	
K	940.839	50	
Ni II	940.886	20	
Mn III	940.922	0	
Fe II	941.660	80	22
Co III	941.756	0	
Ge II	941.8962 st	50	
As IV	941.9	250	
Ni II	941.972	10	
Ni II	941.996	4	
Fe III	942.363	150	
Co III	942.388	20	1
As II	942.585	100	
Ni II	942.587	5	
Fe II	942.589	40	56
Co III	942.696	1	
Ge V	942.7	100	
Mn III	942.704	50	
Cr VI	942.75		
Ge II	942.845	8	
Cr III	942.86	10	
Mn III	942.903	50	
Mn III	943.052	150	
C III	943.218 P		11.56
Cl III	943.22	100	
Fe II	943.267	80	55
Cu II	943.3348	60	33
Mn III	943.347	6	
Be II	943.481	30	
Be II	943.540	70	
Mn III	943.565	3	
Se II	943.61	200	
Ge II	943.75	1	
Mn III	943.796	2	
Cl VII	943.8		
Fe II	943.910	100	58
Co III	944.084	1	
Kr	944.28	60	
Ni II	944.343	1	
S VI	944.52	500	1
Mn III	944.573	80	
Ni II	944.634	30	
Li II	944.73	5	
Mn III	944.746	30	
Co III	944.768	20	1
Ni II	944.842	10	
Mn III	944.862	0	
Mn III	944.906	1	
Fe II	945.095	160	57
Mn III	945.124	0	
C I	945.191	20 -A	31
Co III	945.198	0	
C I	945.338	50 -A	31
Kr I	945.441	50	10
Cu II	945.5249	60	37
C I	945.579	75 -A	31
Mn III	945.632	200	
Cu II	945.8769	40	33
Cu II	945.9648	50	35
Ni II	945.965	75	
C II	945.977	100 -A	13.04
Mn III	946.050	3	
Fe II	946.051	10b	
Fe III	946.056	400b	10
C II	946.198	200 -A	13.04
As IV	946.4	450	
Co III	946.526	10	
Kr I	946.535	50	9
Co III	946.594	20	1
Ni II	946.657	15	
Mg II	946.7032 P	80	
Ni II	946.769	3	
Mg II	946.7694 P	90	
Mn III	946.802	120	
Cl III	946.97	100	
Br II	947.1	20	
Mn III	947.136	30	
Ni II	947.195	2	
Fe II	947.564	20	
Cu II	947.7003	2	35
Co III	947.838	10	
C IV	948.098	50	11.12
N IV	948.155	100	18.79
C IV	948.214	25	11.12
N IV	948.244	200	18.79
Fe III	948.322	300	
Co III	948.501	5	
N IV	948.540	250	18.79
O I	948.6855	200	
Cl III	948.72	100	
V III	948.84	75	
Kr III	948.843	50	
Fe III	948.918	250	
Br II	948.97	1000	
Ni II	949.024	0	
Zn	949.063	12	
N VII	949.1 P		
Ni II	949.137	1	
Cl VII	949.2		
Mn III	949.235	2	
He II	949.301 P	9	19
He II	949.354 P	17	19
Zn II	949.455	10	
D I	949.485 P	70	4
Mn III	949.741	0	
H I	949.743 P	70	4
Be II	949.75	100	
Se II	950.02	200	
O I	950.1121	120	
Mn III	950.114	20	
Fe III	950.334	650	36
Mg XI	950.6 P		
P IV	950.66	1000	1
Fe III	950.722	200	10
O I	950.7327	40	
O I	950.8846	100	
Kr I	951.056	20	7
N I	951.0791	5	
Mn III	951.140	5	
Se II	951.26	300	
Co III	951.264	0	
N I	951.2947	3	

Element	Wavelength	Intensity	Multiplet
V	951.35	50	
Cu II	951.4079	5	
Mn III	951.630	3	
F I	951.871	500	1
Ni II	952.027	1	
Ni II	952.266	8	
Co III	952.279	2	
N I	952.3037 ST	18	
O I	952.3178	60	
Ni II	952.340	1	
N I	952.4151 ST	14	
Fe II	952.470	60	53
Ge II	952.500	20	
N I	952.5231 ST	10	
Al II	952.65	0	
Ge III	952.79	40	
Co III	952.812	2	
O I	952.9413	20	
N VII	952.99 P		
Ni II	953.033	10	
Mn II	953.04	1	
Al II	953.18	0	
As IV	953.2	400	
Mn III	953.309	0	
Fe III	953.383	200	
Cl III	953.40	200	
Kr I	953.404	50	5
N I	953.4150	25	
As III	953.6	600	
N I	953.6548	27	
V	953.70	25	
Se III	953.74	800	
Se II	953.88	400	
Ni II	953.937	2	
Cr III	953.94	100	
N I	953.9698	30	
Co III	953.977	2	
Cr III	954.07	100	
N I	954.1040	30	
Ca VII?	954.270	150	
Al II	954.35	1	
Cu II	954.3830	20	
Se III	954.44	700	
Fe II	954.496	20	
Se III	954.74	700	
Kr III	954.775	250	
Fe II	954.786	40	
F I	954.825	1000	1
Al II	954.87	0	
Ni II	954.911	1	
Fe III	955.141	150	
V	955.20	5	
N I	955.2647 ST	4	
Cu II	955.3297	5	
N IV	955.335	1000	8
N I	955.4376 ST	4	
Mn II	955.48	0	
N I	955.5292	3	
F I	955.545	750	1
Fe III	955.572	300	46
Ni II	955.601	10	
N I	955.8814	5	
Ge II	955.96	0	
As II	955.976	125	
Al II	955.99	1	
Mn III	956.061	3	
Cu II	956.2903	25	
Mn III	956.316	0	
Fe III	956.355	70	
As IV	956.9	450	
Mn III	956.906	80	
Ni II	956.912	3	
Cu IV	956.939	10	
Cr VI	957.01		
Mn II	957.20	0	
Mn III	957.488	20	
Mn III	957.748	180	
S II	957.88	100	
Cu II	958.1542	40	33
Mn III	958.387	0	
Ge V	958.4	150	
F I	958.524	500	1
He II	958.670 P	13	18
Ga II	958.67	100	
He II	958.724 P	22	18
Mn III	958.794	0	
Mn III	959.021	2	
Fe III	959.070	70	
Fe III	959.329	70	
Mn III	959.468	0	
N I	959.4936	5	
Fe III	959.552	250	
Se IV	959.6	900	
Cu IV	959.725	10	
Mn III	959.866	10	
Ni II	959.931	5	
N I	960.2017 P		
Ni II	960.261	5	
Cu II	960.4135	20	35
Fe III	960.454	70	
Ga II	960.57	20	
Mn III	960.611	10	
P II	961.04	1	
Sc III	961.052	10	
Mn III	961.209	0	
Sc	961.32	600	
As II	961.443	0	
Cl II	961.49	500	
Ni II	961.516	1	
Fe III	961.709	150	
Se II	961.77	200	
Fe III	961.901	450	45
Fe III	962.108	70	
P II	962.13	5	
Ni II	962.526	1	
Ge II	962.537	5	
P II	962.57	5	
F III	962.580	6	
Fe III	962.655	300	44
Mn III	962.71	0	
Ni II	962.750	1	
Ca V?	962.896	100	
Fe III	963.197	150	
F III	963.322	3	
Cr III	963.34	200	
Mn III	963.353	1	
Kr I	963.374	50	8
P II	963.59	1	
As III	963.8	600	
P II	963.81	5	

Element	Wavelength	Intensity	Multiplet
Ni II	963.855	15	
Fe III	963.880	200	
P III	963.99	100b	
P IV	963.99	100b	
N I	963.9904 ST	25	3
P II	964.09	10	
Mn III	964.208	0	
P III	964.25	100	
Sc	964.46	1000	
N I	964.6258 ST	23	3
Cr III	964.80	60	
P II	964.95	10	
Kr II	964.971	1000	1
N I	965.0415 ST	23	3
Ge V	965.4	100	
P II	965.43	20	
Sc III	965.448	20	
Ni II	965.470	20	
Ge II	965.48	3h	
Fe III	965.717	70	
Ca III	966.186	25	
Cu II	966.2287	3	69
Cr III	966.28	80	11
Sc III	966.293	15	
Mn III	966.361	0	
Ca V?	966.466	300	
P II	966.52	10	
Fe III	967.197	400	23
Cr III	967.59	100	11
V III	967.81	0	
Cu II	967.8729	0	
Si III	967.946	180	24
Cu II	968.0343	25	
Cr III	968.06	5	11
Ni III	968.100	20	13
P II	968.17	1	
Ca V?	968.236	150	
S II	968.37	50	
V III	968.41	0	
K VI?	968.518	250	
Ni II	968.784	20	
Fe III	968.955	250	23
Mn III	968.961	0	
Cr III	969.26	200	11
Ga II	969.29	100	
P II	969.38	5	
Fe III	969.423	150	
Mn III	969.478	10	
Ca VI?	969.652	300	
Mn III	969.661	120	
Cr III	969.70	20	
V III	969.77	0	
Cl I	969.917	10	
Fe III	969.954	200	23
Fe III?	970.381	150	
Fe III	970.435	150	
Ni III	970.478	50	13
Sc III	970.638	20	
Ni III	970.790	20	13
Cr III	970.86	10	
Ca VII?	970.887	100	
As IV	971.1	500	
Ge V	971.2	300	
Ni II	971.415	50	
O I	971.7381	300	
Cr III	971.78	10	
Mn III	971.903	60	
Fe III	971.929	200	
He II	972.083 P	18	17
He II	972.138 P	32	17
P II	972.24	5	
Cu II	972.2674	2	
D I	972.272 P	140	3
F I	972.401	20	
H I	972.537 P	130	3
Mn II	972.55	10	
P II	972.807	30	
P III	972.81	300	
Ni II	973.121	1	
Cl IV	973.21	500	
Be II	973.213	150	
O I	973.2342	180	
Be II	973.276	350	
Sc III	973.295	40	
Mn III	973.386	0	
Ca V?	973.437	315	
Cu II	973.4995	2	
Fe III	973.505	250	
Ni III	973.786	300	13
O I	973.8852	60	
F I	973.895	350	
Se III	974.11	600	
P II	974.36	5	
As IV	974.6	450	
Sc	974.65	300	
As II	974.712	190	
Cu II	974.7589	20	
P III	974.78	300	
Sc	974.81	600	
Se III	974.84	900	
Se II	974.94	300	
Cr III	974.96	40	
Sc III	974.965	30	
Sc	975.04	200	
Ca VI?	975.055	150	
Mn II	975.19	8	
Mn III	975.284	0	
Zn	975.438	10	
Mn III	975.665	80	
Ca V?	975.825	200	
Mn III	975.994	30	
Cu IV	976.078	10	
F I	976.217	100	
O I	976.4481	200	
Cl I	976.452	1	
F I	976.505	40	
Cu II	976.5532	10	
Cu II	976.7176	10	
Mn II	976.96	7	
C III	977.020	1000	1
P II	977.258	1	
Ni II	977.276	10	
Zn	977.536	12	
Cl IV	977.56	600	
Cu II	977.5674	25	67
F I	977.745	100	
Fe III	977.790	150	
Cr III	977.82	50	
P III	977.89	400	
Cl IV	977.90	400	

Element	Wavelength	Intensity	Multiplet
O I	977.9594	120	
Ni II	978.108	25	
Mn II	978.11	5	
Cu IV	978.262	10	
Cl I	978.2844	13	
O I	978.6170	40	
Mn II	978.70	0	
B II	978.938	10	
Fe III	979.032	300	
Cu II	979.4209	5	
Ni III	979.589	400	13
Mn III	979.636	40	
Fe III	979.704	150	
N III	979.842	400	12
N III	979.919	450	12
Cl I	979.963	1	
Mn III	979.963	500	
Fe III	980.416	70	
Cl I	980.5061	3	
As IV	980.6	500	
Zn	980.623	10	
Cl I	980.9191	4	
Fe III	981.084	70	
Fe III	981.373	650	13
Mn III	981.462	0	
Ni II	981.768	50	
Cl I	981.879	2	
K VI?	982.115	100	
Zn	982.253	10	
Cl I	982.285	2	
Cu IV	982.318	12	
Mn II	982.90	25	9
Ni II	983.004	3	
Cu IV	983.205	10	
Mn II	983.24	20	9
Mn III	983.369	20	
Mn II	983.40	15	9
Ni II	983.431	1	
Ca VII?	983.432	200	
Fe III	983.510	150	
Ni II	983.592	2	
Cu IV	983.667	15	
Fe III	983.877	650w	13
F III	983.927	1	
Se II	983.94	600	3
Cu II	983.9802	1	32
Be II	983.984	50	
Be II	984.048	150	
Mn III	984.129	450	
Zn II	984.139	10	2
Cl I	984.2864	7	
Cl I	984.3230	8	
Sc	984.49	300	
Cu II	984.5336	10	
Cr III	984.54	10	
Mn III	984.572	0	
B II	984.673	100	
Ge V	984.8	200	
Mn III	984.883	600	
Mn III	984.904	6	
Ca III	984.919	25	
As II	984.919	200	
Br II	984.93	500	
Cl I	984.939	2	
Cl IV	984.95	700	
Cr III	984.95	10	
Mn III	984.982	5	
Mn III	984.988	750	
Cr III	985.12	10	
Sc	985.20	800	
As II	985.345	220	
Cu IV	985.702	10	
Cl IV	985.75	400	
Fe III	985.824	550	13
As II	985.847	220	
Ni II	985.918	10	
Mn III	985.974	2	
K	986.203	50	
Mn III	986.239	0	
Mn III	986.322	60	
Fe III	986.514	250	
Zn II	986.516	8	2
Al II	986.55	0	
Fe III	986.637	300	
Se II	986.71	50	
K	986.763	50	
Zn IV	986.960	2h	
Kr III	987.289	500	
Ca	987.336	250	
Ni II	987.339	4	
Zn	987.445	10	
Cr III	987.58	20	
Cl I	987.599	1	
As II	987.634	125	
Cu II	987.6570	10	
Ca V?	987.680	150	
As V	987.7	500	
Al II	987.80	0	
Ca VII?	987.867	150	
Cl I	987.885	2	
Ge V	987.9	250	
Cl I	987.916	1	
Mn III	987.994	0	
Fe III	988.148	150	
Ni II	988.338	10	
Cl I	988.410	2	
O IV	988.523	25	
O IV	988.571	40	
O I	988.5778		5
O IV	988.628	40	
O I	988.6549	80	5
Zn IV	988.667	5	
O IV	988.713	40	
O I	988.7734	400	5
Ge III	988.94	240	
Cl I	988.9436	5	
Co III	989.169	1	
Cu II	989.2365	8	31
Mn III	989.414	0	
Fe III	989.467	250	
Cl I	989.484	2	
Cl I	989.6543	4	
Al II	989.70	0	
Cl I	989.713	1	
N III	989.790	800	1
Si II	989.8730 st	100	6
Ca VII?	989.973	150	
Mn III	990.066	10	
O I	990.1269	80	5
O I	990.2043	200	5

Element	Wavelength	Intensity	Multiplet
Fe III	990.235	250	22
Zn	990.443	15	
Cl I	990.4591	5	
Ge V	990.5	250	
Ni II	990.626	100	
Cl I	990.629	2	
Fe III	990.800	400	22
O I	990.8010	100	5
Al II	990.88	1	
As II	991.068	0	
F III	991.102	3	
Fe III	991.232	600	22
N III	991.514	600	1
N III	991.579	900	1
Cl I	991.640	2	
Fe III	991.829	400	42
Mn III	991.942	350	
Co III	992.145	5	
Ge V	992.2	200	
Ne II	992.253	30	
He II	992.334 P	27	16
Fe III	992.337	150	22
He II	992.391 P	48	16
Ni II	992.516	20	
Cr III	992.59	50	
Cl I	992.679	1	
Si II	992.6826 st	200	6
Ca VII?	992.740	50	
Mn III	992.868	80	
Cl I	992.9098	8	
Cl I	992.9470	5	
Cu II	992.9532	25	32
Ne VI	993.0 P		
Cl I	993.007	2	
Fe III	993.080	450	29
Ni II	993.128	15	
Mn III	993.212	120	
F III	993.281	6	
F IV	993.29	10	
Ni II	993.341	1	
Si III	993.519	200	6
Mn III	993.789	150	
Ne II	993.884	60	
Cr III	994.08	20	
Cl I	994.1414	3	
Fe III	994.257	200	9
Cr III	994.31	40	
Ca IV?	994.311	300	
Sc	994.36	300	
Mn III	994.470	400	
Fe III	994.724	400	29
Si III	994.787	260	6
Sc	994.86	400	
Ni II	994.867	10	
F III	994.899	6	
Ca V?	994.946	150	
Cl I	994.9965	4	
F IV	995.12	1	
Mn III	995.122	50	
Ca III	995.135	10	
Fe III	995.150	400	21
Fe III	995.223	150	21
Ni II	995.256	30	
Ni II	995.445	4	
Ni II	995.453	3	
Sc	995.52	200	
Ge III	995.76	300	
As II	995.772	190	
Fe II	995.829	60	77
S II	996.00	200	5
Sc	996.01	300	
Cr III	996.09	100	
Ge III	996.46	200	
Cr IV	996.50	10	
Mn III	996.510	80	
Cl I	996.5402	3	
Co III	996.558	8	
Cl I	996.5591	3	
F III	996.616	3	
F IV	996.62		
Se IV	996.7	1000	
Se II	997.06	200	
Fe III	997.081	450	9
Cl I	997.1064	4	
Se II	997.14	100	
Si III	997.389	320	6
Ne VI	997.4 P		
Cl I	997.5099	4	
Cl I	997.5375	4	
Ca IV?	997.579	350	
Fe III	997.599	400	21
P V	997.64	200	
Fe III	997.794	70	21
Ca III	997.804	50	
Ni II	997.974	1	
Mn III	997.995	70	
P III	998.00	800	2
Cl I	998.294	2	
Cu II	998.3060	8	31
Cl I	998.3723	9	
Ca	998.397	150	
Ar VI	998.43	30	
Cl I	998.4319	9	
Zn	998.496	10	
Ga II	998.52	100	
Mn III	998.818	700	
F IV	998.86	15	
Fe II	999.003	20	
Cr III	999.08	150	
Ge II	999.1011 st	500	7
Sc	999.12	200	
F IV	999.14	60	
As IV	999.2	450	
Mn III	999.236	600	
Cl I	999.3638	8	
Cr III	999.37	200	26
Fe III	999.376	300	21
As IV	999.4	100	
Zn	999.413	10	
As II	999.465	190	
Cl I	999.4929	5	
O I	999.4974	40 -A	7
Cr III	999.52	10	26
Ne VI	999.6 P		
F IV	999.79	15	
Cu II	999.7940	5	
Cr III	999.84	200	19
Cu IV	1000.034	14	
K VI?	1000.056	100	
Mn III	1000.091	40	

Element	Wavelength	Intensity	Multiplet
Cl I	1000.113	2	
Ar VI	1000.16	40	
Fe II	1000.183	40	77
Cl I	1000.278	2	
Cr III	1000.28	10	19
Ca V?	1000.310	300	
P V	1000.36	200	
Se III?	1000.36	600	
S II	1000.48	200	5
As II	1000.538	220	
Cu IV	1000.612	14	
Fe II	1000.665	20	
S II	1000.75	65	5
Cu IV	1000.821	15	
Cr III	1000.86	400	19
Zn	1000.885	12	
F IV	1000.89	1	
Mn II	1000.96	25	8
Cu II	1001.0130	8	27
Cr III	1001.04	400	26
Kr I	1001.061	100	6
Zn IV	1001.156	2	
Cr III	1001.28	100	
Ar II	1001.29	1	
Cl I	1001.4491	3	
Cr III	1001.52	20	26
Ca V?	1001.544	150	
Se IV	1001.6	400	
Zn	1001.932	20	
Ar III	1002.10	150	
Ca III	1002.143	25	
As II	1002.261	250	
Mn III	1002.279	100	
F IV	1002.33	5	
Cl I	1002.3464	20	
Ti III	1002.38	5	
Cr IV	1002.39	30	
Ca VII?	1002.398	250	
Mn III	1002.578	0	
Cl I	1002.8952	3	
Ga II	1002.95	150	
Cr III	1002.96	300	26
Cr III	1002.99	200	
Sc	1003.00	700	
Mn II	1003.00	22	17
Cl I	1003.191	2	
Cr III	1003.37	90	
As IV	1003.4	400	
V III	1003.42	25	
F IV	1003.45	10	
Zn	1003.523	12	
Kr I	1003.550	100	4
P III	1003.59	1000	2
Ca VII?	1003.611	100	
Cl I	1003.8093	5	
Mn III	1003.940	30	
V III	1004.02	50	
Cu II	1004.0554	30	30
Ge V	1004.2	300	
F IV	1004.59	5	
Zn	1004.598	12	
Mn III	1004.605	0	
Cl I	1004.6776	8	
Ti III	1004.68	40	
Zn IV	1004.931	2	
V III	1004.96	10	
Ca III	1005.000	10	
Mn II	1005.02	20	8
Fe II	1005.082	20	
Ge V	1005.1	50	
Fe III	1005.106	150	
Mn III	1005.244	10	
Cl III	1005.28	500	1
Si III	1005.349	60	43
Si III	1005.353	5	43
Si III	1005.357	1	43
Si III	1005.374	40	43
Si III	1005.378	5	43
Si III	1005.403	30	43
V III	1005.41	40	
Mn III	1005.501	0	
V III	1005.64	0	
Mn II	1005.70	22	17
Ti III	1005.75	10	
Cl I	1005.956	1	
N III	1006.015	300	17
Ne VI	1006.1 P		
S II	1006.15	270	
P IV	1006.22	40	
Fe III	1006.341	150	
Zn	1006.347	10	
Cl I	1006.3957	3	
Cu IV	1006.427	10	
V III	1006.46	500	
Cl I	1006.495	1	
Mn II	1006.72	7	
S II	1006.95	35	
Cu II	1006.9841	1	30
V III	1007.10	50	
Fe III	1007.113	200	9
Ti III	1007.15	20	
Cu IV	1007.159	10	
Cl I	1007.1647	8	
Cr III	1007.23	100	
Cl I	1007.3626	3	
Mn II	1007.53	15	8
Mn II	1007.61	15	17
F IV	1007.64	10	
Fe II	1007.657	140	76
F IV	1007.74	5	
F IV	1007.88	5	
Ge V	1007.9	25	
Fe II	1007.975	160	75
Ti III	1008.08	10	
Ni II	1008.218	10	
V III	1008.26	40	
Cl I	1008.3859	5	
Mn III	1008.437	10	
Cu II	1008.5688	30	29
Cu II	1008.7284	30	30
Cl III	1008.78	600	1
Mn II	1008.85	12	17
Co III	1008.997	2	
Zn	1009.049	12	
V III	1009.10	100	
Cl I	1009.1857	4	
F IV	1009.34	10	
V III	1009.36	50	
As II	1009.427	220	
Mn II	1009.45	10	17

Element	Wavelength	Intensity	Multiplet
Ca III	1009.546	50	
Mn II	1009.56	6	
Ca V?	1009.638	150	
Zn	1009.648	10	
V III	1009.73	75	
C II	1009.858	400	7
Fe III	1010.005	250	9
C II	1010.083	600	7
Cu II	1010.2690	30	68
C II	1010.371	1000	7
Cu II	1010.4450	10	68
Ne VI	1010.6 P		
Cu II	1010.6395	3	28
As II	1010.647	190	
Cr IV	1010.82	10	
Zn IV	1011.003	0	
Fe II	1011.037	160	74
Se II	1011.15	200	
Ge III	1011.22	300	
Cu II	1011.4358	2	
Mn II	1011.51	5	
Zn IV	1011.605	7	
Se II	1011.84	300	
Cl I	1011.8492	10	
Fe II	1012.088	140	76
Br II	1012.1	500	
Ca III	1012.125	10	
Cl I	1012.1505	6	
Zn IV	1012.192	5	
Ge III	1012.31	200	
Ga II	1012.32	250	
Mn III	1012.324	500	
Fe III	1012.411	200	9
Fe II	1012.417	160	75
S III	1012.49	300	2
As II	1012.546	125	
Cu II	1012.5971	25	27
Ca V?	1012.613	150	
Mn III	1012.662	100	
Ar VI	1012.67	10	
Cu II	1012.6833	3	27
Mn II	1012.71	4	
Mn III	1012.844	1	
F IV	1012.90	5	
Ge III	1013.04	40	
Mn II	1013.35	0	
Cu II	1013.3999	1	
Se II	1013.40	900	2
Cl I	1013.6635	30	
Ca III	1013.715	50	
Se II	1014.01	900	11
Cr III	1014.02	10	
S II	1014.09	50	4
Ca V?	1014.162	200	
Cr III	1014.20	100	
S II	1014.42	200	4
Ge II	1014.66	10f	
Mn III	1014.836	180	
Cu IV	1014.923	17	
Cl III	1015.02	700	1
Cr III	1015.03	30	
Fe II	1015.083	60	76
As II	1015.375	300	
V III	1015.40	5	
P II	1015.47	100	
Sc	1015.50	900	
S III	1015.51	200	2
Cl I	1015.5139	6	
Fe II	1015.520	140	74
Br II	1015.54	1000	
Sc	1015.71	500	
S III	1015.76	100	2
Cr III	1015.77	20	9
Zn	1016.017	10	
Sc	1016.04	500	
Cr III	1016.29	40	9
Cl I	1016.3558	3	
Cr III	1016.41	100	18
Mn III	1016.518	60	
Ni II	1016.622	20	
Ge II	1016.6377 st	500	7
Sc	1016.72	400	
Ge II	1017.0600 st	300	7
Cr III	1017.14	500	9
Fe III	1017.254	600	12
Cr III	1017.31	500	9
K	1017.337	50	
Zn	1017.431	12	
Br II	1017.56	20	
Cr III	1017.57	500	9
Mn III	1017.674	2	
Fe III	1017.745	550	12
Li II	1017.88	5	
Cu II	1017.9980	15	29
Se IV	1018.0	200	
Cu II	1018.0642	15	26
Zn	1018.107	10	
V III	1018.18	50	
Mn III	1018.239	300	
Fe III	1018.286	550	12
Ca III	1018.302	100	
Zn	1018.456	10	
Cu IV	1018.462	16	
Cr III	1018.58	5	9
Ca III	1018.600	100	
Mn III	1018.605	250	
Cu II	1018.7073	50	26
Cr III	1018.90	10	9
Ga II	1019.10	150	7
Cl I	1019.3644	4	
Ca	1019.371	100	
S II	1019.53	200	4
Cr III	1019.60	10	
Cu II	1019.6545	15	26
Fe III	1019.789	400	41
Ca VII?	1019.799	150	
Cl I	1019.9400	9	
V III	1019.97	10	
Fe III	1020.022	150	
Mn III	1020.049	350	
Ca III	1020.071	300	
Cu II	1020.1076	15	28
Cr III	1020.24	30	
Mn III	1020.337	300	
As II	1020.379	200	
K	1020.566	20	
Si II	1020.6988 st	25	5.01
Cr III	1020.94	200	18
Ni II	1021.060	5	
S III	1021.10	100	2

Element	Wavelength	Intensity	Multiplet
Ca V?	1021.139	150	
S III	1021.32	200	2
K V?	1021.332	100	
Ca VI?	1021.508	200	
Fe III	1021.561	250	41
Na XI	1021.6 P		
Cr III	1021.64	150	18
Cu IV	1021.800	11	
Cl VI	1021.94 ?		
As II	1021.965	350	
Ca VII?	1022.010	100	
Cl I	1022.0478	3	
Cu II	1022.1021	5	27
Se II	1022.11	100	
Cl I	1022.4143	15	
Mn III	1022.536	150	
F III	1023.270	3	
Zn	1023.423	10	
Cr III	1023.47	20	
Mn III	1023.502	40	
Mn II	1023.55	20	7
Si II	1023.7002 st	50	5.01
Mn III	1023.797	0	
Ga II	1023.80	250	7
Ca III	1023.849	100	
V III	1023.87	50	
Sc	1023.90	200	
Ni II	1023.961	3	
Ni II	1023.999	15	
Fe III	1024.108	200	41
Zn IV	1024.255	2	
Ca IV?	1024.339	250	
Ge V	1024.5	25	
Mn III	1024.717	80	
Ni II	1024.720	50	
Mn III	1024.950	10	
He II	1025.241 P	42	15
Cl I	1025.2821	7	
He II	1025.302 P	77	15
D I	1025.443 P	320	2
Cl I	1025.5528	22	
P IV	1025.56	160	2
Cr III	1025.58	100	
H I	1025.722 P	300	2
O I	1025.7618	500	4
Cl I	1025.8444	8	
Mg II	1025.9681 P	140	
Mg II	1026.1133 P	120	
Mn III	1026.130	150	
Cr IV	1026.38	100	
Mg IV	1026.411	30	
Zn IV	1026.414	4	
Ca III	1026.495	100	
Fe III	1026.790	400	28
Be II	1026.890	200	
Be II	1026.959	400	
Mn III	1027.063	20	
Ca VII?	1027.110	150	
Zn IV	1027.118	6	
K V?	1027.174	100	
Cl I	1027.1785	10	
Ca IV?	1027.309	250	
Cl I	1027.3386	15	
O I	1027.4307	300	4
Cr III	1027.46	100	3
Mn III	1027.495	0	
Mn III	1027.791	20	
Cu II	1027.8311	50	64
Mn II	1027.99	18	7
P IV	1028.09	40	2
O I	1028.1571	100	4
Cl I	1028.1739	6	
Ni II	1028.208	20	
Mn III	1028.307	0	
Cu II	1028.3279	25	26
Cr III	1028.33	300	3
Ca VII?	1028.366	100	
Cl I	1028.4075	8	
Ca	1028.560	200	
Cl I	1028.6162	15	
N I	1028.68	2	
Mn III	1028.754	650	
Cl I	1029.2023	3	
Cl I	1029.3432	7	
As V	1029.5	500	
N I	1029.51	1	
Fe III	1029.551	150	
Se II	1029.56	600	
Ca IV?	1029.566	150	
Cr III	1029.57	100	3
Mn III	1029.627	300	
Cu II	1029.7508	10	24
Cr III	1029.78	50	
Mn III	1029.843	0	
Kr I	1030.023	100	3
Cr III	1030.10	200	3
Cu II	1030.2633	20	25
Ca IV?	1030.273	200	
Co III	1030.280	0	
Sc	1030.32	800	
Cr III	1030.47	600	2
Sc	1030.50	200	
P IV	1030.51	400	2
Se IV	1030.6	200	
Cr III	1030.74	20	3
N I	1030.76	2	
Fe III	1030.844	150	28
As II	1030.846	200	
S II	1030.87	100	9
Mn II	1030.87	10	7
Cl I	1030.8845	10	
Cr III	1030.89	300	2
Fe III	1030.924	400	28
Mn III	1030.973	30	
Si III	1031.169	140	33
Cr III	1031.23	50	
Ni II	1031.306	1	
S II	1031.34	100	9
Cl I	1031.3486	20	
Mn III	1031.404	700	
Cr III	1031.46	80	
Cl I	1031.5070	15	
Cr III	1031.60	10	2
N I	1031.62	2	
Cl I	1031.6704	6	
Ca	1031.760	200	
Cu II	1031.7662	8	26
O VI	1031.912	850	1
Cr III	1032.05	10	3
Fe III	1032.123	550	20

Element	Wavelength	Intensity	Multiplet
N I	1032.18	1	
Mn III	1032.251	20	
F VI	1032.34 P		
Fe III	1032.342	250	
Cr III	1032.42	50	2
Ge III	1032.60	160	
Ca VI?	1032.612	100	
Mn II	1032.69	2	
Ni II	1032.749	2	
K	1032.768	100	
Si III	1032.851	60	33
Ca III	1032.862	200	
Fe III	1033.079	70	28
P IV	1033.10	320	2
Fe III	1033.225 P	150	20
Cr III	1033.23	500	2
Fe III	1033.298	300	28
Ge V	1033.3	150	
Sc	1033.38	400	
P II	1033.41	100	
N I	1033.42	3	
Ni II	1033.443	10	
Cr III	1033.45	500	2
Cu II	1033.5677	10	63
Se II	1033.60	1000	2
Cr III	1033.69	1000b	1
Ga II	1033.69	400	7
N I	1033.70	0	
K	1033.875	100	
F III	1033.898	1	
Si III	1033.920	160	33
Cr III	1033.99	200	2
Fe III	1034.054	150	
Ni II	1034.155	15	
Cr III	1034.20	150	
Ni II	1034.249	10	
Si III	1034.287	80	33
Ni XV	1034.3	f	
N I	1034.37	2	
Cr III	1034.44	150	
Mn III	1034.480	750	
N I	1034.60	0	
Ca III	1034.650	250	
Fe III	1034.654	150	20
Mn III	1034.698	1	
Cr III	1034.86	200	
Ni XIV	1034.9	f	
Mn III	1034.917	650	
Si II	1034.967	0 -A	13.08
N I	1035.00	1	
Cu II	1035.1628	8	62
Cl I	1035.2148	30	
Cr III	1035.29	250	2
Mn III	1035.392	0	
P IV	1035.50	320	2
Cr III	1035.57	250	2
K V	1035.60 ?		
Ca III	1035.607	50	
Si III	1035.657	60	33
Fe III	1035.768	400	20
Cr III	1035.77	200	2
Mn III	1035.895	700	
Cr III	1035.93	500	1
As II	1036.004	100	
Cr III	1036.03	1000	1
Mn III	1036.081	20	
N IV	1036.16	400w	18.84
Se II	1036.16	300	
Ni II	1036.182	2	
Be II	1036.299	550	1
Be II	1036.319	250	1
C II	1036.3367 ST	800	2
Cu II	1036.4695	60	58
Zn IV	1036.551	3	
Cl I	1036.5734	5	
Fe III	1036.659	150	20
Ca III	1036.766	150	
Zn IV	1036.773	2	
C II	1037.0182 ST	1000	2
Si III	1037.053	140	33
As II	1037.169	160	
Co III	1037.174	0	
Mn III	1037.360	0	
N I	1037.37	4	
Mg IV	1037.409	250	
Fe III	1037.462	70	20
Cl I	1037.5871	27	
O VI	1037.613	750	1
Mn III	1037.695	200	
N I	1037.73	1	
Mn III	1037.746	750	
Cr III	1037.80	200	1
Ar IV	1037.93	40	
Cr III	1038.06	5	
Ge V	1038.3	200	
N I	1038.31	3	
Fe III	1038.355	400	20
Se II	1038.36	300	
Fe II	1038.370	20	
C VI	1038.42 P		
Mn III	1038.752	20	
Cl I	1038.7779	25	
Cr III	1038.80	50	
Ni II	1038.866	5	
N I	1038.90	1	
Cr III	1038.97	30	25
O I	1039.2304	400	3
Cu II	1039.3477	60	24
Cr III	1039.40	20	1
Cu II	1039.5821	60	24
Cu IV	1039.589	57	
Mn III	1039.850	250	
V III	1040.04	0h	
Cr III	1040.05	200	1
Cr III	1040.17	300	1
Mn III	1040.323	80	
Cl I	1040.3475	30	
V III	1040.37	0h	
Cr III	1040.41	250	24
Cr III	1040.53	400	25
Mn II	1040.54	8	
Cr III	1040.70	50	1
Ca III	1040.705	100	
C III	1040.715 P		11.60
Cr III	1040.79	50	
Ge III	1040.80	240	
O I	1040.9425	240	3
Cl I	1041.1480	15	
Mn III	1041.191	180	
Cu IV	1041.202	15	

Element	Wavelength	Intensity	Multiplet
Cr III	1041.34	150	1
O I	1041.6876	80	3
Cl I	1041.7148	4	
Cr III	1042.02	10	1
Cr III	1042.58	20	
Ni II	1042.704	2	
Cl I	1042.7793	8	
Cr III	1042.87	30	
Mn II	1042.98	3	
Zn	1042.980	10	
N I	1043.02	5	
Co III	1043.243	15	
Cr III	1043.39	20	
Mn II	1043.46	3	
N I	1043.58	2	
Cl I	1043.9857	7	
Cu IV	1043.995	64	
N I	1044.06	5	
V III	1044.19	0h	
Ge II	1044.24	20h	
Co III	1044.281	20	
Ni II	1044.349	30	
Mg IV	1044.374	80	
Zn IV	1044.502	1	
Ca III	1044.518	10	
Cu II	1044.5188	80	24
V III	1044.60	0	
Mn III	1044.610	50	
N I	1044.65	4	
Cr III	1044.74	40	
Cu II	1044.7435	80	61
Cu IV	1044.748	30	
Mn III	1044.790	700	
Ni II	1044.871	2	
Cr III	1045.06	400	24
Ni II	1045.073	15	
Cr III	1045.14	400	24
F III	1045.236	3	
F IV	1045.24	5	
Mn III	1045.240	0	
Cu IV	1045.288	22	
Se II	1045.31	400	
O IV	1045.384	15	
Si IV	1045.500 P		21
Ge V	1045.5	350	
V III	1045.64	5h	
Cr III	1045.71	30	
S II	1045.74	65	
Ni II	1045.813	5	
Mn II	1045.89	4	
Mn III	1045.984	30	
N VII	1046.02 P		
Ge II	1046.05	2h	
Mn III	1046.167	700	
O IV	1046.316	25	
Mn III	1046.473	80	
Ni II	1046.537	8	
Co III	1046.760	3	
Zn	1046.867	10	
Ge II	1046.88	5h	
Cu IV	1047.003	40	
Cr III	1047.04	5	
Si IV	1047.271 P		21
Mn II	1047.40	1	
Co III	1047.471	2	
S II	1047.56	35	
Se II	1047.67	100	
S II	1047.86	35	
Al II	1047.92	0	
Mn II	1047.95	4	
Be II	1048.147	200	
N V	1048.20	40w	51
Be II	1048.220	400	
Ar I	1048.22	1000	2
Ni II	1048.400	6	
S II	1048.43	35	
Mn III	1048.586	10	
Al II	1048.59	1	
B II	1048.70	1	
Cu IV	1048.803	16	
V III	1048.83	0	
Co III	1048.879	3	
Sc	1048.89	300	
F III	1048.898	3	
Ni II	1048.936	1	
Ni II	1048.982	3	
Br II	1049.00	1000	
Ni II	1049.051	1	
S II	1049.06	35	
Mn III	1049.105	0	
Ni II	1049.137	8	
Cr IV	1049.14	10	
Cu II	1049.3640	20	24
Se II	1049.51	1000	
N V	1049.65	50w	54
Se II	1049.65	1000	2
Ca III	1049.673	150	
B V	1049.72 P		
Ni II	1049.755	100	
Cu II	1049.7554	50	61
Mn III	1049.816	650	
P III	1049.82	400	
Ge V	1049.9	250	
Al II	1049.9220	6	
F IV	1049.96	1	
Mn III	1050.122	80	
Cu II	1050.1536	10	23
Mn III	1050.354	200	
Cu II	1050.4028	10	23
Cr III	1050.50	70	
P III	1050.52	100	
Se II	1050.57	200	
Ni II	1050.718	3	
Co III	1050.762	20	
Mn II	1050.78	2h	
P III	1050.82	400	
Mn III	1050.889	650	
Co III	1050.977	10	
As II	1051.005	150	
Cl I	1051.3787	9	
Cu IV	1051.588	68	
As V	1051.6	200	
N I	1051.90	2	
Cr III	1051.92	50	
Mn II	1052.04	5	
N I	1052.07	3	
Se II	1052.09	300	
Cu II	1052.1747	20	24
N I	1052.18	3	
Mn III	1052.193	100	

Element	Wavelength	Intensity	Multiplet
Cr III	1052.36	30	
Mn III	1052.431	30	
Cl I	1052.4631	4	
Cu IV	1052.528	43	
Ni II	1052.534	10	
Mn II	1052.60	5	
N I	1052.64	2	
Mn III	1052.718	450	
Cr III	1052.89	20	
Ni II	1052.983	2	
Br II	1053.0	50	
N I	1053.04	3	
S II	1053.21	35	
Co III	1053.257	10	
N I	1053.35	5	
Ni II	1053.729	15	
N I	1053.78	3	
Cr III	1054.10	70	
Cr III	1054.32	100	
Ge V	1054.5	200	
Cr III	1054.66	150	
Cu II	1054.6901	60	60
Ge II	1055.0261 st	100	6
Ni II	1055.246	15	
Fe II	1055.269	500	21
Al II	1055.28	1	
Mn III	1055.289	80	
Ni II	1055.291	30	
Cu IV	1055.408	21	
Cr IV	1055.43	10	
O V	1055.451	200	
Mn III	1055.523	350	
Mg IV	1055.757	60	
V III	1055.79	50	
Cu II	1055.7968	40	22
Mn III	1055.839	0	
Cr IV	1055.89	400	
Cr III	1056.11	100	
Mn III	1056.271	30	
Cu IV	1056.417	12	
As V	1056.6	250	
Cu IV	1056.662	14	
Al II	1056.68	0	
V III	1056.76	5	
Br II	1056.77	250	
Mn II	1056.80	4	
Si II	1056.899	2 -A	13.07
Cu II	1056.9546	60	59
Cr III	1056.97	30	
Si II	1057.050	30 -A	13.07
Cr III	1057.30	5	8
Se II	1057.41	900	10
Si II	1057.503	15 -A	13.07
Si II	1057.690	2 -A	13.07
Cr IV	1057.85	300	
F IV	1058.10	10	
O V	1058.149	120	
Mn III	1058.270	120	
V III	1058.48	50	
F IV	1058.50	10	
Cr III	1058.63	3	8
Cu II	1058.7988	40	23
Ge III	1058.89	240	
O V	1058.998	80	
Cu II	1059.0960	60	58
Cr III	1059.13	600	
Mn II	1059.53	1	
Fe II	1059.571	400	21
F IV	1059.63	35	
F IV	1059.73	1	
O V	1059.930	80	
Mn II	1059.98	1	
Cr III	1060.15	600	8
Fe III	1060.258	250	
O V	1060.380	80	
Li III	1060.41 P		
Mn III	1060.565	0	
Cu II	1060.6343	60	23
Cr III	1060.68	30	
Fe III	1060.723	250	
Ca III	1060.751	50	
Mn III	1060.760	300	
Cr III	1061.04	600	8
Fe III	1061.127	250	
Fe III	1061.245	300	40
Mn III	1061.383	90	
Cu IV	1061.581	61	
Mn II	1061.64	1	
Fe III	1061.708	400	40
O IV	1061.780	25	
Mn III	1061.825	150	
Fe III	1061.827	250	40
O IV	1061.952	25	
O IV	1062.133	40	
Zn IV	1062.240	1	
O IV	1062.271	40	
Fe III	1062.272	200	40
O IV	1062.434	10	
Mn II	1062.51	30	16
S IV	1062.67	600	1
Cr III	1062.68	500	8
Fe II	1062.758	400	21
O IV	1062.840	10	
Ni II	1062.965	1	
Fe II	1062.982	300	19
Cu II	1063.0052	60	23
Fe III	1063.188	250	
C II	1063.285	5	12.01
Fe III	1063.309	200	40
C II	1063.313	5	12.01
Mn II	1063.43	1	
Cr III	1063.63	10	17
Mn III	1063.745	20	
Cl II	1063.83	500	1
Fe III	1063.872	550	40
Cu IV	1064.014	58	
Cr III	1064.32	300	17
Cr III	1064.43	300	17
P IV	1064.60	120	
Fe III	1064.611	70	
Br II	1064.66	450	
P II	1064.80	150	
Ca III	1064.899	50	
Cr III	1065.12	150	17
F III	1065.268	60	
Cr III	1065.40	30	17
V III	1065.51	10	
P IV	1065.55	120	
Mn II	1065.56	25	16
Cu II	1065.7821	20	57

Element	Wavelength	Intensity	Multiplet
Cu IV	1065.824	55	
C II	1065.8913 ST	700	12
C II	1065.9199 ST	100	12
C II	1066.1332 ST	500	12
Cu II	1066.1343	20	22
Fe III	1066.143	350	27
Fe III	1066.181	300	26
Cr III	1066.23	500	17
F III	1066.251	6	
Mn III	1066.287	10	
Cr IV	1066.36	50	
Cu IV	1066.365	20	
Zn IV	1066.520	1	
Cr III	1066.55	50	
Si IV	1066.629	550	11
P IV	1066.64	80	
Ar I	1066.66	750	1
Ne II	1066.764	30	
N I	1066.992	10	
Mn III	1067.049	150	
Cu IV	1067.056	14	
Cr III	1067.16	200	
Cr III	1067.25	200	
N I	1067.308	8	
Mn III	1067.343	0	
N I	1067.386	10	
Br I	1067.559	1	
N I	1067.616	15	
Mn II	1067.73	25	16
Ca III	1067.781	25	
Br I	1067.805	1	
O IV	1067.810	120	
Cr III	1067.92	200	
Cl II	1067.94	200	1
Fe III	1068.190	300	27
Br I	1068.256	1	
Fe III	1068.299	200	
Ge V	1068.3	250	
Fe II	1068.356	600	19
Cr III	1068.41	800	
N I	1068.477	13	
N I	1068.627	12	
Ne II	1068.649	70	
N I	1068.670	11	
Br I	1068.849	0	
Cu IV	1068.859	17	
Se III	1068.87	100	
Mn III	1068.980	450	
Fe III	1069.019	300	27
Fe II	1069.038	300	20
Ge V	1069.1	250	
N I	1069.110	8	
Mn II	1069.11	20	16
Cu II	1069.1954	50	23
N I	1069.206	9	
N I	1069.374	7	
Cr III	1069.45	20	
N I	1069.468	6	
F III	1069.636	6	
Se III	1069.72	100	
V III	1069.74	50	
Mn II	1069.77	10	16
N I	1069.990	11	
Mn III	1070.011	450	
Fe III	1070.284	250	
Cu IV	1070.291	18	
Cu II	1070.3112	15	22
Cr III	1070.55	30b	
Cr IV	1070.55	30b	
Fe III	1070.556	200	26
Ni II	1070.590	10	
F III	1070.623	20	
Cl II	1071.05	1000	1
V IV	1071.054	20	
Fe II	1071.260	100	20
Mn III	1071.331	700	
Fe II	1071.596	600	19
Al III	1071.730		
Cu IV	1071.730	14	
Fe III	1071.746	300	26
Al III	1071.757		
Cl II	1071.76	500	1
Br II	1071.8	750	
Mn III	1071.803	700	
Cr III	1072.13	200	16
Fe III	1072.217	250	
Mn III	1072.372	120	
Zn IV	1072.496	1	
Ge V	1072.5	300	
P IV	1072.53	120	
Mn III	1072.598	400	
Mn III	1072.727	50	
S IV	1072.99	600	1
Mn III	1073.027	30	
Zn IV	1073.027		
Ni VI?	1073.11	120	
F IV	1073.22	5	
P IV	1073.37	120	
Ge IV	1073.38	20	
S IV	1073.52	400	1
Cr III	1073.74	200	16
Cu II	1073.7454	30	23
Ne II	1073.781	50	
Mn III	1073.789	800	
Br I	1073.912	2	
Fe III	1074.061	70	26
F IV	1074.10	1	
Cu IV	1074.163	21	
Br I	1074.243	2	
Ne II	1074.313	10	
Mn III	1074.460	80	
Ni VI?	1074.51	150	
Cr III	1074.56	50	16
Ca III	1074.667	10	
V III	1074.76	0	
Br I	1074.803	1	
Fe III	1075.024	250	26
F IV	1075.05	5	
Ge II	1075.0720 st	300	6
Cl II	1075.24	350	1
Br I	1075.345	1	
Ni II	1075.551	3	
Ne II	1075.688	20	
Ni II	1076.006	2	
Cr III	1076.15	200	16
Fe II	1076.556	40	52
Cr III	1076.74	200	32
F IV	1076.86	5	
Br I	1076.964	1	
Mn II	1077.02	3	

Element	Wavelength	Intensity	Multiplet
Cu IV	1077.090	22	
S III	1077.13	800	8
Ni II	1077.163	4	
Cr III	1077.29	10	
Co III	1077.530	2	
Se II	1077.54	400	
Br I	1077.873	1	
Cu II	1077.8759	1	
Mn III	1077.920	250	
Ge IV	1078.02	40f	
Br I	1078.124	1	
Co III	1078.127	2	
Br I	1078.242	2	
Mn III	1078.572	20	
N IV	1078.708	300	18.88
Cr III	1078.80	30	32
Cl II	1079.08	750	1
Co III	1079.098	2	
Br I	1079.320	2	
Cr III	1079.43	150	32
As IV	1079.5	350	
Zn	1079.655	10	
V III	1079.72	5	
Se III	1079.76	800	
Cu IV	1079.804	46	
Cl I	1079.8821	30	
Cr III	1079.97	10	
Cr III	1080.21	20	32
Mn II	1080.29	5	
Mn III	1080.386	100	
Mn III	1080.445	100	
Cu IV	1080.830	12	
Br I	1080.882	2	
O IV	1080.965	60	
Ni II	1081.035	200	
As II	1081.090	190	
Mn III	1081.636	0	
O IV	1081.645	10	
Ni VI?	1081.82	10	
B II	1081.875	300	
V III	1081.98	0	
B II	1082.073	300	
Cr III	1082.10	50	
Cu IV	1082.253	14	
Mn III	1082.300	800	
F V	1082.313	100	
As II	1082.350	350	
Si II?	1082.400	2	
Mn III	1082.588	650	
Sc	1082.62	200	
Mn IV	1082.645	100	
Fe III	1082.838	250	
Fe III	1083.176	150	
Si III	1083.210	120	23
Mn III	1083.276	1	
O IV	1083.382	10	
O IV	1083.613	10	
Cr III	1083.72	20	32
Mn III	1083.795	300	
N II	1083.990	400	1
Si II?	1084.144	3	
O IV	1084.189	40	
Cr III	1084.26	20	
As II	1084.370	190	
Mn III	1084.485	450	
N II	1084.562	150	1
N II	1084.580	750	1
Cl I	1084.6671	40	
Br I	1084.810	1	
Cr III	1084.84	20	
He II	1084.908 P	73	14
He II	1084.975 P	132	14
Br I	1085.050	1	
Cl I	1085.1709	40	
Cr III	1085.27	20	
F III	1085.297	3	
Cl I	1085.3035	45	
Mn III	1085.423	600	
Ni II	1085.441	150	
Ge II	1085.513	100	5
N II	1085.529 P		1
N II	1085.546	400	1
Mn II	1085.62	2	
N II	1085.701	1000	1
As II	1085.729	150	
Mn III	1085.772	850	
Se II	1085.88	500	
Br I	1085.896	0	
Cr III	1085.96	20	
N IV	1086.084	b	18.78
Cu II	1086.1102	5	21
N IV	1086.269	50	18.78
V IV	1086.382	5	
Ge V	1086.5	250	
Ni II	1086.503	4	
V III	1086.53	0	
Mn III	1086.533	90	
Mn III	1086.688	400	
N IV	1086.691	100	18.78
Fe III	1086.748	300	
Mn III	1086.751	400	
P IV	1086.94	80	
Kr IV	1087.29 P		
Mn III	1087.368	50	
Br I	1087.468	2	
Br I	1087.687	2	
Mn III	1087.699	40	
Cr III	1087.70	10	
Ne II	1087.789	40	
Br I	1087.819	1	
F V	1087.820	35	
Mn III	1087.862	0	
Ni VI?	1087.97	500	
Cl I	1088.062	60	
Mn III	1088.185	650	
Fe III	1088.224	70	
Cr III	1088.28	10	
Ge V	1088.3	400	
Mn III	1088.324	350	
F V	1088.387	150	
Cu II	1088.3953	20	
Ge III	1088.46	800	
Co III	1088.486	1	
P IV	1088.61	120	
Zn	1088.711	10	
Mn III	1088.724	550	
Br I	1089.039	2	
Fe III	1089.061	200	
Br I	1089.203	1	
Cu II	1089.2447	3	

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Element	Wavelength	Intensity	Multiplet
Cr III	1089.30	10	
Mn III	1089.313	250	
Br I	1089.322	1	
Zn IV	1089.334	0	
Ge V	1089.4	250	
Fe III	1089.416	250	
Fe III	1089.671	250	
Mn III	1089.715	50	
Cr III	1089.76	40	
Co III	1089.899	1	
Mn II	1089.98	1	
Cu IV	1090.090	20	
Mn III	1090.126	250	
Cr III	1090.27	20	
Cl I	1090.2706	55	
Se II	1090.43	100	
Cr III	1090.54	10	
Co III	1090.554	0	
Br I	1090.623	3	
Ne II	1090.628	50	
Cl I	1090.7386	40	
Cr IV	1090.97	30	
Cl I	1090.9815	45	
Mn III	1091.233	40	
Cu II	1091.2916	5	21
F IV	1091.35	10	
Ni II	1091.407	4	
P IV	1091.44	160	
V III	1091.53	5	
Cr III	1091.54	10	
V III	1091.86	5	
C II	1091.937	100 -A	14.05
Ge V	1092.0	250	
Mn III	1092.002	300	
Cu IV	1092.029	10	
Cl I	1092.1287	40	
Cr IV	1092.23	10	
C II	1092.232	10 -A	14.05
C II	1092.431	10 -A	14.05
Cl I	1092.4366	45	
F IV	1092.45	5	
Co III	1092.581	10	8
Cr III	1092.65	30	
C II	1092.726	200 -A	14.05
Si III	1092.915 P		42
Si III	1092.940 P		42
Si III	1092.969 P		42
Ge II	1093.01	1h	
Co III	1093.066	5	8
Si III	1093.105 P		42
Si III	1093.133 P		42
V III	1093.15	0	
Cu IV	1093.165	10	
Cr III	1093.17	50h	
Mn II	1093.22	0	
Si III	1093.293 P		42
P IV	1093.32	80	
Fe III	1093.332 P	150	
Ni VI?	1093.37	400	
P III	1093.63	200	
Mn III	1093.844	70	
Zn IV	1094.128		
As II	1094.183	225	
Mn III	1094.203	10	
F III	1094.277	3	
Cr III	1094.38	200	
Cu II	1094.4025	30	21
Zn IV	1094.429	8	
Cr III	1094.53	5	
F III	1094.660	6	
Se V	1094.7	900	
Br I	1094.722	3	
Cl I	1094.7686	60	
Mn III	1094.773	750	
F III	1095.095	10	
Cl I	1095.1483	55	
Co III	1095.443	15	8
Fe III	1095.476 P	300	
Br I	1095.481	3	
Ni VI?	1095.49	80	
Cl I	1095.6619	55	
Cl I	1095.7971	60	
N I	1095.942	13	
Cr III	1095.96	50	31
Mn III	1096.033	750	
N I	1096.325	11	
V IV	1096.375	2	
S II	1096.57	200	3
Fe III	1096.606 P	200	
Fe II	1096.616	400b	18
Cu IV	1096.680	11	
N I	1096.749	13	
Br I	1096.788	3	
Fe II	1096.793	400	18
F I	1096.8 P	-A	
Cl I	1096.8098	45	
Fe II	1096.886	600	18
Cr III	1096.90	30	
Cu II	1097.0529	25	21
Mn III	1097.158	0	
N I	1097.237	21	
Cr III	1097.25	100	
Cl I	1097.3692	50	
Cr III	1097.45	30	
Fe III	1097.649 P	70	
Fe II	1097.782	40	51
Se II	1097.82	800	9
Se III	1097.82	600	
N I	1097.995	8	
Cr IV	1098.06	10	
Cl I	1098.0682	40	
Ge II	1098.08	2h	
N I	1098.097	17	
Cu IV	1098.151	13	
P IV	1098.18	80	
Cr III	1098.21	100	
Fe III	1098.247 P	300	
Fe II	1098.26	0	
N I	1098.261	17	
Cu IV	1098.409	13	
Cr III	1098.61	100	
N I	1098.625	12	
Ge II	1098.710	200	5
N I	1098.759	6	
Cr III	1098.86	100	23
Br I	1098.881	3	
Cr III	1098.95	50	
N I	1098.952	9	
V III	1098.96	75	
N I	1099.042	8	

Element	Wavelength	Intensity	Multiplet
Fe III	1099.061 P	150	
Se III	1099.10	900	
Fe II	1099.117	500h	18
N I	1099.150	13	
N I	1099.263	8	
Cr III	1099.46	100	
Ni II	1099.471	1	
Ca III	1099.495	50	
Cl I	1099.5230	40	
Cr III	1099.82	10	
Mn III	1099.858	750	
Se II	1099.97	300	
Fe II	1100.026	400	18
N I	1100.3593	50	
N I	1100.4649	15	
Na III	1100.49	100	
Fe II	1100.525	400	18
Cr III	1100.61	300	23
V III	1100.75	100	
V III	1100.87	5	
Ge II	1100.98	10h	
Cr III	1101.26	50	31
N I	1101.2910	45	
Cl I	1101.3381	50	
Br I	1101.347	2	
V III	1101.42	25	
Cr III	1101.43	300	23
Br I	1101.456		
Br II	1101.47	50	
Br I	1101.498	5	
Fe II	1101.538	400	18
P IV	1101.65	40	
Cu II	1101.8362	1	21
Zn IV	1101.896	2h	
Cr III	1101.91	150	31
Cl I	1101.9362	40	
Ni II	1101.956	5	
V III	1102.19	5	
Cu IV	1102.198	27	
S II	1102.32	300	3
Fe II	1102.385	160	18
Cl I	1102.755	40	
Fe II	1102.758	20	17
Cr III	1102.88	300	23
Cl I	1103.069	50	
Mn III	1103.190	650	
Cu IV	1103.489	14	
Cr III	1103.57	10	
Cr III	1103.68	30	
Br I	1103.924	2	
Br I	1104.168	2	
Cr III	1104.44	150	31
Ni II	1104.602	1	
Cr III	1104.69	30	23
Fe II	1104.978	20	18
V III	1105.17	25	
Cu II	1105.1765	5	21
Br I	1105.460	2	
Cr III	1105.80	70	
Br I	1105.844	2	
Br I	1105.994	2	
Fe II	1106.215	300	17
Fe II	1106.362	100	15
Cu II	1106.4471	3	
Ge II	1106.737	200	5
Sc	1107.13	200	
V III	1107.36	100	
Br I	1107.442	2	
As II	1107.476	300	
Br I	1107.512	2	
Mn III	1107.517	0	
Cl I	1107.5282	70	
C IV	1107.600	50	11.15
V III	1107.76	25	
Sc	1107.77	200	
Mn III	1107.814	350	
C IV	1107.933	100	11.15
Cr III	1108.11	100	
Mn III	1108.164	20	2
Si III	1108.368	280	5
S IV	1108.48	200	
Mn III	1108.482	750	
V III	1108.71	5	
Ni II	1108.729	30	
Cl I	1108.8113	15	
Mn III	1109.073	300	
F III	1109.262	3	
Sc	1109.40	200	
Br I	1109.422	1	
V III	1109.49	5	
Kr IV	1109.62 P		
Cu II	1109.7445	1	
Zn IV	1109.919	35	
Si III	1109.965	320	5
Cl I	1110.2948	60	
V III	1110.45	25	
Mn III	1110.508	150	
Kr IV	1110.64 P		
V IV	1110.720	2	
Br I	1110.904	3	
V III	1110.92	25	
Sc	1110.96	200	
S IV	1111.08	200	
Mn III	1111.105	10	2
Fe II	1111.114	300	15
P IV	1111.13	40	
Cr IV	1111.17	10	
Br I	1111.579	2	
Br I	1111.751	2	
Cu II	1111.7577	0	20
F III	1111.782	3	
Mn II	1111.90	10	31
Zn IV	1111.935	2	
V III	1112.03	100	
C I	1112.058	10	30.01
Fe II	1112.086	700	16
F II	1112.110	10	
Mn II	1112.19	0	31
V IV	1112.199	5	
Mn III	1112.284	750	
F II	1112.302	100	
Cu II	1112.407	5	
V IV	1112.436	5	
Cr V	1112.47	60	
F III	1112.507	6	
Cr III	1112.60	10	
Br I	1112.743	1	
Mn III	1113.18	5	2
Mn III	1113.193	900	
Si III	1113.228	360	5

Element	Wavelength	Intensity	Multiplet
Mn II	1113.23	9	31
F III	1113.244	3	
Cr III	1113.26	100	30
Mn II	1113.39	0	31
F III	1113.463	20	
Mn III	1113.677	20	
Ga II	1113.78	50	
Co III	1114.405	1	
Mn II	1114.44	8	31
C I	1114.457	50	30
Mn II	1114.50	0	31
Mn III	1114.53	1h	
Kr IV	1114.95 P		
Mn III	1115.147	90	
Br I	1115.448	2	
Mn II	1115.53	6	31
Zn II	1115.657	8h	
V III	1115.71	50	
Zn IV	1115.801	3	
F II	1115.946	40	
Br I	1116.105	2	
Mn III	1116.151	350	
Li III	1116.33 P		
Mn II	1116.37	6	31
Cr III?	1116.46	10	
Ni II	1116.557	40	
Ge V	1116.8	300	
P IV	1116.92	20	
Cr III	1117.19	300	22
Zn	1117.393	10	
Cr V	1117.55	80	
C I	1117.581	20	
C I	1117.724	50	29
V III	1117.78	5	
Cr III	1117.88	20	30
As II	1117.903	200	
S VI	1117.91	100	
P V	1117.98	1000	
F II	1118.017	10	
Mn III	1118.068	0	
Al III	1118.173		
Br I	1118.173	3	
C I	1118.180	50	
Al III	1118.202		
F III	1118.320	10	
Al III	1118.353		
Ni II	1118.404	20	
Ni II	1118.547	25	
Cr III	1118.55	200	30
P IV	1118.59	160	
Mn III	1118.674	80	
Al IV	1118.80	200d	
F III	1118.854	3	
Ni II	1118.921	10	
Se II	1119.04	100	
Br I	1119.140	2	
Se III	1119.17	1000	
Ga II	1119.20	150	
Mn III	1119.303	300	
Ni II	1119.330	75	
Cr III	1119.40	5	30
V III	1119.66	50	3
F III	1119.673	6	
Br I	1119.725	3	
Cu II	1119.9470	15	20
Ge II	1120.458	200	5
Mn III	1120.768	0	
V III	1121.16	15	3
Ni II	1121.162	125	
Cr III	1121.35	30	
Mn III	1121.413	1	
Br I	1121.473	3	
Co XIV	1121.6	f	
Br I	1121.839	2	
Cr V	1121.98	5	
Fe II	1121.987	500	12
C I	1122.098	20	28
Mn III	1122.113	0	
V III	1122.13	75	
C I	1122.260	50	27.01
Na III	1122.30	10	
Sc	1122.32	200	
C I	1122.328	100	27
Mn III	1122.397	450	
S III	1122.42	200	
Cr III	1122.43	150	22
C I	1122.447	20	27
Si IV	1122.486	550	3
Ge V	1122.5	50	
Fe III	1122.526	600	1
Zn IV	1122.587	3	
V III	1122.62	5	3
C I	1122.725	50	26.03
C I	1122.794	20	
Fe II	1122.858	500	13
Cr IV	1122.87	30	
V III	1123.00	75	3
C I	1123.107	20	
Ni II	1123.113	2	
F III	1123.126	20	
Ni V	1123.20	0	
Cu II	1123.2260	5	20
Cr III	1123.37	30	
V III	1123.53	50	3
Cr III	1123.59	150	
Cr V	1123.62	100	
Sc	1123.96	200	
As II	1123.977	225	
Zn III	1124.021	2	
Br I	1124.038	3	
Ca III	1124.039	100	
Mn III	1124.109	400	
Fe II	1124.134	400	14
Mn III	1124.333	80	
S II	1124.39	100	8
Cr III	1124.43	5	30
V III	1124.76	5	
Fe III	1124.883	600	1
C VI	1124.9 P		
P II	1124.945	10	
S II	1125.00	100	8
Mn III	1125.065	0	
Cr III	1125.27	100	30
Ge V	1125.4	25	
V III	1125.70	200	3
Br I	1125.728	4	
Cr III	1125.73	200	22
Cr III	1125.90	20	
V III	1126.13	0	
Se III	1126.28	300	

