Energy Levels and Observed Spectral Lines of Krypton, Kr I through Kr XXXVI

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The energy levels and observed spectral lines of the krypton atom, in all stages of ionization for which experimental data are available, have been compiled. Sufficient data were found to generate level and line tables for Kr I–Kr X and Kr XVIII–Kr XXXVI. For Kr XXXV and Kr XXXVI and most of Kr XXXIV theoretical values are compiled for the energy levels. In all of the other stages a few lines, some of which may be only tentative classifications, are reported. In addition for Kr I, separate tables of energy levels are tabulated for the isotopes ^{86}Kr and ^{84}Kr. Experimental g factors are included for Kr I and Kr II. A value, either experimental, semiempirical, or theoretical, is included for the ionization energy of each ion. © *2007 by the U.S. Secretary of Commerce on behalf of the United States. All rights reserved*. [DOI: 10.1063/1.2227036]

Key words: compilation; critically evaluated data; energy levels; Kr; krypton; krypton ions; observed spectral lines; spectra.

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1. Introduction

In 1952, Moore [52MOO] published a compilation of the energy levels of krypton containing detailed analyses of Kr I–Kr III and a very partial analysis of Kr IV. In 1991 Sugar and Musgrove [91SUG] published a compilation of energy levels of krypton for all stages of ionization. In 1968, Striganov and Sventitskii [68STR] published a compilation of krypton lines containing a long list of observed lines for Kr I–Kr III, a limited list for Kr IV, and a few lines for Kr V–Kr VIII. In 1995 [95SHI] and in a limited update in 2000 [00SHI] Shirai *et al.* compiled a collection of spectroscopic data on lines and levels for Kr V–Kr XXXVI. Since these compilations were completed, additional work on Kr has been published. This work includes results obtained with new techniques such as laser spectroscopy, beam foil spectroscopy, electron beam ion trap (EBIT), laser excited plasmas, high energy beams of Kr ions colliding with gas targets, and fusion devices such as tokamaks. As a result we now have energy levels for 29 stages of ionization of Kr and at least one line for all 36 stages.

This compilation takes into account published work through December 2003. There are occasional exceptions in which later work is considered.

Generally, only experimentally derived energy levels are used; these include semiempirical results obtained by interpolation and extrapolation along isoelectronic sequences. An exception is made for Kr XXXIV–Kr XXXVI where good theoretical values exist. The use of calculated values is indicated by enclosing the energy value in square brackets.

We tabulate only those lines that have wavelengths consistent with differences in the tabulated levels but include some additional lines in the text for highly ionized stages. For many of the stages, decisions are made about which of several possible classifications to include by calculating the respective transition probabilities with the Cowan code [81COW]. As a result of this process, in a few cases the line classifications may differ from those given in the stated references.

Occasionally two groups may differ in their published analyses of the spectrum of a particular stage of ionization and in the identification of lines belonging to that stage. In such cases we select the analysis we believe to be better. However, the choice is not always clear. For Kr VII we rejected a number of levels and transitions for which a clear choice could not be made.

Many laser spectroscopy papers provide data about Rydberg series with results up to very high values of the principal quantum number n. In this compilation we limit the tabulated levels (and thus also the corresponding lines) to include only $n \leqslant 20$.

For the first ionization energy we try to provide the best available values obtained experimentally. We do not average experimental values by different authors. Where experimental values are not available, we prefer to use semiempirical results which adjust calculations along an isoelectronic sequence to fit available information about some of the members. For one- to three-electron ions there are very good theoretical values. Where no information of these types is available, we use the calculations of Sugar and Musgrove [91SUG] who used the Hartree–Fock code with relativistic corrections of Cowan [81COW].

All energy levels are given in units of cm^{-1} and all wavelengths in units of Å (0.1 nm). Ionization energies are provided in both cm^{-1} and eV. We use the conversion factor $(8\,065.544\,45 \pm 0.000\,69)$ cm^{-1}/eV as determined by Mohr and Taylor [03MOH].

Although it is often difficult to ascertain, uncertainties in the referenced publication of energy levels and lines are likely 1σ values. In many cases only the number of decimal places indicates the uncertainty in the quoted values. We generally use a "rule of 20" whereby an uncertainty of greater than 20 in the least significant digit serves as the criterion for dropping that digit.

The text for each ion does not attempt to provide a complete review of all work on that stage of ionization. Rather, it intends to credit the major contributions, especially those from which values are included in the line and level tables.

1.1. References

52MOO = C. E. Moore, *Atomic Energy Levels* Vol. II, Natl. Bur. Std. (U.S.) Circ. No. 467 (U.S. Government Printing Office, Washington, D.C., 1952).

68STR = A. R. Striganov and N. S. Sventitskii, *Tables of Spectral Lines of Neutral and Ionized Atoms* (IFI/Plenum, New York, 1968).

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. **8** (2000).

03MOH = P. J. Mohr and B. N. Taylor, "The 2002 CODATA Recommended Values of the Fundamental Physical Constants, Web Version 4.0," available at ⟨physics.nist.gov/constants⟩ (National Institute of Standards and Technology, Gaithersburg, MD 20899, 9 December 2003).

2. Acknowledgments

I wish to thank J. Reader and C. J. Sansonetti for many helpful discussions and advice on the selection of data to include in this compilation. This work was supported in part by the Office of Fusion Energy Sciences of the U. S. Department of Energy and by the National Aeronautics and Space Administration.

3. Explanation of Tables of Compiled Levels and Lines

In the Energy Level Tables the first column provides the energy level in units of cm^{-1}. The values have been rounded using the "rule of 20." The absence of a decimal point is used to indicate that the last digit is not significant. The second column provides the parity of the energy level; "0" signifies even parity and "1" signifies odd parity. The next three columns specify the configuration, term, and J value of the level. In the cases of Kr I and Kr II there is an additional column next which provides the magnetic Landé g factor of the level (when known). In cases where the information is available (as a result of calculations), we provide under the heading "Leading percentages" the eigenvector percentage composition of the level. We first give the percentage of the

TABLE 1. Sources of Kr I levels[a]

Source	Number of levels	Method	Adjustment (cm^{-1})	Comment
67HUM	8	Classical spectroscopy	none	Transitions used to calculate 5*g* levels from our 4*f* levels
74DUN	13	Laser ionization spectroscopy	none	Uses same value of reference level as we do to the precision of the results
79YOS	26	Absorption spectroscopy of discharge sources	none	
81AYM	1	Laser spectroscopy	none	
90AUD	6	Resonantly-enhanced multiphoton ionization	none	Uses same value of reference level as we do to the precision of the results
91SUG	211	Compilation of published work through 1990	$\Lambda+0.0121$	To match ground to excited state separation as determined from 02BRA (adjusted) for natural isotope mix values
			$\Lambda+X$ where $X=0.0051$ for all but the one 6*s* level where $X=0.0070$	For levels given by 91SUG to four decimal places (representing ^{86}Kr data), the previous adjustment plus the adjustment from ^{86}Kr to the natural isotope mix
93BOU	96	Laser-optogalvanic spectroscopy	$\Lambda+0.0051$	To match ground to excited state separation as determined from 02BRA (adjusted) plus the adjustment from ^{86}Kr to the natural isotope mix
93ITO	16	Stark effect on absorption spectroscopy of synchrotron radiation	none	
93KAU	59	Interferometric spectroscopy on ^{84}Kr	$\Lambda+0.0116$	To match ground to excited state separation as determined from 02BRA (adjusted) plus the small adjustment from ^{84}Kr to the natural isotope mix
97AHM	86	Laser-optogalvanic spectroscopy	none	Uses same value of reference level as we do to the precision of the results
00MIS	3	Fourier transform spectroscopy	none	Transitions used to define new levels from known levels
02BRA	2	Isotope resolved laser spectroscopy	To natural isotope mix	Isotope-specific results adjusted to natural isotope mix by using average weighted by abundance of isotopes in the natural mix

[a] Λ is the value of the level as published.

basis state used to name the level. Then we give that of the next highest basis state (or in some cases the highest) along with the classification of this basis state. Note that in some cases if the next highest is only a few percent, it is not specified in the source and so it is not included here. Finally in the last column a reference is given to the source of the compiled level. The energy level tables for ^{84}Kr I and ^{86}Kr I follow a slightly different format.

In the Line Tables wavelengths between 2000 and 20 000 Å are in air. All others are vacuum wavelengths. The first column is the observed wavelength in angstroms (Å). The second column is the vacuum wave number corresponding to the observed wavelength. The wave numbers are provided in units of cm^{-1} for ionization stages Kr I–Kr V and in units of 10^3 cm^{-1} for the higher ionization stages. The presence of a decimal point indicates that the last zero is a significant digit while the absence of a decimal point indicates that the last zero is not a significant digit. The conversion between air wavelengths and vacuum wavelengths and wave numbers is made using the three-term formula given in Eq. (3) of Peck and Reeder [72PEC]. The wave number values are rounded to the appropriate number of significant digits using the "rule of 20." The third column is the relative intensity assigned to the line. Some authors use an intensity of "0" to indicate an intensity somewhat less than one (but not zero intensity). This system is maintained in this compilation. Also included here are codes which are defined for each ion. The next six columns specify the classification of the transition responsible for the line by providing the configuration, term, and *J* value first for the lower level and then for the upper level. The next-to-last column is an estimate of the uncertainty in the wavelength of the observed line. The last column identifies the source of the observed line. (The last two columns do not appear in the case of Kr XXXVI.)

3.1. References

72PEC = E. R. Peck and K. Reeder, J. Opt. Soc. Am. **62**, 958 (1972).

4. Tables of Energy Levels and Observed Lines

4.1. Kr I

Z=36

Ground state $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^6\ {}^1S_0$

Ionization energy $112\,914.433\pm0.016$ cm^{-1} ($13.999\,605\pm0.000\,002$ eV)

The energy levels of Kr I have been compiled from 12 different sources [67HUM], [74DUN], [79YOS], [81AYM], [90AUD], [91SUG], [93BOU], [93ITO], [93KAU], [97AHM], [00MIS], [02BRA], which are summarized in Table 1. Where necessary, the published energy levels (denoted by Λ in Table 1) have been adjusted to put all sources on a common basis. The adjustments used are specified in Table 1. The largest part of the adjustments has been to obtain a common value for the large separation between the ground state and the excited levels. The value we used was obtained from the isotope-specific results of Brandi *et al.* [02BRA] for the $4p^6-4p^5nl$ energy difference by using an average of values for each isotope weighted according to its fraction in the natural isotope mix. This same method of averaging the isotope-specific values was used to obtain our quoted ionization energy from the isotope-specific Rydberg-state-resolved threshold-ionization spectroscopy results of Hollenstein *et al.* [03HOL] with the ^{83}Kr isotope shift estimated from Brandi *et al.* [02BRA].

The first major compilation of Kr I levels, by Moore [52MOO], was largely based on unpublished work of Edlén. The value of the ground to excited state separation was greatly improved by the work of Trickl *et al.* [89TRI]. This value was used by Sugar and Musgrove [91SUG] in their compilation, which includes, in addition to level values for the natural isotope mix of Kr, levels of ^{86}Kr obtained by Kaufman and Humphreys [69KAU]. We add 0.0121 ± 0.0013 cm^{-1} to the natural isotope mix values of Sugar and Musgrove [91SUG] to correct for the new value of the ground to excited state separation calculated from the isotope-specific results of Brandi *et al.* [02BRA].

^{84}Kr energy levels are close in energy to those of the natural isotope mix. Kaufman [93KAU] provides data on the ^{86}Kr$-^{84}$Kr isotope shift for 60 levels. From these shifts we estimate that we have to lower the ^{86}Kr levels by 0.0018 cm^{-1} for $5s$ states, 0.0046 cm^{-1} for $5p$ and $6s$ states, and 0.0065 ± 0.0006 cm^{-1} for the other states. From Brandi *et al.* [02BRA] we estimate that the shift from ^{84}Kr to the natural isotope mix requires us to lower the energy levels by an additional 0.0005 ± 0.0001 cm^{-1}. We only quote adjusted ^{86}Kr levels to three decimal places rather than the four decimal places quoted by Sugar and Musgrove [91SUG]. With these corrections we use the work of Sugar and Musgrove [91SUG] as the starting point for the Kr I energy level table (after correcting for a few typographical errors).

Like Sugar and Musgrove [91SUG] we do not use the "preionized" levels (and corresponding lines) of Thekaekara and Dieke [58THE] because of the high pressures used and the low precision of their measurements due to the large widths of their observed lines. They use Dunning and Stebbings [74DUN] and Blazewicz *et al.* [87BLA] instead. Blazewicz *et al.* [87BLA] provide levels for np' for $n = 10-14$. Since Dunning and Stebbings [74DUN] covers $n = 8-25$, we chose to use their values for consistency over the common range in n.

Sugar and Musgrove [91SUG] use the data of Dunning and Stebbings [74DUN] for the np' configurations and further specify a term and J value for these levels. Convincing evidence for this further specification of these levels is not available, so the term and J value used by [91SUG] for these levels is not used here.

We only use those levels of Mishra *et al.* [00MIS] for which they specify the transition used to obtain their values. This permits us to make appropriate corrections to the ^{86}Kr levels of [91SUG] before recalculating the higher levels reached by the transition.

There has been a controversy in the literature about the classification of the level at 111 003 cm^{-1}. It is summarized by Ahmed *et al.* [97AHM]. We have classified the level at 111 002.984 cm^{-1} as $9d\,^2[1/2]_1^{\circ}$ and follow Aymar *et al.* [81AYM] in identifying the $7s'\,^2[1/2]_1^{\circ}$ state with the level at 111 072.5 cm^{-1}.

In addition to the natural isotope mix energy level table, we provide limited energy level tables for the separated isotopes ^{86}Kr and ^{84}Kr since very accurate measurements have been made. (We note that lines of ^{86}Kr once served as a standard of length.) Table 2 is for ^{86}Kr and is based on the data of Kaufman and Humphreys [69KAU]. Table 3 is for ^{84}Kr and is based on the data of Kaufman [93KAU]. These tables include the corrections for the improved measurement of the ground to excited state separation of Brandi *et al.* [02BRA] The uncertainty of this value (± 0.0013 cm^{-1}) is indicated in parenthesis with the ground state energy. The relative uncertainty of the excited state levels is given in the second column of these tables.

The energy of autoionizing levels can be specified in two different ways. One is to specify the resonance energy of the absorption profile. The other is to specify the energy at which the peak of the absorption profile occurs. We chose the latter in order to facilitate the use of these tables with observations of spectra. There is work reported using the former, e.g., [89UED], [90WU], [93MAE], [94KOE], and [01KLA].

Although our level table only includes levels with $n \leq 20$, there are many determinations of levels for higher values of n. See for example [90AUD], [91SUG], [93BOU], [93ITO], [94YOO], [97AHM], and [99OST].

In the energy level tables the levels are designated using pair coupling except for 25 core excited levels which are designated in jj coupling.

The observed spectral lines of Kr I have been compiled from 24 distinct sources [29GRE], [31MEG], [32GRE], [32RAS], [33MEG], [34MEG], [35MEG], [36JAC], [38HUM], [49SIT], [52HUM], [61HUM], [64COD], [64FAU], [67AND], [67HER], [67HUM], [72COD], [79YOS], [87WAD], [90AUD], [93KAU], [00MIS]. [02BRA] with eight additional sources [28ABB], [35BEU], [35BOY], [46LIT], [55PLY], [59PAU], [64AGO], [64PET] totally superseded by the others. The distinct sources are summarized in Table 4. The priority in our choice of lines which appear in more than one reference is specified as follows by spectral region.

Far ultraviolet (130–1300 Å): [02BRA], [79YOS], [64PET], [35BOY], [28ABB], [72COD], [64COD], and finally 35BEU].

Near ultraviolet and visible (3000–8000 Å): [93KAU] and [36JAC], [38HUM], [31MEG], [34MEG], [46LIT],, [90AUD], [32GRE], [29GRE], [33MEG], [32RAS], and finally [87WAD].

Infrared (8000–71 000 Å): [93KAU], [61HUM], [34MEG], [00MIS], [67HER], [32GRE], [31MEG],

TABLE 2. Energy levels of ^{86}Kr I (Results of Kaufman and Humphreys [69KAU] with adjustments to match the ground-to-excited state separation as determined by Brandi *et al.* [02BRA].)

Energy level (cm^{-1})	Relative uncertainty (cm^{-1})	Parity	Configuration	Term	J
0.0000(13)		0	$4s^24p^6$	^{1}S	0
79 971.8000	0.0001	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2
80 916.8254	0.0001	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1
85 191.6754	0.0001	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0
85 846.7624	0.0001	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1
91 168.5752	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1
92 294.4617	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3
92 307.4393	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2
92 964.4550	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1
93 123.4016	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2
94 092.9236	0.0001	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0
97 595.9765	0.0002	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1
97 919.2079	0.0001	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1
97 945.2276	0.0002	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2
98 855.1311	0.0003	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0
96 771.5563	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0
97 085.2561	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1
97 797.3497	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4
98 226.3312	0.0001	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3
97 687.8421	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2
99 646.2747	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1
98 867.4922	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2
99 079.4298	0.0002	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3
103 442.7531	0.0002	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2
103 701.5013	0.0002	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3
103 266.4014	0.0001	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2
104 887.3776	0.0002	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1
99 626.9432	0.0003	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2
99 894.1081	0.0001	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1
102 887.2557	0.0001	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1
103 115.6965	0.0004	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3
103 121.2041	0.0002	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2
103 313.5348	0.0002	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1
103 362.6746	0.0003	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2
103 761.6959	0.0002	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0
108 438.3234	0.0002	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1
108 514.2455	0.0002	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1
108 567.8329	0.0004	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2
108 821.6318	0.0003	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	0
104 073.5342	0.0003	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0
103 801.8561	0.0001	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1
104 916.5425	0.0002	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3
105 007.3077	0.0002	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2
105 648.4966	0.0005	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1
105 163.5619	0.0001	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2
105 208.5385	0.0001	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3
110 103.2978	0.0005	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2
110 122.0596	0.0009	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2
110 237.4839	0.0004	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	3
105 647.5161	0.0002	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2
105 770.7632	0.0001	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1

TABLE 2. Energy levels of ^{86}Kr I (Results of Kaufman and Humphreys [69KAU] with adjustments to match the ground-to-excited state separation as determined by Brandi *et al.* [02BRA].)—Continued

Energy level (cm^{-1})	Relative uncertainty (cm^{-1})	Parity	Configuration	Term	J
105 964.5086	0.0009	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1
105 965.6249	0.0011	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2
106 020.9054	0.0010	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3
106 021.6695	0.0008	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2
107 005.4342	0.0013	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1
107 140.8628	0.0006	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2
107 141.2339	0.0015	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3
107 221.3961	0.0005	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1
107 246.7503	0.0005	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2
107 410.4421	0.0010	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0
107 603.6603	0.0002	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0
107 676.2125	0.0001	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1
107 778.9595	0.0001	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	4
107 876.9717	0.0002	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3
107 796.9426	0.0002	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2
108 258.8186	0.0002	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1
107 992.8502	0.0001	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2
108 046.3739	0.0001	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3
108 325.0458	0.0001	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2
108 373.1054	0.0001	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1
108 471.1904	0.0005	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2
108 480.8141	0.0005	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1
108 487.0070	0.0003	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	5
108 487.1419	0.0003	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4
108 503.3005	0.0003	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3
108 503.9342	0.0004	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2
109 082.8325	0.0010	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1
109 103.3652	0.0010	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	3
109 149.7569	0.0009	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1
109 161.0196	0.0007	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2
109 296.2542	0.0005	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	0
109 331.0452	0.0007	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	0
109 343.0007	0.0002	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1
109 433.9717	0.0002	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	4
109 471.4844	0.0003	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3
109 375.3512	0.0002	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2
109 688.8190	0.0002	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1
109 527.5906	0.0002	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2
109 579.0019	0.0005	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3
109 752.0272	0.0003	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2
109 779.3760	0.0003	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1
109 843.1944	0.0003	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[9/2]$	4
109 852.3690	0.0000	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3
109 860.4014	0.0006	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	3
109 860.4288	0.0003	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	4
110 335.6893	0.0007	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	0
110 290.3799	0.0002	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1
110 403.7012	0.0002	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	4
110 470.9819	0.0007	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	3
110 512.8899	0.0008	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2

TABLE 2. Energy levels of ^{86}Kr I (Results of Kaufman and Humphreys [69KAU] with adjustments to match the ground-to-excited state separation as determined by Brandi *et al.* [02BRA].)—Continued

Energy level (cm^{-1})	Relative uncertainty (cm^{-1})	Parity	Configuration	Term	J
110 514.1580	0.0009	1	$4s^2 4p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1
110 496.7762	0.0012	1	$4s^2 4p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2
110 508.1983	0.0006	1	$4s^2 4p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3
110 608.4216	0.0010	1	$4s^2 4p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2
110 619.1380	0.0015	1	$4s^2 4p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1
110 933.4204	0.0015	1	$4s^2 4p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	0
111 003.0468	0.0016	1	$4s^2 4p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1
111 018.9392	0.0006	1	$4s^2 4p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	4
111 047.2305	0.0013	1	$4s^2 4p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	3
111 433.2086	0.0014	1	$4s^2 4p^5(^2P^o_{3/2})10d$	$^2[7/2]^o$	4
111 725.2757	0.0015	1	$4s^2 4p^5(^2P^o_{3/2})11d$	$^2[7/2]^o$	4

[33MEG], [32RAS], [55PLY], [59PAU], [52HUM], [49SIT], [67HUM], [67AND], [64AGO], and finally [64FAU].

It was determined that measurements of ^{86}Kr lines ([64EDL], [64HUM], [66HUM], [70HUM]), though very precise, could not be used in this compilation of natural isotope mix Kr because of their large isotope shift. However, measurements of ^{84}Kr lines are used since isotope shift measurements ([77GER], [79JAC], [80JAC], [81GER], [89TRI], [90CAN], [90SCH], [02BRA]) indicate that the isotope shift is small with respect to the natural isotope mix (typically about 3×10^{-5} Å at 6000 Å).

Ito *et al.* [93ITO] reported absorption spectra of Kr in the presence of an applied electric field. The field permits even parity to even parity transitions. They obtain the wavelength by extrapolating to zero electric field. We do not include these lines in the compilation since they are not likely to be observed in normal measurements. We do, however, include the energy levels defined by these measurements.

Jackson [36JAC] reports very precise measurements of wavelengths using a discharge tube with Kr at a pressure of 533 Pa (4 Torr). He also measured the pressure shifts of the lines and reports the small correction needed to obtain the wavelength for a light source at very low pressure. We apply his correction to obtain the wavelength reported in our spectral line table.

The classification of the seven electric quadrupole (E2) lines is due to Edlén[43EDL]. The two lines from Brandi *et al.* [02BRA] are calculated for the natural isotope mix from their isotope-specific data by averaging using the appropriate weighing factors.

Preliminary results from high-resolution Fourier-transform-spectrometer (FTS) measurements in the infrared made by Sansonetti *et al.* [04SAN] were used to help make choices in some of the classifications. For the 12 878.74 Å line we used the value reported by Hernäng[67HER] over that of Humphreys *et al.*[61HUM] (12 878.8751 Å). Hernäng noted that the Humphreys *et al.* value corresponded to being off by one fringe in their interferometric measurement. The preliminary FTS measurements confirm the Hernäng value.

For some lines involving the $4f[9/2]_{4,5}$ levels, somewhat larger deviations than expected are noted between the observed value of the measured wavelengths and the wavelengths (Ritz) calculated from the energy levels. The energy level table quotes data adjusted from Sugar and Musgrove [91SUG] (as corrected following the addendum [58MOO] to the Moore compilation [52MOO], on which they are based, to include both $J=4$ and $J=5$ states with this energy). It gives a common value of $105\,988.81 \pm 0.05$ cm^{-1} for these levels. We note that the preliminary FTS data [04SAN] indicate a value of 105 988.876 and 105 988.720 cm^{-1} for the $J=4$ and $J=5$ levels, respectively, with a preliminary estimate of uncertainty of less than 0.01 cm^{-1}.

The intensities quoted in the spectral line table are those of the stated references, when available. As specified in Table 4, for those references that could not provide intensities [34MEG], [36JAC], [38HUM], [61HUM], [93KAU], [02BRA] intensities were provided from other sources. We also note that some far infrared stimulated emission lines reported by [65LIB] were not included.

The spectral line table provides the wave number generally rounded to the appropriate number of significant digits using the "rule of 20." However, in the case where the wave number is the primary reported quantity [49SIT], [87WAD], [00MIS], [02BRA], the value is given to the full number of digits in the original source.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr I levels. Only classifiable lines are included in our compilation.

Transition probability calculations using the Cowan codes [81COW] with empirically adjusted configuration average energies were used to help resolve choices between multiple possible classifications of lines. Convergence of the Hartree–

Fock calculation was not obtained for the 20*d* and 20*f* levels and so we could not use the codes for guidance in transitions involving them.

The intensity codes given in the Kr I line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
d	double
h	hazy
E2	electric quadrupole line
−	slightly less intensity than the value given
*	multiply classified line (two or more classifications of this line share the same intensity)

The g_J values included in the Kr I level table are compiled from seven sources [40GRE], [43GRE], [63FAU], [79HUS], [81ABU], [82SEA], [83ABU]. Uncertainties have been included in parenthesis for those g_j values for which they were specified.

4.1.1. References

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TABLE 3. Energy levels of ^{84}Kr I (Results of Kaufman [93KAU] with adjustments to match the ground-to-excited state separation as determined by Brandi *et al.* [02BRA].)

Energy level (cm^{-1})	Relative uncertainty (cm^{-1})	Parity	Configuration	Term	J
0.0000(13)		0	$4s^24p^6$	^1S	0
79 971.7422	0.0003	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2
80 916.7685	0.0003	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1
85 191.6171	0.0005	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0
85 846.7051	0.0004	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1
91 168.5155	0.0003	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1
94 092.8631	0.0006	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0
92 294.4017	0.0003	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3
92 307.3791	0.0003	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2
92 964.3948	0.0003	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1
93 123.3414	0.0003	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2
97 595.9158	0.0006	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1
97 945.1669	0.0006	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2
97 919.1473	0.0005	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1
98 855.0703	0.0010	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0
102 887.1941	0.0006	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1
103 761.6341	0.0007	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0
103 115.6348	0.0016	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3
103 121.1424	0.0012	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2
103 313.4731	0.0006	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1
103 362.6129	0.0006	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2
108 438.2608	0.0007	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1
108 567.7694	0.0010	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2
108 514.1829	0.0007	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1
108 821.5695	0.0010	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	0
103 801.7934	0.0010	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1
104 916.4797	0.0010	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3
110 103.2344	0.0008	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2
110 121.9966	0.0010	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2
105 647.4541	0.0010	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2
105 770.7019	0.0010	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1
107 603.5974	0.0007	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0
107 676.1494	0.0005	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1
107 778.8967	0.0010	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	4
107 876.9085	0.0007	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3
107 796.8795	0.0005	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2
108 258.7558	0.0010	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1
107 992.7872	0.0005	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2
108 046.3107	0.0006	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3
108 324.9827	0.0005	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2
108 373.0428	0.0006	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1
108 471.1282	0.0016	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2
109 296.1922	0.0017	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	0
109 330.9827	0.0009	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	0
109 342.9373	0.0006	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1
109 375.2880	0.0006	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2
109 688.7563	0.0007	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1
109 433.9084	0.0010	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	4
109 471.4219	0.0007	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3
109 527.5273	0.0007	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2

TABLE 3. Energy levels of ^{84}Kr I (Results of Kaufman [93KAU] with adjustments to match the ground-to-excited state separation as determined by Brandi *et al.* [02BRA].)—Continued

Energy level (cm^{-1})	Relative uncertainty (cm^{-1})	Parity	Configuration	Term	J
109 578.9995	0.0008	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3
109 751.9644	0.0007	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2
109 779.3145	0.0008	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1
110 290.3170	0.0010	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1
110 335.6274	0.0012	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	0
110 403.6390	0.0010	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	4
110 470.9194	0.0010	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	3
110 496.7127	0.0010	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2
111 018.8777	0.0010	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	4
111 047.1698	0.0011	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	3

TABLE 4. Energy levels of Kr I

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
0.0000(13)	0	$4s^24p^6$	^1S	0		02BRA
79 971.7417	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	1.5011(2)	93KAU
80 916.7680	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	1.2428(4)	93KAU
85 191.6166	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0		93KAU
85 846.7046	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	1.259	93KAU
91 168.5150	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	1.88760(57)	93KAU
92 294.4012	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	1.336	93KAU
92 307.3786	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	1.10108(33)	93KAU
92 964.3943	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	1.00958(30)	93KAU
93 123.3409	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	1.38371(41)	93KAU
94 092.8626	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0		93KAU
97 595.9153	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	0.64687(19)	93KAU
97 919.1468	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	1.451(1)	93KAU
97 945.1664	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	1.18194(35)	93KAU
98 855.0698	0	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0		93KAU
96 771.494	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0		91SUG
97 085.193	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1		91SUG
97 687.779	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2		91SUG
97 797.287	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4		91SUG
98 226.268	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3		91SUG
98 867.429	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2		91SUG
99 079.367	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3		91SUG
99 646.212	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1		91SUG
103 266.339	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2		91SUG
103 442.690	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2		91SUG
103 701.439	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3		91SUG
104 887.315	1	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	1.018	91SUG
99 626.882	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2		91SUG
99 894.0485	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1		02BRA
105 091.35	1	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	0		91SUG
105 146.33	1	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1		91SUG
102 887.1936	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	1.834	93KAU
103 115.6343	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	1.333	93KAU
103 121.1419	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	1.107	93KAU

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
103 313.4726	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	1.034	93KAU
103 362.6124	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	1.403	93KAU
103 761.6336	0	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0		93KAU
108 438.2603	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.648	93KAU
108 514.1824	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	1.401	93KAU
108 567.7689	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2	1.158	93KAU
108 821.5690	0	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	0		93KAU
103 801.7929	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	1.098	93KAU
104 073.471	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0		91SUG
104 630.57	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	4		91SUG
104 916.4792	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	1.050	93KAU
105 007.245	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	1.295	91SUG
105 163.499	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	1.006	91SUG
105 208.476	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	1.243	91SUG
105 648.434	1	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.935	91SUG
110 103.2339	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	1.169	93KAU
110 121.9961	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.899	93KAU
110 237.421	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	3	1.140	91SUG
110 733.27	1	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	1		91SUG
105 647.4536	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	1.496	93KAU
105 770.7014	1	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	1.097	93KAU
111 055.0	1	$4s^24p^5(^2P^o_{1/2})7s$	$^2[1/2]^o$	0		97AHM
111 072.5	1	$4s^24p^5(^2P^o_{1/2})7s$	$^2[1/2]^o$	1		81AYM
105 964.446	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.52	91SUG
105 965.562	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2		91SUG
105 988.81	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4		91SUG
105 988.81	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	5		91SUG
106 020.843	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3		91SUG
106 021.607	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2		91SUG
106 047.39	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3		91SUG
106 047.39	0	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4		91SUG
111 377.9	0	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	4		91SUG
111 378.38	0	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	3		00MIS
111 380.299	0	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	3		00MIS
111 381.160	0	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	2		00MIS
107 005.371	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	1.795	91SUG
107 140.800	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2		91SUG
107 141.171	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3		91SUG
107 221.333	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	1.041	91SUG
107 246.688	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	1.403	91SUG
107 410.379	0	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0		91SUG
112 490.3	0	$4s^24p^5(^2P^o_{1/2})7p$	$^2[3/2]$	1		90AUD
112 498.1	0	$4s^24p^5(^2P^o_{1/2})7p$	$^2[1/2]$	1		90AUD
112 543.8	0	$4s^24p^5(^2P^o_{1/2})7p$	$^2[3/2]$	2		90AUD
112 668.3	0	$4s^24p^5(^2P^o_{1/2})7p$	$^2[1/2]$	0		90AUD
107 603.5969	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0		93KAU
107 676.1489	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	1.348	93KAU
107 778.8962	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	4	1.231	93KAU
107 796.8790	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	1.318	93KAU
107 876.9080	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	1.073	93KAU
107 992.7867	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.965	93KAU
108 046.3102	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3	1.254	93KAU
108 258.7553	1	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.823	93KAU
113 530.	1	$4s^24p^5(^2P^o_{1/2})6d$	$^2[3/2]^o$	1		91SUG

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
108 324.9822	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	1.506	93KAU
108 373.0423	1	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	1.171	93KAU
113 695.0	1	$4s^24p^5(^2P^o_{1/2})8s$	$^2[1/2]^o$	0		97AHM
113 715.4	1	$4s^24p^5(^2P^o_{1/2})8s$	$^2[1/2]^o$	1		79YOS
108 471.1277	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	1.09	93KAU
108 480.751	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.61	91SUG
108 486.944	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	5		91SUG
108 487.079	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4		91SUG
108 503.238	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3		91SUG
108 503.871	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2		91SUG
108 516.98	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	3		91SUG
108 516.98	0	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	4		91SUG
113 866.	0	$4s^24p^5(^2P^o_{1/2})5f$				91SUG
108 509.28	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	2		67HUM
108 509.28	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	3		67HUM
108 514.07	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[11/2]^o$	5		67HUM
108 514.07	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[11/2]^o$	6		67HUM
108 523.04	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	3		67HUM
108 523.04	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	4		67HUM
108 527.71	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	4		67HUM
108 527.71	1	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	5		67HUM
109 082.770	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	1.795	91SUG
109 103.302	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	3		91SUG
109 105.79	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	2		91SUG
109 149.694	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	1.014	91SUG
109 160.957	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	1.411	91SUG
109 296.1917	0	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	0		93KAU
114 494.	0	$4s^24p^5(^2P^o_{1/2})8p$				74DUN
109 330.9822	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	0		93KAU
109 342.9368	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	1.355	93KAU
109 375.2875	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	1.315	93KAU
109 433.9079	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	4	1.228	93KAU
109 471.4214	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3	1.094	93KAU
109 527.5268	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.954	93KAU
109 578.9990	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3	1.231	93KAU
109 688.7558	1	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1	0.797	93KAU
114 729.	1	$4s^24p^5(^2P^o_{1/2})7d$	$^2[5/2]^o$	2		91SUG
114 833.	1	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	2		91SUG
114 878.	1	$4s^24p^5(^2P^o_{1/2})7d$	$^2[5/2]^o$	3		91SUG
115 019.	1	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	1		91SUG
109 751.9639	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	1.495	93KAU
109 779.3140	1	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	1.174	93KAU
115 123.	1	$4s^24p^5(^2P^o_{1/2})9s$	$^2[1/2]^o$	0		91SUG
115 135.4	1	$4s^24p^5(^2P^o_{1/2})9s$	$^2[1/2]^o$	1		79YOS
109 836.15	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1		91SUG
109 836.77	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2		91SUG
109 843.132	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[9/2]$	4		91SUG
109 852.306	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3		91SUG
109 852.76	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2		91SUG
109 860.339	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	3		91SUG
109 860.366	0	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	4		91SUG
115 219.	0	$4s^24p^5(^2P^o_{1/2})6f$				91SUG
110 180.08	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	1		91SUG