Element	Wavelength	Intensity	Multiplet
Cr III?	1126.35	10	
Fe II	1126.425	400	13
S III	1126.48	50	
Fe II	1126.603	400	14
Zn II	1126.611	2h	
Fe III	1126.728 P	400	1
S III	1126.85	100	
Fe II	1126.850	400	12
Mn III	1127.093	150	
Mn III	1127.314	650	
Si II	1127.442	20h -A	13.06
Ge II	1127.48	5h	
Ni II	1127.486	5	
Cr III	1127.71	150	
Cu IV	1127.830	10	
V IV	1127.836	20	
Si II	1127.907	40h -A	13.06
P V	1128.01	650	
Fe III	1128.050 P	550	1
Fe II	1128.074	500	14
Fe II	1128.180	100	50
C I	1128.252	50	26
Zn II	1128.300	2h	
Si IV	1128.325 P		3
Si IV	1128.340	650	3
Fe II	1128.530	200h	194
Mn III	1128.577	120	
V III	1128.63	75	
C I	1128.686	20	25.01
Fe III	1128.723 P	450	1
C I	1128.752	100	26
Cr III	1128.78	10	
Sc	1128.79	400	
C I	1128.817 P		25
Mn III	1128.825	120	
Cr III	1128.88	30	
C I	1128.903	20	25.02
Fe II	1128.909	400	13
C I	1129.030	100	25.01
Cu IV	1129.076	12	
C I	1129.135	200	25
C I	1129.161 P		25
Fe III	1129.190 P	450	1
C I	1129.196 P		25
C I	1129.405	20	25
C I	1129.624	50	24
C I	1129.749	20	25
F II	1129.758	200	
Fe II	1129.777	240	49
Se II	1129.79	50	
C I	1129.924	50	24
Br I	1129.979	2	
C I	1130.171	20	23.01
Fe III	1130.404	300	1
Fe II	1130.428	500w	12
Se II	1130.48	100	
Ga II	1130.81	250	
Fe II	1130.874	40	48
Cu II	1130.8853	1	20
Cu II	1130.8978	1	
P II	1130.925	10	
S II	1131.05	200	8
V III	1131.05	60	
Cr V	1131.16	20	
Br I	1131.171	2	
Fe III	1131.194	450	1
V IV	1131.255	20	
S II	1131.65	200	8
Ne II	1131.724	90	
Ni V	1131.82	0	
Ne II	1131.848	100	
Li II	1131.884	15	
Cr III	1131.90	150	
Fe III	1131.914	200	1
Cr III	1132.75	300	
Br I	1132.822	3	
Cl I	1132.8528	45	
Br I	1133.116	4	
N IV	1133.117	200	18.43
Br I	1133.251	2	
Fe II	1133.413	500	50
Sc	1133.53	200	
Mn III	1133.613	500	
Fe II	1133.678	500	11
F II	1133.714	100	
Ni II	1133.730	75	
Zn IV	1133.744	15	
Se II	1133.89	100	
Cr III	1133.91	50	
Cl I	1133.9341	50	
Ge II	1134.02	20h	
V III	1134.16	50	
N I	1134.1651	560	2
Co XIII	1134.3	f	
N I	1134.4147	550	2
Ni II	1134.533	150	
Br I	1134.588	5	
F IV	1134.78	35	
Br I	1134.888	4	
Cu IV	1134.976	10	
N I	1134.9801	780	2
N IV	1135.244	150	18.43
Cl I	1135.3310	50	
V III	1135.92	0	
F II	1135.938	10	
N IV	1136.241	100	18.43
Br I	1136.294	5	
Zn IV	1136.406	40	
V III	1136.54	0	
Cr III	1136.67	500	
Al IV	1136.80	150	
Mn III	1136.867	80	
Cr III	1136.91	10	
Ne V	1137.0 P		
Zn III	1137.030	3	
Cr III	1137.08	20	
Ni II	1137.091	100	
Ga IV	1137.1	50	
Zn IV	1137.243	3	
Mn III	1137.518	0	
Ge III	1137.95	200	
Fe II	1138.039	100	48
S IV	1138.12	100	
Zn	1138.175	10	
F III	1138.182	6	
V III	1138.32	15	
Se II	1138.36	50	
C I	1138.383	20	23
O III	1138.545	100	
Ni II	1138.547	10	

Element	Wavelength	Intensity	Multiplet
C I	1138.557	30	23
C I	1138.595	20	23
Fe II	1138.642	500	11
Cr III	1138.76	20	
Ge V	1138.9	25	
C II	1138.9358 ST	200 -A	14.04
C I	1138.946	50	23
Ni II	1139.009	3	
C I	1139.093	100	23
N I	1139.14	1	
C I	1139.300	20	22.01
C II	1139.3317 ST	300 -A	14.04
Br I	1139.350	3	
As II	1139.395	500	
C I	1139.426	50	22.02
C II	1139.4730 ST	10 -A	14.04
F VI	1139.496	100	
C I	1139.514	20	22
Sc	1139.53	200	
V III	1139.54	15	
Br I	1139.544	3	
Ni II	1139.638	75	
C I	1139.650	20	22.01
V III	1139.67	25	
C I	1139.766	70	21.01
C I	1139.792	70	22
C I	1139.812	150	22
V III	1139.85	75	
C I	1139.865	50	22
C I	1140.005	50	22
C I	1140.223	20	21.01
C I	1140.357	100	21
Mn III	1140.396	200	
Ni II	1140.459	75	
Si III	1140.545	120	32
C I	1140.574	20	21.01
C I	1140.641	150	21
V III	1140.66	10	
Br I	1140.732	1	
N I	1140.74	2	
Zn IV	1140.849	8	
Mn III	1140.856	0	
P II	1141.00	5	
Cr III	1141.17	5	
Mn III	1141.171	150	
N I	1141.19	1	
V III	1141.20	5	
Fe III	1141.272	200	
C I	1141.327	20	20
Ge II	1141.36	10h	
Br I	1141.564	2	
Si III	1141.580	140	32
N I	1141.60	2	
C II	1141.6246 ST	300	11.01
C II	1141.6574 ST	30	11.01
C I	1141.678	20	20
V III	1141.68	25	
C II	1141.7445 ST	200	11.01
F III	1141.857	3	
Se II	1141.94	900	7
Zn II	1141.955	5b	
Zn IV	1141.955	20b	
Ni VI?	1141.96	100	
Al IV	1142.03	50d	
F IV	1142.07	5	
V III	1142.08	5	
Si III	1142.282	120	32
F III	1142.332	10	
Fe II	1142.334	500	10
V III	1142.34	10	
Fe III	1142.464	250	39
Cu II	1142.6405	20	19
N I	1142.70	2	
V V	1142.741	40	
Cu IV	1142.743	16	
Zn	1142.865	10	
P II	1142.88	20	
Zn II	1142.904	2h	
Fe III	1142.955	300	39
Be II	1142.956	250	
Al II	1142.97	5	
Be II	1143.039	500	
V III	1143.19	15	
Fe II	1143.235	500	10
Ge II	1143.25	40h	
N I	1143.31	1	
F IV	1143.35	5	
F III	1143.354	1	
Ni II	1143.397	50	
Fe III	1143.545 P	70	39
Cr III	1143.63	150	
N I	1143.6458	15	
N I	1143.6508	30	
Fe III	1143.671 P	200	39
P II?	1143.71	1	
Fe II	1144.052	100	156
Cr III	1144.10	100	
N I	1144.16	2	
Cl I	1144.2909	60	
Si III	1144.306	160	32
Cr IV	1144.31	70	
Ni VI?	1144.32	180	
Cu II	1144.8556	30	19
Fe II	1144.946	700w	10
Si III	1144.959	120	32
P II	1145.01	1	
Ca III	1145.062	100	
Si III	1145.122	150	41
Si III	1145.149	13	41
Si III	1145.16	1	41
Si III	1145.177	80	41
Si III	1145.19	10	41
Si III	1145.22	50	41
Br I	1145.268	2	
N I	1145.27	2	
Cu IV	1145.290	10	
Mn IV	1145.361	120	
Cl I	1145.3941	30	
Ni VI?	1145.53	150	
Si III	1145.669 P		32
Mn III	1145.744	0	
Br I	1145.854	2	
F IV	1145.89	10	
N I	1145.90	1	
Ne V	1146.1 P		
Zn III	1146.105	50	
Zn	1146.190	50	
Mn III	1146.335	30	
Cr III	1146.34	250	
Zn	1146.465	15	

Element	Wavelength	Intensity	Multiplet
V III	1146.75	75	2
Ni VI?	1146.85	80	
Fe II	1146.963	300	10
Ge II	1146.972	3	
Zn	1147.006	10	
Fe II	1147.413	500	10
Ni II	1147.633	1	
N I	1147.66	4	
Br I	1147.689	2	
Sc	1147.69	300d	
Cu II	1147.7617	8	19
Br I	1147.943	2	
Zn	1148.062	12	
Sc III	1148.241	30	
Fe II	1148.295	600	10
Ca III	1148.399	100	
V III	1148.46	100	2
Fe II	1148.693	160	155
N I	1148.77	4	
V III	1149.08	25	
Cu IV	1149.166	18	
As II	1149.306	600	
N I	1149.39	2	
Ge II	1149.547	20	
Mn III	1149.572	550	
O III	1149.603	50	
Zn IV	1149.610	25	
Ca III	1149.848	150	
V III	1149.94	500	2
P II	1149.96	70	3
F IV	1150.07	10	
Ni VI?	1150.22	100	
V III	1150.25	60	2
Al	1150.27	10	
Fe II	1150.292	400	10
Br I	1150.312	2	
Zn IV	1150.481	30	
Ge III	1150.60	240	
Fe II	1150.689	400	10
Se IV	1150.8	100	
Al IV	1150.85	10	
O III	1150.882	100	
Se V	1151.0	700	
V III	1151.05	150	2
Sc	1151.09	200	
Fe II	1151.163	500	10
V III	1151.30	25	
Br I	1151.381	3	
O I	1152.1512	200	6
Cu III	1152.155	1	
V III	1152.17	150	2
Zn IV	1152.278	20	
N I	1152.30	4	
Br I	1152.418	3	
Fe II	1152.440	300	10
N I	1152.63	1	
Ca III	1152.706	100	
Mn III	1152.716	700	
P II	1152.81	50	3
Cr III	1152.82	10	29
Br I	1152.833	2	
Fe II	1152.882	400	10
Zn	1152.957	10	
Br I	1152.989	2	
Na III	1153.04	40	
V III	1153.18	25	2
Fe II	1153.281	400	10
Zn II	1153.398	5	
N I	1153.53	4	
Cr III	1153.60	150	29
O III	1153.773	150	
Fe II	1153.955	300	10
P II	1153.99	120	3
Cr III	1154.12	150	29
N I	1154.19	3	
V III	1154.23	250	2
Fe II	1154.401	400	10
Zn IV	1154.402	25	
Ni II	1154.416	150	
Cr III	1154.43	10	29
Sc III	1154.523	40	
Br I	1154.640	1	
V III	1154.77	75	2
Si III	1154.998	120	31
P II	1155.00	40	3
V III	1155.11	75	2
Fe II	1155.273	40	157
S III	1155.34	200	
Zn IV	1155.384	5	
Cr III	1155.39	150	29
V III	1155.41	5	
Zn III	1155.497	60	
Mn III	1155.544	300	
C I	1155.809	50	19
Zn IV	1155.850	40	
Si III	1155.957	120	31
Se II	1155.99	700	8
C I	1156.028	150	19
C I	1156.199	20	19
Ga IV	1156.2	250	
Al IV	1156.21	50	
Mn II	1156.34	30	30
C I	1156.389	100	19
Ge II	1156.462	20	
V III	1156.47	15	
C I	1156.560	200	19
Fe II	1156.575	40	
Mn II	1156.66	25	30
C I	1156.765	20	18.01
Si III	1156.782	80	31
Mn II	1156.83	20	30
As II	1156.908	10	
Se II	1156.91	800	1
Mn II	1156.92	20	30
P II	1156.96	50	3
Cu II	1157.0206	5	19
Al II	1157.10	20	
Ni VI?	1157.13	150	
Ni II	1157.132	1	
V III	1157.18	400	
C I	1157.186	20	17
Zn III	1157.289	40	
Se II	1157.31	400	
C I	1157.330	50	18
Se IV	1157.4	500	
C I	1157.405	150	17
Ge II	1157.50	50h	
V V	1157.577	50	
Cu IV	1157.603	18	
C I	1157.770	350	16

Element	Wavelength	Intensity	Multiplet
Kr IV	1157.78 P		
Cu II	1157.8719	8	19
Cu II	1157.8807	8	
C I	1157.910	730	16
C I	1158.019	750	16
F III	1158.073	6	
Si III	1158.102	140	31
C I	1158.132	400	16
Al II	1158.24	1	
C I	1158.324	100	15.01
C I	1158.397	100	15.01
C I	1158.492	20	16
C I	1158.674	100	15.01
C I	1158.732	100	15
Kr III	1158.737	300	
F III	1158.781	10	
Ni II	1158.830	100	
V III	1158.86	50	
C I	1158.907	50	15.01
As II	1158.908	300	
C I	1158.967	200	15
Mn III	1159.022	150	
Br I	1159.030	2	
Ge II	1159.066	50	
P II	1159.08	80	3
Ge III	1159.12	160	
F III	1159.227	20	
N I	1159.28	4	
Fe II	1159.347	400	73
Ni II	1159.510	150	
V V	1159.520	10	
Ge III	1159.62	160	
V III	1159.75	200	1
N I	1159.8172 P		
N I	1159.84	2	
Si III	1160.255	120	31
Br I	1160.332	3	
N I	1160.39	3	
V III	1160.77	300	
Ni II	1160.776	2	
Ge III	1160.79	160	
Sc	1160.91	200	
N I	1160.9370 P		
Mn II	1161.29	20	29
Ni II	1161.297	15	
N I	1161.30	2	
Cr III	1161.43	500	
Si III	1161.579	160	31
Mn II	1161.61	3	29
Ni VI?	1161.61	20	
Mn II	1161.76	20	29
Al IV	1161.85	10d	
P IV	1161.87	40	
Ni II	1161.927	1	
V III	1162.02	250	
Mn II	1162.02	50b	4
Mn II	1162.02	50b	29
Fe II	1162.351	40	153
Sc III	1162.443	40	
S III	1162.52	100	
Al III	1162.588	10	
Cr III	1162.60	10	
Cu II	1162.6010	3	19
Al III	1162.621	5	
Ni II	1162.748	150	
Sc	1162.77	200	
V III	1162.81	50	
Ni VI?	1163.20	100	
V III	1163.26	75	1
Zn	1163.315	15	
Mn II	1163.32	40	4
Ga IV	1163.6	150	
Ni II	1163.645	50	
Ni II	1163.729	8	
V III	1163.87	60	
N I	1163.8835	150	7
Ge V	1164.0	200	
N I	1164.0016	30	7
Mn III	1164.019	60	
N I	1164.2064	60	7
Mn II	1164.21	30	4
Ge II	1164.273	100	
Ni II	1164.279	150	
O IV	1164.320	25	
N I	1164.3246	95	7
Fe II	1164.48	1	
O IV	1164.545	40	
Ni II	1164.574	100	
Cu IV	1164.664	12	
O VIII	1164.8 P		
Kr I	1164.867	200	2
Ge V	1165.2	25	
Fe II	1165.269	240	73
Cu IV	1165.308	10	
Al	1165.38	10d	
N I	1165.5943	40	
C III	1165.698 P	10	11.76
Ni II	1165.798	12	
Mn II	1165.82	25	28
N I	1165.8358	15	
C III	1165.870 P	100	11.76
F III	1165.961	10	
S III	1166.13	50	
Mn II	1166.16	10	28
Cr III	1166.23	10	
V III	1166.29	75	
V III	1166.45	75	1
Se II	1166.53	500	7
V III	1166.58	75	1
Li II	1166.63	5	
Zn III	1166.790	25	
Se IV	1166.8	400	
Mn II	1166.81	8	28
V III	1166.86	0	
Ni II	1167.030	25	
Mn II	1167.13	20	28
Cl I	1167.1479	100	
Mn II	1167.31	9	28
Al IV	1167.35	10	
F V	1167.372	1	
N I	1167.4484	350	6
O IV	1167.532	10	
Ga II	1167.62	50	6
Zn III	1167.764	30	
Ni II	1167.803	10	
Ni II	1168.040	75	
Mn II	1168.07	5	28
N I	1168.2154	50	
Mn II	1168.25	15	28
Cr III	1168.32	100	

Element	Wavelength	Intensity	Multiplet
N I	1168.3344	200	
N I	1168.4167	60	6
Se II	1168.53	800	1
N I	1168.5358	300	6
Br I	1168.542	3	
N IV	1168.599	150	18.83
Sc III	1168.608	50	
Cr III	1168.73	20	
C IV	1168.873	150	11.19
Sc III	1168.883	20	
C IV	1168.990	200	11.19
N IV	1169.063	100	18.83
V III	1169.11	75	1
O IV	1169.160	2	
Fe II	1169.19	0	
Cr III	1169.25	20	
V III	1169.26	100	1
Mn II	1169.28	15	28
N IV	1169.478	50	18.83
Mn II	1169.53	15	28
N I	1169.6933	80	
Ni VI?	1170.08	150	
Cr III	1170.10	30	
Zn III	1170.149	50	
N I	1170.1572	10	
Ni II	1170.169	20	
N I	1170.2766	80	
N I	1170.4165	5	
Br I	1170.479	3	
Cu IV	1170.576	11	
Ga IV	1170.6	500	
Cr III	1170.64	30	
N I	1170.6743	20	
Se II	1170.76	200	
N I	1171.0834	60	
Ni II	1171.117	15	
V III	1171.27	20	1
Ni II	1171.291	100	
N I	1171.37	2	
O VIII	1171.5 P		
Be IV	1171.56 P		
N I	1171.60	2	
Fe II	1171.606	160	154
Ga IV	1171.7	20	
Zn II	1171.943	5	
N I	1172.01	2	
As III	1172.2	360	
Zn IV	1172.304	30	
N I	1172.46	3	
V III	1172.47	5	1
Si III	1172.529	80	30
Mn III	1172.721	20	
Sc	1173.03	300	
Ni II	1173.121	1	
Cr III	1173.19	40	
Cu IV	1173.259	32	
Ni II	1173.298	50	
Cr III	1173.34	50	
Ni II	1173.477	75	
Ge II	1173.707	75	
Cr III	1173.77	100	
Ga II	1173.78	100	6
Ge III	1173.78	200	
Br I	1173.827	4	
Zn	1173.854	50	
Si III	1174.369	100	30
Si III	1174.432	120	30
Mn III	1174.810	10	
Cr III	1174.82	150	
C III	1174.933	800	4
C III	1175.263	700	4
Ni XIV	1175.3	f	
C III	1175.590	600	4
Fe II	1175.699	20	
C III	1175.711	1000	4
C III	1175.987	700	4
C III	1176.370	800	4
Ge V	1176.4	25	
Kr IV	1176.49 P		
N I	1176.5097	350	
N I	1176.6304	180	
Zn	1176.846	10	
Ni II	1177.006	1	
Ni II	1177.109	50	
Sc	1177.14	200	
Br I	1177.233	5	
Se II	1177.31	100	
Al II	1177.43	40	
Mn III	1177.484	6	
Zn IV	1177.484	60	
Mn II	1177.52	20	
Zn III	1177.651	50	
N I	1177.6948	320	
Mn II	1177.89	18	
F III	1177.988	3	
Si III	1178.004	160	30
Mn III	1178.031	40	
Se II	1178.05	400	
Mn II	1178.14	15	
Mn II	1178.34	12	
Zn IV	1178.391	15	
Mn III	1178.51	2	
Cr III	1178.55	30	
Ni II	1178.571	30	
F III	1178.642	3	
Mn II	1178.76	5	
Cr III	1178.80	20	
Zn III	1178.835	25	
Br I	1178.895	6	
Zn	1178.929	60	
Ge II	1178.957	100	
Cr III	1178.99	10	
F III	1179.035	6	
Cl I	1179.2927	250	
Al II	1179.34	1	
Mn III	1179.467	4	
Zn IV	1179.478	50	
Cr III	1179.68	30	
Ni VI?	1179.80	200	
Zn IV	1179.814	25	
Mn III	1179.85	20	7
Ge II	1180.10	1h	
Ni II	1180.271	150	
Zn IV	1180.274	4	
Na III	1180.40	160	
Mn II	1180.69	1	
Cr III	1180.81	60	
Cr III	1181.03	10	
F III	1181.061	10	
Ni II	1181.075	30	

Element	Wavelength	Intensity	Multiplet
Ge II	1181.194	150	11
Cr III	1181.45	10	
As II	1181.506	550	
Zn	1181.539	20	
Ni II	1181.620	15	
Cr III	1181.63	50	
Ge II	1181.650	150	11
F III	1181.909	3	
Sc	1181.91	300	
Ca III	1181.988	150	
Zn IV	1182.016	50	
Si III	1182.018	60	64
Ni II	1182.169	75	
Br I	1182.171	3	
F III	1182.427	3	
Cu IV	1182.576	20	
Se II	1182.65	300	
Mn III	1182.825	350	
N III	1183.030	350	20
Mn III	1183.304	30	4
Ge IV	1183.39	300	
Al	1183.62	10	
Ti IV	1183.63	100	
Zn	1183.824	12	
Fe II	1183.83	1	
Mn III	1183.860	25w	7
Se II	1183.99	200	
F III	1184.039	3	
Ni II	1184.512	20	
Zn II	1184.528	8 -A	
N III	1184.544	400	20
Zn II	1184.858	40	
Ni II	1184.980	3	
Mn III	1185.045	0	
Ni II	1185.146	2	
Ge II	1185.154	3	
Ga IV	1185.3	400	
Ge IV	1185.50	10	
Zn II	1185.610	1 -A	
Cu II	1185.8991	2	
Ga IV	1186.0	20	
Mn III	1186.14	10w	7
Br I	1186.161	3	
Cr III	1186.24	20	
Ni II	1186.347	1	
Ga II	1186.81	150	6
V III	1186.89	25	
Ni VI?	1186.90	20	
Ni II	1186.933	8	
Ni II	1186.993	1	
Ni II	1187.102	20	
Ca III	1187.303	250	
Ge II	1187.323	50	
Cr III	1187.36	200	
Zn	1187.404	50	
Fe II	1187.41	0	
Ge II	1187.539	50	
Ni II	1187.608	15	
Cr III	1187.65	300	
Mn III	1187.735	250	
Ar IV	1187.80	40	
N IV	1188.006	300	18.49
Mn II	1188.502	50	15
Ca III	1188.606	400	
Ge II	1188.732	200	
Cl I	1188.7515	50	
Cl I	1188.7743	130	
C I	1188.833	200	14
N I	1188.971	14	
Ge IV	1188.99	400	
C I	1188.992	500	14
C I	1189.065	200	14
Al II	1189.18	5	
C I	1189.249	250	14
N I	1189.249	14	
Br I	1189.279	10	
Br I	1189.378	5	
C I	1189.447	500	14
Br I	1189.498	10	
Zn IV	1189.565	35	
Ge II	1189.623	150	11
C I	1189.631	700	14
As II	1189.870	550	
C I	1190.021	35	13.01
N I	1190.031	5	
Al II	1190.0493	15	
S III	1190.17	200	1
C I	1190.253	35	13.01
Ar IV	1190.35	80	
Si II	1190.4157 st	100	5
Ni II	1190.442	1	
N I	1190.494	6	
N I	1190.688	2	
N I	1190.855	6	
Ca III	1190.864	250	
Ga IV	1190.9	450	
N I	1190.923	8	
N I	1191.019	12	
V III	1191.07	0	
Ge II	1191.264	100	11
V III	1191.50	0	
Zn III	1191.597	10	
N I	1191.603	2	
Ge II	1191.719	15	11
Ni VI?	1191.72	50	
Mn III	1191.730	15	4
Al II	1191.8123	50	
C I	1191.838	120	13
Zn III	1191.864	40	
N I	1191.925	8	
Fe II	1192.02	2	
C I	1192.218	70	12
Si III	1192.228 P		40
Si III	1192.258 P		40
Cu II	1192.261	2	
Se II	1192.29	1000	1
Si III	1192.293 P		40
Ni II	1192.306	5	
Mn II	1192.313	40	15
C I	1192.451	120	12
N I	1192.563	4	
Ni II	1192.596	0	
Cr III	1192.69	50	
Mn III	1192.78	8	4
Ni II	1192.983	3	
Ga IV	1193.0	450	
C I	1193.009	700	11
C I	1193.031	300	11
Zn II	1193.231	60	
C I	1193.240	850	11

Element	Wavelength	Intensity	Multiplet
C I	1193.264	150	11
Ni II	1193.267	5	
Si II	1193.2894 st	200	5
C I	1193.393	350	11
Cr III	1193.47	70	
Cu IV	1193.475	15	
C I	1193.679	500	9.02
Ca III	1193.697	150	
Cr III?	1193.89	10	
C I	1193.996	120	9.02
S III	1194.02	400	1
C I	1194.064	350	9.02
Zn IV	1194.068	30	
C I	1194.229	120	9.02
C I	1194.301	120	10
S III	1194.40	300	1
C I	1194.406	200	9.02
Br I	1194.413	4	
Cr III	1194.44	30	
V IV	1194.462	20	
C I	1194.488	350	10
Si II	1194.5001 st	250	5
C I	1194.615	250	9.02
Ge II	1194.787	500	11
Ni II	1194.857	15	
Cr III	1194.96	30	
Mn II	1195.00	30	
Zn	1195.019	12	
Ga IV	1195.1	500	
Ti IV	1195.25	100	
Zn	1195.366	60	
Cr III	1195.42	10	
Fe II	1195.46	1	
Mn II	1195.97	30	27
Zn	1196.009	35	
Cr III	1196.04	30	
Cr III	1196.32	50	15
Mn II	1196.33	25	27
Br I	1196.370	4	
As II	1196.383	600	
Se II	1196.40	200	
Si III	1196.436 P		40
Si III	1196.470 P		40
Br I	1196.477	4	
Mn II	1196.52	20	27
As II	1196.561	600	
V III	1196.63	0	
Mn II	1196.724	25	15
Be II	1197.094	330	5
Zn	1197.098	10	
Zn II	1197.149	40	
Mn II	1197.17	40b	3
Mn II	1197.17	40b	27
Be II	1197.188	670	5
Cr III	1197.37	200	15
Si II	1197.3936 st	100	5
Fe II	1197.43	0	
Zn IV	1197.440	30	
Mn II	1197.57	10	15
Cr III	1197.60	10	
P IV	1197.82	40	
Ar IV	1197.84	40	
Zn III	1197.973	20	
Mn II	1198.00	10	27
Li II	1198.082	700	
Si III	1198.297 P		40
Cr III	1198.31	70	
Zn III	1198.322	15	
Br I	1198.371	6	
Al IV	1198.47	50	
Mn III	1198.493	30	
C IV	1198.58	50d	11.18
V III	1198.61	100	
Mn II	1198.63	10	27
Mn III	1198.994	400	
Fe II	1199.24	1	
Mn II	1199.34	30	26
Mn II	1199.38	50	3
Zn	1199.415	60	
N I	1199.5490 ST	1000	1
Se II	1199.72	50	
Zn	1199.748	15	
N I	1200.2238 ST	950	1
Ni II	1200.307	1	
Zn	1200.339	10	
Zn III	1200.635	60	
N I	1200.7113 ST	700	1
Ca III	1200.772	50	
Zn III	1200.854	50	
Cr III	1200.91	50	
S III	1200.97	400	1
Cr III	1201.00	50	
Ni II	1201.002	3	
Ni II	1201.119	8	
Mn II	1201.124	20	3
Mn II	1201.23	5	26
Cr III	1201.25	100	
Zn IV	1201.292	25	
Cl I	1201.3527	100	
F III	1201.358	3	
Cr III	1201.42	150	15
Zn IV	1201.489	50	
Mn II	1201.57	40	26
Ga IV	1201.6	200	
Cu II	1201.6258	2	
S III	1201.71	200	1
Ni II	1201.838	5	
Ni II	1201.957	3	
Cr III	1202.02	10	
S III	1202.10	50	1
Zn III	1202.152	30	
V III	1202.25	50	
Ca III	1202.309	200	
Cr III	1202.45	100	15
Ni II	1202.452	8	
Ni II	1202.511	10	
Mn III	1202.807	0	
V III	1202.87	5	
Ni II	1202.911	3	
Mn II	1203.07	8	26
Mn II	1203.25	30	26
Cu IV	1203.261	13	
Zn III	1203.270	50	
Br I	1203.353	4	
P IV	1203.41	40	
Zn IV	1203.430	40	
Ca III	1203.507	10	
Cr III	1203.59	120	
V III	1203.86	0	
Cr III	1203.95	20	

Element	Wavelength	Intensity	Multiplet
Zn IV	1204.038	30	
Ni II	1204.102	30	
P IV	1204.30	40	
S II?	1204.30	500	
Zn III	1204.310	60	
F III	1204.380	6	
Cr III	1204.46	50	7
Cr III	1204.59	10	
Cu II	1204.6158	1	
Mn II	1204.62	25	2
Cu II	1204.6356	1	
Cu II	1204.6531	1	
Cr III	1204.93	200	15
Mn II	1204.95	15	
Zn	1204.964	10	
N VII	1205.0 P		
Ge II	1205.049	15	11
Ni II	1205.088	15	
Cu II	1205.1467	0	
Cr III	1205.15	10	
Cu II	1205.1944	0	
Ni II	1205.201	1	
Cu II	1205.2024	0	
Se II	1205.25	300	
Ni II	1205.266	20	
Mn II	1205.42	20	26
Ni II	1205.552	10	
Zn IV	1205.594	25	
Se II	1205.69	700	17
Cr III	1205.78	100	15
Cu II	1205.9029	2	
Cr III	1206.12	10	
Ni II	1206.246	7	
Kr III	1206.35	100	
Cr III	1206.38	600	7
Mn III	1206.425	20	
Si III	1206.510	600	2
P IV	1206.52	40d	
Se III?	1206.53	600	
Si III	1206.533	600	11
Mn II	1206.55	10	
Cr III	1206.70	30	
Ge II	1206.725	3	11
Cu II	1206.7691	0	
Mn II	1206.87	5	
Ga IV	1206.9	500	
V III	1206.99	200	
Cr III	1206.99	20	
Mn II	1207.05	2	
Mn II	1207.12	2	
Cr III	1207.13	100	
Ca III	1207.341	150	
Cr III	1207.36	40	7
As II	1207.441	350	
V III	1207.45	100	
Si III	1207.517	180	22
Ni II	1207.567	0	
Cr IV	1207.58	100	
Ni II	1207.620	4	
V III	1207.63	50	
Ni II	1207.654	3	
Zn III	1207.737	10	
Ca III	1207.838	200	
Zn	1208.034	20	
Ca III	1208.046	150	
Al II	1208.35	20	
B II	1208.36	1	
Ni II	1208.433	1	
Mn III	1208.476	800	
B II	1208.546	40	
Ca III	1208.716	50	
B II	1208.825	10	
Mn II	1208.83	8	
Cr III	1209.13	800	7
Ni II	1209.170	7	
Al II	1209.19	1	
As III	1209.3	450	
F II	1209.345	40	
Cr III	1209.42	10	
Ni II	1209.492	1	
Cr III	1209.66	10	
Br I	1209.756	8	
Al II	1210.09	5	
Ni II	1210.192	10	
Mn II	1210.33	5	
F III	1210.349	3	
Si III	1210.456	200	21
Mn III	1210.523	40	
P III	1210.60	100	
Si IV	1210.652 P		16
S V	1210.71 ?		
Ni II	1210.729	3	
Br I	1210.734	10	
Ni II	1210.790	1	
Mg IV	1210.993	300	
O IV	1211.043	5	
Cr III	1211.12	800	7
As II	1211.170	800	
Ni II	1211.403	1	
Mn III	1211.582	150	
F III	1211.585	6	
Mn III	1211.725	40	
Si IV	1211.757 P		16
Al IV	1211.80	10	
Ca III	1211.822	450	
Cr III	1211.84	10	
Zn II	1211.841	25	
Ca III	1211.889	250	
Al II	1211.90	3	
Si III	1212.011	40	50
Zn IV	1212.110	12	
Si III	1212.247 P		74
F III	1212.255	6	
Zn III	1212.255	40	
F III	1212.321	1	
V III	1212.38	100	
Mn II	1212.40	5	
Ge III	1212.47	160	
Zn	1212.471	40	
Ca III	1212.682	200	
Zn IV	1212.693	25	
V III	1212.82	10	
Ni II	1212.959	0	
Cr III	1212.98	50	
O IV	1213.035	60	
Fe II	1213.149	400	71
O IV	1213.196	40	
Ca III	1213.301	300	
F III	1213.353	20	
Ni II	1213.361	7	

Element	Wavelength		Intensity		Multiplet
Mn II	1213.50		0		
Cr III	1213.51		50		
Fe II	1213.764		400		72
Cr III	1213.82		10		
As III	1214.0		90		
Ni II	1214.104		3		
Zn IV	1214.121		15		
Ni II	1214.153		40		
S I	1214.295		1		
S I	1214.318		7		
Cu IV	1214.347		15		
Ni II	1214.350		1		
F III	1214.368		3		
Fe II	1214.409		200		70
Cu II	1214.5399		1		
Cu II	1214.5546		1		
V III	1214.56		100		
F III	1214.864		0		
Cu IV	1214.871		18		
B V	1214.99	P			
Li III	1215.05	P			
He II	1215.088	P	143		13
He II	1215.171	P	260		13
He II	1215.175	P	30		13
D I	1215.339	P	1000		1
H I	1215.668	P	670		1
H I	1215.674	P	330		1
Br I	1216.006		8		
Mn IV	1216.062		0		
Si II?	1216.117		10h		
Ga IV	1216.2		0		
Mn III	1216.639		20		
Al IV	1216.78		50		
Kr III	1216.90		100		
Cu IV	1216.910		21		
Ni II	1217.180		100		
Fe XIII	1217.2		f		
Ca III	1217.450		50		
Zn III	1217.494		3		
V III	1217.64		150		
O I	1217.6477		40	-A	9
Ni II	1217.692		1		
Se II	1218.01		400		
As II	1218.099		800		
Se II	1218.27		200		17
O V	1218.406		40		
Cu IV	1218.430		12		
V III	1218.50		125		
S I	1218.571		2		
S I	1218.595		10		
Cr III	1218.60		100		
Ca III	1218.738		50		
Cr III	1218.89		50		
Mn II	1218.94		8		
As II	1218.95		225		
Mn IV	1219.018		0		
Mg IV	1219.019		150		
F III	1219.032		150		
Al IV	1219.19		10		
Cu III	1219.290		3		
Cu II	1219.3337		1		
V III	1219.38		5		
Mn II	1219.50		0		
Cr III	1219.55		50		
Zn	1219.671		12		

Element	Wavelength	Intensity	Multiplet
Mn III	1219.801	30	6
Fe II	1219.81	3	
Zn	1219.901	12	
V III	1220.09	15	
Cr III	1220.14	200	
S I	1220.162	5	
Ni II	1220.530	3	
V III	1220.54	0	
Al	1220.57	10	
Fe II	1220.882	100	70
Mg IV	1220.929	200	
Mn III	1220.940	750	
Ni II	1220.950	1	
Cr III	1221.07	400	
Mn II	1221.11	6	
Na III	1221.12	100	
Br I	1221.128	10	
Ni II	1221.213	1	
F II	1221.235	100	
Ni II	1221.289	1	
Cr III	1221.45	10	
F II	1221.536	40	
S I	1221.753	6	
Br I	1221.870	9	
Cr III	1221.90	400	14
Se II	1221.94	200	16
Ni II	1221.992	40	
Ge V	1222.1	25	
Ni II	1222.220	1	
Zn III	1222.266	8	
Si II	1222.288	0	8.02
Ni II	1222.395	20	
Mn IV	1222.489	70	
Mn IV	1222.579	80	
Si II	1222.635	5	8.02
Ni II	1222.678	1	
Mn II	1222.785	30	
S I	1222.799	1	
Ca III	1222.895	200	
Ni II	1222.989	1	
As II	1223.149	350	
Mn II	1223.15	8	25
Zn IV	1223.181	60	
Ca III	1223.185	450	
Br I	1223.240	10	
Cr III	1223.28	10	
Na III	1223.44	80d	
Ni II	1223.466	2	
Mn IV	1223.561	20	
Ni II	1223.643	5	
Zn IV	1223.680	30	
Cl II	1223.71	100	
Ni II	1223.775	1	
Mn III	1223.83	20w	6
Si II	1223.907	20	8.02
Ni II	1224.033	75	
Zn IV	1224.052	50	
Zn IV	1224.179	20	
V III	1224.19	125	
Cu IV	1224.244	28	
Si II	1224.252	20	8.02
Ni II	1224.268	1	
Zn IV	1224.348	20	
Br I	1224.408	12	
S I	1224.424	1	

Element	Wavelength	Intensity	Multiplet
Cr III	1224.43	30	
S I	1224.479	7	
S I	1224.544	7	
Se II	1224.63	300	
Na III	1224.73	80	
Mn II	1224.733	30	25
Ni II	1224.839	2	
Mn II	1224.928	6	25
N IV	1224.960	50	18.76
Si II	1224.972	10	8.02
Cr III	1225.02	100	
N I	1225.027	21	
Mn III	1225.133	350	
N IV	1225.192	150	18.76
Cr III	1225.27	150	
Cr III	1225.32	150	
Ca III	1225.321	200	
N I	1225.374	20	
Cr III	1225.65	300	14
Ca III	1225.699	350	
N IV	1225.719	200	18.76
F II	1225.854	40	
F II	1226.161	10	
Cr III	1226.18	10	
F II	1226.267	40	
Zn IV	1226.325	8	
Mn II	1226.40	25	25
V IV	1226.523	60	
Ni II	1226.628	25	
S II	1226.70	100	7
Cr III	1226.72	200	14
Si II	1226.814	50	8.01
Si II	1226.887	20	8.02
Br I	1226.899	12	
Mn IV	1226.966	50	
Si II	1226.986	40	8.01
S I	1227.089	4	
Mn IV	1227.093	30	
Ga II	1227.10	20	
Cr III	1227.11	20	
N I	1227.241	7	
Ni II	1227.267	15	
Cr IV	1227.43	10	
S II	1227.45	100	7
Ni II	1227.491	5	
Se V	1227.6	1000	
Si II	1227.604	100	8.02
Zn IV	1227.615	15	
Mn II	1227.638	23	25
S I	1227.692	5	
N I	1227.793	8	
Ga IV	1228.0	500	
Zn IV	1228.003	1	
Cr III	1228.03	10	
Br I	1228.049	8	
Zn II	1228.261	0 -A	
Al IV	1228.30	50	
Ca III	1228.317	200	
Si IV	1228.349 P		20
Cr III	1228.37	10	
N I	1228.414	18	
Mn II	1228.423	20	25
Si II	1228.437	10	8.01
Zn IV	1228.482	60	
Ni II	1228.581	0	
Si II	1228.617	25	8.01
Zn IV	1228.646	50	
Cr III	1228.65	300	14
Si II	1228.746	150	8.01
F II	1228.763	40	
N I	1228.790	20	
Mn III	1228.972	100	5
Se II	1229.04	200	
Zn IV	1229.062	15	
Mg IV	1229.093	10	
N I	1229.174	14	
Zn	1229.253	20	
Si II	1229.388	200	8.01
Mg III	1229.389	4	
Cr III	1229.53	150	14
S I	1229.608	10	
Mn II	1229.65	25	43
Ni II	1229.684	10	
Ne II	1229.688	70	
Ge IV	1229.81	400	
Ne II	1229.832	90	
Al IV	1229.94	10	
C IV	1230.046	100	11.14
Cu IV	1230.062	15	
Mn II	1230.11	20	43
Ni II	1230.116	8	
Mn III	1230.12	20w	5
Mn II	1230.15	15	43
B II	1230.160	300	
Cr III	1230.35	10	
Ni II	1230.367	1	
S I	1230.374	2	
Zn III	1230.451	25	
Mn II	1230.46	1	
S I	1230.473	4	
C IV	1230.511	150	11.14
N I	1230.535	7	
Mn II	1230.62	1	43
Cr III	1230.63 P	10	14
Ni II	1230.782	40	
Si IV	1230.795 P		20
Cr III	1230.80	200	21
Ni II	1230.869	50	
Mn II	1230.87	10	43
Ni II	1230.889	25	
Fe II	1230.93	2	
Zn III	1230.949	1	
Ca III	1230.975	400	
Ni II	1231.041	100	
Mn IV	1231.099	30	
Mn II	1231.10	8	43
P II	1231.18	50	
Mn II	1231.35	5	43
Si II	1231.406	5	8.01
Zn IV	1231.458	25	
N I	1231.578	12	
Cr III	1231.88	300	
Ni II	1232.107	1	
Br I	1232.431	75	
V III	1232.49	50	
Ni II	1232.773	2	
Ni II	1232.886	3	
Cr III	1232.96	500	21
Ni II	1233.036	15	
S I	1233.132	1	

Element	Wavelength	Intensity	Multiplet
N I	1233.24	2	
Ni II	1233.250	150	
Cr III	1233.28	10	
Si II?	1233.354	5h	
S II	1233.36	50	7
Ni II	1233.484	10	
Ni II	1233.557	100	
Fe II	1233.660	160	275
Zn IV	1233.806	10	
Cr III	1233.92	200	21
S I	1233.922	3	
Zn III	1233.948	50	
Mn II	1233.952	30	24
Ni II	1234.092	0	
S II	1234.14	300	7
Mn II	1234.30	5	24
Ni II	1234.375	4	
Ca III	1234.400	100	
Mn II	1234.51	8	24
Ni II	1234.659	1	
Zn IV	1234.857	20	
Mn II	1234.871	25	34
Se II	1234.88	700	16
Mn II	1235.06	8	24
Ni II	1235.069	6	
Ni II	1235.112	20	
Mn II	1235.27	10	24
F III	1235.316	10	
Na III	1235.40	80d	
Ni II	1235.405	10	
Si III	1235.431	140	49
Mn II	1235.46	25	
Ti III	1235.461	2	
S I	1235.624	7	
Mn II	1235.79	10	24
Kr I	1235.838	650	1
Mn II	1235.87	25	24
Cu II	1235.8729	0	
Mg IV	1235.908	200	
Si II?	1235.920	10	
Ca III	1236.102	50	
Mn II	1236.15	25b	24
Mn II	1236.15	25b	23
Cr III	1236.20	400	21
Mn IV	1236.238	70	
Ne X	1236.3 P		
Fe II	1236.34	0	
Ga IV	1236.4	150	
Ni II	1236.474	0	
Cr III	1236.51	10	
Mn II	1236.54	15	23
S I	1236.632	4	
Cr III	1236.71	10	
Zn IV	1236.768	1	
Mn II	1236.77	20	23
Ni II	1236.799	25	
Mn II	1236.87	20	23
Mg IV	1236.977	200	
Ti III	1237.028	4	
Ni II	1237.049	10	
Ge II	1237.0589 st	500	4
Al IV	1237.14	200	
Ni II	1237.247	1	
Zn IV	1237.250	25	
Ni II	1237.260	1	
Li II	1237.287	10	
F III	1237.308	6	
Si II?	1237.36	3h	
Mn II	1237.59	2	
Se II	1237.61	300	
Cu III	1237.776	2	
Mn II	1237.78	1	
Fe II	1237.93	0	
Mn II	1237.95	1	
Ni II	1237.976	8	
Cu III	1238.325	0	
S I	1238.340	5	
Mn II	1238.35	5	
Cr III	1238.51	400	21
Ga IV	1238.6	250	
N V	1238.821	1000	1
Mn II	1238.84	7	
Ni II	1238.919	1	
Ne II	1239.018	80	
Ni II	1239.061	25	
Zn IV	1239.102	40	
Ne II	1239.167	60	
Mn III	1239.24	50w	5
Cu IV	1239.316	13	
Zn III	1239.355	3	
Ni II	1239.506	12	
Mn II	1239.51	1	
Zn IV	1239.602	40b	
Mg III	1239.827	4	
Ni II	1239.832	60	
Ca III	1239.863	150	
Mg II	1239.9252 P	250	
Ca III	1239.976	400	
Ni II	1240.012	1	
Cu II	1240.0272	1	
Mn II	1240.04	0	
Cu IV	1240.160	23	
Al IV	1240.18	100	
Mg II	1240.3947 P	200	
Zn II	1240.625	3 -A	
Zn III	1240.750	50	
Al IV	1240.83	150	
Ni II	1240.877	50	
Ni II	1241.189	1	
Ni II	1241.233	2	
As II	1241.311	750	
Cr III	1241.32	20	
Ni II	1241.320	10	
P I	1241.49	1	
Ni II	1241.548	3	
Ni II	1241.588	10	
Mn II	1241.63	10	42
Ga IV	1241.7	50	
Ni II	1241.827	1	
Zn II	1241.874	0 -A	
S I	1241.905	30	
Cu II	1241.9641	2	
P I	1242.02	3	
Cr III	1242.08	10h	
Ni II	1242.099	30	
Fe XII	1242.15	25f	
Mn IV	1242.246	900	
V IV	1242.248	3	
Zn III	1242.411	50	
Cu IV	1242.541	21	

Element	Wavelength	Intensity	Multiplet
F III	1242.585	3	
Ni II	1242.627	6	
N V	1242.804	800	1
Ca III	1243.008	350	
As II	1243.081	950	
Cu II	1243.0857	1	
Ni II	1243.093	75	
Zn IV	1243.157	40	
N I	1243.1796	550	5
N I	1243.3066	400	5
Ni II	1243.345	1	
P I	1243.37	3	
Cr III	1243.43	20	
Cr III	1243.60	20	
Ni II	1243.622	3	
V IV	1243.718	10	
N IV	1243.73	b	18.92
O V	1243.801	40	
Zn III	1243.833	20	
Ni II	1243.848	5	
Mg IV	1243.874	20	
F III	1243.888	6	
Br I	1243.897	12	
Cr III	1243.97	40	
Mn II	1244.10	0	
Ni II	1244.104	3	
Ni V	1244.15	300	
Mn IV	1244.242	80	
Ni II	1244.255	5	
Mn II	1244.28	15	
V IV	1244.287	2	
Mn IV	1244.327 P	900	
Cu III	1244.377	5	
Cr III	1244.41	10	
Ni II	1244.560	50	
Cr III	1244.58	100	
Ni II	1244.811	100	
Zn II	1244.848	2 -A	
Mn IV	1244.876	0	
N IV	1244.92	50	18.92
Cu IV	1245.071	16	
Cr III	1245.09	50	
Mn II	1245.14	20	
P I	1245.19	6	
Cr III	1245.23	150	6
Ga IV	1245.5	600	
Mn II	1245.55	15	42
As II	1245.668	850	
Mn III	1245.673	750	
Cu IV	1245.691	30	
Cl VI	1245.77		
Mn III	1245.975	700	
Mn II	1246.24	12	
Zn IV	1246.260	3	
N IV	1246.51	100	18.92
Ni II	1246.598	150	
Si II	1246.738	100	8
Cr III	1246.83	100	
Zn IV	1247.000	10	
V IV	1247.069	30	
S I	1247.160	45	
P I	1247.31	2	
Ni II	1247.333	20	
Zn III	1247.355	5	
C III	1247.383	600	9
Ni II	1247.509	6	
Ni II	1247.568	1	
Mn II	1247.66	15	42
Mn IV	1247.726	850	
Cr III	1247.86	200	6
Kr IV	1247.93 P		
As II	1247.949	0	
S I	1248.045	22	
Mn II	1248.15	5	42
Zn IV	1248.184	15	
P I	1248.20	1	
Ni II	1248.413	9	
Si II	1248.426	150	8
Ni II	1248.467	10	
Mg II	1248.511	60	
P I	1248.61	1	
Cr III	1248.61	120	
Mn IV	1248.638	300	
V III	1248.65	10	7
Al IV	1248.76	100d	
Cu II	1248.7916	5	
Mn II	1248.83	4	42
Ni II	1248.844	4	
Zn IV	1249.083	3	
Ni II	1249.101	100	
Ni II	1249.213	8	
Mn II	1249.31	6	42
Ni II	1249.369	3	
Zn IV	1249.402	5	
Mn III	1249.529	0	
Br I	1249.589	8	
Zn IV	1249.676	40	
P II	1249.82	200	
Mg II	1249.932	80	
Cu IV	1250.003	13	
Cu II	1250.0483	10	90
As II	1250.058	300	
Si II	1250.089	100 -A	13.05
Mn II	1250.22	1	
Cr III	1250.33	20	
Zn III	1250.336	30	
Si II	1250.433	150 -A	13.05
Zn IV	1250.466	30	
Ni II	1250.467	6	
S II	1250.50	300	1
Cr III	1250.57	20	
Mn II	1250.681	7	
Ni II	1250.685	4	
S I	1250.814	12	
V IV	1250.918	20	
Zn III	1251.021	40	
Si II	1251.164	200	8
Al IV	1251.25	50	
Ni II	1251.394	10	
Cr III	1251.42	150	6
Ni II	1251.438	16	
Br I	1251.664	15	
Mn IV	1251.933	950	
V III	1252.11	500	7
Mn III	1252.289	30	
Cr III	1252.61	500	6
Mn IV	1252.736 P	450	
Zn III	1252.873	3	
Ni II	1252.879	1	
Mn II	1252.91	15	

Element	Wavelength	Intensity	Multiplet
As II	1252.916	5	
Cu IV	1253.061	15	
Ni II	1253.122	50	
Cu II	1253.1809	5	
Zn III	1253.201	10	
S I	1253.297	20	
Li II	1253.324	5	
S I	1253.325	40	
Zn III	1253.345	60	
Mn II	1253.37	15	
Ca III	1253.464	300	
C I	1253.467	50	
Ni II	1253.477	75	
C I	1253.541	100	
Ni II	1253.599	4	
Zn IV	1253.664	40	
P I	1253.74	6	
S II	1253.79	500	1
Cr III	1253.87	5	
Mn II	1253.880	15	
V III	1254.01	400	7
Mn II	1254.20	10	
Ni II	1254.290	2	
Zn III	1254.316	25	
Ni II	1254.346	0	
Mn II	1254.410	15	41
Ca III	1254.413	100	
Ni II	1254.471	1	
Cu III	1254.717	2	
Ni II	1254.721	50	
Se III	1254.79	20	
Al III	1254.933		
Al III	1254.969		
Ni II	1254.978	7	
Mn II	1255.01	1	
Ne III	1255.03	200	13
Ni II	1255.034	8	
Mn III	1255.078	10	
Cu II	1255.1571	1	
Mn III	1255.21	20	
Si I	1255.276	10 -A	41.12
Al III	1255.284		
Ni II	1255.335	6	
Fe II	1255.41	0	
Zn	1255.619	15	
Ne III	1255.68	500	13
Br I	1255.799	10	
Ni II	1256.029	5	
S I	1256.093	22	
Cr III	1256.18 P	20	
Mn II	1256.18	6	
Ni II	1256.187	6	
Mn IV	1256.457	40	
Ni II	1256.459	0	
C III	1256.47	100d	11.53
Mn II	1256.47	8	41
Si I	1256.490	40 -A	41.12
C I	1256.498	200	
Na III	1256.68	20	
Ni II	1256.708	1	
Cr III	1256.73	80	20
Ni II	1256.905	6	
Ni II	1256.930	40	
Mn II	1256.96	10	41
Ni II	1257.116	8	
Fe II	1257.18	0	
Ne III	1257.19	600	13
Mn IV	1257.277	950	
Zn IV	1257.291	30	
V III	1257.50	75	7
Al IV	1257.58	150	
Cu II	1257.6833	1	
Mn III	1257.885	0	
Mn II	1258.028	15	40
Mn IV	1258.131	750	
Ni II	1258.303	0	
Mn II	1258.51	15	40
Cr III	1258.55	200	6
Mn III	1258.55	30	
Zn II	1258.581	0 -A	
As II	1258.585	800	
Ga IV	1258.7	750	
Kr III	1258.74	60	
Si I	1258.795	50 -A	41.12
Al II	1258.86	40	
Cr III	1259.02	400	20
Mn II	1259.05	12	
Fe II	1259.06	1	
Cu IV	1259.076	23	
Br I	1259.199	15	
Ca III	1259.209	150	
Kr III	1259.31	60	
Cu IV	1259.352	18	
Cr III	1259.49	100	20
S II	1259.53	500	1
Mn II	1259.56	8	41
Zn IV	1259.673	5	
Cr III	1259.80	200	5
Zn	1259.843	10	
Ni II	1259.886	1	
Zn III	1259.912	20	
Cu III	1259.937	5	
Mn II	1259.97	6	
Si II	1260.4212 st	500	4
Mn II	1260.52	1	
Fe II	1260.542	400	9
C I	1260.613	200	59
C I	1260.736	250	9
Mn II	1260.77	1	41
Mn III	1260.907	40	
C I	1260.927	200	9
C I	1260.996	150	9
Ni II	1261.068	1	
Cr III	1261.09	10	
C I	1261.122	250	9
Cu IV	1261.132	11	
Cu II	1261.2154	0	
Mn II	1261.27	8	
Cu III	1261.315	1	
Ca III	1261.381	150	
C I	1261.426	250	9
Cr III	1261.53	20	
C I	1261.552	500	9
Br I	1261.658	12	
Ni II	1261.786	12	
F III	1261.859	6	
Cr III	1261.86	400	20
Ge II	1261.9053 st	1000	4
Ni II	1261.975	10	
Ni II	1262.239	8	

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Element	Wavelength	Intensity	Multiplet
Al III	1262.248		
Cr III	1262.34	300	5
Mn II	1262.35	4	41
Al III	1262.440		
Al IV	1262.51	50	
Zn III	1262.541	50	
Mn II	1262.57	4	
Ca III	1262.653	500	
S I	1262.8596	70	
Cu II	1262.9249	3	90
Ni II	1262.979	2	
Cr III	1263.06	50	13
V III	1263.20	150	
Ni II	1263.294	100	
Mg III	1263.375	7	
Zn II	1263.412	40	
Cr III	1263.61	350	20
V III	1263.68	125	
As II	1263.770	950	
Mn II	1263.79	1	
F III	1263.987	6	
Al IV	1264.14	150d	
Zn IV	1264.205	0	
Cr III	1264.21	350	13
Mn IV	1264.412	900	
Mn II	1264.45	12	
Ni V	1264.46	200	
P II	1264.47	30	
P IV	1264.48	40	
Ga IV	1264.6	500	
Ge II	1264.7096 st	300	4
Si II	1264.7374 st	1000	4
Cr III	1264.75	10	
F III	1264.870	3	
Si II	1265.0010 st	100	4
Ni II	1265.157	14	
Cu IV	1265.172	11	
Cr III	1265.22	5	
Zn IV	1265.223	3	
Kr III	1265.32	80	
Zn III	1265.370	60	
Mn II	1265.39	10	40
Cu II	1265.5062	15	91
Mn II	1265.57	2	
Na III	1265.66	40	
Zn IV	1265.716	60	
Cr III	1266.01	20	20
Ni II	1266.065	1	
Mn II	1266.13	8	
Cr III	1266.14	150	5
Br I	1266.200	12	
Fe II	1266.24	2	
C I	1266.270	20	58.01
Cu II	1266.3101	10	89
As II	1266.340	800	
C I	1266.419	100	58
Cr III	1266.53	20	
Ni II	1266.608	8	
Al II	1266.66	0	
Fe II	1266.694	400	9
F III	1266.867	150	
Cu IV	1266.879	29	
P II	1267.06	5	
Ga IV	1267.2	900	
Ga III	1267.25	150	
Zn IV	1267.397	40	
Fe II	1267.437	500	9
Ni II	1267.478	6	
As II	1267.588	800	
C I	1267.596	50	57
F III	1267.711	200	
Ni II	1268.007	8	
Cr III	1268.01	250	5
Zn III	1268.077	50	
Cr III	1268.15	20	13
F III	1268.27	3	
Ni II	1268.359	2	
Zn III	1268.423	50	
Ge II	1268.444	2	
Ar II	1268.483	100	
Cu IV	1268.546	36	
F III	1268.573	35	
Cu II	1268.6686	0	
Cu IV	1268.748	32	
Zn III	1268.792	10	
Mn II	1268.90	10	40
As III	1269.0	150	
Ni II	1269.059	1	
Mn III	1269.104	800	
Cr III	1269.11	250	13
Zn IV	1269.144	4	
S I	1269.2086	50	
Ca III	1269.333	10	
Cu IV	1269.342	27	
F III	1269.368	20	
Mn II	1269.42	5	40
Cu II	1269.4464	1	
Mn II	1269.54	0	
F III	1269.559	60	
Ni II	1269.917	2	
Fe II	1269.96	0	
Ni II	1270.061	1	
As II	1270.110	5	
Ni II	1270.180	15	
Kr III	1270.20	100	
N IV	1270.280	250	18.75
Ca III	1270.333	450	
Zn III	1270.573	50	
Co III	1270.646	1	
S I	1270.7821	100	
F III	1271.075	10	
V IV	1271.153	2	
Mn II	1271.22	2	
Cu III	1271.234	3	
Fe II	1271.235	20	9
Mg II	1271.2388 P	80	
Zn III	1271.291	8	
Cu II	1271.3178	2	90
Fe II	1271.37	1	
Mg III	1271.784	2	
Cu III	1271.839	1	
Cr III	1271.85	200	13
Co II	1271.940	20	
Mg II	1271.9402 P	90	
Ni II	1271.993	1	
Fe II	1272.001	500w	9
Zn III	1272.037	50	
Cu II	1272.0417	8	102
S I	1272.0749	30	
Ni II	1272.080	1	

Element	Wavelength	Intensity	Multiplet
N IV	1272.160	200	18.75
Mn II	1272.18	6	
Zn IV	1272.192	50	
Co III	1272.416	2	
F III	1272.463	3	
Ca III	1272.544	100	
Fe II	1272.638	300	9
Al IV	1272.70	150d	
Mg II	1272.7212 P	80	
N IV	1272.74	100	18.75
F III	1272.795	6	
Cu IV	1272.858	12	
Zn IV	1272.963	60	
V IV	1272.972	30	
Cr III	1273.31	150	5
Cu IV	1273.352	12	
Mg II	1273.4232 P	110	
N IV	1273.47	150	18.75
Ni II	1273.488	2	
V IV	1273.529	10	
Cu II	1273.7007	2	90
N IV	1273.716	100	18.75
Ni II	1273.717	1	
Cu IV	1273.720	15	
Ca III	1273.775	100	
Zn IV	1273.818	30	
Cu II	1274.0708	3	
Mn II	1274.08	2	
Ge II	1274.100	5	
C I	1274.109	50	8
Ni II	1274.180	2	
Ni II	1274.270	100	
Si II	1274.300	3h	
As III	1274.3	240	
Zn III	1274.383	60	
Cu II	1274.4651	3	
Cu IV	1274.721	82	
C I	1274.756	20	56
Ni II	1274.802	10	
Mg III	1274.831	100	
Mn II	1274.84	2	
Cu IV	1274.843	158	
C I	1274.984	150	55
N II	1275.038 P	300	
Mn II	1275.10	20	59
Fe II	1275.154	300	9
N II	1275.251 P		
N II	1275.275 P		
Cr III	1275.34	150	
Cu II	1275.5717	30	89
Ni II	1275.640	10	
Si II	1275.662	5h	
Zn IV	1275.756	40	
V III	1275.78	75	
Fe II	1275.801	400	9
Mn II	1275.97	40	58
Mn III	1276.092	700	
N II	1276.201 P	200	
Zn III	1276.219	60	
N II	1276.225 P		
Mn II	1276.24	20	59
C I	1276.287	50	
F III	1276.352	3	
Mn II	1276.45	8	59
Mn III	1276.467	50	
C I	1276.483	100	
Na II	1276.597	30	
Cu IV	1276.641	104	
C I	1276.750	200	
Cr III	1276.76	200	
Cu IV	1276.766	19	
Mn II	1276.77	10	59
N II	1276.800 P	100	
Se II	1276.84	200	
Ni II	1276.859	1	
Ni V	1276.90	100	
Co II	1276.914	0	
Ni XIII	1277.0	f	
Zn IV	1277.110	60	
Mn II	1277.12	20b	59
Mn II	1277.12	20b	58
S I	1277.199	40	
S I	1277.216	90	
Cr III	1277.23	30	
Ni II	1277.243	20	
C I	1277.245	300	7
C I	1277.282	700	7
Zn II	1277.306	60	
Ni II	1277.344	1	
C I	1277.513	100	7
Zn II	1277.523	40	
C I	1277.550	1000	7
Ni II	1277.617	1	
Mn IV	1277.628	100	
Fe II	1277.667	10	9
C I	1277.723	250	7
Ni II	1277.725	2	
Mn II	1277.82	20	58
Cu IV	1277.849	11	
C I	1277.954	70	7
Ni II	1277.967	18	
P II	1278.094	5	
Cu IV	1278.187	29	
Mn II	1278.369	10	
Ca III	1278.392	550	
Zn IV	1278.491	20	
P I	1278.57	3	
Ni II	1278.637	100	
Cr III	1278.71	20	13
Mn II	1278.75	15	58
F III	1278.810	60	
Cu IV	1278.848	11	
Mn II	1278.90	2	
Kr III	1278.94	20	
Zn III	1279.021	50	
C I	1279.056	100	6
Mn II	1279.09	10	58
Ga IV	1279.2	500	
C I	1279.229	150	6
Ni II	1279.400	1	
Mn II	1279.44	2	58
Br I	1279.477	10	
C I	1279.498	70	6
C I	1279.890	250	5
Cr III	1279.91	200	12
Cu II	1279.9615	0	
Ge II	1280.050	2	
S I	1280.0991	50	
Mn II	1280.11	10	
C I	1280.135	200	5

Element	Wavelength	Intensity	Multiplet
Ar II	1280.225	100	
Cu II	1280.2682	5	
C I	1280.333	700	5
Cu IV	1280.353	113	
Si III	1280.354	120	63
C I	1280.404	75	5
Zn IV	1280.443	60	
C I	1280.597	200	5
Mg III	1280.702	2	
C I	1280.847	250	5
Cu IV	1280.889	59	
As II	1280.987	700	
Ni II	1281.056	1	
Cu II	1281.2570	3	
Zn IV	1281.292	15	
Na II	1281.308	15	
Cu II	1281.4616	8	
Zn III	1281.508	40	
Ca III	1281.553	500	
Zn	1281.573	20	
Ni II	1281.609	5	
Ni II	1281.704	4	
Ni II	1281.723	12	
Mn IV	1281.727	30	
Ni II	1281.834	50	
Cr III	1281.98	200	
Zn IV	1282.027	20	
Ni II	1282.179	2	
F III	1282.240	10	
Ge II	1282.345	15	
Zn IV	1282.363	50	
Cu II	1282.4547	15	102
Ti III	1282.484	125	2
Ar II	1282.620	100	
Cu IV	1282.702	12	
Ni II	1282.732	1	
Ni II	1282.825	10	
P I	1282.96	6w	
F III	1283.098	6	
Cr III	1283.12	50	13
Kr III	1283.31	60	
Ni II	1283.399	12	
Al IV	1283.48	10	
Zn IV	1283.497	50	
Mn III	1283.581	500	9
Ni II	1283.731	3	
Kr III	1283.80	60	
Cu II	1283.8298	1	
P I	1283.89	6	
Zn III	1283.941	50	
P III	1283.95	10	
Mn III	1284.058	30	9
Cr III	1284.09	200	12
F III	1284.105	3	
Zn IV	1284.185	40	
N IV	1284.218	150	18.87
V III	1284.27	150	5
P II	1284.31	5	
Ni II	1284.327	25	
Zn IV	1284.382	50	
Cr III	1284.46	10	
Cu IV	1284.702	52	
Zn IV	1284.715	50	
Mn II	1284.76	2	
Ar II	1284.793	100	
P I	1284.80	3	
Cu II	1284.8712	8	
Na II	1285.117	12	
Ga IV	1285.3	600	
Cu II	1285.5186	1	
Na II	1285.686	25	
Zn III	1285.752	40	
P I	1285.84	2	
Cr III	1285.90	10	
Ca III	1285.908	400	
Cu II	1285.9222	1	
Mn II	1285.95	8	
Cu IV	1286.119	12	
S IV	1286.17	100	
Ti III	1286.228	90	2
Br I	1286.259	10	
Ni II	1286.338	50	
Ti III	1286.365	700	2
Ga II	1286.38	250	
Ni II	1286.396	3	
Se II	1286.41	300	
P I	1286.44	9	
Ca III	1286.523	600	
Ni II	1286.561	50	
Co III	1286.626	1	
Cr III	1287.05	400	12
V III	1287.19	50	5
Ni II	1287.329	15	
V III	1287.34	75	5
Cu II	1287.4683	15	102
As II	1287.538	700	
Mn III	1287.589	400	9
V III	1287.87	500	5
Mn II	1287.978	15	57
Ca III	1288.029	100	
C I	1288.037	200	54
C I	1288.422	500	53
V III	1288.63	100	5
Mn III	1288.682	50	9
C I	1288.710	100	52
Zn III	1288.767	40	
Zn IV	1288.875	40	
C I	1288.917	100	51.02
Ni II	1289.024	9	
Fe II	1289.09	1	
Mn II	1289.13	15	57
Na II	1289.213	60	
Ni II	1289.298	3	
Ti III	1289.299	500	2
Mn II	1289.35	8	
Ni II	1289.354	7	
Ni II	1289.369	11	
V III	1289.42	400	
Ni II	1289.513	2	
P II	1289.57	30	
Ni II	1289.656	6	
Ni II	1289.682	1	
Cr III	1289.81	200	
C I	1289.891	50	51.01
Zn III	1289.935	50	
C I	1289.977	300	51
Zn III	1290.051	50	
Ge II	1290.07	100h	
P III	1290.13	1	
Fe II	1290.204	300	88