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
110 209.56	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[5/2]$	3		91SUG
110 209.85	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[5/2]$	2		91SUG
110 234.85	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	1		91SUG
110 242.83	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	2		91SUG
110 308.14	0	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	0		91SUG
115 585.	0	$4s^24p^5(^2P^o_{1/2})9p$				74DUN
110 290.3165	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	1.294	93KAU
110 335.6269	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	0		93KAU
110 403.6385	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	4	1.236	93KAU
110 470.9189	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	3	1.037	93KAU
110 496.7122	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2	1.005	93KAU
110 508.136	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3	1.227	91SUG
110 512.827	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2		91SUG
110 514.095	1	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1		91SUG
115 793.0	1	$4s^24p^5(^2P^o_{1/2})8d$	$^2[3/2]^o$	2		97AHM
115 793.0	1	$4s^24p^5(^2P^o_{1/2})8d$	$^2[5/2]^o$	2		97AHM
115 906.	1	$4s^24p^5(^2P^o_{1/2})8d$	$^2[3/2]^o$	1		79YOS
110 608.359	1	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2		91SUG
110 619.075	1	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	1.161	91SUG
115 975.5	1	$4s^24p^5(^2P^o_{1/2})10s$	$^2[1/2]^o$	0		97AHM
115 982.6	1	$4s^24p^5(^2P^o_{1/2})10s$	$^2[1/2]^o$	1		79YOS
110 655.45	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1		91SUG
110 656.01	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2		91SUG
110 659.90	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[9/2]$	4		91SUG
110 659.90	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[9/2]$	5		91SUG
110 665.45	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	3		91SUG
110 665.75	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	2		91SUG
110 670.67	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	3		91SUG
110 670.67	0	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	4		91SUG
116 043.	0	$4s^24p^5(^2P^o_{1/2})7f$				91SUG
110 872.43	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[1/2]$	1		91SUG
110 894.8	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[5/2]$	3		93BOU
110 894.8	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[5/2]$	2		93BOU
110 911.1	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	1		93BOU
110 916.07	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	2		91SUG
110 956.24	0	$4s^24p^5(^2P^o_{3/2})10p$	$^2[1/2]$	0		91SUG
116 271.	0	$4s^24p^5(^2P^o_{1/2})10p$				74DUN
110 933.358	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	0		91SUG
111 002.984	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	1.208	91SUG
111 018.8772	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	4		93KAU
111 047.07	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2		91SUG
111 047.1693	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	3		93KAU
111 071.45	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	2		91SUG
111 079.06	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	3		91SUG
111 154.3	1	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	1		91SUG
116 400.5	1	$4s^24p^5(^2P^o_{1/2})9d$	$^2[3/2]^o$	2		97AHM
116 400.5	1	$4s^24p^5(^2P^o_{1/2})9d$	$^2[5/2]^o$	2		97AHM
116 477.6	1	$4s^24p^5(^2P^o_{1/2})9d$	$^2[3/2]^o$	1		79YOS
111 154.40	1	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	2		91SUG
111 170.83	1	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	1		91SUG
116 524.5	1	$4s^24p^5(^2P^o_{1/2})11s$	$^2[1/2]^o$	0		97AHM
116 528.8	1	$4s^24p^5(^2P^o_{1/2})11s$	$^2[1/2]^o$	1		79YOS
111 186.54	0	$4s^24p^5(^2P^o_{3/2})8f$	$^2[3/2]$	1		91SUG

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
111 189.50	0	$4s^24p^5(^2P^o{}_{3/2})8f$	$^2[9/2]$	4		91SUG
111 189.50	0	$4s^24p^5(^2P^o{}_{3/2})8f$	$^2[9/2]$	5		91SUG
111 192.66	0	$4s^24p^5(^2P^o{}_{3/2})8f$	$^2[5/2]$	3		91SUG
111 192.99	0	$4s^24p^5(^2P^o{}_{3/2})8f$	$^2[5/2]$	2		91SUG
116 572.	0	$4s^24p^5(^2P^o{}_{1/2})8f$				91SUG
111 333.8	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[1/2]$	1		93ITO
111 348.9	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[5/2]$	3		93BOU
111 348.9	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[5/2]$	2		93BOU
111 359.8	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[3/2]$	1		93BOU
111 363.5	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[3/2]$	2		93BOU
111 390.2	0	$4s^24p^5(^2P^o{}_{3/2})11p$	$^2[1/2]$	0		93ITO
116 731.	0	$4s^24p^5(^2P^o{}_{1/2})11p$				74DUN
111 412.44	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[1/2]^o$	0		91SUG
111 428.57	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[1/2]^o$	1		91SUG
111 433.146	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[7/2]^o$	4		91SUG
111 445.39	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[3/2]^o$	2		91SUG
111 450.43	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[7/2]^o$	3		91SUG
111 467.35	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[5/2]^o$	2		91SUG
111 474.08	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[5/2]^o$	3		91SUG
111 520.2	1	$4s^24p^5(^2P^o{}_{3/2})10d$	$^2[3/2]^o$	1		91SUG
116 810.5	1	$4s^24p^5(^2P^o{}_{1/2})10d$	$^2[3/2]^o$	2		97AHM
116 810.5	1	$4s^24p^5(^2P^o{}_{1/2})10d$	$^2[5/2]^o$	2		97AHM
116 865.1	1	$4s^24p^5(^2P^o{}_{1/2})10d$	$^2[3/2]^o$	1		79YOS
111 527.83	1	$4s^24p^5(^2P^o{}_{3/2})12s$	$^2[3/2]^o$	2		91SUG
111 536.63	1	$4s^24p^5(^2P^o{}_{3/2})12s$	$^2[3/2]^o$	1		91SUG
116 898.0	1	$4s^24p^5(^2P^o{}_{1/2})12s$	$^2[1/2]^o$	0		97AHM
116 901.1	1	$4s^24p^5(^2P^o{}_{1/2})12s$	$^2[1/2]^o$	1		79YOS
111 550.5	0	$4s^24p^5(^2P^o{}_{3/2})9f$	$^2[3/2]$	1		91SUG
111 552.37	0	$4s^24p^5(^2P^o{}_{3/2})9f$	$^2[9/2]$	5		91SUG
111 555.77	0	$4s^24p^5(^2P^o{}_{3/2})9f$	$^2[5/2]$	3		91SUG
116 932.	0	$4s^24p^5(^2P^o{}_{1/2})9f$				91SUG
111 653.5	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[1/2]$	1		93ITO
111 665.6	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[5/2]$	3		93BOU
111 665.6	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[5/2]$	2		93BOU
111 673.3	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[3/2]$	1		93BOU
111 675.9	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[3/2]$	2		93BOU
111 694.3	0	$4s^24p^5(^2P^o{}_{3/2})12p$	$^2[1/2]$	0		93ITO
117 047.	0	$4s^24p^5(^2P^o{}_{1/2})12p$				74DUN
111 708.32	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[1/2]^o$	0		91SUG
111 718.16	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[1/2]^o$	1		91SUG
111 725.213	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[7/2]^o$	4		91SUG
111 731.14	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[3/2]^o$	2		91SUG
111 736.86	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[7/2]^o$	3		91SUG
111 748.5	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[5/2]^o$	2		97AHM
111 754.35	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[5/2]^o$	3		91SUG
111 786.1	1	$4s^24p^5(^2P^o{}_{3/2})11d$	$^2[3/2]^o$	1		91SUG
117 101.4	1	$4s^24p^5(^2P^o{}_{1/2})11d$	$^2[3/2]^o$	2		97AHM
117 101.4	1	$4s^24p^5(^2P^o{}_{1/2})11d$	$^2[5/2]^o$	2		97AHM
117 140.5	1	$4s^24p^5(^2P^o{}_{1/2})11d$	$^2[3/2]^o$	1		79YOS
111 793.1	1	$4s^24p^5(^2P^o{}_{3/2})13s$	$^2[3/2]^o$	2		97AHM
111 799.9	1	$4s^24p^5(^2P^o{}_{3/2})13s$	$^2[3/2]^o$	1		91SUG
117 166.6	1	$4s^24p^5(^2P^o{}_{1/2})13s$	$^2[1/2]^o$	1		79YOS

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
111 810.157	0	$4s^24p^5(^2P^o_{3/2})10f$	$^2[3/2]$	1		93BOU
111 810.318	0	$4s^24p^5(^2P^o_{3/2})10f$	$^2[3/2]$	2		93BOU
111 811.5	0	$4s^24p^5(^2P^o_{3/2})10f$	$^2[9/2]$	5		91SUG
111 813.4	0	$4s^24p^5(^2P^o_{3/2})10f$	$^2[5/2]$	3		91SUG
111 814.039	0	$4s^24p^5(^2P^o_{3/2})10f$	$^2[5/2]$	2		93BOU
117 192.	0	$4s^24p^5(^2P^o_{1/2})10f$				91SUG
111 885.3	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[1/2]$	1		93BOU
111 894.8	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[5/2]$	2		93ITO
111 894.9	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[5/2]$	3		93BOU
111 900.2	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[3/2]$	1		93BOU
111 902.3	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[3/2]$	2		93BOU
111 915.6	0	$4s^24p^5(^2P^o_{3/2})13p$	$^2[1/2]$	0		93ITO
117 274.	0	$4s^24p^5(^2P^o_{1/2})13p$				74DUN
111 925.5	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[1/2]^o$	0		97AHM
111 931.9	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[1/2]^o$	1		97AHM
111 938.71	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[7/2]^o$	4		91SUG
111 941.7	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[3/2]^o$	2		97AHM
111 946.91	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[7/2]^o$	3		91SUG
111 956.0	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[5/2]^o$	2		97AHM
111 960.3	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[5/2]^o$	3		97AHM
111 983.3	1	$4s^24p^5(^2P^o_{3/2})12d$	$^2[3/2]^o$	1		91SUG
117 342.3	1	$4s^24p^5(^2P^o_{1/2})12d$	$^2[3/2]^o$	1		79YOS
111 990.0	1	$4s^24p^5(^2P^o_{3/2})14s$	$^2[3/2]^o$	2		97AHM
111 994.5	1	$4s^24p^5(^2P^o_{3/2})14s$	$^2[3/2]^o$	1		91SUG
117 360.0	1	$4s^24p^5(^2P^o_{1/2})14s$	$^2[1/2]^o$	0		97AHM
117 362.1	1	$4s^24p^5(^2P^o_{1/2})14s$	$^2[1/2]^o$	1		79YOS
112 002.284	0	$4s^24p^5(^2P^o_{3/2})11f$	$^2[3/2]$	1		93BOU
112 002.419	0	$4s^24p^5(^2P^o_{3/2})11f$	$^2[3/2]$	2		93BOU
112 005.177	0	$4s^24p^5(^2P^o_{3/2})11f$	$^2[5/2]$	2		93BOU
117 381.	0	$4s^24p^5(^2P^o_{1/2})11f$				91SUG
112 058.5	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[1/2]$	1		93BOU
112 066.2	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[5/2]$	2		93ITO
112 066.3	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[5/2]$	3		93BOU
112 070.7	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[3/2]$	1		93BOU
112 071.9	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[3/2]$	2		93BOU
112 081.7	0	$4s^24p^5(^2P^o_{3/2})14p$	$^2[1/2]$	0		93ITO
117 440.	0	$4s^24p^5(^2P^o_{1/2})14p$				74DUN
112 089.4	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[1/2]^o$	0		97AHM
112 093.8	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[1/2]^o$	1		97AHM
112 099.75	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[7/2]^o$	4		91SUG
112 101.2	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[3/2]^o$	2		97AHM
112 105.5	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[7/2]^o$	3		97AHM
112 112.8	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[5/2]^o$	2		97AHM
112 116.3	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[5/2]^o$	3		97AHM
112 133.2	1	$4s^24p^5(^2P^o_{3/2})13d$	$^2[3/2]^o$	1		91SUG
117 495.2	1	$4s^24p^5(^2P^o_{1/2})13d$	$^2[3/2]^o$	1		79YOS
112 139.4	1	$4s^24p^5(^2P^o_{3/2})15s$	$^2[3/2]^o$	2		97AHM
112 142.4	1	$4s^24p^5(^2P^o_{3/2})15s$	$^2[3/2]^o$	1		91SUG
117 509.3	1	$4s^24p^5(^2P^o_{1/2})15s$	$^2[1/2]^o$	0		97AHM
117 510.5	1	$4s^24p^5(^2P^o_{1/2})15s$	$^2[1/2]^o$	1		79YOS
112 148.308	0	$4s^24p^5(^2P^o_{3/2})12f$	$^2[3/2]$	1		93BOU
112 148.417	0	$4s^24p^5(^2P^o_{3/2})12f$	$^2[3/2]$	2		93BOU

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
112 150.545	0	$4s^24p^5(^2P^o{}_{3/2})12f$	$^2[5/2]$	2		93BOU
117 536.	0	$4s^24p^5(^2P^o{}_{1/2})12f$				91SUG
112 191.3	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[1/2]$	1		93BOU
112 197.6	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[5/2]$	2		93ITO
112 197.92	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[5/2]$	3		91SUG
112 200.9	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[3/2]$	1		93BOU
112 202.2	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[3/2]$	2		93BOU
112 209.4	0	$4s^24p^5(^2P^o{}_{3/2})15p$	$^2[1/2]$	0		93ITO
117 575.	0	$4s^24p^5(^2P^o{}_{1/2})15p$				74DUN
112 215.8	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[1/2]^o$	0		97AHM
112 219.0	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[1/2]^o$	1		97AHM
112 224.0	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[7/2]^o$	4		97AHM
112 224.7	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[3/2]^o$	2		97AHM
112 228.2	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[7/2]^o$	3		97AHM
112 233.7	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[5/2]^o$	2		97AHM
112 236.5	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[5/2]^o$	3		97AHM
112 249.7	1	$4s^24p^5(^2P^o{}_{3/2})14d$	$^2[3/2]^o$	1		91SUG
117 596.8	1	$4s^24p^5(^2P^o{}_{1/2})14d$	$^2[3/2]^o$	2		97AHM
117 596.8	1	$4s^24p^5(^2P^o{}_{1/2})14d$	$^2[5/2]^o$	2		97AHM
117 613.7	1	$4s^24p^5(^2P^o{}_{1/2})14d$	$^2[3/2]^o$	1		79YOS
112 254.7	1	$4s^24p^5(^2P^o{}_{3/2})16s$	$^2[3/2]^o$	2		97AHM
112 257.3	1	$4s^24p^5(^2P^o{}_{3/2})16s$	$^2[3/2]^o$	1		91SUG
117 625.8	1	$4s^24p^5(^2P^o{}_{1/2})16s$	$^2[1/2]^o$	1		79YOS
112 261.874	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[3/2]$	1		93BOU
112 261.959	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[3/2]$	2		93BOU
112 262.64	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[9/2]$	5		91SUG
112 262.64	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[9/2]$	4		91SUG
112 263.649	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[5/2]$	2		93BOU
112 264.36	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[7/2]$	4		91SUG
112 264.36	0	$4s^24p^5(^2P^o{}_{3/2})13f$	$^2[7/2]$	3		91SUG
117 644.	0	$4s^24p^5(^2P^o{}_{1/2})13f$				91SUG
112 294.6	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[1/2]$	1		93BOU
112 300.7	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[5/2]$	2		93ITO
112 301.12	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[5/2]$	3		91SUG
112 303.4	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[3/2]$	1		93BOU
112 304.6	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[3/2]$	2		93BOU
112 309.7	0	$4s^24p^5(^2P^o{}_{3/2})16p$	$^2[1/2]$	0		93ITO
117 677.	0	$4s^24p^5(^2P^o{}_{1/2})16p$				74DUN
112 315.1	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[1/2]^o$	0		97AHM
112 317.4	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[1/2]^o$	1		97AHM
112 321.4	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[7/2]^o$	4		97AHM
112 321.69	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[3/2]^o$	2		91SUG
112 325.11	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[7/2]^o$	3		91SUG
112 329.1	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[5/2]^o$	2		97AHM
112 331.5	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[5/2]^o$	3		97AHM
112 342.0	1	$4s^24p^5(^2P^o{}_{3/2})15d$	$^2[3/2]^o$	1		91SUG
117 694.2	1	$4s^24p^5(^2P^o{}_{1/2})15d$	$^2[3/2]^o$	2		97AHM
117 694.2	1	$4s^24p^5(^2P^o{}_{1/2})15d$	$^2[5/2]^o$	2		97AHM
117 707.4	1	$4s^24p^5(^2P^o{}_{1/2})15d$	$^2[3/2]^o$	1		79YOS
112 346.1	1	$4s^24p^5(^2P^o{}_{3/2})17s$	$^2[3/2]^o$	2		97AHM
112 348.3	1	$4s^24p^5(^2P^o{}_{3/2})17s$	$^2[3/2]^o$	1		91SUG
117 716.9	1	$4s^24p^5(^2P^o{}_{1/2})17s$	$^2[1/2]^o$	0		97AHM
117 717.0	1	$4s^24p^5(^2P^o{}_{1/2})17s$	$^2[1/2]^o$	1		79YOS

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
112 351.922	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[3/2]$	1		93BOU
112 352.003	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[3/2]$	2		93BOU
112 352.58	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[9/2]$	5		91SUG
112 352.58	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[9/2]$	4		91SUG
112 353.323	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[5/2]$	3		93BOU
112 353.382	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[5/2]$	2		93BOU
112 353.96	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[7/2]$	4		91SUG
112 353.96	0	$4s^24p^5(^2P^o_{3/2})14f$	$^2[7/2]$	3		91SUG
117 741.	0	$4s^24p^5(^2P^o_{1/2})14f$				91SUG
112 377.5	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[1/2]$	1		93BOU
112 383.0	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[5/2]$	2		93ITO
112 383.5	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[5/2]$	3		93BOU
112 385.2	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[3/2]$	1		93BOU
112 386.0	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[3/2]$	2		93BOU
112 390.1	0	$4s^24p^5(^2P^o_{3/2})17p$	$^2[1/2]$	0		93ITO
117 762.	0	$4s^24p^5(^2P^o_{1/2})17p$				74DUN
112 394.7	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[1/2]^o$	0		97AHM
112 396.4	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[1/2]^o$	1		97AHM
112 399.81	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[3/2]^o$	2		91SUG
112 399.9	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[7/2]^o$	4		97AHM
112 402.75	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[7/2]^o$	3		91SUG
112 406.1	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[5/2]^o$	2		97AHM
112 408.0	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[5/2]^o$	3		97AHM
112 416.4	1	$4s^24p^5(^2P^o_{3/2})16d$	$^2[3/2]^o$	1		91SUG
117 772.0	1	$4s^24p^5(^2P^o_{1/2})16d$	$^2[3/2]^o$	2		97AHM
117 772.0	1	$4s^24p^5(^2P^o_{1/2})16d$	$^2[5/2]^o$	2		97AHM
117 783.1	1	$4s^24p^5(^2P^o_{1/2})16d$	$^2[3/2]^o$	1		79YOS
112 420.0	1	$4s^24p^5(^2P^o_{3/2})18s$	$^2[3/2]^o$	2		97AHM
112 421.7	1	$4s^24p^5(^2P^o_{3/2})18s$	$^2[3/2]^o$	1		91SUG
117 790.6	1	$4s^24p^5(^2P^o_{1/2})18s$	$^2[1/2]^o$	1		79YOS
117 790.7	1	$4s^24p^5(^2P^o_{1/2})18s$	$^2[1/2]^o$	0		97AHM
112 424.495	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[3/2]$	1		93BOU
112 424.600	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[3/2]$	2		93BOU
112 425.12	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[9/2]$	5		91SUG
112 425.12	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[9/2]$	4		91SUG
112 425.718	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[5/2]$	3		93BOU
112 426.23	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[7/2]$	4		91SUG
112 426.23	0	$4s^24p^5(^2P^o_{3/2})15f$	$^2[7/2]$	3		91SUG
117 800.	0	$4s^24p^5(^2P^o_{1/2})15f$				91SUG
112 443.5	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[1/2]$	1		93BOU
112 449.9	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[5/2]$	2		93ITO
112 450.31	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[5/2]$	3		91SUG
112 451.1	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[3/2]$	1		93BOU
112 452.5	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[3/2]$	2		93BOU
112 455.3	0	$4s^24p^5(^2P^o_{3/2})18p$	$^2[1/2]$	0		93ITO
117 826.	0	$4s^24p^5(^2P^o_{1/2})18p$				74DUN
112 459.8	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[1/2]^o$	0		97AHM
112 460.9	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[1/2]^o$	1		97AHM
112 463.48	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[3/2]^o$	2		91SUG
112 463.7	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[7/2]^o$	4		97AHM
112 466.04	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[7/2]^o$	3		91SUG
112 469.0	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[5/2]^o$	2		97AHM
112 470.6	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[5/2]^o$	3		97AHM

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
112 477.2	1	$4s^24p^5(^2P^o_{3/2})17d$	$^2[3/2]^o$	1		91SUG
117 835.0	1	$4s^24p^5(^2P^o_{1/2})17d$	$^2[3/2]^o$	2		97AHM
117 835.0	1	$4s^24p^5(^2P^o_{1/2})17d$	$^2[5/2]^o$	2		97AHM
117 844.4	1	$4s^24p^5(^2P^o_{1/2})17d$	$^2[3/2]^o$	1		79YOS
112 480.3	1	$4s^24p^5(^2P^o_{3/2})19s$	$^2[3/2]^o$	2		97AHM
112 481.6	1	$4s^24p^5(^2P^o_{3/2})19s$	$^2[3/2]^o$	1		91SUG
117 850.6	1	$4s^24p^5(^2P^o_{1/2})19s$	$^2[1/2]^o$	1		79YOS
112 483.184	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[3/2]$	1		93BOU
112 483.950	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[3/2]$	2		93BOU
112 484.46	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[9/2]$	5		91SUG
112 484.46	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[9/2]$	4		91SUG
112 484.943	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[5/2]$	3		93BOU
112 484.982	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[5/2]$	2		93BOU
112 485.36	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[7/2]$	4		91SUG
112 485.36	0	$4s^24p^5(^2P^o_{3/2})16f$	$^2[7/2]$	3		91SUG
117 868.	0	$4s^24p^5(^2P^o_{1/2})16f$				91SUG
112 505.2	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[5/2]$	2		93BOU
112 505.30	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[5/2]$	3		91SUG
112 507.1	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[3/2]$	2		93BOU
112 509.1	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[1/2]$	0		90AUD
112 509.3	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[3/2]$	1		93BOU
112 529.9	0	$4s^24p^5(^2P^o_{3/2})19p$	$^2[1/2]$	1		93BOU
117 876.	0	$4s^24p^5(^2P^o_{1/2})19p$				74DUN
112 512.9	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[1/2]^o$	0		97AHM
112 513.9	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[1/2]^o$	1		97AHM
112 516.02	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[3/2]^o$	2		91SUG
112 516.2	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[7/2]^o$	4		97AHM
112 518.24	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[7/2]^o$	3		91SUG
112 520.6	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[5/2]^o$	2		97AHM
112 522.0	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[5/2]^o$	3		97AHM
112 527.5	1	$4s^24p^5(^2P^o_{3/2})18d$	$^2[3/2]^o$	1		91SUG
117 887.5	1	$4s^24p^5(^2P^o_{1/2})18d$	$^2[3/2]^o$	2		97AHM
117 887.5	1	$4s^24p^5(^2P^o_{1/2})18d$	$^2[5/2]^o$	2		97AHM
117 895.5	1	$4s^24p^5(^2P^o_{1/2})18d$	$^2[3/2]^o$	1		79YOS
112 530.1	1	$4s^24p^5(^2P^o_{3/2})20s$	$^2[3/2]^o$	2		97AHM
112 531.2	1	$4s^24p^5(^2P^o_{3/2})20s$	$^2[3/2]^o$	1		91SUG
117 900.5	1	$4s^24p^5(^2P^o_{1/2})20s$	$^2[1/2]^o$	1		79YOS
112 532.672	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[3/2]$	2		93BOU
112 533.578	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[3/2]$	1		93BOU
112 533.606	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[9/2]$	4		93BOU
112 533.606	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[9/2]$	5		93BOU
112 534.025	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[5/2]$	3		93BOU
112 534.052	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[5/2]$	2		93BOU
112 534.375	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[7/2]$	3		93BOU
112 534.375	0	$4s^24p^5(^2P^o_{3/2})17f$	$^2[7/2]$	4		93BOU
117 917.	0	$4s^24p^5(^2P^o_{1/2})17f$				91SUG
112 551.2	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[5/2]$	3		93BOU
112 551.2	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[5/2]$	2		93BOU
112 552.3	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[3/2]$	1		93BOU
112 555.1	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[1/2]$	0		90AUD
112 555.2	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[3/2]$	2		93BOU
112 558.1	0	$4s^24p^5(^2P^o_{3/2})20p$	$^2[1/2]$	1		93BOU
117 921.	0	$4s^24p^5(^2P^o_{1/2})20p$				74DUN

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
112 557.7	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[1/2]^o$	0		97AHM
112 558.5	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[1/2]^o$	1		97AHM
112 559.90	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[3/2]^o$	2		91SUG
112 560.5	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[7/2]^o$	4		97AHM
112 561.85	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[7/2]^o$	3		91SUG
112 564.1	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[5/2]^o$	2		97AHM
112 565.4	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[5/2]^o$	3		97AHM
112 569.7	1	$4s^24p^5(^2P^o_{3/2})19d$	$^2[3/2]^o$	1		91SUG
117 931.2	1	$4s^24p^5(^2P^o_{1/2})19d$	$^2[3/2]^o$	2		97AHM
117 931.2	1	$4s^24p^5(^2P^o_{1/2})19d$	$^2[5/2]^o$	2		97AHM
117 937.9	1	$4s^24p^5(^2P^o_{1/2})19d$	$^2[3/2]^o$	1		79YOS
112 574.627	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[3/2]$	1		93BOU
112 574.796	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[9/2]$	4		93BOU
112 574.796	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[9/2]$	5		93BOU
112 574.823	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[3/2]$	2		93BOU
112 575.148	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[5/2]$	3		93BOU
112 575.182	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[5/2]$	2		93BOU
112 575.435	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[7/2]$	3		93BOU
112 575.435	0	$4s^24p^5(^2P^o_{3/2})18f$	$^2[7/2]$	4		93BOU
117 948.	0	$4s^24p^5(^2P^o_{1/2})18f$				91SUG
112 594.7	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[1/2]^o$	0		97AHM
112 595.4	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[1/2]^o$	1		97AHM
112 596.92	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[3/2]^o$	2		91SUG
112 597.1	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[7/2]^o$	4		97AHM
112 598.65	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[7/2]^o$	3		91SUG
112 600.2	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[5/2]^o$	2		97AHM
112 601.2	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[5/2]^o$	3		97AHM
112 605.2	1	$4s^24p^5(^2P^o_{3/2})20d$	$^2[3/2]^o$	1		91SUG
117 973.8	1	$4s^24p^5(^2P^o_{1/2})20d$	$^2[3/2]^o$	1		79YOS
112 609.477	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[3/2]$	1		93BOU
112 609.558	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[3/2]$	2		93BOU
112 609.651	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[9/2]$	4		93BOU
112 609.651	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[9/2]$	5		93BOU
112 609.949	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[5/2]$	3		93BOU
112 609.974	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[5/2]$	2		93BOU
112 610.190	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[7/2]$	3		93BOU
112 610.190	0	$4s^24p^5(^2P^o_{3/2})19f$	$^2[7/2]$	4		93BOU
112 639.242	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[3/2]$	1		93BOU
112 639.295	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[3/2]$	2		93BOU
112 639.406	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[9/2]$	4		93BOU
112 639.406	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[9/2]$	5		93BOU
112 639.656	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[5/2]$	3		93BOU
112 639.682	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[5/2]$	2		93BOU
112 639.870	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[7/2]$	3		93BOU
112 639.870	0	$4s^24p^5(^2P^o_{3/2})20f$	$^2[7/2]$	4		93BOU
201 005	1	$4s4p^65p$	$(1/2,1/2)^o$	1		91SUG
201 584	1	$4s4p^65p$	$(1/2,3/2)^o$	1		91SUG
212 098.	1	$4s4p^66p$	$(1/2,1/2)^o$	1		91SUG
212 211.	1	$4s4p^66p$	$(1/2,3/2)^o$	1		91SUG
216 118.	1	$4s4p^67p$	$(1/2,3/2)^o$	1		91SUG
218 012.	1	$4s4p^68p$	$(1/2,3/2)^o$	1		91SUG
219 241.	1	$4s4p^69p$	$(1/2,3/2)^o$	1		91SUG
219 911.	1	$4s4p^610p$	$(1/2,3/2)^o$	1		91SUG

TABLE 4. Energy levels of Kr I—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Source of level
220 395.	1	$4s4p^6 11p$	$(1/2,3/2)^o$	1		91SUG
220 677.	1	$4s4p^6 12p$	$(1/2,3/2)^o$	1		91SUG
220 907.	1	$4s4p^6 13p$	$(1/2,3/2)^o$	1		91SUG
221 073.	1	$4s4p^6 14p$	$(1/2,3/2)^o$	1		91SUG
221 205.	1	$4s4p^6 15p$	$(1/2,3/2)^o$	1		91SUG
221 307.	1	$4s4p^6 16p$	$(1/2,3/2)^o$	1		91SUG
221 391.	1	$4s4p^6 17p$	$(1/2,3/2)^o$	1		91SUG
221 455.	1	$4s4p^6 18p$	$(1/2,3/2)^o$	1		91SUG
221 508.	1	$4s4p^6 19p$	$(1/2,3/2)^o$	1		91SUG
735 940	1	$3d^9 4s^2 4p^6 5p$	$(5/2,3/2)^o$	1		91SUG
745 770	1	$3d^9 4s^2 4p^6 5p$	$(3/2,1/2)^o$	1		91SUG
746 830	1	$3d^9 4s^2 4p^6 6p$	$(5/2,3/2)^o$	1		91SUG
756 890	1	$3d^9 4s^2 4p^6 6p$	$(3/2,1/2)^o$	1		91SUG
750 920	1	$3d^9 4s^2 4p^6 7p$	$(5/2,3/2)^o$	1		91SUG
760 860	1	$3d^9 4s^2 4p^6 7p$	$(3/2,1/2)^o$	1		91SUG
752 900	1	$3d^9 4s^2 4p^6 8p$	$(5/2,3/2)^o$	1		91SUG
762 830	1	$3d^9 4s^2 4p^6 8p$	$(3/2,1/2)^o$	1		91SUG

TABLE 5. Sources of Kr I lines

Source	Number of classifications	Light source	Wavelength range (Å)	Uncertainty (Å)
64COD	8	absorption of synchrotron radiation	131–136	0.1
72COD	17	absorption of synchrotron radiation	451–456	0.03
79YOS	81	absorption of He discharge for $\lambda < 1070$ Å absorption of Ar discharge for $\lambda > 1070$ Å	848–1236	0.02 for 2 d.p. lines 0.002 for 3 d.p. lines
02BRA	2	isotope-resolved laser spectroscopy from ground state (intensities taken from 79YOS)	963 and 1001	0.000012–0.000015
29GRE	5	Geissler tubes	3183–4583	0.03
31MEG	200	Geissler tubes	3185–9362	0.1 for 1 d.p. lines 0.02 for 2 d.p. lines $\lambda < 7750$ Å 0.05 for 2 d.p. lines $\lambda > 7750$ Å 0.005 for 3 d.p. lines
38HUM	23	Geissler tubes (intensities taken from 31MEG)	3425–4813	0.0006
36JAC	12	discharge tube (used his correction for pressure shifts) (intensities taken from 31MEG)	3496–4320	0.0001–0.0003
90AUD	25	laser spectroscopy	3727–3753	0.03
93KAU	107	electrodeless discharge lamp maintained in a bath of nitrogen at its triple point (intensities taken from 31MEG)	4263–9752	0.0001–0.0005
32GRE	15	Geissler tubes	5048–8593	0.04
87WAD	8	optogalvanic spectroscopy	5800–5957	1.0
32RAS	13	Geissler tubes	5432–8611	0.1
34MEG	8	Geissler tubes (intensities taken from 31MEG)	7224–8764	0.002
33MEG	127	Geissler tubes	7712–10 374	0.2 for 1 d.p. lines 0.03 for 2 d.p. lines $\lambda < 9200$ Å 0.1 for 2 d.p. lines $\lambda > 9200$ Å
35MEG	21	Geissler tubes	10 459–11 656	0.1 for 1 d.p. lines 0.04 for 2 d.p. lines
67HER	73	hollow cathode lamp	10 593–25 856	0.03
00MIS	27	electrodeless discharge lamps	11 258–18 696	0.004–0.03
61HUM	20	electrodeless discharge lamps (intensities taken from 67HER)	11 819–21 909	0.001

TABLE 5. Sources of Kr I lines—Continued

Source	Number of classifications	Light source	Wavelength range (Å)	Uncertainty (Å)
52HUM	17	Geissler tubes	12 825–18 788	0.3
49SIT	6	pulsed discharge lamp	12 915–20 425	0.7
64FAU	22	maser	26 260–70 580	10.0
67AND	1	pulsed discharge tube	28 621	3.0
67HUM	22	electrodeless discharge lamps	39 295–40 696	1.0

TABLE 6. Spectral lines of Kr I

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
131.09	762 835		$4s^24p^6$	^1S	0	—	$3d^94s^24p^68p$	$(3/2,1/2)^o$	1	0.1	64COD
131.43	760 861		$4s^24p^6$	^1S	0	—	$3d^94s^24p^67p$	$(3/2,1/2)^o$	1	0.1	64COD
132.12	756 888		$4s^24p^6$	^1S	0	—	$3d^94s^24p^66p$	$(3/2,1/2)^o$	1	0.1	64COD
132.82	752 899		$4s^24p^6$	^1S	0	—	$3d^94s^24p^68p$	$(5/2,3/2)^o$	1	0.1	64COD
133.17	750 920		$4s^24p^6$	^1S	0	—	$3d^94s^24p^67p$	$(5/2,3/2)^o$	1	0.1	64COD
133.90	746 826		$4s^24p^6$	^1S	0	—	$3d^94s^24p^66p$	$(5/2,3/2)^o$	1	0.1	64COD
134.09	745 768		$4s^24p^6$	^1S	0	—	$3d^94s^24p^65p$	$(3/2,1/2)^o$	1	0.1	64COD
135.88	735 943		$4s^24p^6$	^1S	0	—	$3d^94s^24p^65p$	$(5/2,3/2)^o$	1	0.1	64COD
451.45	221 508.		$4s^24p^6$	^1S	0	—	$4s4p^619p$	$(1/2,3/2)^o$	1	0.03	72COD
451.56	221 455.		$4s^24p^6$	^1S	0	—	$4s4p^618p$	$(1/2,3/2)^o$	1	0.03	72COD
451.69	221 391.		$4s^24p^6$	^1S	0	—	$4s4p^617p$	$(1/2,3/2)^o$	1	0.03	72COD
451.86	221 307.		$4s^24p^6$	^1S	0	—	$4s4p^616p$	$(1/2,3/2)^o$	1	0.03	72COD
452.07	221 205.		$4s^24p^6$	^1S	0	—	$4s4p^615p$	$(1/2,3/2)^o$	1	0.03	72COD
452.34	221 073.		$4s^24p^6$	^1S	0	—	$4s4p^614p$	$(1/2,3/2)^o$	1	0.03	72COD
452.68	220 907.		$4s^24p^6$	^1S	0	—	$4s4p^613p$	$(1/2,3/2)^o$	1	0.03	72COD
453.15	220 677.		$4s^24p^6$	^1S	0	—	$4s4p^612p$	$(1/2,3/2)^o$	1	0.03	72COD
453.73	220 395.		$4s^24p^6$	^1S	0	—	$4s4p^611p$	$(1/2,3/2)^o$	1	0.03	72COD
454.73	219 911.		$4s^24p^6$	^1S	0	—	$4s4p^610p$	$(1/2,3/2)^o$	1	0.03	72COD
456.12	219 241.		$4s^24p^6$	^1S	0	—	$4s4p^69p$	$(1/2,3/2)^o$	1	0.03	72COD
458.69	218 012.		$4s^24p^6$	^1S	0	—	$4s4p^68p$	$(1/2,3/2)^o$	1	0.03	72COD
462.71	216 118.		$4s^24p^6$	^1S	0	—	$4s4p^67p$	$(1/2,3/2)^o$	1	0.03	72COD
471.23	212 211.		$4s^24p^6$	^1S	0	—	$4s4p^66p$	$(1/2,3/2)^o$	1	0.03	72COD
471.48	212 098.		$4s^24p^6$	^1S	0	—	$4s4p^66p$	$(1/2,1/2)^o$	1	0.03	72COD
496.07	201 584		$4s^24p^6$	^1S	0	—	$4s4p^65p$	$(1/2,3/2)^o$	1	0.05	72COD
497.50	201 005		$4s^24p^6$	^1S	0	—	$4s4p^65p$	$(1/2,1/2)^o$	1	0.05	72COD
847.646	117 973.8		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})20d$	$^2[3/2]^o$	1	0.002	79YOS
847.903	117 938.0		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})19d$	$^2[3/2]^o$	1	0.002	79YOS
848.173	117 900.5	5	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})20s$	$^2[1/2]^o$	1	0.002	79YOS
848.209	117 895.5		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})18d$	$^2[3/2]^o$	1	0.002	79YOS
848.532	117 850.6	7	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})19s$	$^2[1/2]^o$	1	0.002	79YOS
848.577	117 844.3		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})17d$	$^2[3/2]^o$	1	0.002	79YOS
848.964	117 790.6	8	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})18s$	$^2[1/2]^o$	1	0.002	79YOS
849.018	117 783.1		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})16d$	$^2[3/2]^o$	1	0.002	79YOS
849.495	117 717.0	9	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})17s$	$^2[1/2]^o$	1	0.002	79YOS
849.564	117 707.4		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})15d$	$^2[3/2]^o$	1	0.002	79YOS
850.154	117 625.7	10	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})16s$	$^2[1/2]^o$	1	0.002	79YOS
850.241	117 613.7		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})14d$	$^2[3/2]^o$	1	0.002	79YOS
850.988	117 510.5	13	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})15s$	$^2[1/2]^o$	1	0.002	79YOS
851.098	117 495.3		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})13d$	$^2[3/2]^o$	1	0.002	79YOS
852.064	117 362.1	18	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})14s$	$^2[1/2]^o$	1	0.002	79YOS
852.208	117 342.2		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})12d$	$^2[3/2]^o$	1	0.002	79YOS
853.486	117 166.5	20	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})13s$	$^2[1/2]^o$	1	0.002	79YOS
853.676	117 140.5		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})11d$	$^2[3/2]^o$	1	0.002	79YOS