Element	Wavelength	Intensity	Multiplet
Zn IV	1290.440	40	
Ni II	1290.442	1	
V III	1290.46	100	5
Mn II	1290.52	8	6
V III	1290.77	300	
Fe II	1290.78	0	
Zn III	1290.789	5	
Ni II	1290.908	4	
Cr III	1290.93	200	37
Mn II	1290.93	10	6
Cu IV	1290.969	72	
Se II	1290.97	800	14
Cu IV	1291.084	58	
Cr III	1291.25	20	37
Ni II	1291.251	10	
C I	1291.304	100	50
V III	1291.40	15	
Cr III	1291.53	250	37
F III	1291.565	1	
Mn II	1291.58	10	6
V III	1291.59	5	5
Fe II	1291.594	300	87
Ni II	1291.614	10	
Mn III	1291.618	300	9
Ti III	1291.622	450	2
Mn II	1291.70	10	
Mn III	1291.714	600	9
V III	1291.76	25	5
Cr III	1291.77	250	37
Zn IV	1291.795	50	
Al	1291.81	10	
Ge II	1291.82	2	
C VI	1291.9 P		
Zn II	1292.00	3	
Ni II	1292.033	2	
Ni II	1292.224	2	
Zn III	1292.231	50	
Zn IV	1292.484	60	
Mn II	1292.57	10	
V III	1292.79	250	5
Mn II	1292.87	15	57
Ti III	1293.228	400	2
Ni II	1293.232	5	
Cu IV	1293.476	173	
Ga III	1293.50	200	
Ni II	1293.533	6	
Fe II	1293.543	10	88
Cr III	1293.57	100	
Mn III	1293.661	200	9
Cu IV	1293.780	13	
Ca III	1293.871	450	
Ne II	1293.902	70	
Mn II	1293.92	1	
Mn IV	1293.930	150	
Na II	1293.974	60	
Kr III	1293.99	60	
Cu IV	1294.142	104	
F III	1294.279	1	
Zn IV	1294.306	10	
Se II	1294.41	300	15
Mn II	1294.437	2	
Ni II	1294.500	10	
Si III	1294.543	340	4
P II	1294.64	150	
Ti III	1294.698	600b	1
Mn II	1294.803	10	57
V III	1294.82	50	
F III	1294.83	1	
Fe II	1294.914	240	87
Ni II	1294.968	2	
Mn II	1295.15	10	57
Zn III	1295.318	50	
Ga III	1295.45	100	
Zn III	1295.465	10	
S I	1295.6526	110	9
Cu III	1295.700	0	
Mn II	1295.74	6	57
V III	1295.76	150	
Co II	1295.853	30	
Ti III	1295.883	400	1
Ga IV	1295.9	750	
Cr III	1296.01	40	
Mn II	1296.03	3	57
Fe II	1296.088	400	86
S I	1296.1738	70	9
Br III	1296.3	1000	
C III	1296.33	200d	12.07
Mn II	1296.43	6	57
Zn IV	1296.589	50	
N IV	1296.600	250	18.86
S IV	1296.61	200	
Mn II	1296.67	5	57
Si III	1296.726	280	4
Zn IV	1296.730	50	
Cu IV	1296.752	14	
Cu IV	1296.878	11	
F III	1296.940	20	
Ni II	1296.950	13	
Ni II	1297.087	2	
F III	1297.188	60	
Ni II	1297.417	3	
F III	1297.537	100	
Cu II	1297.5498	2	
F III	1297.757	1	
Na II	1297.856	12	
V III	1297.94	50	
Mn IV	1297.947	0	
Cu II	1297.978	1	
Ca III	1298.035	600	
Ne II	1298.046	80	
F III	1298.072	6	
Na II	1298.142	15	
Cu II	1298.3949	15	101
Zn III	1298.539	50	
Ti III	1298.659	1000b	1
Zn III	1298.689	50	
Zn	1298.783	10	
Mn II	1298.800	6	
Fe II	1298.815	40	87
Si III	1298.891	300	4
Cu II	1298.9053	1	
Si III	1298.960	360	4
Ti III	1298.970	800	1
Na II	1299.018	30	
F III	1299.055	3	
V III	1299.07	50	
Mn II	1299.09	5	
V III	1299.25	50	
Cu II	1299.2678	10	89
As IV	1299.3	500	

Element	Wavelength	Intensity	Multiplet
Ga IV	1299.5	750	
Co II	1299.551	30	12
Cr III	1299.56	40	
Mn II	1299.66	5	
Fe II	1299.984	10	86
F III	1300.466	3	
Mn II	1300.52	1	
Cu IV	1300.572	16	
Si III	1300.703 P		54
Ni V	1300.97	50	
Mn II	1301.06	4	
Zn IV	1301.082	30	
Si III	1301.146	280	4
Zn IV	1301.204	50	
Mn II	1301.31	3	
Zn III	1301.371	40	
Zn III	1301.687	50	
Na II	1301.782	15	
Zn IV	1301.865	40	
P II	1301.87	200	2
Cu IV	1301.999	11	
Mn II	1302.12	1	
Al IV	1302.13	100	
O I	1302.1686 ST	1000	2
Ni II	1302.246	10	
S I	1302.3370	100	9
Co II	1302.378	20	
Cr III	1302.45	20	
Kr III	1302.59	40	
F III	1302.599	6	
Ni II	1302.603	1	
Mn II	1302.61	9	
Cr III	1302.85	5	
S I	1302.8633	80	9
Fe V	1302.99	100	
Fe II	1303.04	0	
Ni II	1303.078	4	
S I	1303.1105	80	9
Mn II	1303.12	1	
Ni II	1303.170	2	
Ni II	1303.237	0	
Ni II	1303.283	5	
Si III	1303.320	320	4
S I	1303.4295	85	
Cr III	1303.47	40	
Ga IV	1303.5	750	
Mn II	1303.52	4	
Zn III	1303.551	50	
Fe V	1303.59	100	
F III	1303.624	6	
Cu II	1303.6602	2	
F III	1303.871	35	
Na II	1303.957	15	
Cu II	1303.9783	2	
V IV	1304.173	30	
F III	1304.368	20	
Si II	1304.3720 st	100	3
P II	1304.47	200	2
Na II	1304.546	15	
Ni II	1304.555	1	
Ni II	1304.594	10	
P II	1304.68	150	2
F III	1304.705	1	
Zn III	1304.769	50	
O I	1304.8575 ST	600	2
F III	1305.008	0	
Ni II	1305.083	6	
Mn II	1305.136	10	
Cu IV	1305.168	18	
Ni II	1305.169	25	
Ni III	1305.344	100	
V IV	1305.420	40	
Cu IV	1305.468	10	
P II	1305.48	350	2
Cu II	1305.5608	5	
Si II	1305.590	50h -A	13.04
Cu IV	1305.617	11	
Mn II	1305.63	15	56
F III	1305.697	3	
As II	1305.701	700	
F III	1305.870	35	
Mn II	1305.87	5	
S I	1305.8834	95	9
O I	1306.0286 ST	200	2
F III	1306.04	60	
Zn IV	1306.097	40	
F III	1306.122	20	
Cr III	1306.16	60	
Mn II	1306.17	5	
V III	1306.21	50	
Cu IV	1306.256	90	
Ni II	1306.279	4	
Zn III	1306.322	50	
Ni II	1306.528	1	
Mg III	1306.59		
Ni V	1306.60	100	
Na II	1306.618	20	
Ni II	1306.621	6	
Zn IV	1306.641	60	
Mg II	1306.7139 P	110	
Zn II	1306.741	5	
Mn II	1306.81	10	
Co II	1306.935	30	12
Co II	1306.969	10	
F III	1306.991	6	
Ni II	1307.146	10	
Se IV	1307.2	700	
Cr III	1307.24	100	
Fe II	1307.24	0	
Ni II	1307.276	50	
Zn III	1307.384	60	
Mn II	1307.41	1	
Cr III	1307.47	10	
Cu IV	1307.600	128	
Cr III	1307.64	60	
As II	1307.74	350	
Mg II	1307.8754 P	120	
Mg IV	1307.934	100	
Na II	1307.936	10	
V IV	1308.061	50	
Mn II	1308.16	1	
Cr III	1308.27	150	
Mg II	1308.2809 P	120	
Cu II	1308.2971	30	101
Zn III	1308.450	5	
Zn III	1308.569	60	
Br III	1308.6	500	
Mg III	1308.654	2	
C III	1308.70	200	11.44
Ni II	1308.714	8	

Element	Wavelength	Intensity	Multiplet
Cu IV	1308.822	205	
Ni II	1308.869	16	10
Se II	1308.89	800	15
Ni II	1309.079	0	
Si II	1309.2769 st	200	3
Mn II	1309.29	1	
Cr III	1309.34	200	28
Ni IV	1309.340	30	
Ca III	1309.418	50	
Cu IV	1309.427	212	
Mg II	1309.4434 P	140	
Si II	1309.458	20h	13.04
Cu II	1309.4633	15	101
V IV	1309.502	10	
Zn II	1309.521	1 -A	
N IV	1309.557	200	18.55
Ga IV	1309.6	500	
Mn II	1309.72	3	
Si II	1309.77	2h	13.04
P II	1309.87	250	2
Br I	1309.908	30	
F III	1310.117	3	
Zn III	1310.117	60	
Cr III	1310.18	30	
S I	1310.1940	100	
Mg III	1310.271	2	
Cu IV	1310.319	23	
Ni II	1310.358	1	
Ni II	1310.457	15	
N I	1310.5401	200	13
Mg III	1310.633	7	
C I	1310.637	200	49
Ca III	1310.669	450	
P II	1310.70	600	2
Mg III	1310.720	2	
N I	1310.9429	150	13
N I	1310.9495	25	13
Zn III	1311.104	50	
Co II	1311.124	10d	12
Ni II	1311.152	1	
Na II	1311.158	10	
Ge II	1311.249	50h	
Si II	1311.265	2h	
C I	1311.363	1000	48
Cu IV	1311.505	15	
Mg IV	1311.693	200	
Cu II	1311.7947	1	
Cu IV	1311.855	66	
Co II	1311.864	10	12
C I	1311.924	200	47
Zn IV	1311.939	50	
F III	1311.963	1	
Mg IV	1311.97	1	
Na II	1312.026	30	
C I	1312.247	100	46
Cu III	1312.400	5	
Na II	1312.587	20	
Si III	1312.590	260	10
Cu IV	1312.715	221	
V IV	1312.717	20	
F III	1312.763	1	
Cu IV	1312.790	169	
Mn II	1312.80	2	
N I	1312.87	3	
Zn III	1312.904	35	
Cu IV	1312.948	15	
N I	1313.08	3	
S I	1313.2493	60	
Br III?	1313.3	500	
Cu III?	1313.313	1	
V III	1313.35	400	6
C I	1313.387	100	45.01
Ni II	1313.403	7	
Mn II	1313.41	2	56
C I	1313.464	300	45
Se I	1313.53	60	
Mn II	1313.77	10	56
V II	1313.82	5	
Ni II	1313.903	2	
Zn III	1314.067	60	
Cu II	1314.1495	15	149
Ge II	1314.15	10h	
Cu II	1314.3366	30	101
Se IV	1314.4	800	
Mg III	1314.50		
Ni IV	1314.760	30	
Ni II	1314.771	12	
Zn III	1314.796	60	
Ga IV	1314.8	250	
Ni II	1314.847	12	
Cr III	1315.00	100b	33
Cr IV	1315.00	100b	
Ni II	1315.255	70	
Zn	1315.262	15	
Co II	1315.393	0	12
N I	1315.44	3	
Cr III	1315.44	20	28
Ni II	1315.558	3	
Cr IV	1315.86 P	125	
C I	1315.918	200	44
Co II	1316.086	0	12
Mn III	1316.091	80	
Cu III?	1316.143	3	
Cr III	1316.16	200	
Mn II	1316.16	9	80
Se I	1316.26	60	
N I	1316.2906	2	
Cr III	1316.40	200	28
F III	1316.401	35	
Mg IV	1316.482	20	
Fe II	1316.49	1	
Ni II	1316.502	4	
F III	1316.531	35	
S I	1316.5423	160	8
S I	1316.6183	120	8
Br I	1316.735	30	
Ni II	1317.045	6	
Ni II	1317.122	10	
Ni II	1317.220	500	10
V III	1317.27	300	6
Br I	1317.372	10	
Mn II	1317.39	3	56
Zn III	1317.509	0	
Ni II	1317.531	15	
V IV	1317.566	5	
Br I	1317.695	20	
Ca III	1317.699	550	
Mn II	1317.70	4	56
F III	1317.744	3	
F III	1317.975	6	

Element	Wavelength	Intensity	Multiplet
Zn IV	1317.975	50	
Ni II	1318.017	100	
B V	1318.05 P		
Mg III	1318.078	12	
Mn II	1318.09	3	56
Cu IV	1318.140	280	
Se II	1318.25	700	14
Ni V	1318.47	200	
Cu III	1318.582	1	
Co II	1318.589	0	12
N I	1318.8224	5	
P III	1318.91	10	
N I	1318.9981	150	12
N I	1319.0048	80	12
Zn III	1319.096	60	
Ni IV	1319.139	30h	
Zn IV	1319.200	5	
Mn II	1319.21	10	80
Ge II	1319.3	10h	
Ni II	1319.310	8	
Cu IV	1319.433	129	
N I	1319.6693	50	12
N I	1319.6760	250	12
Cr IV	1319.68 P	150	
Mg III	1320.022	4	
F III	1320.203	3	
Cu IV	1320.206	11	
F III	1320.451	1	
Cu II	1320.6858	10	148
Zn IV	1320.699	50	
Al	1320.71	10	
Ni II	1320.799	0	
Cr IV	1320.85	40	
Cu IV	1321.168	101	
Zn IV	1321.188	50	
Ni II	1321.432	3	
F II	1321.515	10	
Mn IV	1321.588	20	
Cr III	1321.65	30	28
Ni II	1321.704	2	
V IV	1321.719	10	
Cu II	1321.7962	5	
Ni III	1321.804	10	
V IV	1321.917	10	
Se I	1322.06	20	
Mn III	1322.186	40	
Na II	1322.295	12	
Zn IV	1322.308	50	
Zn IV	1322.414	50	
Cu II	1322.6326	6	
Mn XII	1322.8	f	
Ni II	1322.825	2	
Cr III	1322.83	100	28
Ni II	1323.107	1	
Ga III	1323.15	300	
Ge III	1323.15	80	
As I	1323.2	3	
Cu II	1323.2042	3	
Cr III	1323.22	10	
F III	1323.311	3	
Ni II	1323.417	25	
Zn III	1323.512	50	
S I	1323.5153	180	8
S I	1323.5220	45	8
Mn II	1323.76	15	80
Mn II	1323.78 P		80
Cu II	1323.7943	6	148
Mn II	1323.81 P		80
C II	1323.8617 ST	30	11
C II	1323.9059 ST	300	11
C II	1323.9513 ST	450	11
N IV	1323.98	100b	18.81
C II	1323.9955 ST	30	11
Cu III?	1324.033	3	
Fe II	1324.25	0	
N III	1324.40	150	
Zn III	1324.455	20	
Ni II	1324.475	25	
Ar II	1324.51	30	
Br III	1324.8	500	
Ni IV	1324.859	100	
Cr IV	1325.03 P	200	
Ni II	1325.105	1	
F III	1325.214	6	
Ni II	1325.242	1	
Cu II	1325.2421	1	
Ni II	1325.359	100	
P III	1325.51	70	
Cu II	1325.5135	3	
Cu IV	1325.524	16	
Fe II	1325.61	2	
Zn IV	1325.659	5	
N IV	1325.685	50	18.81
Ni II	1325.691	4	
Zn III	1325.831	30b	
Zn IV	1325.831	30b	
Cr IV	1325.86 P	50	
Ni II	1326.292	7	
Cu III	1326.379	2	
Cu II	1326.3954	10	147
Ni II	1326.548	11	
N I	1326.5639	10	11
N I	1326.5707	50	11
Ni II	1326.623	12	
Mn II	1326.63	10	
S I	1326.6432	160	8
V IV	1326.666	5	
Zn III	1326.708	50b	
Zn IV	1326.708	50b	
V IV	1326.807	5	
Se I	1326.83	40	
Zn III	1326.899	50	
F III	1326.926	20	
N IV	1326.964	20	18.81
F II	1327.058	200	
Fe II	1327.10	0	
Cr III	1327.17	10	
Cu III?	1327.178	3	
Ni II	1327.187	3	
Ni II	1327.319	20	
Mn II	1327.48	12	79
Mg III	1327.512	4	
Ti III	1327.592	550	4
Cu IV	1327.622	11	
Ni IV	1327.655	50	
Si III	1327.703 P		53
Ni II	1327.730	8	
Na II	1327.742	50	
Ni II	1327.755	50	
Cr III	1327.79	100	

Element	Wavelength	Intensity	Multiplet
Se I	1327.80	20	
Ga II	1327.81	250	
V III	1327.87	150	
N I	1327.9170	25	11
N I	1327.9238	15	11
Ni III	1328.084	75	
Mg IV	1328.09	1	
Br III?	1328.1	750	
F II	1328.108	300	
S III	1328.12	50	
Cr III	1328.37	10	
Zn III	1328.372	50	
Cu II	1328.4129	5	
Ni IV	1328.470	70	
Na II	1328.497	12	
S III	1328.52	50	
Zn III	1328.561	40	
Mn IV	1328.564	0	
Se I	1328.75	80	
Cr III	1328.78	10	
Si III	1328.806 P		48
C I	1328.8332 ST	150	4
Ni II	1328.847	3	
Ca III	1328.945	500	
Ni II	1328.964	25	
V III	1329.05	25	9
Zn IV	1329.061	5	
C I	1329.0863 ST	150	4
C I	1329.1001 ST	200	4
C I	1329.1230 ST	110	4
C III	1329.187 P		11.59
Mn II	1329.25	1	
V IV	1329.288	10	
Cr III	1329.29	20	
C I	1329.5775 ST	600	4
Mg III	1329.583	60	
C I	1329.6005 ST	200	4
Cu II	1329.6696	1	
F III	1329.704	1	
Ti III	1329.837	40	
Ni II	1329.857	13	
Ni IV	1329.885	10	
F III	1329.892	6	
Zn III	1329.923	40b	
Zn IV	1329.923	40b	
V IV	1329.968	10	
Fe II	1330.05	1	
Zn III	1330.087	40	
Zn III	1330.178	40	
Zn III	1330.297	40b	
Zn IV	1330.297	40b	
V IV	1330.355	10	
Cu III	1330.365	1	
F III	1330.490	6	
Br III	1330.5	500	
Se I	1330.55	80	
Mn II	1330.61	12	79
Ni III	1330.787	2	
Zn III	1330.897	40	
Kr II	1330.948	20	
Ni II	1331.264	9	
V III	1331.30	100	
Zn IV	1331.390	40	
Kr II	1331.402	20	
Mn II	1331.42	8	
Cr III	1331.56	50	
Mg IV	1331.630	30	
V IV	1331.665	0	
Zn III	1331.823	50	
Cu II	1331.8907	5	
Cr IV	1331.91 P	50	
V III	1331.99	500	9
F II	1332.042	100	
Cu II	1332.2228	5	148
Mg III	1332.310	4	
Cr IV	1332.44 P	250	
V IV	1332.459	3	
F II	1332.512	100	
Mn IV	1332.660	20	
Ni II	1332.706	1	
Ni II	1332.766	6	
Ni II	1332.808	7	
Cu III?	1332.985	8	
Cu II	1333.0452	20	163
F III	1333.139	60	
As II	1333.147	750	
Zn IV	1333.168	40	
Ni II	1333.171	3	
Zn IV	1333.296	50	
As IV	1333.3	100	
Se II	1333.32	300	
Mn IV	1333.561	10	
F II	1333.588	200	
S I	1333.792	2	
Ni II	1334.101	10	
Ni II	1334.287	12	
F III	1334.292	3	
Mg III	1334.359	30	
V IV	1334.493		
Cu II	1334.5063	2	
C II	1334.5323 ST	800	1
Cu II	1334.6546	2	
P III	1334.87	650	1
Cu IV	1335.043	106	
V III	1335.12	500	9
Ca III	1335.129	550	
Ni II	1335.203	400	
Mn II	1335.27	25	79
Cu IV	1335.554	87	
C II	1335.6627 ST	100	1
C II	1335.7077 ST	1000	1
Cl I	1335.7257	250	2
Ni II	1335.779	18	
Zn III	1335.846	50	
Mg III	1335.951	2	
Mn IV	1336.123	450	
Ni II	1336.201	2	
Ni IV	1336.790	70	
Mg IV	1336.884	60	
Zn IV	1336.889	40	
As IV	1336.9	20	
Mn IV	1336.918	400	
Zn III	1336.996	2	
F III	1337.196	6	
Se II	1337.23	50	
Cu IV	1337.364	76	
Na III	1337.39	120d	
Ca III	1337.466	200	
P III	1337.50	70	
Cu II	1337.5114	0	

Element	Wavelength		Intensity	Multiplet
Zn III	1337.571		20	
Cu III	1337.572		3h	
P III	1337.71		150	
Ni IV	1337.737		100	
Al	1337.86		50	
Ni II	1337.958		15	
Mn IV	1338.061		350	
Ga IV	1338.1		750	
Cr IV	1338.20	P	10	
Cu III?	1338.386		1	
Ni II	1338.402		1	
Na II	1338.575		35	
O IV	1338.612		200	
Zn III	1338.659		20	
Ni IV	1338.786		70	
Cu III?	1338.858		1	
Zn III	1338.939		50	
Ni IV	1339.071		740	
Cu IV	1339.179		45	
Ni II	1339.221		3	
V IV	1339.335		5	
F III	1339.337		6	
Ni II	1339.394		1	
Ni II	1339.487		3	
Cu II	1339.4952		0	
Cu III	1339.497		3	
Ti III	1339.691		170	
Cu II	1339.7713		5	
Cr IV	1339.84	P	50	
Ni II	1340.007		15	
Cu IV	1340.102		240	
Zn IV	1340.162		50	
Fe II	1340.22		0	
Ni II	1340.374		20	
Mn IV	1340.617		250	
Zn III	1340.656		3	
Cu II	1340.9141		3	
Ge II	1340.92		5h	
Cr III	1341.17		10	
Cu III?	1341.178		1h	
Ni II	1341.226		0	
Na II	1341.369		35	
Ni III	1341.421		10	
Mn IV	1341.461		300	
Si III	1341.465		160	39
Si III	1341.496	P		39
Cu III	1341.497		1	
As II	1341.549		950	
Ca II	1341.889		240	2
Se I?	1342.04		80	
Cu IV	1342.092		61	
Ni III	1342.148		50	
Mg IV	1342.193		300	
Cu III	1342.193		2h	
Cr III	1342.24		40	
Ni II	1342.242		20	
Si III	1342.351	P		39
Si III	1342.392		140	39
Na II	1342.401		20	
Si III	1342.432	P		39
Ca II	1342.535		120	2
Kr III	1342.68		20	
As IV	1342.7		350	
Zn IV	1342.720		50	
Cu IV	1342.741		190	

Element	Wavelength		Intensity	Multiplet
O IV	1342.992		120	
Cu III	1343.032		1	
S III	1343.25		50	
N II	1343.338	P	200	
Zn III	1343.355		60	
Si III	1343.388		120	39
O IV	1343.512		275	
S III	1343.53		50	
Ni II	1343.544		10	
N II	1343.574	P		
F II	1343.603		300	
Ni II	1343.642		2	
Cu III?	1343.730		3	
Zn IV	1343.794		50	
P III	1343.8		70 -A	
Cu IV	1343.992		40	
F II	1344.037		200	
Zn IV	1344.063		50	
Mn II	1344.14		50	
Ni II	1344.196		2	
F II	1344.295		100	
Ni II	1344.334		1	
P III	1344.34		1000	1
Mn II	1344.35		6	
Cu III?	1344.363		1	
V IV	1344.493		0	
Ni II	1344.614		50	
P III	1344.90		650	1
Cu IV	1344.994		63	
N II	1345.076	P		
Cr III?	1345.12		100	
N II	1345.313	P	100	
N II	1345.340	P		
Cr III?	1345.46		70	
Cu III?	1345.506		1	
Se I	1345.54		80	
Mn II	1345.62		2	
Zn IV	1345.622		10	
Cu IV	1345.665		360	
Mg IV	1345.677		10	
Ni IV	1345.718		760	
Mn II	1345.77		15	
N III	1345.81	P	200 -A	
Ni II	1345.882		50	
Mn IV	1346.014		0	
Cu III?	1346.062		3	
Ni IV	1346.083		740	
Zn III	1346.146		50	
N III	1346.22	P	200 -A	
Ni II	1346.334		1	
N II	1346.413	P		
N II	1346.441	P	10	
Mg III	1346.46			
Mg IV	1346.573		800	
Mn III	1346.58		100	
Se I	1346.58		10	
Cr IV	1346.62	P	10	
Mg IV	1346.680		300	
Mn III	1346.854		50	
Mn IV	1346.865		0	
Si II	1346.873		100	7
Mn II	1346.94		1	
P III	1347.00		200 -A	
Ga IV	1347.0		150	
V IV	1347.030		1	

Element	Wavelength	Intensity	Multiplet
Cu III	1347.048	2h	
Mn III	1347.087	0	
Cl I	1347.2397	550	2
Zn III	1347.286	50	
Fe II	1347.29	1	
Se II	1347.31	100	
As IV	1347.5	450	
Se I	1347.50	20	
P III	1347.51	10 -A	
Na II	1347.543	45	
N III	1347.56	10 -A	
Mn III	1347.62	80	
Cu IV	1347.811	212	
Zn IV	1347.949	50	
Cu III	1348.077	0	
Ni II	1348.333	30	
Mg III	1348.342	7	
Zn IV	1348.354	40	
Se I	1348.40	100	
Cr IV	1348.44	20	
P III	1348.45	10 -A	
Si II	1348.543	100	7
Cu IV	1348.569	147	
Cu III?	1348.584	2	
Ar II	1348.751	100	
Cu IV	1348.880	171	
P III	1349.11	200 -A	
Mg III	1349.132	12	
Mg III	1349.365	2	
Mn II	1349.41	5	
Cu III?	1349.441	3	
Fe XII	1349.57	30f	
Ni II	1349.594	0	
Cu IV	1349.598	38	
Fe II	1349.60	0	
Co IV	1349.61	30	
Mn III	1349.782	0	
Ni II	1349.791	12	
Cu IV	1349.860	27	
Zn IV	1349.872	50	
Si II	1350.057	150	7
Mg III	1350.156	12	
Cu IV	1350.165	166	
Al II	1350.18	150	
Ni IV	1350.215	650	
Ni II	1350.256	5	
Ni II	1350.321	10	
Zn III	1350.377	50	
Cu IV	1350.390	191	
Cu IV	1350.424	191	
As I	1350.5	2	
Si II	1350.520	20	7
Cu II	1350.5938	15	147
Zn III	1350.638	50	
Si II	1350.658	20	7
Zn III	1350.968	10b	
Zn IV	1350.968	10b	
Ga IV	1351.0	100	
Ni III	1351.256	30	
Cu III	1351.271	2	
Ni II	1351.287	10	
As IV	1351.3	350	
Ar II	1351.333	100	
Se I	1351.62	80	
Cr IV	1351.63	40	
Mg IV	1351.652	100	
Cl I	1351.6568	350	2
Na II	1351.799	12	
Cu II	1351.8366	25	147
Ni II	1351.862	35	
F IV	1351.924	10	
Cu IV	1351.925	221	
Cr III	1351.94	10	
Mg IV	1352.049	600	
Ni III	1352.052	20	
Na II	1352.118	35	
Mn II	1352.17	4	
Ni II	1352.237	10	
Zn IV	1352.247	40	
Cu IV	1352.585	217	
Mn III	1352.599	30	
Si II	1352.635	100	7
Mg III	1352.80		
Al III	1352.810	100	
Al III	1352.816	5	
Mn II	1352.83	1	
Al III	1352.858	70	
Zn IV	1352.876	60	
Cu IV	1352.957	166	
Se I?	1353.02	140	
Mn III	1353.027	30	
V III	1353.05	100	
Mn II	1353.33	6	
Zn IV	1353.476	3	
Ni III	1353.512	20	
Cu IV	1353.576	58	
Ni II	1353.606	8	
Si II	1353.718	100	7
Cu IV	1353.720	82	
Al IV	1353.73	10	
Mg III	1353.804	7	
Ni II	1353.821	15	
Se I	1353.86	140	
Mn II	1353.90	1	
As IV	1353.9	300	
Mg III	1353.915	2	
Ga III	1353.94	400	
Zn III	1353.953	50	
Cu III	1353.964	1	
Ni II	1354.023	2	
Fe II	1354.03	0	
Mn II	1354.08	5	
Cr III	1354.16	10	
Zn III	1354.189	50	
C I	1354.288	500	43
Cu IV	1354.318	98	
Cu IV	1354.602	161	
Se I	1354.63	100	
Zn III	1354.650	1	
Cr III	1354.75	50	
Fe II	1354.87	0	
Ar II	1354.915	200	
Cu IV	1354.928	26	
P III	1354.96	10	
As IV	1355.1	100	
V IV	1355.131	80	
Cu II	1355.3053	15	147
Zn II	1355.332	25	
Cu IV	1355.391	136	
Ca III	1355.415	450	

Element	Wavelength	Intensity	Multiplet
Mn IV	1355.441	250	
Zn III	1355.518	30	
O I	1355.5977	100	1
Cu IV	1355.617	17	
Mg IV	1355.67	20	
C I	1355.844	750	42
Mn II	1355.90	1	
As II	1355.933	750	
Mn III	1355.959	20	
Zn IV	1355.967	40	
Ni IV	1356.078	650	
Mg IV	1356.132	200	
Zn IV	1356.178	50	
Cr III	1356.25	10	
Mg IV	1356.277	20	
Cl VII	1356.3		
Ni II	1356.318	5	
As IV	1356.4	100	
Cu III	1356.424	3	
Mn IV	1356.436	0	
Ni II	1356.469	20	
Fe II	1356.48	0	
Zn III	1356.519	50	
V IV	1356.529	10	
Se II	1356.57	50	
Zn	1356.608	10	
Ni II	1356.653	9	
Mn II	1356.74	1	
Cr III	1356.86	20	
Ni IV	1357.063	760	
Ni II	1357.132	11	
C I	1357.134	300	41
Fe V	1357.18	100	
Cr III	1357.20	150	36
Cu IV	1357.313	61	
Ni II	1357.371	5	
Ar II	1357.435	20	
Mn II	1357.45	5	
Zn III	1357.496	15	
C I	1357.659	100	40.01
Cr III	1357.69	20	
Zn IV	1357.787	50	
Se I	1357.79	10	
Ni III	1357.802	50	
Cr III	1357.85	5	36
V III	1357.90	40	
Mn II	1357.91	1	
Cu III?	1358.130	1	
Mn II	1358.32	1	
V II	1358.44	50b	
V III	1358.44	50b	
Cu III	1358.440	1	
Ni II	1358.475	25	
O I	1358.5123	60	1
Mn IV	1358.594	450	
Zn IV	1358.608	30	
Cr III	1358.65	30	
Cu IV	1358.732	220	
Cr III	1358.75	20	
V II	1358.769	0	
Cu IV	1358.770	226	
Cu II	1358.7730	30	3
Mn III	1358.958	40	
Ni II	1358.992	15	
Cu II	1359.0091	20	173
F IV	1359.053	15	
Na II	1359.055	20	
C I	1359.275	200	40
Fe V	1359.41	100	
C I	1359.438	50	39.01
V III	1359.45	5	
Zn IV	1359.460	50	
Al IV	1359.49	10	
Mn XI	1359.5	f	
Zn III	1359.604	50	
Cu IV	1359.616	70	
Se I	1359.7	60	
Si III	1359.751 P		68
Zn III	1359.804	50	
Cu III	1359.833	0	
Mn II	1359.86	2	
Mn IV	1359.890	350	
F III	1359.921	100	
Cu IV	1359.929	41	
Cr IV	1359.93	10	
Cu II	1359.9362	5	
Ca III	1360.010	500	
Fe II	1360.17	0	
Zn III	1360.220	0	
Mn II	1360.24	0	
Si III	1360.360	20	68
Cr III	1360.40	60	
Cr III	1360.56	20	
Mn III	1360.718	1000	8
Ar II	1360.735	100	
Se II	1360.86	50	
Fe II	1360.870	100	111
V II	1360.896	3	
Cu III?	1360.922	2	
Ni II	1360.956	14	
Cr III	1360.97	10	
Mn III	1361.032	10	
Cu IV	1361.146	196	
Cr III	1361.15	200	
Mn III	1361.26	1	
Cr III	1361.30	200	
Zn IV	1361.321	50	
Fe II	1361.372	85	
Fe V	1361.42	500	
Mg IV	1361.526	50	
Si III	1361.597	160	46
Mn II	1361.60	2	
Si III	1361.719 P		68
Ni II	1361.757	5	
Ni II	1361.885	50	
Zn III	1361.979	60b	
Zn IV	1361.979	60b	
Mn IV	1361.996	0	
Cu IV	1362.052	276	
Ca III	1362.222	200	
Zn III	1362.335	5	
Si III	1362.366	100	38
B II	1362.461	600	1
V III	1362.51	50	4
Zn III	1362.523	60b	
Mg IV	1362.526	20	
Zn I	1362.541	60	
Cu II	1362.5997	20	147
Fe II	1362.771	400	152
Ni III	1362.783	3	

Element	Wavelength	Intensity	Multiplet
Cu IV	1362.808	128	
Cr III	1362.85	50	
Ni II	1362.926	20	
Fe V	1363.00	400	
Ar II	1363.032	200	
Cu IV	1363.061	196	
Mg IV	1363.18	10	
Ni IV	1363.258	560	
Zn III	1363.413	60b	
Zn IV	1363.413	60b	
Ni II	1363.421	3	
Cl I	1363.4471	600	2
Si III	1363.459	140	38
Cu II	1363.5031	5	
Si III	1363.504 P		38
Ni II	1363.540	2	
Ni II	1363.617	2	
Fe V	1363.72	300	
Cr III	1363.73	20	
Se I	1363.80	20	
Kr III	1363.85	40	
Ni II	1363.861	1	
Zn IV	1363.913	60	
Ni II	1364.067	25	
C I	1364.164	600	39
Ni II	1364.202	25	
Cr III	1364.26	50	
F III	1364.291	10	
Zn III	1364.323	60	
Fe II	1364.38	0	
Cr IV	1364.49	10	
Ni II	1364.505	20	
Fe II	1364.575	240	103
Mn III	1364.65	5	8
Ga IV	1364.7	50	
Ni II	1364.793	2	
Se II	1364.83	200	
Ti III	1365.021	6	
Ni II	1365.048	25	
Cr III	1365.06	40	
Fe V	1365.14	300	
Cu IV	1365.189	177	
Mn III	1365.199	800	8
Zn IV	1365.233	60	
Si III	1365.253	160	38
Cr III	1365.29	200	36
Si III	1365.292 P		38
Si III	1365.337 P		38
Mg II	1365.5442 P	140	
Si IV	1365.549 P		19
Zn III	1365.702	60	
Fe V	1365.73	300	
Ni II	1365.760	4	
Cu III?	1365.862	1	
Cr III	1365.94	70	36
Mg IV	1366.03	5	
Cr III	1366.06	70	
Na II	1366.242	15	
Zn	1366.390	10	
Cu III?	1366.400	2	
Mn III	1366.46	4	
Cr III	1366.63	120	
Zn II	1366.682	60b	
Zn III	1366.682	60b	
Fe II	1366.720	85	
Se I	1366.78	20	
Cu IV	1366.802	30	
Cr III	1366.88	20	
Ni II	1366.947	5	
Cu IV	1366.960	259	
Zn III	1366.978	60	
Si III	1367.049	140	46
Ni II	1367.067	20	
F III	1367.083	60	
Cr III	1367.13	40	
Cu IV	1367.140	133	
Mg II	1367.2568 P	150	
Cr IV	1367.39	150	
Ni II	1367.394	1	
V III	1367.48	100	
Cu IV	1367.562	178	
Cu III?	1367.646	3	
Mg II	1367.7082 P	150	
Se I	1367.91	10	
Cu II	1367.9509	25	2
Zn III	1368.027	60	
Fe II	1368.098	50	
Zn IV	1368.135	8	
Ni II	1368.171	10	
Mn III	1368.20	20	8
Cr III	1368.23	20	36
V III	1368.31	100	
Ti III	1368.442	25	
Mn II	1368.53	2	
Fe II	1368.57	1	
Si IV	1368.571 P		19
Si IV	1368.573 P		19
Cr III	1368.60	150	36
Cu III	1368.923	1	
Cu IV	1368.972	189	
V III	1369.06	50	
Al	1369.20	10d	
Co XII	1369.4	f	
Mg II	1369.4231 P	180	
Mn III	1369.430	400	8
Si III	1369.437	100	46
Cu IV	1369.497	173	
Zn IV	1369.497	60	
Mn III	1369.535	700	
Cr IV	1369.58	20	
Cu III	1369.612	3	
Ni II	1369.651	20	
V III	1369.70	100	4
As II	1369.770	950	
Cu IV	1369.847	75	
Cu III	1369.988	0	
Ni II	1370.136	500	8
Cr III	1370.20	20	
Cu II	1370.2520	1	
V III	1370.26	100	4
Zn IV	1370.385	60	
P III	1370.39	10 -A	
Zn III	1370.532	60	
Ni II	1370.549	25	
Cu II	1370.5600	2	
Cr III	1370.74	20	
Ni II	1370.804	4	
Cu IV	1370.849	23	
Mg IV	1370.898	10	
Fe V	1371.00	400	

Element	Wavelength	Intensity	Multiplet
Fe II	1371.024	500	
Mg IV	1371.077	150	
Cu III	1371.144	5	
Zn IV	1371.176	50	
Al II	1371.24	5	
O V	1371.292	800	7
Co III	1371.419	1	
Cu II	1371.451	2	
Mn III	1371.647	300	8
Si III	1371.652	60	67
Ni IV	1371.679	580	
Mn II	1371.73	5	
Ni II	1371.733	1	
Mg III	1371.769	4	
Co III	1371.779	2	
Cu II	1371.8399	20	162
P III	1372.01	100 -A	
P I	1372.03	9	
V II	1372.115	2	
Cu IV	1372.142	216	
Cr III	1372.27	60	
Fe II	1372.29	1	
Cu IV	1372.372	192	
V III	1372.43	10	
Mn II	1372.48	2	
Se II	1372.51	100	
Zn III	1372.541	50	
V II	1372.547	3	
P III	1372.71	300 -A	
Cu III	1372.899	3	
Cu III?	1372.965	2	
Si III	1373.030	100	67
Se I	1373.03	40	
Cl I	1373.1163	200	1
Mn II	1373.17	2	
Zn III	1373.200	1	
Mg IV	1373.226	200	
Cu IV	1373.278	157	
Cu III	1373.305	2	
V III	1373.34	5d	
Zn III	1373.381	1	
Cr IV	1373.46	20	
P I	1373.49	60	
As II	1373.650	800	
Fe V	1373.68	600	
Zn III	1373.687	60	
Fe II	1373.717	120	
Ni II	1373.746	4	
Cu IV	1373.748	172	
Cu IV	1373.812	172	
Zn III	1374.005	3	
Cu III	1374.033	2	
Ni II	1374.075	150	9
Zn III	1374.130	1	
V II	1374.279	10	
Cu III?	1374.298	2	
Fe II	1374.41 P		103
Ni III	1374.491	5	
Cu IV	1374.564	136	
Zn III	1374.638	60	
Cu IV	1374.655	113	
Ni III	1374.660	10	
Na II	1374.688	90	
P I	1374.73	6	
Cu III	1374.758	2	
P III	1374.78	100 -A	
Mn II	1374.81	1	
Cr III	1374.91	10	
Se I	1375.03	40	
As II	1375.074	1000	
Si III	1375.083	40	67
As IV	1375.1	500b	
Zn III	1375.105	20	
Mn II	1375.11	4	
Fe II	1375.172	200	
Zn IV	1375.304	60	
F II	1375.319	100	
Cu II	1375.5019	3	
Mg IV	1375.531	100	
Cr IV	1375.56	200	
Na II	1375.618	15	
Cu III	1375.621	3	
Si III	1375.688	40	67
Cu IV	1375.783	160	
As II	1375.783	750	
Ni II	1375.822	50	
Zn IV	1375.954	40	
V III	1375.98	5	
Ar II	1376.106	50	
Ni III	1376.183	15	
V II	1376.220	15	
Cu IV	1376.339	128	
Fe V	1376.45	600	
Co III	1376.576	0	
Fe II	1376.672	10	
Mg III	1376.713	7	
Cu III	1376.807	15	
Cr III	1376.90	10	
Ar II	1376.956	100	
Ni II	1377.001	10	
Se I	1377.04	40	
P I	1377.06	60	
Si III	1377.082	60	67
V III	1377.15	125	
Cu III	1377.182	1	
Ar II	1377.211	400	
Si III	1377.238	40	67
V II	1377.295	10	
Zn III	1377.346	40	
Mg IV	1377.419	50	
Ar II	1377.442	20	
Cu II	1377.477	3	
Cu III	1377.504	15	
Cu III?	1377.559	1	
Zn IV	1377.621	60	
Cu IV	1377.800	172	
Kr III	1377.83	40	
Ni II	1377.912	7	
Zn III	1377.915	50	
P I	1377.93	60	
Mn II	1377.94	15	14
Se I	1377.98	200	11
V III	1377.99	100	
Fe II	1377.99	2	
Cu IV	1378.109	44	
B II	1378.18	1	
Co III	1378.208	1	
Cu III	1378.238	0	
Cu IV	1378.488	210	
Ni II	1378.578	1	

Element	Wavelength	Intensity	Multiplet
Ca III	1378.584	250	
B I	1378.646	10 -A	
Co III	1378.665	5	
Mg III	1378.700	40	
B I	1378.868	20 -A	
Mg III	1378.891	2	
B I	1378.932	40 -A	
As I	1379.0	4	
B I	1379.157	10 -A	
Zn III	1379.161	60	
Zn I	1379.337		
Ar II	1379.378	100	
Cu III	1379.379	0	
P I	1379.40	75	
Fe II	1379.466	40	
Se I?	1379.50	10	
Cl I	1379.5278	900	1
Ni II	1379.586	50	
Fe II	1379.61	0	
Cu IV	1379.640	169	
Al III	1379.670	600	
Cu III?	1379.775	1	
P III	1379.87	500	7
Ar II	1379.884	300	
Ti III	1379.960	25	
Ni II	1379.980	12	
Cu IV	1380.020	170	
Fe V	1380.18	200	
Mn II	1380.32	1	
Ge II	1380.425	100h	10
P III	1380.46	1000	7
Zn III	1380.554	12	
Ar II	1380.728	100	
Co III	1380.775	2	
Ni II	1380.793	20	
Cu IV	1380.818	227	
Zn III	1380.828	50	
Se II	1380.96	100	
Zn III	1380.986	60	
P III	1381.11	1000	7
Na II	1381.236	30	
Fe II	1381.250	200h	152
Ni II	1381.295	200	8
Zn III	1381.314	40	
Ni II	1381.423	6	
P I	1381.47	75	
Ne II	1381.509	40	
S I	1381.5521	650	7
P III	1381.63	800	7
P I	1381.65	45	
Cr III	1381.67	30	
Ni II	1381.694	4	
As IV	1381.8	300	
Ne II	1381.894	10	
Zn IV	1382.035	15	
Ni III	1382.077	10	
Cu IV	1382.123	52	
Cr III	1382.19	100	
Ar II	1382.228	200	
Mn II	1382.30	10	14
Ni IV	1382.448	380	
V III	1382.45	100	
Cu IV	1382.545	230	
Se I	1382.56	60	
Cu III?	1382.561	3	
Mg IV	1382.578	300	
Ni II	1382.695	2	
Fe II	1382.71	0	
Ar II	1382.770	100	
Fe III	1382.857	70	
Mn II	1383.05	4	14
Cu IV	1383.130	209	
Cr IV	1383.24	10	
Cu IV	1383.350	20	
Cu IV	1383.520	11	
Fe II	1383.578	20	
Zn III	1383.700	60	
Cr III	1383.79	250	35
Zn III	1383.920	1	
Ni II	1383.966	0	
Co III	1383.971	10	
Cu IV	1384.053	165	
Al III	1384.132	800	
Co III	1384.187	25	
Cu III?	1384.276	1	
Cu III	1384.324	3	
Ni II	1384.327	12	
Zn IV	1384.341	40	
Fe V	1384.37	100	
Cr III	1384.44	10	35
Mg IV	1384.463	900	
V III	1384.49	75	
Br I	1384.598	120	
Se I	1384.63	40	
Fe V	1384.75	100	
Na II	1384.794	10	
Cu III?	1384.840	3	
Cu III	1384.929	2	
S I	1385.041	1	
Cr III?	1385.07	10	
P V	1385.11	20	
Ni II	1385.216	6	
Fe V	1385.32	200	
V III	1385.34	15	
Cu III	1385.380	0	
Ca III	1385.426	550	
Mn II	1385.43	4	14
Zn IV	1385.473	4	
S I	1385.5100	550	7
Se I	1385.54	160	
Mg IV	1385.772	500	
Mn II	1385.89	10	14
Zn IV	1385.908	6	
Cu III	1385.921	2	
Ne II	1385.937	30	
Ni II	1386.063	1	
Mg IV	1386.19	1	
Cu IV	1386.248	31	
Cu IV	1386.289	34	
Fe V	1386.43	50	
Fe II	1386.47	0	
Mg III	1386.691	2	
Cu III	1386.714	0	
Mn III	1386.833	0	
Zn IV	1387.046	50	
Zn III	1387.215	50b	
Zn IV	1387.215	50b	
Fe II	1387.22	4	
N III	1387.31	200	
V III	1387.40	15	

Element	Wavelength	Intensity	Multiplet
Zn III	1387.440	50	
Ne II	1387.515	80	
Mg IV	1387.527	800	
Ne II	1387.665	20	
Zn IV	1387.695	50	
Ni II	1387.745	10	
Mn II	1387.75	6	14
Ni II	1387.851	5	
Fe II	1387.87	0	
Ni III	1387.870	3	
Zn III	1387.925	3	
Si III	1387.948	25	37
Si III	1387.979	10	37
Si III	1387.994	8	37
Si III	1388.011	50	37
Si III	1388.052	8	37
Si III	1388.098	1	37
Cr III	1388.13	40	
Fe V	1388.17	500	
Mn II	1388.21	2	14
Cr III	1388.24	20	
Zn IV	1388.258	50	
Cu III	1388.276	0	
S I	1388.4347	950	7
Cr IV	1388.49	20	
Ne II	1388.491	50	
Ni III	1388.629	5	
Al IV	1388.77	100	
Ni II	1388.796	1	
Cu IV	1388.827	246	
Mn II	1388.87	3	14
Fe V	1389.05	100	
Co III	1389.079	5	
Ni III	1389.149	1	
S I	1389.1538	450	7
Mg III	1389.504	4	
N V	1389.514	50	43
Cu III	1389.528	3	
Cr III	1389.55	70	
Zn III	1389.604	60	
Cl I	1389.6928	1000	1
Cr III	1389.73	150	
Ni III	1389.735	20	
V III	1389.79	200	8
N V	1389.822	40	43
Cl I	1389.9569	900	1
Fe V	1389.97	50	
Cu III?	1390.306	5	
Zn II	1390.372	40	
As I	1390.4	4	
Cu IV	1390.433	154	
S III	1390.67	50	
As IV	1390.7	20	
Cr III	1390.77	40	
Se I	1390.99	120	
V IV	1391.105	20	
Zn III	1391.216	60b	
Zn IV	1391.216	60b	
Cr III	1391.26	20	35
Se I	1391.27	80	
Mg III	1391.271	200	
Cr III	1391.61	150	35
Cu III?	1391.667	1	
Ne II	1391.704	60	
Ni II	1391.761	2	
Cr III	1391.78	10	
Zn III	1391.790	40	
Ne II	1391.854	70	
Se I	1392.13	100	
Cu IV	1392.133	350	
Fe II	1392.14	3	
Zn III	1392.170	30	
Ge II	1392.265	100h	10
Na II	1392.316	10	
Ni III	1392.377	30	
Cr III	1392.40	100	
Cu IV	1392.424	147	
S I	1392.5878	650	7
Se II	1392.81	50	
Fe II	1392.82	4	
Cr III	1392.83	10	
Na II	1392.940	15	
Cr III	1393.00	10h	
Se I	1393.0	80	
Zn IV	1393.019	50	
Cu II	1393.1275	10	147
Cr III	1393.22	10	
Ni II	1393.330	100	
Mg III	1393.391	350	
Zn III	1393.460	50	
Fe II	1393.49	1	
Si IV	1393.755	1000	1
Ni II	1393.867	12	
Cr III	1393.98	10	
Fe III	1394.024	70	
Mn III	1394.051	10	
Cr III	1394.33	100	
V III	1394.46	5	
Zn IV	1394.509	50	
Cr III	1394.58	70	
As II	1394.64	800	
Fe V	1394.77	300	
Zn III	1394.911	60	
V IV	1395.001	60	
Cu IV	1395.038	91	
Fe III	1395.213	200	
Cu IV	1395.251	206	
Fe III	1395.382	20	
Se I	1395.43	200	8
V III	1395.44	0	
Ni III	1395.459	10	
Ga IV	1395.5	200	
Cu III	1395.578	0	
Mg III	1395.642	4	
Zn III	1395.652	60	
Fe III	1395.750	150	
Cr IV	1395.83	30h	
Se I	1395.88	200	10
Ni IV	1395.985	480	
S I	1396.1122	1000	7
Cu IV	1396.175	10	
Co III	1396.210	1	
Ar II	1396.231	100	
Cr III	1396.26	10	
Cu III	1396.417	0	
Cr III	1396.42	100	
Cl I	1396.5267	600	1
Cr III	1396.63	30	
Ni II	1396.695	10	
Ni II	1396.790	14	

Element	Wavelength	Intensity	Multiplet
Cr III	1396.96	30h	
Cu IV	1397.110	65	
Mn II	1397.17	3	
O IV	1397.20	10	
Mn II	1397.39	6	
Cr III	1397.40	30	
Ni II	1397.480	2	
Se I	1397.5	40	
Fe II	1397.572	10	350
V III	1397.62	60	8
Ca III	1397.687	550	
Cr III	1397.69	10	
Ni II	1397.858	2	
Cr III	1397.90	30	
Ni II	1398.009	3	
Cr III	1398.12	50	
S IV	1398.13 P		
Na II	1398.143	12	
Fe V	1398.15	300	
F III	1398.190	10	
Ni IV	1398.195	780	
Fe II	1398.38	1	
Cu III	1398.397	3	
V III	1398.47	75	8
Ni II	1398.612	40	
Cu IV	1398.620	74	
Cu II	1398.6419	10	128
Ni II	1398.758	16	
Mg IV	1398.850	30	
Ni II	1399.026	80	8
Cu IV	1399.036	85	
Cr III	1399.05	100	
Na II	1399.070	30	
Mn II	1399.15	2	
Cu III	1399.190	3	
Mn II	1399.24	3	
Cu II	1399.3527	3	
Ni II	1399.361	12	
Mn II	1399.39	4	
Cr III	1399.42	10	
F III	1399.491	6	
Cr IV	1399.50	10	
Ne II	1399.532	80	
Zn III	1399.599	2	
Si III	1399.615 P		73
Cu IV	1399.643	201	
O IV	1399.774	25	
F III	1399.839	60	
Na II	1399.860	12	
Ne II	1399.956	20	
Cr III	1400.02	5	
Zn IV	1400.111	50	
Fe V	1400.30	400	
As II	1400.306	800	
Cr III	1400.34	150	35
Cu IV	1400.341	171	
Zn III	1400.344	8	
V IV	1400.416	5	
Cu IV	1400.527	14	
Cu III?	1400.539	1	
Mn II	1400.54	2	
Mn II	1400.57	3	
F II	1400.611	300	
Cr III	1400.62	10	
Ni II	1400.644	30	
Mn II	1400.66	2	
Cr III	1400.72	10	
Ne II	1400.809	40	
Ne II	1400.868	20	
Kr III	1400.90	20	
Mn III	1400.955	40	
Se II	1401.01	50	
O IV	1401.156	60	
Cl II	1401.16	10	
Ni III	1401.214	15	
Ge II	1401.235	200h	10
Cu IV	1401.273	127	
Cu III	1401.376	1	
V III	1401.38	10	
S I	1401.5136	100	6
Cr III	1401.55	100h	
Cu III?	1401.602	3	
Cu III	1401.655	3	
Zn III	1401.762	60	
Fe II	1401.772	4	
F III	1401.794	3	
Cr IV	1401.81	30	
Se I	1401.92	80	
Cr III	1402.07	30	
Zn IV	1402.097	20	
As II	1402.114	10	
Cu III?	1402.250	3	
Ni II	1402.379	20	
Co III	1402.415	5	
Cu III	1402.435	2	
Fe V	1402.45	600	
Zn IV	1402.500	35	
Ga IV	1402.5	100	
Cr III	1402.62	40	
Se I?	1402.63	20	
Si IV	1402.770	800	1
Cu II	1402.7770	15	186
Mg III	1402.82		
Cu III	1402.917	0	
Cr III	1402.99	10	
Ni III	1403.113	15	
Ne II	1403.135	50	
F III	1403.153	1	
Cu III?	1403.181	5	
Ne II	1403.202	20	
Fe II	1403.246	1	
Cu IV	1403.403	218	
Cr III	1403.42	70	
V IV	1403.618	8	
Ne II	1403.679	80	
Co III	1403.755	3	
Cu III	1403.763	0	
Si II	1403.783	5h	13.03
Cr III	1403.92	30	
Zn IV	1403.954	40	
Co III	1404.009	5	
Zn I	1404.119	20	
Si II	1404.170	1h	13.03
Cu IV	1404.247	12	
As II	1404.323	5	
Se I	1404.45	160	8
Si II	1404.478	6h	13.03
Cr III	1404.50	10	
Na II	1404.675	90	
Mg IV	1404.68	300	

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Element	Wavelength	Intensity	Multiplet
Al IV	1404.72	100d	
S IV	1404.77	70	
O IV	1404.812	15	
Zn III	1404.853	3	
Co III	1405.032	3	
Cu III?	1405.115	1	
V III	1405.14	5	
Mg III	1405.170	80	
Mn III	1405.244	40	
Ni III	1405.279	10	
Cr III	1405.37	30	
Se I	1405.37	200	9
Ne II	1405.373	80	
Ga IV	1405.4	20	
Ni III	1405.421	10	
Co III	1405.451	0	
Cu IV	1405.493	196	
Fe II	1405.604	2	
Cu IV	1405.659	164	
Cr III	1405.72	20	
V III	1405.74	5	
Fe II	1405.797	1	
S IV	1406.00	30	
Ge II	1406.105	20	10
Cu IV	1406.194	10	
Ni III	1406.250	50	
Ge II	1406.269	20h	10
Cr III	1406.31	40	
Zn III	1406.326	60	
Se I	1406.37	200	9
V III	1406.52	50	
Se I	1406.60	200	9
Cu IV	1406.733	11	
Fe V	1406.78	700	
Cr III	1406.90	100	
Mn III	1406.957	0	
Zn III	1407.039	40	
F II	1407.135	200	
Cu III	1407.139	3	
Cu II	1407.1689	15	88
Zn II	1407.189	2	
Cu III	1407.196	2	
Cr III	1407.22	10	
Zn II?	1407.259	7	
As I	1407.34	2	
O IV	1407.386	25	
Fe II	1407.46	0	
Cu IV	1407.605	253	
Zn III	1407.619	40	
Mg III	1407.880	40	
Cr III	1407.89	40	
Cu IV	1408.016	62	
Fe V	1408.19	100	
Ni IV	1408.236	10	
Cu III	1408.310	0	
Mn III	1408.350	30	
Fe II	1408.478	80	
Cu III	1408.536	0	
V IV	1408.639	8	
Zn III	1408.687	70	
Cr III	1408.71	50	
Cu IV	1408.770	162	
Ni II	1408.796	10	
Co III	1408.808	3	
Zn I	1408.808		
Cu II	1408.8124	2	
Ni III	1409.000	15	
Zn III	1409.050	30	
Si II	1409.073	10h	13.02
Cr III	1409.10	10	
Fe V	1409.19	600	
Cu III	1409.248	0	
Fe II	1409.277	1	
S I	1409.3369	125	6
Co III	1409.340	25	
Mg IV	1409.361	1000	
Zn IV	1409.370	60	
Mn II	1409.51	25	
Fe V	1409.51	700	
Al IV	1409.52	10	
Ni II	1409.612	15	
Mn II	1409.69	5	
Ne II	1409.747	60	
Cr III	1409.81	20	
Ni IV	1409.846	640	
Zn III	1409.855	50	
Si II	1409.90	2h	13.02
Ni III	1409.974	5	
Cu II	1410.002	1	
V IV	1410.018	8	
Cr III	1410.03	20	
F III	1410.039	20	
Ni III	1410.126	10	
Si II	1410.219	20h	13.02
Ni II	1410.219	4	
Zn IV	1410.310	25	
Cu IV	1410.336	26	
Ni III	1410.344	15	
Cr IV	1410.37	20	
Na II	1410.374	12	
Zn	1410.410	60	
Zn II	1410.443	100	
Ni III	1410.446	3	
Cu II	1410.570	2	
Cu IV	1410.582	368	
F II	1410.618	100	
Ni III	1410.642	5	
Cr III	1410.82	20	
Mn II	1410.913	25b	78
Zn IV	1411.015	60	
Ni II	1411.071	100	
Cu IV	1411.264	16	
Mn II	1411.28	4	
Zn III	1411.287	40	
Ne II	1411.306	10	
P I	1411.31	24	
Ni IV	1411.461	780	
Fe II	1411.47	1	
Cr III	1411.53	10	
Na II	1411.536	7	
Mn II	1411.55	4	
Cu IV	1411.558	244	
Zn III	1411.647	60	
P I	1411.75	2	
N I	1411.9318	150	10
N I	1411.939	30	10
N I	1411.9494	300	10
Co III	1412.012	3	
Al IV	1412.24	10	
Cr IV	1412.24	30	

Element	Wavelength	Intensity	Multiplet
Ni III	1412.304	50	
Cu III	1412.553	3	
Cr III	1412.67	30	
V IV	1412.686	20	
Cu III	1412.724	3	
Cu III	1412.794	3	
Zn	1412.818	12	
Fe II	1412.834	70	47
Ni II	1412.868	30	
S I	1412.8726	100	6
Co III	1412.974	5	
Zn IV	1412.996	10	
Cu IV	1413.066	247	
Zn III	1413.168	2	
Ni III	1413.211	5	
Cr III	1413.32	10	
Mn III	1413.387	0	
Cl IV	1413.39	100	
Cu IV	1413.564	10	
Ni II	1413.679	10	
Fe II	1413.699	70	
Cr III	1413.77	40	
Zn IV	1413.867	50	
Co III	1413.884	5	
Kr II	1413.894	20	
Mg IV	1413.895	10	
Ne II	1413.956	70	
Cu III?	1414.086	1	
Mn II	1414.18	4	88
Se II	1414.25	200	
Ni II	1414.299	15	
S I	1414.365	2	
Ni III	1414.389	20	
Mn II	1414.40	30	78
V IV	1414.409	50	
Cu III	1414.431	2	
Ga II	1414.44	1000	2
Ni II	1414.444	1	
Cu III	1414.553	4	
Mn IV	1414.596	10	
Cr III	1414.62	50	
Mn II	1414.73	6	
Cr III	1414.79	10	
V IV	1414.842	20	
Fe II	1414.89	1	
Cu II	1414.8980	10	87
Ni III	1414.916	15	
Mn II	1415.15	30	
Cr III	1415.25	50	
Cu IV	1415.261	197	
Mn II	1415.43	6	
Ni III	1415.467	3	
Cu III	1415.478	0	
Ne II	1415.716	70	
Ni II	1415.728	20	
Mn II	1415.75	35	
Fe II	1415.75	1	
Cr III	1415.81	10	
Ni III	1415.909	5	
Zn III	1416.048	40	
Ni II	1416.060	12	
Cu IV	1416.167	29	
Cr III	1416.33	50	
Fe II	1416.62	0	
Ni II	1416.660	0	
Fe II	1416.73	0	
Se I	1416.84	160	11
S IV	1416.94	10	
Ni III	1416.956	75	
Si II	1416.972	10h -A	18.06
Ni II	1417.007	10	
Cu III	1417.060	1	
Cu III	1417.124	1	
Cr III	1417.13	70	
Si III	1417.237	260	9
Ni III	1417.249	2	
Ni III	1417.387	2	
Cu III	1417.538	5	
Ni II	1417.553	1	
Al IV	1417.58	10	
O V	1417.653	40	
Cu IV	1417.654	172	
Cr III	1417.67	10	
Zn III	1417.682	5	
Ni II	1417.699	10	
V III	1417.71	50	
Fe II	1417.727	30	
Fe II	1417.744	400	143
Si II	1417.781	5 -A	18.06
Ni III	1417.841	10	
Zn III	1417.868	40	
O V	1417.908	80	
Mn II	1417.95	10	93
Si II	1418.110	0 -A	18.06
Mn II	1418.13	18	
Zn III	1418.152	0	
Ni III	1418.292	5	
Ne II	1418.375	90	
O V	1418.393	120	
Mg IV	1418.393	30	
Cu II	1418.4265	25	86
Mn II	1418.48	15	88
Zn III	1418.482	1	
Ni IV	1418.501	150	
V IV	1418.533	30	
Na II	1418.579	20	
Mn II	1418.63	12	88
Zn IV	1418.667	40	
Ne II	1418.687	20	
Ne II	1418.745	80	
Cu III	1418.811	3	
Fe II	1418.855	10	
V IV	1418.921	10	
O V	1419.009	80	
Cr III	1419.25	70	
Fe II	1419.31	0	
Ni III	1419.382	10	
Zn II	1419.416	3	
F II	1419.485	10	
Zn IV	1419.572	40	
V IV	1419.580	80	
Ni IV	1419.583	470	
Mn II	1419.61	40	78
F III	1419.740	1	
Cu II	1419.7455	2	
Cu IV	1419.788	53	
As II	1419.855	0	
Zn II	1419.982	200	
Cu IV	1420.014	262	
Ti III	1420.036	300	

Element	Wavelength	Intensity	Multiplet
Ca III	1420.067	200	
P I	1420.08	30	
Na II	1420.216	12	
Mn II	1420.24	8	93
Ge II	1420.385	200h	10
Fe V	1420.39	300	
Ti III	1420.440	280	
Ni III	1420.448	75	
Cu IV	1420.485	175	
Zn III	1420.509	10	
As II	1420.624	0	
Se I	1420.64	160	
Ni II	1420.674	5	
Cu IV	1420.805	77	
Cr III	1420.81	100	
Ni II	1420.843	18	
Li II	1420.891	60	
Fe II	1420.911	30	
Zn III	1420.920	60	
Cu IV	1421.022	246	
Ni III	1421.082	10	
Cr III	1421.20	50h	
Ni IV	1421.225	620	
Cu IV	1421.364	12	
Cu II	1421.3737	5	
B III	1421.41	1	
Zn III	1421.494	50	
Mg III	1421.538	20	
Ti III	1421.631	280	
Mn II	1421.71	5	93
Cu II	1421.7589	25	85
Ti III	1421.767	250	
Mn II	1421.77	2	
Cr III	1421.80	10	
Mn II	1421.87	3	
Na II	1421.889	7	
Ni II	1421.913	1	
Cl IV	1421.97	100	
Mn IV	1422.038	10	
Mg III	1422.118	7	
Al	1422.17	10	
Mn II	1422.36	3	
Ti III	1422.405	650	
Mn II	1422.42	2	
Cr III	1422.47	40	
Kr II	1422.512	40	
Fe II	1422.53	0	
Cr III	1422.58	20	
Zn III	1422.976	50	
Na II	1422.996	12	
Cr IV	1423.16	100	
Ni II	1423.212	16	
V IV	1423.420	10	
Mn II	1423.48	2	
Cu III?	1423.504	5	
Mn II	1423.55	4	
Kr III	1423.55	20	
Ne II	1423.564	80	
V IV	1423.719	30	
Ni III	1423.722	10	
Ni II	1423.786	11	
F III	1423.831	10	
Li III	1423.88 P		
Cu III	1424.020	3	
Fe II	1424.047	50	47
Ti III	1424.140	300	
V IV	1424.197	0	
Fe II	1424.31	0	
Mn II?	1424.49	5	
Ni III	1424.511	100	
Cr IV	1424.62	100	
F III	1424.64	3	
Fe II	1424.716	70	47
F II	1424.737	1	
F III	1424.74	1	
Si III	1424.775	40	62
Ni II	1424.890	3	
V IV	1424.916	10	
Al IV	1425.00	10	
Zn III	1425.002	25	
Zn IV	1425.002	25b	
Ni II	1425.025	10	
Mn II	1425.03	3	
S I	1425.0301	300	5
Mn III	1425.05	2h	22
Cu III	1425.079	1	
Li I	1425.11 -A		
S I	1425.1882	90	5
Zn III	1425.210	50	
Zn IV	1425.210	50b	
S I	1425.2190	65	5
Cu III	1425.282	0	
P I	1425.29	30	
Cr III	1425.30	10	
Co III	1425.329	0	
Mn II	1425.40	12	
Cu IV	1425.445	281	
Na II	1425.499	7	
Mn II	1425.544	20	
Ni II	1425.579	6	
Ni II	1425.604	3	
Co III	1425.650	2	
Zn	1425.709	10	
Ni III	1425.737	5	
Ni IV	1425.802	100	
Mn II	1425.93	12	87
Na II	1426.048	7	
Be I	1426.117	125	
Mn II	1426.15	1	87
Zn III	1426.150	25	
C III	1426.22	10	12.05
Mn II	1426.32	10	87
Ni IV	1426.362	510	
Mn II	1426.43	3	87
C III	1426.45	400	11.52
Cr IV	1426.58	10	
Zn III	1426.611	60	
Cu IV	1426.642	251	
Se II	1426.65	500	
V IV	1426.654	100	
C III	1426.80	100	12.05
Cu IV	1426.841	268	
Cl IV	1426.89	100	
Cr III	1427.00	150	
Cu IV	1427.002	266	
Ni III	1427.087	5	
Cr III	1427.20	10	
Mn III	1427.238	6	22
Na III	1427.27	10	
Co III	1427.308	1	

Element	Wavelength	Intensity	Multiplet
Ni IV	1427.453	400	
Cu II	1427.5912	10	86
Ni III	1427.639	20	
Cr IV	1427.71	10	
Zn IV	1427.759	10	
Mg IV	1427.760	60	
P I	1427.77	1	
Ni II	1427.782	10	
Cu II	1427.8290	20	126
C III	1427.85	300	11.52
Se I	1427.87	120	
Ge II	1427.877	200h	10
Zn IV	1427.879	40	
Ni III	1427.914	3	
P I	1428.05	1	
Cu III	1428.081	3	
C III	1428.17	200	11.75
Mn II	1428.19	0	
Co III	1428.331	1	
Cu II	1428.3580	25	129
Cr III	1428.46	10	
C III	1428.50	200	11.52
Ne II	1428.579	90	
C III	1428.66	10	11.75
Fe II	1428.69	0	
Cu IV	1428.748	54	
Mn II	1428.85	2	
Ni III	1428.870	200	
C III	1428.95	100	11.75
Co II	1429.002	20	
Mn II	1429.02	2	
Cu IV	1429.034	177	
Cr III	1429.04	50	
C III	1429.10	10	11.75
V IV	1429.114	10	
Cr III	1429.17	50	
Mg IV	1429.189	20	
Cu III	1429.201	3	
Co III	1429.236	0	
P III	1429.24	100	
Co III	1429.324	0	
Cr IV	1429.41	10	
Cu IV	1429.504	247	
Cu IV	1429.552	256	
Al	1429.57	10	
Mn II	1429.60	1	
Mn II	1429.66	2	
P I	1429.77	12	
Na II	1429.963	10	
Cr III	1430.02	40	
Zn III	1430.107	50	
Fe II	1430.12	0	
P I	1430.13	150d	
Cr III	1430.15	30	
Co III	1430.177	15	
Ni IV	1430.186	430	
Cu II	1430.2428	40	84
Zn II	1430.285	15	
Mn II	1430.37	0	
Cu III	1430.373	2	
P III	1430.41	200	
Cr III	1430.42	50	
Ni IV	1430.439	540	
Co III	1430.530	15	
Se I	1430.58	120	
Fe V	1430.61	800	
P I	1430.73	30	
Mn II	1430.77	10	
Fe II	1430.780	200	
Mn III	1430.784	20	22
Fe II	1430.895	120	
Cu III	1430.969	2	
Zn II	1430.992	150	
Ni IV	1431.013	370	
Na II	1431.015	7	
Mn II	1431.046	20	
Mg III	1431.136	100	
Na II	1431.228	15	
Ni II	1431.270	8	
Co III	1431.323	15	
Mn II	1431.36	3	
Ni II	1431.492	25	
P I	1431.50	1	
Mn II	1431.52	2	
Zn IV	1431.592	8	
C I	1431.597	100 -A	65
Cu III	1431.671	5	
Co III	1431.800	5	
As II	1431.817	0	
Cu III	1431.901	2	
Cu IV	1431.925	107	
Al IV	1431.93	100	
Cu IV	1431.963	153	
Mn V	1431.98	12	
Co III	1432.065	5	
C I	1432.105	75 -A	65
Zn III	1432.143	60	
Mn II	1432.18	1	
Cu III	1432.275	2	
Ni IV	1432.453	210	
Ca II	1432.503	120	7
C I	1432.530	50 -A	65
Zn III	1432.716	2	
Mn II	1432.78	40	86
Mg IV	1432.791	50	
Fe II	1432.87	2	
Mn II	1432.95	5	
Cu IV	1432.964	11	
As II	1433.053	0	
Mn II	1433.08	4	86
Cr III	1433.26	50	
Mn II	1433.27	4	
V IV	1433.276	1	
S I	1433.2800	225	5
S I	1433.3105	100	5
Cu IV	1433.369	162	
Ge II	1433.48	5h	
Mn II	1433.50	15	77
Mn II	1433.63	6	
Si III	1433.690	120	66
Ni II	1433.745	1	
Ca II	1433.749	200	7
Cu IV	1433.776	35	
Cu II	1433.8404	10	87
Ti III	1433.85	40	
Zn III	1433.853	50	
Zn III	1434.027	25	
V IV	1434.092	15	
Ni III	1434.133	30	
Cr III	1434.19	10	

Element	Wavelength	Intensity	Multiplet
Cu IV	1434.197	54	
Zn	1434.219	10	
Co III	1434.259	100	
Mn II	1434.26	10	86
Ni III	1434.306	200	
Ni II	1434.373	12	
Si II	1434.400	1h	13.01
Mn II	1434.44	30	86
Ni II	1434.493	14	
Si II	1434.542	2h	13.01
Ni II	1434.546	12	
Co III	1434.642	0	
Ni II	1434.688	1	
Cu II	1434.7699	15	85
As I	1434.77	3	
Mn II	1434.79	1h	86
Ni II	1434.837	1	
V IV	1434.842	15	
Mg IV	1434.892	150	
Cu II	1434.9037	125	125
Fe II	1434.994	40	
Zn III	1435.037	2	
Kr II	1435.085	120	
Se I	1435.28	240	8
Cu II	1435.3155	10	128
Ni II	1435.348	5	
Co III	1435.426	50	
Mg III	1435.550	40	
Ni III	1435.609	10	
Kr II	1435.676	40	
Mn II	1435.68	1h	86
Se I	1435.75	240	10
Na II	1435.776	10	
Si III	1435.776	160	61
Ni IV	1435.792	100	
Co III	1435.840	3	
Fe II	1435.85	0	
Mn II	1435.87	4	86
As IV	1435.9	200	
Zn	1435.914	20	
Zn III	1436.075	40	
Ne II	1436.086	90	
Cu IV	1436.086	322	
Ni II	1436.165	50	
Si III	1436.166	140	52
Na III	1436.21	240	
Zn III	1436.219	15	
Cu II	1436.2359	25	125
Co III	1436.236	10	
Cu IV	1436.267	83	
Cu IV	1436.375	117	
Zn IV	1436.577	40	
Cr III	1436.65	20	
F III	1436.687		
Si III	1436.724	80	66
Cu III?	1436.846	1	
S I	1436.9675	125	5
Cu III	1436.994	8	
Mn II	1437.13	15	77
Cr III	1437.17	70	
Zn III	1437.296	12	
Mn II	1437.32	1	86
Mn II	1437.42	4	
Mg IV	1437.53	500	
Cu III?	1437.554	1	
Mg IV	1437.636	1000	
Cu III	1437.645	2	
Mn II	1437.70	3	
Cr III	1437.76	20	
Cu III	1437.762	1	
Zn III	1437.767	1	
Mg IV	1437.844	10	
Cr III	1438.03	10	
Cu IV	1438.093	312	
Fe II	1438.13	1	
Ni III	1438.152	2	
Si III	1438.228	40	66
Mg IV	1438.267	100	
N IV	1438.37	150	18.96
Fe II	1438.44	1	
Zn IV	1438.558	15	
Si II	1438.576	2h	13
Si III	1438.702	40	66
Mn II	1438.71	1	
Co II	1438.710	10	
Zn III	1438.808	10	
Cu IV	1438.846	282	
Cr III	1438.90	5	
Si II	1438.931	4h	13
Cu III?	1438.983	1	
Zn II	1439.091	500	
Ni II	1439.094	8	
Mn II	1439.16	15	86
Cu III?	1439.275	1	
Ni II	1439.283	1	
Al III	1439.311		
Ni II	1439.352	8	
Si III	1439.391	40	66
Fe II	1439.42	2	
Al III	1439.726		
Mg III	1439.770	4	
Ni III	1439.809	20	
V IV	1439.834	1	
As IV	1440.0	100	
Zn III	1440.159	12	
P I	1440.24	15	
Mn IV	1440.324	70	
Cr XI	1440.4	f	
Cu III	1440.446	2	
Fe II	1440.52	0	
Cu IV	1440.576	16	
Fe V	1440.59	700	
Mn II	1440.63	8	86
Mn II	1440.81	0	
Si III	1440.908 P		66
Cl IV	1440.95	10	
Mn II	1440.96	1	86
Zn III	1441.017	15	
Cr III	1441.06	60	
Cu III?	1441.102	1	
Fe II	1441.11	2	
Ne II	1441.188	40	
Mn II	1441.37	1	
Zn III	1441.474	50	
Cu III?	1441.635	2	
Si III	1441.732	100	3.05
Al IV	1441.81	50d	
Se I	1441.81	100	
Cr III	1441.90	50	
Fe II	1442.10	1	

Element	Wavelength	Intensity	Multiplet
Cu II	1442.1386	5	83
F III	1442.192	3	
Cu IV	1442.227	130	
Ni III	1442.235	5	
Mn II	1442.28	10	
Cu IV	1442.410	295	
Fe II	1442.42	2	
Zn III	1442.512	60	
Cu IV	1442.590	48	
Mn II	1442.594	25	77
Ni IV	1442.675	170	
As I	1442.69	5	
Fe II	1442.746	20	
P I	1442.76	15	
Cr III	1442.78	10	
Mn IV	1442.807	80	
V III	1442.85	5	
Na II	1442.907	30	
Zn II	1442.962	5 -A	
Fe II	1443.01	1	
Cu IV	1443.042	268	
Cr III	1443.08	20	
Ni II	1443.080	13	
Cu IV	1443.163	203	
Mn II	1443.46	7	
Cu IV	1443.510	46	
Cu II	1443.5419	3	100
Fe II	1443.73	1	
Mg III	1443.738	60	
Cu IV	1443.771	199	
Cr III	1443.82	60	
Ni II	1443.838	10	
Mn II	1443.85	10	
Cu IV	1444.001	18	
Mn II	1444.01	6	
Mn IV	1444.078	100	
Cu II	1444.1304	2	
Mn II	1444.19	6	
Zn III	1444.216	10	
S I	1444.2967	30	
Cu IV	1444.330	210	
Kr II	1444.343	120	
Ni IV	1444.420	440	
Mn II	1444.58	3	
Cu III	1444.692	0	
Cr III	1444.84	20	
Se I	1444.85	200	8
Zn II	1445.042	700	
Ni II	1445.098	13	
Ni III	1445.374	40	
Fe II	1445.39	0	
Co III	1445.427	1	
Mn II	1445.43	2	
Ni II	1445.460	14	
Co II	1445.572	0	
P I	1445.66	3	
Fe XI?	1445.89	40	
Cu II	1445.9835	20	86
P I	1446.01	12	
Zn III	1446.086	50	
N IV	1446.114	250	18.85
Ne II	1446.183	20	
Mg III	1446.254	40	
Cu IV	1446.255	20	
Cr III	1446.27	20	
Cu IV	1446.315	276	
P I	1446.33	3	
Mn III	1446.467	5	
Mn V	1446.49	60	
Cr III	1446.52	150	
Ni II	1446.589	20	
Cu IV	1446.695	23	
Cr III	1446.70	80	
Mn IV	1446.740	60	
Ni III	1446.748	15	35
Se I	1446.78	200	9
Cu IV	1446.836	19	
Cu II	1446.9006	1	
Mn II	1446.908	20	
Zn III	1446.915	40	
Se I	1446.98	200	9
Cr IV	1447.03	10	
V IV	1447.120	0	
Si III	1447.196	120	3.05
Mg III	1447.260	30	
Cr III	1447.31	20	
Mg IV	1447.424	300	
Al IV	1447.47	100d	
Mn II	1447.49	15	
P I	1447.50	60	
Cr III	1447.50	20	
P III	1447.51	200	
Mn II	1447.86	10	
P V	1447.92	150	
Co II	1448.037	70	
Mn II	1448.08	15	
Ni III	1448.175	30	
S I	1448.2290	125	12
Mg IV	1448.243	30	
Fe II	1448.393	70	
Mn II	1448.47	4	
Mg IV	1448.476	30	
Cu III	1448.512	1	
V III	1448.58	10	
As II	1448.593	500	
Cu II	1448.6383	1	
Mn II	1448.714	15	
Mn IV	1448.789	120	
Ni IV	1448.799	120	
Mn II	1448.83	12	
Fe V	1448.91	600	
Cu II	1449.0580	20	125
Mn III	1449.07	20	
Cu IV	1449.071	11	
Ne II	1449.132	40	
Se I	1449.16	300	8
V II	1449.262	5	
Ga II	1449.40	250	
Zn IV	1449.496	40	
V IV	1449.681	20	
Al IV	1449.70	10	
Cu IV	1449.700	350	
Mn II	1449.74	4	
Zn III	1449.832	40b	
Zn IV	1449.832	40b	
Cr III	1449.89	20	
Br I	1449.903	30	2
Ni II	1450.005	14	
Cu III	1450.165	2	
Cr III	1450.22	5	

Element	Wavelength	Intensity	Multiplet
Mn II	1450.23	10	
Zn II	1450.234	5 -A	
Cu II	1450.3035	40	98
Mn IV	1450.315	120	
Ti III	1450.358	25	
P I	1450.38	9	
Mn II	1450.46	12	
Mn XI	1450.5	f	
Cr III	1450.52	10	
Mg IV	1450.66	1	
Mn II	1450.71	15	
Zn II	1450.778	700	
Mn II	1450.82	4	
V IV	1451.042	30	
Zn III	1451.147	50	
Cu III	1451.478	0	
Mg IV	1451.48	3	
V IV	1451.496	10	
Ni III	1451.504	200	
Ti IV	1451.75	600	3
Ar II	1451.879	100	
Cr III	1451.95	80	
Mn II	1452.05	6	
Cu IV	1452.242	13	
Cu II	1452.2935	20	85
Ni III	1452.532	20	
Ni II	1452.558	15	
Cu II	1452.6956	0	
P II	1452.89	300	
Mn IV	1452.893	200	
Mn II	1452.99	3	
V III	1453.00	5	
P I	1453.01	45	
F IV	1453.14	1	
Ca III	1453.157	650	
Ni II	1453.359	15	
V II	1453.515	2	
Mn IV	1453.626	20	
Zn III	1453.700	1	
Ni III	1453.882	50	
V IV	1454.000	40	
Cr III	1454.00	50	
Mn II	1454.03	6	
Mn II	1454.18	6	
Mg IV	1454.212	5	
Ni II	1454.292	2	
Fe II	1454.308	20	
Ne II	1454.390	5	
Mn II	1454.40	1	
Zn IV	1454.465	25	
Cu IV	1454.650	207	
Fe V	1454.71	300	
Zn	1454.804	10	
Ni II	1454.852	200	7
Mn IV	1454.961	60	
Co II	1454.962	50	
Mn II	1454.97	20	
Ti III	1455.194	1000	5
Cu III	1455.200	2	
Cr III	1455.27	300	
Mn II	1455.33	5	
Ar II	1455.484	100	
Fe V	1455.59	500	
Zn IV	1455.630	30	
Cu II	1455.6624	3	
Ti III	1455.734	8	
Co II	1455.884	70	
Na II	1455.969	12	
Fe V	1456.23	500	
Se I	1456.31	240	8
Mn II	1456.45	2	
Fe II	1456.47	1	
Zn III	1456.707	60	
Zn II	1456.907	500	
Ni II	1456.913	16	
F III	1457.145	3	
Cu II	1457.1759	10	99
Cr III	1457.22	30	
Mg IV	1457.229	100	
Si III	1457.253	100	60
Mn II	1457.30	5	
Ni II	1457.359	5	
Zn II	1457.422	100	
Ni III	1457.430	10	
F III	1457.441	1	
Mn IV	1457.560 P	80	
Zn I	1457.572	20	4
Ni III	1457.575	10	
Mn II	1457.67	7	
Ni III	1457.829	50	
Ni II	1457.863	4	
Al	1457.92	50d	
Zn	1457.922	10	
Ge II	1457.96	2h	
Cu II	1458.0016	15	100
Cu IV	1458.086	306	
Na III	1458.15	60	
Cr III	1458.17	10	
Ni II	1458.170	4	
Mg III	1458.172	20	
Mn II	1458.18	3	
Ni III	1458.284	5	
Se I	1458.29	160	9
Ni II	1458.342	4	
Cr III	1458.41	80	
Zn II	1458.455	20 -A	
Ge II	1458.64	1	
F III	1458.802	6	
Mn III	1458.90	10	
C I	1459.0317 st	300	38
Fe II	1459.311	300	193
Mg IV	1459.38	1	
Cu II	1459.4117	25	126
F III	1459.503	10	
Mg IV	1459.540	300	
Cu III	1459.568	0	
Ni II	1459.611	1	
Mg IV	1459.617	400	
Ni II	1459.640	1	
Ni II	1459.715	12	
Mn II	1459.72	2h	
Ca III	1459.787	600	
Ni II	1459.809	9	
Fe V	1459.85	500	
Ar II	1459.878	100	
Cu IV	1459.883	311	
Zn IV	1459.964	40	
Ni II	1460.078	6	
Ar III	1460.08	200	
Ni II	1460.136	1	

Element	Wavelength	Intensity	Multiplet
Ar III	1460.23	100	
Ni II	1460.312	1	
Ni II	1460.408	2	
Zn II	1460.616	12 -A	
V III	1460.64	15	
Ne II	1460.716	30	
F III	1460.750	1	
Fe V	1460.86	200	
Cu III	1460.915	5	
Cr IV	1461.04	20	
Ni IV	1461.063	140	
Mn II	1461.48	5	
Cu II	1461.5539	15	84
Ni III	1461.649	10	
Ni II	1461.840	8	
Ca III	1461.875	550	
As I	1461.92	3	
Ge II	1461.970	5	
Se I	1461.99	120	
Cr III	1462.12	30h	
Na II	1462.160	10	
Ni III	1462.239	5	
Mn III	1462.243	60	
Mn II	1462.27	3	
Mg III	1462.305	20	
F III	1462.313	6	
Ge II	1462.388	10	
Cu IV	1462.437	16	
Ni II	1462.482	8	
Fe V	1462.67	300	
Zn II	1462.743	150	
Ne II	1462.744	40	
F II	1462.842	1 -A	
Mn II	1462.87	5	
Ni II	1462.944	20	
Mn II	1463.02	8	
Ni II	1463.113	14	
Ar II	1463.155	200	
Fe II	1463.198	6	
V III	1463.21	5	
Zn IV	1463.283	30	
Ca III	1463.335	750	
C I	1463.3360 st	600	37
Ga II	1463.65	100	
Cu II	1463.7515	100	98
F III	1463.808	3	
Cu II	1463.8381	25	100
Cr III	1463.87	10	
As I	1463.9	5	
Co III	1463.936	1	
Kr II	1464.072	40	
As I	1464.10	2	
Ar II	1464.176	100	
Zn III	1464.198	75	
Ni II	1464.301	8	
Ni II	1464.369	10	
Mn II	1464.572	30	
Fe V	1464.73	600	
Co III	1464.773	1	
Co III	1464.932	1	
Ni III	1464.989	5	
Cr III?	1465.00	30	
Fe II	1465.043	400	193
Co III	1465.101	1	
Ar II	1465.153	100	
Fe III	1465.309	200h	
Fe V	1465.37	300	
Zn IV	1465.386	20	
Ca III	1465.477	300	
Ar III	1465.53	100	
Cu II	1465.5408	15	121
B I	1465.548	30 -A	
Co III	1465.558	2	
Ni III	1465.606	10	36
B I	1465.709	40 -A	
Ar III	1465.71	150	
Ge II	1465.73	1	
Zn III	1465.744	60	
Fe III	1465.763	200h	
Fe III	1465.820	20h	
B I	1465.837	20 -A	
Ga IV	1465.9	50	
Zn III	1465.952	15	
Ni III	1466.027	5	
Cu II	1466.0702	70	126
Cr IV	1466.14	20	
Co II	1466.209	100	
Cu IV	1466.353	132	
Kr II	1466.460	20	
Fe III	1466.492	250h	
Cu II	1466.5240	4	99
Co III	1466.579	3	
Mg IV	1466.655	100	
Zn	1466.682	30	
Zn II	1466.697	15	
Cu II	1466.7284	5	
Co III	1466.919	2	
Cr III	1467.04	20	
Mg III	1467.188	12	
Ni II	1467.265	60	
Cu IV	1467.291	12	
Mn II	1467.31	1	
Ti IV	1467.35	600	3
Co III	1467.394	5h	
Fe XI	1467.4	f	
C I	1467.402	350	36
Cu IV	1467.423	11	
Mn II	1467.53	10	
P I	1467.58	9	
P IV	1467.59 P	40	
Ni II	1467.637	10	
Co III	1467.663	5	
Cr III	1467.68	50	
Ni II	1467.694	10	
Fe III	1467.751	250h	
Ni II	1467.762	100	6
Ar III	1467.84	150	
Zn II	1467.867	4 -A	
C I	1467.877	30	35.01
Ar III	1468.01	100	
Kr II	1468.021	20	
Mn II	1468.03	20	
Cr III	1468.05	50	
Cu IV	1468.062	11	
Zn III	1468.113	4	
Co II	1468.235	20	
Ni II	1468.268	30	
Co II	1468.383	20	25
C I	1468.410	100	35.01
Ni II	1468.465	25	

Element	Wavelength	Intensity	Multiplet
Fe III	1468.526	20h	
Fe II	1468.605	4d	
Zn I	1468.845	3	
Mg IV	1468.882	20	
Fe III	1468.986	150	
Co III	1468.992	5	
Ni II	1469.200	10	
Ti IV	1469.21	300	3
Cu III	1469.259	0	
Fe II	1469.38	0	
Cu III?	1469.460	1	
Cr III	1469.55	50	
Ni II	1469.601	3	
Fe II	1469.68	0	
Cu II	1469.6928	15	145
P I	1469.71	3	
Co II	1469.727	20	
Ni III	1469.836	3	
Fe III	1469.881	400h	
C I	1470.094	100	35
Zn II	1470.222	2 -A	
Ni II	1470.322	1	
Mn II	1470.33	0	
Ni II	1470.386	2	
Zn	1470.452	15	
Cr III	1470.60	10	
Ni III	1470.642	2	
Ni II	1470.666	5	
N III	1470.68	10 -A	
Cu II	1470.6974	150	98
Mn II	1470.73	8	
Mg IV	1470.799	100	
Na II	1470.916	10	
N III	1471.02	50 -A	
Mn II	1471.024	5	
Fe III	1471.051	20	
Cl II	1471.06	200	
Co III	1471.140	1	
Mn II	1471.19	7	
P III	1471.2	10	
Zn III	1471.224	30	
Co III	1471.328	1	
Ni II	1471.466	10	
Co III	1471.575	0	
Mn II	1471.586	8	
Fe III	1471.638	70	
N III	1471.69	100 -A	
Si II	1471.775	2 -A	30
S I	1471.832	25	12
Zn II	1471.862	50 -A	
Co II	1471.879	20	25
Mn II	1471.93	2	
Ni II	1471.961	1	
Co III	1472.019	10	
Fe II	1472.023	4	
Mn II	1472.08	2	
Ne II	1472.121	20	
C I	1472.231	60	34.01
Zn IV	1472.256	20	
As I	1472.32	4	
Cu II	1472.3950	15	1
Cu IV	1472.421	40	
V III	1472.45	5	
Cr III	1472.45	20	
As IV	1472.5	50	
S I	1472.503	4	12
Ni II	1472.571	10	
Mn II	1472.62	3	
Co III	1472.756	2	
Zn III	1472.769	2	
Ni II	1472.835	5	
Ni II	1472.889	2	
Co II	1472.898	100	
S I	1472.972	225	4
Mg IV	1472.984	30	
As IV	1473.0	50	
S I	1473.019	120	4
P II	1473.129	10	
Ni II	1473.249	1	
Co III	1473.303	1	
Cr III	1473.32	30	
Mn II	1473.32	0	
Zn III	1473.394	75	
Cu II	1473.5299	8	125
Cu IV	1473.640	10	
P I	1473.65	6	
Ga II	1473.73	150	
F III	1473.820	3	
Cr III	1473.82	10	
Fe II	1473.834	400	193
Ne II	1473.894	10	
Ni III	1473.939	5	
Cu II	1473.9785	25	83
S I	1473.995	350	3
Zn III	1474.132	15	
Mn II	1474.18	1	
Zn III	1474.270	20	
Si II	1474.304	1h	12.02
Ni II	1474.312	1	
S I	1474.380	125	3
Ni III	1474.402	5	
Ar II	1474.537	100	
Mn II	1474.54	10	
S I	1474.572	60	3
Ni II	1474.597	4	
Si II	1474.649	15h	12.02
V III	1474.71	125	
V II	1474.876	0	
Mg III	1474.898	4	
Ni II	1474.910	1	
Cu II	1474.9348	40	125
Co II	1475.018	20	25
Cr IV	1475.10	10	
Mn II	1475.11	3	
Si II	1475.188	5h	12.02
Co III	1475.266	0	
Ni II	1475.270	3	
Ni III	1475.368	15	37
Mn II	1475.46	6	
Zn III	1475.591	50	
Co III	1475.635	10	
Ni II	1475.645	1	
Ni III	1475.662	5	
Fe II	1475.686	0	
Mn II	1475.72	5	
Ni II	1475.734	3	
F III	1475.787	3	
Ni II	1475.801	2	
Co II	1475.807	70	
Cu II	1475.846	60	

Element	Wavelength	Intensity	Multiplet
Ne II	1475.959	80	
Mg II	1475.9998 P	200	
Mn V	1476.02	30	
Cr III	1476.04	50	
Mn II	1476.04	12	85
F III	1476.043	1	
Ni II	1476.043	25	
Fe II	1476.054	200	192
Cu II	1476.0593	25	
P I	1476.11	9	
V II	1476.116	0	
Co III	1476.366	3	
Zn IV	1476.410	40	
Mn II	1476.64	12	
Co II	1476.661	50	
Mn IV	1476.740	0	
O III	1476.89	600	
Si II	1476.928	1	12.01
Mn II	1476.98	5	85
Zn II	1477.016	400	
Ni II	1477.063	1	
Ni II	1477.227	4	
Co III	1477.260	1	
Ni II	1477.264	1	
Mg III	1477.416	2	
Cr III	1477.49	10	
Fe II	1477.50	0	
Fe II	1477.55	0	
Mn II	1477.61	3	
C III	1477.68	300	12.04
Ni III	1477.801	10	38
Mn II	1477.83	5h	
Zn II	1477.938	5 -A	
Mg II	1478.0037 P	250	
C III	1478.05	200	12.04
Cr III	1478.08	20	
Zn II	1478.216	300	
F III	1478.224	3	
Cu II	1478.2363	2	
Ni III	1478.252	10	
Mg IV	1478.267	200	
C III	1478.30	100	12.04
Co III	1478.367	25	
Mn II	1478.59	25	85
Cr III	1478.64	20	
Mn II	1478.79	20	85
Ni III	1478.854	10	
F III	1478.879	1	
Fe V	1479.29	400	
Co III	1479.393	2	
Ni II	1479.443	10	
V III	1479.57	150	
V II	1479.720	5	
Mn II	1479.76	1	85
Co III	1479.880	1	
Cu IV	1479.940	56	
Cr III	1480.16	100	
Mn II	1480.16	2	
Ni II	1480.331	30	
Ca III	1480.425	450	
Fe II	1480.437	0	
V II	1480.487	10	
Ca III	1480.527	450	
As IV	1480.6	450	
Mg IV	1480.798	25	
Mn II	1480.85	10	
Mg II	1480.8797 P	200	
Co II	1480.953	50	
Mg IV	1481.060	8	
Ni II	1481.091	75	
Fe III	1481.169	150	
Zn IV	1481.232	30	
Cu III	1481.243	10	
Al IV	1481.26	10	
Mn II	1481.35	5	
Mg IV	1481.509	400	
Cu II	1481.5438	10	
Ni II	1481.560	15	
Na II	1481.578	15	
S I	1481.665	170	4
Cr V	1481.69	300	
S I	1481.712	100	4
Ni II	1481.744	15	
C I	1481.7635 st	450	34
Zn IV	1481.837	25	
Mg IV	1481.859	15	
Ni II	1481.883	12	
Ni II	1481.898	4	
Co III	1481.905	50	
Ni II	1481.982	10	
Cr IV	1482.07	20	
Zn II	1482.139	80 -A	
Ni II	1482.240	100	
Cr IV	1482.36	20	
Ni II	1482.393	8	
Mn II	1482.40	0h	
Mg III	1482.67		
Cu IV	1482.779	157	
Cr V	1482.89	250	
Mg II	1482.8903 P	300	
S I	1483.039	280	3
Ni III	1483.044	10	
Mn V	1483.09	160	
Cr III	1483.11	20	
S I	1483.233	125	3
Mn II	1483.25	3	85
Zn III	1483.266	30	
Ni II	1483.277	40	
Co III	1483.363	5	
Fe II	1483.38	0	
Kr III	1483.43	40	
Ni IV	1483.432	30h	
Cr III	1483.45	10	
Ga II	1483.48	150	
Ne II	1483.502	60	
Na II	1483.507	15	
Ni II	1483.554	15	
Mn II	1483.685	10	
Cr III	1483.75	50	
Co III	1483.800	10	
Cu III	1483.831	8	
Ga II	1483.95	150	
Zn III	1483.979	8	
Cu III	1484.010	3	
V II	1484.135	1	
Ni II	1484.227	25	
Fe III	1484.241	20	
Co II	1484.259	20	25
Ni III	1484.268	3	
Cr III	1484.39	10	

Element	Wavelength	Intensity	Multiplet
Mn II	1484.45	0	85
Zn III	1484.484	5	
P IV	1484.51	240	
Fe III	1484.546	70	
Co III	1484.565	0	
Ni II	1484.592	1	
Cr V	1484.67	150	
Na II	1484.677	15	
Cl II	1484.76	10	
Ca III	1484.869	800	
Si II	1484.873	15	12
Si II	1485.024	90h -A	15.04
Cr IV	1485.04	150	
Co III	1485.170	8	
Ni II	1485.185	10	
Si II	1485.224	30	12
Cu II	1485.3277	6	141
Ni II	1485.375	60	
Mg IV	1485.446	80	
P II	1485.49	250	
Si II	1485.513	100h -A	15.04
Cu II	1485.6102	2	97
S I	1485.622	150	4
Cu II	1485.6778	6	82
Na II	1485.987	25	
Ni II	1485.987	2	
Cr III?	1486.02	10	
Zn II	1486.065	700	
Mn II	1486.068	8	
V II	1486.153	1	
Fe III	1486.265	450h	85
Ni II	1486.372	5	
Mn II	1486.40	1	
Co II	1486.492	70	25
Mn III	1486.494	300	
N IV	1486.496	100	0.01
Cr III	1486.54	10	
Mn II	1486.55	12	
Mg III	1486.624	12	
Cu III	1486.659	15	
Mn II	1486.66	3	85
Ni II	1486.668	7	
Mn V	1486.74	30	
Al IV	1486.87	50d	
Zn	1486.884	25	
Cu III	1486.904	5	
F III	1486.913	3	
Cr III	1487.03	40	
S I	1487.150	200	3
Ni II	1487.242	50	
Mg IV	1487.28	6	
Ni II	1487.438	5	
Ni II	1487.455	6	
Cu III	1487.566	0	
Zn III	1487.566	25	
P IV	1487.80	160	
Cr III	1487.86	10	
Mn II	1487.86	50	85
Co III	1487.962	1h	
Zn	1487.996	10	
P I	1488.01	60	
Co III	1488.174	3	
Ni III	1488.424	3	37
Br I	1488.452	500	2
Cu II	1488.6372	900	82
Cr III	1488.72	20	
Ni II	1488.730	16	
Co III	1488.753	1	
Cu II	1488.8311	10	
Ni II	1488.845	5	
Ni II	1488.896	100	
Cr X	1488.9	f	
Zn II	1488.926	120	
Ni II	1489.079	35	
P IV	1489.10	160	
Cr III	1489.10	20	
Mn II	1489.13	12	
Co III	1489.243	0	
Zn III	1489.245	40	
Cr III	1489.35	20	
Zn	1489.492	10	
V II	1489.620	10	
Co II	1489.659	10	
Mn III	1489.669	10	
Zn III	1489.708	3	
Ni II	1489.729	5	
Cr V	1489.75	500	
Cu IV	1489.774	32	
P II	1489.834	10	
Co III	1489.899	10	
Cr III	1489.93	40	
Ni II	1490.262	7	
Mg IV	1490.451	350	
Mn V	1490.68	160	
V II	1490.837	4h	
Kr II	1490.928	40	
Zn III	1490.943	50	
Kr II	1491.104	200	
Ni III	1491.111	1	
Ni II	1491.176	5	
Co III	1491.273	5	
Mn V	1491.30	30	
Ni II	1491.308	4	
Ni III	1491.309	2	
P I	1491.36	150	
Fe II	1491.37	1	
Cr III	1491.50	20	
Mn IV	1491.579	0	
Ni II	1491.588	4	
Co II	1491.701	10	
Be I	1491.765	250	
Ni II	1491.776	6	
Ni II	1491.823	3	
Li I	1491.87	-A	
Ni II	1491.899	40	
Ti III	1491.978	35	
Mg IV	1491.998	100	
Fe II	1492.04	0	
Cu IV	1492.044	220	
Cr III	1492.05	40	
P III	1492.1	500	
Zn II	1492.121	30 -A	
Cu II	1492.1525	4	126
Ni IV	1492.162	100	
Cr III	1492.23	40	
Co II	1492.263	20	25
As I	1492.34	4	
Zn II	1492.369	2 -A	
Co III	1492.528	3	
Fe II	1492.56	2	

Element	Wavelength	Intensity	Multiplet
Ni III	1492.622	30	
N I	1492.6254	620	4
Cu II	1492.6817	5	185
C I	1492.738	60	64.08
N I	1492.8195	100	4
Mg IV	1492.82	3	
Cu II	1492.8343	40	126
Li II	1492.931	60	
Li II	1492.973	100	
Cr III	1492.98	50	
P I	1492.99	120	
Ni III	1492.990	30	
Ni II	1493.022	15	
Li II	1493.036	20	
F II	1493.091	450	
Mg III	1493.097	12	
Zn II	1493.133	300	
Zn IV	1493.146	40	
Co III	1493.152	10	
F II	1493.235	300	
As II	1493.259	0	
C I	1493.273	10	64.07
F II	1493.311	200	
Ni II	1493.315	2	
P I	1493.34	45	
Cu II	1493.3665	20	161
Sc III	1493.502	2	
Zn III	1493.506	30	
Co III	1493.595	2h	
Fe III	1493.640	600h	85
Cr III	1493.68	10	
Co II	1494.124	0	
Ni II	1494.151	50	
Ni II	1494.236	6	
Cr III	1494.45	50	
Sc III	1494.506	2	
C I	1494.532	25	
Fe II	1494.59	4	
Mg IV	1494.647	15	
Cu II	1494.6526	5	
N I	1494.6751	400	4
F III	1494.680	100	
Ni II	1494.701	10	
Na II	1494.729	20	
Mn II	1494.754	20	84
Ge IV	1494.89	40	
Mn II	1494.97	7	
P II	1494.990	10	
Cr III	1495.01	20	
Ti III	1495.08	20	
Ga III	1495.10	500	
Ga II	1495.11	150	
Br I	1495.132	0	1
Cr III	1495.21	20	
Fe III	1495.210	70h	
Na II	1495.212	45	
Mn II	1495.26	1	
Cr III	1495.36	20	
B V	1495.38 P		
Ni II	1495.383	40	
Cu II	1495.4298	20	
N V	1495.5	40w-A	63
Mg IV	1495.505	300	
Ni II	1495.570	20	
Ni III	1495.641	20	38
Zn III	1495.715	15	
Kr II	1495.769	120	
Mg IV	1495.993	60	
Zn II	1496.001	5 -A	
Na II	1496.011	40	
Ni II	1496.308	10	
Ni II	1496.409	2	
P II	1496.44	5	
Se I	1496.44	60	
Ni II	1496.463	1	
Cr III	1496.47	10	
Fe II	1496.523	40	
Ti III	1496.597	30	
As II	1496.598	0	
Cu II	1496.6867	50	82
Mn II	1496.78	4	
Ca III	1496.884	600	
Zn III	1497.327	10	
Zn	1497.396	40	
Zn II	1497.410	80 -A	
Mg IV	1497.422	20	
As II	1497.547	0	
Co II	1497.675	10	
Na II	1497.731	45	
Cu II	1497.956	1	
Cr V	1498.02	700	
As II	1498.058	0	
V II	1498.114	6	
Co III	1498.144	1	
Fe II	1498.28	1	
Ni III	1498.338	5	
V III	1498.39	10	
Mn V	1498.50 P	8	
Cu II	1498.5756	3	
Mn II	1498.60	8	
V II	1498.604	4h	
Ti III	1498.697	600	3
Ni II	1498.734	1	
Zn III	1498.778	60	
Fe III	1498.825	70h	
S I	1498.850	2	
F III	1498.933	300	
S I	1498.942	1	
Ne II	1499.006	40	
Zn II	1499.052	20 -A	
Zn II	1499.077	20 -A	
As II	1499.108	0	
Co III	1499.124	25	
As II	1499.168	0	
Ti III	1499.173	300	
Ge III	1499.18	10	
Zn III	1499.400	70	
F III	1499.425	150	
P I	1499.51	24	
Cu II	1499.5132	3	123
Mn II	1499.61	1	84
Ni II	1499.704	15	
Mn IV	1499.769	0	
Zn III	1499.780	5	
Mn II	1499.84	8	
Co III	1499.877	3	
Mn II	1499.95	20	84
As II	1500.074	0	
Ni IV	1500.128	300	
Mg IV	1500.142	70	

Element	Wavelength	Intensity	Multiplet
Si III	1500.241	240	36
Cu IV	1500.258	11	
Mn II	1500.26	5	
Co III	1500.269	10	
Zn III	1500.398	60	
Mn II	1500.41	0	84
Ni II	1500.437	200	7
Cr IV	1500.46	10	
Ge IV	1500.61	120	
Ni II	1500.651	7	
Co II	1500.897	20	
Se I	1500.91	300	7
Mn II	1500.99	4	
Fe II	1501.01	0	
Si III	1501.150 P		36
Cu III	1501.173	0	
Si III	1501.191	200	36
Ni III	1501.311	5	38
Cu II	1501.3363	5	125
Cr III	1501.38	30	
Mn II	1501.44	0	
Mg IV	1501.534	30	
P III	1501.55	700	6
Si III	1501.780 P		36
P I	1501.81	60	
Si III	1501.827 P		36
Si III	1501.870	180	36
Ni II	1501.885	20	
Ni V	1501.90	30	
Ni II	1501.962	6	
Na II	1501.995	25	
F III	1502.014	400	
Zn III	1502.077	5	
Cu III	1502.107	0	
Co IV	1502.11	300	
Cu IV	1502.114	221	
Ni II	1502.150	75	
P I	1502.17	24	
P III	1502.27	1000	6
Ti III	1502.311	200	
Mn V	1502.36	120	
Mn II	1502.38	1	
Co III	1502.531	3	
Se I	1502.57	40	
As II	1502.615	0	
Ni II	1502.669	20	
Cr III	1502.87	30	
Cu IV	1502.955	88	
Fe III	1502.964	150h	
Mg IV	1502.970	15	
Mn II	1503.02	3	
Mn III	1503.066	5	
Zn IV	1503.079	30	
Zn II?	1503.109	20	
P I	1503.12	3	
Ni II	1503.123	7	
Ni II	1503.209	12	
Cu II	1503.3682	10	124
P I	1503.48	3	
Ni IV	1503.482	310	
Mn II	1503.54	1	84
Mn V	1503.59	80	
Cr III	1503.65	30	
Zn II	1503.653	25 -A	
Zn III	1503.803	0	
V III	1503.95	0	
Fe III	1504.002	150	
Zn II	1504.034	5 -A	
As I	1504.09	2	
Cu I?	1504.091	0	
Cr III	1504.16	20	
Cu IV	1504.167	30	
F III	1504.177	300	
Zn III	1504.188	15	
As II	1504.20	150	
Fe II	1504.27	3	
Ga II	1504.31	150	
Co III	1504.362	2	
P I	1504.37	36	
Mn V	1504.38	200	
Ni II	1504.485	75	
Ni II	1504.590	5	
Ti III	1504.621	120	
P I	1504.72	6b	
P III	1504.72	900b	6
Zn	1504.754	12	
Cu II	1504.7571	30	119
F III	1504.785	600	
Ti III	1504.974	70	
Mn II	1504.99	1	
Ga II	1505.00	150	5
V III	1505.02	25	
Ni III	1505.165	5	
Fe III	1505.166	650h	85
Ni IV	1505.173	230	
Zn III	1505.234	20	
Co III	1505.249	5	
Cu II	1505.3878	10	118
Fe II	1505.43	0	
As II	1505.556	2	
Ni II	1505.642	13	
Cr III	1505.76	100	
P I	1505.84	2	
Cu II	1505.8572	5	
Zn III	1505.903	75	
Si III	1506.060	120	72
Ti III	1506.084	80	
Se I	1506.09	60	
Cu IV	1506.103	11	
Ni II	1506.184	16	
F III	1506.300	500	
Na II	1506.407	80f	
P II	1506.44	30	
Mg IV	1506.48	3	
Ni III	1506.518	1	37
Fe II	1506.53	1	
V III	1506.57	15	
Ni II	1506.585	25	
P I	1506.63	21	
Mn II	1506.63	7	84
O V	1506.72	400w	
F III	1506.767	300	
Cr III	1506.82	10	
Mg III	1506.826	7	
Mg IV	1506.83		
Ni II	1506.851	7	
Ca III	1506.876	550	
Fe II	1506.898	6	
Na II	1506.914	60	
Cr III	1506.95	10	

Element	Wavelength	Intensity	Multiplet
Ni II	1506.968	10	
P II	1506.975	10	
P I	1506.98	18	
As I	1506.99	2	
Ni II	1506.995	5	
Cu IV	1507.022	11	
Mn V	1507.11	40	
As II	1507.145	5	
Fe II	1507.19	2	
Ni II	1507.465	18	
Fe III	1507.530	150h	
Mn II	1507.78	4	
Zn III	1507.862	15	
Cr III	1507.93	30h	
Ni II	1507.961	15	
V II?	1508.078	10	
Cr III	1508.14	100	
Cu II	1508.1846	15	
Fe II	1508.22	0	
Zn III	1508.220	10	
Ni II	1508.249	10	
Ni II	1508.262	7	
Fe II	1508.27	2	
Ni II	1508.315	10	
Ni II	1508.498	4	
Mg IV	1508.534	20	
Cu II	1508.6323	10	118
Zn II	1508.645	70 -A	
Co III	1508.683	0	
Cr III	1508.71	50	
P I?	1508.74	9w	
Si II	1508.741	3h	11.01
Ni II	1508.816	100	
Mg IV	1508.841	250	
Fe II	1508.87	1	
Cr IV	1508.89	120	
Mn V?	1509.02	4	
Si II	1509.101	100h	11.01
Ni II	1509.113	1	
Cl VII	1509.2		
Co II	1509.240	60	
Fe II	1509.27	0	
Ni II	1509.308	12	
Cr III	1509.31	30h	
Ni II	1509.345	8	
Cu IV	1509.415	19	
As I	1509.60	3	
Ni II	1509.602	4	
Ni II	1509.767	100	
Cr IV	1509.85	10	
Co II	1509.954	30	
V III	1510.02	15	
Zn II	1510.045	5 -A	
Cr III	1510.05	10	
Ni II	1510.067	1	
Mn II	1510.14	0	84
Ni II	1510.232	16	
Zn II	1510.363	150	
Ni II	1510.366	4	
As I	1510.41	6	
Co III	1510.489	1	
Cu II	1510.5058	30	144
Cr III	1510.62	10	
C I	1510.668	25	64.05
Ni II	1510.690	3	
Mg IV	1510.691	200	
As I	1510.70	6	
Na II	1510.701	35	
Ni II	1510.741	5	
Ni II	1510.859	75	6
C I	1510.981	100	64.04
Fe III	1511.133	150h	
Mn V	1511.15	40	
Ni II	1511.185	8	
Se I?	1511.27	40	
Ni II	1511.314	3	
Co III	1511.404	3	
Ni II	1511.467	10	
V II	1511.606	2	
Fe III	1511.617	300h	
Zn II	1511.694	12 -A	
Zn II?	1511.718	15	
Co III	1511.730	2	
Cr III	1511.78	80	
Mn II	1511.84	4	84
C I	1511.907	25	64.03
Co III	1511.920	3	
V II	1512.018	2	
Ni III	1512.046	10	
Fe II	1512.053	4	
Si II	1512.072	50h	11.01
Cu II	1512.1739	5	115
Mn III	1512.177	5	
Fe III	1512.192	150h	
Cr III	1512.22	100	
Ni II	1512.237	1	
Fe II	1512.24	1	
Fe III	1512.262	20h	
Be II	1512.269	555	4
Fe III	1512.346	200h	
Be II	1512.407	1000	4
Be II	1512.419	110	4
Cu II	1512.4646	4	
Zn III	1512.611	2	
Ni IV	1512.733	600	
Ni II	1512.742	11	
Fe III	1512.830	20	
P II	1512.87	5h	
Fe III	1512.896	150h	
Co III	1512.997	3	
Ni II	1513.016	11	
Na II	1513.102	70	
C I	1513.150	50	64.02
Cr III	1513.18	10	
Fe II	1513.31	1	
Mn II	1513.32	2	
Cu II	1513.3659	15	143
Cr III	1513.39	10	
Zn II	1513.522	20 -A	
Si III	1513.533	40 -A	94
Fe III	1513.539	300h	
Ni II	1513.550	1	
Si II	1513.570	30 -A	29
Mn III	1513.635	10	
Mn IV	1513.635	20	
Mn III	1513.67	1h	
Co III	1513.706	3	
Ni II	1513.783	15	
Mn IV	1513.867	0	
Mn II	1514.03	1	

Element	Wavelength	Intensity	Multiplet
Ni II	1514.222	50	
Cu II	1514.2339	4	144
As II	1514.260	2	
Ni II	1514.336	10	
Fe II	1514.339	1	
Ni II	1514.372	80	
Ni II	1514.411	17	
Zn II?	1514.479	25	
Cu II	1514.4924	200	115
Ni II	1514.552	5	
Fe III	1514.563	150	
Ga II	1514.57	250	5
Kr II	1514.585	20	
Zn II	1514.763	120	5
F II	1514.789	100	
Ni II	1514.856	8	
Fe III	1514.948	20h	
Cr III	1515.01	20	
Co III	1515.027	25	
F II	1515.034	40	
P I?	1515.10	6w	
Ga II	1515.15	150	5
Ni II	1515.157	15	
As II	1515.207	20	
Na II	1515.229	30	
Ni II	1515.269	25	
Zn III	1515.289	10	
Cu IV	1515.293	298	
Ni II	1515.329	8	
Se I	1515.33	160	
Mn III	1515.34	1	
Zn IV	1515.425	15	
Cr III	1515.44	80	
As I	1515.48	20	
Fe III	1515.481	300h	
Ni II	1515.518	5	
Co III	1515.638	1	
V II	1515.675	1	
Ni II	1515.692	1	
Na II	1515.709	30	
Co III	1515.776	1	
Ni II	1515.791	30	
Ni II	1515.825	40	
Zn III	1515.833	80	
Fe II	1515.89	1	
Fe II	1515.93	1	
Co III	1515.982	2	
Zn II	1516.045	35 -A	
Ni II	1516.048	17	
Ni II	1516.215	50	
Fe III	1516.222	200h	
Mn II	1516.36	5	
Ni II	1516.503	3	
Fe III	1516.591	20	
Ni IV	1516.671	590	
Mn II	1516.75	8	
Mn III	1516.76	5h	20
Mn V	1516.78	160	
Fe III	1516.790	20h	
Cu II	1516.9010	5	
Si II	1516.910	60 -A	29
As I	1516.97	1	
Co III	1517.070	1	
Zn	1517.117	15	
Co III	1517.153	1	
Cu II	1517.1599	5	142
Zn	1517.209	20	
Zn	1517.314	25	
Cu IV	1517.345	22	
Cr III	1517.43	20	
Ni II	1517.449	25	
Ni II	1517.480	40	
Co III	1517.482	8	
Zn III	1517.611	20	
Cu II	1517.6310	10	97
Co III	1517.724	5	
Fe III	1517.771	20h	
Cr III	1517.85	20	
Ni II	1517.894	100	
Cu IV	1517.918	31	
Cu II	1517.9300	4	
Ni II	1517.984	15	
F III	1518.137	3	
Zn III	1518.150	3	
Si II	1518.221	5 -A	29
Zn III	1518.396	6	
Cr III	1518.48	40	
Mn II	1518.48	0	
Na II	1518.505	35	
Zn II	1518.631	3 -A	
Co III	1518.636	0	
Fe III	1518.842	300h	
Zn III	1518.979	2	
Cr V	1519.02	700	
Co III	1519.326	8	
Ni II	1519.371	40	
Co II	1519.412	10d	
Fe II	1519.43	0	
Cu II	1519.4918	100	82
Fe II	1519.50	2	
Mn III	1519.51	5h	20
Ni II	1519.513	15	
Ni V	1519.55	30	
Mn V	1519.62	40	
Na II	1519.629	60	
Cr III	1519.66	10	
Ni II	1519.745	4	
Mn II	1519.79	5	
Mn V	1519.83	40	
Cu II	1519.8371	200	
Ni II	1519.935	100	
Se I	1519.99	80	
Cr III	1520.01	70	
Zn II	1520.022	2 -A	
Ni II	1520.077	4	
V IV	1520.142	60	
Ni II	1520.168	14	
V II	1520.241	1	
Ni II	1520.294	10	
Ni II	1520.392	30	
Ni II	1520.467	40	
Zn II	1520.527	50 -A	
Cu II	1520.5396	15	172
Ni IV	1520.631	660	
Zn III	1520.713	60	
F III	1520.716	3	
Zn	1520.780	30	
Cr III	1520.79	40	
Fe II	1520.87	2	
Ni II	1520.932	10	

Element	Wavelength	Intensity	Multiplet
Ni II	1520.944	20	
Mg IV	1520.97	10	
Zn II	1520.998	15 -A	
Cl VII	1521.0		
Ni II	1521.119	100	
Se I	1521.20	60	
Zn II	1521.276	40 -A	
Cr III	1521.29	10	
N VII	1521.4 P		
Mn II	1521.42	2	
F II	1521.590	10 -A	
Cr III	1521.59	30	
Ni II	1521.596	15	
Co IV	1521.61	250	
P II	1521.62	300w	
Ni II	1521.673	18	
Ni II	1521.889	12	
Fe III	1521.891	20h	
Ni II	1521.992	10	
P II	1522.11	4	
Co III	1522.149	2	
Cu I?	1522.252	0h	
Cr III	1522.29	5	
P II	1522.392	10	
Mn II	1522.420	3	
Se I	1522.45	120	
V IV	1522.493	40	
Ni II	1522.517	0	
Ni II	1522.569	30	
Cu II	1522.5768	7	119
Mn III	1522.577	8h	20
Cu IV	1522.587	11	
P II	1522.59	5	
Fe II	1522.69	2	
Ni II	1522.691	10	
Cu IV	1522.773	13	
Mn IV	1522.805	0	
Ni II	1522.846	12	
Co III	1522.885	10	
Ni II	1522.990	11	
Ni II	1523.102	3	
Cr III	1523.12	50	
Mn II	1523.14	12	
Ni II	1523.160	6	
F II	1523.197	100	
Cr III	1523.21	80	
Zn II	1523.241	2 -A	
Ni II	1523.278	30	
Cu I?	1523.371	1h	
P II	1523.44	10	
F II	1523.583	40	
Cu II	1523.7413	3	171
Cu I?	1523.851	0h	
Ni II	1523.897	15	
Zn II	1523.903	150	
Mn II	1523.92	10	
F II	1523.925	10	
Co III	1524.113	8	
Ni IV	1524.245	280	
Ni II	1524.302	50	
Co III	1524.472	2	
V III	1524.52	60	
Fe III	1524.522	300	
Mn II	1524.55	10	
Cr III	1524.65	20	
Fe III	1524.658	300	
Mn II	1524.71	4	
Ni II	1524.758	4	
Fe III	1524.799	70	
Ni II	1524.834	22	
Cu II	1524.8601	15	143
Se I	1524.88	120	
Co III	1524.942	1h	
Ni II	1524.996	14	
Fe III	1525.041	400	
Co III	1525.163	1h	
Cr III	1525.27	10	
Na II	1525.311	30	
Ni IV	1525.316	710	
Ge III	1525.34	200	
Fe III	1525.343	70	
Zn III	1525.371	8	
Zn	1525.406	10	
Co III	1525.407	8	
Cr III	1525.42	5	
Ni II	1525.422	8	
B I	1525.48	1	
Kr II	1525.486	20	
P II	1525.58	1	
Cu II	1525.6312	10	114
Fe III	1525.634	150	
Cu II	1525.6409	10	
Cu II	1525.6686	10	
V IV	1525.756	10	
Cu II	1525.7645	15	
Cr III	1525.78	10	
Co II	1525.793	10	
Fe III	1525.801	400	
Cu II	1525.8381	8	
B I	1525.84	1	
Cu III	1525.895	2	
Fe III	1526.016	150h	
Mn III	1526.05	10h	20
Al IV	1526.15	50d	
F IX	1526.3 P		
Ni III	1526.305	5	
Fe II	1526.37	1	
Zn III	1526.417	2	
Ni II	1526.480	4	
Fe II	1526.517	20	
Cu IV	1526.559	15	
Si II	1526.7076 st	500	2
Co III	1526.734	15	
As I	1526.78	2	
Zn	1526.845	30	
Cu II	1526.9276	5	
Zn II	1526.969	15 -A	
Ni II	1526.999	20	
Zn II	1527.002	20	
Ge III	1527.10	40	
Zn II?	1527.125	25	
Fe III	1527.145	400	
V IV	1527.223	15	
Zn II?	1527.236	20	
Fe III	1527.260	200h	
Fe II	1527.296	20	
Ni II	1527.497	15	
F III	1527.524	1	
Na II	1527.555	15	
Ni II	1527.661	1	

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Element	Wavelength	Intensity	Multiplet
Ni IV	1527.693	750	
V IV	1527.721	15	
Mn II	1527.76	7	
Fe III	1527.767	70h	
Co III	1527.780	10	
Cu II	1527.8126	5	
Zn II	1527.915	100 -A	
Co III	1527.948	2	
Ni II	1527.968	18	
Na II	1527.985	20	
Mn V	1528.13	120	
Cr III	1528.38	30	
Ni II	1528.508	22	
Cr III	1528.52	40	
Zn II?	1528.550	40	
Mn III	1528.64	2h	
Ni II	1528.703	1	
Na II	1528.742	50	
Zn II?	1528.759	9	
Cu II?	1528.782	2	
Ca III	1528.866	450	
Fe III	1528.884	20h	
Cu II	1528.8952	2	
Cl II	1528.91	100	
Cr III	1528.91	20	
Cu IV	1529.088	11	
Ni II	1529.148	4	
Cr III	1529.16	20	
Cl IV	1529.28	10	
Mn III	1529.40	6h	
Na III	1529.67	20	
Fe III	1529.764	200h	
Ni II	1529.812	0	
Zn IV	1529.833	25	
Ni II	1530.080	18	
N VII	1530.2 P		
Fe III	1530.220	150h	
Na II	1530.307	50	
Mn III	1530.364	30h	20
Se I	1530.39	500	6
Ni II	1530.428	10	
Fe III	1530.431	20h	
P I	1530.58	12	
Cr III	1530.59	5	
Zn II	1530.620	25 -A	
Ni II	1530.636	75	
Ni II	1530.663	30	
Co III	1530.906	5h	
Ni II	1530.995	16	
Cl VII	1531.0		
Mn II	1531.01	8	
Co III	1531.068	8h	
Zn II	1531.088	30 -A	
Ni II	1531.288	3	
Fe III	1531.293	400h	84
Se I	1531.33	300	6
Zn IV	1531.372	25b	
Zn II	1531.394	3 -A	
V II	1531.405	2	
Ni II	1531.408	14	
Cu III	1531.588	0	
Fe II	1531.62	1	
Ni II	1531.640	18	
Fe III	1531.644	550h	84
Ni II	1531.720	1	
Zn III	1531.725	1h	
Br I	1531.743	300	2
C III	1531.83	200	11.65
Se I	1531.84	400	6
Cu II	1531.8559	400	96
Fe III	1531.864	450h	84
Ni II	1531.952	16	
Ni II	1531.972	20	
Zn	1532.019	20	
Co III	1532.032	5	
Cr III	1532.09	20	
Cu II	1532.1306	90	115
Zn	1532.188	15	
Cl IV	1532.19	100	
P II	1532.51	700w	1
Cr III	1532.54	10	
Zn III	1532.588	6	
Cu IV	1532.594	46	
Al III	1532.600		
Ni II	1532.741	14	
Fe V	1532.80	400	
Fe II	1532.82	0	
Mn V	1533.07	40	
Zn III	1533.087	30	
Mn II	1533.10	2	
Cr III	1533.12	70	92
Si IV	1533.220 P		24
Cl IV	1533.25	100	
Cr IV	1533.42	20	
Si II	1533.4320 st	1000	2
Fe III	1533.439	250h	
Fe V	1533.57	200	
As I	1533.60	3	
Zn IV	1533.667	20	
Ni II	1533.669	17	
Mn II	1533.68	5	
B I	1533.86	1d	
Ni II	1533.885	12	
Co IV	1533.93	150	
Cu II	1533.9865	30	
Ni II	1533.991	20	
Cr III	1534.09	80	
Na II	1534.163	10	
B I	1534.22	1d	
Co III	1534.268	100	
Cu IV	1534.277	10	
Mn II	1534.34	0	
Zn	1534.371	15	
Cr III	1534.40	10	
Ni II	1534.484	12	
Al III	1534.489		
Ga III	1534.51	500	
Na II	1534.538	25	
Ni II	1534.546	11	
Zn III	1534.563	2	
Mn II	1534.58	0	
As I	1534.65	4	
Ni IV	1534.715	810	
P I	1534.73	15	
Na II	1534.737	12	
F III	1534.754	60	
Mn II	1534.80	5	
Co II	1534.834	10	
Ni II	1534.861	10	
Se III	1534.9	200	

Element	Wavelength	Intensity	Multiplet
Ni IV	1534.931	480	
Cu II	1535.0023	150	96
Zn II	1535.081	200	5
F III	1535.269	100	
Cu IV	1535.307	38	
Zn IV	1535.415	25	
Mn II	1535.42	1	
Fe III	1535.421	250h	
Ni II	1535.477	12	
Ga II	1535.50	400	5
Cu II	1535.5238	10	160
Cr III	1535.66	10	
Mn II	1535.66	6	
Zn II	1535.823	30 -A	
P II	1535.90	1000w	1
Mn II	1535.91	0	
Ni II	1535.961	15	
Ni II	1536.051	30	
Mn II	1536.10	3	
F III	1536.113	150	
Ni II	1536.118	15	
Ni III	1536.246	5	
Cu IV	1536.308	11	
Ga II	1536.31	250	5
Ni II	1536.367	1	
P II	1536.39	700w	1
Ni II	1536.398	20	
Zn	1536.405	10	
Fe III	1536.421	150h	
Co III	1536.554	3	
Fe III	1536.591	70h	
Mn II	1536.63	7	92
Fe III	1536.640	150h	
Ni II	1536.717	15	
Zn II	1536.726	20 -A	
Ni II	1536.746	25	
Ni II	1536.779	10	
Mn II	1536.808	3	
Fe III	1536.830	70h	
Ga II	1536.91	50	5
Ni II	1536.944	12	
Co III	1536.955	3	
Zn III	1536.999	3	
Ni II	1537.038	12	
V III	1537.07	0	
Mn II	1537.070	1	
Cr III	1537.14	40	
Cl IV	1537.21	300	
Ni II	1537.216	20	
Ni IV	1537.249	700	
Ni II	1537.322	2	
Ni II	1537.477	15	
Al IV	1537.52	100	
Cu II	1537.5590	400	
Mn II	1537.56	2	
Ni II	1537.776	1	
Ni II	1537.859	25	
Cr III	1538.04	10	
Ge II	1538.0907 st	100	3
Mn II	1538.14	1	
Ni II	1538.388	30	
Cr III	1538.43	10	
Mn II	1538.43	0	
Zn II	1538.464	2 -A	
Cu II	1538.4795	10	159
Ni II	1538.483	30	
Ni II	1538.567	4	
Fe III	1538.632	650h	84
Ni II	1538.722	0	
As I	1538.79	20	
V II	1538.818	4	
Ni II	1538.831	3	
Ni IV	1538.927	610	
Ni II	1538.956	1	
Zn IV	1539.068	6	
Kr II	1539.075	20	
Fe III	1539.128	550h	84
Mn II	1539.24	3	
Co III	1539.255	1	
Cl IV	1539.30	200	
Mn II	1539.33	5	92
Mn V	1539.40	80	
Co III	1539.458	10	
Fe III	1539.480	300h	84
Ni II	1539.649	15	
Cr III	1539.70	30	
Ni II	1539.731	1	
Al II	1539.8303	800	10
Zn III	1539.845	20	
Na II	1539.895	12	
Ni II	1539.949	2	
Mn II	1539.99	0	
Ni II	1540.015	1	
Zn II	1540.120	50	
Fe III	1540.165	450h	
Cu II	1540.2394	10	
Ni II	1540.281	25	
Fe III	1540.362	20h	
Cu II	1540.3887	100	140
Fe III	1540.428	70h	
Mn II	1540.47	0	
Cu II	1540.5883	200	116
Br I	1540.654	250	1
Ni III	1540.759	50	
Ni II	1540.760	35	
Fe III	1540.815	150h	
V III	1540.87	250	
Zn II	1540.895	80 -A	
Ni II	1540.908	4	
Fe II	1541.011	10	
Mn II	1541.06	4	92
Mn V	1541.08	60	
C III	1541.115 P		17
Mn III	1541.15	15h	
Na III	1541.19	20	
Ni II	1541.324	14	
Ni II	1541.356	11	
Mn II	1541.39	0	
C I	1541.510	40	64.01
Ni II	1541.560	4	
Cr III	1541.57	10	
Zn	1541.599	15	
P I?	1541.69	30	
Cu II	1541.7032	1000	96
Zn II	1541.707	40 -A	
Mn III	1541.744	30	
Cu II	1541.7560	15	
Ni II	1541.801	2	
Fe III	1541.818	300h	
Cu III	1541.970	20	