TABLE 6. Spectral lines of Kr I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
855.424	116 901.1	24	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})12s$	$^2[1/2]^o$	1	0.002	79YOS
855.687	116 865.2		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})10d$	$^2[3/2]^o$	1	0.002	79YOS
858.157	116 528.8	27	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})11s$	$^2[1/2]^o$	1	0.002	79YOS
858.534	116 477.6		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})9d$	$^2[3/2]^o$	1	0.002	79YOS
862.198	115 982.6	35	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})10s$	$^2[1/2]^o$	1	0.002	79YOS
862.77	115 906.		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})8d$	$^2[3/2]^o$	1	0.02	79YOS
868.543	115 135.3	44	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})9s$	$^2[1/2]^o$	1	0.002	79YOS
869.42	115 019.		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	1	0.02	79YOS
879.388	113 715.4	46	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})8s$	$^2[1/2]^o$	1	0.002	79YOS
880.82	113 531.		$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})6d$	$^2[3/2]^o$	1	0.02	79YOS
888.058	112 605.3	14	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})20d$	$^2[3/2]^o$	1	0.002	79YOS
888.134	112 595.6	1	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})20d$	$^2[1/2]^o$	1	0.002	79YOS
888.339	112 569.6	15	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})19d$	$^2[3/2]^o$	1	0.002	79YOS
888.428	112 558.4	2	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})19d$	$^2[1/2]^o$	1	0.002	79YOS
888.642	112 531.3	10	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})20s$	$^2[3/2]^o$	1	0.002	79YOS
888.672	112 527.5	15	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})18d$	$^2[3/2]^o$	1	0.002	79YOS
888.777	112 514.2	2	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})18d$	$^2[1/2]^o$	1	0.002	79YOS
889.034	112 481.6	13	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})19s$	$^2[3/2]^o$	1	0.002	79YOS
889.069	112 477.2	15	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})17d$	$^2[3/2]^o$	1	0.002	79YOS
889.198	112 460.9	3	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})17d$	$^2[1/2]^o$	1	0.002	79YOS
889.508	112 421.7	12	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})18s$	$^2[3/2]^o$	1	0.002	79YOS
889.550	112 416.4	16	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})16d$	$^2[3/2]^o$	1	0.002	79YOS
889.707	112 396.6	3	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})16d$	$^2[1/2]^o$	1	0.002	79YOS
890.089	112 348.3	14	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})17s$	$^2[3/2]^o$	1	0.002	79YOS
890.139	112 342.0	16	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})15d$	$^2[3/2]^o$	1	0.002	79YOS
890.333	112 317.5	4	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})15d$	$^2[1/2]^o$	1	0.002	79YOS
890.811	112 257.3	14	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})16s$	$^2[3/2]^o$	1	0.002	79YOS
890.871	112 249.7	18	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})14d$	$^2[3/2]^o$	1	0.002	79YOS
891.115	112 219.0	7	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})14d$	$^2[1/2]^o$	1	0.002	79YOS
891.723	112 142.4	16	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})15s$	$^2[3/2]^o$	1	0.002	79YOS
891.797	112 133.1	18	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})13d$	$^2[3/2]^o$	1	0.002	79YOS
892.108	112 094.1	6	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})13d$	$^2[1/2]^o$	1	0.002	79YOS
892.901	111 994.5	17	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})14s$	$^2[3/2]^o$	1	0.002	79YOS
892.990	111 983.3	18	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})12d$	$^2[3/2]^o$	1	0.002	79YOS
893.397	111 932.3	6	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})12d$	$^2[1/2]^o$	1	0.002	79YOS
894.455	111 799.9	21	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})13s$	$^2[3/2]^o$	1	0.002	79YOS
894.565	111 786.2	20	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[3/2]^o$	1	0.002	79YOS
895.108	111 718.4	11	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[1/2]^o$	1	0.002	79YOS
896.568	111 536.4	21	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})12s$	$^2[3/2]^o$	1	0.002	79YOS
896.698	111 520.3	21	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[3/2]^o$	1	0.002	79YOS
897.435	111 428.7	13	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[1/2]^o$	1	0.002	79YOS
899.515	111 171.0	24	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	1	0.002	79YOS
899.651	111 154.2	24	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	1	0.002	79YOS
900.313	111 072.5	20	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})7s$	$^2[1/2]^o$	1	0.002	79YOS
900.876	111 003.1	22	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	0.002	79YOS
903.071	110 733.3	28	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	1	0.002	79YOS
904.004	110 619.0	14	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.002	79YOS
904.862	110 514.1	7	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1	0.002	79YOS
906.697	110 290.4	20	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.002	79YOS
910.918	109 779.4	25	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.002	79YOS
911.670	109 688.8	24	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1	0.002	79YOS
914.554	109 342.9	0	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.002	79YOS
922.738	108 373.1	23	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.002	79YOS
923.712	108 258.9	25	$4s^24p^6$	^1S	0	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.002	79YOS

TABLE 6. Spectral lines of Kr I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification: Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
928.710	107 676.2	13	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.002	79YOS
945.441	105 770.7	37	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.002	79YOS
946.536	105 648.4	34	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.002	79YOS
951.055	105 146.4	21	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.002	79YOS
953.403	104 887.4	25	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.002	79YOS
963.374500	103 801.7926	19	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.000012	02BRA
1001.060639	99 894.0485	44	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	0.000015	02BRA
1003.550	99 646.256	31	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.002	79YOS
1030.022	97 085.305	12	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	0.002	79YOS
1164.867	85 846.710	71	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	0.002	79YOS
1235.838	80 916.754	100	$4s^24p^6$	^{1}S	0	—	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	0.002	79YOS

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification: Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
3182.95	31 408.3	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	3	0.03	29GRE
3184.53	31 392.73	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})11p$	$^2[3/2]$	2	0.02	31MEG
3186.01	31 378.15	1*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})11p$	$^2[5/2]$	3	0.02	31MEG
3186.01	31 378.15	1 *	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})11p$	$^2[5/2]$	2	0.02	31MEG
3230.68	30 944.30	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	2	0.02	31MEG
3232.80	30 924.01	2*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[5/2]$	3	0.02	31MEG
3232.80	30 924.01	2*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[5/2]$	2	0.02	31MEG
3257.10	30 693.31	1*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	2	0.02	31MEG
3257.10	30 693.31	1*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	3	0.02	31MEG
3258.00	30 684.83	1 h*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2	0.02	31MEG
3258.00	30 684.83	1 h*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
3280.59	30 473.54	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})11p$	$^2[1/2]$	0	0.02	31MEG
3302.54	30 271.01	10	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	2	0.02	31MEG
3303.31	30 264.0	0	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	1	0.03	29GRE
3306.17	30 237.77	7*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[5/2]$	2	0.02	31MEG
3306.17	30 237.77	7*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[5/2]$	3	0.02	31MEG
3328.00	30 039.44	2–	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[1/2]$	0	0.02	31MEG
3332.47	29 999.14	1–	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	2	0.02	31MEG
3332.98	29 994.6	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	1	0.03	29GRE
3337.17	29 956.89	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[1/2]$	1	0.02	31MEG
3345.73	29 880.25	4*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.02	31MEG
3345.73	29 880.25	4*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3	0.02	31MEG
3347.50	29 864.45	2*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.02	31MEG
3347.50	29 864.45	2*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.02	31MEG
3361.74	29 737.96	2 *	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2	0.02	31MEG
3361.74	29 737.96	2 *	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
3401.40	29 391.22	5	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	0	0.02	31MEG
3408.97	29 325.96	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	2	0.02	31MEG
3409.89	29 318.05	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	1	0.02	31MEG
3412.80	29 293.05	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[5/2]$	2	0.02	31MEG
3424.9433	29 189.194	15	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.0006	38HUM
3426.27	29 177.89	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.02	31MEG
3431.45	29 133.85	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	2	0.02	31MEG
3431.7217	29 131.540	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	3	0.0006	38HUM
3434.1423	29 111.007	8	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	0.0006	38HUM
3454.90	28 936.11	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.02	31MEG
3456.87	28 919.62	3*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.02	31MEG
3456.87	28 919.62	3*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.02	31MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3495.9897	28 596.021	10	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2	0.0003	36JAC
3502.5537	28 542.432	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.0006	38HUM
3503.8981	28 531.481	15	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.0006	38HUM
3506.66	28 509.01	3	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.02	31MEG
3507.84	28 499.42	3	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.02	31MEG
3511.8963	28 466.503	4	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.0006	38HUM
3522.6747	28 379.406	15	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	0	0.0006	38HUM
3539.5416	28 244.175	5	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.0006	38HUM
3540.9538	28 232.911	5	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.0006	38HUM
3546.46	28 189.08	3	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	2	0.02	31MEG
3549.44	28 165.41	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	0.02	31MEG
3615.4749	27 650.9981	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2	0.0002	36JAC
3622.53	27 597.15	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.02	31MEG
3623.84	27 587.17	1	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.02	31MEG
3626.91	27 563.82	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.02	31MEG
3628.1571	27 554.347	10	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.0003	36JAC
3632.4896	27 521.483	4	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.0006	38HUM
3665.3254	27 274.9388	80	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.0002	36JAC
3668.7365	27 249.580	10	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.0003	36JAC
3679.5609	27 169.420	100*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3	0.0006	38HUM
3679.6111	27 169.050	100*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.0006	38HUM
3698.0452	27 033.620	6	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.0006	38HUM
3727.28	26 821.6		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})7p$	$^2[1/2]$	0	0.03	90AUD
3731.320	26 792.5	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20f$	$^2[5/2]$	2	0.03	90AUD
3731.320	26 792.5	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20f$	$^2[3/2]$	2	0.03	90AUD
3731.320	26 792.5	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20f$	$^2[3/2]$	1	0.03	90AUD
3735.447	26 762.9	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19f$	$^2[5/2]$	2	0.03	90AUD
3735.447	26 762.9	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19f$	$^2[3/2]$	2	0.03	90AUD
3735.447	26 762.9	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19f$	$^2[3/2]$	1	0.03	90AUD
3740.276	26 728.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})18f$	$^2[5/2]$	2	0.03	90AUD
3740.276	26 728.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})18f$	$^2[3/2]$	2	0.03	90AUD
3740.276	26 728.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})18f$	$^2[3/2]$	1	0.03	90AUD
3742.650	26 711.4		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20p$	$^2[1/2]$	1	0.03	90AUD
3743.074	26 708.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20p$	$^2[3/2]$	2	0.03	90AUD
3743.074	26 708.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20p$	$^2[1/2]$	0	0.03	90AUD
3743.522	26 705.2	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20p$	$^2[3/2]$	1	0.03	90AUD
3743.522	26 705.2	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})20p$	$^2[5/2]$	2	0.03	90AUD
3744.67	26 697.0		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})7p$	$^2[3/2]$	2	0.03	90AUD
3746.229	26 685.9		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})17f$	$^2[3/2]$	2	0.03	90AUD
3746.632	26 683.1		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19p$	$^2[1/2]$	1	0.03	90AUD
3749.533	26 662.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19p$	$^2[3/2]$	1	0.03	90AUD
3749.533	26 662.4	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19p$	$^2[1/2]$	0	0.03	90AUD
3750.151	26 658.0		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})19p$	$^2[5/2]$	2	0.03	90AUD
3751.08	26 651.4		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})7p$	$^2[1/2]$	1	0.03	90AUD
3752.18	26 643.6		$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})7p$	$^2[3/2]$	1	0.03	90AUD
3753.166	26 636.6	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})16f$	$^2[3/2]$	2	0.03	90AUD
3753.166	26 636.6	*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})16f$	$^2[3/2]$	1	0.03	90AUD
3773.4238	26 493.6050	50	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0	0.0002	36JAC
3796.8835	26 329.914	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.0003	36JAC
3800.5431	26 304.5608	30	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.0002	36JAC
3812.2150	26 224.026	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.0003	36JAC
3837.7028	26 049.865	30*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.0006	38HUM
3837.8152	26 049.1022	30*	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.0002	36JAC
3845.9778	25 993.818	15	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.0006	38HUM

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3846.12	25 992.86	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.02	31MEG
3915.16	25 534.51	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	2	0.02	31MEG
3926.05	25 463.68	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
3945.25	25 339.76	0	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[3/2]$	1	0.03	29GRE
3982.1699	25 104.836	6	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.0006	38HUM
3991.0797	25 048.793	20	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.0006	38HUM
3991.2581	25 047.673	10	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.0006	38HUM
3994.82	25 025.34	3	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[1/2]$	1	0.02	31MEG
4000.72	24 988.44	2	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	1	0.02	31MEG
4028.03	24 819.02	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	2	0.02	31MEG
4029.66	24 808.98	2*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2	0.02	31MEG
4029.66	24 808.98	2*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
4056.57	24 644.41	3	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.02	31MEG
4086.90	24 461.52	2	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	0	0.02	31MEG
4097.84	24 396.21	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	2	0.02	31MEG
4108.43	24 333.33	3	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[1/2]$	1	0.02	31MEG
4164.48	24 005.83	2	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.02	31MEG
4167.28	23 989.71	5 d*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.02	31MEG
4167.28	23 989.71	5 d*	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.02	31MEG
4172.83	23 957.80	3	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.02	31MEG
4184.4726	23 891.141	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	0.0006	38HUM
4263.2856	23 449.4873	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	0	0.0003	93KAU
4273.96943	23 390.8707	1000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.0001	93KAU
4282.96734	23 341.7306	100	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.0001	93KAU
4286.48687	23 322.5657	40	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.0001	93KAU
4288.02	23 314.23	5	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.02	31MEG
4292.64	23 289.14	6	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.02	31MEG
4300.48652	23 246.6436	50	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.0001	93KAU
4302.4455	23 236.059	10	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	0.0006	38HUM
4318.5524	23 149.3973	400	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.0001	36JAC
4319.5795	23 143.8930	1000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	0.0001	36JAC
4351.35969	22 974.8644	100	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	0	0.0001	93KAU
4362.64157	22 915.4520	500	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.0001	93KAU
4376.12159	22 844.8654	800	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0	0.0001	93KAU
4399.96634	22 721.0643	200	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2	0.0001	93KAU
4410.3681	22 667.4781	50	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.0002	93KAU
4412.39	22 657.09	6	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.02	31MEG
4416.8838	22 634.040	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.0006	38HUM
4418.7613	22 624.4232	50	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.0003	93KAU
4425.19007	22 591.5557	100	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.0001	93KAU
4453.91749	22 445.8445	600	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.0001	93KAU
4463.69000	22 396.7038	800	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.0001	93KAU
4502.35427	22 204.3738	600	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.0001	93KAU
4538.06	22 029.67	3	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.02	31MEG
4550.2985	21 970.421	40	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.0006	38HUM
4582.97	21 813.80	4	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.03	29GRE
4636.14	21 563.63	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0	0.02	31MEG
4671.61	21 399.91	10	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.02	31MEG
4677.16	21 374.51	1	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.02	31MEG
4694.84	21 294.02	4	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.02	31MEG
4724.89	21 158.59	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.02	31MEG
4812.6367	20 772.825	40	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.0006	38HUM
4861.84	20 562.60	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[3/2]^o$	2	0.02	31MEG
4864.91	20 549.62	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[1/2]^o$	1	0.02	31MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4867.24	20 539.79	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[1/2]^o$	0	0.02	31MEG
4910.39	20 359.30	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})12s$	$^2[3/2]^o$	2	0.02	31MEG
4930.38	20 276.75	4 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[3/2]^o$	2	0.02	31MEG
4934.48	20 259.90	4 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[1/2]^o$	1	0.02	31MEG
4938.38	20 243.91	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[1/2]^o$	0	0.02	31MEG
4955.27	20 174.90	15	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.02	31MEG
4969.08	20 118.84	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.02	31MEG
4969.36	20 117.70	15	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.02	31MEG
5002.14	19 985.87	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	2	0.02	31MEG
5029.15	19 878.53	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2	0.02	31MEG
5040.34	19 834.40	7	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	0.02	31MEG
5047.74	19 805.32	1^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})13d$	$^2[5/2]^o$	2	0.04	32GRE
5047.74	19 805.32	1^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})13d$	$^2[7/2]^o$	4	0.04	32GRE
5058.08	19 764.84	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	0	0.02	31MEG
5089.12	19 644.29	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})12d$	$^2[7/2]^o$	4	0.02	31MEG
5090.36	19 639.50	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})12d$	$^2[7/2]^o$	3	0.02	31MEG
5109.81	19 564.75	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	1	0.02	31MEG
5139.9	19 450.2	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.1	31MEG
5142.7	19 439.6	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2	0.1	31MEG
5145.04	19 430.78	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[7/2]^o$	4	0.02	31MEG
5145.39	19 429.46	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[7/2]^o$	3	0.02	31MEG
5167.73	19 345.47	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1	0.02	31MEG
5168.06	19 344.23	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.02	31MEG
5172.36	19 328.15	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2	0.02	31MEG
5197.82	19 233.48	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})12s$	$^2[3/2]^o$	2	0.02	31MEG
5198.97	19 229.22	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})12s$	$^2[3/2]^o$	1	0.04	32GRE
5212.41	19 179.64	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[5/2]^o$	3	0.02	31MEG
5215.8179	19 167.1119	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	0	0.0003	93KAU
5217.78	19 159.90	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[5/2]^o$	2	0.02	31MEG
5218.84	19 156.01	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[7/2]^o$	3	0.02	31MEG
5222.38	19 143.03	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[7/2]^o$	3	0.02	31MEG
5223.57	19 138.67	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[7/2]^o$	4	0.02	31MEG
5228.17729	19 121.8015	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.0001	93KAU
5232.06	19 107.61	2 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	0.02	31MEG
5274.61	18 953.47	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.02	31MEG
5279.8345	18 934.7185	9	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	0.0002	93KAU
5290.76	18 895.62	1 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.02	31MEG
5299.79	18 863.42	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	1	0.02	31MEG
5300.74	18 860.04	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	2	0.02	31MEG
5304.43	18 846.92	1^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	2	0.02	31MEG
5304.43	18 846.92	1^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	1	0.02	31MEG
5322.02	18 784.63	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	3	0.02	31MEG
5325.70	18 771.65	1–	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	3	0.02	31MEG
5327.87	18 764.01	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	2	0.02	31MEG
5331.08	18 752.71	2^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	3	0.02	31MEG
5331.08	18 752.71	2^*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2	0.02	31MEG
5334.7550	18 739.7907	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	3	0.0003	93KAU
5337.72	18 729.38	1 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.02	31MEG
5339.1183	18 724.4761	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[7/2]^o$	4	0.0002	93KAU
5347.37	18 695.58	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	0.02	31MEG
5365.91	18 630.99	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[5/2]^o$	3	0.02	31MEG
5371.74	18 610.77	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.02	31MEG
5372.57	18 607.89	0	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[3/2]^o$	2	0.04	32GRE
5379.6366	18 583.4488	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	0.0002	93KAU

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
5403.03	18 502.99	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[5/2]^o$	2	0.02	31MEG
5409.44	18 481.06	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[3/2]^o$	2	0.02	31MEG
5414.42	18 464.07	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[1/2]^o$	1	0.04	32GRE
5431.77	18 405.1	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})12s$	$^2[3/2]^o$	2	0.1	32RAS
5445.43	18 358.92	1–	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.02	31MEG
5447.86	18 350.73	3 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[5/2]^o$	3	0.02	31MEG
5456.39	18 322.04	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[3/2]^o$	2	0.02	31MEG
5458.80	18 313.96	7	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2	0.02	31MEG
5459.47	18 311.71	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.02	31MEG
5461.37	18 305.34	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10d$	$^2[1/2]^o$	1	0.02	31MEG
5462.65	18 301.05	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2	0.02	31MEG
5476.58	18 254.50	2 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	0.02	31MEG
5487.46	18 218.31	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.02	31MEG
5488.86	18 213.66	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3	0.02	31MEG
5490.93596	18 206.7729	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.0001	93KAU
5491.33	18 205.47	2 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.02	31MEG
5492.77	18 200.69	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3	0.02	31MEG
5496.21	18 189.30	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2	0.02	31MEG
5500.71011	18 174.4218	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.0001	93KAU
5504.0053	18 163.5411	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	3	0.0003	93KAU
5504.3304	18 162.4683	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	0	0.0003	93KAU
5516.6665	18 121.8547	20	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.0004	93KAU
5520.51024	18 109.2373	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	4	0.0001	93KAU
5521.17	18 107.07	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[5/2]^o$	2	0.02	31MEG
5528.63	18 082.64	2–	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2	0.02	31MEG
5539.4	18 047.5	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	1	0.1	31MEG
5542.10	18 038.7	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	0.1	32RAS
5544.4	18 031.2	1 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})11s$	$^2[3/2]^o$	2	0.1	31MEG
5559.26	17 983.0	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.1	32RAS
5562.22534	17 973.4246	500	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	0.0001	93KAU
5570.28944	17 947.4048	2000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	0.0001	93KAU
5573.13	17 938.26	2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	0.02	31MEG
5575.6	17 930.3	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	3	0.1	31MEG
5577.64	17 923.75	3 h	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2	0.02	31MEG
5580.38729	17 914.9288	80	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0	0.0001	93KAU
5591.41	17 879.61	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[1/2]^o$	1	0.02	31MEG
5607.72	17 827.61	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.02	31MEG
5608.37	17 825.54	3 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	0.02	31MEG
5611.8099	17 814.6175	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.0003	93KAU
5643.04	17 716.03	1 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	0.02	31MEG
5649.56177	17 695.5767	100	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.0001	93KAU
5662.67	17 654.61	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.02	31MEG
5666.09	17 643.96	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2	0.02	31MEG
5672.4509	17 624.1733	50	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	0.0002	93KAU
5696.54	17 549.65	3–	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1	0.02	31MEG
5696.95	17 548.38	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.02	31MEG
5702.1704	17 532.3177	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2	0.0003	93KAU
5707.5129	17 515.9068	40	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.0002	93KAU
5714.11	17 495.68	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.02	31MEG
5717.61	17 484.97	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	2	0.02	31MEG
5721.8771	17 471.9353	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.0004	93KAU
5723.56	17 466.80	15	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.02	31MEG
5726.5878	17 457.5630	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	0.0004	93KAU
5730.86	17 444.55	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	0.02	31MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
5749.02	17 389.45	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.02	31MEG
5750.57	17 384.76	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3	0.02	31MEG
5754.33	17 373.40	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	2	0.02	31MEG
5755.04	17 371.26	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	0	0.02	31MEG
5762.8954	17 347.5773	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	3	0.0004	93KAU
5775.56	17 309.54	2 E2	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	0.02	31MEG
5783.8938	17 284.5976	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3	0.0004	93KAU
5787.29	17 274.45	6	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.02	31MEG
5788.24	17 271.62	7	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3	0.02	31MEG
5799.9	17 237.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	2	1	87WAD
5801.17	17 233.12	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.02	31MEG
5805.54126	17 220.1481	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.0001	93KAU
5806.9	17 216.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})9s$	$^2[1/2]^o$	1	1	87WAD
5810.80	17 204.56	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.02	31MEG
5815.7	17 190.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})9s$	$^2[1/2]^o$	1	1	87WAD
5820.1179	17 177.0202	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3	0.0002	93KAU
5823.51	17 167.02	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.02	31MEG
5824.5185	17 164.0426	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3	0.0002	93KAU
5827.07	17 156.53	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.02	31MEG
5832.85661	17 139.5067	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	4	0.0001	93KAU
5834.7	17 134.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[5/2]^o$	2	1	87WAD
5841.54	17 114.03	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	3	0.04	32GRE
5849.66	17 090.27	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.02	31MEG
5852.8750	17 080.8856	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.0003	93KAU
5855.2	17 074.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	1	1	87WAD
5857.32	17 067.92	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.02	31MEG
5866.75017	17 040.4888	50	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.0001	93KAU
5870.91599	17 028.3975	3000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	0.0001	93KAU
5879.90035	17 002.3787	50	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	0.0001	93KAU
5881.18	16 998.68	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.02	31MEG
5887.6868	16 979.8933	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	0.0002	93KAU
5904.0	16 933.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[5/2]^o$	3	1	87WAD
5919.7	16 888.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[3/2]^o$	2	1	87WAD
5942.13	16 824.32	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.02	31MEG
5945.45239	16 814.9194	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.0001	93KAU
5955.14	16 787.57	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	0.02	31MEG
5956.8	16 783.		$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})7d$	$^2[5/2]^o$	2	1	87WAD
5977.64573	16 724.3614	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1	0.0001	93KAU
5993.85020	16 679.1473	60	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	0.0001	93KAU
6002.19	16 655.97	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.02	31MEG
6012.0624	16 628.6220	50*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	2	0.0002	93KAU
6012.1555	16 628.3645	50*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.0002	93KAU
6035.83389	16 563.1325	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.0001	93KAU
6049.35	16 526.1	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})10s$	$^2[3/2]^o$	1	0.1	32RAS
6056.12628	16 507.6345	60	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.0001	93KAU
6075.25510	16 455.6583	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	3	0.0001	93KAU
6082.86117	16 435.0822	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0	0.0001	93KAU
6088.00	16 421.21	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	1	0.02	31MEG
6091.8275	16 410.8922	6	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.0002	93KAU
6094.31	16 404.21	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.02	31MEG
6103.86	16 378.54	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.02	31MEG
6108.3186	16 366.5868	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	0	0.0004	93KAU
6115.23	16 348.09	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3	0.02	31MEG
6151.40667	16 251.9466	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.0001	93KAU

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification: Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
6163.6760	16 219.5960	7	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.0002	93KAU
6172.08	16 197.51	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.02	31MEG
6222.73337	16 065.6638	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.0001	93KAU
6236.35161	16 030.5817	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.0001	93KAU
6241.40471	16 017.6033	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.0001	93KAU
6267.33	15 951.35	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.02	31MEG
6346.68195	15 751.9093	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3	0.0001	93KAU
6351.91539	15 738.9312	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3	0.0002	93KAU
6368.3212	15 698.3855	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.0003	93KAU
6373.19	15 686.39	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})9s$	$^2[3/2]^o$	1	0.02	31MEG
6373.59016	15 685.4079	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.0001	93KAU
6410.1725	15 595.8933	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	1	0.0002	93KAU
6415.67923	15 582.5071	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	0.0001	93KAU
6421.02700	15 569.5292	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	0.0001	93KAU
6448.79938	15 502.4781	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.0001	93KAU
6454.19	15 489.53	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.02	31MEG
6456.28888	15 484.4948	200	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	4	0.0001	93KAU
6488.06917	15 408.6482	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.0001	93KAU
6504.90424	15 368.7701	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.0001	93KAU
6508.3693	15 360.5878	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.0003	93KAU
6536.5517	15 294.3610	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.0002	93KAU
6555.5342	15 250.0742	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.0003	93KAU
6555.69463	15 249.7011	6	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.0001	93KAU
6576.42040	15 201.6416	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.0001	93KAU
6605.12	15 135.59	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.02	31MEG
6652.23475	15 028.3924	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.0001	93KAU
6699.22960	14 922.9695	60	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3	0.0001	93KAU
6723.3440	14 869.4461	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.0003	93KAU
6740.0985	14 832.4840	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.0003	93KAU
6764.47	14 779.04	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})9f$	$^2[3/2]$	1	0.04	32GRE
6776.15	14 753.57	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	0.02	31MEG
6789.21	14 725.2	1*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10f$	$^2[3/2]$	2	0.1	32RAS
6789.21	14 725.2	1*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})10f$	$^2[3/2]$	1	0.1	32RAS
6795.4104	14 711.7544	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.0003	93KAU
6813.10882	14 673.5379	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.0001	93KAU
6829.0888	14 639.2023	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0	0.0003	93KAU
6846.4003	14 602.1865	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.0003	93KAU
6869.6308	14 552.8078	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.0003	93KAU
6904.22	14 479.90	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.02	31MEG
6904.6787	14 478.9387	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	0.0002	93KAU
6911.29	14 465.1	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})13f$	$^2[9/2]$	5	0.1	32RAS
6911.29	14 465.1	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})9f$	$^2[3/2]$	1	0.1	32RAS
6935.30	14 415.01	1 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[3/2]$	1	0.02	31MEG
6993.05	14 295.97	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	2	0.02	31MEG
7000.79	14 280.16	7	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	1	0.02	31MEG
7057.27	14 165.88	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.02	31MEG
7077.36	14 125.67	0	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})10f$	$^2[5/2]$	3	0.04	32GRE
7086.33	14 107.79	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[5/2]$	2	0.04	32GRE
7089.51	14 101.46	1 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[3/2]$	1	0.02	31MEG
7133.67	14 014.17	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})10f$	$^2[9/2]$	5	0.10	32RAS
7143.45	13 994.98	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.02	31MEG
7152.21	13 977.84	5*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})12p$	$^2[5/2]$	3	0.02	31MEG
7152.21	13 977.84	5*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})12p$	$^2[5/2]$	2	0.02	31MEG
7152.21	13 977.84	5*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.02	31MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
7180.47	13 922.83	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	0	0.02	31MEG
7200.59	13 883.92	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
7208.87	13 867.98	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9f$	$^2[5/2]$	3	0.04	32GRE
7224.103	13 838.735	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.002	34MEG
7268.08	13 755.00	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})9f$	$^2[9/2]$	5	0.04	32GRE
7287.262	13 718.795	80	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.005	31MEG
7301.25	13 692.51	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	3	0.02	31MEG
7341.16	13 618.07	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})16f$	$^2[7/2]$	3	0.02	31MEG
7359.96	13 583.29	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.02	31MEG
7361.43	13 580.58	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	2	0.04	32GRE
7366.80	13 570.68	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2	0.02	31MEG
7367.02	13 570.27	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	1	0.02	31MEG
7402.70	13 504.86	1 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[5/2]$	3	0.02	31MEG
7405.99	13 498.87	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[3/2]$	1	0.04	32GRE
7425.54	13 463.33	60	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.02	31MEG
7465.01	13 392.14	3 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[9/2]$	5	0.02	31MEG
7486.862	13 353.054	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	0.002	34MEG
7493.58	13 341.08	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.02	31MEG
7494.15	13 340.07	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	0.02	31MEG
7587.4136	13 176.0943	1000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	0.0002	93KAU
7601.5457	13 151.5986	2000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	0.0002	93KAU
7615.64	13 127.26	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})7s$	$^2[1/2]^o$	1	0.02	31MEG
7652.16	13 064.61	3 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.02	31MEG
7685.2459	13 008.3650	400	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	0.0002	93KAU
7694.5401	12 992.6523	500	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	0.0002	93KAU
7703.35	12 977.79	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	3	0.02	31MEG
7708.96	12 968.35	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[3/2]$	2	0.1	32RAS
7712.0	12 963.2	1 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})8f$	$^2[9/2]$	4	0.2	33MEG
7741.37	12 914.06	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	0.02	31MEG
7746.828	12 904.958	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0	0.002	34MEG
7749.16	12 901.07	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	0.03	33MEG
7765.89	12 873.28	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	4	0.03	33MEG
7768.43	12 869.07	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.03	33MEG
7772.40	12 862.50	5 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[9/2]$	5	0.03	33MEG
7776.28	12 856.08	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.03	33MEG
7786.66	12 838.94	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	33MEG
7806.52	12 806.28	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.03	33MEG
7830.21	12 767.54	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.03	33MEG
7840.01	12 751.58	8 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.03	33MEG
7840.40	12 750.94	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	1	0.03	33MEG
7854.8233	12 727.5295	200	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	0.0002	93KAU
7863.91	12 712.82	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
7871.93	12 699.87	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
7881.76	12 684.03	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.03	33MEG
7882.36	12 683.07	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	0.03	33MEG
7904.62	12 647.35	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.03	33MEG
7913.4251	12 633.2780	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.0002	93KAU
7920.47	12 622.04	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	0.03	33MEG
7928.5988	12 609.1006	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	0.0002	93KAU
7938.34	12 593.63	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[3/2]^o$	2	0.03	33MEG
7946.99	12 579.92	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.03	33MEG
7957.67	12 563.04	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[5/2]^o$	3	0.03	33MEG
7962.62	12 555.23	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9p$	$^2[3/2]$	2	0.03	33MEG
7981.19	12 526.01	20	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.03	33MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
7981.82	12 525.03	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.03	33MEG
7982.406	12 524.107	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	0.002	34MEG
7990.78	12 510.98	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	3	0.03	33MEG
7993.12	12 507.32	5	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
8033.52	12 444.42	2 h*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	3	0.03	33MEG
8033.52	12 444.42	2 h*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	4	0.03	33MEG
8040.50	12 433.62	8 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[9/2]$	4	0.03	33MEG
8059.5048	12 404.2991	100	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	0.0005	93KAU
8104.02	12 336.16	500	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	4	0.03	33MEG
8104.3660	12 335.636	4000	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	0.0025	33MEG
8112.9012	12 322.6585	500	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	0.0002	93KAU
8132.98	12 292.24	60	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	3	0.03	33MEG
8144.96	12 274.16	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.03	33MEG
8190.0566	12 206.5720	300	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	0.0003	93KAU
8195.070	12 199.105	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.002	34MEG
8205.22	12 184.01	20	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
8206.62	12 181.94	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	33MEG
8210.1	12 176.8	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[5/2]^o$	2	0.2	33MEG
8218.40	12 164.47	80	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3	0.03	33MEG
8222.69	12 158.13	6	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
8228.89	12 148.97	10 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.03	33MEG
8263.2426	12 098.4612	400	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	0.0003	93KAU
8272.355	12 085.134	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	0.002	34MEG
8281.0522	12 072.4418	200	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	0.0002	93KAU
8287.56	12 062.96	4 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	4	0.03	33MEG
8298.1099	12 047.6256	500	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	0.0003	93KAU
8301.39	12 042.87	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.03	33MEG
8303.20	12 040.24	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.03	33MEG
8332.73	11 997.57	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[1/2]$	1	0.03	33MEG
8384.90	11 922.92	15	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.03	33MEG
8412.428	11 883.909	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.002	34MEG
8469.96	11 803.19	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	3	0.03	33MEG
8477.20	11 793.11	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	0.03	33MEG
8498.21	11 763.95	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.03	33MEG
8508.8728	11 749.2099	200	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	0.0004	93KAU
8537.93	11 709.22	40	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.03	33MEG
8560.89	11 677.82	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.03	33MEG
8569.02	11 666.74	20	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.03	33MEG
8593.15	11 633.98	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	4	0.04	32GRE
8593.15	11 633.98	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	3	0.04	32GRE
8599.03	11 626.02	0*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.1	32RAS
8599.03	11 626.02	0*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3	0.1	32RAS
8605.85	11 616.81	40	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[9/2]$	4	0.03	33MEG
8610.67	11 610.31	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.1	32RAS
8624.82	11 591.26	4 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[7/2]$	4	0.03	33MEG
8628.70	11 586.05	1 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	3	0.03	33MEG
8631.5	11 582.3	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[5/2]^o$	2	0.2	33MEG
8632.81	11 580.53	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[9/2]$	4	0.03	33MEG
8651.49	11 555.53	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.03	33MEG
8673.48	11 526.23	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	3	0.03	33MEG
8697.50	11 494.40	40	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.03	33MEG
8713.62	11 473.14	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.03	33MEG
8722.17	11 461.89	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.03	33MEG
8726.54	11 456.15	8	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.03	33MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
8742.49	11 435.25	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	0.03	33MEG
8746.43	11 430.10	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	0.03	33MEG
8747.29	11 428.97	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.03	33MEG
8755.20	11 418.65	30	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.03	33MEG
8764.112	11 407.036	8	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3	0.002	34MEG
8773.00	11 395.48	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.03	33MEG
8774.05	11 394.12	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3	0.03	33MEG
8776.7505	11 390.6104	300	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	0.0003	93KAU
8780.25	11 386.07	30	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.03	33MEG
8805.78	11 353.06	20	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.03	33MEG
8842.46	11 305.97	3	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	3	0.03	33MEG
8928.6933	11 196.7731	200	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	0.0002	93KAU
8967.53	11 148.28	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.03	33MEG
8977.99	11 135.29	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.03	33MEG
8999.19	11 109.06	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0	0.03	33MEG
9044.47	11 053.45	3	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	33MEG
9094.33	10 992.84	4 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	3	0.03	33MEG
9100.58	10 985.30	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.03	33MEG
9111.69	10 971.90	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.03	33MEG
9122.49	10 958.91	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.03	33MEG
9188.69	10 879.96	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	2	0.03	33MEG
9224.83	10 837.33	1	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.1	33MEG
9234.16	10 826.38	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	0.1	33MEG
9243.00	10 816.03	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.1	33MEG
9243.54	10 815.40	30	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.1	33MEG
9262.69	10 793.04	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.1	33MEG
9270.96	10 783.41	10	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.1	33MEG
9273.02	10 781.01	8	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[7/2]$	4	0.1	33MEG
9279.9	10 773.0	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	3	0.2	33MEG
9287.87	10 763.78	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[9/2]$	4	0.1	33MEG
9299.40	10 750.43	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[3/2]$	1	0.1	33MEG
9326.03	10 719.73	10	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	4	0.1	33MEG
9337.9	10 706.1	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.2	33MEG
9352.12	10 689.83	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4	0.05	31MEG
9352.23	10 689.70	100	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	5	0.1	33MEG
9362.10	10 678.43	2	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.05	31MEG
9450.88	10 578.12	20	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3	0.1	33MEG
9532.3	10 487.8	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[1/2]^o$	1	0.2	33MEG
9540.89	10 478.33	30	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.1	33MEG
9607.2	10 406.0	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.2	33MEG
9615.63	10 396.88	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	2	0.1	33MEG
9669.03	10 339.46	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.1	33MEG
9682.26	10 325.34	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0	0.1	33MEG
9687.83	10 319.40	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.1	33MEG
9704.22	10 301.97	50	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.1	33MEG
9714.85	10 290.70	15*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	3	0.1	33MEG
9714.85	10 290.70	15*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	4	0.1	33MEG
9722.78	10 282.30	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.1	33MEG
9727.51	10 277.30	2 h*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.1	33MEG
9727.51	10 277.30	2 h*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.1	33MEG
9743.11	10 260.85	50	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4	0.1	33MEG
9751.7610	10 251.7468	5	$4s^24p^5(^2P^o_{3/2})5s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	0.0004	93KAU
9768.69	10 233.98	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.1	33MEG
9794.89	10 206.61	3	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.1	33MEG

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
9810.27	10 190.60	2 h	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.1	33MEG
9838.33	10 161.54	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.1	33MEG
9856.24	10 143.08	500	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.1	33MEG
9862.95	10 136.18	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.1	33MEG
9897.08	10 101.22	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[5/2]^o$	3	0.1	33MEG
9916.37	10 081.57	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.1	33MEG
9917.60	10 080.32	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.1	33MEG
9989.3	10 008.0	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0	0.2	33MEG
10 038.65	9958.77	3	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[5/2]$	2	0.1	33MEG
10 054.86	9942.71	2	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6f$	$^2[3/2]$	2	0.1	33MEG
10 065.96	9931.75	10	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	0.1	33MEG
10 077.66	9920.22	10	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.1	33MEG
10 120.96	9877.78	30	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.1	33MEG
10 147.68	9851.77	10	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	0.1	33MEG
10 273.6	9731.02	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.2	33MEG
10 296.93	9708.97	80	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.1	33MEG
10 322.88	9684.56	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	0	0.1	33MEG
10 360.37	9649.52	100	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	3	0.1	33MEG
10 374.44	9636.43	10	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.1	33MEG
10 458.56	9558.93	6	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.04	35MEG
10 486.29	9533.65	2*	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	0.04	35MEG
10 486.29	9533.65	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.04	35MEG
10 549.64	9476.40	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[5/2]$	3	0.04	35MEG
10 575.50	9453.23	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3	0.04	35MEG
10 575.50	9453.23	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.04	35MEG
10 593.04	9437.57	20	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	4	0.03	67HER
10 608.46	9423.86	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.03	67HER
10 626.70	9407.68	8	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4	0.04	35MEG
10 644.72	9391.76	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.04	35MEG
10 699.33	9343.82	20	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3	0.04	35MEG
10 729.43	9317.61	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	1	0.04	35MEG
10 801.3	9255.61	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	1	0.1	35MEG
10 874.90	9192.97	150	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.03	67HER
11 187.11	8936.41	79	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.03	67HER
11 214.58	8914.52	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.04	35MEG
11 257.704	8880.374	130	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.004	00MIS
11 259.16	8879.23	50	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.04	35MEG
11 262.71	8876.43	2	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	3	0.04	35MEG
11 286.582	8857.653	7	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.01	00MIS
11 303.8	8844.16	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.1	35MEG
11 316.1	8834.55	1	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	1	0.1	35MEG
11 328.51	8824.87	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.04	35MEG
11 333.44	8821.03	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[1/2]^o$	1	0.04	35MEG
11 457.477	8725.536	220	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	0.004	00MIS
11 611.6	8609.72	1*	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[5/2]$	2	0.1	35MEG
11 611.6	8609.72	1*	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})11d$	$^2[7/2]^o$	4	0.1	35MEG
11 655.8	8577.07	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[3/2]$	2	0.1	35MEG
11 792.41	8477.71	140	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.03	67HER
11 819.3785	8458.3666	1800	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	0.001	61HUM
11 967.182	8353.900	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	1	0.01	00MIS
11 996.00	8333.83	32	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.03	67HER
11 997.102	8333.066	350	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.004	00MIS
12 077.21	8277.79	160	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.03	67HER
12 078.850	8276.669	9	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.01	00MIS

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
12 117.79	8250.07	150	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	0.03	67HER
12 123.55	8246.15	50	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	0.03	67HER
12 156.84	8223.57	6	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.03	67HER
12 204.5357	8191.4336	840	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	5	0.001	61HUM
12 229.40	8174.78	9	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.03	67HER
12 240.56	8167.33	8	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.03	67HER
12 321.08	8113.951	20	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	3	0.03	67HER
12 415.088	8052.512	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.01	00MIS
12 597.88	7935.672	19	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	3	0.03	67HER
12 732.859	7851.548	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	0.01	00MIS
12 782.52	7821.044	100*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3	0.03	67HER
12 782.52	7821.044	100*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	0.03	67HER
12 825.08	7795.09	5*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.3	52HUM
12 825.08	7795.09	5*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.3	52HUM
12 861.89	7772.781	46	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	0.03	67HER
12 876.168	7764.162	3	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[1/2]$	0	0.01	00MIS
12 878.74	7762.611	470	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4	0.03	67HER
12 914.6	7741.05	3	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})7s$	$^2[1/2]^o$	0	0.7	49SIT
12 934.48	7729.16	1	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.3	52HUM
12 977.98	7703.25	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.3	52HUM
12 985.32	7698.898	14	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.03	67HER
13 022.41	7676.970	13	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	4	0.03	67HER
13 120.117	7619.799	3	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[3/2]$	2	0.02	00MIS
13 177.4110	7586.6692	310	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	0.001	61HUM
13 190.119	7579.360	3	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	2	0.02	00MIS
13 210.67	7567.569	6	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.03	67HER
13 240.69	7550.412	26	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	67HER
13 304.30	7514.31	5	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3	0.3	52HUM
13 305.033	7513.898	2	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	2	0.02	00MIS
13 337.88	7495.394	18	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	0	0.03	67HER
13 622.4164	7338.8348	130	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.001	61HUM
13 634.2206	7332.4810	250	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	0.001	61HUM
13 658.39	7319.506	37	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	0.03	67HER
13 711.02	7291.410	26	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.03	67HER
13 738.8555	7276.6371	51	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	0.001	61HUM
13 763.72	7263.49	6	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	0.3	52HUM
13 800.03	7244.38	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	0.3	52HUM
13 832.88	7227.177	8	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	67HER
13 882.85	7201.163	27	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	67HER
13 924.04	7179.861	42	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3	0.03	67HER
13 939.00	7172.155	10	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	0	0.03	67HER
13 974.06	7154.160	14	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.03	67HER
14 104.29	7088.104	7	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.03	67HER
14 156.62	7061.90	15	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	0.3	52HUM
14 341.25	6970.99	9	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	0.3	52HUM
14 347.48	6967.960	51	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	0.03	67HER
14 402.28	6941.448	12	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.03	67HER
14 426.7927	6929.6534	350	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	0.001	61HUM
14 468.86	6909.506	6	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4	0.03	67HER
14 517.6	6886.32	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.7	49SIT
14 715.55	6793.68	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	0.3	52HUM
14 734.4415	6784.9654	100	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	0.001	61HUM
14 762.69	6771.982	26	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	0.03	67HER
14 765.48	6770.703	28	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	0.03	67HER

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
14 961.891	6681.821	290	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.008	00MIS
14 973.74	6676.53	8	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0	0.3	52HUM
15 005.34	6662.473	5	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	0.03	67HER
15 209.54	6573.025	10	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.03	67HER
15 239.6223	6560.0498	160	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.001	61HUM
15 265.9	6548.75	3	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})9f$	$^2[5/2]$	3	0.7	49SIT
15 326.48	6522.873	12	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.03	67HER
15 334.9672	6519.2628	200	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	0.001	61HUM
15 372.041	6503.540	725	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	0.008	00MIS
15 394.972	6493.853	6	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	2	0.02	00MIS
15 433.63	6477.59	4	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0	0.3	52HUM
15 471.009	6461.937	3*	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	3	0.02	00MIS
15 471.009	6461.937	3*	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	4	0.02	00MIS
15 474.033	6460.674	150	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	0.008	00MIS
15 634.98	6394.17	7	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	0.3	52HUM
15 681.00	6375.402	24	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.03	67HER
15 686.78	6373.054	4	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[5/2]$	3	0.03	00MIS
15 771.44	6338.84	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.3	52HUM
15 820.090	6319.350	105	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.008	00MIS
15 822.86	6318.244	2*	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7d$	$^2[7/2]^o$	4	0.03	67HER
15 822.86	6318.244	2*	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	0.03	67HER
15 890.68	6291.278	8	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{1/2})6s$	$^2[1/2]^o$	1	0.03	67HER
15 925.78	6277.412	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.03	67HER
16 052.31	6227.93	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.3	52HUM
16 086.11	6214.845	2	$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})4f$	$^2[7/2]$	3	0.03	00MIS
16 109.33	6205.887	2	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.03	67HER
16 244.30	6154.323	3	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	0	0.03	00MIS
16 315.258	6127.558	50	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	0.008	00MIS
16 346.92	6115.690	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.03	67HER
16 465.87	6071.510	7	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	0.03	67HER
16 562.88	6035.947	2	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.03	00MIS
16 573.05	6032.245	9	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	1	0.03	67HER
16 726.53	5976.894	77	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	0	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	0.03	67HER
16 785.1329	5956.0263	320	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	0.001	61HUM
16 853.4981	5931.8660	170	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	0.001	61HUM
16 890.4538	5918.8873	340	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	0.001	61HUM
16 896.7647	5916.6766	400	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	0.001	61HUM
16 918.8	5908.98	1*	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})10p$	$^2[3/2]$	2	0.7	49SIT
16 918.8	5908.98	1*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3	—	$4s^24p^5(^2P^o_{3/2})12d$	$^2[5/2]^o$	2	0.7	49SIT
16 935.8134	5903.0346	280	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.001	61HUM
16 994.49	5882.653	4	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.03	67HER
17 070.03	5856.621	5	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.03	67HER
17 098.7793	5846.7738	87	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.001	61HUM
17 230.72	5802.003	6	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	0.03	67HER
17 367.6140	5756.2712	110	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	3	0.001	61HUM
17 404.44	5744.092	12	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	0.03	67HER
17 616.84	5674.837	35	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.03	67HER
17 630.55	5670.424	4	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.03	67HER
17 770.72	5625.698	5	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.03	67HER
17 842.744	5602.989	950	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	0.01	00MIS
18 002.2300	5553.3509	1200	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	0.001	61HUM
18 099.44	5523.524	72	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.03	67HER
18 167.3273	5502.8843	940	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	0.001	61HUM
18 185.07	5497.515	180	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[5/2]^o$	2	0.03	67HER

TABLE 6. Spectral lines of Kr I—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
18 384.84	5437.778	2	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8s$	$^2[3/2]^o$	2	0.03	00MIS
18 418.82	5427.75	4	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	0.3	52HUM
18 580.89	5380.404	270	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	0.03	67HER
18 696.306	5347.190	380	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.01	00MIS
18 785.48	5321.807	180	$4s^24p^5(^2P^o_{1/2})5s$	$^2[1/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	1	0.03	67HER
18 787.73	5321.17	10	$4s^24p^5(^2P^o_{1/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{1/2})4d$	$^2[3/2]^o$	2	0.3	52HUM
18 797.71	5318.345	360	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	0.03	67HER

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
20 215.41	4946.721	61	$4s^24p^5(^2P^o_{1/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[1/2]^o$	1	0.03	67HER
20 424.6	4896.06	1	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	1	0.7	49SIT
20 429.57	4894.866	91	$4s^24p^5(^2P^o_{3/2})4d$	$^2[7/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.03	67HER
20 930.15	4777.797	4	$4s^24p^5(^2P^o_{3/2})5p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	0.03	67HER
21 171.30	4723.376	90	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	0.03	67HER
21 908.5101	4564.4364	1300	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	2	0.001	61HUM
22 491.90	4446.045	71	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	0.03	67HER
23 346.79	4283.244	120	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	0.03	67HER
23 508.90	4253.708	39	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	0.03	67HER
24 267.18	4120.792	70	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	0.03	67HER
24 298.90	4115.413	110	$4s^24p^5(^2P^o_{3/2})4d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0	0.03	67HER
24 775.39	4036.263	24	$4s^24p^5(^2P^o_{3/2})4d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	0.03	67HER
25 240.75	3961.847	150	$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	0.03	67HER
25 855.94	3867.583	11	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	0	0.03	67HER
26 260.	3808.1		$4s^24p^5(^2P^o_{3/2})5p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	0	10	64FAU
28 621.2	3493.9	1	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	3	67AND
28 650.	3490.4		$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	10	64FAU
29 850.	3350.1		$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	10	64FAU
30 500.	3278.7		$4s^24p^5(^2P^o_{3/2})5d$	$^2[5/2]^o$	3	—	$4s^24p^5(^2P^o_{3/2})5f$	$^2[9/2]$	4	10	64FAU
30 673.	3260.2		$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	10	64FAU
31 510.	3173.6		$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	0	10	64FAU
33 410.	2993.1	*	$4s^24p^5(^2P^o_{3/2})6s$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	10	64FAU
33 410.	2993.1	*	$4s^24p^5(^2P^o_{3/2})5p$	$^2[1/2]$	0	—	$4s^24p^5(^2P^o_{3/2})4d$	$^2[1/2]^o$	1	10	64FAU
34 660.	2885.2		$4s^24p^5(^2P^o_{3/2})6p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	10	64FAU
34 880.	2867.0	*	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})7f$	$^2[5/2]$	3	10	64FAU
34 880.	2867.0	*	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	10	64FAU
34 880.	2867.0	*	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	—	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	10	64FAU
39 294.51	2544.88	250	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	2	1	67HUM
39 311.37	2543.79	500	$4s^24p^5(^2P^o_{3/2})4f$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	3	1	67HUM
39 387.55	2538.87	70*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	4	1	67HUM
39 387.55	2538.87	70*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	5	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	5	1	67HUM
39 497.513	2531.80	1100	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	1	67HUM
39 567.965	2527.30	220*	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	1	67HUM
39 567.965	2527.30	220*	$4s^24p^5(^2P^o_{3/2})7d$	$^2[3/2]^o$	2	—	$4s^24p^5(^2P^o_{3/2})13p$	$^2[3/2]$	2	1	67HUM
39 583.566	2526.30	100	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	1	67HUM
39 599.20	2525.30	1100	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	5	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[11/2]^o$	6	1	67HUM
39 600.38	2525.23	1100	$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[11/2]^o$	5	1	67HUM
39 830.911	2510.61	120	$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})7p$	$^2[5/2]$	3	1	67HUM
39 965.73	2502.14	500*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	3	1	67HUM
39 965.73	2502.14	500*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	4	1	67HUM
39 977.51	2501.41	300	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	3	1	67HUM
40 186.51	2488.40	25	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	3	1	67HUM

TABLE 6. Spectral lines of Kr I—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
40 199.98	2487.56	15*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	2	1	67HUM
40 199.98	2487.56	15*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[5/2]^o$	3	1	67HUM
40 317.10	2480.34	1300*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	4	1	67HUM
40 317.10	2480.34	1300*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[9/2]^o$	5	1	67HUM
40 392.29	2475.72	60*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	3	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	3	1	67HUM
40 392.29	2475.72	60*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	—	$4s^24p^5(^2P^o_{3/2})5g$	$^2[7/2]^o$	4	1	67HUM
40 696.463	2457.22	250	$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	1	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	1	1	67HUM
43 740.	2286.2		$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	1	10	64FAU
43 748.	2285.8		$4s^24p^5(^2P^o_{3/2})6p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})7s$	$^2[3/2]^o$	2	10	64FAU
52 965.	1888.0		$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	4	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	3	10	64FAU
53 020.	1886.1	*	$4s^24p^5(^2P^o_{3/2})5f$	$^2[7/2]$	4	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[7/2]^o$	4	10	64FAU
53 020.	1886.1	*	$4s^24p^5(^2P^o_{3/2})8p$	$^2[3/2]$	2	—	$4s^24p^5(^2P^o_{3/2})9d$	$^2[3/2]^o$	2	10	64FAU
53 020.	1886.1	*	$4s^24p^5(^2P^o_{3/2})6p$	$^2[5/2]$	2	—	$4s^24p^5(^2P^o_{3/2})5d$	$^2[3/2]^o$	2	10	64FAU
55 860.	1790.2		$4s^24p^5(^2P^o_{3/2})4f$	$^2[9/2]$	5	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[7/2]^o$	4	10	64FAU
56 299.	1776.2	*	$4s^24p^5(^2P^o_{1/2})6p$	$^2[1/2]$	1	—	$4s^24p^5(^2P^o_{3/2})8d$	$^2[1/2]^o$	1	10	64FAU
56 299.	1776.2	*	$4s^24p^5(^2P^o_{3/2})4f$	$^2[5/2]$	3	—	$4s^24p^5(^2P^o_{3/2})6d$	$^2[3/2]^o$	2	10	64FAU
70 580.	1416.8		$4s^24p^5(^2P^o_{3/2})5d$	$^2[7/2]^o$	4	—	$4s^24p^5(^2P^o_{3/2})4f$	$^2[7/2]$	4	10	64FAU

4.2. Kr II

Br isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^5\ ^2P^o_{3/2}$

Ionization energy 196 475.4±1.0 cm^{-1} (24.359 84±0.000 12 eV) [69MIN]

The energy levels of singly ionized krypton, Kr II, were compiled by Sugar and Musgrove [91SUG]. They used the analysis of Minnhagen *et al.* [69MIN] for all levels except for the 17 levels of the $4p^45s$ and $4p^45p$ configurations. Sugar and Musgrove [91SUG] obtained these energy levels by starting with the value of the $4p^4(^3P)5s\ ^4P_{5/2}$ level for the natural isotope mix of Kr obtained by Minnhagen *et al.* [69MIN]. They then used the wavelengths measured by Humphreys and Paul [70HUM] for the ^{86}Kr isotope to determine values for the 17 energy levels, which they then give to three decimal places. The use of three decimal places reflected the uncertainty in applying values of ^{86}Kr to the natural isotope mix of Kr. We use the Sugar and Musgrove [91SUG] compilation here and include their compilation of leading percentages.

In the energy level table most of the levels are designated using LS coupling. Pair coupling is used for the *nf* levels.

The observed spectral lines of Kr II were compiled from five sources [33DEB], [69MIN], [70HUM], [88BRE], [01DZI]. The sources used in this compilation are summarized in Table 8.

The first extensive analysis of the Kr II spectrum was carried out by deBruin *et al.* [33DEB]. It still provides the most complete set of Kr II lines. Their quoted uncertainty for sharp lines is 0.01 Å. An estimate of two to ten times this figure was made for other lines according to the characterization codes listed with the intensities. The large number of hazy (h) and very hazy (H) lines suggests that they were subject to some Stark broadening and shifts.

The next largest source of our lines is from Minnhagen *et al.* [69MIN]. The estimated uncertainty in their wavelengths is mostly about 0.003 Å. However it is about 0.006 Å between 800 and 1350 Å and between 2350 and 2450 Å.

The most precise measurements of Kr II wavelengths are the interferometric observations of 43 lines reported in Humphreys and Paul [70HUM]. Their measurements were performed using isotopically pure ^{86}Kr. Since no intensity information is quoted for these lines, we include in our compilation the intensities and characterization codes reported for the corresponding lines by deBruin *et al.* [33DEB]. Humphreys and Paul [70HUM] report their wavelengths (in Å) to four or five decimal places. We report them here to only four decimal places to correspond to our estimated uncertainty of 0.0007 Å in the ability to use the wavelengths observed from ^{86}Kr to represent the wavelengths from the natural isotope mix.

Agreement with the Ritz values obtained from the energy levels is good (as expected) for the 19 lines determining the 17 levels used in the level compilation and the $4p^4(^3P)5s\ ^4P_{5/2}$ level. However, for the other lines, the Humphreys and Paul [70HUM] wavelengths do not agree with the Sugar and Musgrove [91SUG] based Ritz values as well as their interferometric origin would lead one to expect. The cause is likely due to the Sugar and Musgrove [91SUG] levels (by way of Minnhagen *et al.* levels [69MIN]) being based on deBruin *et al.* [33DEB] lines which show evidence of Stark shifts in this energy range. However, the deBruin *et al.* [33DEB] lines are the only sufficiently comprehensive set of data in this range to yield a consistent set of energy levels.

We believe the 42 Humphreys and Paul [70HUM] lines are less susceptible to Stark broadening and shift since they produced good interferometric results. We use them in our line compilation, although with the quoted reduced precision, because we expect that they more nearly represent the wavelengths for unperturbed atoms of the natural isotope mix. To the two decimal places reported for wavelengths from the other sources, the difference between ^{86}Kr lines and natural isotope ratio lines is not significant.

Thirty six additional lines between 1134 and 8652 Å were obtained from Bredice *et al.* [88BRE] using an energetically excited source. The quoted uncertainty of their measurements is 0.01 Å, but their data show evidence of large Stark shifts. The average absolute deviation from the Ritz wavelengths for these 36 lines is about 0.08 Å. Some of these lines may not be observable in less energetic sources.

Dzierżęga *et al.* [01DZI] reported transition rate measurements in Kr II. They used two National Institute of Standards and Technology (NIST) Fourier transform spectrometers (FTS) in their measurements and quoted the wavelengths of many lines. Although external calibration was not used for the wavelengths, the intrinsic wavelength precision of the instruments was 1 part in 10^6 for the FTS used above 4000 Å and 3 parts in 10^6 for the FTS used below 4000 Å [04NAV]. Wavelengths were reported to only two decimal places (in Å). Their hollow cathode light source was expected to have lower Stark shifts than the light sources of deBruin *et al.* [33DEB] or Bredice *et al.* [88BRE] Since no intensity information is quoted for their lines, we include in our compilation the intensities and characterization codes reported for the corresponding lines by deBruin *et al.* [33DEB]

The priority in our choice of duplicate lines is [70HUM], [69MIN], [01DZI], then [33DEB] if the estimated uncertainty of the line is ⩽0.02 Å, then [88BRE], then [33DEB] if the estimated uncertainty of the line is ⩾0.04 Å. Lines from earlier investigations, such as [35BOY], are not included since they are replaced by more precise measurements from the references we used.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr II levels. Only classifiable lines are included in our compilation. Many other lines are listed in the references but are not included since we cannot be sure that they are from Kr II when they do not fit the known levels. Transition probability calculations using the Cowan codes [81COW] with empirically adjusted configuration average energies were used to help resolve choices between multiple possible classifications of lines. Intensities have been taken from the stated sources except as specified above.

The intensity codes given in the Kr II line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
b	blend
d	double
h	hazy
H	very hazy
l	unsymmetrical-shaded to longer wavelength
v	unsymmetrical-shaded to shorter wavelength
w	wide
*	multiply classified line (two or more classifications of this line share the same intensity)

The values of g_J included in the level table were compiled by Sugar and Musgrove [91SUG] from deBruin *et al.* [33DEB]. The ionization energy was obtained by Minnhagen *et al.* [69MIN] by means of spectral analysis.

4.2.1. References

33DEB = T. L. deBruin, C. J. Humphreys, and W. F. Meggers, J. Res. Nat. Bur. Stand. **11**, 409 (1933).
35BOY = J. C. Boyce, Phys. Rev. **47**, 718 (1935).
69MIN = L. Minnhagen, H. Strihed, and B. Petersson, Ark. Fys. **39**, 471 (1969).
70HUM = C. J. Humphreys and E. Paul, Jr., J. Opt. Soc. Am. **60**, 200 (1970).
81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).
88BRE = F. Bredice, M. Raineri, J. Reyna Almandos, and M. Gallardo, Spectrosc. Lett. **21**, 11 (1988).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
01DZI = K. Dzierżęga, U. Griesmann, G. Nave, and Ł. Bratasz, Phys. Scr. **63**, 209 (2001).
04NAV = G. Nave (private communication, 2004).

TABLE 7. Energy levels of Kr II

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Leading percentages					Source of level
0.00	1	$4s^24p^5$	$^2P^o$	3/2							91SUG
5370.10	1	$4s^24p^5$	$^2P^o$	1/2							91SUG
109 000.36	0	$4s4p^6$	^2S	1/2		57		43	$4s^24p^4(^1D)4d$	^2S	91SUG
112 828.27	0	$4s^24p^4(^3P)5s$	^4P	5/2	1.60	96		3	$4s^24p^4(^1D)5s$	^2D	91SUG
115 092.012	0	$4s^24p^4(^3P)5s$	^4P	3/2	1.54	59		36	$4s^24p^4(^3P)5s$	^2P	91SUG
117 603.016	0	$4s^24p^4(^3P)5s$	^4P	1/2	2.64	78		13	$4s^24p^4(^3P)4d$	^4D	91SUG
118 474.359	0	$4s^24p^4(^3P)5s$	^2P	3/2	1.52	58		38	$4s^24p^4(^3P)5s$	^4P	91SUG
121 002.149	0	$4s^24p^4(^3P)5s$	^2P	1/2	0.70	78		13	$4s^24p^4(^3P)4d$	^4D	91SUG
127 597.49	0	$4s^24p^4(^1D)5s$	^2D	3/2	0.80	76		8	$4s^24p^4(^1D)4d$	^2D	91SUG
127 861.51	0	$4s^24p^4(^1D)5s$	^2D	5/2	1.20	89		4	$4s^24p^4(^1D)4d$	^2D	91SUG
145 811.90	0	$4s^24p^4(^1S)5s$	^2S	1/2	2.00	85		6	$4s^24p^4(^1D)4d$	^2S	91SUG
120 209.87	0	$4s^24p^4(^3P)4d$	^4D	7/2		93		5	$4s^24p^4(^3P)4d$	^4F	91SUG
120 426.93	0	$4s^24p^4(^3P)4d$	^4D	5/2		91		3	$4s^24p^4(^3P)4d$	^4F	91SUG
121 000.37	0	$4s^24p^4(^3P)4d$	^4D	3/2		89		3	$4s^24p^4(^3P)4d$	^4P	91SUG
121 779.54	0	$4s^24p^4(^3P)4d$	^4D	1/2	0.00	79		17	$4s^24p^4(^3P)5s$	^2P	91SUG
126 000.82	0	$4s^24p^4(^3P)4d$	^4F	9/2		94		6	$4s^24p^4(^1D)4d$	^2G	91SUG
127 929.52	0	$4s^24p^4(^3P)4d$	^4F	7/2		72		20	$4s^24p^4(^3P)4d$	^2F	91SUG
129 515.08	0	$4s^24p^44d$		1/2		33	$4s^24p^4(^3P)4d\ ^4P$	29	$4s^24p^4(^1D)4d$	^2P	91SUG
129 697.19	0	$4s^24p^4(^3P)4d$	^4F	5/2		91		4	$4s^24p^4(^3P)4d$	^2F	91SUG
130 512.73	0	$4s^24p^4(^3P)4d$	^4F	3/2		96					91SUG
130 893.45	0	$4s^24p^4(^3P)4d$	^4P	1/2		61		21	$4s^24p^4(^3P)4d$	^2P	91SUG
131 375.45	0	$4s^24p^4(^3P)4d$	^2P	3/2		76		9	$4s^24p^4(^1D)4d$	^2P	91SUG
131 632.11	0	$4s^24p^4(^3P)4d$	^2F	7/2		65		22	$4s^24p^4(^3P)4d$	^4F	91SUG
132 965.52	0	$4s^24p^44d$		3/2		35	$4s^24p^4(^3P)4d\ ^4P$	22	$4s^24p^4(^1D)4d$	^2D	91SUG
132 970.49	0	$4s^24p^4(^3P)4d$	^4P	5/2		68		11	$4s^24p^4(^3P)4d$	^2F	91SUG
134 566.95	0	$4s^24p^4(^3P)4d$	^2F	5/2		47		26	$4s^24p^4(^3P)4d$	^4P	91SUG
134 621.41	0	$4s^24p^44d$		3/2		34	$4s^24p^4(^3P)4d\ ^2D$	33	$4s^24p^4(^1D)4d$	^2P	91SUG
137 098.16	0	$4s^24p^44d$		5/2		34	$4s^24p^4(^3P)4d\ ^2D$	34	$4s^24p^4(^3P)4d$	^2F	91SUG
149 514.06	0	$4s^24p^4(^1D)4d$	^2D	5/2		49		39	$4s^24p^4(^3P)4d$	^2D	91SUG
150 178.13	0	$4s^24p^4(^1D)4d$	^2D	3/2		48		45	$4s^24p^4(^3P)4d$	^2D	91SUG
151 826.36	0	$4s^24p^4(^1D)4d$	^2P	3/2		59		37	$4s^24p^4(^3P)4d$	^4P	91SUG
152 185.02	0	$4s^24p^4(^1D)4d$	^2P	1/2		53		45	$4s^24p^4(^3P)4d$	^2P	91SUG
160 794.93	0	$4s^24p^4(^1D)4d$	^2S	1/2	2.07	54		12	$4s4p^6\ ^2S$		91SUG
161 011.83	0	$4s^24p^4(^1S)4d$	^2D	5/2	2.47	89		6	$4s^24p^4(^1D)4d$	^2D	91SUG
161 407.57	0	$4s^24p^4(^1S)4d$	^2D	3/2		84		8	$4s^24p^4(^1D)4d$	^2D	91SUG
133 923.859	1	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	1.58						91SUG
134 286.667	1	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	1.67						91SUG
135 781.264	1	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	1.98						91SUG
135 781.415	1	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	1.43						91SUG
136 069.229	1	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	1.23						91SUG
138 379.610	1	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	1.26						91SUG
139 101.568	1	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	1.78						91SUG
140 117.228	1	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	1.34						91SUG
140 135.395	1	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	1.26						91SUG
140 161.462	1	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.00						91SUG
141 720.955	1	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	1.54						91SUG
141 993.940	1	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	1.33						91SUG
142 361.840	1	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	1.50						91SUG
149 171.64	1	$4s^24p^4(^1D)5p$	^2F	5/2	0.86						91SUG
149 702.80	1	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	1.14						91SUG
150 201.68	1	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	1.33						91SUG
152 190.13	1	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.80						91SUG
152 239.19	1	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.70						91SUG
152 314.48	1	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	1.20						91SUG
168 261.27	1	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	1.24						91SUG
168 937.54	1	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.90						91SUG
157 077.34	0	$4s^24p^4(^3P)6s$	^4P	5/2	1.60						91SUG
157 883.65	0	$4s^24p^4(^3P)6s$	^4P	3/2	1.39						91SUG
161 800.17	0	$4s^24p^4(^3P)6s$	^2P	3/2							91SUG