Element	Wavelength	Intensity	Multiplet
Ni II	1542.024	1	
Co III	1542.094	50	
Mn II	1542.16	1	
C I	1542.1766 st	160	64
Ni II	1542.208	18	
Zn III	1542.223	25	
Ni IV	1542.261	220	
P II	1542.29	1000w	1
Ni II	1542.388	1	
Ni II	1542.401	3	
Zn	1542.517	20	
Cr III	1542.52	10	
Mn II	1542.52	1	
Cu III	1542.562	1	
Co III	1542.616	5	
Fe III	1542.625	70h	
Ni II	1542.773	15	
Cl II	1542.94	10	
As I	1542.94	4	
Ge III	1542.95	20	
Fe III	1542.965	150h	
Mn II	1542.98	0	
Zn II	1543.037	50 -A	
P II	1543.09	400	1
Ni II	1543.132	1	
Cu III	1543.180	1	
P I	1543.26	45	
Mn II	1543.28	0	
V III	1543.33	25	
Ni IV	1543.411	790	
Zn II	1543.428	40 -A	
Cu III	1543.438	250	32
P II	1543.61	150	1
Fe III	1543.640	400h	
Fe V	1543.66	200	
Si I?	1543.713	1r	
Zn	1543.868	10	
Zn III	1543.954	10	
C I	1543.960	60	63.04
Co III	1543.981	15	
Cu III	1544.062	1	
Fe III	1544.067	200h	
Cu III	1544.110	1	32
Co III	1544.129	2	
Cu IV	1544.141	206	
Ar II	1544.177	200	
Fe III	1544.232	250h	
Mn III	1544.25	10h	
Ni II	1544.273	3	
F III	1544.276	3	
Co III	1544.411	15	
Fe V	1544.50	300	
Cu II	1544.6771	150	119
Ar II	1544.711	200	
Fe II	1544.78	1	
Cu IV	1544.847	12	
Co III	1544.880	20	
Zn II?	1544.922	50	
Ni II	1544.968	5	
Ni II	1544.980	10	
Cr III	1545.03	30	
Zn III	1545.086	20	
Si I?	1545.095	1r	
Mn II	1545.13	1	
Cl IV	1545.19	200	
C I	1545.249	40	63.03
Mn III	1545.251	20	
Ca III	1545.294	1000	
Ni IV	1545.400	440	
Ni II	1545.408	30	
Fe III	1545.411	200h	
Ni II	1545.453	12	
Si I	1545.565	1r	41.11
Ni II	1545.717	16	
V III	1545.86	150	
Ni II	1545.881	5	
P I	1545.95	45	
Ni II	1546.070	4	
Fe III	1546.120	550h	
Mn III	1546.197	0	
Mn II	1546.22	8	
Ni IV	1546.230	680	
Ge I?	1546.234		
P I	1546.32	9	
Cr III	1546.34	30	
As I	1546.45	2	
Zn IV	1546.454	20b	
Zn II	1546.460	10 -A	
B I	1546.550	20	
Cr III	1546.55	30	
Si I	1546.559	1r	41.10
Fe III	1546.570	20	
Ge I?	1546.581		
Zn II?	1546.650	100	
Na II	1546.722	12	
Cu IV	1546.762	13	
B I	1546.800	30	
Mn II	1546.87	4	
Ge I?	1546.883		
Fe III	1546.928	250h	
Zn II?	1546.991	25	
Cr III	1547.05	30	
Na II	1547.066	15	
Ge I?	1547.069		
Se I	1547.12	240	7
V II	1547.20	150	20
Co III	1547.309	3	
Ni II	1547.337	15	
Ar II	1547.356	100	
Si I?	1547.373	1r	
Ni II	1547.407	13	
Ge I?	1547.412		
Mn III	1547.45	1h	
Fe III	1547.494	20h	
Ni II	1547.547	3	
Fe III	1547.640	550h	
Ni III	1547.641	20	
Mn III	1547.68	1h	
Zn II?	1547.800	20	
Cu II	1547.9582	6	118
Co II	1547.965	50	
Ni IV	1548.037	760	
C IV	1548.185	1000	1
Fe III	1548.251	300h	
Se I	1548.29	160	
Ni II	1548.344	16	
Mn III	1548.371	1w	
Co III	1548.413	10	
Fe II	1548.42	1	
P I	1548.43	180	

Element	Wavelength	Intensity	Multiplet
Zn II	1548.434	20 -A	
Mn V	1548.44 P	0	
Mn II	1548.634	4	
N V	1548.67 P		46
Ni IV	1548.676	450	
Na III	1548.68	160	
Fe II	1548.692	1d	46
Si I	1548.7149 st	2	41.09
Cr III	1548.86	20	
Cu III	1548.867	150	32
Zn II	1548.957	3 -A	
Cl IV	1549.15	200	
Zn III	1549.173	10	
Cu III	1549.203	5	
Mn II	1549.25	0	
Cu IV	1549.288	94	
N V	1549.30	85	46
Na II	1549.352	20	
Cu IV	1549.459	14	
F III	1549.492	3	
Na II	1549.507	20	
Ni II	1549.588	1	
Cu II	1549.6252	2	
Ni II	1549.818	0	
Co III	1549.940	10	
Ni II	1549.964	4	
Cr III	1550.09	20	
Ni IV	1550.185	320	
Fe III	1550.196	800h	84
Mn III	1550.20	2h	
Fe II	1550.260	20	45
Cu II	1550.2967	3	
Na II	1550.348	20	
Mn II	1550.41	4	
Fe III	1550.450	300h	
V II	1550.47	5	
Ni II	1550.479	3	
Ni II	1550.495	2	
Fe II	1550.52	1	
Cu II	1550.6533	25	120
C IV	1550.774	950	1
Ni IV	1550.775	700	
Mg III	1550.82		
Mn II	1550.82	2	
V II	1550.858	3	
Fe III	1550.862	550h	84
Fe V	1550.90	200	
Ni II	1550.912	10	
Zn II	1550.936	80	
Cr III	1550.94	10	
Zn II?	1551.031	75	
P I	1551.04	105	
Fe III	1551.085	150h	
Fe III	1551.149	150h	
Fe II	1551.17	0	
Cr IV	1551.20	10	
Si I?	1551.2411	2	
Cl IV	1551.27	100	
Fe III	1551.377	250h	84
Cu II	1551.3890	90	118
P I	1551.42	45	
Cr III	1551.43	50	
Co III	1551.536	3	
Na II	1551.793	20	
Si I	1551.8595 st	2	41.09
Cu IV	1551.924	11	
Cu III?	1551.932	1	
Si I?	1551.9323	1	
Fe II	1551.933	20	
Na II	1551.934	20	
Fe III	1552.067	550h	
Zn III	1552.090	5	
Na II	1552.203	20	
Si I	1552.2089 st	1	41.09
V II	1552.268	1h	
Ni II	1552.276	5	
Zn III	1552.288	50	
Cr III	1552.31	40	
Ni III	1552.365	10	
P II	1552.51	5h	
Mn II	1552.60	2	
Cu II	1552.6464	300	
Fe III	1552.681	20h	
Ni IV	1552.730	50	
Co II	1552.756	70	
Zn III	1552.937	30	
P II	1552.94	1	
Si I	1552.9498 st	2	41.08
Cr III	1552.95	10	
Al IV	1553.00	50d	
Ni II	1553.012	0	
Co III	1553.015	3	
F III	1553.023	250	
V II	1553.09	150	20
Cr IV	1553.09	10	
Zn III	1553.106	25	
Ca II	1553.176	200	6
V III	1553.25	0	
Cr III	1553.30	40	
Si I?	1553.3712	1	
Cr III	1553.38	50	
P II	1553.392	1	
Ni IV	1553.426	690	
Ni IV	1553.491	590	
Zn	1553.564	20	
Co II	1553.762	20	
P II	1553.82	10	
Fe II	1553.82	0	
Mn II	1553.85	0	
Cu II	1553.8962	90	114
Zn IV	1553.941	20	
Zn III	1554.030	20	
Ni II	1554.124	50	
Fe II	1554.13	1	
As I	1554.19	4	
Zn	1554.199	15	
Zn II?	1554.225	6	
Fe V	1554.27	100	
Ni II	1554.293	8	
Ni II	1554.332	8	
Ni II	1554.509	6	
V III	1554.61	0	
Ca II	1554.642	320	6
Si I?	1554.7021	2	
Cr III	1554.71	30	
Zn	1554.724	20	
Zn II	1554.740	6 -A	
P I	1554.84	3	
Mn II	1555.01	1	
Ni II	1555.062	2	

Element	Wavelength	Intensity	Multiplet
Cu II	1555.1344	200	115
Fe III	1555.166	20h	
P I	1555.25	6	
Mn III	1555.299	3h	
Mn III	1555.343	0	
Ni II	1555.398	16	
Mn III	1555.40	1	
Zn IV	1555.431	20	
Ni II	1555.496	30	
Si I	1555.5157 st	1	41.03
Cu IV	1555.521	10	
Ca III	1555.527	750	
Se I	1555.55	80	
Ni II	1555.585	8	
Ni III	1555.598	2	
Si I?	1555.6630	1	
Cu II	1555.7030	300	113
Zn II?	1555.764	100	
Fe III	1555.861	200h	
Cr III	1555.94	30	
Al II	1555.9433	1	
Ni II	1555.957	13	
Cu II	1556.0255	8	140
V II	1556.05	5	
Fe III	1556.075	300h	
Zn	1556.100	10	
Mn III	1556.121	8	
As I	1556.14	40	
Si I?	1556.1626	1	
V III	1556.17	75	
P I?	1556.18	2	
Na II	1556.370	15	
Fe III	1556.427	70h	
Fe III	1556.493	550h	
Si I	1556.5273 st	1	41.05
Se I	1556.54	20	
V II	1556.561	2	
Ni IV	1556.669	230	
Na II	1556.753	12	
Fe III	1556.756	70h	
Ni II	1556.766	10	
Fe III	1556.902	150h	
Mn II	1556.94	2	
Zn III	1556.993	15	
Ni II	1556.997	4	
Cr III	1557.01	30	
Co II	1557.039	50	
Ni II	1557.194	1	
As I	1557.20	30	14
Al IV	1557.24	250d	
Ni II	1557.290	12	
Ar II	1557.305	100	
Co III	1557.328	3	
Mn II	1557.43	1	
Ne II	1557.487	30	
Fe III	1557.561	150h	
Co II	1557.566	60	
V II	1557.569	1	
Cu II	1557.5867	20	115
F III	1557.592	300	
Zn IV	1557.881	20	
Ni II	1558.087	10	
Cr III	1558.14	30	
Cl II	1558.15	100	
Mn III	1558.182	5	19
Si I	1558.2400 st	2	41.06
Ni IV	1558.240	560	
Cu IV	1558.271	312	
As I	1558.28	4	
Fe III	1558.310	20h	
Cu II	1558.3447	80	139
V III	1558.40	10	
Ni II	1558.443	12	
Fe III	1558.5 P		
Ni II	1558.501	2	
Zn	1558.505	10	
Fe II	1558.542	200	46
Ni II	1558.544	5	
Ni II	1558.597	15	
Mn III	1558.602	10	
F III	1558.641	200	
Ni II	1558.655	40	
Na II	1558.678	7	
Fe II	1558.690	200	46
B I	1558.70	5	
Zn III	1558.738	25	
V II	1558.76	150	20
Kr III	1558.80	40	
As II	1558.884	500	
Zn IV	1558.971	25	
Si I	1559.06		41.03
B I	1559.07	10	
Ar II	1559.072	300	
Fe II	1559.084	400	45
Ni II	1559.159	18	
Mn II	1559.24	3	
Ni IV	1559.327	440	
V II	1559.347	2	
Si I	1559.3645 st	2	41.07
Fe III	1559.463	150h	
Zn II	1559.466	10 -A	
As I	1559.53	4	
Cr III	1559.67	10	
Zn II	1559.709	15b -A	
Zn IV	1559.709	15b	
Ni II	1559.822	1	
Ni IV	1559.917	640	
Ni IV	1560.175	690	
Ar II	1560.191	400	14
Fe II	1560.260	40	45
Se I	1560.28	240	7
C I	1560.3095 st	250	3
Ni II	1560.341	6	
Al II	1560.35	1	
Si I	1560.39		41.03
Ni II	1560.459	25	
Fe III	1560.483	200h	
Ni IV	1560.492	340	
Ni II	1560.517	10	
C I	1560.6832 st	500	3
C I	1560.7079 st	200	3
Si I	1560.7425 st	8	41.06
Zn III	1560.780	70	
Ni II	1560.796	5	
Ni II	1560.831	15	
Fe III	1560.857	150h	
Co II	1560.874	20	
Ni II	1560.935	4	
F III	1560.939	60	
Si III	1560.974 P		71

Element	Wavelength	Intensity	Multiplet
Ni II	1561.015	4	
Ni IV	1561.153	200	
Mn II	1561.17	4	
Fe III	1561.179	20h	
Ni II	1561.229	15	
C I	1561.3407 st	200	3
C I	1561.367 P		3
C I	1561.4382 st	1000	3
Mn III	1561.570	20	
Mn II	1561.61	4	
Mn III	1561.681	40	
Cr III	1561.72	10	
Ni II	1561.733	2	
Co III	1561.746	1	
Zn II	1561.778	5 -A	
Cu III	1561.790	2	14
Si I	1561.792	10r	41.06
Ni II	1561.968	11	
Si I	1562.0065 st	4	41.05
Mn III	1562.033	20	
Cu IV	1562.049	10	
Si I	1562.0531 st	1	41.02
Mn III	1562.212	2h	
F III	1562.234	100	
Si I	1562.28		41.03
Ni II	1562.329	18	
Ar II	1562.442	200	
Si II	1562.451	10	11
Ca III	1562.473	900	
Mn III	1562.493	0	
Se I	1562.50	40	
Zn III	1562.538	75	
Mn II	1562.57	1	
Si II	1562.845	15	11
As I	1562.95	10	4
V II	1562.98	100	20
Zn	1563.035	10	
Ar II	1563.043	100	
Ni II	1563.111	7	
Co III	1563.158	3	
Zn III	1563.163	10	
Cu II	1563.1937	5	
Se I	1563.28	40	
Si I	1563.3641 st	1	41.04
Ni II	1563.376	50	
Al II	1563.5797	1	
Ni II	1563.604	120	
Mn II	1563.61	6	
F III	1563.726	250	
Si II	1563.765	10	10.02
Fe II	1563.788	500	45
V II	1563.954	2	
Si II	1564.066	5	10.02
Cr III	1564.07	10	
Co III	1564.090	1	
Cr X	1564.1	f	
Al IV	1564.14	50d	
Ni II	1564.273	15	
Fe III	1564.281	20h	
Cr III	1564.32	10	
Zn II	1564.369	6 -A	
Ni II	1564.389	8	
Fe III	1564.512	150h	
Si I	1564.6138 st	8	41.01
Mn II	1564.897	30	
V II	1564.999	2h	
Ni II	1565.001	1	
As I	1565.05	7	
Fe III	1565.100	200h	
Cu IV	1565.168	162	
Cu III	1565.194	3	
Si I	1565.32		41
Fe II	1565.374	4	46
Ar II	1565.377	100	
Ni II	1565.399	20	
Cr III	1565.40	20	
F III	1565.539	250	
Cr III	1565.54	20	
Mn III	1565.830	30h	19
Si I	1565.84		41.03
Cu II	1565.9243	100	96
V II	1565.98	80	20
Ni II	1566.019	7	
Zn	1566.039	15	
F III	1566.070	200	
V II	1566.166	1h	
Mn III	1566.198	40	
B I	1566.292	10	
As I	1566.39	15	
Cu II	1566.4148	150	158
Mn II	1566.47	40	
B I	1566.675	20	
Zn II?	1566.736	10	
Mn III	1566.762	20	
Ar II	1566.811	100	
Fe II	1566.819	400	44
Zn	1566.822	10	
Ni II	1566.890	1	
Zn III	1566.955	12	
F II	1566.961	100	
Mn II	1567.06	2	
Ni II	1567.069	15	
Co III	1567.173	2	
Si I	1567.21		41
Ni II	1567.220	10	
Ni II	1567.298	3	
Zn III	1567.310	25	
Ni II	1567.323	10	
Ni II	1567.336	12	
Ni II	1567.370	3	
Mn IV	1567.380	0	
Cr III	1567.41	80	
F II	1567.435	40	
Ne II	1567.526	70	
Co II	1567.592	50	
Fe III	1567.650	70h	
Si I	1567.7263 st	8	37.04
Cu IV	1567.735	11	
Mn III	1567.772	15h	
Cr III	1567.80	10	
Si I?	1567.8095	1	
Zn	1567.840	25	
Ni II	1567.872	1	
Co III	1567.917	0	
Ni II	1567.966	4	
Ar II	1567.987	400	
Fe II	1568.016	160	45
Kr II	1568.050	20	
Si I	1568.1963 st	10	40.01
As II	1568.225	225	

Element	Wavelength	Intensity	Multiplet
Co III	1568.308	1	
Mn III	1568.325	10	19
Cr III	1568.48	20	
Mn II	1568.51	20	
Cu III	1568.564	1	13
Ni III	1568.569	5	
Si I	1568.6182 st	3	40
Cu III	1568.655	1	
Na II	1568.673	10	
Ni II	1568.698	1	
Fe III	1568.7 P		
Fe III	1568.820	200h	
Zn	1568.913	10	
Ne II	1569.015	40	
Cu III	1569.027	0	
Fe III	1569.066	70h	
Cr III	1569.07	30	
Mn II	1569.08	1	
Kr II	1569.135	240	
Ni II	1569.172	16	
Cu II	1569.2123	4	96
Na II	1569.264	20	
Co III	1569.264	1	
Ni IV	1569.276	30	
Mn III	1569.304	0	
Zn	1569.307	10	
Si I	1569.3185 st	8	41.01
Cr III	1569.36	20	
As II	1569.385	10	
Al II	1569.3853	100	
Ni II	1569.415	1	
Cu II	1569.4155	4	116
Ge III	1569.49	10	
Cr III	1569.51	50	
Mn III	1569.516	0	
Ni II	1569.624	13	
Fe II	1569.674	240	44
Kr III	1569.89	40	
Ni IV	1569.916	400	
Ni II	1569.972	2	
Si I	1570.0275 st	2	40.01
Mn II	1570.05	7	
Zn	1570.065	15	
Mn III	1570.169	0	
Cu III	1570.202	15	
Fe II	1570.242	400	45
Ni II	1570.302	10	
Cu II	1570.3153	2	
Ni II	1570.392	60	
Fe II	1570.50	0	
Ni II	1570.512	3	
Si I	1570.5175 st	3	40
Cu II	1570.5707	3	
Cr III	1570.67	40	73
Ni II	1570.701	1	
Si I	1570.8104 st	1	41
Zn III	1570.900	3	
V III	1570.96	10	
As II	1570.993	500	
Zn III	1571.008	3	
Fe II	1571.01	0	
Cr III	1571.04	100	
Mn III	1571.06	2h	
Ni II	1571.145	12	
Cu III	1571.154	2	
Ni II	1571.162	12	
Zn IV	1571.207	5	
Fe III	1571.255	70h	
Ni II	1571.257	10	
Ca III	1571.268	650	
Si I	1571.3226 st	1	37.04
Zn III	1571.377	12	
Cr III	1571.38	20	
Cu III	1571.390	0	14
Ar II	1571.391	100	
Si I	1571.4058 st	10	40
Se III	1571.5	300	
Ni II	1571.532	2	
Ni II	1571.550	2	
V II	1571.74	20	20
Si I?	1571.7956	6	
Mg IV	1571.83	1	
Kr II	1571.876	20	
Mn III	1571.920	20h	
Cr III	1571.98	50	
Cr III	1572.13	20	73
Mn II	1572.13	1	
Zn II	1572.198	15b -A	
Zn III	1572.198	15	
Fe II	1572.26	1	
Co III	1572.266	1	
Kr II	1572.340	40	
Cr III	1572.54	10	
Ni II	1572.540	25	
Ge III	1572.55	10	
As II	1572.644	10	
Ni II	1572.646	4	
Co II	1572.674	80	6
Zn	1572.703	20	
Mg III	1572.712	400	
Si I	1572.7173 st	2	37.04
Fe II	1572.750	20	45
Fe III	1572.776	200h	
Fe III	1572.841	300h	
Cr III	1572.89	20	
Co II	1572.915	30	
Si I?	1572.9245	1	
Fe III	1572.984	20h	
Zn II?	1572.991	40	
Ni II	1572.993	1	
Al II	1573.0028	3	
Zn	1573.011	90	
Ni II	1573.071	10	
V X	1573.1	f	
Cu II	1573.1668	0	
B I	1573.301	30	
Cr III	1573.34	10	
Si I?	1573.3483	1	
Kr II	1573.404	80	
Na II	1573.430	10	
Mn II	1573.53	30	
Si I	1573.6350 st	10	40.01
B I	1573.678	50	
V II	1573.78	5	20
Zn III	1573.809	25	
Fe II	1573.825	100	45
As I	1573.85	60	14
Cr III	1573.87	70	73
Si I	1573.8840 st	25	40
Co III	1573.921	5h	

Element	Wavelength	Intensity	Multiplet
Cr III	1574.00	40	73
Kr II	1574.103	20	
Na II	1574.110	12	
Fe II	1574.12	0	
Si I	1574.1275 st	1	40
Cu IV	1574.186	12	
Ni II	1574.202	18	
Mn II	1574.276	6	
Kr II	1574.340	20	
Zn II	1574.381	6 -A	
Fe II	1574.39	1	
Ar II	1574.401	100	
Ni II	1574.423	100	
Co II	1574.568	100	
Si I	1574.63		37.04
Cr III	1574.63	20	
Na II	1574.664	7	
As I	1574.72	30	4
Kr II	1574.733	120	
Si I	1574.7456 st	1	37.04
Fe II	1574.768	10	44
Zn IV	1574.833	20	
Br I	1574.841	300	2
Si I	1574.8435 st	30	40.01
Mn X	1574.9	f	
Fe II	1574.923	400	45
Ni II	1574.942	20	
Ni II	1574.976	5	
Ar II	1574.993	600	14
Ni II	1575.003	16	
Ni II	1575.090	15	
Si I	1575.1268 st	10	37.03
P I	1575.18	9	
Se I	1575.26	300	5
Mn III	1575.33	1	
Cu II	1575.3533	5	
Kr II	1575.375	20	
P I	1575.47	3	
Ni II	1575.559	1	
Ni II	1575.597	9	
Mn II	1575.642	40	
Na II	1575.749	15	
Mn II	1575.75	3	
Fe II	1575.80	1	
Zn	1575.810	10	
Ar II	1575.815	300	
As I	1575.87	20	
Mn II	1575.94	10	
Co III	1576.025	1	
Na II	1576.118	12	
Kr II	1576.155	20	
Cr III	1576.24	20	73
Br I	1576.387	200	1
C III	1576.48	300	12.03
V II	1576.805	0	
Co II	1576.813	100	
Si I	1576.829 st	12	39
Ge II	1576.8547 st	500	3
Cu IV	1576.895	50	
Ar II	1576.898	300	
Zn II?	1576.905	15	
Mn III	1576.924	10	
Ni II	1577.015	30	
Si I	1577.0439 st	2	37.03
Co II	1577.058	100	
Fe III	1577.084	200	
Ni II	1577.115	16	
Cr III	1577.14	100	73
Fe II	1577.166	20	45
Mn IV	1577.185	350	
Mn II	1577.22	3	
Cu II	1577.2670	0	
Zn III	1577.275	0	
Se II	1577.29	100	
C III	1577.30	200	12.03
Cr III	1577.36	50	
Zn IV	1577.504	20	
Se I	1577.61	300	4
F III	1577.652	1	
Mn II	1577.774	10	
C III	1577.89	200	12.03
Se I	1577.90	300	4
Fe III	1577.926	150h	
Ni II	1577.933	14	
Mn III	1577.939	100	19
Cr III	1578.01	10	
Co III	1578.093	0	
Si I	1578.25		37.04
Cr III	1578.39	10	
Zn	1578.395	10	
Mn III	1578.467	20	
Fe II	1578.497	30	
V II	1578.542	4	
Mg IV	1578.57	20	
Ge II	1578.598	3	
Cr III	1578.61	40	
Zn III	1578.642	15	
Fe III	1578.759	150h	
Na II	1578.807	12	
Ar II	1578.812	300	
Ni II	1578.865	20	
Mn II	1578.90	20	
Ni II	1578.990	60	
Mg	1579.05	10d	
Ni II	1579.073	18	
Fe II	1579.25	1	
Cu III	1579.353	8	13
Ge I?	1579.405		
Zn	1579.446	15	
Se I	1579.49	300	6
Cu II	1579.4918	6	117
Kr II	1579.513	40	
V II	1579.550	4	
Ni II	1579.563	18	
Mn III	1579.567	0	
Cu I	1579.658	5	
Cr V	1579.67	800	
Zn III	1579.729	15	
Kr II	1579.731	240	
Ni II	1579.791	17	
Ni II	1579.877	2	
Ge I	1579.899		
Ni II	1579.959	3	
Ni III	1579.999	15	
Cu II	1580.0250	15	
Se I	1580.04	400	6
Cr III	1580.20	10	
Zn	1580.220	20	
Fe III	1580.237	300h	
V II	1580.261	5	

Element	Wavelength	Intensity	Multiplet
Si I	1580.3001 st	12	38
Cr III	1580.34	10	
Zn	1580.353	25	
Cu IV	1580.354	11	
Zn II?	1580.443	10	
Ni II	1580.588	8	
Fe II	1580.625	500	44
Cu II	1580.6257	8	118
Si I	1580.68		37.03
Fe III	1580.690	150h	
Cr III	1580.73	200	73
Co III	1580.735	0	
Ar II	1580.770	200	
Al II	1580.9193	1	
Ar II	1580.960	100	
Ge I	1580.989		
Fe III	1581.057	70h	
Ge II	1581.0698 st	300	3
Ni II	1581.085	6	
Na II	1581.108	25	
Cr III	1581.15	100	
Fe II	1581.274	160	44
Ni II	1581.334	25	
Mn II	1581.39	3	
Cu II	1581.4066	0	
Cu II	1581.4187	0	
Co III	1581.502	3	
Zn III	1581.505	100	
Cr III	1581.57	20	
Ni II	1581.704	10	
Ni II	1581.826	6	
Na II	1581.835	20	
V II	1581.99	80	19
Cu II	1581.9953	15	
Zn III	1582.034	100	
Al IV	1582.04	150d	
Co III	1582.044	2	
Ni II	1582.135	2	
Mn II	1582.23	40	
Br I	1582.312	250	1
V II	1582.32	80	19
Mn II	1582.35	10	
Ni II	1582.373	0	
As II	1582.406	5	
Fe III	1582.419	20h	
Ni IV	1582.531	500	
V II	1582.57	150	19
Cr III	1582.62	250	
Fe III	1582.621	20h	
Ni II	1582.689	10	
V II	1582.80	80	19
Cu II	1582.8458	3	183
Cr III	1582.93	200	
Ni II	1583.051	17	
Fe III	1583.199	200h	
Ni II	1583.398	1	
Ni II	1583.436	10	
Ni II	1583.509	15	
Cu II	1583.6823	80	113
S I	1583.683	1	
Cr III	1583.70	20	
P I	1583.73	24	
Cu I	1583.799	15	32
Ar II	1583.833	100	
As I	1583.90	2	
Zn II	1583.933	15 -A	
Si I	1583.95		37.02
Fe III	1583.973	20h	
Si I	1584.0207 st	8	37
V II	1584.06	150	19
Cr III	1584.09	10	
Na II	1584.173	20	
Ni IV	1584.297	100	
Si I	1584.3455 st	12	38
Mn II	1584.38	1	
O III	1584.45	400	
Al IV	1584.45	100d	
Ni II	1584.530	10	
Ni II	1584.563	16	
Kr II	1584.563	20	
Cr III	1584.60	400	73
Co III	1584.663	1	
Al II	1584.7080	4	
Cr III	1584.84	30	
Si I	1584.8540 st	2	35.03
Fe II	1584.949	300	44
Cr III	1585.01	30	
F II	1585.056	40	
Ni II	1585.117	200	
Zn	1585.214	10	
Mn II	1585.30	1	
V II	1585.361	300	19
Zn II	1585.368	100	
F III	1585.593	3	
Ni II	1585.702	4	
Mn III	1585.714	150	
Cu I	1585.871	5h	31
Zn III	1585.876	5	
Si I	1585.9580 st	3	37
V III	1585.97	25	
Fe II	1585.985	30	
Zn III	1586.076	6	
Kr II	1586.093	20	
Ca III	1586.125	650	
Si I	1586.1372 st	15	35.03
Kr II	1586.170	120	
Co III	1586.180	8	
Mg III	1586.237	200	
P I	1586.25	3	
Cu IV	1586.252	12	
Ar II	1586.261	200	
Cr III	1586.35	150	
V II	1586.58	400	19
Kr II	1586.621	80	
Mn IV	1586.638	30	
Ni II	1586.677	4	
Si I	1586.7913 st	20	35.03
P I	1586.88	2	
Si I	1586.8920 st	3	35.01
Ni III	1586.909	1	
V III	1586.92	250	
Cu II	1587.0035	1	
Zn IV	1587.036	5	
Cu II	1587.0596	1	
Mn II	1587.11	50	
Ni II	1587.138	3	
Mn II	1587.15	7	
Co III	1587.186	5	
Ni II	1587.207	8	
Cr III	1587.35	10	

Element	Wavelength	Intensity	Multiplet
Mn II	1587.38	1	
V II	1587.40	500	19
Ni II	1587.443	18	
Mn II	1587.46	15	
Se I	1587.46	300	19
Cr III	1587.54	20	
Ge I?	1587.63		
Cu II	1587.7151	0	
Si I	1587.7620 st	15	37.01
Ni II	1587.845	35	
O III	1587.87	400	
As I	1587.97	20	
Zn	1587.998	15	
Cr III	1588.00	20	
Ni II	1588.200	10	
Fe II	1588.286	200	44
Ni II	1588.369	15	
Cr III	1588.42	150	
Ni II	1588.464	10	
Cu III	1588.551	2	14
V III	1588.59	150	
Co III	1588.642	5	59
Ni II	1588.715	9	
Zn II	1588.754	3 -A	
Ni II	1588.798	20	
Cr III	1588.87	200	73
Si III	1588.950	40	59
Na II	1588.983	7	
Zn	1588.989	15	
P IV	1589.02 P		
Ni II	1589.061	40	
Ni II	1589.116	80	
Si I	1589.1733 st	15	35.02
Ni II	1589.246	200	
Al IV	1589.27	50d	
Kr II	1589.384	20	
Ar II	1589.465	500	
Ni II	1589.474	5	
V III	1589.53	15	
Ni II	1589.547	1	
Zn I	1589.561	30	3
Ni III	1589.625	2	
Si I	1589.6399 st	7	37
Ni II	1589.644	20	
Co II	1589.674	10	
Mn II	1589.74	1	
V II	1589.761	3	
Ni II	1589.772	80	
Zn II	1589.777	50	
Ni II	1589.903	8	
Cr III	1589.91	20	
O III	1590.01	800	
Zn II	1590.133	25 -A	
Cu II	1590.1649	80	139
F III	1590.180	10	
Ar II	1590.233	200	
Br III	1590.3	25	
Ni II	1590.422	0	
Si I	1590.4768 st	20	35.03
Cr III	1590.49	20	
Ni II	1590.529	10	
Co II	1590.558	30	
Mn II	1590.569	20	
Si I	1590.5763 st	15	35.01
O III	1590.61	400	
Zn III	1590.678	2	
Ni II	1590.703	1	
V III	1590.77	10	
Cr III	1590.77	10	
Ni II	1591.041	50	
Ge I	1591.07		
Cr III	1591.09	50	
Ni II	1591.099	16	
Si I	1591.1232 st	20	35.02
Si I	1591.24		35.03
Na II	1591.321	15	
O III	1591.33	600	
Ni II	1591.350	10	
Ni II	1591.415	80	
C III	1591.44	200	11.58
Cu IV	1591.549	11	
Cr V	1591.70	700	
Na II	1591.712	7	
Zn II	1591.724	2 -A	
Ni II	1591.732	2	
Fe III	1591.803	150h	
Ge I?	1591.87		
Ar II	1591.939	1	
Mn III	1591.942	5	
Ge I?	1591.98		
Si I	1592.0200 st	20	35.01
Ni II	1592.080	200	
Zn III	1592.128	3	
Ni II	1592.144	15	
Cu IV	1592.170	12	
Mn III	1592.187	5	
Ni II	1592.248	25	
Mg III	1592.360	60	
Cr III	1592.39	100	
Si I	1592.4234 st	60	35.02
Zn III	1592.431	50	
Ni II	1592.479	50	
Ni II	1592.502	15	
Mn IV	1592.536	300	
Kr II	1592.565	20	
N I	1592.66	20	
Ni II	1592.662	1	
Fe III	1592.721	70h	
S I	1592.736	4	
Mn II	1592.76	0	
Ge I	1592.842		
Fe III	1592.913	70h	
Cu IV	1593.090	20	
Br III	1593.1	150	
Ni II	1593.132	1	
Cr III	1593.16	40	
Se I	1593.19	300	6
Ni II	1593.200	15	
Mn II	1593.224	5	
Co II	1593.323	20	
Cu IV	1593.374	15	
Cr III	1593.38	40	
Co III	1593.446	5	59
Ni II	1593.522	15	
Cu II	1593.5556	500	139
Ar II	1593.587	200	
As I	1593.60	100r	4
Mn II	1593.61	0	
Ni II	1593.611	150	
Ni II	1593.698	40	

Element	Wavelength	Intensity	Multiplet
Cr III	1593.71	10	
Fe III	1593.741	70h	
Cu III	1593.758	500	13
Fe III	1593.897	70h	
Kr II	1593.946	240	
Ge I	1593.950		
Mn III	1593.97	3h	
Ni II	1594.019	1	
Cr III	1594.03	80	
V II	1594.129	1h	
Si I	1594.1455 st	3	35.01
Co III	1594.182	0	
Ni II	1594.287	6	
Mn III	1594.312	5h	
Ni II	1594.346	35	
As I	1594.39	1	
Zn II	1594.448	-A	
Cr III	1594.45	20	
Co IV	1594.53	80	
Si I	1594.5655 st	70	35.02
Ni II	1594.575	1	
Mn IV	1594.659	500	
Ni II	1594.703	12	
Ar II	1594.799	100	
Si I	1594.83		35.02
Fe III	1594.844	20h	
Kr II	1594.895	120	
Si I	1594.9493 st	70	35.03
Co III	1594.953	5	
Zn II	1595.027	100 -A	
Zn	1595.044	40	
Ge I	1595.046		
P I	1595.08	6	
Mn III	1595.081	100	
Mn IV	1595.081	500	
Fe III	1595.180	20h	
Ca III	1595.193	450	
Zn IV	1595.258	30	
Zn	1595.308	10	
Mn III	1595.35	80	
Ni II	1595.519	8	
Fe III	1595.597	400h	119
Ni II	1595.608	70	
P I	1595.72	1	
Zn II	1595.732	20 -A	
Ar II	1595.737	100	
Si I	1595.7552 st	30	33.01
Ni II	1595.768	70	
Co II	1595.784	50	6
Cr III	1595.86	20	
Ni II	1595.919	15	
Al II	1596.0586	125	
P I	1596.06	3	
Cr III	1596.06	10	
Ni II	1596.074	60	
Zn	1596.076	10	
As I	1596.13	2	
Ar II	1596.151	100	
Mn III	1596.211	80h	
O V	1596.375	280	
Ne II	1596.397	30	
Ge I	1596.443		
Cr III	1596.52	150	
Co II	1596.521	10	
V III	1596.58	15	
Fe II	1596.64	2	
B III	1596.66	1	
Ge I?	1596.711		
Cu II	1596.7458	1	
Cr III	1596.76	10	
Fe II	1596.82	1	
Ni II	1596.874	1	
Mn III	1596.948	300	
Ni II	1597.031	1	
Ni III	1597.077	3	
Ni II	1597.101	25	
Mn II	1597.18	2	
Zn	1597.183	25	
Cu III	1597.418	5	13
Cr III	1597.46	120	
Ni II	1597.484	9	
Zn II	1597.556	15 -A	
Zn IV	1597.563	50b	
Fe III	1597.631	70h	
Mn IV	1597.656	0	
Si I	1597.721 st	25	33.01
Si I?	1597.7357	20	
Mg IV	1597.78	6	
Zn II	1597.801	5 -A	
Cr III	1597.86	10	
Ni II	1597.886	7	
Ni III	1597.899	3	
Si I	1597.9620 st	60	35
P I	1597.97	3	
Ne II	1597.971	80	
Sc III	1598.002	160	1
Ge I	1598.020		
Cr III	1598.05	50	
Ni III	1598.073	15	
Kr II	1598.082	160	
Ni II	1598.282	40	
Ni II	1598.371	30	
Cu II	1598.4023	200	139
Cr III	1598.48	30	
Co II	1598.494	30	
Zn III	1598.517	80	
Ar II	1598.575	100	
Mn III	1598.651	50	
Ar II	1598.722	200	
P I?	1598.76	3	
Ni II	1598.860	18	
Ar II	1598.880	100	
Se II	1598.95	100	
Cr III	1599.01	30	
Ar II	1599.130	100	
Zn II	1599.146	3b -A	
Zn III	1599.146	3	
P I	1599.25	15	
Ni II	1599.251	40	
Ni II	1599.282	12	
Co II	1599.314	30	24
Al II	1599.4108	20	
Ni II	1599.439	1	
Kr II	1599.492	20	
Mn III	1599.50	5	
Ni II	1599.549	10	
Ni II	1599.603	25	
Ar II	1599.607	100	
Al III	1599.639		
Al III	1599.697		

Element	Wavelength	Intensity	Multiplet
Co II	1599.716	10	24
F III	1599.926	10	
Cr III	1600.02	70	
Fe II	1600.02	2	
F III	1600.041	25	
Zn III	1600.074	2	
Ne II	1600.080	40	
Ge III	1600.10	180	
V III	1600.11	10	
Ar II	1600.133	400	
Cu III	1600.194	250	13
Zn III	1600.206	1	
Cr III	1600.21	50	
Ni II	1600.268	10	
Ni III	1600.294	10	
B I	1600.455	70	
Mn IV	1600.549	550	
Ni II	1600.565	18	
Al III	1600.642		
Ar II	1600.694	600	
B I	1600.727	120	
Ni II	1600.753	3	
Mn III	1600.770	10h	
Ge I	1600.824		
Zn III	1600.858	80	
Mn III	1601.045	5h	
Ni II	1601.045	16	
Cu II	1601.2097	1	113
Fe III	1601.211	650h	118
Co IV	1601.22	150	
Ni II	1601.240	10	
Co II	1601.282	5	24
Ni II	1601.288	8	
Fe III	1601.289	400h	118
Mn III	1601.42	5h	
Si I	1601.46		33.01
Ni II	1601.518	1	
Mn IV	1601.550	80	
Cr III	1601.57	40	
Zn	1601.695	15	
Ni II	1601.742	4	
Mn II	1601.84	5	
V IV	1601.915	80	
Ni II	1601.928	10	
Fe III	1602.000	300h	119
Mn II	1602.10	30	
Mn IV	1602.138	100	
Cr III	1602.17	100	
Mn III	1602.17	20	18
Ni II	1602.209	12	
Fe II	1602.228	1d	
Cu II	1602.2729	6	3
Mn III	1602.38	20	
Cu II	1602.3880	150	170
Ge II	1602.4863 st	500	2
Ni III	1602.505	15	
Zn III	1602.511	1	
Ar II	1602.554	200	
Fe II	1602.588	240	316
Ni II	1602.679	1	
Cr III	1602.79	100	
Ar II	1602.891	200	
Na III	1602.91	100	
Cu IV	1602.960	39	
C I	1602.9715 st	200	63
Ni II	1602.973	20	
Sc III	1603.064	360	1
Ar II	1603.075	400	
Zn IV	1603.088	6	
Cu III	1603.146	200	14
Cr V	1603.17	600	
Cr III	1603.19	300	
Mn III	1603.203	30h	18
Ni II	1603.224	1	
Zn II	1603.315	100 -A	
Ni II	1603.410	20	
Ar II	1603.442	400	
Zn III	1603.470	0	
Zn II	1603.508	3 -A	
Ni II	1603.555	25	
Co III	1603.563	8	
Mn III	1603.598	2	
Mn IV	1603.604	700	
Kr II	1603.721	20	
Ni II	1603.728	16	
Mn II	1603.87	5	
Zn III	1603.873	5	
Ni II	1603.917	5	
Cr III	1603.93	10	
Ne II	1604.004	80	
Mn IV	1604.038	0	
Ar II	1604.082	500	
Ne II	1604.091	70	
Mn II	1604.19	0	
Ge I?	1604.28		
Cr III	1604.34	10	
Zn II	1604.347	20 -A	
Ni II	1604.394	2	
Mn III	1604.407	2h	
Na III	1604.47	120	
Ni II	1604.482	18	
Zn	1604.500	12	
Ni III	1604.537	300	
Ni II	1604.570	5	
O IV	1604.620	5	
Ni II	1604.696	3	
Se I	1604.70	80	
Cr III	1604.82	20	
Cu II	1604.8475	50	169
Cu IV	1604.898	12	
O IV	1604.901	10	
V III	1604.99	50	
Ni II	1605.027	9	
Mn III	1605.107	4h	
Cr III	1605.18	20	
Zn II	1605.196	10 -A	
Mn IV	1605.202	40	
Ni II	1605.217	4	
Mn III	1605.22	3h	
Cu II	1605.2813	200	112
Fe II	1605.318	20	
Mn II	1605.33	0	
Ni IV	1605.357	70	
Fe II	1605.44	1	
Mn II	1605.467	60	
Mn III	1605.545	40h	18
Mn III	1605.67	20	18
Ni II	1605.744	35	
Al III	1605.766	700	
Si I	1605.8370 st	20	33

Element	Wavelength	Intensity	Multiplet
Ni II	1605.910	60	
Cu III	1605.969	150	25
Co II	1605.987	30	6
Fe III	1606.014	200h	119
Kr II	1606.026	40	
Zn II?	1606.082	60	
Mn IV	1606.108	150	
V III	1606.17	25	
Cr III	1606.19	10	
Ar II	1606.197	300	
Zn	1606.255	20	
Ni II	1606.280	12	
Ge II	1606.29	2h	
Se I	1606.46	500	3
Ni II	1606.469	30	
Cr III	1606.53	80	
Cr III	1606.67	20	
V II	1606.685	6	
Ni II	1606.695	8	
Ni II	1606.729	15	
Cu III	1606.730	150	13
Mn III	1606.755	1	
Cu II	1606.8341	300	139
Cu III	1606.837	5	
Ni II	1606.902	18	
Zn IV	1606.907	12	
Ar II	1606.926	400	
C I	1606.960	50	62.04
Mn III	1607.003	20h	
Cr V	1607.04	5	
V II	1607.046	4	
Mg IV	1607.109	300	
Ar II	1607.180	100	
V II	1607.294	5	
Cu IV	1607.300	23	
Mn II	1607.37	2	
Co III	1607.410	3	
Mg IV	1607.517	30	
Cu III	1607.542	50	25
Cr III	1607.57	10	
Mn II	1607.67	5	
Fe III	1607.723	600h	118
B II	1607.76	10	
Cr III	1607.78	20	
Ni II	1607.849	20	
Mn III	1607.884	30h	
Cr III	1607.92	30	
Zn III	1607.950	10	
Ni II	1607.987	3	
As I	1608.07	3	
Ni II	1608.134	60	
Ni II	1608.177	80	
Mn III	1608.18	3h	
Cr III	1608.19	10	
Ni II	1608.358	30	
V III	1608.39	60	
Zn III	1608.424	20	
C I	1608.438	70	62.03
Ni II	1608.442	25	
Cu IV	1608.451	13	
Fe II	1608.456	700	8
Ge I?	1608.500		
Ne II	1608.512	30	
Zn II	1608.555	10 -A	
Cu II	1608.6393	70	182
Zn	1608.680	30	
Ni II	1608.708	1	
Co III	1608.777	3	
Zn II?	1608.819	70	
Zn III	1608.829	40	
Co III	1608.864	3	
Kr II	1608.902	40	
Si I	1608.9157 st	25	33
Co III	1608.950	3	
Cr III	1609.01	30	
Mn III	1609.02	20h	18
Zn III	1609.043	20	
Mn III	1609.172	500h	18
Ni II	1609.343	1	
Cr III	1609.35	200	
Zn II	1609.390	10 -A	
Ni II	1609.474	12	
Mn II	1609.50	30	
Cu III	1609.599	25	25
Zn	1609.725	15	
Cu III	1609.757	50	25
Cr III	1609.79	150	
F II	1609.798	10	
Ni III	1609.876	100	
Cr III	1609.91	200	
Mn III	1610.05	3h	
Cr III	1610.10	10	
Ni II	1610.102	20	
Sc III	1610.194	300	1
Mn III	1610.228	20h	
Cu II	1610.2964	5	139
B I	1610.36	1	
V II	1610.487	2	
Ni II	1610.532	18	
Ni III	1610.534	20	
P V	1610.54	20	
Cr III	1610.56	40	
Cu III	1610.571	40	25
Zn IV	1610.574	3	
V II	1610.615	2	
Ge II	1610.640	3h	
Zn III	1610.713	3	
Se I	1610.72	200	17
Zn II	1610.743	30 -A	
B I	1610.75	1	
Ge I	1610.774		
Mg IV	1610.80	10	
Si I	1610.82		32
Zn III	1610.832	30	
Ge I	1610.866		
Cr III	1610.88	10	
Fe II	1610.921	300h	43
Zn III	1610.968	40	
Na III	1610.97	80	
Ni II	1611.061	8	
Ni II	1611.079	6	
Cr III	1611.08	100	
Mn IV	1611.105	700	
Cu II	1611.1181	2	181
Cu IV	1611.130	14	
Fe II	1611.21	1	
Mg IV	1611.219	200	
Se I	1611.26	200	18
Cr V	1611.27	5	
Al II?	1611.2871	15	

Element	Wavelength	Intensity	Multiplet
P I	1611.29	30	
Zn	1611.340	12	
Ni II	1611.390	25	
Zn II?	1611.501	5	
Cr III	1611.57	10	
Mn II	1611.61	5	
Fe III	1611.723	450h	118
Fe III	1611.763	450h	118
Al III	1611.814	100	
Zn II?	1611.866	25	
Al III	1611.874	800	
V IV	1611.879	80	
Ni II	1611.927	2	
As II	1611.927	225	
Cr III	1612.07	30	
Mn II	1612.15	10	
Co IV	1612.16	200	
Ni II	1612.163	1	
Ni III	1612.165	30	
Ni II	1612.450	20	
Ni III	1612.474	10	17
P IV	1612.53 P		
Cr III	1612.57	10	
Zn III	1612.688	10b	
Zn IV	1612.688	10b	
Ni III	1612.730	30	
Mn III	1612.78	2h	
Fe II	1612.802	400	43
Zn	1612.937	15	
Ni III	1612.966	1	
Ge I	1612.974		
V II	1613.016	0	
Cr III	1613.02	10	
Sc	1613.11	300	
Cu IV	1613.127	11	
Ni II	1613.132	2	
Cr III	1613.14	20	
Fe II	1613.183	2	
F III	1613.186	60	
V II	1613.20	150	99
Zn III	1613.201	15	
Ni II	1613.216	60	
Fe II	1613.25	1	
Ge III	1613.27	20	
V II	1613.40	5	
Mn II	1613.50	1	
Ge I	1613.557		
Mn II	1613.62	3	
Mn III	1613.656	20	18
Zn III	1613.728	20	
Na III	1613.77	160	
Ge I?	1613.818		
Ni II	1613.820	20	
Kr II	1613.853	40	
Kr II	1613.898	80	
Zn II?	1613.938	25	
Ni II	1613.949	1	
Mn V	1614.01 P	120	
Cr III	1614.04	100	
Mn III	1614.144	800	18
Cu II	1614.1608	1	
Cr III	1614.17	80	
P I	1614.19	30	
Zn	1614.235	25	
Kr II	1614.274	200	
Zn II	1614.364	10 -A	
Zn II?	1614.432	8	
Zn	1614.468	30	
Ni II	1614.495	10	
Mn II	1614.56	5	
Si I	1614.5665 st	30	30
Fe III	1614.611	70	
Zn	1614.629	10	
Si I	1614.6309 st	25	32
P I?	1614.67	3	
Ge I	1614.792		
As I	1614.82	5	
Ni II	1614.824	30	
P I	1614.87	9	
V II	1614.871	5	
Zn III	1614.895	8	
Ni II	1614.911	90	
Mn II	1615.050	2	
Cr III	1615.21	10	
Mn II	1615.22	1	
Ge I	1615.234		
Ge II	1615.332	3h	
Zn IV	1615.345	8	
Ni II	1615.459	120	
Ge I	1615.571	3	
Ni III	1615.597	2	
Ge I	1615.715	2	
P I	1615.79	36	
Mn II	1615.79	60	
Ar II	1615.807	50	
Si I	1615.9488 st	50	30
Zn II	1615.949	1 -A	
Si I	1615.99		31
Cu III	1616.160	8	25
P I	1616.20	120	
N V	1616.3	150w	50
Zn II	1616.364	30 -A	
Ni II	1616.387	15	
Al II	1616.4148	10	
As I	1616.44	6	
Ni II	1616.456	2	
Ge I?	1616.509		
Ni II	1616.536	25	
Si I	1616.5794 st	70	30
Cu III	1616.607	150	13
Fe II	1616.65	0	
Mn II	1616.79	5	
Ni II	1616.917	25	
Cu I	1616.940	20h	31
Ar II	1616.972	100	
Ni II	1616.993	2	
Ni II	1617.088	50	
Ni II	1617.144	40	
Mn III	1617.163	5	18
Fe III	1617.171	70	
Cr III	1617.23	20	
Ge I?	1617.29		
Ni II	1617.299	40	
Mn II	1617.34	4	
V II	1617.35	100	99
Se I	1617.35	400	3
Cu IV	1617.373	13	
Cl IV	1617.43	100	
Cr III	1617.49	10	
Mg IV	1617.65	12	

Element	Wavelength	Intensity	Multiplet
Zn II	1617.675	40 -A	
Cr III	1617.72	5	
Mn III	1617.760	200	
Cr III	1617.90	10	
Cu II	1617.9154	8	157
Si I	1618.0054 st	8	31
P I	1618.11	45	
Ni III	1618.127	15	
Mn II	1618.34	2h	
Al II	1618.3990	50	
Cu III	1618.408	3	
Fe II	1618.470	500	8
P III	1618.66	600	
Mn III	1618.689	1	
Ni III	1618.801	20	
P I	1618.93	36	
P III	1618.94	600	
Ni II	1618.950	20	
Zn II	1618.968	40	
Si I	1619.0458 st	8	30
Ge III	1619.09	5	
V II	1619.18	100	99
Ni II	1619.193	1	
Zn II	1619.269	80 -A	
Cu IV	1619.313	19	
Ni II	1619.395	6	
Ni III	1619.414	20	
Fe II	1619.52	1	
Si I	1619.5266 st	15	29
Ni II	1619.607	7	
Zn III	1619.616	80	
Mn III	1619.62	40h	18
Ni III	1619.642	30	
N V	1619.7	250w	53
Cu IV	1619.735	16	
Ge II	1619.74	1	
C V	1619.80		38
Ni II	1619.857	20	
Ge III	1619.88	10f	
B V	1619.92 P		
Cr III	1619.94	100	
V III	1619.95	5	
Ni II	1619.964	6	
Co III	1620.051	1	
C III	1620.07	300	11.72
Fe II	1620.15	0	
Zn IV	1620.165	40	
Co III	1620.254	1	
C III	1620.33	200	11.72
Ni II	1620.331	18	
Si I	1620.4049 st	60	30
Ni II	1620.428	1	
Cr III	1620.44	10	
Ni III	1620.443	100	
C III	1620.59	10	11.72
Mn III	1620.602	1000	18
Ge III	1620.62	10	
C III	1620.68	100	11.72
Cr III	1620.76	10	
Cu III	1620.776	0	12
Ni II	1620.946	1	
Mn V	1621.00 P	160	
V III	1621.01	40	
Ge II	1621.03	100h	
Ge III	1621.08	10	
Cr III	1621.10	30	
Se I	1621.21	300	3
Se II	1621.23	400	
Mn III	1621.284	1h	
Cu I	1621.316	20	32
P I	1621.33	9	
Cu II	1621.4256	300	157
Ni II	1621.460	40	
Zn II	1621.552	40b -A	
Zn III	1621.552	40b	
Cr III	1621.60	10	
Fe II	1621.685	600	8
Cu III	1621.723	2	
Ni III	1621.830	50	
Si I	1621.8380 st	2	31
Cr III	1621.87	30	
Ni II	1621.880	6	
N V	1621.92	35	52
Ni II	1621.926	18	
Na II	1621.940	12	
Na III	1621.94	100	
Ni III	1621.942	50	17
Zn II	1621.951	15 -A	
P I?	1622.08	3	
Ni II	1622.106	80	
Na II	1622.347	12	
Cu II	1622.4278	100	112
V II	1622.432	3	
V III	1622.45	10	
Zn III	1622.509	100	
Cr V	1622.53	20	
Cr III	1622.61	20	
Co II	1622.661	0	
Se I	1622.73	200	17
Ni II	1622.796	20	
Zn	1622.829	15	
Cl IV	1622.86	200	
Si I	1622.8806 st	90	30
Si III	1622.892 P		45
Si III	1622.913 P		45
Ni II	1622.981	1	
Cr III	1623.01	10	
Si III	1623.055 P		45
Fe II	1623.091	160	43
Mn III	1623.122	10	
Mn II	1623.14	40	
Cu II	1623.1732	20	110
As I	1623.26	2	
O VII	1623.29		
F III	1623.294	150	
Si I	1623.3663 st	8	29
F III	1623.402	250	
Zn II	1623.479	40 -A	
Si I	1623.4971 st	10	29
Cu IV	1623.508	12	
B II	1623.582	450	3
S IV	1623.62	50	
Ni III	1623.622	35	
Fe II	1623.715	1d	
V	1623.73	15	
B II	1623.771	300	3
P I	1623.83	75	
Se I	1623.90	100	
Mn III	1623.911	300	
Kr II	1623.948	120	

Element	Wavelength	Intensity	Multiplet
P I	1623.99	30	
S IV	1624.00	200	
B II	1624.018	600	3
Zn II	1624.020	30 -A	
Na III	1624.07	240	
Ni II	1624.084	60	
Ge I	1624.1300 st	2	
Mg IV	1624.155	15	
B II	1624.16	400	3
Ni II	1624.172	20	
Fe III	1624.206	150	
Ni III	1624.220	20	17
B II	1624.340	450	3
P I	1624.43	2	
V III	1624.53	0	
P I	1624.67	3	
Ni II	1624.773	16	
Ge I	1624.78		
As I	1625.17	1	
Se I	1625.19	140	
Mg I	1625.22 P		
Ni II	1625.233	25	
Mn II	1625.28	10	76
Ni II	1625.288	2	
Cr III	1625.32	30	
Mn II	1625.35	20	76
P I	1625.40	30	
Se I	1625.45	120	
Ge I	1625.46		
Mg I	1625.50 P		
Cu III	1625.500	0	
Fe II	1625.520	400	43
Si I	1625.5320 st	35	29
Al II	1625.6271	150	9
Si I	1625.7051 st	70	27
Cr III	1625.78	10	
P I	1625.80	75	
Mg I	1625.81 P		
Mn II	1625.89	10	
Fe II	1625.909	300	8
V	1625.92	50	
Zn III	1626.009	1	
Mg III	1626.093	4	
Ni III	1626.096	100	
Cu III	1626.139	100	13
Mg I	1626.16 P		
Ni II	1626.161	12	
Zn II	1626.200	3 -A	
Se I	1626.25	240	5
Ni II	1626.309	20	
Ni II	1626.320	15	
Cr III	1626.33	100d	
Ni II	1626.366	6	
Na II	1626.372	20	
Mg I	1626.4 P		
Cu III	1626.411	100	13
Mg I	1626.56 P		
Mg I	1626.8 P		
Cr III	1626.85	50	
Mn III	1626.885	0	
Ni II	1626.961	12	
Mn III	1626.99	6	18
Mg I	1627.02 P		
Si I	1627.0498 st	20	29
Ar II	1627.085	20	
Mn III	1627.200	3h	
Cr III	1627.25	30	
Mg I	1627.3 P		
N II	1627.349 P		
N II	1627.376 P	100	
Ni II	1627.396	12	
Fe II	1627.401	4	
Co II	1627.506	10	
Mg I	1627.53 P		
Ni II	1627.656	4	
V III	1627.67	150	
Mn III	1627.743	20	
Si I	1627.7459 st	30	27
Ni III	1627.751	3	
Mg I	1627.8 P		
Cr III	1627.80	20	
P I	1627.86	9	
Cu III	1628.088	25	
Mg I	1628.12 P		
Ni II	1628.126	15	
Cu III	1628.295	150	13
Fe III	1628.304	200	
Cr III	1628.39	120	
Zn	1628.470	20	
Ni II	1628.497	10	
Mg I	1628.5 P		
Cr III	1628.58	10	
Ni II	1628.726	15	
Mg I	1628.80 P		
Ni II	1628.810	20	
Ar II	1628.825	100	
Se I	1628.85	160	4
N II	1628.896 P		
N II	1628.922 P		
Cr III	1628.98	100	
Ni III	1629.000	25	
Se I	1629.06	120	4
N II	1629.079 P	100	
Mn III	1629.117	400	
Fe II	1629.154	600	8
Zn III	1629.157	100	
P I	1629.17	60	
Mg I	1629.2 P		
S IV	1629.20	200	
Ni II	1629.282	100	
Cu III	1629.301	0	12
Fe II	1629.376	40	
Si I	1629.403 st	20	29
Si I	1629.438 st	100	27
Ni II	1629.445	11	
Cr III	1629.56	100	
As II	1629.565	0	
Mg I	1629.59 P		
P I	1629.59	15	
Ni II	1629.591	70	
Ge I	1629.600		
V III	1629.64	125	
Co III	1629.666	1	
Mg I	1629.7 P		
Mn III	1629.715	20	
Ni II	1629.718	1	
N II	1629.832 P	10	
Ar II	1629.834	100	
Mn II	1629.84	20	76
Kr II	1629.867	280	

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Element	Wavelength	Intensity	Multiplet
Mn II	1629.94	10	76
Si I	1629.9477 st	100	27
Mn II	1630.00	7	76
Zn II	1630.119	25 -A	
Ni III	1630.120	3	
Ni II	1630.130	20	
Ge I	1630.1733 st	2	
Fe II	1630.19	1	
Cu II	1630.2681	20	
Ni II	1630.356	10	
Mn III	1630.362	0	
As I	1630.48	4	
Mg I	1630.52 P		
Zn III	1630.546	5	
Mg I	1630.6 P		
Ni III	1630.602	5	
V II	1630.717	5	
V III	1630.72	10	
Mn III	1630.768	0	
V II	1630.82	200	18
Cr V	1630.91	100	
Ni II	1631.024	25	
Fe II	1631.120	600	8
Si I	1631.1676 st	70	26
Ni II	1631.182	12	
Zn II	1631.364	20 -A	
Ni IV	1631.376	100h	
Ni III	1631.479	2	
Cr III	1631.49	20	
Zn II	1631.539	12 -A	
Mg I	1631.62 P		
Si I	1631.62		27
Mn III	1631.638	0	
Zn III	1631.653	8	
Cr III	1631.68	20	
Mg I	1631.7 P		
As II	1631.725	0	
Ni III	1631.754	2	
Cr III	1631.89	20	
Zn I	1632.001	10	2
Kr II	1632.037	40	
Mn II	1632.10	2	
V II	1632.135	0	
Ni II	1632.152	15	
Ni III	1632.166	100	17
Ni II	1632.171	30	
Zn III	1632.171	2	
Cu I	1632.326	5	
V II	1632.343	5	
Co II	1632.347	10	
Zn II	1632.390	15 -A	
Ni II	1632.488	6	
Cr III	1632.62	100	
Zn III	1632.626	10	
Fe II	1632.668	20	43
Cr III	1632.85	20	
Mg I	1632.93 P		
Cu IV	1632.948	12	
Ni II	1632.960	2	
Mg I	1633.0 P		
Cr III	1633.17	20	
Cu III	1633.192	0	
Si I	1633.2230 st	45	26
Cu IV	1633.257	121	
V IX	1633.3	f	
Ge I	1633.312		
Si I	1633.3277 st	40	27
Co II	1633.370	0	
Br I	1633.404	750	
Ge I	1633.468	2	
V II	1633.51	250	18
Mn III	1633.51	20h	
Ni IV	1633.549	20h	
Cr III	1633.60	20	
Ni II	1633.625	10	
Na III	1633.64	80	
P I	1633.69	2	
As I	1633.71	5	
Mn III	1633.800	500	
Fe II	1633.908	300	43
Si I	1633.9851 st	90	28
Ni II	1633.988	35	
P I	1634.10	21	
Cr III	1634.12	120	
As II	1634.298	4	
Fe II	1634.345	400	8
Kr II	1634.396	160	
Mg I	1634.52 P		
Si IV	1634.607	70	28
Cr III	1634.61	10	
Mg I	1634.7 P		
V II	1634.783	6	
V II	1634.98	0	
Ni II	1635.070	30	
Cr III	1635.10	100	
Zn II	1635.180	20 -A	
Ge I	1635.2590 st	2	
Zn II	1635.277	20 -A	
Ni II	1635.340	100	
Fe II	1635.398	700	68
Cr III	1635.48	100	
Co III	1635.521	1	
Ni IV	1635.707	300	
P I	1635.79	9	
P III	1635.80	200	
Se I?	1635.80	20	
V II	1635.86	200	18
Mg III	1635.946	4	
V II	1636.02	400	18
Ge I	1636.062		
P I	1636.20	9	
Ni II	1636.231	4	
Ge I	1636.312	5	
Fe II	1636.321	600	8
Cr III	1636.35	200	
V III	1636.45	50	
Mg I	1636.48 P		
Ni II	1636.488	3	
Mn III	1636.559	3	
Mg I	1636.6 P		
Cu II	1636.6050	10	112
Cr III	1636.69	10	
V III	1636.72	25	
Mn II	1636.75	25	76
V III	1636.77	5	
Mn II	1636.87	15	76
Mn II	1636.96	6	76
Si III	1636.990	20	47
Si I	1637.0106 st	4 -A	104
As II	1637.033	0	