TABLE 7. Energy levels of Kr II—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Leading percentages	Source of level
161 875.62	0	$4s^24p^4(^3P)6s$	^4P	1/2	2.34		91SUG
163 031.91	0	$4s^24p^4(^3P)6s$	^2P	1/2	0.88		91SUG
171 968.85	0	$4s^24p^4(^1D)6s$	^2D	5/2	1.20		91SUG
172 050.11	0	$4s^24p^4(^1D)6s$	^2D	3/2	0.80		91SUG
161 283.59	0	$4s^24p^4(^3P)5d$	^4D	7/2	1.40		91SUG
161 450.10	0	$4s^24p^4(^3P)5d$	^4D	5/2	1.37		91SUG
162 057.31	0	$4s^24p^4(^3P)5d$	^4D	3/2	1.33		91SUG
162 207.13	0	$4s^24p^4(^3P)5d$	^4F	9/2	1.33		91SUG
162 530.21	0	$4s^24p^4(^3P)5d$	^4F	7/2	1.17		91SUG
162 564.41	0	$4s^24p^4(^3P)5d$	^4D	1/2	0.92		91SUG
164 437.45	0	$4s^24p^4(^3P)5d$	^4P	1/2	1.94		91SUG
165 075.60	0	$4s^24p^4(^3P)5d$	^4F	5/2	1.12		91SUG
165 140.18	0	$4s^24p^4(^3P)5d$	^4F	3/2	1.40		91SUG
166 578.05	0	$4s^24p^4(^3P)5d$	^2F	7/2			91SUG
166 951.56	0	$4s^24p^4(^3P)5d$	^2P	1/2	0.51		91SUG
166 999.69	0	$4s^24p^4(^3P)5d$	^2F	5/2			91SUG
167 045.38	0	$4s^24p^4(^3P)5d$	^4P	3/2	0.52		91SUG
167 517.16	0	$4s^24p^4(^3P)5d$	^4P	5/2	1.04		91SUG
167 911.34	0	$4s^24p^4(^3P)5d$	^2P	3/2	1.18		91SUG
169 703.13	0	$4s^24p^4(^3P)5d$	^2D	5/2	1.15		91SUG
170 569.38	0	$4s^24p^4(^3P)5d$	^2D	3/2	1.00		91SUG
175 889.93	0	$4s^24p^4(^1D)5d$	^2G	7/2	0.89		91SUG
176 109.24	0	$4s^24p^4(^1D)5d$	^2D	3/2			91SUG
176 591.22	0	$4s^24p^4(^1D)5d$	^2G	9/2	1.11		91SUG
177 682.11	0	$4s^24p^4(^1D)5d$	^2P	3/2	1.18		91SUG
177 708.50	0	$4s^24p^4(^1D)5d$	^2F	5/2	0.89		91SUG
177 907.24	0	$4s^24p^4(^1D)5d$	^2F	7/2	1.14		91SUG
178 318.69	0	$4s^24p^4(^1D)5d$	^2D	5/2	1.20		91SUG
178 504.89	0	$4s^24p^4(^1D)5d$	^2P	1/2			91SUG
164 372.15	1	$4s^24p^4(^3P)6p$	$^4P^o$	5/2			91SUG
164 646.33	1	$4s^24p^4(^3P)6p$	$^4P^o$	3/2			91SUG
164 950.83	1	$4s^24p^4(^3P)6p$	$^4D^o$	7/2			91SUG
165 057.18	1	$4s^24p^4(^3P)6p$	$^4D^o$	5/2			91SUG
166 153.43	1	$4s^24p^4(^3P)6p$	$^4D^o$	3/2			91SUG
168 083.78	1	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	9/2			91SUG
168 116.32	1	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2			91SUG
168 181.44	1	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2			91SUG
168 258.54	1	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2			91SUG
168 383.26	1	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2			91SUG
168 460.67	1	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2			91SUG
168 474.09	1	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	11/2			91SUG
168 488.99	1	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	9/2			91SUG
168 628.47	1	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2			91SUG
168 717.10	1	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2			91SUG
172 712.56	1	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2			91SUG
172 771.65	1	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2			91SUG
172 800.24	1	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	9/2			91SUG
172 855.40	1	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2			91SUG
173 128.92	1	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2			91SUG
173 154.78	1	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2			91SUG
173 673.73	1	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2			91SUG
173 686.12	1	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2			91SUG
173 307.95	0	$4s^24p^4(^3P)7s$	^4P	5/2			91SUG
173 638.28	0	$4s^24p^4(^3P)7s$	^4P	3/2			91SUG
177 955.08	0	$4s^24p^4(^3P)7s$	^2P	3/2			91SUG
178 053.05	0	$4s^24p^4(^3P)7s$	^4P	1/2			91SUG
178 785.88	0	$4s^24p^4(^3P)7s$	^2P	1/2			91SUG
175 339.62	0	$4s^24p^4(^3P)6d$	^4D	7/2			91SUG
175 431.28	0	$4s^24p^4(^3P)6d$	^4D	5/2			91SUG

TABLE 7. Energy levels of Kr II—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	g_J	Leading percentages	Source of level
175 664.77	0	$4s^24p^4(^3P)6d$	^4F	9/2			91SUG
175 844.05	0	$4s^24p^4(^3P)6d$	^4F	7/2			91SUG
178 341.88	1	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2			91SUG
178 361.50	1	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2			91SUG
178 402.42	1	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2			91SUG
178 462.50	1	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2			91SUG
178 511.13	1	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2			91SUG
178 543.80	1	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	11/2			91SUG
178 556.06	1	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	9/2			91SUG
178 569.56	1	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2			91SUG
178 653.80	1	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2			91SUG
178 682.44	1	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2			91SUG
182 947.03	1	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	9/2			91SUG
182 947.34	1	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2			91SUG
182 963.85	1	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2			91SUG
183 001.89	1	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2			91SUG
183 126.90	1	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2			91SUG
183 154.58	1	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2			91SUG
183 728.60	1	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2			91SUG
183 737.40	1	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2			91SUG
181 199.76	0	$4s^24p^4(^3P)8s$	^4P	5/2			91SUG
181 378.63	0	$4s^24p^4(^3P)8s$	^4P	3/2			91SUG
183 938.95	1	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	9/2			91SUG
183 983.37	1	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2			91SUG
184 027.39	1	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2			91SUG
184 041.28	1	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	11/2			91SUG
184 045.18	1	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2			91SUG
184 049.68	1	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	9/2			91SUG
184 109.22	1	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2			91SUG
184 134.64	1	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2			91SUG
188 512.46	1	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	9/2			91SUG
188 545.00	1	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2			91SUG
188 618.25	1	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2			91SUG
187 274.16	1	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	9/2			91SUG
187 282.19	1	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	7/2			91SUG
187 355.52	1	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	11/2			91SUG
187 360.53	1	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	9/2			91SUG
189 445.50	1	$4s^24p^4(^3P_2)8f$	$^2[4]^o$	9/2			91SUG
189 503.65	1	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	11/2			91SUG
189 507.85	1	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	9/2			91SUG
190 936.53	1	$4s^24p^4(^3P_2)9f$	$^2[4]^o$	9/2			91SUG
190 974.91	1	$4s^24p^4(^3P_2)9f$	$^2[5]^o$	11/2			91SUG
190 977.53	1	$4s^24p^4(^3P_2)9f$	$^2[5]^o$	9/2			91SUG
192 025.51	1	$4s^24p^4(^3P_2)10f$	$^2[5]^o$	11/2			91SUG

TABLE 8. Sources of Kr II lines

Source	Number of classifications	Light source	Wavelength range (Å)	Uncertainty (Å)
33DEB	539	Geissler tubes operated with high voltage and a spark gap	2130–10 660	0.01–0.1
69MIN	430	electrodeless pulsed high-frequency discharge tube	551–2447	0.003–0.006
70HUM	43	cryogenically-cooled, microwave-excited ^{86}Kr discharge tubes operated at as low a pressure as possible while maintaining the discharge (intensities and characterization codes taken from 33DEB)	3632–4847	0.0005 for 4 d.p. lines 0.00005 for 5 d.p. lines
88BRE	35	energetic pulsed capillary discharge	1735–8652	0.01
01DZI	131	hollow cathode (intensities and characterization codes taken from 33DEB)	2691–13 974	0.005–0.014

TABLE 9. Spectral lines of Kr II

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
551.328	181 380.2	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)8s$	^{4}P	3/2	0.003	69MIN
559.315	178 790.1	3	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)7s$	^{2}P	1/2	0.003	69MIN
560.792	178 319.2	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^1$D$)5d$	^{2}D	5/2	0.003	69MIN
561.932	177 957.5	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)7s$	^{2}P	3/2	0.003	69MIN
562.792	177 685.5	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^1$D$)5d$	^{2}P	3/2	0.003	69MIN
570.013	175 434.6	6	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)6d$	^{4}D	5/2	0.003	69MIN
575.907	173 639.1	2	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)7s$	^{4}P	3/2	0.003	69MIN
576.653	173 414.5	1	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)7s$	^{2}P	1/2	0.003	69MIN
576.998	173 310.8	0	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)7s$	^{4}P	5/2	0.003	69MIN
579.101	172 681.4	0	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)7s$	^{4}P	1/2	0.003	69MIN
579.414	172 588.2	1	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)7s$	^{2}P	3/2	0.003	69MIN
580.345	172 311.3	0	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^1$D$)5d$	^{2}P	3/2	0.003	69MIN
581.219	172 052.2	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^1$D$)6s$	^{2}D	3/2	0.003	69MIN
581.500	171 969.0	3	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^1$D$)6s$	^{2}D	5/2	0.003	69MIN
585.688	170 739.4	2	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^1$D$)5d$	^{2}D	3/2	0.003	69MIN
586.269	170 570.2	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{2}D	3/2	0.003	69MIN
589.265	169 702.9	5	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{2}D	5/2	0.003	69MIN
594.286	168 269.1	1	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)7s$	^{4}P	3/2	0.003	69MIN
595.539	167 915.1	8 b	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{2}P	3/2	0.003	69MIN
596.956	167 516.5	4	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}P	5/2	0.003	69MIN
598.643	167 044.5	1	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}P	3/2	0.003	69MIN
598.805	166 999.3	5	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{2}F	5/2	0.003	69MIN
598.978	166 951.0	4	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{2}P	1/2	0.003	69MIN
599.954	166 679.4	5 b	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^1$D$)6s$	^{2}D	3/2	0.003	69MIN
605.331	165 198.9	5	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)5d$	^{2}D	3/2	0.003	69MIN
605.547	165 139.9	5	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}F	3/2	0.003	69MIN
605.782	165 075.9	3	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}F	5/2	0.003	69MIN
608.134	164 437.4	6	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}P	1/2	0.003	69MIN
613.374	163 032.7	5	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)6s$	^{2}P	1/2	0.003	69MIN
615.138	162 565.1	5	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}D	1/2	0.003	69MIN
615.227	162 541.6	5	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)5d$	^{2}P	3/2	0.003	69MIN
617.065	162 057.5	8	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}D	3/2	0.003	69MIN
617.758	161 875.7	6	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)6s$	^{4}P	1/2	0.003	69MIN
618.048	161 799.7	6	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)6s$	^{2}P	3/2	0.003	69MIN
618.511	161 678.6	6	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)5d$	^{4}P	3/2	0.003	69MIN
618.882	161 581.7	6	$4s^24p^5$	^{2}P°	1/2	—	$4s^24p^4(^3$P$)5d$	^{2}P	1/2	0.003	69MIN
619.385	161 450.5	6	$4s^24p^5$	^{2}P°	3/2	—	$4s^24p^4(^3$P$)5d$	^{4}D	5/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	*J*		Configuration	Term	*J*		
619.548	161 408.0	5	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.003	69MIN
621.074	161 011.4	8	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.003	69MIN
621.911	160 794.7	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.003	69MIN
625.901	159 769.7	5	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.003	69MIN
633.380	157 883.1	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.003	69MIN
634.272	157 661.1	6	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.003	69MIN
636.152	157 195.1	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.003	69MIN
636.630	157 077.1	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.003	69MIN
638.215	156 687.0	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.003	69MIN
638.960	156 504.3	6	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.003	69MIN
639.263	156 430.1	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.003	69MIN
640.871	156 037.6	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.003	69MIN
643.399	155 424.5	5	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.003	69MIN
655.681	152 513.2	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.003	69MIN
657.095	152 185.0	9	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.003	69MIN
658.649	151 825.9	8	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.003	69MIN
665.879	150 177.4	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.003	69MIN
668.835	149 513.7	8	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.003	69MIN
681.133	146 814.2	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.003	69MIN
682.800	146 455.8	8	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.003	69MIN
685.820	145 810.9	6 b	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1S)5s$	^2S	1/2	0.003	69MIN
690.572	144 807.5	5	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.003	69MIN
712.042	140 441.2	9	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1S)5s$	^2S	1/2	0.003	69MIN
729.404	137 098.2	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^44d$		5/2	0.003	69MIN
742.825	134 621.2	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^44d$		3/2	0.003	69MIN
743.125	134 566.9	7	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^2F	5/2	0.003	69MIN
752.045	132 970.8	10	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4P	5/2	0.003	69MIN
752.078	132 964.9	5	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^44d$		3/2	0.003	69MIN
761.175	131 375.8	15	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^2P	3/2	0.003	69MIN
763.977	130 894.0	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4P	1/2	0.003	69MIN
766.205	130 513.4	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4F	3/2	0.003	69MIN
771.027	129 697.1	15	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4F	5/2	0.003	69MIN
772.112	129 514.9	6	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^44d$		1/2	0.003	69MIN
773.688	129 251.1	12 b	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^44d$		3/2	0.003	69MIN
782.096	127 861.5	15	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5s$	^2D	5/2	0.003	69MIN
783.724	127 595.9	12	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^44d$		3/2	0.003	69MIN
793.617	126 005.4	7	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)4d$	^2P	3/2	0.003	69MIN
796.668	125 522.8	6 b	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)4d$	^4P	1/2	0.003	69MIN
799.087	125 142.8	9	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)4d$	^4F	3/2	0.003	69MIN
805.507	124 145.4	6	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^44d$		1/2	0.006	69MIN
818.149	122 227.1	12	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^1D)5s$	^2D	3/2	0.006	69MIN
821.154	121 779.8	9	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4D	1/2	0.006	69MIN
826.434	121 001.8	10	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5s$	^2P	1/2	0.006	69MIN
830.375	120 427.5	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)4d$	^4D	5/2	0.006	69MIN
844.064	118 474.4	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5s$	^2P	3/2	0.006	69MIN
850.319	117 602.9	10	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5s$	^4P	1/2	0.006	69MIN
859.037	116 409.4	10	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)4d$	^4D	1/2	0.006	69MIN
864.821	115 630.9	12	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5s$	^2P	1/2	0.006	69MIN
868.871	115 091.9	12	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5s$	^4P	3/2	0.006	69MIN
884.141	113 104.1	15	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5s$	^2P	3/2	0.006	69MIN
886.300	112 828.6	20	$4s^24p^5$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5s$	^4P	5/2	0.006	69MIN
891.006	112 232.7	18	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5s$	^4P	1/2	0.006	69MIN
911.394	109 722.0	15	$4s^24p^5$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5s$	^4P	3/2	0.006	69MIN
917.427	109 000.5	25	$4s^24p^5$	$^2P^o$	3/2	—	$4s4p^6$	^2S	1/2	0.006	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
964.971	103 630.1	25	$4s^24p^5$	$^2P^o$	1/2	—	$4s4p^6$	^2S	1/2	0.006	69MIN
1330.948	75 134.4	0	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.006	69MIN
1331.402	75 108.8	0	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2	0.006	69MIN
1413.894	70 726.66	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)9f$	$^2[4]^o$	9/2	0.003	69MIN
1422.512	70 298.18	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1435.085	69 682.28	3	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1435.676	69 653.60	1	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
1444.343	69 235.63	3	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)8f$	$^2[4]^o$	9/2	0.003	69MIN
1464.072	68 302.65	1	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	9/2	0.003	69MIN
1466.460	68 191.43	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1468.021	68 118.92	0 b	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.003	69MIN
1490.928	67 072.32	1	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	7/2	0.003	69MIN
1491.104	67 064.40	6	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	9/2	0.003	69MIN
1495.769	66 855.24	3	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	7/2	0.003	69MIN
1514.585	66 024.69	0	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)10f$	$^2[5]^o$	11/2	0.003	69MIN
1525.486	65 552.88	0	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN
1539.075	64 974.09	0	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)9f$	$^2[5]^o$	11/2	0.003	69MIN
1568.050	63 773.48	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
1569.135	63 729.38	6	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	9/2	0.003	69MIN
1571.876	63 618.25	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1572.340	63 599.48	1 b	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN
1573.404	63 556.47	2	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
1574.103	63 528.24	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1574.340	63 518.68	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
1574.733	63 502.83	3	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	11/2	0.003	69MIN
1575.375	63 476.95	0	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
1576.155	63 445.54	0	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)8f$	$^2[4]^o$	9/2	0.003	69MIN
1579.513	63 310.65	1	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1579.731	63 301.92	6	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
1584.563	63 108.88	0	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2	0.003	69MIN
1586.093	63 048.01	0	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)9f$	$^2[5]^o$	9/2	0.003	69MIN
1586.170	63 044.94	3	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1586.621	63 027.02	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN
1589.384	62 917.46	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1592.565	62 791.79	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
1593.946	62 737.38	6*	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	9/2	0.003	69MIN
1593.946	62 737.38	6*	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1594.895	62 700.05	3	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1598.082	62 575.01	4	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
1599.492	62 519.85	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
1603.721	62 354.99	0	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.003	69MIN
1606.026	62 265.49	1	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1608.902	62 154.19	1	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
1613.853	61 963.51	1	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1613.898	61 961.78	2	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1614.274	61 947.35	5	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
1623.948	61 578.33	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	9/2	0.003	69MIN
1629.867	61 354.70	7 b	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	11/2	0.003	69MIN
1632.037	61 273.12	1	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	9/2	0.003	69MIN
1634.396	61 184.68	4	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1637.981	61 050.77	1	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
1638.807	61 020.00	5 b	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1650.630	60 582.93	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	9/2	0.003	69MIN
1658.358	60 300.61	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1668.416	59 937.09	0	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.003	69MIN
1674.577	59 716.57	2	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
1677.058	59 628.23	4	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.003	69MIN
1682.622	59 431.05	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	9/2	0.003	69MIN
1684.845	59 352.64	0	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	7/2	0.003	69MIN
1687.456	59 260.80	2	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.003	69MIN
1697.189	58 920.96	0	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1699.297	58 847.86	4	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.003	69MIN
1713.509	58 359.78	1	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
1716.582	58 255.30	1	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1716.657	58 252.76	2	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
1718.431	58 192.62	1	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
1719.638	58 151.77	6	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
1719.908	58 142.64	3	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
1720.208	58 132.50	9	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.003	69MIN
1721.632	58 084.42	3 b	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
1722.701	58 048.38	0	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	9/2	0.003	69MIN
1722.936	58 040.46	5	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	11/2	0.003	69MIN
1724.864	57 975.59	5	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
1725.982	57 938.03	3	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	9/2	0.003	69MIN
1726.078	57 934.81	7	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
1727.854	57 875.26	0	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	9/2	0.003	69MIN
1733.649	57 681.80	0	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1733.681	57 680.74	0	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1734.507	57 653.27	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
1734.54	57 652.2	1	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.01	88BRE
1738.804	57 510.79	4	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
1738.861	57 508.91	1	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
1742.093	57 402.22	6	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
1749.687	57 153.08	1	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
1754.821	56 985.87	0	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1757.384	56 902.76	1	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1758.077	56 880.33	3	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	9/2	0.003	69MIN
1758.265	56 874.25	2	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
1762.686	56 731.60	3	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
1769.546	56 511.67	0	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2	0.003	69MIN
1781.888	56 120.25	5	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	9/2	0.003	69MIN
1782.594	56 098.02	2 b	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN
1783.997	56 053.91	2	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
1785.419	56 009.26	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	9/2	0.003	69MIN
1794.421	55 728.28	1	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	9/2	0.003	69MIN
1796.84	55 653.3	9	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.01	88BRE
1797.020	55 647.68	1	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1797.515	55 632.36	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.003	69MIN
1804.070	55 430.22	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.003	69MIN
1808.713	55 287.93	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.003	69MIN
1809.454	55 265.29	0	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1811.674	55 197.57	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1817.602	55 017.55	5	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	9/2	0.003	69MIN
1830.842	54 619.68	1	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.003	69MIN
1833.847	54 530.18	1	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1842.091	54 286.13	3	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
1850.093	54 051.34	2	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.003	69MIN
1850.773	54 031.48	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1852.603	53 978.11	0	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.003	69MIN
1867.889	53 536.37	1	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.003	69MIN
1868.662	53 514.23	3 b	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN
1870.645	53 457.50	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
1871.619	53 429.68	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1873.761	53 368.60	2	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.003	69MIN
1875.296	53 324.92	0	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
1875.999	53 304.93	5	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
1876.491	53 290.96	0	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
1877.613	53 259.11	1	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.003	69MIN
1878.041	53 246.97	6	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.003	69MIN
1878.256	53 240.88	1	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.003	69MIN
1878.830	53 224.61	4	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1879.141	53 215.80	1	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2	0.003	69MIN
1881.418	53 151.40	0	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1888.783	52 944.14	4 b	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.003	69MIN
1889.679	52 919.04	2	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN
1895.408	52 759.09	0	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.003	69MIN
1897.457	52 702.12	4	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN
1898.048	52 685.71	5	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.003	69MIN
1898.631	52 669.53	1	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)6f$	$^2[2]^o$	3/2	0.003	69MIN
1899.501	52 645.41	1	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.003	69MIN
1899.629	52 641.86	4	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
1901.490	52 590.34	7	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	9/2	0.003	69MIN
1902.778	52 554.74	1	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	9/2	0.003	69MIN
1903.193	52 543.28	9	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	11/2	0.003	69MIN
1906.543	52 450.95	0	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1907.356	52 428.60	4	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.003	69MIN
1907.760	52 417.49	3	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[5]^o$	9/2	0.003	69MIN
1909.788	52 361.83	0	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1909.840	52 360.41	1	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
1910.421	52 344.48	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
1910.539	52 341.25	5	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.003	69MIN
1911.797	52 306.81	2	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	9/2	0.003	69MIN
1914.673	52 228.24	1 b	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.003	69MIN
1917.387	52 154.31	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.003	69MIN
1918.567	52 122.23	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.003	69MIN
1919.199	52 105.07	4 b	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
1919.522	52 096.30	1 b	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
1920.467	52 070.67	1	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1931.276	51 779.24	1	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
1931.565	51 771.49	6	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
1933.784	51 712.08	3	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
1933.852	51 710.27	2	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
1938.427	51 588.22	0	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN
1939.037	51 571.99	1	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
1940.112	51 543.42	0	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.003	69MIN
1941.944	51 494.79	1	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1943.765	51 446.55	1	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.003	69MIN
1946.677	51 369.59	0	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
1948.752	51 314.89	6	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	9/2	0.003	69MIN
1956.412	51 113.98	1	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
1957.542	51 084.47	0	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
1958.427	51 061.39	1*	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1958.427	51 061.39	1*	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
1961.863	50 971.96	1	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
1963.361	50 933.07	6	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
1969.278	50 780.03	1	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
1970.125	50 758.20	2	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
1974.015	50 658.18	0	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.003	69MIN
1975.251	50 626.48	7	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	9/2	0.003	69MIN
1976.252	50 600.83	1	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
1978.904	50 533.02	2	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
1981.264	50 472.83	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
1981.653	50 462.92	1	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.003	69MIN
1982.866	50 432.05	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
1983.634	50 412.53	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.003	69MIN
1990.341	50 242.65	0	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
1992.464	50 189.11	1	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
1993.763	50 156.41	3	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
1999.417	50 014.58	1	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.003	69MIN

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2000.281	49 976.78	1	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
2003.007	49 908.78	0	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
2011.142	49 706.93	1	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.003	69MIN
2016.785	49 567.87	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.003	69MIN
2019.05	49 512.3	9	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.01	88BRE
2022.978	49 416.15	0	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
2033.098	49 170.21	0	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
2033.216	49 167.35	3	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
2033.456	49 161.55	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
2034.421	49 138.23	0	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
2035.342	49 116.00	1	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.003	69MIN
2040.326	48 996.04	3	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2045.508	48 871.93	0	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2048.004	48 812.38	0 b	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2049.980	48 765.33	4	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
2052.517	48 705.07	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2054.241	48 664.20	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
2058.646	48 560.08	6 b	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	7/2	0.003	69MIN
2059.795	48 533.00	0	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.003	69MIN
2060.748	48 510.55	2	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.003	69MIN
2063.964	48 434.98	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
2066.297	48 380.30	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
2068.613	48 326.14	5	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	5/2	0.003	69MIN
2071.839	48 250.90	4	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.003	69MIN
2080.222	48 056.48	1	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2080.552	48 048.86	6	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.003	69MIN
2081.21	48 033.7	9	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	88BRE
2082.752	47 998.11	0	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2083.902	47 971.63	4	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.003	69MIN
2084.559	47 956.51	5	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
2085.401	47 937.15	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.003	69MIN
2086.727	47 906.69	8	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2087.478	47 889.46	1	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2088.151	47 874.03	10 d	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	9/2	0.003	69MIN
2090.004	47 831.59	2	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.003	69MIN
2091.868	47 788.97	4	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
2093.121	47 760.37	4	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.003	69MIN
2093.371	47 754.66	8 d	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.003	69MIN
2095.033	47 716.78	5	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
2095.114	47 714.94	1	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
2096.227	47 689.61	10 d	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.003	69MIN
2096.64	47 680.2	3	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.01	88BRE
2098.933	47 628.13	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.003	69MIN
2099.012	47 626.34	3	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.003	69MIN
2099.402	47 617.50	1	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2106.357	47 460.29	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.003	69MIN
2109.787	47 383.14	5	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
2109.880	47 381.05	3	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
2113.181	47 307.04	3	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
2114.51	47 277.3	1	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	1/2	0.01	88BRE
2114.576	47 275.84	2	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)8s$	^4P	5/2	0.003	69MIN
2115.252	47 260.73	1	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.003	69MIN
2115.326	47 259.08	1	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.003	69MIN
2118.238	47 194.12	4	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2118.814	47 181.29	9 d	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.003	69MIN
2119.857	47 158.08	2	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.003	69MIN
2120.865	47 135.67	2	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2125.042	47 043.03	1	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2125.769	47 026.94	3	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2129.820	46 937.50	4 b*	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.003	69MIN
2129.820	46 937.50	4 b*	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2130.26	46 927.8	1	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.01	33DEB
2130.432	46 924.02	7 b	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	9/2	0.003	69MIN
2130.937	46 912.90	1	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)8s$	^4P	5/2	0.003	69MIN
2132.198	46 885.16	1	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)6f$	$^2[4]^o$	7/2	0.003	69MIN
2133.843	46 849.02	4	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.003	69MIN
2134.693	46 830.37	3	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
2140.189	46 710.12	5	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.003	69MIN
2143.845	46 630.47	4	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.003	69MIN
2145.063	46 604.00	8	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.003	69MIN
2146.041	46 582.76	0	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.003	69MIN
2150.708	46 481.69	2	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.003	69MIN
2165.111	46 172.51	1 d	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2169.062	46 088.42	1 d	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.003	69MIN
2177.772	45 904.11	5	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.003	69MIN
2178.084	45 897.53	0	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.003	69MIN
2179.56	45 866.5	1 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.02	33DEB
2182.145	45 812.13	1 d	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.003	69MIN
2186.226	45 726.62	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
2186.691	45 716.90	3	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
2186.922	45 712.07	1 d	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[1]^o$	3/2	0.003	69MIN
2192.098	45 604.14	5	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2192.341	45 599.09	3	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2192.426	45 597.32	0	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)8s$	^4P	3/2	0.003	69MIN
2194.915	45 545.62	0	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2197.494	45 492.17	6	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2200.168	45 436.89	2	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2200.408	45 431.93	0	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2201.066	45 418.35	3	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)8s$	^4P	5/2	0.003	69MIN
2202.390	45 391.05	3	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
2206.362	45 309.35	2	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)8s$	^4P	3/2	0.003	69MIN
2207.150	45 293.17	0	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.003	69MIN
2208.403	45 267.48	2	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN
2211.718	45 199.63	5	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN
2212.961	45 174.25	5	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
2214.085	45 151.32	0	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
2215.876	45 114.83	1	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
2221.834	44 993.86	1 d	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.003	69MIN
2225.187	44 926.07	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.003	69MIN
2225.975	44 910.17	0	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
2227.925	44 870.86	7	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	9/2	0.003	69MIN
2229.098	44 847.25	0	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.003	69MIN
2229.351	44 842.16	0	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
2234.393	44 740.99	4	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.003	69MIN
2239.935	44 630.30	0	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.003	69MIN
2245.31	44 523.47	1	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.01	88BRE
2252.871	44 374.06	0	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.003	69MIN
2260.750	44 219.42	2	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2263.676	44 162.27	4	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.003	69MIN
2271.892	44 002.58	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2272.592	43 989.02	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.003	69MIN
2273.228	43 976.72	6	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.003	69MIN
2274.704	43 948.19	0	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.003	69MIN
2274.850	43 945.37	3	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.003	69MIN
2277.423	43 895.72	4	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.003	69MIN
2277.727	43 889.86	1	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	3/2	0.003	69MIN
2280.547	43 835.60	1	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.003	69MIN
2282.680	43 794.64	0	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.003	69MIN
2290.455	43 645.99	3	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2290.550	43 644.18	0	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2300.378	43 457.73	6	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.003	69MIN
2301.735	43 432.12	6	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.003	69MIN
2304.939	43 371.75	2	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.003	69MIN
2312.017	43 238.98	8	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.003	69MIN
2314.243	43 197.39	7	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
2314.651	43 189.78	3	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.003	69MIN
2315.533	43 173.33	8	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.003	69MIN
2316.321	43 158.64	9	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.003	69MIN
2320.844	43 074.54	5	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.003	69MIN
2324.058	43 014.98	1	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.003	69MIN
2324.619	43 004.60	3	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.003	69MIN
2324.922	42 998.99	2	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)8s$	^4P	3/2	0.003	69MIN
2332.099	42 866.68	1	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.003	69MIN
2339.944	42 722.97	3	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	1/2	0.003	69MIN
2344.384	42 642.07	8	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.003	69MIN
2352.872	42 488.25	7	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	9/2	0.006	69MIN
2353.698	42 473.34	10	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	11/2	0.006	69MIN
2362.751	42 310.61	8	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.006	69MIN
2364.639	42 276.83	0	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)8s$	^4P	3/2	0.006	69MIN
2365.676	42 258.30	9*	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.006	69MIN

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2365.676	42 258.30	9*	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.006	69MIN
2366.149	42 249.86	4	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.006	69MIN
2368.972	42 199.51	6	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.006	69MIN
2369.739	42 185.86	4	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.006	69MIN
2373.096	42 126.18	2	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^1D)5d$	^2F	7/2	0.006	69MIN
2373.694	42 115.57	7	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.006	69MIN
2375.529	42 083.04	10	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	9/2	0.006	69MIN
2385.845	41 901.10	2	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.006	69MIN
2386.665	41 886.70	0	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.006	69MIN
2389.425	41 838.32	3	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2F	7/2	0.006	69MIN
2390.527	41 819.04	6	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.006	69MIN
2392.789	41 779.51	9	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.006	69MIN
2400.822	41 639.73	3	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.006	69MIN
2407.593	41 522.63	5	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.006	69MIN
2408.52	41 506.6	5 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.02	33DEB
2409.067	41 497.23	8	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.006	69MIN
2410.562	41 471.49	2	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)5f$	$^2[2]^o$	5/2	0.006	69MIN
2413.81	41 415.7	10 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6d$	^4D	7/2	0.02	33DEB
2414.938	41 396.35	10	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.006	69MIN
2416.797	41 364.51	7	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.006	69MIN
2418.224	41 340.10	5	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.006	69MIN
2418.397	41 337.14	8	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.006	69MIN
2420.333	41 304.08	1	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.006	69MIN
2422.716	41 263.46	2	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.006	69MIN
2425.064	41 223.51	6	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.006	69MIN
2426.363	41 201.44	10	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.006	69MIN
2428.333	41 168.02	10	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	9/2	0.006	69MIN
2430.031	41 139.25	2 b	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.006	69MIN
2433.412	41 082.10	0	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)8s$	^4P	5/2	0.006	69MIN
2436.458	41 030.74	6	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.006	69MIN
2446.44	40 863.34	8	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
2446.914	40 855.43	3	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.006	69MIN
2455.04	40 720.21	2	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.01	33DEB
2455.31	40 715.73	2	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.01	33DEB
2456.07	40 703.13	6	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.01	33DEB
2462.33	40 599.66	2	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
2463.27	40 584.17	2	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2464.77	40 559.5	100 h	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	9/2	0.02	33DEB
2474.69	40 396.9	2 h	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.02	33DEB
2478.85	40 329.11	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.01	33DEB
2483.62	40 251.66	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2487.50	40 188.88	3	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.01	33DEB
2487.62	40 186.94	4	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
2489.39	40 158.4	8 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.02	33DEB
2506.56	39 883.30	6	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)6d$	^4F	9/2	0.01	88BRE
2510.56	39 819.76	5	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2G	7/2	0.01	33DEB
2511.74	39 801.05	3	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.01	33DEB
2513.40	39 774.8	1 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)6d$	^4F	7/2	0.06	33DEB
2527.17	39 558.06	3	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)6d$	^4D	7/2	0.01	88BRE
2531.73	39 486.81	1	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
2538.34	39 384.0	5 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.06	33DEB
2550.13	39 201.92	2	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.01	33DEB
2555.91	39 113.28	6	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.01	33DEB
2556.36	39 106.39	6	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.01	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2559.10	39 064.5	8 h	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.02	33DEB
2561.94	39 021.2	3 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.04	33DEB
2562.04	39 019.7	1 H	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.04	33DEB
2566.61	38 950.2	1 h	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.02	33DEB
2572.03	38 868.2	10 h	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2578.98	38 763.41	2	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
2580.12	38 746.29	2	$4s^24p^44d$		1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.01	33DEB
2584.15	38 685.9	3 h	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2590.74	38 587.5	2 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.02	33DEB
2591.25	38 579.9	1 h	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.02	33DEB
2592.48	38 561.57	60	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.01	33DEB
2594.40	38 533.04	4	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.01	33DEB
2597.73	38 483.64	7	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2602.11	38 418.87	7	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
2605.41	38 370.2	1 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	1/2	0.06	33DEB
2610.76	38 291.6	1 h	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.02	33DEB
2610.98	38 288.4	10 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.02	33DEB
2616.71	38 204.5	10 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.02	33DEB
2620.44	38 150.1	40 h	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.02	33DEB
2620.65	38 147.1	6 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.02	33DEB
2622.82	38 115.53	2	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.01	33DEB
2627.75	38 044.02	7	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2634.41	37 947.9	6 h	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
2636.51	37 917.6	3 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	1/2	0.04	33DEB
2638.32	37 891.6	2 h	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)7s$	^4P	1/2	0.02	33DEB
2640.74	37 856.9	2 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.04	33DEB
2642.08	37 837.7	4 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.04	33DEB
2643.06	37 823.7	20 h	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.02	33DEB
2649.27	37 735.01	20	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.01	33DEB
2649.67	37 729.3	4 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.06	33DEB
2653.95	37 668.47	6	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2660.97	37 569.1	8 hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.02	33DEB
2661.22	37 565.58	1	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.01	33DEB
2661.47	37 562.05	5	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2662.57	37 546.5	2 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.04	33DEB
2664.00	37 526.38	8	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.01	33DEB
2664.37	37 521.17	4	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.01	33DEB
2666.61	37 489.6	6 h	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2675.31	37 367.7	4 h	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.02	33DEB
2677.20	37 341.36	6	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.01	33DEB
2683.55	37 253.01	15	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.01	33DEB
2685.79	37 221.94	1	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
2691.19	37 147.26	2	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.008	01DZI
2695.70	37 085.1	30 h	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
2701.34	37 007.7	15 h*	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2701.34	37 007.7	15 h*	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.02	33DEB
2710.27	36 885.76	3	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.01	33DEB
2711.11	36 874.33	2	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.01	33DEB
2712.40	36 856.8	80 h	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[5]^o$	9/2	0.02	33DEB
2714.49	36 828.4	3 h	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
2716.16	36 805.8	10 h	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.02	33DEB
2717.18	36 792.0	1 H*	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.04	33DEB
2717.18	36 792.0	1 H*	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)6f$	$^2[3]^o$	5/2	0.04	33DEB
2717.70	36 784.9	1 h*	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.02	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2717.70	36 784.9	1 h*	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	1/2	0.02	33DEB
2729.46	36 626.4	30 h	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.02	33DEB
2732.33	36 588.0	4 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.02	33DEB
2733.26	36 575.52	50	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.01	33DEB
2738.13	36 510.5	1 Hv*	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	1/2	0.06	33DEB
2738.13	36 510.5	1Hv*	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.06	33DEB
2740.11	36 484.09	1	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
2742.56	36 451.50	40	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	9/2	0.01	33DEB
2744.64	36 423.9	1 H	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.04	33DEB
2751.59	36 331.9	5 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	1/2	0.06	33DEB
2759.02	36 234.0	4 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.06	33DEB
2772.60	36 056.6	10 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.02	33DEB
2774.59	36 030.72	3	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.01	33DEB
2777.96	35 987.02	1–	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.01	33DEB
2778.99	35 973.68	2	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.01	33DEB
2779.11	35 972.13	20	$4s^24p^44d$		3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2779.51	35 966.95	4	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2779.97	35 961.0	1 Hl*	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.06	33DEB
2779.97	35 961.0	1 Hl*	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.06	33DEB
2795.81	35 757.3	80 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.02	33DEB
2796.26	35 751.51	2	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.01	33DEB
2796.63	35 746.78	3	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.01	88BRE
2800.98	35 691.3	2 Hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)7s$	^4P	1/2	0.06	33DEB
2801.23	35 688.1	2 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.06	33DEB
2803.20	35 663.0	20 h	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.02	33DEB
2807.07	35 613.8	1 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.02	33DEB
2808.72	35 592.9	1 h	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.02	33DEB
2816.46	35 495.11	60	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
2816.87	35 489.95	30	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
2822.63	35 417.53	5	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.01	33DEB
2823.03	35 412.5	2 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2830.43	35 319.9	3 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.04	33DEB
2832.39	35 295.49	2*	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.01	33DEB
2832.39	35 295.49	2*	$4s^24p^44d$		3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.01	33DEB
2833.00	35 287.89	100	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.01	33DEB
2835.35	35 258.6	8 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.04	33DEB
2838.79	35 215.92	20	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2839.20	35 210.84	2	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2844.46	35 145.73	20	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
2847.38	35 109.69	25 h	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.009	01DZI
2862.17	34 928.3	2 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.06	33DEB
2873.72	34 787.9	4 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
2894.63	34 536.6	2 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.06	33DEB
2907.15	34 387.9	1 h	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.02	33DEB
2908.62	34 370.50	5	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2913.23	34 316.11	4	$4s^24p^44d$		3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
2921.92	34 214.1	4 Hl	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	7/2	0.06	33DEB
2930.40	34 115.1	2 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.06	33DEB
2932.06	34 095.74	1	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.01	33DEB
2939.70	34 007.13	2	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.01	33DEB
2949.54	33 893.7	15 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
2954.28	33 839.3	12 h	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
2956.30	33 816.2	3 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
2960.79	33 764.91	5	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.009	01DZI

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2961.05	33 761.94	4	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.01	33DEB
2965.11	33 715.72	2	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.01	33DEB
2965.59	33 710.3	1 H	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.04	33DEB
2967.25	33 691.4	80 H	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.04	33DEB
2968.11	33 681.64	2	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.01	33DEB
2971.80	33 639.8	4 h*	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.02	33DEB
2971.80	33 639.8	4 h*	$4s^24p^44d$		3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.02	33DEB
2972.34	33 633.7	2 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.02	33DEB
2974.04	33 614.5	25 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.02	33DEB
2975.92	33 593.2	3 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.02	33DEB
2976.28	33 589.2	3 h	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.02	33DEB
2978.87	33 559.98	25	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.01	33DEB
2979.81	33 549.40	20	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
2982.34	33 520.9	1 h	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.02	33DEB
2983.94	33 503.0	2 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.06	33DEB
2985.33	33 487.4	4 Hl	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.06	33DEB
2988.69	33 449.7	3 Hl	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.06	33DEB
2989.80	33 437.3	1 H	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.04	33DEB
2990.90	33 425.0	1 h	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.02	33DEB
2996.59	33 361.54	20	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.009	01DZI
3008.42	33 230.4	8 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.02	33DEB
3012.00	33 190.9	1 h	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.02	33DEB
3018.30	33 121.58	1	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.01	33DEB
3022.49	33 075.7	5 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.02	33DEB
3030.01	32 993.59	4	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.009	01DZI
3031.59	32 976.4	5 Hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[3]^o$	5/2	0.06	33DEB
3034.16	32 948.5	2 h	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.02	33DEB
3049.23	32 785.6	8 Hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.06	33DEB
3051.75	32 758.6	1 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.02	33DEB
3055.31	32 720.39	3	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.01	33DEB
3056.01	32 712.9	30 H	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.04	33DEB
3061.51	32 654.1	6 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^2F	7/2	0.02	33DEB
3066.72	32 598.65	2	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.01	33DEB
3105.68	32 189.7	1 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.04	33DEB
3111.45	32 130.0	2 h	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.02	33DEB
3113.92	32 104.55	2	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
3115.67	32 086.5	1 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.02	33DEB
3126.02	31 980.3	6 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.02	33DEB
3132.84	31 910.7	4 H	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_0)5f$	$^2[3]^o$	5/2	0.04	33DEB
3135.10	31 887.67	8	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
3139.58	31 842.17	20	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.01	33DEB
3139.86	31 839.33	4	$4s^24p^44d$		5/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.01	33DEB
3140.44	31 833.4	3 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.04	33DEB
3147.39	31 763.16	1	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.01	33DEB
3150.94	31 727.37	80 h	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.009	01DZI
3156.07	31 675.80	1	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	0.01	33DEB
3164.94	31 587.0	3 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.06	33DEB
3170.63	31 530.35	2	$4s^24p^44d$		3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.01	33DEB
3176.94	31 467.7	15 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
3178.92	31 448.13	1	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.01	33DEB
3183.63	31 401.60	1	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.01	33DEB
3187.61	31 362.40	4	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.01	33DEB
3192.54	31 313.97	2*	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
3192.54	31 313.97	2*	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)7s$	^4P	5/2	0.01	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3195.50	31 284.96	2	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.01	33DEB
3197.65	31 263.9	4 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.04	33DEB
3200.40	31 237.07	50 h	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.01	01DZI
3202.54	31 216.2	15 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.04	33DEB
3205.26	31 189.70	4	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.01	33DEB
3205.44	31 187.95	2	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.01	33DEB
3207.29	31 169.96	1	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.01	33DEB
3208.28	31 160.35	40 h*	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.02	33DEB
3208.28	31 160.35	40 h*	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.02	33DEB
3209.17	31 151.7	7 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
3210.64	31 137.44	2 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.02	33DEB
3210.89	31 135.02	7	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.01	01DZI
3216.25	31 083.13	7 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.02	33DEB
3223.00	31 018.04	6	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.01	33DEB
3232.15	30 930.23	2 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.02	33DEB
3240.20	30 853.39	2	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.01	33DEB
3246.18	30 796.55	2	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)5d$	^2F	7/2	0.01	33DEB
3247.00	30 788.8	12 H	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
3248.03	30 779.0	6 H	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.04	33DEB
3256.70	30 697.08	4	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.01	01DZI
3276.81	30 508.69	1 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2F	7/2	0.02	33DEB
3282.09	30 459.61	15 h	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.01	01DZI
3287.38	30 410.60	2 h	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.02	33DEB
3287.69	30 407.7	2 H	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.04	33DEB
3290.31	30 383.52	1 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	0.02	33DEB
3315.72	30 150.69	15 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.02	33DEB
3321.17	30 101.21	8	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.01	01DZI
3326.13	30 056.32	1	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.01	33DEB
3335.16	29 974.9	4 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.04	33DEB
3357.60	29 774.62	2	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.01	01DZI
3379.03	29 585.8	15 H	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.04	33DEB
3381.11	29 567.6	20 H	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.04	33DEB
3385.23	29 531.6	15 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.06	33DEB
3389.70	29 492.67	5	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.01	01DZI
3402.79	29 379.22	2	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.01	01DZI
3405.16	29 358.8	80 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.06	33DEB
3412.67	29 294.17	1	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.01	33DEB
3414.80	29 275.89	10	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.01	01DZI
3423.52	29 201.33		$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.01	01DZI
3423.73	29 199.54	20 hv	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.01	01DZI
3427.71	29 165.63	30	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.01	01DZI
3429.91	29 146.93	3 h	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.02	33DEB
3430.98	29 137.84	3	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.01	88BRE
3438.88	29 070.90	3 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.02	33DEB
3446.51	29 006.5	50 H	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
3453.46	28 948.17	3 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.02	33DEB
3460.10	28 892.62	50	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.01	01DZI
3465.41	28 848.4	6 Hl*	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
3465.41	28 848.4	6 Hl*	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	7/2	0.06	33DEB
3470.05	28 809.8	30 H	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.04	33DEB
3477.89	28 744.84	5*	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.01	33DEB
3477.89	28 744.84	5*	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.01	33DEB
3479.00	28 735.67	3 h	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)5d$	^2F	7/2	0.02	33DEB
3479.69	28 729.97	1	$4s^24p^4(^3P)5d$	^4F	9/2	—	$4s^24p^4(^3P_2)9f$	$^2[4]^o$	9/2	0.01	88BRE

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	*J*		Configuration	Term	*J*		
3487.49	28 665.71	7 h	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.02	33DEB
3488.65	28 656.18	30 h	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.02	33DEB
3493.04	28 620.2	8 H	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.04	33DEB
3493.57	28 615.83	2 h	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.02	33DEB
3497.45	28 584.08	3 h	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.02	33DEB
3498.50	28 575.5	4 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
3498.92	28 572.1	2 H	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.04	33DEB
3503.25	28 536.8	50 Hl	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.06	33DEB
3517.38	28 422.12	5 hv	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.011	01DZI
3535.35	28 277.7	50 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.04	33DEB
3544.14	28 207.5	30 Hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
3544.54	28 204.3	30 Hl	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1D)5d$	^2F	7/2	0.06	33DEB
3548.70	28 171.28	6	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.011	01DZI
3549.93	28 161.52	1	$4s^24p^4(^3P)5d$	^4D	7/2	—	$4s^24p^4(^3P_2)8f$	$^2[4]^o$	9/2	0.01	88BRE
3553.49	28 133.3	20 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
3555.54	28 117.1	8 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.06	33DEB
3569.68	28 005.72	2 h	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.02	33DEB
3572.68	27 982.2	15 H	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.04	33DEB
3577.60	27 943.7	4 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.04	33DEB
3586.25	27 876.3	12 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
3589.65	27 849.9	70 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.06	33DEB
3596.86	27 794.1	2 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.04	33DEB
3599.21	27 775.95	25 h	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.02	33DEB
3599.90	27 770.6	40 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
3602.12	27 753.51	2 h	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.02	33DEB
3607.88	27 709.2	100 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.06	33DEB
3623.61	27 588.9	30 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
3630.96	27 533.08	3	$4s^24p^4(^1S)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.01	88BRE
3631.8889	27 526.035	200 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.0007	70HUM
3633.54	27 513.53	3 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.02	33DEB
3634.42	27 506.9	3 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.06	33DEB
3637.48	27 483.7	20 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
3637.93	27 480.3	4 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.06	33DEB
3648.61	27 399.9	40 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.04	33DEB
3651.02	27 381.8	25 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.04	33DEB
3653.9282	27 360.012	250 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	7/2	0.0007	70HUM
3661.01	27 307.09	15	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.011	01DZI
3662.41	27 296.65	3	$4s^24p^4(^3P)5d$	^4F	9/2	—	$4s^24p^4(^3P_2)8f$	$^2[5]^o$	11/2	0.01	88BRE
3663.45	27 288.90	20	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.011	01DZI
3665.31	27 275.05	3	$4s^24p^44d$		5/2	—	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	0.01	88BRE
3666.01	27 269.85	5	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.011	01DZI
3668.59	27 250.67	6	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.01	33DEB
3680.37	27 163.4	100 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.06	33DEB
3686.1816	27 120.623	80 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.0007	70HUM
3690.65	27 087.79	30	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.01	33DEB
3711.27	26 937.29	1 h	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.02	33DEB
3712.48	26 928.51	1 h	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.02	33DEB
3715.04	26 909.96	12 h	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.02	33DEB
3716.15	26 901.92	4	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.011	01DZI
3718.02	26 888.4	300 hl	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1D)5d$	^2G	9/2	0.04	33DEB
3718.5952	26 884.229	200 hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.0007	70HUM
3721.3497	26 864.330	150 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.0007	70HUM
3728.04	26 816.1	7 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.04	33DEB
3731.67	26 790.04	2 h	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.02	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3732.61	26 783.29	15 h	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.02	33DEB
3732.95	26 780.85	6	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.011	01DZI
3735.78	26 760.6	40 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.04	33DEB
3740.73	26 725.15	6	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.01	33DEB
3741.6380	26 718.667	200 hl	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)5d$	^2G	7/2	0.0007	70HUM
3744.80	26 696.1	150 hv	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
3754.2454	26 628.943	80	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.0007	70HUM
3758.93	26 595.8	6 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.06	33DEB
3765.88	26 546.7	2 H	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)7s$	^2P	1/2	0.04	33DEB
3771.34	26 508.24	30 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.02	33DEB
3778.0464	26 461.190	500 hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	7/2	0.0007	70HUM
3778.0464	26 461.190	500 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2F	7/2	0.0007	70HUM
3783.0948	26 425.879	500 hl	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)5d$	^4F	9/2	0.0007	70HUM
3795.62	26 338.68	1	$4s^24p^4(^3P)5d$	^4F	9/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.01	88BRE
3804.67	26 276.0	30 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
3806.17	26 265.7	8 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	1/2	0.06	33DEB
3817.11	26 190.4	15 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.06	33DEB
3826.15	26 128.52	2 h	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.02	33DEB
3831.17	26 094.3	2 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.06	33DEB
3836.54	26 057.8	30 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.06	33DEB
3839.37	26 038.6	4 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.06	33DEB
3842.28	26 018.8	20 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.06	33DEB
3842.85	26 014.97	6	$4s^24p^4(^3P)5d$	^4F	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.01	88BRE
3844.45	26 004.1	50 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	5/2	0.06	33DEB
3845.37	25 997.93	1	$4s^24p^4(^3P)5d$	^4D	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	7/2	0.01	88BRE
3846.83	25 988.06	5 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.02	33DEB
3847.81	25 981.44	6	$4s^24p^4(^3P)5d$	^4F	7/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	9/2	0.01	88BRE
3857.32	25 917.4	20 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.06	33DEB
3858.78	25 907.6	5 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.06	33DEB
3875.44	25 796.2	150 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.06	33DEB
3880.07	25 765.4	2 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.06	33DEB
3885.28	25 730.88	1	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.01	33DEB
3887.54	25 715.9	5 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)7s$	^2P	3/2	0.06	33DEB
3894.71	25 668.6	60 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.06	33DEB
3901.15	25 626.2	10 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
3906.1769	25 593.230	150 hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2F	7/2	0.0007	70HUM
3912.5809	25 551.340	70	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.0007	70HUM
3912.88	25 549.4	5 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.04	33DEB
3916.90	25 523.2	3 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.04	33DEB
3917.5542	25 518.904	50 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.0007	70HUM
3920.0809	25 502.455	200 hl	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)5d$	^4D	7/2	0.0007	70HUM
3921.68	25 492.1	6 hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.04	33DEB
3929.26	25 442.9	20 hl	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.04	33DEB
3938.88	25 380.7	20 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.06	33DEB
3940.92	25 367.6	5 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2P	3/2	0.06	33DEB
3945.48	25 338.3	5 hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
3945.83	25 336.0	1 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.04	33DEB
3947.66	25 324.3	5 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.04	33DEB
3953.60	25 286.25	20	$4s4p^6$	^2S	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.012	01DZI
3954.78	25 278.7	90 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.06	33DEB
3962.34	25 230.5	10 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.04	33DEB
3964.89	25 214.2	30 hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	7/2	0.04	33DEB
3987.78	25 069.52	25	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.01	33DEB
3990.66	25 051.4	15 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	3/2	0.04	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3991.94	25 043.39	15	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.012	01DZI
3994.8398	25 025.217	100	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.0007	70HUM
3996.69	25 013.63	3	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.01	33DEB
3997.9545	25 005.720	100 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2F	5/2	0.0007	70HUM
4005.57	24 958.2	30 hl*	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
4005.57	24 958.2	30 hl*	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	1/2	0.04	33DEB
4008.08	24 942.55	25	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.01	33DEB
4008.48	24 940.1	10 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.06	33DEB
4026.22	24 830.18	3	$4s^24p^4(^3P)5d$	^4F	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	9/2	0.01	88BRE
4037.80	24 758.97	30	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.005	01DZI
4044.6622	24 716.961	80	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.0007	70HUM
4057.0373	24 641.569	300 hv	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.0007	70HUM
4065.1282	24 592.525	300	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.0007	70HUM
4088.3369	24 452.921	500	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.0007	70HUM
4098.7289	24 390.924	250	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.0007	70HUM
4099.71	24 385.09	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
4109.2484	24 328.485	100 hv	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.0007	70HUM
4113.73	24 302.0	8 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.06	33DEB
4118.14	24 276.0	30 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.06	33DEB
4133.68	24 184.7	5 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.06	33DEB
4135.86	24 171.95	3 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^2(^3P_0)4f$	$^2[3]^o$	5/2	0.02	33DEB
4137.96	24 159.68	3	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.01	88BRE
4145.1224	24 117.939	250	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.0007	70HUM
4163.84	24 009.52	2	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.005	01DZI
4172.51	23 959.6	20 hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.04	33DEB
4179.58	23 919.1	20 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.06	33DEB
4185.11	23 887.50	50	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.005	01DZI
4201.42	23 794.8	30 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)5d$	^2D	3/2	0.06	33DEB
4217.88	23 701.92	2	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.01	33DEB
4222.20	23 677.7	20 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
4228.79	23 640.8	20 hl	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.04	33DEB
4233.43	23 614.86	2 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.02	33DEB
4236.64	23 597.0	100 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.04	33DEB
4250.5798	23 519.581	150	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.0007	70HUM
4252.67	23 508.0	50 hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.04	33DEB
4254.85	23 496.0	100 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
4260.85	23 462.9	5 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.04	33DEB
4268.57	23 420.5	60 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.06	33DEB
4268.81	23 419.1	100 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.06	33DEB
4280.61	23 354.6	5 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
4283.02	23 341.44	3	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.01	88BRE
4292.9233	23 287.599	600	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.0007	70HUM
4300.50	23 246.57	200	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.005	01DZI
4301.54	23 240.95	40*	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.005	01DZI
4301.54	23 240.95	40*	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.005	01DZI
4309.41	23 198.51	2 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.02	33DEB
4317.81	23 153.4	500 Hl	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.06	33DEB
4319.12	23 146.36	4	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.01	33DEB
4322.98	23 125.7	150 Hl	$4s^24p^4(^1S)5s$	^2S	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.06	33DEB
4331.24	23 081.6	80 H	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.04	33DEB
4333.34	23 070.4	50 H	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.04	33DEB
4341.33	23 027.9	8 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
4351.02	22 976.7	40 H	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.04	33DEB
4355.4773	22 953.145	3000	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	0.0007	70HUM

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4364.61	22 905.1	4 hl	$4s^24p^4(^1S)5s$	^2S	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.04	33DEB
4366.26	22 896.5	6 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.04	33DEB
4369.69	22 878.49	200	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.01	33DEB
4371.25	22 870.3	20 hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.04	33DEB
4381.52	22 816.72	100 h	$4s^24p^4(^1S)5s$	^2S	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.02	33DEB
4385.27	22 797.2	50 Hl	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.06	33DEB
4386.54	22 790.6	300 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.04	33DEB
4388.90	22 778.4	3 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.04	33DEB
4389.72	22 774.1	20 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
4399.38	22 724.09	15 hv	$4s^24p^44d$		1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.005	01DZI
4400.87	22 716.4	100 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.04	33DEB
4404.33	22 698.55	30 h	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.02	33DEB
4408.90	22 675.03	40 hv	$4s^24p^44d$		1/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.005	01DZI
4417.24	22 632.21	40	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.01	33DEB
4420.16	22 617.26	1	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.01	33DEB
4422.72	22 604.17	100 hv	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.005	01DZI
4431.6852	22 558.446	500	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.0007	70HUM
4436.8122	22 532.379	600	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.0007	70HUM
4453.21	22 449.4	50 Hv	$4s^24p^4(^1S)5s$	^2S	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	1/2	0.06	33DEB
4454.37	22 443.6	10 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)5d$	^4P	1/2	0.06	33DEB
4457.25	22 429.1	40 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.06	33DEB
4459.99	22 415.28	8 h	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.02	33DEB
4460.45	22 412.97	1	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4F	7/2	0.01	33DEB
4475.0141	22 340.030	800 hv	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.0007	70HUM
4481.85	22 306.0	50 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.06	33DEB
4489.88	22 266.06	400 hl	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.04	33DEB
4523.14	22 102.34	400 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.04	33DEB
4528.62	22 075.59	3 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.04	33DEB
4556.61	21 939.99	200 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
4560.38	21 921.85	3 hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
4565.82	21 895.73	1 h	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.02	33DEB
4573.33	21 859.78	30 hl	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.04	33DEB
4575.8	21 848.0	1 h	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.1	33DEB
4577.2087	21 841.255	800	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.0007	70HUM
4582.9783	21 813.759	300 hl	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.0007	70HUM
4591.50	21 773.27	1	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^1D)5p$	^2F	7/2	0.01	33DEB
4592.80	21 767.1	150 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.06	33DEB
4598.49	21 740.2	50 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.06	33DEB
4601.42	21 726.34	1 h	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.02	33DEB
4604.02	21 714.07	60 hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
4608.48	21 693.05	1 h	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.02	33DEB
4609.75	21 687.08	20 hv	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.005	01DZI
4610.65	21 682.84	60 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
4614.50	21 664.75	15 *gn*	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
4615.2915	21 661.036	500	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.0007	70HUM
4619.1658	21 642.869	1000	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.0007	70HUM
4619.99	21 639.01	5 h	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.02	33DEB
4633.8850	21 574.123	800	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.0007	70HUM
4635.42	21 566.98	8	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.005	01DZI
4637.66	21 556.56	1 h	$4s^24p^4(^1S)4d$	^2D	3/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.02	33DEB
4640.20	21 544.76	2 H*	$4s^24p^4(^3P)5d$	^2F	5/2	—	$4s^24p^4(^3P_1)6f$	$^2[4]^o$	7/2	0.04	33DEB
4640.20	21 544.76	2 H*	$4s^24p^4(^3P)5d$	^4D	1/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	1/2	0.04	33DEB
4650.18	21 498.52	30	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.005	01DZI
4658.8761	21 458.397	2000	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.0007	70HUM

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4672.09	21 397.7	2 Hl	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
4680.4055	21 359.692	500	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.0007	70HUM
4686.30	21 332.8	8 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.06	33DEB
4687.28	21 328.37	10 hl	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.04	33DEB
4688.3	21 323.7	3 h	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)7s$	^4P	3/2	0.1	33DEB
4691.3012	21 310.084	100	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.0007	70HUM
4694.3596	21 296.201	200 hl	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.0007	70HUM
4694.84	21 294.02		$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.005	01DZI
4695.66	21 290.30	50 hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
4699.69	21 272.05	30 H	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
4705.44	21 246.05	2 hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
4706.31	21 242.13	3	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.01	33DEB
4739.0019	21 095.589	3000	$4s^24p^4(^3P)5s$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.0007	70HUM
4752.02	21 037.80	100 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.04	33DEB
4758.77	21 007.96	1 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.02	33DEB
4762.4353	20 991.791	300	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.0007	70HUM
4765.7441	20 977.217	1000	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.0007	70HUM
4773.01	20 945.28	40 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.02	33DEB
4774.44	20 939.01	2	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.005	01DZI
4786.56	20 885.99	1 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.02	33DEB
4788.76	20 876.40	5 h	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.02	33DEB
4796.33	20 843.45	60 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.04	33DEB
4802.96	20 814.68	4	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.005	01DZI
4811.77	20 776.57	300	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.005	01DZI
4825.19	20 718.78	300	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.005	01DZI
4832.0773	20 689.252	800	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.0007	70HUM
4832.70	20 686.59		$4s^24p^44d$		1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.005	01DZI
4833.68	20 682.39	4 h	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.005	01DZI
4836.56	20 670.08	20 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.04	33DEB
4839.04	20 659.48	4 h	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.02	33DEB
4845.14	20 633.47	2 h	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.02	33DEB
4846.6115	20 627.209	700	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.0007	70HUM
4857.19	20 582.29	150	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.005	01DZI
4870.14	20 527.6	20 Hv	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.06	33DEB
4875.63	20 504.44	1-	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.01	33DEB
4908.34	20 367.80	2 hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.04	33DEB
4914.62	20 341.77	2 h	$4s^24p^4(^1S)5s$	^2S	1/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.02	33DEB
4915.94	20 336.31	100 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
4945.59	20 214.39	300	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.01	33DEB
4948.50	20 202.51	50 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	1/2	0.04	33DEB
4960.25	20 154.65	100 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
4978.89	20 079.20	100 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
4982.83	20 063.32	50 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
4997.22	20 005.55	1	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.01	33DEB
4998.54	20 000.3	5 Hl	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.06	33DEB
5013.30	19 941.379	100	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.005	01DZI
5015.71	19 931.80	1	$4s^24p^4(^3P)6s$	^2P	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.01	33DEB
5021.87	19 907.349	100	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.005	01DZI
5022.40	19 905.248	200	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.005	01DZI
5028.36	19 881.66	30 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
5033.85	19 860.0	100 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.06	33DEB
5046.31	19 810.9	80 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.06	33DEB
5047.52	19 806.19	4 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
5054.53	19 778.7	30 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.06	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
5065.58	19 735.6	20 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)6s$	^2D	3/2	0.06	33DEB
5067.22	19 729.19	1 H	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	5/2	0.04	33DEB
5072.55	19 708.456	40	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.005	01DZI
5075.92	19 695.4	4 Hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.06	33DEB
5077.23	19 690.290	40	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.005	01DZI
5078.19	19 686.6	2 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.06	33DEB
5086.52	19 654.33	250 hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)6s$	^2D	5/2	0.04	33DEB
5123.16	19 513.8	15 Hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.06	33DEB
5125.73	19 504.0	400 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.06	33DEB
5126.33	19 501.70	1	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.01	88BRE
5133.52	19 474.39	1	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.01	33DEB
5143.05	19 438.30	60 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.04	33DEB
5149.61	19 413.54	3 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
5166.80	19 348.950	80	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.005	01DZI
5168.12	19 344.008		$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.005	01DZI
5177.70	19 308.217	6 Hv	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.005	01DZI
5182.30	19 291.08	1 h	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.02	33DEB
5186.98	19 273.673	60 Hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.005	01DZI
5200.22	19 224.602	60 Hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.005	01DZI
5201.56	19 219.65	2 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.02	33DEB
5208.34	19 194.631	500	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.005	01DZI
5217.46	19 161.079	30	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.005	01DZI
5217.94	19 159.317	12	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.005	01DZI
5224.56	19 135.041	7	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.005	01DZI
5225.05	19 133.25	3	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.01	33DEB
5229.53	19 116.855	60	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.005	01DZI
5241.29	19 073.96	2 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.04	33DEB
5245.24	19 059.60	1	$4s^24p^4(^3P)5d$	^4F	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[1]^o$	3/2	0.01	88BRE
5249.06	19 045.73	4 hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^1S)4d$	^2D	3/2	0.04	33DEB
5256.75	19 017.87	30	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.01	33DEB
5276.50	18 946.68	100 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.02	33DEB
5308.68	18 831.835	200	$4s^24p^4(^3P)5s$	^4P	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.005	01DZI
5310.26	18 826.232	4 h	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.005	01DZI
5317.41	18 800.92	30 hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.04	33DEB
5322.77	18 781.99	60 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.04	33DEB
5329.15	18 759.50	4 h	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.02	33DEB
5333.41	18 744.52	500 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	7/2	0.02	33DEB
5346.76	18 697.71	60 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.04	33DEB
5355.45	18 667.38	10 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.02	33DEB
5374.19	18 602.28	3 h	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P_2)4f$	$^2[4]^o$	7/2	0.02	33DEB
5418.43	18 450.4	30 Hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.06	33DEB
5423.56	18 432.95	1 H	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.04	33DEB
5438.62	18 381.908	40	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.005	01DZI
5439.38	18 379.34	1 h	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.02	33DEB
5446.34	18 355.853	80	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.005	01DZI
5468.17	18 282.57	200 hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.04	33DEB
5476.46	18 254.9	4 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2D	3/2	0.06	33DEB
5491.43	18 205.13	4 h	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.02	33DEB
5499.56	18 178.223	50	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.005	01DZI
5522.97	18 101.172	60	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.006	01DZI
5523.51	18 099.402	30	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.006	01DZI
5532.29	18 070.678	5	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.006	01DZI
5552.99	18 003.32	100 Hv	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.06	33DEB
5568.66	17 952.656	100	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.006	01DZI

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
5584.4	17 902.1	1-h*	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.1	33DEB
5585.4	17 898.9	1-h*	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.1	33DEB
5617.63	17 796.16	2	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.01	33DEB
5627.02	17 766.46	1	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.01	33DEB
5633.02	17 747.541	100 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.006	01DZI
5641.07	17 722.21	3 hl	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.04	33DEB
5645.00	17 709.88	1 H	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.04	33DEB
5650.36	17 693.077	10 H	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.006	01DZI
5672.77	17 623.182	40 hv	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.006	01DZI
5674.51	17 617.778	30 hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	0.006	01DZI
5681.90	17 594.864	400	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.006	01DZI
5690.35	17 568.737	200 Hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.006	01DZI
5699.83	17 539.517	10*	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.006	01DZI
5699.83	17 539.517	10*	$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.006	01DZI
5749.27	17 388.69	5 Hl	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2D	5/2	0.06	33DEB
5752.99	17 377.446	60	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.006	01DZI
5771.40	17 322.015	100	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.006	01DZI
5773.5	17 315.7	1 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	5/2	0.1	33DEB
5800.15	17 236.154	6 Hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.006	01DZI
5801.81	17 231.22	1 h	$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.02	33DEB
5842.49	17 111.25	1 H	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.04	33DEB
5860.61	17 058.34	6	$4s^24p^4(^3P)5d$	^4D	7/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.01	88BRE
5894.56	16 960.09	8 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.06	33DEB
5897.46	16 951.75	3	$4s^24p^4(^3P)5d$	^4D	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.01	88BRE
5900.89	16 941.90	8 Hl	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.06	33DEB
5918.81	16 890.61	2 Hw	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.06	33DEB
5924.24	16 875.13	1 H	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^3P)5d$	^2F	7/2	0.01	33DEB
5949.93	16 802.27	3 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.02	33DEB
5967.54	16 752.68	15 Hv	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^1S)5p$	$^2P^o$	3/2	0.06	33DEB
5974.82	16 732.27	2	$4s^24p^4(^3P)6p$	$^4P^o$	3/2	—	$4s^24p^4(^3P)8s$	^4P	3/2	0.01	33DEB
5992.24	16 683.629	200	$4s^24p^4(^3P)5s$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.006	01DZI
6008.10	16 639.59	3 Hv	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.06	33DEB
6009.99	16 634.36	10 H	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	5/2	0.04	33DEB
6022.40	16 600.079	40	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.006	01DZI
6038.1	16 556.9	1 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.1	33DEB
6047.13	16 532.19	? H	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	3/2	0.04	33DEB
6079.71	16 443.60	20 Hv	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[1]^o$	1/2	0.06	33DEB
6094.50	16 403.70	30 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.04	33DEB
6107.61	16 368.5	5 Hlw	$4s^24p^4(^3P)5d$	^2F	7/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	9/2	0.08	33DEB
6112.61	16 355.10	4 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P_2)4f$	$^2[3]^o$	5/2	0.02	33DEB
6116.52	16 344.64	1 h	$4s^24p^4(^3P)5d$	^4D	3/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	5/2	0.02	33DEB
6119.56	16 336.5	10 Hlw	$4s^24p^4(^3P)5d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[5]^o$	11/2	0.08	33DEB
6150.54	16 254.24	1 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.02	33DEB
6168.80	16 206.124	50	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.006	01DZI
6171.77	16 198.32	6 Hv	$4s^24p^4(^1D)4d$	^2P	1/2	—	$4s^24p^4(^3P_2)4f$	$^2[2]^o$	3/2	0.06	33DEB
6185.35	16 162.76	7 Hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.06	33DEB
6196.14	16 134.6	3 Hlw	$4s^24p^4(^3P)5d$	^4F	9/2	—	$4s^24p^4(^3P_2)5f$	$^2[4]^o$	9/2	0.08	33DEB
6218.30	16 077.12	1	$4s^24p^4(^3P)6s$	^4P	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.01	88BRE
6228.14	16 051.72	1 H	$4s^24p^4(^3P)6s$	^4P	5/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	7/2	0.04	33DEB
6230.74	16 045.02	10 hl	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.04	33DEB
6243.53	16 012.15	2 hlw	$4s^24p^4(^3P)5d$	^2P	1/2	—	$4s^24p^4(^3P_1)5f$	$^2[2]^o$	3/2	0.06	33DEB
6247.35	16 002.36	1	$4s^24p^4(^3P)5d$	^2F	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.01	88BRE
6257.84	15 975.54	4 hvw	$4s^24p^4(^1D)4d$	^2D	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.06	33DEB
6290.96	15 891.43	3 hl	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.04	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
6303.69	15 859.338	100	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.006	01DZI
6322.42	15 812.36	4	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.01	33DEB
6344.61	15 757.05	4 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.02	33DEB
6391.15	15 642.312	30	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.006	01DZI
6394.25	15 634.729	4 hv	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.006	01DZI
6409.84	15 596.70	10 Hhv*	$4s^24p^4(^3P)6d$	^4D	7/2	—	$4s^24p^4(^3P_2)9f$	$^2[4]^o$	9/2	0.08	33DEB
6409.84	15 596.70	10 Hhv*	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^4(^3P)5d$	^2P	3/2	0.08	33DEB
6412.53	15 590.16	4 h	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.02	33DEB
6416.60	15 580.271	60 Hv	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.006	01DZI
6420.20	15 571.535	300	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	0.006	01DZI
6431.92	15 543.16	2 H	$4s^24p^4(^1D)4d$	^2D	5/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	5/2	0.04	33DEB
6440.74	15 521.88	5 Hl	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^3P)6s$	^4P	3/2	0.06	33DEB
6456.12	15 484.90	1	$4s^24p^4(^3P)5d$	^4P	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.01	88BRE
6470.92	15 449.484	50	$4s^24p^4(^3P)5s$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.006	01DZI
6510.14	15 356.41	8 hl	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.04	33DEB
6510.96	15 354.476	100	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	0.007	01DZI
6565.32	15 227.34	6 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.02	33DEB
6570.08	15 216.312	150	$4s^24p^44d$		5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	5/2	0.007	01DZI
6605.01	15 135.842	15 h	$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.007	01DZI
6624.21	15 091.972	2 Hv	$4s^24p^44d$		5/2	—	$4s^24p^4(^1D)5p$	$^2D^o$	3/2	0.007	01DZI
6627.96	15 083.43	2 Hl	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	5/2	0.06	33DEB
6634.37	15 068.860	15 h	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.007	01DZI
6721.50	14 873.53	1	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4F	5/2	0.01	88BRE
6763.63	14 780.880	100	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.007	01DZI
6764.43	14 779.13	80	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.01	33DEB
6771.20	14 764.356	50	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.007	01DZI
6870.85	14 550.225	40	$4s^24p^44d$		3/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	5/2	0.007	01DZI
6944.06	14 396.83	10 Hl*	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.06	33DEB
6944.06	14 396.83	10 Hl*	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.06	33DEB
6977.95	14 326.90	3 h	$4s^24p^4(^1D)4d$	^2P	3/2	—	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	0.02	33DEB
7022.56	14 235.90	2 H	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4P	1/2	0.04	33DEB
7073.98	14 132.417	60	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.007	01DZI
7078.44	14 123.513	3	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.01	33DEB
7140.01	14 001.723	60	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	0.007	01DZI
7213.16	13 859.730	250	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.007	01DZI
7241.56	13 805.37	2 Hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.06	33DEB
7289.82	13 713.981	400 h	$4s^24p^4(^3P)4d$	^4D	7/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.007	01DZI
7407.06	13 496.916	400 h	$4s^24p^4(^3P)4d$	^4D	5/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.007	01DZI
7434.74	13 446.67	15 h	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.02	33DEB
7435.78	13 444.79	200 h	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.02	33DEB
7467.99	13 386.80	6 Hw	$4s^24p^4(^3P)5d$	^4F	5/2	—	$4s^24p^4(^3P_2)5f$	$^2[3]^o$	7/2	0.06	33DEB
7517.52	13 298.60	2 H	$4s^24p^4(^3P)5d$	^2D	5/2	—	$4s^24p^4(^3P_1)5f$	$^2[4]^o$	7/2	0.04	33DEB
7524.48	13 286.296	300 h	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.008	01DZI
7525.49	13 284.513	20 h	$4s^24p^4(^3P)5s$	^2P	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.008	01DZI
7629.44	13 103.515	5 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	0.008	01DZI
7641.16	13 083.417	150	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.01	33DEB
7735.72	12 923.488	250 h	$4s^24p^4(^3P)4d$	^4D	3/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	5/2	0.008	01DZI
7749.16	12 901.07	1 h	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)5d$	^4F	3/2	0.02	33DEB
7781.97	12 846.68	100 h	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.02	33DEB
7791.90	12 830.31	6 Hl	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.06	33DEB
7856.52	12 724.78	30 H	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.04	33DEB
7895.57	12 661.85	1 h	$4s^24p^4(^1S)4d$	^2D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.02	33DEB
7931.41	12 604.63	40 h	$4s^24p^44d$		5/2	—	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	0.02	33DEB
7957.07	12 563.98	3 h	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.02	33DEB