Element	Wavelength	Intensity	Multiplet
V III	1637.05	10	
Ni II	1637.072	20	
Ni II	1637.140	2	
Ni II	1637.267	10	
Co II	1637.302	10	
P III	1637.38	100	
Fe II	1637.397	300	42
V II	1637.439	10	
Ni II	1637.439	100	
As II	1637.470	10	
Ni II	1637.509	20	
Zn	1637.529	25	
Cr III	1637.53	100h	
V II	1637.55	50	
Ni II	1637.589	300	
Ge I	1637.74		
V II	1637.77	500	18
Cr III	1637.90	100	
V II	1637.93	100	18
O VII	1637.96		
Mn III	1637.974	2h	
Kr II	1637.981	40	
Cr III	1638.10	10	
Ge I	1638.138		
Zn II	1638.239	20 -A	
Si I	1638.2823 st	2 -A	104
Cr V	1638.42	700	
Mg IV	1638.54	8	
P I	1638.68	3	
Cr III	1638.78	10	
Kr II	1638.807	200	
Co II	1638.815	20	
Kr III	1638.82	60	
V II	1638.858	3h	
P I	1638.89	15	
Mg I	1638.90 P		
Cl IV	1638.95	10	
Cu III	1638.956	150	22
Ge I	1638.958	3	
Ni II	1638.963	4	
Al IV	1639.00	100	
P I	1639.09	24	
Mg I	1639.1 P		
V II	1639.13	400	18
Co II	1639.276	40	
Zn III	1639.318	100b	
Zn IV	1639.318	100b	
Cr V	1639.35	500	
Fe II	1639.403	600	8
O IV	1639.430	15	
Cr III	1639.46	10	
O VII	1639.58		
Fe II	1639.62	2	
Ge I	1639.641	2	
Ge I	1639.7300 st	6	
O IV	1639.842	10	
Cr III	1639.90	20	
Cu III	1639.960	5	
As II	1639.979	5	
Ni III	1639.996	25	
Co II	1640.127	20	
V II	1640.15	350	18
Fe II	1640.150	240	43
Si I	1640.267 st	1 -A	104
He II	1640.332 P	333	12
Ar II	1640.343	100	
Ge I	1640.394		
He II	1640.474 P	600	12
Cu I	1640.474	5r	13
He II	1640.490 P	70	12
As II	1640.491	1	
P IV	1640.58	120	
Ni II	1640.769	7	
V II	1640.86	300	18
Mg IV	1640.91	10	
Cr III	1640.94	100	
S I	1641.085	7	
Cr III	1641.09	50	
Zn II	1641.257	2b -A	
Zn III	1641.257	2b	
S I	1641.296	10	
Ni II	1641.418	10	
Cr III	1641.56	100	
V III	1641.64	50	
Fe II	1641.759	500	68
Cr III	1641.83	10	
Mg I	1641.97 P		
Mn III	1642.054	10	
Cr III	1642.16	100	
Fe II	1642.187	100	274
Mg I	1642.2 P		
Cu III	1642.208	1000	12
Mn IV	1642.249	40	
Ni II	1642.299	20	
Ni II	1642.324	40	
Ni II	1642.351	15	
Fe II	1642.43	2	
Co II	1642.485	30	
Fe II	1642.50	2	
Cu IV	1642.614	19	
Ni II	1642.670	5	
Ni II	1642.739	2	
Mn III	1642.78	30	21
Ni II	1642.792	2	
Ca II	1642.802	40	5
Mg III	1642.826	20	
Mn II	1642.90	1	
V II	1643.03	300b	18
V III	1643.03	1000b	
Cr III	1643.07	70	
Mn II	1643.08	2	
Ge I	1643.1931 st	4	
Cr III	1643.20	100	
Ni II	1643.271	80	
Ni II	1643.334	20	
Cr III	1643.34	80	
Se I	1643.39	300	4
Cl IV	1643.40	100	
V II	1643.43	300	18
Fe II	1643.576	300	42
As II	1643.619	5	
O V	1643.68	560w	
Mn III	1643.702	30h	21
Ca II	1643.770	200	5
As I	1643.79	2	
Cr III	1643.86	50	
Cr V	1644.00	400	
Ni II	1644.040	14	
Ni II	1644.137	6	
Al II	1644.2348	100	

Element	Wavelength	Intensity	Multiplet
As I	1644.33	5	
V II	1644.334	4	
Ca II	1644.442	360	5
Ni III	1644.466	1	
Ge I	1644.52		
Cr IV	1644.63	50	
V II	1644.665	5	
Fe II	1644.76	1	
Al II	1644.8089	100	
Zn III	1644.820	100	
Se III	1644.87	100	
Mn III	1644.96	10h	21
C III	1645.03	100	11.64
Mn III	1645.03	15h	
Mg IV	1645.06	5	
Ge I	1645.1146 st	1	
Cr III	1645.16	50	
Mn II	1645.32	10	
Zn II	1645.389	50 -A	
As II	1645.590	1	
Ni II	1645.654	0	
P III	1645.91	200	
Mg I	1645.930	0	
Co III	1645.986	6	36
Cr III	1646.15	70	
Fe II	1646.182	400	68
Zn IV	1646.290	8	
Mg I	1646.3 P		
Cr III	1646.56	20	
Mn III	1646.59	2h	21
V III	1646.69	200	
Cu I	1647.030	0h	
Mn II	1647.07	1	
Co III	1647.100	0	36
Ge I	1647.1222 st	2	
Fe II	1647.159	500	68
Zn IV	1647.161	2	
Kr III	1647.36	40	
Mn III	1647.46	250	21
As II	1647.527	10	
Ge I	1647.5310 st	3	
P III	1647.55	300	
Fe II	1647.55	2	
Zn II	1647.571	8 -A	
Ni II	1647.637	10	
Cr III	1647.71	5	
Zn II	1647.754	5 -A	
Co II	1647.758	20	
Fe II	1647.76	2	
Mn IV	1647.773	300	
Mn III	1647.827	30	21
Cl IV	1648.04	10	
V III	1648.10	75	
Ge IV	1648.14	60f	
Cr III	1648.36	50	
Mn III	1648.375	100h	25
Ni II	1648.381	1	
Zn III	1648.406	2	
Cr III	1648.58	10	
F III	1648.608	6	
Mg III	1648.822	4	
V III	1648.99	100	
Zn	1649.055	15	
Cr III	1649.13	50	
Co III	1649.153	1	
Ge II	1649.1942 st	500	2
Co III	1649.265	40d	36
Co II	1649.303	100	
Ni II	1649.396	13	
Fe II	1649.423	300	42
Cu II	1649.4575	25	139
Mn III	1649.50	150w	
Cr III	1649.51	150	
Mn II	1649.52	1	
Fe II	1649.572	400	68
Ni III	1649.771	100	17
Ca II	1649.858	600	1
Ni II	1649.905	3	
Cr III	1649.93	40	
Cu I	1650.119	5r	12
V III	1650.14	1000	
F II	1650.200	1	
Zn II	1650.211	20 -A	
Ge I	1650.2945 st	4	
Cu I	1650.301	5r	12
As II	1650.319	1	
V III	1650.40	75	
Ni II	1650.412	14	
Ar II	1650.535	100	
Mn IV	1650.573	300	
Kr II	1650.630	120	
Fe II	1650.704	400	68
F III	1650.764	250	
Ni II	1650.835	10	
As II	1650.842	0	
Na III	1650.91	20	
F III	1650.974	20	
Mn II	1651.02	30	
Si I	1651.0279 st	25	25
Mg I	1651.165	10	
Cl IV	1651.21	100	
Cr III	1651.32	10	
Mn III	1651.35	80	21
Ge I	1651.5288 st	3	
Cr III	1651.56	100	
Fe II	1651.61	4	
Mn IV	1651.685	350	
Mg I	1651.7 P		
Cu I	1651.721	20r	30
Zn III	1651.739	100	
Cu III	1651.758	8	
Co III	1651.783	0	36
Mg IV	1651.87	1	
Cr III	1651.92	20	
Ge I	1651.9547 st	6	
Ca II	1651.991	320	1
Cu III	1652.010	150	12
Co III	1652.024	1	
Cr III	1652.08	50	
Co III	1652.182	1	
Mg III	1652.218	12	
Zn II	1652.241	10 -A	
Ni II	1652.270	13	
F III	1652.288	3	
Ge I	1652.347	1	
Ni II	1652.355	3	
F III	1652.416	60	
Fe II	1652.44	0	
Cr III	1652.46	150h	
Fe II	1652.489	10	42

Element	Wavelength	Intensity	Multiplet
Cr V	1652.52	200	
Zn III	1652.541	3	
Ni II	1652.726	10	
Co III	1652.791	2	36
Ni II	1652.839	15	
Ni III	1652.866	300	
Mn II	1652.91	10	
Na II	1652.921	20	
Zn II	1652.931	5 -A	
P I	1652.97	30	
Mn II	1653.00	2	
Cr III	1653.06	10	
Li II	1653.076	60	
Ni III	1653.119	200	
Li II	1653.132	100	
Li II	1653.212	20	
Ar II	1653.322	100	
Ni II	1653.369	18	
Si I	1653.3760 st	40	25
Cu III	1653.399	5	
Fe II	1653.40	0	
V III	1653.41	25	
Mn III	1653.57	400	25
P I	1653.68	24	
Ni II	1653.687	10	
Zn III	1653.697	60	
Ni II	1653.779	10	
Mn III	1653.823	50	
Mn IV	1653.833	750	
As I	1653.92	4	
Fe II	1654.06	1	
Fe II	1654.111	100	68
V III	1654.14	25	
Cr III	1654.23	10	
Ge II	1654.46	75h	
Fe II	1654.476	100	42
Cu III	1654.574	150	12
Cu IV	1654.655	190	
Cr III	1654.79	10	
Fe II	1654.91	0	
Zn III	1654.950	5	
Si I	1655.012	1h	25
Zn II	1655.020	30 -A	
Mn II	1655.04	1	
Fe II	1655.042	20	68
Co II	1655.089	20	
Cu I	1655.318	30r	29
Cr III	1655.48	70	
Fe II	1655.50	3	
Cr V	1655.55	250	
Ni IV	1655.643	80	
Ni II	1655.749	1	
N V	1655.88	40	49
Ni II	1655.903	0	
As II	1656.004	5	
Mn IV	1656.046	450	
Ni III	1656.126	250	
Mn IV	1656.166	550	
C I	1656.2665 st	350	2
Cu II	1656.3219	20	169
Mn IV	1656.388	700	
Mn III	1656.510	3	
Co II	1656.669	30	
As II	1656.704	50	
Fe II	1656.73	4	
Fe III	1656.831	150	
Ni II	1656.840	3	
C I	1656.9282 st	300	2
Co II	1656.948	60	
C I	1657.0078 st	1000	2
Co II	1657.028	80	
Fe II	1657.049	4	42
Cr III	1657.18	10	
Mn III	1657.20	10	
Ni II	1657.313	10	
C I	1657.3797 st	300	2
Co II	1657.400	20	
Cr III	1657.45	20	
Fe II	1657.531	30	
Cr III	1657.71	40	
Zn IV	1657.790	5	
Ni IV	1657.878	200	
C I	1657.9070 st	300	2
Co II	1657.933	30	
C I	1658.1222 st	350	2
Co II	1658.145	40	
Zn II	1658.245	60 -A	
Cr III	1658.30	20	
Mg I	1658.311	20	
Kr II	1658.358	40	
Mn II	1658.37	3	
Ge I	1658.3752 st	3	
Co II	1658.377	20	
V III	1658.42	200	
Cu III	1658.472	100	12
Cr III	1658.63	20	
Mn III	1658.68	6w	25
Na III	1658.71	40	
Fe II	1658.771	300	41
Mg IV	1658.868	100	
Cr III	1658.93	120h	
Mg I	1659.0 P		
Co II	1659.062	30	
Ge II	1659.22	3h	
Mg III	1659.244	12	
Mn IV	1659.249	700	
Cr III	1659.26	100	
V III	1659.27	50	
Ni III	1659.438	10	
Fe II	1659.483	400	40
Mn II	1659.50	0	
Mn III	1659.602	100	24
Co III	1659.757	2	58
Kr III	1659.81	40	
Cr III	1659.82	30	
V III	1659.94	25	
Cu II	1660.0009	25	169
Mn II	1660.06	10	
Cr III	1660.24	80	
Zn II	1660.247	4 -A	
V III	1660.25	50	
Cr III	1660.44	10	
Si I	1660.4748 st	15	24
Mn II	1660.516	10	
V II	1660.53	80	109
As II	1660.554	500	
Cr III	1660.70	150	
Ge I	1660.7956 st	2	
O III	1660.803	20	
Fe II	1660.88	1	

Element	Wavelength	Intensity	Multiplet
Cu III	1660.887	15	
Ni II	1661.018	20	
Cr III	1661.02	10	
F III	1661.025	1	
Si II	1661.059	3h -A	28
Cu IV	1661.259	10	
V II?	1661.27	600	
Co II	1661.281	50	
Zn II	1661.306	2 -A	
Mn IV	1661.324	350	
Ge I	1661.3453 st	5	
Fe II	1661.347	1	41
Co III	1661.422	2	58
Be I	1661.478	1000	
Zn II	1661.495	4 -A	
F III	1661.505		
Mn II	1661.576	0	
Cr III	1661.58	20	
V III	1661.62	15	
Si II	1661.633	1h -A	28
V III	1661.73	15	
Ni III	1661.786	200	
Cr III	1661.93	40h	
Ar II	1662.253	100	
Zn III	1662.279	2	
V II	1662.28	5	34
Ni III	1662.311	1	
Fe II	1662.369	10	42
V III	1662.41	15	
Ni II	1662.423	20	
Fe II	1662.43	1	
Mn III	1662.533	3	
B I	1662.605	50	
Zn II	1662.695	15 -A	
As I	1662.76	2	
Mn III	1662.827	0	
Ni II	1662.892	25	
Mn III	1662.943	0	
Ge I	1662.9860 st	3	
Cu II	1663.0020	60	181
Cr III	1663.01	20	
B I	1663.035	100	
V III	1663.07	200	
Fe II	1663.221	300	40
Mg III	1663.287	4	
V II	1663.34	30	34
Zn III	1663.344	40	
Co III	1663.500	1	
Ge I	1663.5393 st	10	
Ni II	1663.563	16	
V II	1663.60	150	109
Mn II	1663.653	3	
Cr III	1663.75	40	
Fe II	1663.79	2	
V III	1663.82	150	
Cr III	1663.94	30	
Zn	1664.265	50	
Cu I	1664.303	10r	11
Ni II	1664.316	10	
Zn II	1664.326	0 -A	
Cr III	1664.35	150	
Ni II	1664.384	2	
Ni II	1664.459	8	
Si I	1664.5111 st	35	24
Cu I	1664.708	10r	11
Mn IV	1664.733	750	
Co II	1664.824	10	
V II	1664.87	5	
Cr III	1664.90	10	
Zn	1665.072	20	
Cr III	1665.18	20	
Co III	1665.269	10	23
Ge I	1665.2751 st	5	
Zn III	1665.352	6	
V III	1665.40	200	
Ni II	1665.477	4	
Cr III	1665.53	70	
Cr III	1665.62	50	
Mn III	1665.701	15	24
V III	1665.71	250	
Ni III	1665.859	20	
Cr III	1665.98	20	
Ni II	1666.045	0	
Fe II	1666.06	0	
Ni III	1666.102	20	
O III	1666.153	250	
Mn III	1666.255	10h	
Co II	1666.316	40	
Si I	1666.3762 st	60	23
Co II	1666.406	40	
F III	1666.652	150	
Cr III	1666.66	100	
S I	1666.6875	500	11
V	1666.76	10	
Zn IV	1666.760	60	
Ni II	1666.828	4b	
Ni III	1666.828	20b	
B I	1666.869	150	
Mn IV	1666.995	800w	
V II	1667.084	1	
Se II	1667.15	200	
Si II	1667.267	0 -A	28
B I	1667.291	200	
Cr III	1667.32	20	
Cr III	1667.44	30	
Co II	1667.534	10h	
Si I	1667.6288 st	70	23
Cr III	1667.63	120	
Mn IV	1667.651	100	
V II	1667.66	100	109
Mn III	1667.698	20h	24
Ge I	1667.8015 st	6	
V II	1667.88	50	34
Fe II	1667.91	1	
Zn II	1667.911	5 -A	
Cr III	1667.92	20	
Ni II	1667.930	4	
V II	1668.03	300b	17
V III	1668.03	300b	
Co III	1668.032	1	23
Mn III	1668.047	1h	
Ne II	1668.057	40	
Ni II	1668.122	1	
Cr III	1668.24	100	
Cr III	1668.33	80	
Kr II	1668.416	20	
Mg I	1668.431	50	
Si I	1668.5204 st	70	23
Na II	1668.569	35	
Zn II	1668.585	1 -A	

Element	Wavelength	Intensity	Multiplet
Co II	1668.655		
V III	1668.72	50	
Mn III	1668.799	0	
Cl VII	1668.8		
Cr III	1668.96	70	
V III	1668.98	100	
Fe II	1668.99	2	
Mn III	1669.032	200	
Ar III	1669.10	50	6
V III	1669.20	15	
Cu III	1669.273	5	
Zn III	1669.297	2	
Ar III	1669.30	250	6
Ga II	1669.38	150	
Mn III	1669.404	200	
Zn II	1669.453	2 -A	
Mg I	1669.51 P		
Na III	1669.52	60d	
Na III	1669.52	60d	
Cr III	1669.58	20	
Mg IV	1669.588	50	
Ar III	1669.67	350	6
Mn III	1669.691	2	
Zn III	1669.699	2	
Co II	1669.915	20	
Cr III	1669.97	150	
V II	1670.01	100	109
Mn IV	1670.078	700	
Cu III	1670.140	250	19
Cr III	1670.27	50	
Mn III	1670.315	3	
F III	1670.388	500	
Cr III	1670.45	150	
Zn III	1670.456	20	
Ge I	1670.6085 st	9	
Zn II	1670.617	2b -A	
Zn III	1670.617	2b	
V III	1670.66	300	
Ne II	1670.737	20	
Fe II	1670.742	500	40
Al II	1670.7867	1000	2
Cr III	1670.80	20	
V II	1670.90	50	34
Ni II	1670.935	7	
Ge I	1670.9490 st	2	
Ge I	1671.0096 st	3	
Fe II	1671.010	20	40
Mn III	1671.015	200	
P I	1671.07	210	
Si I	1671.1168 st	40	23
Se I	1671.15	500	3
Zn II	1671.313	20 -A	
Cr III	1671.40	10	
Mn III	1671.474	30	
Cu I	1671.484	3	28
P I	1671.49	105	
Ni II	1671.514	12	
Ni IV	1671.645	70	
P I	1671.68	540	2
Zn III	1671.779	3	
Cr III	1671.85	30	
F III	1671.870	35	
Na II	1671.886	35	
Cu III	1671.886	250	18
Mn IV	1671.995	600	
Mn III	1672.009	10	
Cr III	1672.03	10	
P I	1672.05	105	
Zn III	1672.120	5	
Co III	1672.133	0	
Ni III	1672.213	50	
F III	1672.341	3	
V II	1672.44	150	17
P I	1672.48	270	
Si I	1672.5961 st	80	23
Si IV	1672.612 P		27
Cr III	1672.64	200	
Cu II	1672.7757	10	110
Mn III	1672.974	200	
Cr III	1673.00	20	
Zn III	1673.049	100	
Ar III	1673.14	50	6
Co II	1673.199	10	
V III	1673.23	10	
Ar III	1673.24	150	6
Si III	1673.315	140	58
Co III	1673.325	2	
Ar III	1673.43	350	6
Cu I	1673.440	5	29
Fe II	1673.462	300	102
Cr III	1673.58	50	
Na II	1673.649	15	
Mn IV	1673.653	10	
Ni III	1673.659	10	
Co III	1673.679	4	
P IV	1673.76	20	
Cr III	1673.77	100d	
Ge I	1673.850	1	
Ca II	1673.860	120	
V III	1673.91	150	
P I?	1673.94	3	
Co II	1673.956	20	
Ni II	1674.000	10	
V II?	1674.09	80	
Fe II	1674.254	40	41
P III	1674.26	1	
Ge I	1674.2703 st	9	
Ne II	1674.290	60	
Zn III	1674.291	12	
Mn III	1674.408	3h	
Kr II	1674.577	80	
Cu III	1674.602	250	18
P I	1674.61	690	2
Fe II	1674.716	80	40
Cr III	1674.73	150	
Li I	1674.76	-A	
V III	1674.85	10	
Co II	1674.953	30	
Zn III	1675.059	3	
Si I	1675.2053 st	200	23
Se I	1675.27	500	3
Mn III	1675.329	3	
Mn IV	1675.472	250	
Mn III	1675.52	200	
Ge I	1675.5605 st	7	
Ar III	1675.58	350	6
Ar III	1675.64	200	6
Mg III	1675.710	2	
Cr III	1675.72	200	
N II	1675.726 P	150	

Element	Wavelength	Intensity	Multiplet
V	1675.75	100	
N II	1675.755 P	300	
Mn IV	1675.776	300	
Zn III	1675.788	3	
N II	1675.920 P	100	
Ni III	1676.054	1	
V III	1676.08	5	
Mn III	1676.147	3	
Cr III	1676.20	150	
Ge II	1676.26	0	
Ni II	1676.317	3	
Zn III	1676.443	20b	
Cu III	1676.469	8	
Zn II	1676.692	2b -A	
Zn III	1676.692	2b	
Si I	1676.8207 st	15	21
Fe II	1676.853	20	41
Mn III	1676.95	30	
Cr III	1676.96	100	
Kr II	1677.058	160	
V III	1677.18	25d	
Zn III	1677.216	5	
Ni II	1677.297	1	
Cu III	1677.373	100	31
F III	1677.397	600	
Zn IV	1677.399	2	
Cr III	1677.54	10	
Cr III	1677.68	10	
Fe II	1677.847	10	
V II	1677.88	30	17
Co III	1677.901	3	23
Cu IV	1677.908	21	
Ge II	1677.99	5	
Mn IV	1678.018	30	
Mn III	1678.08	1h	
P III	1678.12	10	
Cr III	1678.41	100	
Ni II	1678.447	5	
Ni II	1678.476	10	
Mn II	1678.63	2	
Zn III	1678.728	2	
Na III	1678.74	20	
Mn IV	1678.827	0	
Ni II	1678.941	1	
Si I	1678.992		22
O III	1679.06	400	
Ni II	1679.068	7	
Cu III	1679.151	200	12
Zn III	1679.180	0	
V III	1679.19	300	
Cr III	1679.25	300	72
Zn III	1679.321	2	
Ge II	1679.335	2	
Cr III	1679.38	150	
Fe II	1679.381	300	102
Co II	1679.423	40	
Mg III	1679.470	4	
Ni IV	1679.478	150	
Co III	1679.481	1	
Cr III	1679.53	120	
Mn II	1679.55	60	39
Co III	1679.578	4	23
V III	1679.64	5	
Zn II	1679.667	5 -A	
P I	1679.71	900	2
Sc III	1679.824	10	
Cr III	1679.83	100	
Ge I	1679.9868 st	2	
Mg IV	1679.987	300	
Ca II	1680.051	200	
Ca II	1680.129	20	
Co II	1680.187	20	
V V	1680.199	100	
Cu II	1680.3118	1	110
Mn II	1680.401	40	39
Fe II	1680.41	1	
V III	1680.44	250	
Ni III	1680.532	10	
Co III	1680.734	0	
Ne II	1681.035	50	
V III	1681.05	5	
Co III	1681.074	2	23
Sc III	1681.105	14	
Fe II	1681.12	1	
F III	1681.182	150	
V II	1681.22	50	
Ge I	1681.3426 st	7	
F III	1681.478	10	
Cu III	1681.481	150	18
V III	1681.56	5	
Li II	1681.667	400	
Ne II	1681.683	120	7
Al II	1681.8089	80	
Zn III	1681.858	1	
V	1681.91	10	
Ni III	1682.029	10	16
Cu III	1682.044	5	24
Co II	1682.124	20	
V II	1682.17	5	
Co II	1682.355	100	
Cr III	1682.36	60	
Ni III	1682.443	1	16
Kr II	1682.622	120	
Zn III	1682.656	1	
Si I	1682.6734 st	70	21
Cu III	1682.695	15	26
Zn II	1682.698	5 -A	
V II	1682.997	2	
Mg IV	1683.016	500	
Mn IV	1683.115	450	
Si I	1683.1189 st	3	22
Cu II	1683.1549	40	
Cu II	1683.1585	40	
Cl III	1683.18	10	
Cu II	1683.1884	40	
V II	1683.392	1	
Mg I	1683.412	100	
Ni III	1683.471	2	
Cr III	1683.50	40	
Co II	1683.518	70	
V II	1683.548	2	
Ni III	1683.688	30	
Co II	1683.765	60	
F III	1683.991	6	
Fe II	1684.005	2	
Cr III	1684.02	150	
Cr III	1684.14	100	
Zn III	1684.381	6	
Ca III	1684.392	25	
Ni III	1684.515	1	

Element	Wavelength	Intensity	Multiplet
Mn II	1684.58	10	75
Mn IV	1684.604	0	
Cu III	1684.642	250	12
Cu I	1684.674	20h	28
Mn II	1684.71	10	
Zn II	1684.802	3 -A	
Mn IV	1684.809	0	
Kr II	1684.845	20	
Ni II	1684.952	70	
V II	1685.014	5	
Cr IV	1685.02	40	
Ni III	1685.085	5	
Mg I	1685.13 P		
Zn III	1685.196	4	
Ge I	1685.2221 st	3	
Cr III	1685.38	10	
Ni II	1685.465	8	
V III	1685.47	50	
Cu I	1685.682	25r	10
Cr III	1685.85	150	
Co II	1685.882	20	
Zn II	1685.942	5b -A	
Zn III	1685.942	5b	
Fe II	1685.954	100	41
Ni II	1685.965	9	
Mn IV	1685.967	300	
Ni III	1685.977	5	
P I	1685.99	360	6
Zn III	1686.039	6	
Ar II	1686.076	50	
V II	1686.19	10	33
Cu III	1686.214	150	22
Ni III	1686.216	75	
Al II	1686.2505	100	
Cr III	1686.44	40	
Fe II	1686.455	160	40
Cl VII	1686.5		
Zn II	1686.502	25 -A	
V II	1686.550	10	
Al III	1686.676		
Fe II	1686.692	40	39
V III	1686.74	50	
V II	1686.748	15	
Si I	1686.8185 st	100	21
Co II	1686.934	70	
V III	1686.95	150	
Mg IV	1687.03		
Cr III	1687.03	150	
Cu I	1687.043	20r	10
Co II	1687.069	60	
Mg III	1687.091	250	
Si I	1687.0923 st	20	21
Cu III	1687.134	300	12
V II	1687.40	25b	33
V III	1687.40	25b	
Kr II	1687.456	80	
S I	1687.5305	450	
Cr III	1687.56	70	
N IV	1687.60	50	20
N IV	1687.82	100	20
Co II	1687.868	10	
V III	1687.87	200	
Ni III	1687.897	400	25
Cu I	1688.093	30	28
N IV	1688.11	150	20
Mn II	1688.13	2	
Cr III	1688.15	10	
Zn II	1688.240	15b -A	
Zn III	1688.240	15b	
Fe II	1688.280	2	102
Co II	1688.338	20	
Ne II	1688.356	180	7
Cr III	1688.39	40	
Fe II	1688.401	8	41
Zn III	1688.589	100	
Cu III	1688.618	50	27
P I	1688.64	9	
Ca III	1688.770	450	
Se I?	1688.79	60	
Cu I	1688.865	15	27
Al III	1688.958		
V III	1689.04	150	
Cu III	1689.051	100	24
Ni III	1689.121	5	
Cr III	1689.14	10	
P I	1689.25	105	
Mn II	1689.25	2	
Co III	1689.283	1	
Si I	1689.2902 st	60	21
Cr III	1689.46	100	
Ar II	1689.470	50	
Mn II	1689.48	50	39
Cl III	1689.50	100	
Mn II	1689.611	15	75
Cr III	1689.77	80	
Zn II	1689.818	25b -A	
Zn III	1689.818	25b	
Fe II	1689.828	200w	85
Mn II	1689.84	4	102
Co III	1689.858	20	22
Si I?	1689.921	1	
Cr III	1690.00	30	
Ge I	1690.0349 st	10	
Zn III	1690.111	3	
Mn IV	1690.125	500	
P I	1690.17	30	
Cr III	1690.28	300	71
Mn II	1690.32	0	39
V III	1690.35	15	
Ni III	1690.372	20	
Fe II	1690.45	0	
Cr III	1690.52	20	
Ni III	1690.634	5	
Se I	1690.70	500	3
Cr III	1690.72	10	
Fe II	1690.759	160	85
Si I	1690.7889 st	60	21
Ni II	1690.814	12	
P I	1690.90	9	
Ge I	1690.9030 st	4	
Ni III	1690.974	15	
Cu I	1691.076	30	27
Ge I	1691.0897 st	20	
Cr III	1691.09	50	
Ni II	1691.231	11	
Mn II	1691.248	40	39
Fe II	1691.271	160	41
Co II	1691.339	30	
Mn II	1691.45	1	
Zn II	1691.470	1 -A	

Element	Wavelength	Intensity	Multiplet
Zn II	1691.592	1 -A	
Ge I	1691.6254 st	7	
Cr III	1691.64	50	
Mn IV	1691.684	750	
Na III	1691.70	20	
P I	1691.75	60	
Cr III	1691.76	40	
Ca II	1691.779	80	
P IV	1691.81	40	
Ge I	1691.8656 st	7	
As I	1691.87	7	
V III	1691.90	75	
V II	1692.11	100	33
Ni III	1692.219	3h	
Cr III	1692.31	30	
Mn II	1692.34	2	
Mn II	1692.46	10	102
P I	1692.48	15	
Ni III	1692.514	1000	16
Fe II	1692.516	1	38
Zn III	1692.554	8	
Cr III	1692.63	20	
Cu I	1692.654	5h	
Mg IV	1692.704	200	
Cu III	1692.706	150	17
V III	1692.82	10	
Mn IV	1692.829	0	
Cr III	1692.89	600	71
P III	1693.03	100	
V II	1693.09	100	33
Mn IV	1693.150	750	
Ni II	1693.177	10	
Si I	1693.2934 st	125	18
Cr III	1693.43	30	
Si I	1693.4681 st	60	21
Fe II	1693.477	10	85
V II	1693.49	120	33
Ni III	1693.559	3	16
Fe II	1693.61	0	
Cr III	1693.72	20	
V II	1693.756	15	
V III	1693.76	75	
Co II	1693.786	20	
Co II	1693.846	20	
Fe II	1693.936	10	41
P I	1694.06	300	6
Mn II	1694.24	50	
Ni III	1694.307	5	
Ge I	1694.3424 st	4	
Ni II	1694.384	2	
Cr IX	1694.4	f	
Ne II	1694.481	40	
P I	1694.50	120	6
Cr III	1694.53	70	
Ni III	1694.582	2	
Ne II	1694.600	80	
N III	1694.72 P	10	
V III	1694.78	1000b	
Ne II	1694.786	90	
Ne II	1694.878	60	
Cr III	1694.92	70	
Fe III	1695.036	150	
P I	1695.35	45	
Zn III	1695.407	100	
Si I	1695.5074 st	90	18
Ni II	1695.594	8	
Ni III	1695.599	30	
Cr III	1695.77	70	
Ga II	1695.81	250	
Ge I	1695.8597 st	8	
Ni III	1695.910	5	16
Co III	1696.008	200	22
Ni III	1696.195	5	
Cu III	1696.202	8	
Si I	1696.2065 st	200	18
Cr III	1696.27	70	
Fe II	1696.463	10	84
Mn II	1696.51	60	
N III	1696.54	150	
Cr III	1696.64	600	71
Ge I	1696.7160 st	8	
Fe II	1696.794	160	38
Cr III	1696.85	20	
N IV	1696.86	150	18.91
P III	1696.92	100	
Co III	1696.980	1	
N III	1697.06 P	10	
Fe II	1697.13	0	
Kr II	1697.189	20	
Mn II	1697.19	80b	75
Mn II	1697.19	80b	39
Mg III	1697.282	250	
Cr III	1697.43	60	
Fe II	1697.43	1	
Zn III	1697.433	1	
Mn II	1697.53	12	102
Cr III	1697.84	40	71
V II	1697.90	20	33
Si I	1697.9409 st	250	18
Co III	1697.988	160	22
Cr III	1698.03	40	
N III	1698.08 P	100	
Mn II	1698.127	10	39
Ni III	1698.176	50	25
Ca II	1698.183	160	
Fe II	1698.190	10	40
V III	1698.24	50	
Mn IV	1698.298	800	
Ni III	1698.381	5	
Ni II	1698.400	4	
Fe II	1698.43	0	
Ge II	1698.43	0	
Cr III	1698.55	30	
V III	1698.68	10	
Mn IV	1698.695	750	
Cr III	1698.75	200	
Mg IV	1698.806	400	
N III	1698.87 P	100	
Mn IV	1698.911	400	
Ca III	1698.939	450	
Ni III	1699.024	10	
N IV	1699.03	200	18.91
Zn III	1699.036	2	
Mn IV	1699.062	700	
Cu II	1699.0953	60	
Cu II	1699.1023	30	
Fe II	1699.193	40	85
Kr II	1699.297	160	
N III	1699.32	250	
Ni III	1699.349	8	

Element	Wavelength	Intensity	Multiplet
Cr III	1699.35	10	
Zn II	1699.471	3 -A	
Cu III	1699.581	0	
Mg IV	1699.686	100	
Si I	1699.7162 st	10	18
V III	1699.75	5	
Ni II	1699.772	2	
Cr III	1699.84	20	
N III	1699.88 P	200	
Co III	1699.880	0	
Se I?	1699.90	80	
Zn III	1700.053	5	
Cr III	1700.12	20	
F II	1700.185	10	
Cr III	1700.29	200	34
Mn II	1700.34	100	
Si I	1700.4193 st	90	18
V II	1700.47	30	33
Mn II	1700.60	1	
Si I	1700.6360 st	80	16
Ni II	1700.665	1	
Mn II	1700.69	3	101
F II	1700.691	10	
F II	1700.767	10	
Zn IV	1700.788	2	
F II	1700.831	40	
Zn III	1700.976	1	
Cu III	1701.023	200	31
Cr III	1701.05	30	
Ni III	1701.081	10	
As I	1701.16	15	
As I	1701.22	15	
Cu I	1701.292	10	30
Cr III	1701.32	20	34
Ar II	1701.358	100	
Zn II	1701.398	4 -A	
Cr III	1701.48	600	71
Ni II	1701.504	2	
Ni III	1701.599	60	30
Zn II	1701.766	12 -A	
Co III	1701.770	0	
V III	1701.86	50	
Fe II	1701.952	40	85
F II	1701.993	40	
N IV	1702.006	250	18.91
V	1702.01	10	
Fe II	1702.043	500	38
Cu III	1702.102	200	11
F II	1702.130	200	
Ni II	1702.150	1	
Ar II	1702.188	100	
Cu III	1702.190	150	26
Ge II	1702.20	0h	
Zn II	1702.210	10b -A	
Zn III	1702.210	10b	
Cu IV	1702.253	20	
Ni II	1702.265	7	
N V	1702.30 P	50	45
Cu III	1702.349	15	26
Ge I	1702.3873 st	4	
Co III	1702.506	1	
Zn III	1702.540	7	
Ni III	1702.591	10	
Si I?	1702.6978	1	
Fe II	1702.74	3	
Co III	1702.790	100	22
Fe II	1702.81	3	
Zn II	1702.836	2 -A	
Si I	1702.8694 st	70	16
Cr III	1702.89	80	71
As I	1702.94	3	
Cu III	1702.994	250	11
Mg III	1703.108	7	
V III	1703.12	5	
N V	1703.218	60	45
Mn II	1703.37	5	101
Mg IV	1703.387	150	
Ni II	1703.408	25	5
Ni III	1703.467	50	16
V III	1703.70	50	
Cr III	1703.73	40	
Mg III	1703.731	20	
Cu I	1703.843	30r	8
Ni III	1703.925	3	
Cu III	1704.072	5	
Ni III	1704.128	10	
V III	1704.17	100d	
Zn II	1704.178	2b -A	
Zn III	1704.178	2b	
Mg III	1704.368	4	
Si I	1704.4416 st	100	17
Zn III	1704.475	0	
Cr IV	1704.48	10	
Cr IV	1704.57	10	
Zn II	1704.577	0 -A	
Ni III	1704.641	60	
Fe II	1704.652	10	39
V III	1704.68	50	
F II	1704.696	10	
Cr III	1704.79	10	
Co III	1704.817	1	
F II	1704.834	40	
Mn II	1704.87	15	102
Si II	1704.967	2h	10.01
Zn III	1704.971	10b	
Zn IV	1704.971	10b	
S I	1704.986	5	
Mn IV?	1705.11	100	
S I	1705.115	3	
Zn III	1705.115	2	
V III	1705.19	40	
Cu III	1705.333	150	21
Cr III	1705.36	10	
Mn III	1705.497	3	
Ni II	1705.581	11	
Mn IV	1705.631	20	
Cu III	1705.633	200	30
As I	1705.74	4	
Cr III	1705.76	10h	
Zn	1705.833	10	
Mn IV	1705.931	10	
Cr III	1705.96	80	
Ar II	1705.980	100	
Zn III	1705.997	15b	
Zn IV	1705.997	15b	
Ni III	1706.041	10	
Co II	1706.088	20	
Fe II	1706.142	20	38
Cr III	1706.15	50	
Ni II	1706.170	2	

Element	Wavelength	Intensity	Multiplet
V III	1706.22	100	
Ni III	1706.246	15	
S I	1706.360	10	10
P I	1706.41	180	
Mn II	1706.57	10	
Cr IV	1706.65	30h	
Zn III	1706.659	100	
Se I?	1706.70	40	
Co II	1706.823	80	
Co II	1706.937	20	
Mg I	1707.064	150	
Si I	1707.1148 st	8	16
S I	1707.132	8	10
Mn III	1707.157	2	
Zn II	1707.191	20b -A	
Zn III	1707.191	20b	
Ni III	1707.242	10	25
Cr III	1707.27	30	
Ni III	1707.346	200	25
Co III	1707.348	200	22
Cu I	1707.391	5f	
Fe II	1707.399	40	84
Ni III	1707.426	200	30
Mn IV	1707.428	750	
V III	1707.43	150	
Cr III	1707.43	800	71
Zn	1707.449	10	
Cu III	1707.500	3	
P I	1707.57	120	
Co II	1707.602	80	
Cr III	1707.78	400	
Co II	1707.822	50	
V III	1707.89	150	
Co III	1707.951	100	22
Mn III	1707.995	2	
O V	1707.996	400	
P I	1708.03	3	
Se I?	1708.04	60	
Fe II	1708.250	20	84
Zn III	1708.259	3	
Mn II	1708.267	100	
Ni II	1708.386	25	
P I	1708.45	12	
Cr III	1708.51	10	
Mn II	1708.55	4	101
Ni III	1708.552	50	25
Fe II	1708.621	160	38
Mn II	1708.65	6	101
Mn III	1708.804	0	
Zn III	1708.896	0	
P I	1708.90	3	
Cu III	1708.958	100	21
Cr III	1708.98	60	71
Cu III	1709.036	350	11
Zn II	1709.243	0 -A	
Co III	1709.395	1	
Cu I	1709.396	2	
Ge III	1709.40	5	
Zn III	1709.401	4	
Fe II	1709.560	10	37
Ni II	1709.598	200	4
Fe II	1709.670	300	84
Cr IV	1709.89	50	
Fe III	1709.892	250	
Ni III	1709.901	800	16
Ni II	1710.032	3	
Zn II	1710.052	10 -A	
Mg I	1710.07 P		
Cr III	1710.10	30	
Mn III	1710.138	2	
V II	1710.147	2	
As I	1710.16	7	
Fe III	1710.374	200	
Cr III	1710.60	20	34
Si I?	1710.744	1	
Si II	1710.826	10h	10
Ar II	1710.909	50	
Cr III	1711.02	200	
Cr III	1711.12 P	5	34
Co II	1711.127	10	
Cu III	1711.257	15	
Si II	1711.296	20h	10
Cu III	1711.437	15	
Co III	1711.531	1	
V III	1711.61	100	
Cr III	1711.63	200	34
Fe II	1711.658	1	
Ni III	1711.779	10	16
Mn II	1711.83	100	
Zn III	1711.982	1	
Mn III	1712.134	1	
Cr III	1712.24	20	
As I	1712.32	10	
Cr III	1712.52	10	
Mn IV	1712.776	200	
Cr III	1712.85	10	
Ni III	1712.893	5	
Fe II	1712.997	400	38
Ge I	1713.0806 st	10	
Fe II	1713.20	1	
Ar II	1713.218	200	
Zn II	1713.251	50 -A	
Ni II	1713.285	2	
Cu III	1713.346	3	16
Cu I	1713.364	50r	7
V	1713.40	50	
Si I	1713.412		81.05
Cr III	1713.43	50	
Kr II	1713.509	40	
Cr IV	1713.69	50	
Si I	1713.85		81.05
Ni III	1713.864	10	
Cr III	1714.01	150	
V III	1714.04	50	
As II	1714.069	0	
Cr III	1714.26	10	
Zn II	1714.270	0 -A	
Mn II	1714.38	100	102
Zn II	1714.457	15b -A	
Zn IV	1714.457	15b	
Cr III	1714.63	40	
Cu II	1714.6633	0	
Ni III	1714.698	100	
Ge I	1714.7497 st	1	
Mg III	1714.783	12	
Zn III	1714.800	0	
Fe II	1715.032	10	84
Cr IV	1715.04	30	
Co II	1715.114	0	
Cr III	1715.17	30	

Element	Wavelength	Intensity	Multiplet
Ti III	1715.24	5	
Mn II	1715.25	1	
Ni III	1715.303	650	16
V III	1715.32	15	
Zn II	1715.388	1 -A	
Fe II	1715.503	240	84
V II	1715.57	20	
Cr III	1715.65	20h	
Mn II	1715.69	10	
Zn II	1715.763	60 -A	
Co III	1715.768	0	
V III	1715.79	25	
Ge I	1715.8355 st	15	
Ni III	1715.931	100	15
Mn II	1715.98	12	101
Zn III	1716.090	4	
Mn II	1716.14	12	101
Cu III?	1716.189	0	
Cr III	1716.21	40	71
Co III	1716.251	40	22
Cr III	1716.33	40	
Cu III	1716.400	5	
Zn III	1716.467	1	
V III	1716.47	50	
Cr III	1716.50	40	
Mn III	1716.569	5	
Fe II	1716.577	40	39
Kr II	1716.582	40	
Zn III	1716.589	2	
Kr II	1716.657	80	
V V	1716.722	50	
Mn II	1716.78	80	
Ge I	1716.7844 st	40	
Ni III	1716.886	75	15
Zn II	1716.935	1 -A	
As II	1716.962	1	
F III	1716.990	250	
V III	1717.01	150	
Mn IV	1717.043	100	
Mn III	1717.053	3	
Cu III?	1717.134	3	
Zn III	1717.212	1	
Fe III	1717.414	150	
Cr III	1717.43	200	
V III	1717.47	100	
Cr III	1717.65	40	
Ni II	1717.700	3	
Cu II	1717.7214	15	110
Zn III	1717.880	1	
Cr III	1717.92	40	
Fe II	1718.123	40	38
Cr III	1718.16	40	
Zn II	1718.182	1 -A	
Ni III	1718.184	20	
Mn IV?	1718.29	400b	
Ni III	1718.365	150	15
Kr II	1718.431	40	
Na III	1718.48	10	
Ge I	1718.4933 st	6	
P I	1718.55	60	
As I	1718.55	1	
N IV	1718.551	1000	7
Mn II	1718.56	2	
Mn IV	1718.669	650	
Ar II	1718.680	100	
Ge I	1718.6883 st	10	
Mn II	1718.79	15	
Ni III	1718.873	20	30
Co III	1718.887	0	
Fe II	1718.986	20	
P I	1719.00	30	
Ni III	1719.008	20	
Zn II	1719.136	2 -A	
P I	1719.31	90	
Ar II	1719.346	200	
Co III	1719.383	1	
Al II	1719.4400	800	6
Ni III	1719.458	500	16
Na III	1719.60	10	
Kr II	1719.638	240	
V III	1719.77	100	
Cr III	1719.78	5	
As II	1719.802	50	
Ni III	1719.892	50	15
Ni II	1719.906	5	
Kr II	1719.908	120	
Cr III	1720.00	80	34
Fe II	1720.042	200	84
Co III	1720.068	4	
Co II	1720.182	0	
Kr II	1720.208	360	
Cr III	1720.25	80	
Ca III	1720.334	300	
Zn III	1720.339	2	
C II	1720.456	10	14.02
Cr III	1720.51	20h	34
Mn IV	1720.521	750w	
Fe II	1720.616	400	38
Ni III	1720.708	20	25
Mn IV	1720.739	750	
Ge I	1720.7464 st	8	
C II	1721.012	100	14.02
Ni II	1721.092	15	
Co III	1721.151	2	
Zn III	1721.151	2	
Cr III	1721.18	150	
Al II	1721.2435	500	6
Ni III	1721.256	200	30
Al II	1721.2714	900	6
Mn IV	1721.406	750	
V II	1721.422	3	
Cr III	1721.43	10	
Mn III	1721.61	2	
Kr II	1721.632	120	
Kr III	1721.64	20	
Cr III	1721.67	200	
Co III	1721.678	1	
C II	1721.682	200	14.02
Ni III	1721.799	0	
Cr III	1721.84	70h	
V III	1721.98	400	
Ni III	1722.038	15	
Mg III	1722.041	100	
Ni II	1722.113	1	
Cr III	1722.19	70	
C II	1722.238	10	14.02
Ni III	1722.283	400	16
Cu III	1722.379	500	11
Cr III	1722.38	70	
Fe II	1722.425	10	

Element	Wavelength	Intensity	Multiplet
V III	1722.46	150	
Si IV	1722.534	400	10
Si I	1722.562 st	4	81.04
V II	1722.62	200b	129
V III	1722.62	200b	
Ni II	1722.646	2	
As II	1722.680	2	
Fe II	1722.70	1	
Kr II	1722.701	20	
Ni III	1722.790	20	30
Fe III	1722.837	250	
Cr IV	1722.84	100	14
Co III	1722.911	0	
Kr II	1722.936	200	
Mn IV	1722.944	650	
Co II	1723.048	30	
Zn III	1723.111	6	
Cr III	1723.16	100	
Ne II	1723.389	20	
Cr III	1723.50	100	
Co III	1723.536	0	
Ni III	1723.793	150	
Cr III	1723.83	10	71
As II	1723.852	0	
Ni II	1723.859	20	
Zn II	1723.901	2 -A	
Ni II	1723.957	1	
Co III	1723.970	100	22
Si I	1724.242 st	6	81.03
Ni III	1724.291	75	28
Ge I	1724.3082 st	10	
Cr III	1724.32	120	
Zn II	1724.364	2 -A	
Ni III	1724.523	50	15
Zn III	1724.558	2	
Fe II	1724.572	20	
V III	1724.63	300	
As I	1724.77	7	
Cu III	1724.810	5	
Mn IV	1724.827	750	
Fe II	1724.854	160	39
Kr II	1724.864	200	
Al II	1724.9519	500	6
Fe II	1724.966	160	37
Al II	1724.9838	900	6
N II	1725.028 P		
Cr III	1725.12	100	
Ar II	1725.147	100	
Zn III	1725.230	0	
Co II	1725.258	20	
Cr III	1725.29	150	
Mn II	1725.29	15	101
V III	1725.37	200	
Fe II	1725.402	100	346
Mn II	1725.441	20	
Ar II	1725.549	50	
V II	1725.597	3	
Cr III	1725.60	40	
Mn II	1725.61	10	101
Cu I	1725.664	50r	9
V III	1725.78	15	
As II	1725.846	1	
Kr II	1725.982	120	
Cr III	1726.00	20	
Kr II	1726.078	280	
V III	1726.11	10	
Co III	1726.134	20	35
Cu III	1726.275	3	
Mn II	1726.29	10	
Ni II	1726.324	4	
Fe II	1726.391	240	38
Mn II	1726.47	200	13
Cr III	1726.61	20	
F III	1726.665	200	
Co III	1726.726	3	
Mn II	1726.81	30	
Cr IV	1726.82	30	
Fe II	1726.900	1	
Cr III	1727.11	70	
Si IV	1727.377	300	10
As I	1727.38	4	
Si I	1727.444 st	2	81.02
Cr III	1727.51	10	
Ni III	1727.640	20	
Cr III	1727.78	10	
Co II	1727.823	20	
P I	1727.85	15	
Kr II	1727.854	20	
Cr III	1727.97	10	
Ni II	1728.022	1	
Co III	1728.091	1	
Mn II	1728.12	1	
Cu III	1728.139	100	18
Cr III	1728.24	20	
Fe II	1728.275	1	
Cr III	1728.34	80	
V III	1728.66	15	
Ni III	1728.738	20	
Fe II	1728.845	4	
V III	1728.87	50	
Ar II	1729.075	100	
Ni III	1729.219	2	
Ar II	1729.259	100	
Ni III	1729.384	20	
Ge II	1729.385	2	
Mn II	1729.57	5	
F II	1729.669	1	
Co III	1729.724	1	
V II	1729.74	100b	182
V III	1729.74	100b	
Zn IV	1729.760	10	
Cr III	1729.79	40	
As I	1729.80	30	12
Zn III	1729.918	3	
Cr IV	1729.93	50	
N III	1730.04	400 -A	
F II	1730.119	10	
Ni III	1730.255	10	
Cr III	1730.34	10	
V III	1730.40	100	
Ni III	1730.483	75	15
Mn IV	1730.553	600	
Cu I	1730.576	10	28
Zn II	1730.619	2 -A	
Ne II	1730.645	80	
Co III	1730.669	50	57
Mg III	1730.733	40	
Mg III	1730.778	7	
Fe III	1730.842	250	
Cr III	1730.92	5	

Element	Wavelength	Intensity	Multiplet
Fe II	1731.038	200	110
F II	1731.047	40	
Na III	1731.08	10	
Fe II	1731.18	1	
Cr IV	1731.22	100	14
Cu I	1731.32	2h	
Mn II	1731.36	40	
Fe II	1731.373	20	
Cr III	1731.53	20	
V III	1731.54	15	
As II	1731.671	0	
Mn IV	1731.684	200	
Mn II	1731.73	0	
Ni III	1731.733	2	
Cr III	1731.76	90b	
Mg III	1731.786	20	
Al III	1731.836		
Fe II	1731.891	10	
V II	1732.035	3	
Cr III?	1732.06	200	
As II	1732.236	0	
Fe II	1732.253	300	420
Co III	1732.358	0	
N II	1732.428 P		
As I	1732.44	30	13
Co III	1732.545	40	35
Cu I	1732.674	20	29
Mn II	1732.702	300	13
V III	1732.75	150	
Co II	1732.807	0	
Cr III	1732.85	50	
As I	1732.86	30	12
F III	1732.945	100	
Zn II	1732.953	25 -A	
Ge I	1732.9586 st	2	
Cu III	1732.998	3	
Cr III	1733.00	200	
Ni III	1733.129	250	15
Cr III	1733.13	150	
F III	1733.200	6	
Si I	1733.346 st	1	81.01
Ar II	1733.372	100	
Fe II	1733.375	4	110
Mn II	1733.55	500	13
Co III	1733.635	2	
Kr II	1733.649	20	
Kr II	1733.681	20	
Ni III	1733.762	50	
Mn II	1733.87	30	
Fe II	1733.87	4	
Cr IV	1733.93	200	14
Mn IV	1734.041	100	
Cr IV	1734.12 P	100	
Co II	1734.156	40	
Cu II	1734.2272	3	
Al III	1734.243		
Al III	1734.253		
Mn II	1734.49	400	13
F II	1734.494	10	
Kr II	1734.507	80	
V III	1734.52	50	
Cr IV	1734.68	60	
Si I	1734.718 st	8	81.01
Mn II	1734.72	30	
Cr III	1734.83	70	
Mg II	1734.8523 P	400	
P II	1734.88	1	
Ni II	1734.904	8	
Mn III	1735.073	30	
As II	1735.081	0	
Ni II	1735.135	5	
Cr III	1735.20	70	
Ar II	1735.378	50	
Co III	1735.400	10	35
F III	1735.417	35	
Fe II	1735.503	10	
Zn II	1735.607	80 -A	
Cr III	1735.61	10	
Ni III	1735.628	2	
As I	1735.70	3	
Ni III	1735.713	5	
Cr III	1735.76	10	
Zn II	1735.847	15 -A	
Ni III	1736.011	50	
Ni III	1736.051	50	
Mg IV	1736.098	70	
Zn III	1736.138	0	
Co III	1736.312	50	22
Cr III	1736.49	30	
V II	1736.498	0	
Mn IV	1736.516	300	
Si I	1736.538 st	3	81
Cu II	1736.5514	10	
Fe II	1736.60	2	
Cr III	1736.63	200	
Zn II	1736.825	0h -A	
Ar II	1736.834	100	
Co III	1736.856	1	
Zn II	1736.889	60 -A	
V III	1736.99	40	
V II	1737.02	5h	
Fe II	1737.192	6	37
Ne II	1737.341	50	
Mn II	1737.43	5	
Cr III	1737.47	30	
Zn III	1737.473	10	
V II	1737.479	10	
Co III	1737.523	1	
V II	1737.577	10	
Mg II	1737.6283 P	500	
Fe I	1737.63	0	
Cu III	1737.893	15	16
Zn II	1737.895	50 -A	
Mn II	1737.929	300	13
Fe II	1737.943	1d	
V III	1738.00	25	
F III	1738.041	200	
Ni II	1738.059	3	
Ge I	1738.1185 st	15	
Cu III	1738.145	15	
Cr III	1738.23	120	
Ni III	1738.252	500	15
Ni II	1738.311	12	
V III	1738.33	25	
Mn II	1738.347	100	13
Fe III	1738.468	200	
Ge I	1738.4791 st	30	
Mn II	1738.51	10	
Ni II	1738.549	1	
Cu III	1738.648	5	30

Element	Wavelength	Intensity	Multiplet
Co III	1738.653	0	
Ne II	1738.736	80	
Ni III	1738.785	300	28
Ni II	1738.793	4	
Kr II	1738.804	160	
Mg III	1738.835	600	
Cu III	1738.861	0	
Kr II	1738.861	40	
Co II	1738.870	60	
Cr III	1738.90	10	
Zn II	1738.915	1 -A	
V III	1738.93	25	
S IV	1739.03	50	
Ge I	1739.1024 st	25	
Fe III	1739.201	20	
Cr IV	1739.22	250	14
V II	1739.25	150b	128
V III	1739.25	150b	
Mg III	1739.475	7	
As I	1739.49	60	12
Cu III	1739.508	150	30
Al II	1739.7382	50	
Co III	1739.833	6	35
Mn IV	1740.022	250	
V II?	1740.024	10h	
Cr III	1740.06	10	
Mn II	1740.156	200	13
V II	1740.291	3h	
Si I	1740.2988 st	20	80
V	1740.30	100	
N II	1740.310 P	400	
Cr III	1740.31	20	
Zn II	1740.536	1 -A	
Co II	1740.598	0	
Ni II	1740.619	30	
Ni III	1740.671	15	
Ni III	1740.718	10	
V II	1740.741	4	
Cr III	1740.78	60	
Ni III	1740.944	30	
Co III	1741.057	1	35
Cr IV	1741.10 P	75	13
Cu III	1741.135	15	
As I	1741.28	10	
Na III	1741.33	20	
Cu III	1741.378	250	17
Mn II	1741.50	40	13
Ni II	1741.547	1000	5
Cu I	1741.574	50r	9
Mn II	1741.65	50	13
Cr IV	1741.93	30	
Zn II	1741.930	18 -A	
Ni III	1741.963	300	21
Mn II	1742.00	200	13
Kr II	1742.093	240	
Mn IV	1742.105	850w	
V III	1742.15	25	
Mn III	1742.15	50w	
Cr III	1742.19	150	
Ge I	1742.1951 st	25	
Zn II?	1742.285	20	
V II	1742.334	4h	
V III	1742.35	150	
Co III	1742.372	0	
Cr III	1742.52	20	
As I	1742.59	10	12
Sc III	1742.69	4h	
N I	1742.7189	50	9
V	1742.72	150	
N I	1742.7306	350	9
Se I?	1742.75	80	
Ne II	1742.869	70	
Cr III	1742.96	70	
Co II	1743.021	0h	
N II	1743.197 P	200	
N II	1743.228 P		
Na II	1743.309	15	
Co III	1743.311	6	63
Mn II	1743.347	100	13
Co II	1743.439	0	
Cr III	1743.44	100	
Cr III	1743.65	30	
Zn IV	1743.734	15	
Cr III	1743.87	30	
Si I	1743.8941 st	20	79
Ni III	1743.903	1	15
Mg III	1743.947	4	
Mn III	1743.96	3h	
Ge I	1744.0537 st	15	
Cr III	1744.07	20	
Fe III	1744.233	200	
Ge I	1744.2546 st	15	
Ne II	1744.277	50	
Mn III	1744.35	2h	
Ne II	1744.416	80	
Zn IV	1744.502	12	
Cu II	1744.5158	20	
Fe II	1744.52	3	
Cu II	1744.5269	20	
Co III	1744.529	0	
Mn II	1744.54	2	91
Mn II	1744.69	20	
Mg IV	1744.692	60	
F II	1744.745	200	
Cr III	1744.81	30	
Mn II	1744.86	10	91
Fe II	1744.99	0	
Mg III	1745.009	2	
Cr III	1745.04	40	
N II	1745.046 P		
N II	1745.076 P		
N I	1745.2482	150	9
N II	1745.256 P		
N I	1745.2600	50	9
V II	1745.264		
Se I?	1745.30	60	
Si I	1745.3475 st	25	15
S IV	1745.42	100	
F II	1745.550	300	
Cr III	1745.55	80h	
Mn III	1745.625	5	
Fe III	1745.638	250	
Si I	1745.647 st	1	77.03
Co III	1745.674	80	57
Zn IV	1745.998	25	
Ge I	1746.0651 st	30	
Co II	1746.215	10	
V III	1746.36	25	
Co III	1746.369	4	
Na III	1746.39	10	

Element	Wavelength	Intensity	Multiplet
Cr III	1746.48	10	
F III	1746.545	1	
Cr III	1746.77	200	
Fe II	1746.818	300	101
N III	1746.82 P		
Co III	1746.853	1	
Cr IV	1746.94	350	13
Ni II	1746.989	1	
Mn II	1746.99	10	
Na II	1746.996	0	
Ni III	1747.011	550	15
F III	1747.114	150	
Zn II	1747.118	75	
Cr III	1747.14	300	
Fe III	1747.260	70	
Cr III	1747.30	70	
V III	1747.31	10	
Mn III	1747.38	5	
F II	1747.389	450	
Si I	1747.4141 st	40	15
Mg III	1747.561	200	
V II	1747.640	2	
Ni III	1747.680	50	
Mg I	1747.795	200	
V	1747.84	400	
N III	1747.86	450	19
Zn III	1747.872	0	
F III	1747.881	10	
Co II	1747.897	40	
Mn II	1747.92	2h	91
Mn II	1747.995	2h	91
F III	1748.023	3	
Mn II	1748.13	10h	91
Fe III	1748.177	150	
Ni II	1748.285	500	5
Co II	1748.350	10	
V III	1748.39	150	
N III	1748.61	3	
Cr III	1748.74	80	
Co II	1748.772	0	
F III	1748.806	3	
Ge I	1748.8572 st	20	
Cr III	1748.87	40	
Mn III	1748.888	10	
Fe II	1748.910	6	
Mg III	1748.932	500	
V II	1748.99	50	32
Fe III	1749.052	70	
Fe II	1749.136	20	
Mn III	1749.17	1h	
Cu I	1749.202	2	
Ni III	1749.203	1	
V III	1749.39	5	
Mg IV	1749.503	20	
Fe II	1749.60	2	
Zn III	1749.629	200	
Cr III	1749.67	70	
N III	1749.674	3	
Kr II	1749.687	40	
As I	1749.72	1	
Co III	1749.728	5	28
F III	1749.766	35	
Fe I	1749.77	1	
Si I	1749.8076 st	3	15
Cr III	1749.88	10	
Mn II	1749.93	40	
Ge I	1750.0432 st	30	
V III	1750.17	50	
Mn II	1750.18	8h	91
Cr III	1750.27	20	
V III	1750.34	100	
Cu III	1750.391	250	17
Al II	1750.6124	60	
F III	1750.640	10	
Mg II	1750.6637 P	400	
Ar II	1750.694	50	
Zn III	1750.770	10	
Ge II	1750.85	10	
Se I?	1750.89	120	
As II	1750.945	5	
Cr III	1750.98	10	
Co III	1751.037	20	
Ne II	1751.216	60	
N III	1751.24	300	19
Mn III	1751.253	0	
F III	1751.276	6	
Cr III	1751.34	100	
Zn IV	1751.463	8	
Mn IV	1751.587	850	
Mn II	1751.60	20b	
Ar II	1751.679	200	
V III	1751.68	500d	
Ne II	1751.698	80	
N III	1751.75	500	19
C I	1751.8277 st	800	62
Co III	1751.854	40	29
Se I?	1751.88	60	
Ni II	1751.911	300	4
Na III	1752.06	20	
N III	1752.16 P		
Na II	1752.185	12	
V III	1752.19	50	
Zn II	1752.358	3 -A	
Mn II	1752.40	8	
Ni III	1752.427	300	21
Cr III	1752.47	80	
V III	1752.62	10	
Si I	1752.634 st	3	77.02
Na III	1752.65	60	
F III	1752.694	1	
Mn II	1752.92	0	
Se I	1752.94	120	
Ni III	1753.011	400	
Si I	1753.101 st	15	77.02
Ni III	1753.150	3	
Cr III	1753.23	30	
Cu II	1753.2811	15	
Ni III	1753.377	10	29
Fe III	1753.455	20	
Mg II	1753.4744 P	500	
F III	1753.518	60	
Cr III	1753.60	30	
V II	1753.665	8	
Zn III	1753.824	100	
Mg I	1753.84 P		
V II	1753.852	8	
N III	1753.986	1	
V III	1754.11	50	
Mn II	1754.12	1	
Ca III	1754.153	100	

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Element	Wavelength	Intensity	Multiplet
As I	1754.21	10	
Co II	1754.228	20	
Mn II	1754.34	5	
Cr III	1754.36	20	
P I	1754.40	90	
Zn III	1754.498	0	
Cr IV	1754.51 P	250	13
Mn II	1754.65	0	
Cr III	1754.76	300	
Co III	1754.761	0	
Zn III	1754.777	0	
Ni II	1754.808	50	4
Mn II	1754.81	8	
Kr II	1754.821	20	
Cr III	1754.94	20	
Na III	1754.97	10	
Cu III	1755.012	10	
Mn II	1755.04	0	
Cr III	1755.24	150	
V	1755.30	100	
Li II	1755.331	100	
Cr III	1755.46	200	
Cr IV	1755.65	100	13
Ni III	1755.757	1	
Zn	1755.761	10	
Cr III	1755.78	100	
Ar II	1755.819	100	
Zn II	1755.847	10 -A	
P I	1755.86	9	
Co III	1755.979	100	21
V III	1756.02	25	
Ni III	1756.151	1	
Cr III	1756.29	30	
Mn II	1756.30	10	
As I	1756.51	2	
V	1756.57	10	
Cr III	1756.58	10	
P I	1756.65	9	
Zn II	1756.665	2 -A	
Mn II	1756.80	1	
Ni III	1756.801	2	
Na II	1756.817	10	
P III	1756.82	10	
Ni II	1756.829	2	
Ne II	1756.835	80	
Co III	1756.851	6	
Cr III	1756.97	10	
Ni III	1757.034	25	
Mg III	1757.176	4	
Si I	1757.2827 st	3	77.01
Kr II	1757.384	40	
Mn II	1757.44	2	
Cr III	1757.45	10	
P I	1757.47	60	
As I	1757.47	4	
Co III	1757.531	3	
P III	1757.68	100	
V III	1757.73	500	
Co II	1757.770	0	
Mg III	1757.888	20	
P I	1757.95	60	
Cr III	1757.95	10	
Kr II	1758.077	120	
Ne II	1758.105	70	
Cr III	1758.20	50	
Kr II	1758.265	80	
Ge I	1758.2792 st	40	
Co III	1758.454	0	
Ni III	1758.468	10	
Cr IV	1758.47	100	13
V III	1758.50	150	
Ne II	1758.555	80	
Ne II	1758.590	20	
As I	1758.60	100	3
Co II	1758.648	20	
F III	1758.956	150	
V III	1758.96	50	
Co III	1759.144	1	
Cr III	1759.19	30	
Se I?	1759.24	160	
Ge I	1759.2712 st	15	
Cr III	1759.34	20	
V III	1759.46	100	
Cr III	1759.50	50	
Cu II	1759.5045	1	
Na II	1759.572	30	
Si I	1759.5831 st	10	77
F III	1759.792	3	
Mn IV	1759.815	750	
P I	1759.91	30	
V III	1760.07	1000	
Al II	1760.1044	350	5
O III	1760.12	700	
Zn III	1760.192	2	
Ni III	1760.260	20	
Cr III	1760.31	10	
Fe II	1760.350	1d	
Co III	1760.354	1000	21
C II	1760.3954 ST	450	10
P I	1760.40	45	
V III	1760.41	10	
Fe II	1760.415	400	100
O III	1760.42	500	
C II	1760.4735 ST	100	10
Ni III	1760.560	150	21
Cu III	1760.586	5	
Mn II	1760.678	100	
C II	1760.8191 ST	300	10
Mn II	1760.96	5	
V III	1761.04	50	
Na III	1761.05	20	
Fe I	1761.08	0	
Cu III	1761.155	10	16
Co III	1761.367	2	69
Fe II	1761.379	500	101
Cr III	1761.38	40h	
F III	1761.444	6	
V III	1761.63	50	
P I	1761.67	30	
Co II	1761.67	0	
Cr III	1761.73	20	
Mg III	1761.74		
V III	1761.84	50	
Al II	1761.9751	300	5
Na III	1762.13	10	
Zn II?	1762.151	20	
Mn IV	1762.168	700	
Zn II	1762.191	10 -A	
Zn II?	1762.223	10	
Zn II?	1762.243	10	