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
7973.62	12 537.907	120 hv	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.008	01DZI
7993.24	12 507.132	200 h	$4s^24p^4(^3P)4d$	^4D	1/2	—	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	0.008	01DZI
8130.03	12 296.70	10 h	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.02	33DEB
8142.17	12 278.36	1 H	$4s^24p^4(^1S)4d$	^2D	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.04	33DEB
8145.14	12 273.885	100 H	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.008	01DZI
8157.25	12 255.66	10 hv	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.04	33DEB
8178.68	12 223.55	2 Hv	$4s^24p^4(^3P)5d$	^4D	5/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	7/2	0.06	33DEB
8202.73	12 187.713	200 h	$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.008	01DZI
8376.55	11 934.809	1	$4s^24p^4(^3P)6d$	^4D	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[4]^o$	9/2	0.01	88BRE
8411.14	11 885.73	1 H	$4s^24p^4(^3P)6s$	^2P	3/2	—	$4s^24p^4(^3P_0)4f$	$^2[3]^o$	5/2	0.04	33DEB
8432.37	11 855.80	1 H	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)5d$	^4D	3/2	0.04	33DEB
8473.31	11 798.52	100 hl	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.04	33DEB
8537.98	11 709.16	3 h	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.02	33DEB
8551.33	11 690.88	2 H*	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.04	33DEB
8551.33	11 690.88	2 H*	$4s^24p^4(^3P)6d$	^4F	9/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	11/2	0.04	33DEB
8563.59	11 674.14	2 H	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^4P	1/2	0.04	33DEB
8588.17	11 640.726	6	$4s^24p^4(^3P)6p$	$^4D^o$	7/2	—	$4s^24p^4(^1D)5d$	^2G	9/2	0.01	88BRE
8619.34	11 598.63	1 Hw	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^3P)6s$	^2P	3/2	0.06	33DEB
8639.11	11 572.088	3	$4s^24p^4(^3P)5d$	^4D	7/2	—	$4s^24p^4(^3P_1)4f$	$^2[4]^o$	7/2	0.01	88BRE
8651.64	11 555.328	3	$4s^24p^4(^3P)6p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)5d$	^2F	5/2	0.01	88BRE
8674.26	11 525.20	2 h	$4s^24p^4(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^4(^1S)5s$	^2S	1/2	0.02	33DEB
8680.94	11 516.33	1 h	$4s^24p^4(^3P)6d$	^4F	7/2	—	$4s^24p^4(^3P_2)7f$	$^2[5]^o$	9/2	0.02	33DEB
8690.19	11 504.07	100 hv	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.04	33DEB
8707.61	11 481.05	8 h	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.02	33DEB
8717.31	11 468.28	2 h	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.02	33DEB
8804.65	11 354.52	3 H	$4s^24p^4(^3P)6s$	^2P	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[3]^o$	5/2	0.04	33DEB
8840.09	11 309.00	4 h	$4s^24p^4(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^4(^1S)4d$	^2D	5/2	0.02	33DEB
8978.70	11 134.41	15 h	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.02	33DEB
9006.15	11 100.476	10	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.01	33DEB
9025.67	11 076.47	10 hl	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.04	33DEB
9039.95	11 058.97	20 HL	$4s^24p^4(^3P)6p$	$^4P^o$	5/2	—	$4s^24p^4(^3P)6d$	^4D	5/2	0.08	33DEB
9099.72	10 986.33	15 h	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.02	33DEB
9233.18	10 827.533	50	$4s^24p^4(^3P)4d$	^4P	1/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.01	33DEB
9262.93	10 792.759	2	$4s^24p^4(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^4(^3P)6s$	^2P	1/2	0.01	33DEB
9272.07	10 782.120	50	$4s^24p^4(^1D)5s$	^2D	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.009	01DZI
9326.19	10 719.55	4 h	$4s^24p^4(^3P)7s$	^4P	5/2	—	$4s^24p^4(^3P_2)6f$	$^2[3]^o$	5/2	0.02	33DEB
9330.66	10 714.42	5 h	$4s^24p^4(^3P)5d$	^4D	3/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	5/2	0.02	33DEB
9390.3	10 646.37	1 H	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.1	33DEB
9413.32	10 620.331	3	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.01	33DEB
9414.95	10 618.492	100	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.009	01DZI
9437.21	10 593.45	20 H	$4s^24p^4(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2S	1/2	0.04	33DEB
9504.81	10 518.104	100	$4s^24p^4(^1D)5s$	^2D	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.01	01DZI
9577.56	10 438.210	500	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.01	01DZI
9594.26	10 420.041	100	$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.01	01DZI
9663.38	10 345.509	200	$4s^24p^4(^3P)4d$	^2P	3/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.01	01DZI
9851.40	10 148.06	3 h	$4s^24p^4(^3P)5d$	^4D	1/2	—	$4s^24p^4(^3P_1)4f$	$^2[2]^o$	3/2	0.02	33DEB
9892.97	10 105.42	10 h	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.02	33DEB
9954.75	10 042.70	20 H	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	3/2	0.04	33DEB
9966.67	10 030.69	5 h	$4s^24p^4(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^4(^1S)5s$	^2S	1/2	0.02	33DEB
10 167.61	9832.46	10 H	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.04	33DEB
10 177.41	9822.99	3 H	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	1/2	0.04	33DEB
10 221.52	9780.600	1000	$4s^24p^4(^3P)4d$	^4F	9/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	0.01	01DZI
10 361.15	9648.794	100	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	1/2	0.01	33DEB
10 389.28	9622.669	8 h	$4s^24p^4(^3P)4d$	^4F	3/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	0.01	01DZI

TABLE 9. Spectral lines of Kr II—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
10 428.49	9586.489	10	$4s^24p^44d$		1/2	—	$4s^24p^4(^3P)5p$	$^2P^o$	1/2	0.01	01DZI
10 562.84	9464.558	4 h	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^4(^1D)4d$	^2P	3/2	0.02	33DEB
10 639.55	9396.319		$4s^24p^44d$		3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.011	01DZI
10 659.5	9378.73	1–h	$4s^24p^4(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^4(^1D)4d$	^2D	5/2	0.1	33DEB
11 079.20	9023.451		$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	3/2	0.011	01DZI
11 424.83	8750.470		$4s^24p^4(^3P)4d$	^4P	5/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.011	01DZI
11 514.37	8682.423		$4s^24p^4(^3P)4d$	^4F	5/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	3/2	0.012	01DZI
11 782.11	8485.122		$4s^24p^4(^3P)4d$	^2F	7/2	—	$4s^24p^4(^3P)5p$	$^2D^o$	5/2	0.012	01DZI
12 282.09	8139.710		$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	5/2	0.012	01DZI
12 732.29	7851.899		$4s^24p^4(^3P)4d$	^4F	7/2	—	$4s^24p^4(^3P)5p$	$^4D^o$	7/2	0.013	01DZI
12 915.64	7740.434		$4s^24p^44d$		3/2	—	$4s^24p^4(^3P)5p$	$^2S^o$	1/2	0.013	01DZI
13 974.36	7154.007		$4s^24p^4(^3P)4d$	^2F	5/2	—	$4s^24p^4(^3P)5p$	$^4S^o$	3/2	0.014	01DZI

4.3. Kr III

Se isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^4\ ^3P_2$

Ionization energy 298020 ± 100 cm^{-1} (36.950 ± 0.012 eV) [35HUM]

The energy levels of doubly ionized krypton, Kr III, were compiled by Sugar and Musgrove [91SUG]. They used the analyses of Bredice *et al.* [88BRE], Humphreys [35HUM], and for the $4p^6\ ^1S_0$ state, Agentoft *et al.* [84AGE]. We used the Sugar and Musgrove [91SUG] values for the even parity states. One typographical error originally in Bredice *et al.* [88BRE] was corrected by changing the energy of the $4s^24p^3(^2P^o)5p\ ^3D_2$ level from 208 508.99 cm^{-1} to the value they actually used for their wavelength table, 208 509.99 cm^{-1}. The odd parity levels were taken from the analysis of Reyna Almandos *et al.* [96REY] except for the $4s^24p^3(^4S^o)6s\ ^5S^o_2$ level which was reduced by 1.00 cm^{-1} to agree with the Sugar and Musgrove [91SUG] value. Both Bredice *et al.* [88BRE] and Reyna Almandos *et al.* [96REY] quote an uncertainty of 0.60 cm^{-1} for the wave number values, which is a good estimate for this whole set (even though they quote wave numbers to two decimal places). We note that our model calculation using the Cowan code [81COW] suggests that the designation of the levels $4s^24p^3(^2D^o)5p\ ^3D_3$ and $^1F_3$ is reversed. We have not changed this in our levels list to maintain consistency with Sugar and Musgrove [91SUG].

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Reyna Almandos *et al.* [96REY].

The observed spectral lines of Kr III were compiled from seven sources, Boyce [35BOY], Humphreys [35HUM], Minnhagen *et al.* [69MIN], Agentoft *et al.* [84AGE], Bredice *et al.* [88BRE], Ehresmann *et al.* [95EHR], and Raineri *et al.* [98RAI]. The sources used in this compilation are summarized in Table 11.

Raineri *et al.* [98RAI] estimate a 0.01 Å wavelength uncertainty for unperturbed lines. Several typographical errors (primarily determined by disagreements between quoted observed wavelengths and wave numbers) had to be corrected in their line list. Only three of these are lines included from this reference in our wavelength compilation: 729.28, 1401.68, and 8178.67 Å.

In Bredice *et al.* [88BRE] some typographical errors were corrected in their line list; however none of these are included in our wavelength compilation.

Boyce [35BOY] quotes an uncertainty between 0.005 and 0.01 Å for lines given to three decimal places and 0.02 Å for lines given to two decimal places. Only three decimal place lines are included in this compilation.

Humphreys [35HUM] used "Geissler tubes operated by a.c. transformers in a circuit containing a spark gap and condensers" as his sources. He quotes an uncertainty of 0.01 Å except for very broad hazy lines. One typographical error was corrected in his line list. It appears at 2515.42 Å in our compilation (rather than at 2512.42 Å).

The priority in our choice of duplicate lines is [69MIN], [84AGE], [35BOY] (unless quoted to only two decimal places), [35HUM] (unless with an intensity code of H), [98RAI] and [88BRE], the other [35BOY] and [35HUM] lines, and [95EHR].

In the line table the uncertainty of the observed wave numbers for wavelengths below 500 Å is about 550 cm^{-1}. This is indicated by the absence of a decimal point on these wave numbers.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr III levels. Only classifiable lines are included in our compilation. A few other lines are listed in the references but are not included since we cannot be sure that they are from Kr III when they do not fit the known levels. Transition probability calculations using the Cowan codes [81COW], with empirically adjusted configuration average energies for the even parity states and the parameters of [96REY] for the odd parity states, were used to help resolve choices between multiple possible classifications of lines. Intensities have been taken from the stated sources.

The intensity codes given in the Kr III line table are taken from the specified source. Their meaning is stated below:

Symbol	Definition
b	blend
D	double
d	diffuse
h	hazy
w	wide
ul	unsymmetrical-shaded to longer wavelength
us	unsymmetrical-shaded to shorter wavelength
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was obtained by Humphreys [35HUM] by means of extrapolation of the spectral series. The uncertainty estimate is due to Sugar and Musgrove [91SUG].

4.3.1. References

35BOY = J. C. Boyce, Phys. Rev. **47**, 718 (1935).

35HUM = C. J. Humphreys, Phys. Rev. **47**, 712 (1935).

69MIN = L. Minnhagen, H. Strihed, and B. Pettersson, Ark. Fys. **39**, 471 (1969).

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

84AGE = M. Agentoft, T. Andersen, J. E. Hansen, W. Persson, and S.-G. Pettersson, Phys. Scr. **29**, 57 (1984).

88BRE = F. Bredice, J. Reyna Almandos, M. Gallardo, H. O. Di Rocco, and A. G. Trigueiros, J. Opt. Soc. Am. B **5**, 222 (1988).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95EHR = A. Ehresmann, V. A. Kilin, H. Schmoranzer, K.-H. Schartner, and M. Ya Amusia, J. Phys. B **28**, 965 (1995).

96REY = J. G. Reyna Almandos, F. Bredice, M. Raineri, M. Gallardo, and A. G. Trigueiros, J. Phys. B **29**, 5643 (1996).

98RAI = M. Raineri, J. G. Reyna Almandos, F. Bredice, M. Gallardo, A. G. Trigueiros, and S.-G. Pettersson, J. Quant. Spectrosc. Radiat. Trans. **60**, 25 (1998).

TABLE 10. Energy levels of Kr III

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0.0	0	$4s^24p^4$	^{3}P	2				91SUG
4548.4	0	$4s^24p^4$	^{3}P	1				91SUG
5312.9	0	$4s^24p^4$	^{3}P	0				91SUG
14 644.3	0	$4s^24p^4$	^{1}D	2				91SUG
33 079.6	0	$4s^24p^4$	^{1}S	0				91SUG
115 930.93	1	$4s4p^5$	^{3}P^o	2	77	16	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
119 380.23	1	$4s4p^5$	^{3}P^o	1	76	16	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
121 542.96	1	$4s4p^5$	^{3}P^o	0	77	17	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
141 876.16	1	$4s4p^5$	^{1}P^o	1	40	50	$4s^24p^3(^2D^o)4d\ ^1P^o$	96REY
138 446.69	1	$4s^24p^3(^4S^o)4d$	^{5}D^o	0	98			96REY
138 470.97	1	$4s^24p^3(^4S^o)4d$	^{5}D^o	1	98			96REY
138 480.60	1	$4s^24p^3(^4S^o)4d$	^{5}D^o	2	98			96REY
138 492.55	1	$4s^24p^3(^4S^o)4d$	^{5}D^o	3	97			96REY
138 649.15	1	$4s^24p^3(^4S^o)4d$	^{5}D^o	4	97			96REY
147 804.55	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	47	32	$4s^24p^3(^2D^o)4d\ ^3D^o$	96REY
148 735.32	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	3	50	38	$4s^24p^3(^2D^o)4d\ ^3D^o$	96REY
149 071.85	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	1	56	37	$4s^24p^3(^2D^o)4d\ ^3D^o$	96REY
153 563.20	1	$4s^24p^3(^2D^o)4d$	^{3}F^o	2	72	15	$4s^24p^3(^2P^o)4d\ ^3F^o$	96REY
154 399.71	1	$4s^24p^3(^2D^o)4d$	^{1}S^o	0	97			96REY
154 699.86	1	$4s^24p^3(^2D^o)4d$	^{3}F^o	3	76	14	$4s^24p^3(^2P^o)4d\ ^3F^o$	96REY
156 081.96	1	$4s^24p^3(^2D^o)4d$	^{3}F^o	4	78	12	$4s^24p^3(^2P^o)4d\ ^3F^o$	96REY
159 996.43	1	$4s^24p^3(^2D^o)4d$	^{3}G^o	3	91	6	$4s^24p^3(^2D^o)4d\ ^3F^o$	96REY
160 414.86	1	$4s^24p^3(^2D^o)4d$	^{3}G^o	4	85	12	$4s^24p^3(^2D^o)4d\ ^3F^o$	96REY
161 108.61	1	$4s^24p^3(^2D^o)4d$	^{3}G^o	5	99			96REY
162 841.05	1	$4s^24p^3(^2D^o)4d$	^{1}G^o	4	92			96REY
165 463.40	1	$4s^24p^3(^2P^o)4d$	^{1}D^o	2	24	33	$4s^24p^3(^2D^o)5s\ ^1D^o$	96REY
170 202.30	1	$4s^24p^3(^2D^o)4d$	^{3}D^o	1	40	26	$4s^24p^3(^2P^o)4d\ ^3D^o$	96REY
171 995.87	1	$4s^24p^3(^2P^o)4d$	^{3}P^o	0	50	28	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
172 465.48	1	$4s^24p^3(^2D^o)4d$	^{3}D^o	2	39	25	$4s^24p^3(^2P^o)4d\ ^3D^o$	96REY
172 983.11	1	$4s^24p^3(^2P^o)4d$	^{3}P^o	1	50	28	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
174 450.95	1	$4s^24p^3(^2D^o)4d$	^{3}D^o	3	38	18	$4s^24p^3(^2P^o)4d\ ^3F^o$	96REY
174 830.66	1	$4s^24p^3(^2P^o)4d$	^{3}F^o	3	61	10	$4s^24p^3(^2P^o)4d\ ^3D^o$	96REY
175 042.98	1	$4s^24p^3(^2P^o)4d$	^{3}F^o	4	81	7	$4s^24p^3(^2D^o)4d\ ^3F^o$	96REY
175 211.16	1	$4s^24p^3(^2P^o)4d$	^{3}F^o	2	75	18	$4s^24p^3(^2D^o)4d\ ^3F^o$	96REY
176 790.75	1	$4s^24p^3(^2P^o)4d$	^{3}P^o	2	38	31	$4s^24p^3(^2P^o)5s^3P^o$	96REY
181 263.46	1	$4s^24p^3(^2D^o)4d$	^{3}S^o	1	55	21	$4s^24p^3(^2P^o)5s\ ^1P^o$	96REY
182 966.83	1	$4s^24p^3(^2D^o)4d$	^{1}F^o	3	44	23	$4s^24p^3(^2P^o)4d\ ^1F^o$	96REY
184 891.82	1	$4s^24p^3(^2P^o)4d$	^{3}D^o	3	59	22	$4s^24p^3(^2P^o)4d\ ^1F^o$	96REY
185 688.63	1	$4s^24p^3(^2P^o)4d$	^{3}D^o	2	34	19	$4s^24p^3(^2D^o)4d\ ^3P^o$	96REY
188 233.23	1	$4s^24p^3(^2P^o)4d$	^{3}D^o	1	51	19	$4s^24p^3(^4S^o)4d\ ^3D^o$	96REY
188 569.14	1	$4s^24p^3(^2D^o)4d$	^{3}P^o	2	43	21	$4s^24p^3(^2P^o)4d\ ^3D^o$	96REY
190 226.21	1	$4s^24p^3(^2D^o)4d$	^{3}P^o	1	48	17	$4s^24p^3(^2P^o)4d\ ^3P^o$	96REY
193 651.72	1	$4s^24p^3(^2D^o)4d$	^{1}D^o	2	56	28	$4s^24p^3(^2P^o)4d\ ^1D^o$	96REY
196 286.23	1	$4s^24p^3(^2P^o)4d$	^{1}F^o	3	46	40	$4s^24p^3(^2D^o)4d\ ^1F^o$	96REY
145 718.87	1	$4s^24p^3(^4S^o)5s$	^{5}S^o	2	98			96REY
151 580.19	1	$4s^24p^3(^4S^o)5s$	^{3}S^o	1	96			96REY
163 268.92	1	$4s^24p^3(^2D^o)5s$	^{3}D^o	1	77	9	$4s^24p^3(^2D^o)4d\ ^3D^o$	96REY
163 635.84	1	$4s^24p^3(^2D^o)5s$	^{3}D^o	2	66	12	$4s^24p^3(^2D^o)5s\ ^1D^o$	96REY
165 053.45	1	$4s^24p^3(^2D^o)5s$	^{3}D^o	3	93			96REY
170 898.94	1	$4s^24p^3(^2D^o)5s$	^{1}D^o	2	48	27	$4s^24p^3(^2P^o)4d\ ^1D^o$	96REY
178 243.52	1	$4s^24p^3(^2P^o)5s$	^{3}P^o	0	79	18	$4s^24p^3(^2P^o)4d\ ^3P^o$	96REY
178 259.01	1	$4s^24p^3(^2P^o)5s$	^{3}P^o	1	61	24	$4s^24p^3(^2D^o)4d\ ^3S^o$	96REY
180 247.09	1	$4s^24p^3(^2P^o)5s$	^{3}P^o	2	42	44	$4s^24p^3(^2P^o)4d\ ^3P^o$	96REY
182 264.93	1	$4s^24p^3(^2P^o)5s$	^{1}P^o	1	67	12	$4s^24p^3(^2D^o)4d\ ^3S^o$	96REY
175 543.82	0	$4s^24p^3(^4S^o)5p$	^{5}P	1				91SUG

TABLE 10. Energy levels of Kr III—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
175 778.64	0	$4s^24p^3(^4S^o)5p$	^5P	2				91SUG
176 520.02	0	$4s^24p^3(^4S^o)5p$	^5P	3				91SUG
179 628.83	0	$4s^24p^3(^4S^o)5p$	^3P	1				91SUG
180 082.95	0	$4s^24p^3(^4S^o)5p$	^3P	2				91SUG
180 237.12	0	$4s^24p^3(^4S^o)5p$	^3P	0				91SUG
190 723.58	0	$4s^24p^3(^2D^o)5p$	^3D	1				91SUG
192 701.85	0	$4s^24p^3(^2D^o)5p$	^3F	2				91SUG
193 825.10	0	$4s^24p^3(^2D^o)5p$	^3F	3				91SUG
193 855.36	0	$4s^24p^3(^2D^o)5p$	^3D	2				91SUG
194 120.25	0	$4s^24p^3(^2D^o)5p$	^1P	1				91SUG
194 962.81	0	$4s^24p^3(^2D^o)5p$	^1F	3				91SUG
195 478.00	0	$4s^24p^3(^2D^o)5p$	^3D	3				91SUG
195 674.50	0	$4s^24p^3(^2D^o)5p$	^3F	4				91SUG
198 107.78	0	$4s^24p^3(^2D^o)5p$	^3P	2				91SUG
198 788.86	0	$4s^24p^3(^2D^o)5p$	^3P	0				91SUG
198 824.35	0	$4s^24p^3(^2D^o)5p$	^3P	1				91SUG
202 895.94	0	$4s^24p^3(^2D^o)5p$	^1D	2				91SUG
207 247.01	0	$4s^24p^3(^2P^o)5p$	^3D	1				91SUG
208 509.99	0	$4s^24p^3(^2P^o)5p$	^3D	2				88BRE
208 609.54	0	$4s^24p^3(^2D^o)5p$	^3S	1				91SUG
209 284.41	0	$4s^24p^3(^2P^o)5p$	^3P	1				91SUG
209 786.34	0	$4s^24p^3(^2P^o)5p$	^3P	0				91SUG
209 868.53	0	$4s^24p^3(^2P^o)5p$	^3D	3				91SUG
212 123.41	0	$4s^24p^3(^2P^o)5p$	^1D	2				91SUG
212 263.74	0	$4s^24p^3(^2P^o)5p$	^1P	1				91SUG
213 057.53	0	$4s^24p^3(^2P^o)5p$	^3P	2				91SUG
215 521.17	1	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	99			91SUG
217 375.89	1	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	98			96REY
233 346.28	1	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	53	20	$4s^24p^3(^2D^o)5d\ ^3D^o$	96REY
234 566.89	1	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	97			96REY
235 181.83	1	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	82	16	$4s^24p^3(^2D^o)6s\ ^3D^o$	96REY
249 167.27	1	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	81	15	$4s^24p^3(^2P^o)6s\ ^1P^o$	96REY
249 361.86	1	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	87			96REY
249 827.67	1	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	69	15	$4s^24p^3(^2P^o)6s\ ^3P^o$	96REY
216 500.45	1	$4s^24p^3(^4S^o)5d$	$^5D^o$	0	96			96REY
216 514.59	1	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	96			96REY
216 528.74	1	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	95			96REY
216 544.78	1	$4s^24p^3(^4S^o)5d$	$^5D^o$	3	95			96REY
216 604.30	1	$4s^24p^3(^4S^o)5d$	$^5D^o$	4	95			96REY
221 388.59	1	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	79	5	$4s^24p^3(^2D^o)5d\ ^3D^o$	96REY
221 767.62	1	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	84			96REY
221 784.31	1	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	84			96REY
233 110.95	1	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	41	26	$4s^24p^3(^2D^o)6s\ ^3D^o$	96REY
233 138.75	1	$4s^24p^3(^2D^o)5d$	$^1S^o$	0	78	10	$4s^24p^3(^2P^o)5d\ ^3P^o$	96REY
233 253.84	1	$4s^24p^3(^2D^o)5d$	$^3G^o$	4	54	27	$4s^24p^3(^2D^o)5d\ ^1G^o$	96REY
234 020.73	1	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	64	11	$4s^24p^3(^2D^o)6s\ ^3D^o$	96REY
234 380.14	1	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	45	35	$4s^24p^3(^2D^o)5d\ ^3F^o$	96REY
235 356.54	1	$4s^24p^3(^2D^o)5d$	$^3F^o$	4	92	6	$4s^24p^3(^2D^o)5d\ ^3G^o$	96REY
236 020.47	1	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	66	32	$4s^24p^3(^2D^o)5d\ ^3G^o$	96REY
237 156.27	1	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	64	10	$4s^24p^3(^2D^o)5d\ ^1D^o$	96REY
237 218.74	1	$4s^24p^3(^2D^o)5d$	$^1P^o$	1	39	32	$4s^24p^3(^2D^o)5d\ ^3P^o$	96REY
237 373.20	1	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	76	15	$4s^24p^3(^2D^o)5d\ ^1S^o$	96REY
237 970.48	1	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	45	30	$4s^24p^3(^2D^o)5d\ ^3P^o$	96REY
238 607.94	1	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	60	20	$4s^24p^3(^2D^o)5d\ ^3P^o$	96REY
247 176.93	1	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	74	20	$4s^24p^3(^2P^o)5d\ ^1D^o$	96REY
247 193.40	1	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	66	20	$4s^24p^3(^2P^o)5d\ ^3D^o$	96REY

TABLE 10. Energy levels of Kr III—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
249 437.66	1	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	37	38	$4s^24p^3(^2P^o)5d\ ^3D^o$	96REY
250 610.62	1	$4s^24p^3(^2P^o)5d$	$^3P^o$	0	79	10	$4s^24p^3(^2D^o)5d\ ^3P^o$	96REY
250 911.09	1	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	36	31	$4s^24p^3(^2P^o)5d\ ^3P^o$	96REY
252 006.39	1	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	67	10	$4s^24p^3(^2P^o)5d\ ^3D^o$	96REY
235 409.76	1	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	76	10	$4s^24p^3(^2D^o)6d\ ^3S^o$	96REY
236 182.61	1	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	96			96REY
236 494.27	1	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	98			96REY
240 025.20	1	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	65	21	$4s^24p^3(^2D^o)5d\ ^3D^o$	96REY
248 925.55	1	$4s^24p^3(^2P^o)6d$	$^3P^o$	0	98			96REY
257 865.45	1	$4s^24p^3(^2D^o)6d$	$^3S^o$	1	23	26	$4s^24p^3(^2P^o)6d\ ^1P^o$	96REY
252 115.52	0	$4p^6$	^1S	0				91SUG

TABLE 11. Sources of Kr III lines

Source	Number of classifications	Light source	Wavelength range (Å)	Uncertainty (Å)
35BOY	46	electrodeless discharges	516–1914	0.008
35HUM	354	Geissler tubes operated in a circuit containing a spark gap and capacitors	2116–7057	0.01
69MIN	90	electrodeless pulsed high-frequency discharge tube	529–1159	0.003 for $\lambda < 800$ Å 0.006 for $\lambda > 800$ Å
84AGE	1	theta-pinch discharge	907	0.005
88BRE	23	theta-pinch discharge for the VUV region and laser-tube-like source for the visible	722–4930	0.01
95EHR	40	fluorescence lines observed after excitation of the Kr I $3d^9_{5/2}5p$ resonance by monochromatized synchrotron radiation	388–470	1.0
98RAI	323	both a theta-pinch discharge and a capillary–pulsed discharge for the VUV region and a pulsed discharge for the visible	551–8179	0.01–0.04

TABLE 12. Spectral lines of Kr III

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
388.3	257 533		$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)6d$	$^3S^o$	1	1.0	95EHR
398.2	251 130	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	1.0	95EHR
398.2	251 130	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	1.0	95EHR
404.7	247 097		$4s^24p^4$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	1.0	95EHR
407.9	245 158	*	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	0	1.0	95EHR
407.9	245 158	*	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	1.0	95EHR
407.9	245 158	*	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	1.0	95EHR
407.9	245 158	*	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	1.0	95EHR
407.9	245 158	*	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)6d$	$^3P^o$	0	1.0	95EHR
412.8	242 248		$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	1.0	95EHR
415.8	240 500		$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	1.0	95EHR
418.1	239 177		$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	1.0	95EHR
421.7	237 135	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^1P^o$	1	1.0	95EHR
421.7	237 135	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	1.0	95EHR
425.2	235 183		$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	1.0	95EHR

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
427.8	233 754	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)5d$	^{1}D^o	2	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)5d$	^{3}D^o	1	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)6s$	^{3}D^o	2	1.0	95EHR
427.8	233 754	*	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)5d$	^{3}D^o	2	1.0	95EHR
430.2	232 450	*	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2P^o)5d$	^{3}F^o	3	1.0	95EHR
430.2	232 450	*	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2P^o)5d$	^{3}F^o	2	1.0	95EHR
432.5	231 214	*	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2D^o)5d$	^{1}P^o	1	1.0	95EHR
432.5	231 214	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^4S^o)6d$	^{5}D^o	1	1.0	95EHR
436.6	229 043	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)6s$	^{3}D^o	2	1.0	95EHR
436.6	229 043	*	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2D^o)5d$	^{3}D^o	1	1.0	95EHR
436.6	229 043	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)5d$	^{3}D^o	2	1.0	95EHR
442.4	226 040		$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^4S^o)6d$	^{3}D^o	3	1.0	95EHR
446.1	224 165		$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2D^o)5d$	^{1}D^o	2	1.0	95EHR
447.4	223 514		$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2D^o)5d$	^{3}S^o	1	1.0	95EHR
450.7	221 877		$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	1	1.0	95EHR
453.1	220 702		$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^4S^o)6d$	^{5}D^o	1	1.0	95EHR
460.9	216 967	*	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^4S^o)6s$	^{3}S^o	1	1.0	95EHR
460.9	216 967	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	1	1.0	95EHR
460.9	216 967	*	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	2	1.0	95EHR
460.9	216 967	*	$4s^24p^4$	^{1}S	0	—	$4s^24p^3(^2P^o)6s$	^{1}P^o	1	1.0	95EHR
460.9	216 967	*	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	1	1.0	95EHR
470.0	212 766		$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^4S^o)6s$	^{3}S^o	1	1.0	95EHR
516.384	193 654.	4	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{1}D^o	2	0.008	35BOY
525.687	190 227.	4	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{3}P^o	1	0.008	35BOY
528.809	189 104.2	2	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)4d$	^{1}D^o	2	0.003	69MIN
530.308	188 569.7	4	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{3}P^o	2	0.003	69MIN
531.255	188 233.5	1	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	1	0.003	69MIN
538.544	185 686.	8	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	2	0.008	35BOY
540.788	184 915.	5	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2D^o)4d$	^{3}P^o	1	0.008	35BOY
540.860	184 890.7	6	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	3	0.003	69MIN
543.417	184 020.7	5	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)4d$	^{3}P^o	2	0.003	69MIN
544.410	183 685.1	4	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	1	0.003	69MIN
546.549	182 966.2	5	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{1}F^o	3	0.003	69MIN
546.687	182 920.0	3	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	1	0.003	69MIN
548.654	182 264.2	3	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)5s$	^{1}P^o	1	0.003	69MIN
550.53	181 643.	7	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2P^o)4d$	^{1}F^o	3	0.01	98RAI
551.685	181 262.9	4 D	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{3}S^o	1	0.003	69MIN
552.06	181 140.	6	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	2	0.01	98RAI
554.796	180 246.4	5	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)5s$	^{3}P^o	2	0.003	69MIN
558.642	179 005.5	5	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2D^o)4d$	^{1}D^o	2	0.003	69MIN
560.984	178 258.2	4	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)5s$	^{3}P^o	1	0.003	69MIN
562.690	177 718.	5	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2P^o)5s$	^{1}P^o	1	0.008	35BOY
565.128	176 951.1	4	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2P^o)5s$	^{1}P^o	1	0.003	69MIN
565.645	176 789.3	6	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}P^o	2	0.003	69MIN
565.879	176 716.	4	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2D^o)4d$	^{3}S^o	1	0.008	35BOY
569.160	175 697.5	6	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2P^o)5s$	^{3}P^o	2	0.003	69MIN
570.735	175 212.7	1	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}F^o	2	0.003	69MIN
571.983	174 830.	15	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}F^o	3	0.008	35BOY
573.231	174 449.7	5	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2D^o)4d$	^{3}D^o	3	0.003	69MIN
574.958	173 925.7	2	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2D^o)4d$	^{3}P^o	2	0.003	69MIN
575.716	173 697.	5	$4s^24p^4$	^{3}P	1	—	$4s^24p^3(^2P^o)5s$	^{3}P^o	0	0.008	35BOY
576.076	173 588.	4	$4s^24p^4$	^{1}D	2	—	$4s^24p^3(^2P^o)4d$	^{3}D^o	1	0.008	35BOY
578.09	172 983.	0	$4s^24p^4$	^{3}P	2	—	$4s^24p^3(^2P^o)4d$	^{3}P^o	1	0.01	98RAI
578.212	172 946.9	3	$4s^24p^4$	^{3}P	0	—	$4s^24p^3(^2P^o)5s$	^{3}P^o	1	0.003	69MIN