Element	Wavelength	Intensity	Multiplet
Ca III	1762.259	500	
V III	1762.27	75	
Ni III	1762.394	20	
Zn II	1762.395	25 -A	
Cr III	1762.52	30b	
Cu III	1762.557	15	
Cr IV	1762.61 P	250	13
Kr II	1762.686	120	
Mn II	1762.75	10	
V III	1762.78	10	
Cr III	1762.81	450	
Al I	1762.892	100 -A	
Mn IV	1762.942	750	
V III	1762.99	25	
Zn III	1763.032	6	
Ni II	1763.097	1	
Cr III	1763.13	70	
V II	1763.20	5	
F III	1763.206	150	
O III	1763.22	700	
Na II	1763.325	7	
Co III	1763.465	20	
Co III	1763.533	3	63
V III	1763.59	10d	
Ni III	1763.607	20	
N II	1763.639 P	100	
Si I	1763.6607 st	80	14
Ar II	1763.669	50	
Co II	1763.673	20	
Ne II	1763.727	20	
Cr III	1763.77	150	
Mg III	1763.805	30	
Na III	1763.84	60	
Na II	1763.841	30	
Al II	1763.8692	500	5
C I	1763.909	120	61.06
Cu III	1763.935	0	
Mn II	1763.94	15	
Al II	1763.9521	700	5
Fe II	1764.117	20	
Cr III	1764.16	10	
Ge I	1764.1852 st	30	
V III	1764.23	250	
Co II	1764.289	0	
O III	1764.48	700	
Cu I	1764.540	10f	
Ni III	1764.688	800	14
Mn III	1764.841	3	
V II	1764.916	4	
Ne II	1765.015	30	
Si I	1765.0296 st	90	14
Cr III	1765.06	120	
N II	1765.140 P	50	
Ni III	1765.229	1	
V III	1765.28	15	
Ge I	1765.2843 st	30	
Fe II	1765.325	10	
C I	1765.366	50	61.05
Co III	1765.414	0	
Mn II	1765.502	100	
Cr III	1765.53	10	
Si I	1765.6215 st	50	76
Al I	1765.632	200 -A	
Al II	1765.8150	300	5
Ne II	1765.898	70	
V III	1765.92	15	
Cr III	1765.93	10	
Si I	1765.9452 st	8	76
Si I	1766.0627 st	100	14
Ge I	1766.0648 st	25	
N II	1766.079 P	100	
Cr III	1766.08	10	
V III	1766.16	50	
Cu III	1766.219	1	
Mn IV	1766.273	850	
O III	1766.34	400	
Mn IV	1766.344	400	
Si I	1766.3541 st	50	14
Al I	1766.381	200 -A	
Ge I	1766.4330 st	30	
Mn II	1766.50	50	
Cr III	1766.58	60	
Cr III	1766.92	300	
V II	1767.02	5	
Co III	1767.084	6	21
Mn IV	1767.087	750	
Cr III	1767.18	10	
Na III	1767.21	10	
Cl II	1767.24	100	
Co III	1767.308	10	
Si I	1767.54		76
Mn II	1767.67	60	
Zn III	1767.684	90	
Cl VI	1767.7		
Fe II	1767.71	1	
Al II	1767.7308	400	5
O III	1767.78	1000	
Ne II	1767.900	10	
Ni III	1767.938	500	14
As I	1767.97	6	
Co III	1768.003	1h	
F III	1768.038	200	
Ar II	1768.043	100	
Ne II	1768.085	10	
V III	1768.09	100	
V II	1768.175	2	
Co III	1768.238	40	
O III	1768.24	900	
Cr III	1768.32	40	
V II	1768.334	3	
P I	1768.45	60	
Co III	1768.471	20	
Cr III	1768.50	40	
Mn II	1768.596	80	
Na II	1768.603	7	
V III	1768.66	5	
Cr III	1768.78	50	
Cu III	1768.869	100	16
P I	1768.94	45	
As I	1768.97	5	
As II	1768.985	225	
Cr III	1769.03	100	
Mn II	1769.08	8	
V	1769.13	15	
Al I	1769.133	200 -A	
Cr III	1769.17	300	
V III	1769.22	10	
O III	1769.32	400	
Ge II	1769.377	5	
Si I	1769.4609 st	2	75.01

Element	Wavelength	Intensity	Multiplet
Co III	1769.495	2	
F III	1769.529	6	
Kr II	1769.546	20	
V III	1769.60	25	
Ni III	1769.643	1000	14
Fe II	1769.667	20	100
Si I	1769.7859 st	70	75
Ni II	1769.940	2	
Co III	1769.957	100	21
V III	1770.06	25	
F III	1770.092	400	
Cr III	1770.10	30	
Ni III	1770.153	1	
Ga II	1770.2	500	
Fe III	1770.247	200	
Cr III	1770.35	20	
Mn II	1770.444	10	
Co III	1770.500	2	
Fe III	1770.554	400	
Si I	1770.6295 st	125	14
Ar II	1770.658	100	
Cr III	1770.66	20	
F III	1770.668	700	
V II	1770.698	3	
Si I	1770.9223 st	300	14
Cr III	1770.96	30h	
F III	1770.963	10	
Mn IV	1771.244	450	
Co III	1771.259	20	
V III	1771.35	75	
Ni III	1771.492	100	14
O III	1771.67	900	
V III	1771.67	50	
Ar II	1771.829	200	
As I	1771.84	2	
Co III	1771.854	40	
Ni II	1771.865	4	
Fe II	1771.93	0	
Fe III	1771.975	150	
Zn	1771.987	10	
Cl VI	1772.0		
Mn II	1772.00	2	
Cl II	1772.01	300	
Mn IV	1772.112	650	
Ni II	1772.197	1	
Si I	1772.2254 st	12	13
Co III	1772.233	60	
P II	1772.30	30	
O III	1772.31	400	
V III	1772.31	200	
Mn II	1772.35	30	
Co III	1772.438	40	
Mn II	1772.45	5	
Cr III	1772.46	40	
Cu III	1772.478	1	
Fe II	1772.509	300	99
As I	1772.54	8	
Co III	1772.549	10	
Cr III	1772.60	50	
V III	1772.63	100	
Se I	1772.64	100	
Co III	1772.671	20	
N II	1772.735 P		
Mn III	1772.824	5	
Zn IV	1772.843	1	
F III	1772.925	300	
Mg III	1772.982	350	
V III	1772.99	50	
O III	1773.00	500	
Na III	1773.00	10	
Co II	1773.042	10	
Mn IV	1773.065	300	
Fe III	1773.098	70	
Fe II	1773.17	2	
Co III	1773.215	100	73
Ca III	1773.241	400	
Cr III	1773.32	20h	
F III	1773.363	600	
V III	1773.43	300	
F III	1773.496	35	
Mn IV	1773.509	750	
Co III	1773.568	1000	21
Cu III	1773.697	0	
Cr III	1773.70	10	
Mn II	1773.70	2	
Ni III	1773.788	40	27
O III	1773.85	500	
Ni II	1773.949	25	3
Mg III	1773.959	2	
V II	1773.985	2	
V III	1774.02	10	
Zn II	1774.040	75 -A	
Si I	1774.08		73.01
F III	1774.104	150	
Ge I	1774.1755 st	40	
V II	1774.209	3h	
Mn II	1774.21	50	
V III	1774.25	25	
Co III	1774.418	100	73
Cr III	1774.51	20	
Co III	1774.577	2	73
Ni III	1774.640	10	
Ge II	1774.703	10	
Mn II	1774.75	15	
Cu I	1774.820	200r	7
Cr III	1774.89	10	
P I	1774.99	750	1
Zn II	1775.024	3 -A	
Cr III	1775.06	30	
F III	1775.079	60	
Mn II	1775.21	50d	
Fe III	1775.267	70	
Na III	1775.32	10	
Mn II	1775.52	0	
Fe III	1775.590	20	
Mn II	1775.69	6	
V III	1775.72	75	
Ni III	1775.750	150	
Co II	1775.878	0	
Cr IV	1775.90	70	
Mg III	1775.942	4	
Fe III	1775.983	400	
Mn II	1776.06	20	
Ni III	1776.068	400	
Be II	1776.100	500	3
V II	1776.104	3	
Cu III	1776.136	10	
Al II	1776.27	0	
Be II	1776.307	1000	3
V II	1776.48	0	

Element	Wavelength	Intensity	Multiplet
Na II	1776.571	90	
Mn IV	1776.593	600	
Co III	1776.630	0	
Fe II	1776.661	20	99
Ar II	1776.672	100	
Ni III	1776.802	30	
Si I	1776.8241 st	150	13
Mn IV	1777.023	300	
Co III	1777.145	200	43
V III	1777.18	50	
Ni III	1777.227	10	
Mn II	1777.23	0	
Cr III	1777.27	40	
F III	1777.358	60	
Zn III	1777.404	40b	
Zn IV	1777.404	40b	
Fe II	1777.45	0	
Cr III	1777.49	10	
Fe III	1777.737	70	
F III	1777.846	35	
Fe II	1777.900	4	
Zn III	1777.911	3	
Mn II	1778.01	10	
V III	1778.02	400	
Mn II	1778.09	6	
Co III	1778.091	20	21
Na II	1778.243	40	
Ne II	1778.282	30	
Co II	1778.321	10	
Ni III	1778.583	10	
Mn II	1778.59	20	100
Mn II	1778.692	100	
Si III	1778.715 P		35
Ni III	1778.730	30	
Ne II	1778.747	30	
Na II	1778.905	0	
Cr III	1778.93	200	
C III	1779.09	10	16
Ni III	1779.127	20	
Ge I	1779.15	15	
O III	1779.16	700	
Mn II	1779.308	20	
Ni III	1779.442	30	21
Co III	1779.536	4	28
Mn II	1779.59	1	
V III	1779.72	500	
F III	1779.778	6	
Co III	1779.896	1	
Na II	1779.906	0	
Cr III	1779.91	40	
Mn IV	1779.976	450	
Cr III	1779.99	40	
Co III	1780.046	400	21
Cu III	1780.062	3	
Cr III	1780.14	50	
Mn II	1780.25	8	
V III	1780.48	100b	
V II	1780.52	100b	
As I	1780.52	50	26
N II	1780.551 P		
V II	1780.829	2	
Fe II	1780.99	2	
O III	1781.03	600	
Ni III	1781.088	15	
Ni III	1781.279	50	21
Fe II	1781.336	4	
Cr III	1781.45	20	
As I	1781.48	50	9
Fe II	1781.529	20	
V III	1781.61	200	
Fe II	1781.702	40	67
Cr III	1781.73	10	
Mn II	1781.82	1	
Kr II	1781.888	200	
Mn II	1781.93	1	
V III	1782.04	5	
Cr III	1782.07	100	
Mn IV	1782.212	750	
S I	1782.2626	50	13
V II	1782.454	3	
Kr II	1782.594	80	
Ar II	1782.596	100	
Mn II	1782.626	8	
Ni III	1782.747	60	14
P I	1782.87	600	1
Na III	1782.92	240	
Co III	1782.966	600	21
Cr III	1782.99	250	
Na II	1783.043	60	
Mn II	1783.06	1	
Si III	1783.079 P		35
Si III	1783.146 P		35
V III	1783.16	20	
Mn II	1783.18	0	
Si I	1783.2315 st	25	73
Mg III	1783.253	550	
Cl VI	1783.3		
Ni II	1783.317	1	
Mn II	1783.38	2	
V III	1783.41	200	
Na II	1783.475	15	
Mn II	1783.51	15	
Ti III	1783.58	20	
Mn II	1783.63	10	
Mn II	1783.72	20	100
V II	1783.744	10	
V III	1783.77	50	
Ne II	1783.783	30	
Cu III	1783.799	10	
Ca III	1783.929	500	
Cu III	1783.935	3	
Mn II	1783.94	10	
Cr III	1783.95	200	
Kr II	1783.997	80	
Co III	1784.055	100	43
Si I	1784.0884 st	8	73
V II	1784.128	8	
Cr IV	1784.18 P	150	
Mn II	1784.24	15	100
Ti III	1784.36	20	
Mn III	1784.394	20	
Cr III	1784.43	150	
V III	1784.44	400	
Mn II	1784.46	10	
Mn IV	1784.636	600	
Cr III	1784.72	50	
Co III	1784.790	6	
O III	1784.85	600	
Ni III	1784.882	75	
Mn IV	1784.889	200	

Element	Wavelength	Intensity	Multiplet
Mn II	1785.032	20	
Ge I	1785.0460 st	50	
Cl II	1785.06	100	
V II	1785.07	50	175
Co III	1785.116	4	
Fe II	1785.262	800	191
Mn II	1785.31	1h	
V III	1785.33	50	
Mn I	1785.355	7h	
Kr II	1785.419	40	
Mn I	1785.465	5	
Cr III	1785.53	10	
Mn II	1785.618	20	
Ar II	1785.672	100	
Co III	1785.705	1	69
Mn II	1785.73	1	
Mn I	1785.829	6h	
As I	1785.84	3	
Co III	1785.965	10	21
V III	1785.97	150	
Na II	1785.989	12	
Mn IV	1786.025	750	
Ge I	1786.0686 st	40	
Cr II	1786.07	40	224
Mn II	1786.31	20	
Co III	1786.342	40	43
Si III	1786.371 P		35
F III	1786.436	1	
Si III	1786.438 P		35
Fe II	1786.448	20	
Si III	1786.515 P		35
Co III	1786.679	10	
Fe II	1786.738	800	191
Si II	1786.817	4 -A	18.05
Mn II	1786.86	10	
V II	1786.91	5	
Ni III	1786.927	60	14
Mn II	1786.97	3	
Mn IV	1787.040	750	
As I	1787.07	6	
Co III	1787.082	200	21
V III	1787.15	15	
Cr III	1787.18	120b	
Na II	1787.189	80	
Cl II	1787.20	300	
Mn II	1787.23	2	
Ti III	1787.32	40	
Mn II	1787.36	3	
Mn IV	1787.375	750	
Zn II	1787.384	0 -A	
Ni III	1787.456	2	
Mn II	1787.48	2	
Co III	1787.502	10	
Si II	1787.538	8 -A	18.05
Co III	1787.575	6	
P I	1787.68	540	1
As II	1787.885	0	
Cu III	1787.902	0	
Mg III	1787.927	12	
Zn IV	1788.015	0	
Fe II	1788.072	700	191
Ar II	1788.104	300	
F III	1788.110	1	
Mn I	1788.152	2h	
V III	1788.26	1000	
Ni III	1788.301	200	27
Mn II	1788.43	40h	
Ni II	1788.485	100	5
Ni III	1788.502	150b	
Mn IV	1788.641	750	
Mn II	1788.786	40h	
Ca III	1788.827	200	
Na II	1788.846	45	
Ti III	1788.86	20	
Co III	1789.070	200	21
As I	1789.14	15	
Mn IV	1789.226	300	
Cr III	1789.24	30	
Co III	1789.373	20	43
V III	1789.47	200	
Zn II	1789.509	8 -A	
Co III	1789.549	20	
Ne II	1789.613	20	
Mn IV	1789.619	10	
V II	1789.62	75b	
V III	1789.62	100b	
Mn II	1789.63	8	
Ni II	1789.640	1	
As II	1789.643	5	
O III	1789.66	700	
Cr III	1789.77	40	
Fe II	1789.83	2	
As I	1789.85	50	10
Ni III	1789.888	3	
Ni III	1789.983	5	
Si I	1790.2548 st	25	72
Co III	1790.258	100	49
Co III	1790.389	10	
Ni III	1790.402	250	27
Mn IV	1790.442	750	
Cr III	1790.48	40	
Se I?	1790.48	60	
Na II	1790.562	2	
Mn II	1790.60	80	
Cu II	1790.6603	5	
Cr III	1790.71	10	
Zn II	1790.759	80 -A	
Mn II	1790.79	20	100
Co III	1790.892	5	
Ni III	1790.934	200	
Cr IV	1791.04	200	
Mn IV	1791.096	10	
Co III	1791.153	60	72
Zn III	1791.180	1	
Ni II	1791.219	1	
Na II	1791.224	35	
Na III	1791.23	200	
V III	1791.23	50	
Co III	1791.277	100	21
Fe III	1791.345	20	
Mg III	1791.375	20	
Mg III	1791.40		
F III	1791.445	3	
Cu IV	1791.457	10	
Cr II	1791.51	40	224
Mn II	1791.54	1	
Ar II	1791.561	100	
Mn IV	1791.584	350	
Ni III	1791.644	200	14
F III	1791.648	800	

Element	Wavelength	Intensity	Multiplet
Mn II	1791.67	2	
As I	1791.77	40	9
Na III	1791.80	160	
Na II	1791.862	30	
Mn II	1791.88	25	100
Cl II	1792.10	400	
Co III	1792.144	20	34
Mn III	1792.38	5	
Co III	1792.410	60	21
V II	1792.49	50	176
Ni III	1792.513	25	
Mn II	1792.52	0	
Zn III	1792.523	1	
Ti III	1792.56	40	
Cr III	1792.73	80	
Ni III	1792.994	100	
Ge I	1793.0711 st	40	
V II	1793.13	30	175
Mg III	1793.207	4	
Mn III	1793.242	10	
Se I	1793.29	500	16
Fe II	1793.367	200	99
Ar II	1793.435	50	
Mn IV	1793.537	80w	
Mn III	1793.560	10	
Cr III	1793.60	10	
Cr III	1793.75	50	
Mn II	1793.753	30	
Fe III	1793.785	70	
V III	1793.82	500	
Mn II	1793.89	1	
Co III	1793.924	40	28
Cr III	1793.95	80	
V III	1794.00	250	
Mn III	1794.09	5	
Ca III	1794.223	500	
Kr II	1794.421	40	
Cr III	1794.47	10	
Se I	1794.55	100	16
As II	1794.567	0	
Mg III	1794.582	300	
V III	1794.60	1000	
Fe II	1794.77	1	
Co III	1794.804	20	72
Ni III	1794.904	200	14
Ar II	1795.10	30	
Fe II	1795.11	2	
Ni III	1795.192	20	
Se I	1795.28	600	16
V II	1795.38	5	175
Co III	1795.426	0	
Cr III	1795.58	30	
Mn IV	1795.650	800	
Na II	1795.772	1	
Mn IV	1795.786	800	
Se I?	1796.04	120	
Cr IV	1796.09	50	
Si IV	1796.162 P		23
Si IV	1796.166 P		23
Co III	1796.200	2	72
V II	1796.26	5	98
Cr III	1796.37	10	
Ne II	1796.516	70	
V II	1796.52	30h	
Co III	1796.664	1	
Zn II?	1796.701	15	
V III	1796.77	300	
Mn III	1796.864	100	
Cr III	1796.89	10	
Fe II	1796.931	40	
Kr II	1797.020	40	
Co III	1797.095	2	
Ti III	1797.10	10	
Ne II	1797.198	30	
V III	1797.28	100	
Mg IV	1797.296	30	
Mn II	1797.35	2	
Si I	1797.3560 st	6	70
V III	1797.44	25	
Si IV	1797.496 P		23
Kr II	1797.515	40	
P II	1797.54	10	
V III	1797.63	100	
Zn II	1797.643	100 -A	
Ti III	1797.69	20	
Mn II	1797.76	20	
Fe III	1797.769	20	
Cl II	1797.91	10	
Mn III	1797.919	25	
Cr IV	1797.92	20	
Cl III	1797.98	200	7
Co III	1798.064	100	28
Mn III	1798.130	80	
V III	1798.15	500	
Fe II	1798.156	200	142
Ca III	1798.246	450	
Ne II	1798.281	80	
Cr III	1798.33	50	
Ni III	1798.366	20	
P II	1798.37	5	
Na II	1798.410	80	
Mn III	1798.545	1	
As I	1798.61	9	
Cu III	1798.761	3	
Co III	1798.876	1	
Cr III	1798.97	20	
Cu III	1799.000	0	
Ni III	1799.023	5	
P II	1799.10	50	
Si I	1799.1193 st	30	71
Mn III	1799.346	2	
Cr III	1799.40	10	
Ga II	1799.42	250	4
V II	1799.47	120	98
As I	1799.51	2	
Mn III	1799.56	2	
Mn II	1799.81	40	
P II	1799.91	20	
V II	1799.97	30	
Ni III	1800.031	20	
Na II	1800.048	25	
V III	1800.07	100	
Zn III	1800.147	15b	
Zn IV	1800.147	15b	
Mg IV	1800.180	200	
Ca III	1800.208	600	
P II	1800.27	20	
Si I	1800.404 st	1	70
Fe II	1800.45	0	
Co III	1800.469	10	

Element	Wavelength	Intensity	Multiplet
F III	1800.505	100	
Mg III	1800.662	350	
Ne II	1800.733	70	
Cr III	1800.84	10	
Cu II	1800.9526	2	
Mn II	1800.959	2	
V II	1800.962	0	
Co III	1800.974	5	
Si I	1801.000		69
Co III	1801.030	5	
Mn II	1801.04	1	
Fe II	1801.13	1	
Mn II	1801.23	10	
Na II	1801.256	45	
Na III	1801.27	140	
Mn II	1801.27	50	100
Ge I	1801.4323 st	50	
Cr III	1801.46	10	
Ni III	1801.506	50	20
V II	1801.61	5	
Mn II	1801.63	8	
Zn IV	1801.704	80	
Fe III	1801.766	200	
As I	1801.92	3	
Mn IV	1802.090	150	
F III	1802.181	60	
Cr IV	1802.30	30	
Mn III	1802.450	1	
V III	1802.55	300	
Cr III	1802.60	120	
Ge I	1802.6246 st	40	7
Mn IV	1802.632	10	
Co III	1802.917	0	
Mn II	1803.00	10	
Si III	1803.023	60	51
F III	1803.027	300	
As II	1803.028	0	
Mg III	1803.087	4	
Ne II	1803.114	30	
V III	1803.15	25	
V II	1803.279	1	
Fe III	1803.330	70	
V II	1803.401	4	
Mn II	1803.43	20	
As I	1803.46	10	
Cr III	1803.47	10h	
Ne II	1803.732	70	
V	1803.76	75	
Na II	1803.833	15	
Mn III	1804.065	400	
Kr II	1804.070	40	
F III	1804.073	200	
V III	1804.13	500	
Fe II	1804.17	2	
N III	1804.3	300	22
Ni III	1804.394	30	
Mn II	1804.446		
Ge I	1804.4523 st	50	
Ni II	1804.473	30	2
V III	1804.52	75	
Fe II	1804.65	1	
F III	1804.698	250	
V III	1804.76	75	
Cr III	1804.85	10	
Co II	1804.954	60	
V II	1804.979	2	
Fe II	1804.98	1	
P II	1805.11	30	
Ge I	1805.135	15	
V III	1805.23	150	
Fe III	1805.337	150	
N III	1805.5	350	22
Co III	1805.535	100	49
Zn III	1805.599	3	
F III	1805.896	900	
V II	1805.932	20	
Na II	1805.998	12	
Na II	1806.061	10	
Co III	1806.096	2	48
P II	1806.12	150	
As I	1806.15	200	3
V IV	1806.184	80	
Co III	1806.350	2	
Ni III	1806.457	30	
Mn III	1806.473	300	
V II	1806.49	80h	98
V III	1806.55	10	
Ni III	1806.550	30	
P II	1806.67	50	
Ne II	1806.671	5	
V III	1806.71	25	
Ni III	1807.056	50	
Na II	1807.092	90	
V II	1807.15	10	76
Ni III	1807.245	300	
S I	1807.3108	550	2
Ca II	1807.337	200	11
Mn II	1807.34	30	
V III	1807.35	50	
Al II	1807.4168	70	
Cr III	1807.45	10	
Zn III	1807.566	1	
Al II	1807.5851	20	
Al II	1807.6510	1	
V	1807.74	50	
Fe II	1807.746	10	66
Mg IV	1807.80	2	
Cu II	1807.8410	15	
Ca III	1807.885	650	
Mn III	1807.926	3	
Si II	1808.0117	150	1
V II	1808.097	3h	
Fe III	1808.203	20	
Mg IV	1808.308	100	
Ni II	1808.330	2	
Na II	1808.375	60	
Co III	1808.384	60	68
Si I	1808.4301 st	20	69
Cl III	1808.51	400	7
V III	1808.51	100	
V II	1808.66	5	31
Cr II	1808.66	60	18
Kr II	1808.713	40	
Mn II	1808.72	40	
Zn II?	1808.915	10	
Mn II	1808.96	40	
Si I	1809.1047 st	100	67
Ni III	1809.200	5	
Co III	1809.233	8	
Zn III	1809.253	1	

Element	Wavelength	Intensity	Multiplet
Fe II	1809.316	200	142
Ni III	1809.335	15	
V III	1809.36	150	
Mn II	1809.43	30	
Kr II	1809.454	20	
Zn IV	1809.521	20	
Cr III	1809.58	10h	
V II	1809.81	80d	76
V IV	1809.854	60	
Co III	1809.904	1	
Mn II	1809.97	30	
Cr II	1810.08	100	
Ge I	1810.1006 st	4	
Mn II	1810.12	2	
Cr III	1810.14	30	
Cl III	1810.26	100	7
V III	1810.31	0	
Cr IV	1810.46 P	150	12
Co III	1810.464	3	
Ni III	1810.489	150	
Fe II	1810.53	3	
V IV	1810.566	30	
V II	1810.60	60b	174
V III	1810.71	250	
Na III	1810.74	80	
Mn III	1810.767	200	
Cr III	1810.77	30	
Ge II	1810.83	1	
Cr III	1810.92	40	
Zn II	1811.008	80 -A	
Mn III	1811.025	300	
N V	1811.08	30	58
Ti III	1811.09	40	
Zn II	1811.105	15 -A	
Mn IV	1811.284	0	
Co III	1811.317	20	28
V V	1811.388	40h	
Co III	1811.466	80	49
V II	1811.51	0	
Mn IV	1811.613	0	
N V	1811.62	35	58
Kr II	1811.674	40	
Ni III	1811.689	200	
Co III	1811.694	1	
Na III	1811.70	100	
Mn II	1811.89	10	
Fe III	1811.924	200	
Mn II	1812.04	2	
Ni II	1812.065	30	24
Ca III	1812.153	700	
V III	1812.19	1000b	
V II	1812.195	100b	
Cr III	1812.24	40	
Co III	1812.336	1	
As II	1812.350	5	
Ar II	1812.475	50	
Ni III	1812.539	3	
Co III	1812.550	10	
Ni III	1812.769	20	
Cr II	1812.95	20	
Fe III	1812.974	150	
Ar II	1813.014	100	
Mn II	1813.03	10	
Co III	1813.044	10	48
V IV	1813.050	50	
Zn II	1813.170	1 -A	
Co III	1813.186	60	49
Si I	1813.27	1h	68.01
Mn II	1813.283	8	99
Cr II	1813.50	20	
Ca III	1813.585	550	
Cu IV	1813.608	30	
Cl II	1813.75	10	
Ar II	1813.766	100	
Mn II	1813.866	30	99
V II	1813.87	80	31
Ge I	1813.9087 st	15	
Ga II	1813.98	500	4
Fe II	1813.99	1	
V	1814.05	5	
Si I	1814.0794 st	250	68
Ni III	1814.082	1	
Co III	1814.084	2	
Co I	1814.20	120	47
Co III	1814.219	20	48
Zn IV	1814.222	75	
Na III	1814.35	60	
Cl II	1814.43	10	
Mn II	1814.47	25	
Na II	1814.474	25	
Ca II	1814.495	400	11
Ca II	1814.647	40	11
As II	1814.660	0	
Co III	1814.683	20	48
Co III	1814.865	20	
V II	1814.900	10	
V III	1814.95	250	
Cr IV	1815.05 P	150	12
Co III	1815.063	4	56
Ge II	1815.09	10h	
V III	1815.11	50	
Cl II	1815.16	10	
Mn II	1815.24	40	99
Ni III	1815.307	20	
Cr II	1815.32	60	
V III	1815.35	100	
Ni III	1815.398	15	
Fe II	1815.406	10	
Cr III	1815.49	80	
Mn II	1815.57	5h	
Co III	1815.596	40	42
Cl II	1815.61	10	
Ni III	1815.650	2h	
Co III	1815.686	40	42
Fe II	1815.761	4	66
Fe II	1815.87	0	
Ar II	1815.98	15	
Co III	1816.084	1	
Cr III	1816.09	10	
Ar II	1816.14	50	
Co III	1816.250	2	
Mn II	1816.284	25	99
V III	1816.30	150	
Zn II?	1816.480	80	
Mn II	1816.52	25	
Co III	1816.617	4	33
As I	1816.72	10	
Na III	1816.83	40	
Mn II	1816.87	10	90
Mn II	1816.91	10	

Element	Wavelength	Intensity	Multiplet
Si II	1816.9278	200	1
Ni III	1816.990	1	
V II	1817.09	0	31
Cr III	1817.16	100	
Cu I	1817.265	20	6
Si II	1817.4511	10	1
Co III	1817.518	20	78
Mn II	1817.53	150d	99
Ni III	1817.598	15	
Kr II	1817.602	200	
Co III	1817.626	20	48
V IV	1817.676	100	
Cl III	1817.73	400	7
Cr III	1817.79	20	
B I	1817.858	150	
Si I	1817.9562 st	10	66
Cr III	1818.28	40	
B I	1818.373	200	
Mn II	1818.38	100	
Na II	1818.473	5	
Fe II	1818.509	40	66
Al IV	1818.55	50d	
Co II	1818.584	10	
As I	1818.59	5	
Na II	1818.628	7	
Co III	1818.684	40	42
Cr II	1818.89	20	
Cr IV	1818.90	10b	
Co III	1819.009	0	
Na III	1819.01	40	
Na II	1819.024	20	
Co III	1819.070	0	
Cr IV	1819.18	300	16
Co III	1819.261	6	33
Ni III	1819.275	300	
Ni III	1819.325	3	
Co III	1819.330	40	56
Mn III	1819.410	5	
Fe III	1819.480	150	
Mn II	1819.62	15	
Fe II	1819.65	0	
Fe III	1819.718	70	
Mn II	1819.75	9	99
Cr III	1819.79	30	
Cr II	1819.81	100	
Mg III	1819.954	2	
As II	1820.009	0	
Co III	1820.064	20	42
Mn II	1820.22	50	
Cr V?	1820.28	600	
Cu III?	1820.339	3	
S I	1820.3426	500	2
Co I	1820.42	120	46
Mg III	1820.421	20	
Fe III	1820.496	70	
V III	1820.65	250	
Mn II	1820.65	9	90
Cr II	1820.84	80	18
Mg III	1820.896	2	
Ni II	1820.916	1	
Co III	1821.004	0	
Cr III	1821.08	20	
Co III	1821.262	80	78
As I	1821.32	2	
V	1821.33	10	
Cr IV	1821.56 P	100	12
Cr II	1821.58	160	
Zn III	1821.676	35	
Na III	1821.68	240	
Co III	1821.688	80	48
Na II	1821.695	50	
Co III	1821.766	80	68
Fe III	1821.865	20	
V III	1821.99	10	
Cu IV	1822.024	10	
Co III	1822.046	20	56
Fe II	1822.150	20	66
Se I?	1822.15	160	
Fe III	1822.183	70	
V III	1822.21	15	
Mn II	1822.213	30	99
Co III	1822.215	0	
Cr III	1822.26	20	
V III	1822.31	25	
Si I	1822.4553 st	30	12
Cr IV	1822.49	20	
Cl III	1822.50	600	7
Na II	1822.568	5	
Ca III	1822.592	25	
V II	1822.593	10	
V III	1822.61	50	
Mn II	1822.71	10	
Ni III	1822.918	25	
Mn II	1823.06	8	90
Ni III	1823.061	800	20
Cr II	1823.07	20	
Co III	1823.079	200	
Ar II	1823.205	100	
Mn II	1823.22	1	
Co III	1823.414	20	
Mn III	1823.477	40	
V III	1823.57	200d	
Co III	1823.622	30	
Mn II	1823.69	30	99
Fe II	1823.888	20	
Ni III	1823.936	1	
Co II	1824.060	10	
Na II	1824.098	0	
Ge I	1824.3023 st	70	7
V II	1824.328	6	
V III	1824.34	50	
Na III	1824.52	10	
Cl III	1824.59	300	7
Fe III	1824.659	70	
Ar II	1824.842	50	
Co III	1824.874	20	42
V III	1824.88	75	
Fe II	1824.98	0	
Zn III	1825.020	1	
Si I	1825.021 st	1	12
Ni II	1825.068	1	
Ni III	1825.084	20	
Co I	1825.17	10	
Mn II	1825.22	3	
Ti III	1825.30	10	
Fe II	1825.316	8	66
Cr II	1825.34	60	4
Ne II	1825.343	80	
Cu I	1825.348	100r	6
Co III	1825.365	80	

Element	Wavelength	Intensity	Multiplet
Na III	1825.44	200	
Co III	1825.464	60	33
V II	1825.571	8	
V III	1825.60	25	
Cr III	1825.66	10	
Na II	1825.730	7	
V IV	1825.836	200	
B I	1825.911	300	
Co III	1825.947	150	48
Fe III	1826.156	70	
Cr IV	1826.16	150	12
S I	1826.2451	450	2
Fe III	1826.267	20	
Cu III	1826.339	5	
B I	1826.413	300	
Mn II	1826.59	20	
Ne II	1826.667	5	
Mg III	1826.750	2	
Cr IV	1826.81	150	16
Ne II	1826.829	90	
Fe II	1826.991	20	65
Mn II	1827.076	100	99
Co III	1827.094	60	42
Cr III	1827.26	300	46
Cr IV	1827.39	50	12
Fe II	1827.736	4	66
Mg I	1827.934	300	
V III	1827.96	200	
Ti III	1828.14	20	
Mn II	1828.251	10	99
Ni III	1828.279	15	
Co I	1828.35	120	51
Cl III	1828.40	500	7
Al II	1828.5876	600	
Cr II	1828.62	60	
P II	1828.63	30	
Mn III	1828.647	40	
Se I?	1828.65	60	
Ni III	1828.672	15	
V II	1828.84	500b	
V III	1828.84	500b	
Fe III	1828.857	70	
Zn	1828.925	75	
Mg III	1828.974	2	
Fe III	1829.172	150	
Cr III	1829.39	20	
Co III	1829.392	1	
Ti III	1829.42	10	
Mn II	1829.43	60	
Ni IV	1829.497	200	
Se III	1829.6	100	
Co III	1829.674	40	55
Cr III	1829.72	100	46
Mn II	1829.75	20	
Si I	1829.8975 st	10	12
Ni III	1830.006	400	20
Ca III	1830.059	600	
Ni III	1830.075	200	20
Co III	1830.093	400	26
Na II	1830.124	20	
Mn II	1830.15	10	
Cr IV	1830.29	50	12
Se I?	1830.41	80	
Fe II	1830.47	3	
N II	1830.527 P	1	
F III	1830.567	3	
Co III	1830.581	60	32
V VIII	1830.6	f	
V III	1830.61	50	
Cr II	1830.61	100	4
Fe III	1830.623	200	117
Ar II	1830.770	500	
Co III	1830.780	4	
Kr II	1830.842	40	
Ni III	1830.859	15	
Fe II	1830.861	4	66
Co III	1830.870	30	
Mn II	1831.05	10h	
V III	1831.15	400	
Cr III	1831.15	100	
Na II	1831.172	12	
Fe II	1831.261	20	
As I	1831.30	50	2
Ti III	1831.31	10	
V II	1831.349	2	
Zn II	1831.376	80 -A	
Na II	1831.402	1	
Co III	1831.439	400	32
Ne II	1831.481	10	
Ar II	1831.527	500	
N II	1831.586 P	10	
Cr III	1831.60	10	
V III	1831.64	400	
Mn II	1831.66	40	
Fe II	1831.724	20	66
V III	1831.74	15	
As I	1831.74	30	
Co III	1831.916	150	26
Cl III	1832.08	400	7
Ni II	1832.144	1	
Mn II	1832.19	50	
Co III	1832.201	80	47
Ti III	1832.21	10	
V III	1832.29	25	
Cr III	1832.34	10	
F III	1832.361	6	
Mn II	1832.47	1	
Co I	1832.47	150	48
Fe II	1832.494	6	65
Ni II	1832.566	1	2
Co III	1832.784	0	
Al II	1832.8374	400	
Cr III	1832.87	40	
V III	1832.99	150	
Cr III	1833.00	10	
Mn III	1833.019	20	
Fe II	1833.071	10	66
Fe II	1833.27	1	
Mn II	1833.30	20	
Cl III	1833.31	400	7
F III	1833.322	3	
Ni II	1833.403	5	
V III	1833.42	25	
Mn II	1833.47	1	
Zn II	1833.481	40	
Zn II	1833.573	50 -A	
V II	1833.58	100	75
Fe II	1833.64	6	
Ni III	1833.669	20	
Cr IV	1833.79	75	12

Element	Wavelength	Intensity	Multiplet
F III	1833.791	3	
Kr II	1833.847	40	
Na II	1833.873	45	
Co III	1833.876	10	
Ne II	1833.910	80	
Mn II	1833.91	15	
P I	1833.98	30	
Ar II	1834.038	200	
Fe III	1834.096	70	
V II	1834.165	0	
Zn II	1834.268	40 -A	
Co I	1834.34	100	50
V II	1834.371	0	
Ni III	1834.381	15	
Mn II	1834.47	15	
Mn II	1834.57	30	
Cr III	1834.68	10	
Al II	1834.8077	250	
P I	1834.83	60	
Co III	1834.840	15	47
Ni III	1834.890	20	
Zn IV	1834.966	30	
Co I	1834.99	100	45
F III	1834.997	100	
Co III	1835.000	1000	32
V III	1835.01	200	
Ca III	1835.072	200	
Zn IV	1835.124	50	
Na II	1835.217	80	
Na III	1835.22	300	
Co III	1835.255	20	26
Fe II	1835.42	2	
N III	1835.51 P	150	
V III	1835.56	25	
Co III	1835.617	30	42
Co III	1835.687	4	55
F III	1835.712	200	
Fe II	1835.874	300	98
Mn II	1835.91	100	
Zn II	1836.007	70 -A	
V III	1836.17	10	
N II	1836.172 P	100	
Co III	1836.200	60	
Cr II	1836.23	240	18
Na II	1836.367	2	
P II	1836.47	10	
Cu IV	1836.484	10	
Mn II	1836.508	50	
Si I	1836.5102 st	200	11
Ge I	1836.649	2	
Zn II	1836.654	75	
N I	1836.712	4	8
V III	1836.78	250	
Ni III	1836.843	30	
Mn II	1836.92	20	
Al II	1836.9635	60	
Cr III	1837.05	100	46
Mn II	1837.13	80	
Mn II	1837.25	2	
Fe III	1837.422	70	
Ge II	1837.460	0	
Mn II	1837.48	60	
P II	1837.51	20	
Na II	1837.522	15	
Ge I	1837.583	2	
Fe III	1837.588	250	
Co III	1837.630	200	32
Mn II	1837.65	10	
Zn IV	1837.680	1	
Ni II	1837.744	1	
V II	1837.76	0	75
F III	1837.815	1	
Co I	1837.82	80	
Co III	1837.840	20	47
Mn II	1837.86	1	
F III	1837.880	100	
Na II	1837.890	45	
Ni II	1837.985	2	
Ca II	1838.008	400	4
Si I	1838.0120 st	40	65
Mn II	1838.05	10	98
V	1838.10	10	
Na III	1838.11	120	
Mn II	1838.25	2	
Co I	1838.28	150	44
Fe III	1838.309	450	117
Ge I	1838.321	2	
Mg III	1838.336	12	
Cr III	1838.34	30h	
Si III	1838.466 P		65
F III	1838.568	20	
Mn II	1838.604	30	98
V II	1838.606	0	
Fe III	1838.621	70	
Fe III	1838.698	70	
V II	1838.86	250	117
Mn III	1839.01	2	
Ni III	1839.092	1	
Na II	1839.270	20	
F III	1839.301	300	
Zn III	1839.334	150	
Co II	1839.367	100	
N III	1839.44 P	100	
Co III	1839.535	10	77
V II	1839.54	200	75
Si III	1839.585 P		65
Mn II	1839.59	15	98
Ge II	1839.634	20	
Co III	1839.636	4	39
Fe I	1839.65	0	
Cr III	1839.72	10	
Fe I	1839.80	3	
Na II	1839.835	25	
Mg III	1839.878	7	
N II	1839.931 P		
F III	1839.968	400	
As II	1839.978	5	
Na II	1840.032	20	
Si I	1840.0418 st	8	65
Ca II	1840.061	600	4
Cr IV	1840.10	500	11
F III	1840.140	300	
Co II	1840.220	30	
Mn II	1840.29	100	
Ni III	1840.421	40	
V II	1840.438	10h	
V III	1840.45	25	
Mn II	1840.45	2h	
Cr III	1840.48	10	
As I	1840.48	10	

Element	Wavelength	Intensity	Multiplet
Co I	1840.55	100	49
Mn II	1840.56	3h	
Cr III	1840.69	10	
Co I	1840.79	100	
Mn II	1840.91	5	
Cu III	1840.917	100	15
F III	1840.930	10	
N II	1840.983 P	100	
Mn II	1841.12	30	
Si I	1841.1520 st	125	11
Ge I	1841.3275 st	70	
Mn II	1841.33	10	
Fe III	1841.387	200	97
Si I	1841.4490 st	400	11
Co I	1841.47	100	47
Fe III	1841.536	300	
N III	1841.57 P	50	
Fe II	1841.60	0	
Mn II	1841.61	40	
Fe II	1841.701	200h	65
Mn II	1841.72	3	98
V II	1841.781	100b	
V III	1841.80	250	
Na II	1841.822	60	
Ni III	1841.866	15	
Co I	1841.88	30	
Co III	1841.924	3	
Mn II	1841.947	100	
Fe II	1841.988	20w	
Fe I	1842.05	0	
V III	1842.06	150	
Si III	1842.064 P		65
Kr II	1842.091	120	
Co III	1842.109	0	
Fe II	1842.256	10	65
N II	1842.284 P	10	
F III	1842.326	1	
Mn II	1842.33	10	
Co I	1842.34	250	45
Ne II	1842.341	70	
Ge I	1842.4098 st	70	7
Mn II	1842.49	1	
Si III	1842.547	180	20
V III	1842.66	25	
B II	1842.811	300	
Cr IV	1842.84 P	125	12
Mn II	1842.863	50	
Ni II	1842.889	1	
Fe III	1842.927	300	97
Ca II	1843.088	200	10
Zn	1843.100	10	
Mn II	1843.117	20	
V III	1843.16	100	
Mg I	1843.32 P		
Co III	1843.332	0	
N II	1843.357 P	10	
Cr III	1843.40	100d	
Ni III	1843.406	50	34
Fe III	1843.409	250	
Cr IV	1843.42 P	75	12
Na III	1843.43	40	
V II	1843.43	50	75
Co III	1843.443	40	26
Co I	1843.45	80	
Fe III	1843.502	150	117
Mn II	1843.505	100	
Co III	1843.532	40	
Ni III	1843.689	1	
Si I	1843.7700 st	200	11
Mn II	1843.78	1	98
Ne II	1843.908	80	
Mn II	1843.94	20	
Zn III	1843.953	25	
Co III	1843.960	15	
Fe III	1843.999	200	
Mn II	1844.027	6	98
P II	1844.06	5	
F III	1844.077	100	
Mn II	1844.086	50	
Mg IV	1844.169	300	
N II	1844.259 P	10	
Fe III	1844.263	300	
P I	1844.33	60	
Cr IV	1844.34 P	30	16
Na III	1844.36	400	
As I	1844.36	40	11
O V	1844.4	80w	
Ge I	1844.4102 st	15	
V III	1844.43	50	
Fe III	1844.547	400	117
As I	1844.57	40	25
Fe II	1844.590	100h	397
Co III	1844.684	6	
Co III	1844.726	10	
Mn II	1844.794	20	
Zn IV	1844.909	75	
Fe III	1844.942	200	97
Cr III	1844.99	100d	
Se III?	1845.0	300	
Na II	1845.016	70	
V III	1845.07	300	
Co III	1845.074	20	47
Na III	1845.10	240	
Ni III	1845.141	15	
P I	1845.19	30	
Ga II	1845.26	750	4
V III	1845.29	250	
Mn II	1845.29	30	
Fe III	1845.304	300	117
Ge II	1845.388	30	
Mn II	1845.51	40	
Si I	1845.5203 st	200	10
Fe III	1845.521	450	97
V III	1845.60	25	
N II	1845.616 P	100	
O V	1845.63	40w	
N III	1845.64	250 -A	
Fe III	1845.749	70w	
Ca III	1845.775	450	
N III	1845.80	200 -A	
Ge I	1845.8723 st	70	
Co II	1845.910	200	
Ne II	1845.996	80	
Mn III	1846.001	3	
Co III	1846.050	4	
Si I	1846.1118 st	200	11
Mg III	1846.121	7	
Co III	1846.157	100	26
V II	1846.268	1	
Fe II	1846.27	4	

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Element	Wavelength	Intensity	Multiplet
Mn III	1846.278	3	
Cr III	1846.45	80	
V III	1846.51	75	
Co III	1846.514	10d	32
Fe II	1846.573	240	98
Mn II	1846.66	10	
Mg III	1846.707	7	
Cr III	1846.71	10	
P II	1846.78	20	
Mn II	1846.78	4	
Mn II	1846.93	10	
Co I	1846.94	40	
Fe III	1846.943	200	
Ge I	1846.9578 st	20	20
V II	1846.965	0	
P I	1847.19	300	
Ne II	1847.249	5	
Mn III	1847.268	30	
Ni III	1847.275	650	19
As I	1847.32	10	
Fe III	1847.348	70	
F III	1847.462	150	
Si I	1847.4737 st	300	10
Na III	1847.54	200	
Mg III	1847.561	2	
Zn II	1847.562	75 -A	
Fe III	1847.637	150	
Mn II	1847.73	150	
Co III	1847.825	25	
Co I	1847.89	300	46
Fe II	1847.893	10	65
N II	1848.002 P	10	
Fe III	1848.130	150	
Si I	1848.1504 st	200	10
Mn II	1848.16	10	97
Fe II	1848.231	100	7
O III	1848.26	500	
Mn II	1848.26	40	98
Fe III	1848.428	20	
F III	1848.431	200	
Co II	1848.466	10	
Zn	1848.481	20	
Fe III	1848.492	70	
Mn II	1848.52	2	
Cr III	1848.56	100	
Cl III	1848.74	10	
Si I	1848.7480 st	250	11
Fe II	1848.771	240	141
V II	1848.80	5	
Ne II	1848.823	70	
Fe III	1848.883	70	
Al II	1848.8876	1	
Cr III	1848.96	30	
V III	1848.97	10	
Mn III	1849.049	15	
P I?	1849.05	3	
Fe III	1849.172	70	
Co III	1849.299	30	76
Ni III	1849.319	100	
Ne II	1849.381	90	
Fe III	1849.407	450	97
N II	1849.414 P	100	
Co III	1849.464	60	
V III	1849.55	250	
Se I?	1849.55	80	
Na III	1849.58	700	
Mg III	1849.591	2	
Ge I	1849.6354 st	20	
Cl III	1849.64	10	
Fe III	1849.648	70	97
Cr III	1849.76	10	
Zn IV	1849.791	75	
P I	1849.84	105	
Co III	1849.932	40	76
Mn II	1849.94	3	97
Fe III	1849.960	300	53
Cr III	1849.99	30h	
Mn II	1850.00	20	
Mg III	1850.060	7	
Kr II	1850.093	80	
Zn II	1850.140	10 -A	
Fe III	1850.200	300	97
Na III	1850.24	400	
As I	1850.24	40	10
Na III	1850.39	360	
Mn II	1850.43	3	
Cr III	1850.45	10	
Co III	1850.503	60	
Se I?	1850.51	60	
Mn II	1850.60	1	96
P II	1850.61	20	
Fe III	1850.650	70	53
Si I	1850.6719 st	400	10
V III	1850.69	300	
Ca II	1850.691	400	10
Kr II	1850.773	80	
Co III	1850.780	2	41
Mn II	1850.88	100	
F III	1850.889	3	
Zn	1850.894	60	
Ca III	1851.090	150	
Na II	1851.194	70	
P I	1851.22	240	
Cu IV	1851.250	11	
Fe III	1851.261	400	
V III	1851.32	150	
Fe I	1851.39	0	
Mn II	1851.44	60	
Co I	1851.49	80	
Co III	1851.509	10	
Fe II	1851.517	20	65
Mn II	1851.61	10b	97
Mn II	1851.61	10b	96
Co II	1851.639	10	
Si I	1851.7829 st	70	64
N II	1851.810 P		
Cr IV	1851.82	250	11
Co III	1851.937	40	26
V III	1852.01	400	
V II	1852.017	75b	
Se I?	1852.02	60	
P I	1852.09	120	
Cl III	1852.11	200	
Mn II	1852.11	10	
Cr II	1852.13	500	33
P II	1852.27	20	

Element	Wavelength	Intensity	Multiplet
Cr II	1852.37	60	33
Fe II	1852.458	10d	65
Si I	1852.4717 st	250	10
Co I	1852.52	150	48
Ni II	1852.522	2	
F III	1852.539	3	
Co II	1852.564	0	
Mn III	1852.579	3	
Kr II	1852.603	20	
Co III	1852.645	4	32
P II	1852.65	10	
Fe III	1852.677	400	
F III	1852.683	3	
V III	1852.70	25	
Co I	1852.71	300	45
N II	1852.721 P		
Mn II	1852.78	60	98
Fe III	1852.812	150	97
Ni II	1852.875	2	
Co III	1852.919	100	
Mn II	1853.05	2	
Mg IV	1853.107	60	
Ne II	1853.115	90	
V III	1853.12	15	
Ge I	1853.1336 st	80	
Si I	1853.1521 st	35	10
Na II	1853.166	80	
As I	1853.21	20	
Co III	1853.266	2	55
Mn II	1853.272	300	12
Cr III	1853.36	10	
Ne II	1853.453	20	
Ni III	1853.480	30	
Co II	1853.726	10	
Fe II	1853.754	6	
Mn III	1853.77	1	
Co III	1853.841	2	
As I	1853.95	3	
F III	1854.028	35	
Ne II	1854.035	90	
V II	1854.064	2h	
Mg III	1854.139	4	
Ni III	1854.149	800	19
Co III	1854.194	25	
Mn II	1854.24	2	97
Co I	1854.28	80	49
Fe III	1854.384	200	97
Co III	1854.393	80	67
V III	1854.42	500	
Cr II	1854.46	20	
P II	1854.59	150	
Cu IV	1854.679	26	
Cr II	1854.68	60	
V III	1854.71	5	
Al III	1854.716	1000	1
Co III	1854.763	80	53
Fe III	1854.826	600w	63
Mn II	1854.89	40	98
Fe III	1854.975	300	63
Ne II	1854.976	20	
Ar II	1854.986	50	
Co I	1855.05	400	45
V III	1855.06	300	
Cr II	1855.14	400	33
Mn II	1855.14	8	
Se I	1855.20	600	15
Co III	1855.331	5	
As I	1855.39	10	11
P I	1855.48	1	
Fe III	1855.510	200	
Mn II	1855.54	8	
Fe I	1855.58	100	41
Zn	1855.670	10	
Al II	1855.8054	90	
Na III	1855.91	300	
Al II	1855.9286	300	4
Mn II	1855.947	5h	96
Co III	1855.954	10	
Mg III	1855.99		
Zn IV	1856.025	5	
Si III	1856.062	20	70
Al II	1856.0957	90	
Co I	1856.13	150	45
Cr III	1856.20	10	
Fe I	1856.23	0	
As I	1856.24	2	
Al II	1856.2741	30	
Mn III	1856.316	3	
Mn III	1856.580	1	
O III	1856.62	500	
V III	1856.64	500	
Fe III	1856.690	450	63
Mn II	1856.70	12	96
Na III	1856.73	400	
Ge II	1856.81	10h	
Fe II	1856.928	1	
Cu II	1856.9291	0	
V III	1857.00	25	
Mn II	1857.01	30h	
F III	1857.034	1	
P I	1857.04	45	
Ni III	1857.158	0	
Na II	1857.265	25	
Zn II	1857.274	5 -A	
Ne II	1857.565	30	
Na III	1857.57	100	
Na II	1857.576	40	
Cr III	1857.59	20	
N V	1857.60	50	60
Co III	1857.657	10	
N V	1857.78	50	60
N II	1857.870 P	300	
Mn II	1857.923	200	12
Fe II	1857.935	240	7
Ne II	1857.952	70	
Al II	1858.0262	700	4
Cr III	1858.03	10h	
Mg III	1858.186	250	
Co I	1858.26	30	45
V III	1858.32	75	
Ne II	1858.408	80	
Mg III	1858.451	7	
Co III	1858.487	10	
V II	1858.50	20	108
Cr II	1858.54	400	33
Fe III	1858.542	300	63
N II	1858.545 P	200	
Cu III	1858.685	0	
Cr II	1858.72	300	33
Ni III	1858.750	300	

Element	Wavelength	Intensity	Multiplet
Se I	1858.84	500	14
P I	1858.91	450	5
Ne II	1859.017	20	
Mn II	1859.11	10h	96
F III	1859.143	60	
Na III	1859.20	10	
N II	1859.260 P	500	
Fe I	1859.26	40	
V III	1859.29	50	
Ne II	1859.361	80	
P I	1859.43	450	5
Mn II	1859.44	8	
Mn III	1859.46	25	
Ni III	1859.480	2	
V III	1859.49	50	
Co III	1859.510	10	41
Na III	1859.61	10	
Co II	1859.622	0	
N II	1859.636 P		
Mn III	1859.65	2	
Se I	1859.69	100	
Fe II	1859.741	300	65
Fe III	1859.813	300	
Fe III	1859.955	200	63
Al II	1859.9796	120	
Fe II	1860.055	400	97
Ge I	1860.0865 st	50	19
Cr II	1860.12	240	33
Co II	1860.214	40	
V III	1860.22	75	
N V	1860.24	85	62
As II	1860.342	350	
As I	1860.40	80	25
Mn II	1860.42	3	97
Ca III	1860.432	500	
As I	1860.46	80	9
Mn II	1860.51	100	
B V	1860.56 P		
P I	1860.63	45	
Ni II	1860.689	1	
Ni II	1860.796	1	
As I	1860.87	5	
Ge I	1861.0945 st	9	
Ne II	1861.137	50	
Na III	1861.19	300	
Mn II	1861.44	1	
V IV	1861.558	300	
F III	1861.584	60	
Cu II	1861.6229	0	
Fe III	1861.665	200	63
Mn II	1861.667	100	12
Co III	1861.775	200	40
Si I	1861.7949 st	2	63
F III	1861.814	35	
F III	1861.912	3	
Al II	1862.0813	5	
F III	1862.094	35	
Al II	1862.3111	1000	4
Co II	1862.313	250	
Fe I	1862.318	100	39
Cu IV	1862.324	16	
Co II	1862.360	10	
V II	1862.37	300	108
Na III	1862.40	120	
Fe III	1862.446	150	
Mn II	1862.515	80	12
N II	1862.588 P	200	
Co III	1862.660	20	55
V II	1862.76	250	181
Fe II	1862.774	8	
Al III	1862.790	600	1
Mn II	1862.80	20h	96
Cr IV	1862.99	500	11
Co III	1863.134	1	31
V III	1863.14	100	
Fe III	1863.317	250	62
V II	1863.44	5	
Co III	1863.467	40	71
Mn II	1863.48	20	
Fe I	1863.54	10	40
Co III	1863.615	4	
F III	1863.758	6	
P I	1863.78	3	
Co IV	1863.80	100	
Co III	1863.826	400	31
Co II	1863.86	40	
Na II	1863.898	15	
Mn III	1863.975	3	
Zn III	1864.006	50	
Zn II?	1864.117	100	
Zn	1864.164	100	
Co III	1864.187	80	53
P II	1864.22	150	
N II	1864.364 P		
P I	1864.37	105	
Mn II	1864.400	80	12
V III	1864.51	300	
Fe III	1864.534	70	
Ni II	1864.558	6	
Mn II	1864.615	40	97
P I	1864.64	3	
Fe II	1864.656	40	126
V III	1864.74	100	
Fe II	1864.743	400	126
Co I	1864.92	40	
Si I	1865.0278 st	2	63
Ge I	1865.0525 st	70	
As I	1865.10	8	
Na II	1865.139	35	
Mn II	1865.16	5	
Fe III	1865.202	450	
Mn II	1865.30	2h	96
Fe I	1865.30	300	
Mg III	1865.388	1	
V III	1865.41	10	
Co III	1865.424	20	31
Fe III	1865.445	150	154
Co III	1865.456	20	40
Mn II	1865.52	10h	96
Fe III	1865.606	150	
Mg III	1865.636	12	
Ni II	1865.637	5	
V II	1865.68	20h	
F III	1865.701	1	
Cr II	1865.80	20	
Mn II	1865.832	150	12
V II	1865.99	30	97
Zn	1866.055	100	
Fe I	1866.07	80	42
Zn II?	1866.077	100	

Element	Wavelength	Intensity	Multiplet
V II	1866.080	1	
Ar II	1866.089	100	
Cr III	1866.12	10	
Ni III	1866.163	5	
Cr II	1866.22	300	156
Mn II	1866.25	1	
Co I	1866.27	60	
Fe III	1866.305	600	52
Zn II	1866.366	10 -A	
Co I	1866.45	30	
Na II	1866.452	45	
N II	1866.457 P		
Co III	1866.497	4	26
Ni II	1866.499	5	
Fe III	1866.554	300	52
Co III	1866.615	20	
Cr III	1866.63	20	
V II	1866.68	50	108
Fe I	1866.815	40	39
Mn III	1866.828	5h	
Fe III	1866.900	150	
Co II	1867.028	50	
F III	1867.050	6	
Ni XIV	1867.1	f	
F III	1867.310	100	
V II?	1867.47	200	
Co III	1867.490	10	31
Cr III	1867.52	10	
F III	1867.598	1	
Ni III	1867.706	3	
Cu III	1867.747	25	15
Mn II	1867.880	80	12
Kr II	1867.889	40	
Co III	1867.930	6	
Zn II	1867.994	40 -A	
Ni III	1868.201	20	
Mg III	1868.225	40	
N II	1868.240 P	10	
Mn II	1868.28	0	97
Cr IV	1868.29 P	50	11
Mn II	1868.58	20	12
Ar II	1868.660	300	
Kr II	1868.662	120	
F III	1868.690	10	
Si II	1868.765	1	9.02
Mn II	1868.78	40	
Co III	1868.796	6	41
Mn II	1869.03	15	12
Co I	1869.16	50	
Mn III	1869.164	6h	
Si II	1869.317	20	9.02
F III	1869.380	3	
Na III	1869.43	20	
V II	1869.47	500	97
Mn II	1869.55	1	
Fe II	1869.56	3	
Fe III	1869.828	650	52
Fe III	1869.925	250	
As I	1869.94	15	
Co III	1870.012	6	55
Si II	1870.227	15	9.02
Ca III	1870.263	700	
Fe I	1870.36	0	
Co I	1870.45	50	
Cr II	1870.46	20	
Ni II	1870.460	8	
Cu IV	1870.535	10	
Co III	1870.634	15	40
Kr II	1870.645	80	
Fe II	1870.72	1	
Si II	1870.782	3	9.02
Cr III	1871.00	20	
V II	1871.08	120	30
Ne II	1871.097	70	
Fe III	1871.152	600	52
Fe III	1871.319	150	
Mn II	1871.39	20	
Fe III	1871.448	20	
Na II	1871.517	40	
V III	1871.58	200	
Kr II	1871.619	80	
As I	1871.68	30	9
Co III	1871.870	100	31
F III	1871.923	10	
Co III	1871.952	60	31
Zn II?	1872.125	100	
Fe III	1872.214	400	
Ne II	1872.291	50	
Fe I	1872.359	160	39
P II	1872.36	1	
Ca III	1872.367	700	
Na III	1872.45	20	
Fe III	1872.515	250	
Co III	1872.532	40	71
Co III	1872.575	60	31
Ar II	1872.589	100	
Fe II	1872.65	2	
V I	1872.66	25	
Ne II	1872.721	5	
O III	1872.78	800	
O III	1872.87	800	
Mg III	1872.956	4	
Ge I	1872.9745 st	6	
V III	1873.01	5	
Co III	1873.014	0	52
As I	1873.02	40	8
Fe I	1873.052	160	39
Mn II	1873.07	40	
Si I	1873.1036 st	25	9
Ar II	1873.140	600	
Fe I	1873.259	100	39
Mg III	1873.268	1	
Na III	1873.32	80	
Na II	1873.369	45	
V II	1873.39	100	108
Ne II	1873.492	20	
Fe III	1873.534	150	
Ne II	1873.677	5	
Kr II	1873.761	80	
Cr IV	1873.86	125	11
Ne II	1873.873	60	
Na II	1874.098	15	
Na III	1874.22	10	
Ge I	1874.2565 st	200	6
Co III	1874.355	20	40
V II	1874.45	120	97
Fe I	1874.58	3	
Mg IV	1874.598	70	
Co III	1874.822	60	31
Si I	1874.8423 st	175	62

Element	Wavelength	Intensity	Multiplet
Fe II	1874.931	10	65
O III	1874.94	800	
V II	1874.97	10	30
Ni II	1875.069	3	
Na II	1875.075	60	
Co III	1875.094	40	40
Fe I	1875.14	0	
Cr II	1875.22	60	
Kr II	1875.296	20	
Fe II	1875.43	0	
Cr III	1875.52	10	
Fe II	1875.536	300	345
Mn II	1875.59	30	
V III	1875.62	250	
Mn I	1875.727	10r	
Si I	1875.8129 st	30	9
V III	1875.88	250	
Kr II	1875.999	200	
Cr IV	1876.00 P	60	11
Ne II	1876.003	70	
Co I	1876.01	100	
Ge I	1876.0104 st	10	
V II	1876.06	200	108
Mn II	1876.11	1	
Ni II	1876.180	1	
Fe II	1876.181	160h	141
F III	1876.348	1	
Ni II	1876.418	2	
Fe I	1876.419	40	39
Mn I	1876.445	15r	
V II	1876.47	100	30
Co I	1876.48	70	
Kr II	1876.491	20	
P II	1876.79	100	
Cu IV	1876.812	10	
Fe II	1876.838	300	97
Co I	1876.88	80	
Ca III	1876.915	10	
As I	1876.98	2	
V II	1877.00	100	97
Al II	1877.13	1	
Mn II	1877.16	30	
Na II	1877.365	20	
Ne II	1877.387	30	
Co I	1877.40	150	
Co III	1877.464	10	39
Fe II	1877.467	400	125
Mn I	1877.518	20r	
Ar II	1877.523	400	
Co III	1877.544	10	40
Kr II	1877.613	40	
Mn III	1877.616	400	
Ne II	1877.679	40	
Ni II	1877.838	40	
V II	1877.85	0	
Cr III	1877.93	10	
Zn IV	1877.976	50	
Fe III	1877.989	800	63
Mn III	1878.018	2	
Kr II	1878.041	240	
Fe I	1878.06	1	
Ni II	1878.103	2	
V II	1878.19	5	30
Fe I	1878.20	0	
Kr II	1878.256	40	
Co I	1878.28	250	
Fe II	1878.39	0	
Al II	1878.5043	8	
Mn II	1878.52	3h	
Fe III	1878.550	150	
F III	1878.580	1	
N II	1878.624 P	200	
V III	1878.68	300	
Cr III	1878.77	20	
Kr II	1878.830	160	
Fe I	1878.849	20	39
V II	1878.90	100	108
F III	1878.910	1	
Cr III	1878.99	20	
Cr II	1879.05	200	156
Ni III	1879.063	5	
Mn II	1879.09	5	
Kr II	1879.141	40	
Co III	1879.170	2	
Na II	1879.240	30	
Co III	1879.244	60	31
Co III	1879.385	20	67
Ar II	1879.420	100	
Si I	1879.434		61
Mg III	1879.492	200	
P II	1879.62	250	
Mn II	1879.66	1	
Co III	1879.753	10	
Ar II	1879.790	200	
Mn II	1879.85	40	
Fe I	1879.86	2	
Ne II	1879.884	50	
Fe II	1880.046	40	141
Cl III	1880.10	300	
Fe I	1880.14	35	41
Co I	1880.34	40	
Cr I	1880.39	50	
V III	1880.41	400	
Co III	1880.449	6	52
Ni III	1880.498	5	
Fe III	1880.620	200	62
Fe III	1880.704	250	
V II	1880.811	1h	
Mn III	1880.818	3	
Co I	1880.82	150	
Co III	1880.912	10	40
Si I	1880.9657 st	5	9
Fe II	1880.976	400	126
Cr III	1881.02	20h	
Cr II	1881.06	120	
Co III	1881.080	30	
Ni II	1881.155	25	24
Fe III	1881.178	300	
Al IV	1881.19	50	
V III	1881.28	25	
Cr III	1881.33	20	
Kr II	1881.418	20	
Co III	1881.427	30	31
Fe III	1881.578	200	
Ge I	1881.6470 st	8	
Ne II	1881.690	70	
Co III	1881.702	200b	40
Co III	1881.702	200b	30
Cr III	1881.73	20	
V III	1881.75	10	

Element	Wavelength	Intensity	Multiplet
Si I	1881.8538 st	30	8
Zn IV	1881.861	90	
Co III	1881.867	60	30
Cr I	1881.87	250	
Mn II	1881.90	30	
As I	1881.96	40	2
Fe III	1882.047	650	62
Cu II	1882.2085	1	
Cu III	1882.250	1	
Co IV	1882.28	50	
Mg III	1882.308	7	
Co III	1882.323	30	40
Fe III	1882.357	300	
N V	1882.36	30	57
Mn I	1882.366	3	
Ne II	1882.478	60	
Ni III	1882.686	25	
Mn I	1882.900	1	
N V	1882.92	35	57
Fe III	1882.979	250	62
Fe I	1883.06	0	
Mn I	1883.085	0	
Cr IV	1883.10 P	175	11
Cr I	1883.11	50	
Cl II	1883.14	300	
Ni II	1883.170	4	
Fe III	1883.185	150	
Ge III	1883.27	120	
Co III	1883.286	40	30
Cr II	1883.35	200	40
Fe III	1883.394	70	
Na II	1883.460	20	
V III	1883.57	250	
Mn II	1883.78	10	
Ne II	1883.796	80	
Na II	1883.804	20	
Fe III	1883.816	200	62
Fe I	1883.91	40	
F III	1883.925	6	
V II	1883.98	200	30
Mn II	1883.98	10	
Cr II	1884.12	20	
Fe III	1884.253	150w	
V II	1884.254	5h	
Cr III	1884.30	5	
Co I	1884.45	100	42
Cr III	1884.49	5	
Co III	1884.532	1	
Co I	1884.56	100	
Fe III	1884.596	550	62
V III	1884.61	200	
Fe I	1884.73	2	
F II	1885.047	10	
Mn II	1885.05	1	
Na II	1885.091	50	
Fe III	1885.125	600	96
Mn III	1885.207	300	
N III	1885.25	500	24
V III	1885.26	15	
Se IV?	1885.3	200	
F II	1885.442	40	
Co III	1885.476	3h	
Cr III	1885.50	50	
V II	1885.520	3	
Ni II	1885.525	20	
F III	1885.587	3	
Mn II	1885.70	20	
Na II	1885.742	45	
Na III	1885.75	80	
Ni III	1885.864	10	
V II	1885.90	100	116
Fe III	1885.947	300	96
Ni II	1886.043	12	23
F II	1886.147	100	
Cr I	1886.34	500	
Ar II	1886.386	400	
Zn III	1886.405	1	
F III	1886.464	6	
Co III	1886.469	10	40
Fe III	1886.607	300	
Co III	1886.742	40	
Fe III	1886.757	800	52
Mg III	1886.764	2	
F III	1886.950	3	
Fe III	1887.085	70	62
Mn IV	1887.151	350	
Fe III	1887.197	550	53
Mg III	1887.308	12	
Mn II	1887.31	2	
N II	1887.404 P	350	14
Ar II	1887.42	30	
Fe III	1887.471	550	52
Na III	1887.48	300	
Cr I	1887.60	150	
Si I	1887.6928 st	45	61
Se IV?	1887.7	200	
Fe III	1887.734	250	
Fe I	1887.761	300	39
V III	1887.79	100	
Cr III	1887.83	5	
Cr I	1887.85	50	
Mn II	1887.87	10	11
Co I	1887.89	120	
Cl II	1887.90	10	
Cr II	1887.96	120	156
Ne II	1888.107	100	
Cr I	1888.17	150	
Fe III	1888.260	150	
Fe I	1888.32	80	40
Co III	1888.345	2	
Mn III	1888.438	1	
Co III	1888.451	2	
Mn IV	1888.454	40	
F III	1888.530	10	
P IV	1888.65	400	5
Fe II	1888.733	400	125
Ar II	1888.782	400	
Kr II	1888.783	160	
Cr III	1888.83	10	
Zn III	1888.968	3	
Ar II	1889.029	600	
Mn II	1889.05	20	
Cl III	1889.06	10	
F III	1889.076	20	
Co III	1889.090	2	
Cr I	1889.20	50	
V III	1889.22	40	
Na II	1889.317	30	
Co III	1889.321	4	
Fe III	1889.451	300	53

Element	Wavelength	Intensity	Multiplet
Co I	1889.60	60	
Kr II	1889.679	80	
Ne II	1889.710	100	
F III	1889.711	1	
Fe III	1889.735	250	
Co I	1889.87	100	
Mn II	1889.88	8	
As I	1889.95	5	
Ni III	1890.155	15	
Mn II	1890.17	5	
Mg III	1890.380	40	
Mn III	1890.42	2	
As I	1890.42	1000r	1
V II	1890.50	20	
Cr II	1890.55	600	40
Co III	1890.642	0	
Fe III	1890.669	900	52
Na III	1890.75	240	
Cr I	1890.78	300	
V I	1890.82	15	
Fe III	1890.893	150	53
Mn I	1890.962	1	
Fe III	1891.070	250	96
Mn II	1891.18	8	
Fe III	1891.186	200	96
As II	1891.278	50	
Fe III	1891.339	70	
Ne II	1891.366	60	
Mn I	1891.414	3	
V III	1891.47	50	
As I	1891.47	5	
Fe III	1891.516	300w	
Mn II	1891.55	30h	
V III	1891.71	10	
Ne II	1891.730	5	
Fe I	1891.74	200	
Mn III	1891.846	200	
Fe III	1891.909	200	
Mg III	1891.970	7	
Cr I	1892.01	50	
Co III	1892.011	30	75
Mn II	1892.02	50	
Si III	1892.030	60	1
Fe III	1892.073	300	96
Fe III	1892.140	300	52
Fe III	1892.247	300	96
Fe III	1892.339	70	
Mn II	1892.40	10	
Fe III	1892.488	70	
Fe III	1892.598	70	
Zn	1892.866	75	
Fe III	1892.890	300	96
Co III	1893.095	4	
Fe III	1893.113	200	
Se III	1893.2	500	
Si I	1893.252 st	175	58
F III	1893.273	3	
Mn II	1893.288	60	
Cr III	1893.30	10	
Co I	1893.43	30	
Mn III	1893.485	70	
Mn II	1893.49	30	
Se I	1893.50	120	
Cr I	1893.59	50	
Ni II	1893.600	1	
Mn II	1893.70	50	
Ne II	1893.876	70	
Mg IV	1893.898	200	
Co III	1893.911	1	
Fe III	1893.981	700	83
Fe II	1894.006	200w	125
Cr III	1894.05	20	
Co I	1894.07	30	
F III	1894.082	60	
Ca III	1894.124	500	
Mn II	1894.19	0	
Fe III	1894.252	300	
Zn II	1894.259	75 -A	
C III	1894.29	200	11.63
Se III	1894.4	400	
V I	1894.47	40	
Fe III	1894.509	200	
Ca III	1894.582	250	
As II	1894.661	1	
F III	1894.779	1	
Fe III	1894.983	250	96
V III	1895.01	300	
Ne II	1895.072	10	
Ni II	1895.082	6	
Ge I	1895.1968 st	100	
Co III	1895.368	100	
Kr II	1895.408	20	
V	1895.44	5	
Sc III	1895.441	80	5
Fe III	1895.456	1000	34
Si I	1895.461 st	1	58
Co II	1895.478	40	
Ni III	1895.479	5	
Fe III	1895.635 P		96
Fe II	1895.675	200	124
Cr I	1895.78	50	
Ne II	1895.840	5	
Fe III	1895.912	70	
Co III	1896.031	0	
Zn II	1896.056	2 -A	
Cr III	1896.09	30	
Ni II	1896.147	2	1
Mn III	1896.293	3	
Mg III	1896.304	20	
Fe III	1896.333	250	
Si I	1896.339 st	1	58
Cr III	1896.39	10	
Fe III	1896.734	250	
Fe III	1896.803	600	83
N VI	1896.82	300	5
V III	1896.84	10	
Fe III	1897.028	250	
Mn II	1897.06	20	
Se III	1897.2	400	
Mg III	1897.226	7	
Ti III	1897.27	10	
Mn III	1897.28	1	
Ar II	1897.352	50	
Fe III	1897.379	200	83
Al II	1897.4014	9	
Kr II	1897.457	160	
Al II	1897.4605	3	
Mn II	1897.48	100	
Co I	1897.48	100	
Al II	1897.4998	1	

Element	Wavelength	Intensity	Multiplet
Co III	1897.560	1	
V II	1897.70	10	
Co I	1897.73	80	
Ne II	1897.810	40	
Cl III	1897.85	300	8
V I	1897.90	10	
Kr II	1898.048	200	
Mn II	1898.12	30	
Mn III	1898.301	200	
Ar II	1898.36	15	
V	1898.42	10	
Fe II	1898.538	200	140
Se I	1898.555	800	13
F III	1898.631	100	
Kr II	1898.631	40	
Mn II	1898.64	30	
V I	1898.78	25	
Fe III	1898.870	400	
Cr II	1898.92	700	40
Mn III	1899.097	150	
Cr III	1899.15	10	
Co III	1899.183	1	
Al II	1899.1943	25	
Fe I	1899.21	20	
Ar II	1899.287	100	
Fe III	1899.318	300	96
F III	1899.373	1	
Mn IV	1899.483	350	
Kr II	1899.501	40	
Mn II	1899.51	10	
Na II	1899.523	30	
Cr III	1899.56	20h	
Kr II	1899.629	160	
Na III	1899.70	60	
Zn III	1899.793	12	
Co III	1899.795	10	75
Ne II	1899.802	40	
V III	1899.81	400	
Ar II	1899.847	100	
Mn IV	1899.878	0	
Fe III	1899.931	300	
V I	1900.00	30	
Cr III	1900.02	20h	
Ni II	1900.025	4	
Mg VI	1900.04	100	
Mg III	1900.043	20	
Ne II	1900.189	40	
S I	1900.2863	550	1
Fe III	1900.575	70	
Ar II	1900.638	400	
Cr III	1900.66	30h	
Fe II	1900.667	10	362
Ne II	1900.695	5	
F III	1900.760	150	
Co III	1900.763	10	62
Ni II	1900.865	15	
Ni II	1900.921	2	
Ge I	1901.0607 st	8	
Fe III	1901.096	600	95
Ti III	1901.31	60	
Si I	1901.3377 st	400	57
Co III	1901.357	60	75
Mg III	1901.360	4	
Fe III	1901.379	300	
Kr II	1901.490	280	
Li I	1901.50	-A	
Zn II	1901.523	60 -A	
Fe III	1901.540	200	96
As I	1901.54	5	
Mg III	1901.572	20	
Cl III	1901.61	500	8
V III	1901.63	50	
Co I	1901.75	200	
Mn III	1901.754	1	
Mn II	1902.04	10	
Mn III	1902.069	100	
Fe III	1902.076	300	94
Co I	1902.15	100	
Cr III	1902.19	20h	
V III	1902.23	500	
As I	1902.31	6	
Ge I	1902.3955 st	2	
Fe III	1902.402	400	
Cr I	1902.43	150	
Si II	1902.459	100h -A	18.04
V III	1902.48	150	
Cr III	1902.59	20h	
Ni III	1902.607	50	
P IV	1902.62	40	
Kr II	1902.778	40	
Fe III	1902.902	300	
Mn II	1902.948	500	
Fe III	1903.159	70	
Kr II	1903.193	360	
Fe III	1903.257	200	
Ni III	1903.262	15	
Cr III	1903.29	5	
Cr I	1903.30	50	
Fe I	1903.37	20b	38
Fe II	1903.370	20b	139
Ge I	1903.5620 st	10	
Cr I	1903.57	50	
V III	1903.68	50	
Fe III	1903.706	70	
V III	1903.83	15	
Na II	1903.831	15	
Cr III	1903.98	5	
Fe III	1903.983	70	
V III	1904.01	75	
F III	1904.247	60	
Fe III	1904.257	150	
Si II	1904.326	5h -A	31
Al II	1904.3264	8	
Fe III	1904.402	250	
Ne II	1904.510	70	
V II	1904.54	0	
Si I	1904.6647 st	40	56
Ne II	1904.691	5	
Ge I	1904.7015 st	400	6
Co I	1904.75	50	
Fe II	1904.784	300	139
P IV	1904.80	40	
F III	1904.834	35	
Cr III	1904.84	30h	
Fe III	1905.214	70	
Co III	1905.354	60	66
Co I	1905.41	60	
P I	1905.48	90	
Co III	1905.674	4	
Co III	1905.810	1	

Element	Wavelength	Intensity	Multiplet
Fe III	1905.818	150	96
Co I	1905.87	200	
Si II	1905.878	3h -A	31
Na II	1906.112	15	
Cr III	1906.12	40	
N III	1906.22	100 -A	
Co III	1906.265	6	
Ti II	1906.30	300	3
Mn II	1906.37	20	
P I	1906.40	60	
Al II	1906.4082	25	
V II	1906.451	1	
Fe III	1906.457	400	108
Ne II	1906.502	60	
Kr II	1906.543	20	
Al II	1906.5957	4	
V II	1906.618	1	
Cr I	1906.67	100	
Al II	1906.6743	8	
Co I	1906.72	50	
Mg IV	1906.729	50	
Fe III	1906.814	400	
N III	1906.89	100 -A	
Mn IV	1907.028	600	
Be I	1907.16	100	
Zn IV	1907.168	90	
N III	1907.28	400 -A	
Cr I	1907.28	100	
N VI	1907.34	200	5
Kr II	1907.356	160	
Cr II	1907.36	60	
V II	1907.361	1d	
Ca III	1907.385	450	
Co III	1907.458	6	
Mn II	1907.49	20	
Ne II	1907.493	200	9
Fe III	1907.577	650	83
Ni II	1907.612	1	
P I	1907.66	120	
N VI	1907.67	200	5
Fe III	1907.741	250	83
Kr II	1907.760	120	
V II	1907.80	300b	80
V III	1907.80	300b	
Mn III	1907.83	200b	
Mn II	1907.840	200	11
Co II	1907.951	0	
Ar II	1907.988	400	
N III	1907.99 P	300 -A	27
As I	1908.13	1	
N III	1908.21 P	400 -A	27
Ti II	1908.29	300	3
V II	1908.32	400h	80
Ni II	1908.326	1	
Ge I	1908.4342 st	50	
Zn III	1908.436	1	
Cr I	1908.46	200	
Mn II	1908.47	20	
Mg III	1908.500	100	
Co II	1908.517	30	
Mn II	1908.54	20	
Mn III	1908.670	0	
C III	1908.734 P	70	0.01
Mn II	1908.91	100	
N III	1908.96	100 -A	27
Ni III	1909.091	5	
Ti II	1909.33	200	3
V II	1909.36	400	80
F III	1909.375	1	
Zn III	1909.424	6	
Ar II	1909.5689 ST	50	
Co III	1909.666	30	
Cr I	1909.72	100	
Ti II	1909.74	200	3
Fe III	1909.782	150	
Kr II	1909.788	20	
Mn II	1909.830	60	10
Kr II	1909.840	40	
Fe III	1909.846	150	
Cr IV	1909.86 P	50	
Fe II	1909.95	1	
Ca III	1910.097	550	
Fe II	1910.150	20	
Co III	1910.151	0	
Fe III	1910.172	70	
P IV	1910.18	40	
Mn IV	1910.251	750	
Cr III	1910.33	50	
Fe III	1910.401	400	57
Kr II	1910.421	20	
Fe I	1910.53	0	
Kr II	1910.539	200	
Si II	1910.621	50h	18.04
Mn III	1910.649	40	
Fe II	1910.669	160	124
V III	1910.68	200	
Cl II	1910.76	10	
Al II	1910.8252	80	
Co III	1910.840	60	66
Ti II	1911.01	50	3
Al II	1911.0132	12	
Ar II	1911.053	50	
V II	1911.108	4	
Co III	1911.174	4	
Si II	1911.265	0h	18.04
Cr I	1911.30	350	
Fe III	1911.338	450	135
Cr II	1911.36	140	155
Mn II	1911.41	300	10
Cr III	1911.66	80	
Ca III	1911.692	450	
Fe III	1911.703	150	
Mn II	1911.76	2h	11
Kr II	1911.797	80	
Al III	1911.817		
V II	1911.88	400	80
Ni II	1912.146	2	
Mn II	1912.15	1	
V III	1912.17	50	
Ge II	1912.376	20	1
V II	1912.39	400	80
Ge I	1912.4087 st	100	1
Cr III	1912.50	40	
Be I	1912.53	100	
F III	1912.543	10	
Fe II	1912.582	2	124
Sc III	1912.620	120	5
Cr I	1912.79	200	
Cl III	1912.90	400	8
Fe III	1912.920	250	57

Element	Wavelength	Intensity	Multiplet
As II	1912.938	500	
Co III	1912.952	6	
Mn II	1912.96	30	
V II	1913.10	200	80
Al III	1913.166		
Na III	1913.17	160	
Mn IV	1913.202 P	20	
Fe III	1913.386	70	
Zn IV	1913.521	1	
V III	1913.62	350b	
Fe III	1913.622	250	57
V II	1913.70	350b	80
Mn II	1913.73	20	
Mn I	1913.752	15	
Se I	1913.788	700	13
Mn IV	1913.822	0	
Cr III	1913.85	20	
Ni III	1913.890	30	
Fe III	1914.056	1000	34
Ni III	1914.076	3	
Cl III	1914.09	300	8
Kr III	1914.09	60	
Ti II	1914.11	25	3
V II	1914.295	1h	
Ti II	1914.32 P		3
Ar III	1914.40	450	7
Ar III	1914.65	150	7
Kr II	1914.673	40	
V III	1914.68	15	
Mn II	1914.68	200d	11
S I	1914.6982	350	1
Ne II	1914.729	30	
Ni III	1914.75	1	
Zn II	1914.806	60 -A	
Cr III	1914.87	30h	
V II	1914.91	150	80
Ni III	1914.919	1	
Fe III	1915.083	750	51
Mn II	1915.10	1000	10
Mn II	1915.21	20	
Ni III	1915.409	5	
Ni III	1915.497	5	
Ar III	1915.56	350	7
V II	1915.71	0	
Fe III	1915.750	150	57
Ni III	1915.834	2	
Mn III	1915.907	150	
Ne II	1916.083	500	9
V III	1916.09	25	
Co III	1916.112	10	
Cr I	1916.23	100	
Mn II	1916.34	0	
Mn III	1916.385	20	
V II	1916.404	0	
Fe III	1916.507	300	95
Cl III	1916.53	400	8
Mn II	1916.71	30	
Fe III	1917.087	150	108
As I	1917.21	20	8
Fe III	1917.250	250	
Co III	1917.321	4	
Fe II	1917.337	300w	96
Fe III	1917.351	550	95
Mn II	1917.38	3	
Kr II	1917.387	80	
Fe III	1917.453	600	101
Cr III	1917.52	10	
Ge III	1917.55	5	
Ge I	1917.5924 st	200	6
Mn II	1917.61	100	
Co II	1917.621	60	
Fe III	1917.665	150	
F III	1917.766	1	
Ar II	1917.79	30	
V II	1917.79	150	80
Cl III	1917.87	400	8
Fe III	1917.960	400	
Ar III	1918.06	50	7
Fe II	1918.114	40	138
Mn III	1918.198	0	
Cr III	1918.27	40	
Fe III	1918.284	450	57
Cr II	1918.30	80	
Mn I	1918.328	15	
Ni II	1918.37 P		1
Na III	1918.46	120	
Fe III	1918.480	450	108
Cr III	1918.51	5	
Kr II	1918.567	40	
Cr IV	1918.59	20	
Cr III	1918.61	40	
Mn IV	1918.61	300	
Mn II	1918.643	200	11
Ar III	1918.67	200	7
N III	1918.69	10 -A	29
Mg III	1918.777	20	
Mn II	1918.909	30	11
Zn II	1918.962	50	
Fe III	1918.966	200	
Zn IV	1919.019	100b	
Cr III	1919.05	30	
N III	1919.06	10 -A	
Zn III	1919.068	20	
Co III	1919.120	100	20
Mn III	1919.162	20	
Se I	1919.190	600	13
Ar II	1919.199	300	
Kr II	1919.199	160	
V II?	1919.35	200	
N III	1919.44	50 -A	29
Ar III	1919.52	200	7
Kr II	1919.522	40	
Fe III	1919.572	250	107
Mn II	1919.639	300	
N III	1919.71	100 -A	29
Be I	1919.80	200	
Co III	1919.980	1	
N III	1919.99	100 -A	29
Ar II	1920.007	200	
Mn II	1920.03	100	
O III	1920.04	600	
Mn III	1920.065	300	
Na III	1920.12	120	
Ne II	1920.181	80	
Fe III	1920.186	250	95
Fe III	1920.260	150	
Zn II	1920.271	70 -A	
Se IV?	1920.3	600	
Cl III	1920.32	400	8
V III	1920.38	75	

Element	Wavelength	Intensity	Multiplet
Mn III	1920.390	70	
Kr II	1920.467	40	
Ni II	1920.582	1	
Cu II	1920.6718	5	
Co II	1920.713	20	
O III	1920.75	500	
Fe III	1920.752	150	
N III	1920.86	400 -A	29
Mn II	1920.95	2	
Zn	1920.951	10	
Zn III	1921.012	20	
Fe III	1921.132	150	
V III	1921.24	100	
Mn II	1921.250	800	
Mg III	1921.374	2	
N III	1921.49	200 -A	29
O III	1921.52	500	
Fe III	1921.990	70	
Co III	1922.000	0	
Mn II	1922.031	100	
Fe III	1922.132	70	
Cu II	1922.1425	5	
Fe II	1922.234	10	
Mn I	1922.516	12	
Mg III	1922.540	2	
Cr III	1922.72	20	
Mg III	1922.788	1	
Fe III	1922.789	1000	51
Fe II	1922.797	400w	138
Ni III	1922.91	1	
Co II	1922.925	30	
C III	1922.96	300	12.02
V III	1922.98	25	
Fe III	1923.003	450	95
Cr II	1923.02	160	155
Mg III	1923.042	20	
Mn II	1923.07	200	
C III	1923.16	200	12.02
Ne II	1923.226	5	
C III	1923.34	200	12.02
Mn II	1923.34	200	
Cl II	1923.35	400	
Cr III	1923.41	10	
Ni III	1923.463	5	
Ge I	1923.4674 st	100	18
O III	1923.49	700	
O III	1923.82	500	
Fe III	1923.877	450	57
Kr III	1923.88	10	
Mg III	1923.896	200	
Fe III	1924.119	250	
Ne II	1924.166	70	
Mn III	1924.422	20	
Co I	1924.46	150	
Mg III	1924.479	30	
Co III	1924.529	10	
Fe III	1924.532	400	79
Al II	1924.7537	50	
Al II	1924.8254	30	
V II	1924.87	300	195
Al II	1924.8788	10	
Mn II	1924.96	5	
Co I	1925.05	120	122
Mn II	1925.17	5	
Cr III	1925.26	10	
Co III	1925.260	4h	38
Fe III	1925.271	250	
Mn IV	1925.406	40	
Mn II	1925.52	300	
Co III	1925.563	3	
Mn II	1925.728	1h	
Mg IV	1925.754	20	
Mn III	1925.851	20	
Fe III	1925.855	200	
Fe II	1925.983	400w	123
Fe III	1926.013	500	57
Al II	1926.0291	60	
Mn II	1926.167	40	
Ti III	1926.18	5	
V III	1926.23	25	
Na III	1926.27	900	
Fe III	1926.304	1000	34
Mn II	1926.585	500	
Cr III	1926.64	40	
B II	1926.65	10	
V III	1926.75	200	
Fe III	1926.898	200	
Co I	1926.90	100	39
O III	1926.94	500	
Al II	1926.9478	20	
Mn II	1926.948	50	
Zn III	1927.005	2	
C II	1927.02	5	14.01
Al II	1927.0696	10	
Ar II	1927.19	10	
Co III	1927.198	1	
Na III	1927.21	300	
Mn II	1927.33	10	
Mn III	1927.337	0	
Fe III	1927.436	300	
B II	1927.45	1	
Fe II	1927.481	20w	140
Ne II	1927.549	5	
Fe III	1927.679	150	
Ni II	1927.707	2	
Co III	1927.740	40	61
Mn IV	1927.776	20	
B II	1927.78	1	
Mn III	1927.889	80	
V III	1928.05	15	
Zn III	1928.098	0	
Mn II	1928.15	40	
Fe III	1928.178	250	
Mg III	1928.198	2	
Fe III	1928.265	300w	95
C II	1928.30	10	14.01
P II	1928.30	5	
Mg III	1928.424	30	
Cu II	1928.45	1	
Mn III	1928.479	1w	
Co III	1928.490	20	61
Co III	1928.570	100	20
Cr III	1928.61	10	
Fe III	1928.642	250	
Cu III	1928.715	1	
Ne II	1928.786	60	
Co III	1928.802	40	
Mg III	1928.811	4	
Fe III	1928.837	250	
Mn III	1928.925	2	

Element	Wavelength	Intensity	Multiplet
Mn IV?	1928.95	200	
Fe III	1928.991	70	
Ni II	1929.063	1	
Mg III	1929.080	1	
As I	1929.14	3	
Fe II	1929.194	20	
Ti III	1929.34	20	
Co I	1929.34	150	95
Fe III	1929.413	250w	
Cu II	1929.6081	25	
V II	1929.61	600	139
Fe III	1929.632	70	51
Ne II	1929.643	60	
Zn II	1929.670	3	8
Be I	1929.71	300	
Cr III	1929.72 P	10	
Cu II	1929.7510	25	107
Mn III	1929.752	3	
Co III	1929.756	60	20
Cu IV	1929.757	14	
Zn III	1929.774	80	
F II	1929.791	10 -A	
Ge I	1929.8262 st	400	17
Fe III	1929.941	150	79
Cr II	1929.96	240	285
Al II	1929.9775	200	
Ne II	1930.028	300	9
Mn II	1930.06	3h	95
Fe III	1930.184	150w	
Ge I	1930.2707 st	8	
Ne II	1930.335	60	
Mg III	1930.374	7	
Fe III	1930.387	1000	51
Cr III	1930.39	20	
Ni III	1930.431	200	18
Mn II	1930.45	30	
Co III	1930.479	10	25
Zn III	1930.525	15	
Mg III	1930.672	250	
Fe II	1930.888	20b	
Co I	1930.90	60	
C I	1930.9054 st	1000	33
Fe III	1930.917	150b	
Co I	1931.00	100	
Al II	1931.0481	150	
Mn III	1931.06	2	
Zn II	1931.073	40 -A	
V III	1931.09	250	
Kr II	1931.277	40	
Fe III	1931.309	70	
Mn III	1931.394	300	
Mn II	1931.404	300	
Ar II	1931.419	100	
Fe III	1931.507	950	61
Kr II	1931.565	240	
O VIII	1931.8 P		
Co I	1931.89	80	
Mn III	1931.92	2	
Ar II	1932.230	200	
Mn II	1932.27	10	
Al II	1932.3768	200	
Mn III	1932.44	2	
Co III	1932.442	1h	
Fe II	1932.477	300	139
V II	1932.55	5h	
V III	1932.59	10	
Mn II	1932.600	20	
Cr II	1932.64	100	273
Ne II	1932.754	70	
Co III	1932.766	0	
Fe III	1932.818	300	95
V III	1932.82	25	
Mn IV	1932.847	30	
Mn III	1932.92	1w	
V II	1932.99	30	
Co I	1933.03	30	
Co III	1933.250	10	38
V II	1933.28	100	106
Mn II	1933.32	15	
Fe II	1933.451	10d	
Mn III	1933.483	100	13
Ni III	1933.50 P		
Ne II	1933.529	90	
As II	1933.530	0	
Mg III	1933.563	40	
Ne II	1933.642	10	
Ar II	1933.694	200	
Kr II	1933.784	120	
Kr II	1933.852	80	
Na III	1933.87	600	
Mn II	1933.93	80b	
Mn II	1933.93	80b	
V III	1934.00	300	
Ge I	1934.0482 st	100	5
Cr IV	1934.13	20	
Co III	1934.274	10	
Co I	1934.34	120	43
Fe II	1934.475	1d	
Al II	1934.5032	400	
Fe I	1934.528	500	37
Cr III	1934.58	10	
Al II	1934.7129	150	
Co III	1934.734	10	38
Mn II	1934.78	20h	
Co III	1935.023	20	25
Mn II	1935.068	100	
Ti III	1935.18	60	
Fe II	1935.296	300	96
Zn III	1935.354	5	
Mn II	1935.384	20	
Fe II	1935.45	0	
Co I	1935.46	0	
V II	1935.531	1	
Na III	1935.54	10	
Cr II	1935.58	500	39
Ca III	1935.72	600	
Mn III	1935.770	2	
Al III	1935.840	300	
Al III	1935.863	15	
Ni III	1935.947	5	
Al III	1935.949	200	
Mn II	1936.089	1	
Ni III	1936.10	2	
Co III	1936.392	4	38
Ne II	1936.417	30	
Mn III	1936.559	200	13
Co I	1936.58	300	98
S II	1936.71	300	
Mn II	1936.74	10	95
Co III	1936.784	1	

Element	Wavelength	Intensity	Multiplet
Fe II	1936.799	400	96
Fe III	1936.806	250b	
Al II	1936.9066	150	
Mg IV	1936.931	5	
Co III	1936.933	60	20
Ar II	1937.041	100	
Co II	1937.070	30	
Fe III	1937.077	200	51
Mn III	1937.121	4	
Ge I	1937.1456 st	8	
V III	1937.17	25	
B II	1937.2		
Fe I	1937.274	500	35
Mn II	1937.28	2	
Fe III	1937.345	950	51
V II	1937.44	600	106
Mn II	1937.46	15	
Ge I	1937.4825 st	300	6
Mg III	1937.539	1	
Cr II	1937.56	400	39
As I	1937.59	900r	1
Cr IV	1937.65	200	
Co III	1937.661	20	25
Ni II	1937.661	1	
V II	1937.68	70	59
Mg III	1937.78		
Cr III	1937.84	30	
Mg III	1937.843	150	
As II	1937.869	0	
Fe III	1937.996	250	
Ge II	1938.0077 st	100	1
Ge III	1938.01	10	
Mn II	1938.20	20	
Mg III	1938.249	7	
Mn II	1938.27	10	
Ge I	1938.3003 st	300	6
Cr II	1938.42	60	39
Kr II	1938.427	20	
V II	1938.50	100	59
Ca III	1938.572	150	
Ni II	1938.579	2	
V II	1938.70	80	58
Fe III	1938.775	250	95
Zn	1938.775	12	
Ne II	1938.826	200	9
Ge II	1938.8906 st	100	1
Fe II	1938.899	160b	188
Fe III	1938.901	650b	106
Mn II	1938.92	1	
Mg III	1938.936	7	
Co I	1938.94	100	
Kr II	1939.037	40	
V IV	1939.065	500	
Fe III	1939.107	70	
Cr II	1939.15	120	136
Ca III	1939.244	400	
Al II	1939.2606	220	
Na III	1939.32	10	
V II	1939.32	80	106
Ni III	1939.40	3	
Cr III	1939.44	20	
Ni II	1939.56 P		1
Ni III	1939.588	100	
Cr IV	1939.64 P	100	
Ca III	1939.683	500	
Co I	1939.75	30	
Mn II	1939.77	1	
Ne II	1939.875	70	
Cr II	1939.90	100	285
Ni II	1939.901	10	
Mn II	1939.96	20	
Fe III	1940.018	550	61
Mn III	1940.056	100	
Kr II	1940.112	20	
Co III	1940.147	100	20
Co I	1940.16	150	95
Mn II	1940.19	8b	95
Mn III	1940.224	6h	13
Zn II	1940.413	40 -A	
Mn III	1940.458	15	13
Fe III	1940.631	150	79
Fe I	1940.649	500	37
Mn III	1940.74	2	13
Fe III	1940.769	250	
V II	1940.86	400	59
Ar II	1941.0724 ST	300	13
V II	1941.27	300	59
Co II	1941.281	800	5
Mn III	1941.282	500	13
As I	1941.36	5	
Ti III	1941.40	80	
V II	1941.40	300	59
Ni III	1941.41	0	
Co III	1941.460	10	38
Mg III	1941.500	12	
Ni III	1941.58	0	
Mn III	1941.59	1h	
Na III	1941.61	10	
Fe III	1941.633	200	79
Si II	1941.667	50 -A	27
Co III	1941.730	20	38
Na III	1941.77	10	
As II	1941.876	1	
Mn II	1941.89	20	
Kr II	1941.944	40	
Fe II	1941.99	2	
Mg III	1942.036	4	
Mn II	1942.08	20	
Ar II	1942.13	30	
Na III	1942.19	120	
Cr III	1942.30	50	
V II	1942.35	400	106
Mn II	1942.35	5	
Co III	1942.369	40	20
Zn III	1942.392	1	
Co III	1942.497	20	38
Mn IV	1942.602	0	
Ni III	1942.64	0	
Mn II	1942.66	40	95
Cr III	1942.73	10	
Co III	1942.796	20	38
Mn III	1942.886	250w	
Ni III	1942.886	10	
Ca III	1943.012	550	
Ni II	1943.060	2	
Mn III	1943.209	800	13
As II	1943.305	0	
As II	1943.317	40	
Na III	1943.40	120	
Fe III	1943.481	950	51

Element	Wavelength	Intensity	Multiplet
Mn II	1943.541	100	
Co I	1943.64	120	97
Fe III	1943.715	150	
Be I	1943.72	500	
Ni II	1943.744	2	
Kr II	1943.765	40	
V II	1943.99	0	
Ge I	1944.1163 st	150	
Mn II	1944.16	100	94
Zn III	1944.160	60	
Co II	1944.181	20	
Mn IV?	1944.23	200	
Mn II	1944.36	20	
Ni III	1944.36	2	
Si II	1944.586	15 -A	23
Cu II	1944.5970	40	
Mn III	1944.640	150	13
Ge I	1944.7313 st	300	5
Mn II	1944.77	40	94
Ne II	1944.883	60	
Cr III	1944.94	5	
Na III	1944.99	60d	
Fe I	1945.070	200	35
Co I	1945.09	120	104
Mn II	1945.15	200	94
Co III	1945.234	40	20
Fe I	1945.294	400	37
Fe III	1945.342	800	61
V II	1945.35	300	58
Ne II	1945.458	100	
Si II	1945.504	3 -A	23
P II	1945.54	50	
Zn II	1945.583	60 -A	
V II	1945.64	300	106
Fe III	1945.724	150	106
Mn II	1945.83	5	
Co I	1945.86	0	
Cr II	1945.98	200	136
Mg IV	1946.135	60	
As II	1946.137	1	
Fe I	1946.219	40	35
Fe III	1946.321	20	
Mn II	1946.34	30	95
Fe II	1946.429	2	
Na III	1946.43	400d	
Cu II	1946.4929	10	106
Cr IV	1946.59	150	
Zn III	1946.637	0	
Kr II	1946.677	20	
Fe III	1946.769	200	
V IV	1946.772	5	
Co I	1946.79	250	100
Co III	1946.792	60	25
Ar II	1946.795	200	
Na III	1946.82	10	
Fe II	1946.85	2	
Mn II	1946.94	20	95
Fe I	1946.983	600	36
N III	1946.99	250	
Se III	1947.1	500	
Mn III	1947.320	150	
V III	1947.37	20	
Mn III	1947.516	200	13
Ge II	1947.55	2h	
As II	1947.572	0	
Co I	1947.58	50	
Co III	1947.626	1	20
Si II	1947.769	1 -A	23
Mn II	1947.932	200	94
Co I	1948.09	100	
Ca III	1948.257	600	
Cr IV	1948.28	20	
Mn II	1948.28	10	94
Fe III	1948.280	200	
Mn III	1948.282	200	
Fe II	1948.372	200w	123
Zn II	1948.458	30	
Cr II	1948.51	200	136
Co III	1948.655	20	20
Mn II	1948.72	80	
F III	1948.731	10	
Mn IV	1948.75	200	
Kr II	1948.752	240	
Ti III	1948.79	100	
Cr II	1949.00	800	205
Co I	1949.00	150	95
Mn I	1949.100	3	
N III	1949.22	300	
Cr II	1949.22	700	272
Si II	1949.331	10 -A	27
Mn III	1949.354	200	13
Ne II	1949.450	5	
Fe III	1949.462	150	79
Mn III	1949.53	30	
Co III	1949.533	6	
Mn II	1949.56	10	
Si II	1949.564	100 -A	27
Fe III	1949.666	200	95
Ne II	1949.696	70	
Mn III	1949.744	150	
N III	1949.76 P	200	
Co III	1949.805	40	20
Se III	1950.0	500	
Cr II	1950.06	1000	272
Co II	1950.097	500	5
Mn II	1950.143	200	
Fe I	1950.223	500	37
Ne II	1950.276	40	
Mn II	1950.31	30	
Fe III	1950.334	650	116
S II	1950.45	300	
Mn II	1950.69	2	
Zn	1950.769	10	
V II	1950.77	5	
Na III	1950.79	300	
Ni III	1950.90	0	
Co III	1950.911	80	25
Mn II	1950.922	40	94
Co III	1950.961	10	60
Cr IV	1951.00	40	
Fe III	1951.007	800	68
Na III	1951.21	800	
Mn III	1951.24	1	
Fe III	1951.318	200	68
As II	1951.393	0	
N III	1951.43	100	
V IV	1951.432	400	
Co I	1951.44	120	99
Mn III	1951.504	200	
Fe I	1951.556	500	37

Element	Wavelength	Intensity	Multiplet
Ne II	1951.727	80	
Ca III	1951.888	150	
Co I	1951.90	250	103
Zn II	1951.911	60 -A	
Ni II	1951.92 P		1
V III	1952.00	150	
Ca III	1952.133	450	
N III	1952.14 P	50	
Co III	1952.158	40	24
Fe I	1952.262	500	37
Ge II	1952.29	3h	
Mn III	1952.361	500	13
Fe III	1952.362	150w	68
Fe III	1952.514	200	68
Mn III	1952.525	1000	13
Ni III	1952.540	200	24
As II	1952.541	0	
Cu II	1952.5758	5	
Fe I	1952.579	500	36
Fe III	1952.648	700	68
Ca III	1952.823	200	
Mn II	1952.86	2	
Zn II	1952.999	80 -A	
Fe I	1953.001	500	35
Ca III	1953.064	450	
Fe III	1953.202	250	
Mn II	1953.23	300	94
Cr III	1953.26	50	
Ca III	1953.295	150	
Fe III	1953.322	900	68
Mn II	1953.35	3	
Ni II	1953.407	40	34
Fe III	1953.488	650	68
B III	1953.495	10	
Mn II	1953.51	10	
Ca III	1953.546	500	
N III	1953.66	150	
Co I	1953.71	80	38
N III	1953.80	150	
Ge I	1953.8018 st	100	
Fe III	1953.821	70	
B III	1953.827	40	
Mn II	1953.90	10	
Co III	1953.942	100	20
Si III	1953.968 P		69
Fe III	1953.968	250	
Mn II	1953.98	5	
P I	1954.01	12	
Ne II	1954.048	70	
V II	1954.061	2h	
Mn II	1954.10	5	
Zn III	1954.183	1	
P I	1954.20	21	
Co I	1954.22	300	95
Fe III	1954.223	650w	61
Mn II	1954.32	30	
Mn IV	1954.580 P	50	
Ni II	1954.709	1	
Fe III	1954.769	250	
Co III	1954.791	60	25
Mn II	1954.81	200d	94
Mg III	1954.831	7	
Zn II	1954.872	75 -A	
Co III	1954.876	20	46
Si I	1954.9681 st	50	55
Fe III	1954.975	550	116
Mn II	1955.06	1	94
Ge I	1955.1150 st	200	5
P I	1955.16	21	
Co I	1955.17	300	105
Na III	1955.31	160	
Mn III	1955.4	2	
Co III	1955.505	6	46
Fe II	1955.639	20	
Mn IV	1955.663	300	
Fe I	1955.690	400	36
Ni III	1955.74	0	
P I	1955.79	21	
Co III	1955.793	40	20
Cr II	1955.93	300	205
Fe III	1955.943	20	
Co III	1956.011	40	20
Fe I	1956.026	500	35
Fe II	1956.085	10d	138
Co I	1956.22	150	41
Cr III	1956.36	40h	
Ni III	1956.402	3	
Kr II	1956.412	40	
Na III	1956.48	10	
Mg IV	1956.570	40	
Mn III	1956.614	300	12
Be I	1956.67	100	
As II	1956.835	0	
Cr III	1956.93	50	
Ni III	1956.964	20	18
Ti III	1957.02	5	
Fe III	1957.137	200	
Fe III	1957.375	150	
Co II	1957.418	150	5
Mn III	1957.472	10	
O II	1957.49	10	
Cu II	1957.5176	20	105
Kr II	1957.542	20	
Co I	1957.69	120	39
Ar III	1957.83	50	
Fe I	1957.838	600	36
Cr III	1957.88	10	
V I	1957.90	250	55
Fe III	1957.938	400	147
Si I	1957.965 st	1	55
Mn II	1957.98	40	
Cr III	1958.05	10	
Fe II	1958.086	5	
Co I	1958.10	80	
Fe II	1958.121	100	170
Ca III	1958.149	300	
V I	1958.18	60	55
Al II	1958.2470	8	
Mn III	1958.310	8	
Kr II	1958.427	40	
V II	1958.446	1	
S II	1958.45	300	
Co I	1958.55	250	
Mn II	1958.58	5h	
Fe III	1958.583	700	55
Fe I	1958.598	600	37
V I	1958.60	0	
Fe III	1958.732	300	
Fe I	1958.739	300	36
Al II	1958.77	1	

Element	Wavelength	Intensity	Multiplet
As I	1958.82	20	
Fe I	1958.84	0	
As I	1958.91	40	24
Mn II	1958.932	80	
Co I	1958.94	150	101
Ca III	1958.971	500	
Al II	1959.00	0	
Fe III	1959.026	200	
V I	1959.12	150	59
Mn II	1959.246	300	
Fe III	1959.324	550	61
V I	1959.36	150	54
Co III	1959.414	100	25
Mn II	1959.69	5	
F II	1959.758	1	
Ge II	1959.781	30h	14
V I	1959.97	200	54
Mn III	1959.98	2	
Ne II	1959.994	60	
V II	1960.137	3	
Fe I	1960.139	600	35
Cr III	1960.18	10h	
F II	1960.255	10	
Mn II	1960.27	10	
Fe III	1960.318	900	82
Al II	1960.3221	3	
Cu IV	1960.335	12	
O II	1960.34	100	
Mn II	1960.37	10	94
V II	1960.445	0	
Al II	1960.6458	3	
Mn II	1960.67	0	94
Cr III	1960.69	10	
Na III	1960.76	400	
Al II	1960.8466	10	
As I	1960.89	2	
Mn II	1960.90	5	
Se I	1960.901	1000	2
V II	1960.98	20	
F II	1960.984	40	
Co I	1961.00	150	95
Fe III	1961.010	300	
Fe III	1961.230	400	61
Fe I	1961.236	500	
Co I	1961.26	80	39
Ni III	1961.324	5	
Ar II	1961.3610 ST	400	13
Mn II	1961.39	20	
Co III	1961.450	10	60
Fe III	1961.456	70	
Co I	1961.59	250	
V I	1961.69	300	55
Fe III	1961.724	70	
Ne II	1961.772	60	
Kr II	1961.863	40	
Cr III	1961.93	10	
Ge I	1962.0133 st	500	16
Fe I	1962.031	500	35
Mn III	1962.042	250	
Fe II	1962.071	1	
Fe I	1962.107	600	35
Mg III	1962.145	7	
Cr III	1962.16	5	
Ar II	1962.161	300	
O II	1962.27	300	
Cr III	1962.37	10	
Al II	1962.5904	70	
Al II	1962.6452	8	
Al II	1962.6910	60	
Fe III	1962.717	300	61
Al II	1962.7349	70	
Ar III	1962.74	100	
Fe I	1962.746	10	36
Al II	1962.7634	50	
Mn II	1962.80	30	
Fe I	1962.871	400	36
Mn III	1962.878	100	
Fe III	1962.958	250	
Zn III	1962.974	1	
Cr II	1963.00	300	205
V IV	1963.103	300	
Fe I	1963.110	500b	35
Fe II	1963.110	500b	170
Zn IV	1963.112	60	
Cr III	1963.15	80	
Fe III	1963.209	70	
Co III	1963.243	1	
Mn III	1963.27	1h	
Kr II	1963.361	240	
Ge I	1963.3728 st	100	
Co I	1963.38	120	95
F III	1963.439	20	
Fe III	1963.461	70	
V I	1963.47	350	55
Mn III	1963.514	100	12
Co I	1963.55	200	122
Fe I	1963.629	200	35
Mn III	1963.719	200	13
Ni III	1963.73	2	
Co III	1963.743	20	24
Ni I	1963.85	50	47
O II	1963.86	200	
Co I	1963.92	80	
Fe III	1964.019	300	82
Co I	1964.03	200	94
Fe I	1964.043	400	35
V II	1964.091	1	
Fe III	1964.169	550	82
Mn II	1964.19	10	
Fe III	1964.260	450	61
V I	1964.27	300	54
Fe II	1964.342	240	170
O II	1964.35	10	
Mn II	1964.45	80	
Mn IV	1964.451 P	250	
Zn II	1964.538	80 -A	
Ca III	1964.614	650	
Be I	1964.63	900	
Ni III	1964.689	100	24
Mn II	1964.70	20	
Co III	1964.765	1	
Fe III	1964.776	550	82
Al II	1964.9903	40	
As II	1965.036	3	
Na III	1965.04	360	
V I	1965.07	300	55
V I	1965.26	300	54
Fe III	1965.309	550	106
Al II	1965.3157	10	
Ni II	1965.357	8	44

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Element	Wavelength	Intensity	Multiplet
Ge I	1965.3830 st	200	5
Cr III	1965.56	200	
Mn II	1965.68	60	
F III	1965.726	35	
Mn II	1966.04	20	
Fe III	1966.074	200	
Fe III	1966.201	150	61
Mn II	1966.24	2	
V IV	1966.244	20	
Ge II	1966.3173	40h	14
V I	1966.52	300	54
Cr III	1966.57	10	
Ni XIV	1966.6	f	
Co I	1966.68	90	103
Co III	1966.680	1	
Fe III	1966.740	550	116
V II	1966.752	3h	
V I	1966.76	300	55
Ar II	1966.953	100	
Mn III	1967.080	10h	
V III	1967.11	150	
V II	1967.185	4	
Zn III	1967.230	1	
Se IV	1967.3	400	
Fe III	1967.352	250	
Mn II	1967.59	30	
Fe II	1967.670	1	
Co I	1967.78	100	100
Ca III	1967.936	650	
V I	1967.98	400	54
Cu II	1968.0118	2	
Ni III	1968.053	3	
Fe II	1968.060	20	
Fe II	1968.210	1	
Cr IV	1968.27 P	150	
V III	1968.37	5	
Fe III	1968.625	150	
As II	1968.660	20	
Co I	1968.69	250	
Mn III	1968.776	4	
As II	1968.855	20	
Fe II	1968.872	20d	
Ni I	1968.90	50	23
Co II	1968.918	30	
Co I	1968.93	250	97
Mn II	1969.24	200	
Kr II	1969.278	40	
Co III	1969.312	4	
Zn II	1969.404	100	
V I	1969.57	75	54
Mn III	1969.576	50	
Ni III	1969.62	0	
Co I	1969.68	30	
Mn II	1969.87	50	
Mn II	1969.95	100	
Co III	1970.054	60	24
Kr II	1970.125	80	
Mn II	1970.16	5	
Fe II	1970.329	2	
Cu II	1970.4946	15	18
Ni III	1970.54	0	
Mn III	1970.639	2	
Fe II	1970.680	20	
Co I	1970.71	500	102
Co I	1970.77 P		37
Fe I	1970.771	10	36
Cu IV	1970.822	11	
S II	1970.86	400	
V II	1970.877	0	
Ge I	1970.8796 st	500	6
Mn II	1970.947	5	
As II	1970.953	0	
Fe II	1970.989	1d	
Cr III	1971.11	20	
Co I	1971.16	300	96
Mn II	1971.22	100	
Mn III	1971.28	100	
Zn III	1971.416	2	
V IV	1971.471	40	
Mg III	1971.514	4	
As II	1971.580	0	
Ne II	1971.621	20	
Mn II	1971.71	20	
Co I	1971.75	150	41
Co III	1971.889	20	24
Mn III	1971.976	8b	
Ca III	1971.992	250	
Mn III	1972.218	5	
Fe III	1972.245	150	
Ar II	1972.274	200	
V II	1972.278	1	
Cr III	1972.45	100	
Mn III	1972.471	3w	
V I	1972.48	75	54
Co I	1972.52	300	99
V II	1972.62	200	163
As I	1972.62	800r	1
Fe III	1972.638	150	
Co I	1972.82	0	
Ca III	1972.823	600	
Mn III	1972.861	100	12
Cr III	1973.20	70	
Mn IV	1973.414	80	
Ar II	1973.4837 ST	200	
Fe III	1973.578	20	
Co I	1973.62	50	
As I	1973.65	3	
Co III	1973.667	1	
Co III	1973.767	2	
Ar III	1973.78	200	
Co I	1973.85	250	101
Fe I	1973.911	20	36
Kr II	1974.015	20	
Cr III	1974.03	50	
Ge III	1974.05	20	
Fe I	1974.059	20	36
Mn II	1974.10	100b	
Mn III	1974.10	20b	
Zn IV	1974.254	15	
V II	1974.278	1	
Co I	1974.39	150	95
Cr III	1974.43	60	
Ar II	1974.462	300	
Zn II	1974.467	12 -A	
Cu II	1974.4681	0	
Fe II	1974.489	1	
Ni III	1974.493	15	
Cr III	1974.70	10	
Mg III	1974.737	12	
Ni III	1974.780	15	

Element	Wavelength	Intensity	Multiplet
Mn II	1974.82	80	
Zn III	1974.863	0	
Co III	1974.883	40	51
Co II	1975.002	20	
V II	1975.021	1	
Mn II	1975.24	30	
Kr II	1975.251	280	
As II	1975.270	1	
Co I	1975.36	60	
V I	1975.42	100	54
Na III	1975.43	10	
Mn III	1975.439	100	12
V II	1975.489	1	
Fe II	1975.542	20	
Cr III	1975.56	100	
Co I	1975.67	200	
Mn III	1975.690	200	
Cr III	1975.90	10	
Co I	1975.94	60	
Mn II	1976.002	10	
Cr III	1976.07	30	
Fe III	1976.126	550	54
Mn II	1976.18	2	
Kr II	1976.252	40	
Mn II	1976.27	2	
Mn III	1976.490	30	
Na III	1976.62	20	
V II	1976.62	600	127
Ar II	1976.765	300	
Mn II	1976.87	40	
Ni I	1976.87	150	47
Co I	1976.97	300	40
Ca III	1977.013	500	
Cu II	1977.0270	15	107
Co III	1977.031	40	24
Mn III	1977.044	4	
Na III	1977.14	20	
Zn II	1977.159	25 -A	
Ar II	1977.200	20	
Zn II	1977.494	5 -A	
Mg III	1977.554	60	
Si I	1977.5978 st	400	7
V II	1977.60	5	
Ne II	1977.657	70	
Mn II	1977.72	40	
Ni III	1977.84	1	
Ge III	1978.21	40	
Co I	1978.36	100	95
Fe III	1978.417	250	54
Co I	1978.53	120	
Ca III	1978.551	500	
Fe III	1978.626	150	
Mn II	1978.75	20	
Kr II	1978.904	80	
Cr III	1978.91	40	
Co III	1978.948	10	45
Mn III	1978.953	500	
V II	1978.96	200	138
Fe III	1979.002	70	
V II	1979.087	5	
C III	1979.16	100 -A	41
Si I	1979.2056 st	400	7
Si III	1979.233 P		83
Ge II	1979.2736 st	30	1
Mg III	1979.327	80	
Mg III	1979.43		
Cl III	1979.46	300	
V II	1979.618	1	
C III	1979.62	50 -A	41
As II	1979.755	10	
Mn III	1979.790	1	12
Cu II	1979.9565	200	17
Ni II	1980.010	15	34
V II	1980.04	400	127
Cr III	1980.09	100	
Co III	1980.113	40	24
Cr III	1980.24	100	
Ni III	1980.248	2	
Fe III	1980.392	150	
Li I	1980.59	-A	
V II	1980.59	250	127
Co I	1980.59	150	39
Si I	1980.6185 st	300	7
Ni II	1980.699	3	
Mn II	1980.84	2	
Co I	1980.89	400	
Na III	1980.95	10	
As II	1980.992	2	
Co III	1981.000	0	
Mn II	1981.01	10	
Mn II	1981.16	20	
Ca III	1981.192	550	
V II	1981.245	0	
Kr II	1981.264	40	
Co III	1981.345	20	24
As II	1981.466	10	
V II	1981.53	80	127
Cr III	1981.61	40	
Ni I	1981.61	100	47
S II	1981.64	200	
Kr II	1981.653	40	
Mn II	1981.67	20	
Ar II	1981.74	100	
Cr III	1981.82	20	
V I	1981.85	5	
Co I	1981.97	200	37
Ne VII	1981.974	600	
V I	1982.06	200	53
Fe III	1982.076	400	54
Zn II	1982.111	100 -A	
V II	1982.21	5	
Mn III	1982.212	20	
V II	1982.41	80	127
V IV	1982.422	15	
Zn II	1982.429	10 -A	
V I	1982.45	200	53
Co I	1982.52	200	37
Ni III	1982.538	50	24
Ne II	1982.576	40	
Mn II	1982.60	10	
Mn III	1982.76	400	
Fe III	1982.805	550	56
Co I	1982.81	80	100
Kr II	1982.866	120	
Fe II	1983.05	0	
Fe III	1983.123	20	
Co II	1983.162	100h	
Mn II	1983.17	60	
Si I	1983.2330 st	300	7
Ar II	1983.299	100	

Element	Wavelength	Intensity	Multiplet
V I	1983.37	250	53
As II	1983.581	100	
Cl III	1983.61	500	
Kr II	1983.634	40	
Al II	1983.6496	10	
Fe III	1983.676	150	81
As II	1983.787	3	
Ar II	1983.829	100	
Co II	1983.947	20	
Fe III	1984.027	450	86
V II	1984.05	100b	
Mn III	1984.052	2	
Si I	1984.0719 st	3	53.01
Fe III	1984.288	600	81
Co III	1984.324	6	
V I	1984.43	30	
Mn II	1984.43	20	
Si I	1984.4400 st	20	53.01
Cu II	1984.7643	1	
Co II	1984.827	10	
V I	1984.91	250	53
Fe II	1984.94	0	
S II	1985.07	200	
Fe III	1985.105	200	56
Be I	1985.17	300	
Mg III	1985.173	12	
Mn II	1985.25	2	
Co I	1985.25	100	
Co I	1985.36	100	38
Mn III	1985.398	20	
Cr II	1985.42 P	440	31
Na III	1985.58	600	
Cr IV	1985.58	75	15
Zn II	1985.608	70 -A	
Cr II	1985.67	240	31
Mn III	1985.717	300	
Mn III	1985.797	750	
Co I	1985.88	40	
Zn III	1986.020	4	
Co I	1986.31	60	
Si I	1986.3640 st	500	7
Mn II	1986.40	20	
Fe II	1986.423	40	
Cr III	1986.54	50	
Ge II	1986.6	3h	
Co III	1986.704	1	
Cr III	1986.82	10	
Mn III	1986.839	100	12
Zn II	1986.988	100 -A	
Cr III	1987.00	10	
Fe III	1987.006	70	
Co I	1987.03	150	
Co I	1987.15	120	37
Cr III	1987.19	10	
Co III	1987.197	6	
Co I	1987.24	100	
V I?	1987.25	100	
V II	1987.314	10	
C II	1987.33	40	19
Cr III	1987.42	30h	49
Cr II	1987.43	100	154
Fe III	1987.503	1000	50
V II	1987.547	4	
Cr III	1987.62	150	
Co I	1987.65	200	99
Mn III	1987.70	1h	
C II	1987.76	120	19
Fe III	1987.810	200	56
V II	1987.82	3	
Ni III	1987.83	1h	
Ge I	1987.8492 st	300	
Zn IV	1987.874	35	
Co III	1987.952	2	
As II	1988.018	20	
V II	1988.031	8	
Mn II	1988.06	30	
C II	1988.09	80	19
Ge I	1988.2668 st	600	5
C II	1988.51	40	19
Ar II	1988.620	300	
V II	1988.674	0	
Al II	1988.6985	3	
As II	1988.955	100	
Si I	1988.9937 st	1000	7
Cr I	1989.00	200	49
Ne II	1989.036	80	
Mn III	1989.038	8	
Ge I	1989.1174 st	100	
V I	1989.17	1	
Cr III	1989.18 P	60	
Zn III	1989.190	10b	
Zn IV	1989.190	10b	
Co I	1989.28	100	
Mn II	1989.41	50	
Ca III	1989.512	450	
Mn III	1989.587	400	
Co III	1989.598	80	51
Cr III	1989.64	10	
Co III	1989.645	20	24
Co I	1989.80	250	94
V I	1989.82	60	53
Cu II	1989.8554	90	15
Cr I	1989.92	750	48
Fe III	1989.975	450	50
Cu II	1990.1804	1	
Mn III	1990.219	3	12
Cr IV	1990.22	200	15
Ni I	1990.25	200	47
Cr I	1990.27	400	48
V III	1990.33	0	
Co I	1990.34	300	97
Kr II	1990.341	20	
As I	1990.35	200	7
Al II	1990.5310	700	8
Zn III	1990.637	25	
V IV	1990.712	40	
Cr II	1990.79	200	236
Fe II	1990.805	1	
Co III	1990.841	2	
Al II	1991.05	1	
As I	1991.13	100	7
Cr III	1991.17	40	
Cr I	1991.22	750	48
Mn III	1991.290	50	
N II	1991.301 P	10	
V I	1991.31	0	
V II	1991.31	0	
Co II	1991.574	0	
Fe III	1991.613	950	50
V I	1991.75	10	

Element	Wavelength	Intensity	Multiplet
Co I	1991.80	30	
Si I	1991.8537 st	50	53
S I	1991.9369	8	
Fe III	1992.017	600	81
Ne VII	1992.060	300	
Cr I	1992.12	300	48
Co III	1992.158	2	45
Fe III	1992.196	600	81
Mn II	1992.30	20	
Fe III	1992.427	70	50
V I	1992.46	1	53
Kr II	1992.464	40	
Mn III	1992.492	2	12
Cr III	1992.57	100	
Cr I	1992.65	250	48
As II	1992.682	5	
Cr III	1992.72	250	49
Co I	1992.79	200	
V III	1992.83	100	
Fe III	1992.858	400	106
Mn III	1992.889	10	
Se III	1993.0	200	
Mn III	1993.222	80	
Co I	1993.25	100	
Fe III	1993.262	450	50
Fe II	1993.289	160w	95
Ni III	1993.362	10	
Zn II	1993.367	50 -A	
Cr II	1993.37	300	31
Mn III	1993.550	20	
Ar II	1993.555	20	
Ni II	1993.570	2	
Mn II	1993.60	10	
C I	1993.620	50	32
Co III	1993.625	20	24
Cr II	1993.63	500	31
Mg III	1993.759	7	
Kr II	1993.763	120	
Cu II	1993.81	1	
Sc III	1993.886	180	4
Ni II	1993.906	1	
Mn II	1993.99	100	
Fe III	1994.073	900	50
Mg III	1994.089	4	
Ne II	1994.099	90	
Cr I	1994.10	400	48
Mn II	1994.23	300	
Ni I	1994.29	100	20
V II	1994.34	100	
Fe III	1994.366	70	50
Zn III	1994.454	1	
Cr I	1994.55	750	48
V III	1994.57	25	
Fe II	1994.857	400	228
As I	1994.89	20	24
Co I	1994.98	150	
V II	1995.02	5	
Mn III	1995.02	3	
Cr III	1995.09	50	
Se I	1995.112	300	22
Fe III	1995.266	450	50
Mn II	1995.275	1	
Ne II	1995.280	50	
Co III	1995.397	10	24
V I	1995.43	1	
As I	1995.43	100	23
Fe III	1995.563	800	50
Na III	1995.62	60	
Cr I	1995.69	250	49
Ni II	1995.723	15	33
Mn III	1995.838	700	
Cr III	1996.03	10	
Mn I	1996.056	50r	
Fe III	1996.420	800	50
Cr II	1996.62	60	
Cr III	1996.70	20h	
Mn III	1996.905	15	
Zn II	1996.922	50 -A	
Fe II	1997.034	4d	
Cr I	1997.09	250	49
Co II	1997.095	10	
Mn III	1997.109	20	
Cr III	1997.12	10	
Cr I	1997.30	500b	48
Ne VII	1997.345	100	
Cr IV	1997.35	20	
Mn IV	1997.545	650	
V IV	1997.722	500	
Ge I	1997.8064 st	150	
Cr I	1997.90	600	48
Mn II	1997.94	20	
Be I	1997.95	100	
Be I	1997.98	300	
Be I	1998.07	600	
Mn III	1998.127	100	
Cr II	1998.14	40	204
Zn III	1998.150	10	
Zn II?	1998.238	20	
As II	1998.340	10	
Co I	1998.49	250	37
Zn III	1998.653	10	
Ne II	1998.667	20	
S II	1998.80	200	
Mn III	1998.883	20	
Ge I	1998.8869 st	1000	5
Zn II	1998.977	25b -A	
Zn III	1998.977	25b	
Fe III	1999.100	70	
Cr III	1999.12	20	
V IV	1999.320	200	
Fe II	1999.430	200	187
Fe II	1999.462	150	186
Cr III	1999.47	60	
Mn I	1999.511	100r	
Ni I	1999.53	0	23
Fe III	1999.588	600	55
Fe II	1999.727	20	
Fe III	1999.893	200	
Co III	1999.913	1	
Mn II	1999.92	80	

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13. ABSTRACT

A critical tabulation of observed spectral lines below 2000 Angstroms has been prepared from the published literature up to May 1972. It is intended principally as an aid to those physicists and astronomers who deal with the spectra of highly stripped atoms. This report includes the first 36 elements, from hydrogen (including deuterium) through krypton. The tabulation is divided into two main sections: the emission lines by spectrum, and a finding list. The entries for each element give the ionization species, ground state term, and ionization potential, as well as the best values of vacuum wavelength, intensity, and classification. A list of the pertinent reference sources is appended at the end.

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Hydrogen						
Deuterium						
Helium						
Lithium						
Beryllium						
Boron						
Carbon						
Nitrogen						
Oxygen						
Fluorine						
Neon						
Sodium						
Magnesium						
Aluminum						
Silicon						
Phosphorous						
Sulfur						
Chlorine						
Argon						
Potassium						
Calcium						
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