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
579.831	172 464.0	6	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	0.003	69MIN
580.580	172 241.6	5	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	0.003	69MIN
584.65	171 043.	8	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	0.01	98RAI
585.141	170 899.0	6	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	0.003	69MIN
585.955	170 661.6	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	0.003	69MIN
587.378	170 248.1	1	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	0.003	69MIN
587.536	170 202.3	1	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	0.003	69MIN
593.703	168 434.4	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	0.003	69MIN
594.098	168 322.4	6	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	0.003	69MIN
595.530	167 918.	7	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	0.008	35BOY
596.412	167 669.3	6	$4s^24p^4$	^3P	0	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	0.003	69MIN
596.584	167 621.0	4	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	0.003	69MIN
597.194	167 450.	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	0.008	35BOY
600.172	166 618.9	8	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	0.003	69MIN
601.142	166 350.0	5	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	0.003	69MIN
603.667	165 654.2	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	0.003	69MIN
603.856	165 602.4	4	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	0.003	69MIN
604.365	165 462.9	3	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	0.003	69MIN
605.863	165 053.8	10	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	0.003	69MIN
606.466	164 889.7	7	$4s^24p^4$	^3P	0	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	0.003	69MIN
611.115	163 635.3	10	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	0.003	69MIN
611.187	163 616.	8	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	0.008	35BOY
612.488	163 268.5	3	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	0.003	69MIN
616.725	162 146.8	7	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	0.003	69MIN
621.451	160 913.7	8	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	0.003	69MIN
622.795	160 566.5	9	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	0.003	69MIN
624.268	160 188.	3	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	0.008	35BOY
625.016	159 995.9	10	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	0.003	69MIN
625.760	159 805.7	6	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	0.003	69MIN
628.588	159 086.7	9	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	0.003	69MIN
630.040	158 720.1	10	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	0.003	69MIN
631.559	158 338.3	4	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	0.003	69MIN
633.090	157 955.4	7	$4s^24p^4$	^3P	0	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	0.003	69MIN
633.630	157 820.8	5	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	0.003	69MIN
636.348	157 146.7	1	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	0.008	35BOY
639.983	156 254.2	10	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	0.003	69MIN
642.84	155 560.	1	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	0.01	98RAI
644.521	155 154.0	1	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	0.008	35BOY
646.412	154 700.1	12	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	0.003	69MIN
651.201	153 562.4	10	$4s^24p^4$	^3P	2	—	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	0.003	69MIN
659.718	151 579.9	10	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	0.003	69MIN
663.039	150 820.7	20	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	0.008	35BOY
664.855	150 408.7	6	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	0.003	69MIN
667.33	149 851.	3	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)4d$	$^1S^o$	0	0.01	98RAI
670.301	149 186.7	3	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	0.003	69MIN
670.820	149 071.3	3	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	0.003	69MIN
671.058	149 018.4	7	$4s^24p^4$	^3P	1	—	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	0.008	35BOY
671.182	148 990.9	3	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	0.003	69MIN
672.335	148 735.4	8	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	0.003	69MIN
672.852	148 621.1	7	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	0.003	69MIN
674.835	148 184.4	5	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	0.003	69MIN
676.568	147 804.8	7	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	0.003	69MIN
680.126	147 031.6	7	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	0.003	69MIN
683.683	146 266.6	7	$4s^24p^4$	^3P	0	—	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	0.003	69MIN

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
686.254	145 718.6	9	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	0.003	69MIN
687.985	145 352.0	9	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	0.003	69MIN
691.930	144 523.3	9	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	0.003	69MIN
695.610	143 758.7	10	$4s^24p^4$	^3P	0	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	0.003	69MIN
698.052	143 255.8	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	0.003	69MIN
704.843	141 875.6	5	$4s^24p^4$	^3P	2	—	$4s4p^5$	$^1P^o$	1	0.003	69MIN
708.365	141 170.2	10	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	0.003	69MIN
714.003	140 055.4	10	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	0.003	69MIN
714.772	139 904.8	2	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	0.008	35BOY
719.843	138 919.2	2	$4s^24p^4$	^1D	2	—	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	0.003	69MIN
722.036	138 497.2	50 b	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	0.008	35BOY
722.11	138 483.1	9	$4s^24p^4$	^3P	2	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	0.01	88BRE
729.28	137 122.	5 b	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	0.02	98RAI
730.267	136 936.2	2	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	0.003	69MIN
732.257	136 564.1	5	$4s^24p^4$	^3P	0	—	$4s4p^5$	$^1P^o$	1	0.003	69MIN
743.901	134 426.5	4	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	0.003	69MIN
745.765	134 090.5	3	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	0.003	69MIN
746.700	133 922.6	6	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	0.003	69MIN
746.834	133 898.6	5	$4s^24p^4$	^3P	1	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	0	0.008	35BOY
750.986	133 158.3	4*	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	0.008	35BOY
750.986	133 158.3	4*	$4s^24p^4$	^3P	0	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	0.008	35BOY
768.132	130 186.0	1	$4s^24p^4$	^1S	0	—	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	0.003	69MIN
785.968	127 231.6	12	$4s^24p^4$	^1D	2	—	$4s4p^5$	$^1P^o$	1	0.003	69MIN
807.52	123 835.9	2	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	0.01	98RAI
807.583	123 826.3	2	$4s^24p^4$	^1D	2	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	0.006	69MIN
837.662	119 379.9	10	$4s^24p^4$	^3P	2	—	$4s4p^5$	$^3P^o$	1	0.006	69MIN
854.733	116 995.6	25	$4s^24p^4$	^3P	1	—	$4s4p^5$	$^3P^o$	0	0.008	35BOY
862.582	115 931.0	12	$4s^24p^4$	^3P	2	—	$4s4p^5$	$^3P^o$	2	0.006	69MIN
870.842	114 831.4	8	$4s^24p^4$	^3P	1	—	$4s4p^5$	$^3P^o$	1	0.006	69MIN
876.676	114 067.2	10	$4s^24p^4$	^3P	0	—	$4s4p^5$	$^3P^o$	1	0.006	69MIN
897.806	111 382.6	15	$4s^24p^4$	^3P	1	—	$4s4p^5$	$^3P^o$	2	0.006	69MIN
907.117	110 239.4		$4s4p^5$	$^1P^o$	1	—	$4p^6$	^1S	0	0.005	84AGE
919.146	108 796.6	3	$4s^24p^4$	^1S	0	—	$4s4p^5$	$^1P^o$	1	0.006	69MIN
948.843	105 391.5	1	$4s^24p^4$	^1S	0	—	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	0.006	69MIN
954.775	104 736.7	5	$4s^24p^4$	^1D	2	—	$4s4p^5$	$^3P^o$	1	0.006	69MIN
987.289	101 287.5	10	$4s^24p^4$	^1D	2	—	$4s4p^5$	$^3P^o$	2	0.006	69MIN
1029.58	97 127.0	2d	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.02	98RAI
1067.50	93 676.8	12	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
1071.20	93 353.2	4	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	98RAI
1076.60	92 885.	8 wd	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.04	98RAI
1080.18	92 577.2	5 d	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.02	98RAI
1106.12	90 406.1	3	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	98RAI
1120.72	89 228.4	5	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
1148.55	87 066.3	6 b	$4s4p^5$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.02	98RAI
1158.737	86 300.9	6	$4s^24p^4$	^1S	0	—	$4s4p^5$	$^3P^o$	1	0.006	69MIN
1206.346	82 895.0	5	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.008	35BOY
1216.896	82 176.3	5	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.008	35BOY
1258.745	79 444.2	3	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.008	35BOY
1259.309	79 408.6	3	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.008	35BOY
1265.315	79 031.7	4	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.008	35BOY
1270.204	78 727.5	5	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.008	35BOY
1278.20	78 235.0	1 d	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)6d$	$^3S^o$	1	0.02	98RAI
1278.943	78 189.6	1	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.008	35BOY
1283.313	77 923.3	3	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.008	35BOY

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1283.798	77 893.9	3	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.008	35BOY
1288.17	77 629.5	10	$4s^24p^3(^4S^o)5p$	^3P	0	—	$4s^24p^3(^2D^o)6d$	$^3S^o$	1	0.01	98RAI
1293.988	77 280.5	3	$4s4p^5$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.008	35BOY
1302.586	76 770.4	2	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.008	35BOY
1342.678	74 478.0	1	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.008	35BOY
1355.32	73 783.3	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
1363.853	73 321.7	2	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.008	35BOY
1377.833	72 577.7	2	$4s4p^5$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.008	35BOY
1401.68	71 343.0	10	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	98RAI
1402.88	71 281.9	13 b	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.02	98RAI
1412.35	70 804.0	1 d	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.02	98RAI
1420.70	70 387.8	10	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
1423.553	70 246.8	1	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.008	35BOY
1425.75	70 138.5	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
1427.77	70 039.3	8 us	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.02	98RAI
1447.50	69 084.6	9	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	98RAI
1453.48	68 800.4	1 d	$4s^24p^3(^4S^o)4d$	$^5D^o$	0	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	88BRE
1483.429	67 411.4	2	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.008	35BOY
1498.50	66 733.4	5	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
1505.91	66 405.0	5	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	98RAI
1532.50	65 252.9	l0 b	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.02	98RAI
1554.74	64 319.4	20 wb	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.04	98RAI
1558.802	64 151.8	2	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.008	35BOY
1562.85	63 985.7	7	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
1569.886	63 698.9	2	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.008	35BOY
1573.18	63 565.5	3	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	98RAI
1582.48	63 192.0	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
1586.01	63 051.3	5	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	98RAI
1591.60	62 829.9	3 b	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.02	98RAI
1611.25	62 063.6	5	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	98RAI
1626.62	61 477.2	2	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
1635.77	61 133.3	9	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	98RAI
1638.816	61 019.7	3	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.008	35BOY
1643.21	60 856.5	3	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	0	0.01	98RAI
1647.03	60 715.3	8 b	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.02	98RAI
1647.359	60 703.2	2 d	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.008	35BOY
1647.90	60 683.3	6	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
1651.71	60 543.3	3	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	88BRE
1655.53	60 403.6	1 d	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.02	98RAI
1656.27	60 376.6	9	$4s^24p^3(^4S^o)4d$	$^5D^o$	0	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	98RAI
1656.93	60 352.6	4	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	88BRE
1657.18	60 343.5	2	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	98RAI
1657.91	60 316.9	8	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.01	98RAI
1659.809	60 247.9	2	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.008	35BOY
1670.90	59 848.0	10 b	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.02	98RAI
1672.95	59 774.6	3 d	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.02	98RAI
1676.81	59 637.0	3	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
1677.06	59 628.2	8	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	88BRE
1677.49	59 612.9	5	$4s4p^5$	$^3P^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	98RAI
1679.60	59 538.0	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	88BRE
1682.31	59 442.1	1 d	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.02	98RAI
1682.43	59 437.8	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	98RAI
1693.73	59 041.3	10	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)6d$	$^3S^o$	1	0.01	98RAI
1695.50	58 979.7	2 d	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.02	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1701.04	58 787.6	10	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	98RAI
1704.72	58 660.7	1 d	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.02	98RAI
1708.68	58 524.7	6	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	98RAI
1711.03	58 444.3	5	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	98RAI
1714.05	58 341.4	5 d	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.02	98RAI
1718.04	58 205.9	8	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	98RAI
1718.94	58 175.4	10	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	98RAI
1721.637	58 084.3	1	$4s4p^5$	$^3P^o$	0	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.008	35BOY
1728.20	57 863.7	6	$4s^24p^3(^2D^o)4d$	$^1S^o$	0	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
1731.74	57 745.4	2 d	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	0.02	98RAI
1732.98	57 704.1	1	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	98RAI
1741.45	57 423.4	5	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	98RAI
1744.19	57 333.2	9 b	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.02	98RAI
1748.80	57 182.1	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	98RAI
1753.04	57 043.8	10 b	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	0.02	98RAI
1753.48	57 029.5	7	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
1753.60	57 025.5	5	$4s^24p^3(^4S^o)4d$	$^5D^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	98RAI
1754.84	56 985.3	2	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	98RAI
1756.54	56 930.1	2	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	88BRE
1760.82	56 791.7	6	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.01	98RAI
1769.01	56 528.8	1 d	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	0.02	98RAI
1772.69	56 411.4	4 d	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.02	98RAI
1773.11	56 398.1	6	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	98RAI
1775.77	56 313.6	1	$4s^24p^3(^4S^o)4d$	$^5D^o$	4	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	98RAI
1776.02	56 305.7	1 d	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.02	98RAI
1778.36	56 231.6	1 d	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.02	98RAI
1780.48	56 164.6	9 us	$4s4p^5$	$^3P^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.02	98RAI
1794.63	55 721.8	7	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	88BRE
1805.88	55 374.7	3	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	98RAI
1806.25	55 363.3	1 d	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	88BRE
1806.86	55 344.6	2	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	88BRE
1807.30	55 331.2	4	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	98RAI
1814.90	55 099.5	2 d	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.02	98RAI
1821.99	54 885.0	8	$4s^24p^3(^2D^o)4d$	$^1S^o$	0	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	98RAI
1835.41	54 483.7	7	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	98RAI
1844.23	54 223.2	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	88BRE
1846.37	54 160.3	10 us	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.02	98RAI
1851.83	54 000.6	10	$4s4p^5$	$^3P^o$	0	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	98RAI
1858.39	53 810.0	9	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	98RAI
1859.20	53 786.6	10	$4s^24p^3(^2D^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	98RAI
1862.78	53 683.2	20 b	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.02	98RAI
1874.78	53 339.6	10	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
1885.79	53 028.2	1 d	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.02	98RAI
1892.25	52 847.1	2	$4s^24p^3(^2D^o)4d$	$^1S^o$	0	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	98RAI
1893.83	52 803.0	2 d	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.02	98RAI
1913.80	52 252.1	1 d	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.02	98RAI
1914.086	52 244.3	3	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.008	35BOY
1914.55	52 231.6	7	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
1918.40	52 126.8	8	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	98RAI
1919.86	52 087.1	10	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.01	98RAI
1923.84	51 979.4	3	$4s4p^5$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	98RAI
1933.68	51 714.9	10	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
1941.00	51 519.8	1 dd	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.04	98RAI
1951.08	51 253.7	1 d	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.02	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification: Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
1959.32	51 038.1	3	$4s^24p^3(^2D^o)5p$	^{3}P	0	—	$4s^24p^3(^2P^o)6s$	^{1}P^o	1	0.01	98RAI
1960.02	51 019.9	9 b	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}P	1	0.02	98RAI
1975.56	50 618.6	11	$4s^24p^3(^2P^o)5p$	^{3}D	1	—	$4s^24p^3(^2D^o)6d$	^{3}S^o	1	0.01	98RAI
1975.73	50 614.2	2 d	$4s^24p^3(^2D^o)5p$	^{3}P	1	—	$4s^24p^3(^2P^o)5d$	^{3}P^o	1	0.02	98RAI
1987.95	50 303.1	9	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}P	2	0.01	98RAI

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification: Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source
2009.30	49 752.5	5	$4s^24p^3(^4S^o)4d$	^{3}D^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	1	0.01	98RAI
2010.74	49 716.9	8	$4s^24p^3(^4S^o)4d$	^{3}D^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	0	0.01	98RAI
2021.45	49 453.5	2	$4s^24p^3(^2D^o)4d$	^{3}G^o	4	—	$4s^24p^3(^2P^o)5p$	^{3}D	3	0.01	98RAI
2024.78	49 372.2	10 us	$4s^24p^3(^4S^o)4d$	^{3}D^o	3	—	$4s^24p^3(^2D^o)5p$	^{3}P	2	0.02	98RAI
2025.49	49 354.9	9	$4s^24p^3(^2P^o)5p$	^{3}D	2	—	$4s^24p^3(^2D^o)6d$	^{3}S^o	1	0.01	98RAI
2026.39	49 333.0	3	$4s^24p^3(^2D^o)4d$	^{3}F^o	2	—	$4s^24p^3(^2D^o)5p$	^{1}D	2	0.01	98RAI
2035.58	49 110.3	1 d	$4s^24p^3(^2D^o)5p$	^{1}D	2	—	$4s^24p^3(^2P^o)5d$	^{1}F^o	3	0.02	98RAI
2038.67	49 035.8	8	$4s^24p^3(^4S^o)4d$	^{3}D^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	2	0.01	98RAI
2046.54	48 847.3	12	$4s4p^5$	^{1}P^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}D	1	0.01	98RAI
2060.62	48 513.6	2	$4s^24p^3(^2D^o)4d$	^{3}G^o	3	—	$4s^24p^3(^2P^o)5p$	^{3}D	2	0.01	98RAI
2061.73	48 487.5	4	$4s^24p^3(^2D^o)5s$	^{3}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{1}D	2	0.01	98RAI
2074.20	48 196.0	3 d	$4s^24p^3(^2D^o)4d$	^{3}F^o	3	—	$4s^24p^3(^2D^o)5p$	^{1}D	2	0.02	98RAI
2078.10	48 105.5	4	$4s^24p^3(^4S^o)5s$	^{5}S^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}F	3	0.01	88BRE
2079.25	48 078.9	7	$4s^24p^3(^2P^o)5p$	^{3}P	0	—	$4s^24p^3(^2D^o)6d$	^{3}S^o	1	0.01	98RAI
2082.50	48 003.9	9	$4s^24p^3(^2D^o)5s$	^{3}D^o	3	—	$4s^24p^3(^2P^o)5p$	^{3}P	2	0.01	98RAI
2087.71	47 884.1	9	$4s^24p^3(^2D^o)5p$	^{3}D	1	—	$4s^24p^3(^2D^o)5d$	^{1}D^o	2	0.01	98RAI
2096.94	47 673.4	5	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}D	3	0.01	98RAI
2100.44	47 594.0	9	$4s^24p^3(^2P^o)4d$	^{1}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{3}P	2	0.01	88BRE
2115.87	47 246.9	4 d	$4s^24p^3(^2D^o)5p$	^{3}D	1	—	$4s^24p^3(^2D^o)5d$	^{3}S^o	1	0.02	98RAI
2116.00	47 244.0	1	$4s^24p^3(^4S^o)5s$	^{3}S^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	1	0.01	35HUM
2117.59	47 208.6	9	$4s^24p^3(^4S^o)5s$	^{3}S^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	0	0.01	98RAI
2129.75	46 939.0	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	3	—	$4s^24p^3(^2D^o)5p$	^{3}F	4	0.01	35HUM
2130.10	46 931.3	8	$4s^24p^3(^2D^o)5p$	^{1}D	2	—	$4s^24p^3(^2P^o)6s$	^{1}P^o	1	0.01	98RAI
2136.07	46 800.2	5	$4s^24p^3(^2P^o)4d$	^{1}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{1}P	1	0.01	98RAI
2138.70	46 742.6	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	3	—	$4s^24p^3(^2D^o)5p$	^{3}D	3	0.01	35HUM
2142.49	46 660.0	1	$4s^24p^3(^2P^o)4d$	^{1}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{1}D	2	0.01	35HUM
2142.97	46 649.5	10	$4s^24p^3(^2D^o)5p$	^{3}D	1	—	$4s^24p^3(^2D^o)5d$	^{3}P^o	0	0.01	98RAI
2148.58	46 527.7	2	$4s^24p^3(^4S^o)5s$	^{3}S^o	1	—	$4s^24p^3(^2D^o)5p$	^{3}P	2	0.01	35HUM
2150.08	46 495.3	8	$4s^24p^3(^2D^o)5p$	^{3}D	1	—	$4s^24p^3(^2D^o)5d$	^{1}P^o	1	0.01	98RAI
2151.42	46 466.3	1	$4s^24p^3(^2D^o)5p$	^{1}D	2	—	$4s^24p^3(^2P^o)6s$	^{3}P^o	2	0.01	98RAI
2158.43	46 315.4	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{1}P	1	0.01	35HUM
2161.94	46 240.2	3	$4s^24p^3(^4S^o)5p$	^{5}P	1	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	1	0.01	98RAI
2162.30	46 232.5	1	$4s^24p^3(^2D^o)5s$	^{3}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{3}D	3	0.01	98RAI
2162.50	46 228.3	3	$4s^24p^3(^4S^o)4d$	^{3}D^o	3	—	$4s^24p^3(^2D^o)5p$	^{1}F	3	0.01	35HUM
2163.84	46 199.6	7	$4s^24p^3(^2D^o)5p$	^{3}F	3	—	$4s^24p^3(^4S^o)6d$	^{3}D^o	3	0.01	98RAI
2170.83	46 050.9	2	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}D	2	0.01	35HUM
2172.25	46 020.8	1	$4s^24p^3(^4S^o)4d$	^{3}D^o	2	—	$4s^24p^3(^2D^o)5p$	^{3}F	3	0.01	35HUM
2172.50	46 015.5	7	$4s^24p^3(^2D^o)5s$	^{3}D^o	1	—	$4s^24p^3(^2P^o)5p$	^{3}P	1	0.01	98RAI
2172.99	46 005.1	10	$4s^24p^3(^4S^o)5p$	^{5}P	2	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	1	0.01	98RAI
2173.76	45 988.8	9	$4s^24p^3(^4S^o)5p$	^{5}P	2	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	3	0.01	98RAI
2180.61	45 844.4	3	$4s^24p^3(^4S^o)5p$	^{5}P	1	—	$4s^24p^3(^4S^o)5d$	^{3}D^o	2	0.01	98RAI
2185.53	45 741.2	8	$4s^24p^3(^2P^o)5p$	^{1}D	2	—	$4s^24p^3(^2D^o)6d$	^{3}S^o	1	0.01	98RAI
2189.96	45 648.7	9	$4s^24p^3(^2D^o)5s$	^{3}D^o	2	—	$4s^24p^3(^2P^o)5p$	^{3}P	1	0.01	88BRE
2192.21	45 601.8	10	$4s^24p^3(^2P^o)5p$	^{1}P	1	—	$4s^24p^3(^2D^o)6d$	^{3}S^o	1	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2199.10	45 459.0	8 b	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.02	98RAI
2204.84	45 340.6	5	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
2208.70	45 261.4	10	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	88BRE
2209.41	45 246.8	5	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.01	98RAI
2209.70	45 240.9	9	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	88BRE
2215.60	45 120.4	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
2218.42	45 063.1	10	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
2219.14	45 048.5	1-	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
2227.77	44 874.0	10	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	88BRE
2230.69	44 815.2	1	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2232.35	44 781.9	1	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	35HUM
2233.81	44 752.7	1 d	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.02	98RAI
2237.14	44 686.05	10	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
2244.13	44 546.88	8	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
2244.23	44 544.9	9 b	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.02	98RAI
2247.12	44 487.61	3	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	98RAI
2248.59	44 458.53	9	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
2251.30	44 405.02	3	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	98RAI
2254.05	44 350.85	5	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
2266.08	44 115.4	1 d	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.02	98RAI
2273.76	43 966.43	3	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
2279.79	43 850.15	4	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	35HUM
2281.32	43 820.74	3	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	98RAI
2282.80	43 792.34	5	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.01	98RAI
2290.52	43 644.75	1	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	35HUM
2291.28	43 630.28	3	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
2292.28	43 611.24	10	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	98RAI
2298.29	43 497.21	3	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	0.01	98RAI
2299.15	43 480.94	3	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2303.00	43 408.26	2	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
2305.39	43 363.26	12*	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	0	0.01	98RAI
2305.39	43 363.26	12*	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^1P^o$	1	0.01	98RAI
2308.70	43 301.10	11	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
2317.01	43 145.81	8	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	88BRE
2317.87	43 129.80	1	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	35HUM
2322.32	43 047.17	1	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2322.95	43 035.49	10	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
2329.22	42 919.66	3	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
2330.30	42 899.77	8	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	88BRE
2332.72	42 855.3	2 d	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.02	98RAI
2340.76	42 708.08	10	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
2342.90	42 669.07	11	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.01	98RAI
2345.45	42 622.69	6	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2347.75	42 580.93	3	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2349.98	42 540.5	10 b	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.02	98RAI
2353.34	42 479.80	7	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
2357.00	42 413.84	12	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)5d$	$^1S^o$	0	0.01	98RAI
2358.48	42 387.23	3	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2360.14	42 357.42	3	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2361.82	42 327.29	4	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2363.26	42 301.50	3	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.01	35HUM
2364.70	42 275.74	1	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
2369.21	42 195.27	11	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	0.01	98RAI
2371.46	42155.2	12 w	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.02	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2372.48	42 137.1	8 b	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	0.02	98RAI
2376.69	42 062.49	1	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2384.70	41 921.21	6	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	88BRE
2384.88	41 918.0	1 d	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.02	98RAI
2387.90	41 865.04	1	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2389.78	41 832.1	2 d	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	0.02	98RAI
2393.56	41 766.05	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	0	0.01	98RAI
2393.94	41 759.42	40	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	35HUM
2397.25	41 701.77	5	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.01	98RAI
2398.24	41 684.6	20 w	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.02	98RAI
2398.59	41 678.47	12*	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)6d$	$^3P^o$	0	0.01	98RAI
2398.59	41 678.47	12*	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2400.10	41 652.25	4	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
2401.58	41 626.58	1	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.01	35HUM
2402.40	41 612.38	2	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
2402.96	41 602.68	3	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
2403.29	41 596.97	1	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	0.01	35HUM
2403.65	41 590.74	3	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
2405.74	41 554.61	2	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
2407.10	41 531.13	10	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^3F^o$	4	0.01	35HUM
2414.78	41 399.06	1	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
2417.26	41 356.6	1 d	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.02	98RAI
2419.02	41 326.50	3*	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
2419.02	41 326.50	3*	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	0	0.01	98RAI
2419.50	41 318.30	2*	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
2419.50	41 318.30	2*	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2420.25	41 305.50	12	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
2425.35	41 218.6	1 d	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.02	98RAI
2427.48	41 182.48	1	$4s^24p^3(^4S^o)4d$	$^5D^o$	0	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
2428.92	41 158.07	1	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
2429.52	41 147.91	7	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	98RAI
2431.04	41 122.18	1	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
2434.64	41 061.38	2	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	35HUM
2434.86	41 057.67	11	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	0.01	98RAI
2437.32	41 016.23	10	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.01	98RAI
2439.21	40 984.45	6	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	35HUM
2439.78	40 974.88	1	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
2440.05	40 970.35	6	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	0.01	35HUM
2440.89	40 956.25	5	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	0	0.01	35HUM
2442.56	40 928.25	15	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	0.01	98RAI
2447.10	40 852.32	8	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.01	98RAI
2449.05	40 819.79	10	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	3	0.01	98RAI
2451.52	40 778.67	4	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
2452.29	40 765.87	10	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	3	0.01	35HUM
2453.08	40 752.7	12 b	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.02	98RAI
2453.28	40 749.42	8	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	35HUM
2453.74	40 741.78	1	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2454.12	40 735.47	3	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	0.01	35HUM
2455.56	40 711.58	10	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	98RAI
2456.06	40 703.3	12 w	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.02	98RAI
2459.63	40 644.22	5 h	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2462.76	40 592.57	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
2464.90	40 557.33	12*	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	98RAI
2464.90	40 557.33	12*	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2465.05	40 554.86	9	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2465.80	40 542.5	20*w**	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.02	98RAI
2465.80	40 542.5	20*w**	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	0.02	98RAI
2466.88	40 524.78	15	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2468.43	40 499.34	6 h	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	35HUM
2473.96	40 408.81	4	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2474.90	40 393.47	3 h	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2D^o)5d$	$^3F^o$	4	0.01	35HUM
2477.81	40 346.03	6	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	0.01	98RAI
2481.04	40 293.51	1	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
2482.63	40 267.71	6	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
2482.99	40 261.87	2	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
2488.94	40 165.6	20 w	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.02	98RAI
2489.64	40 154.33	9	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	0.01	98RAI
2494.01	40 083.98	40	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	4	0.01	35HUM
2494.39	40 077.87	12	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.01	98RAI
2494.61	40 074.3	8 b	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.02	98RAI
2496.65	40 041.60	2	$4s^24p^3(^2P^o)5p$	^3P	0	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2497.71	40 024.61	15	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	3	0.01	35HUM
2498.77	40 007.63	3	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	35HUM
2500.64	39 977.71	8	$4s^24p^3(^4S^o)5p$	^5P	1	—	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	0.01	35HUM
2503.63	39 929.97	9	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2505.54	39 899.53	7	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
2506.53	39 883.8	11 ul	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2P^o)5d$	$^1F^o$	3	0.02	98RAI
2506.86	39 878.53	5 h	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)5d$	$^3F^o$	4	0.01	35HUM
2507.84	39 862.94	1	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	35HUM
2511.92	39 798.20	1	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
2512.92	39 782.36	6 h	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	35HUM
2515.42	39 742.83	10	$4s^24p^3(^4S^o)5p$	^5P	2	—	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	0.01	35HUM
2516.81	39 720.88	12	$4s^24p^3(^2D^o)4d$	$^1S^o$	0	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	98RAI
2517.83	39 704.79	12	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
2519.29	39 681.78	6 h	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2D^o)5d$	$^3F^o$	4	0.01	35HUM
2521.27	39 650.62	4	$4s^24p^3(^2P^o)5p$	^3P	0	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	0.01	98RAI
2524.27	39 603.50	2 h	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2524.97	39 592.52	10	$4s^24p^3(^2D^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
2525.51	39 584.06	2	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	35HUM
2529.52	39 521.31	1	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2531.29	39 493.7	9 w	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.02	98RAI
2531.46	39 491.02	1-	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2535.42	39 429.35	6	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^3G^o$	4	0.01	98RAI
2536.28	39 415.98	1	$4s^24p^3(^2D^o)5p$	^1F	3	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2537.57	39 395.94	6	$4s^24p^3(^2D^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
2544.72	39 285.26	3 h	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2546.36	39 259.96	1	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
2546.67	39 255.18	1	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2548.60	39 225.45	4 h	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2551.49	39 181.03	2	$4s^24p^3(^2D^o)5p$	^3P	0	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	35HUM
2553.16	39 155.40	8	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
2553.81	39 145.44	1	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	35HUM
2554.25	39 138.69	8	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
2555.13	39 125.22	10	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
2557.55	39 088.20	1	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2558.00	39 081.32	5 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
2560.12	39 048.96	1	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
2562.13	39 018.33	5	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^1S^o$	0	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2563.25	39 001.28	30	$4s^24p^3(^4S^o)5p$	^5P	3	—	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	0.01	35HUM
2570.48	38 891.59	10 h	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2571.19	38 880.85	6	$4s^24p^3(^2D^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
2582.83	38 705.64	3	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2584.26	38 684.22	4	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
2585.37	38 667.61	3	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2586.78	38 646.54	3 h	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)5d$	$^1D^o$	2	0.01	35HUM
2589.47	38 606.39	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
2592.06	38 567.82	1	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2593.35	38 548.64	8	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	0.01	98RAI
2604.35	38 385.83	8	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
2607.11	38 345.19	1	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	0	0.01	98RAI
2607.97	38 332.55	1	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
2609.66	38 307.73	1	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2615.19	38 226.73	3	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
2623.11	38 111.32	1	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
2625.64	38 074.60	2 h	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2628.08	38 039.25	6	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	3	0.01	35HUM
2628.90	38 027.38	25	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^4S^o)5p$	^5P	3	0.01	35HUM
2630.66	38 001.94	15	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
2638.27	37 892.33	2	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2639.76	37 870.95	60	$4s^24p^3(^4S^o)4d$	$^5D^o$	4	—	$4s^24p^3(^4S^o)5p$	^5P	3	0.01	35HUM
2641.00	37 853.17	4 h	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^5D^o$	2	0.01	35HUM
2641.74	37 842.56	2	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
2648.43	37 746.98	4	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	0.01	35HUM
2648.69	37 743.27	10	$4s^24p^3(^2D^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
2650.96	37 710.96	1 h	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
2651.44	37 704.13	3	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2653.66	37 672.59	4	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
2658.00	37 611.08	2	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2660.28	37 578.85	6	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^2D^o)5d$	$^3G^o$	4	0.01	98RAI
2661.35	37 563.74	2	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2670.67	37 432.66	20	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
2672.79	37 402.97	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2676.00	37 358.11	8 h	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	35HUM
2678.37	37 325.05	3	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
2679.62	37 307.64	15	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
2680.32	37 297.90	30	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
2680.72	37 292.33	7	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	0.01	35HUM
2681.19	37 285.80	40	$4s^24p^3(^4S^o)4d$	$^5D^o$	3	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
2690.23	37 160.51	15	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
2692.51	37 129.05	6	$4s^24p^3(^2D^o)5p$	^1D	2	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
2694.81	37 097.36	20*	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	2	0.01	35HUM
2694.81	37 097.36	20*	$4s^24p^3(^4S^o)4d$	$^5D^o$	0	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
2696.59	37 072.87	25	$4s^24p^3(^4S^o)4d$	$^5D^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
2697.30	37 063.11	25	$4s^24p^3(^4S^o)4d$	$^5D^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
2698.07	37 052.54	3	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
2698.71	37 043.75	2 h	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	35HUM
2708.34	36 912.04	1	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
2709.02	36 902.78	1	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	35HUM
2709.22	36 900.05	0.5	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	98RAI
2710.27	36 885.76	2	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	0.01	35HUM
2711.33	36 871.34	2	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	0	0.01	98RAI
2715.19	36 818.92	7	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2718.73	36 770.98	3	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)6s$	$^1P^o$	1	0.01	98RAI
2729.88	36 620.80	3	$4s^24p^3(^2D^o)5p$	^3P	0	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
2730.41	36 613.70	5	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
2741.84	36 461.07	2 h	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	3	0.01	35HUM
2742.05	36 458.28	5 h	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
2743.03	36 445.26	3	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	35HUM
2744.05	36 431.71	2	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	0.01	35HUM
2747.99	36 379.48	14	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)5d$	$^3P^o$	1	0.01	98RAI
2749.67	36 357.25	2	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
2750.36	36 348.13	10	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
2756.10	36 272.43	1	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
2756.53	36 266.78	8	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
2765.90	36 143.92	2	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
2768.54	36 109.46	4 h	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2P^o)6s$	$^3P^o$	1	0.01	35HUM
2785.26	35 892.70	2	$4s^24p^3(^4S^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	0.01	35HUM
2799.42	35 711.16	1	$4s^24p^3(^2D^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^1D^o$	2	0.01	98RAI
2806.07	35 626.53	20	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
2811.67	35 555.58	25	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
2813.97	35 526.52	15	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2814.48	35 520.08	15	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.01	35HUM
2817.53	35 481.63	2	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
2820.95	35 438.62	4 h	$4s^24p^3(^4S^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6s$	$^5S^o$	2	0.01	35HUM
2822.63	35 417.53	6	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2829.41	35 332.66	6	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
2835.94	35 251.31	6	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
2837.58	35 230.94	7	$4s^24p^3(^2D^o)5p$	^3P	0	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
2840.33	35 196.83	10	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
2841.00	35 188.53	30	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
2850.29	35 073.84	3	$4s^24p^3(^2D^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	98RAI
2850.46	35 071.75	4	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	3	0.01	98RAI
2851.16	35 063.14	30	$4s^24p^3(^2D^o)4d$	$^3G^o$	4	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
2851.91	35 053.92	2	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2853.22	35 037.83	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2856.09	35 002.62	5 h	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2859.05	34 966.38	4	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
2863.39	34 913.39	1	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2P^o)5d$	$^3F^o$	2	0.01	98RAI
2870.61	34 825.58	50	$4s^24p^3(^2P^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2872.85	34 798.43	5	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
2874.24	34 781.60	2	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
2884.55	34 657.29	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
2892.18	34 565.86	100	$4s^24p^3(^2D^o)4d$	$^3G^o$	5	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
2893.68	34 547.94	40	$4s^24p^3(^2D^o)4d$	$^3G^o$	4	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
2895.92	34 521.22	1 h	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	35HUM
2900.04	34 472.18	20	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
2909.17	34 364.00	30	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
2913.36	34 314.58	3	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^1S^o$	0	0.01	98RAI
2915.78	34 286.10	6 h	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
2917.67	34 263.89	10	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
2934.00	34 073.20	10	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
2935.23	34 058.92	20	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2938.56	34 020.32	4	$4s^24p^3(^2P^o)5s$	$^3P^o$	0	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
2939.91	34 004.70	15	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
2948.13	33 909.89	10	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
2952.09	33 864.41	4	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
2952.56	33 859.02	50	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
2955.20	33 828.77	3	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
2968.31	33 679.37	20	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
2992.22	33 410.26	60	$4s^24p^3(^2D^o)4d$	$^3G^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
2993.27	33 398.54	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
2996.60	33 361.43	20	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
3002.24	33 298.76	6	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3022.30	33 077.75	50	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
3024.45	33 054.24	80	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3044.80	32 833.33	6	$4s^24p^3(^2D^o)4d$	$^1G^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
3046.93	32 810.38	50	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
3056.72	32 705.30	30	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
3062.43	32 644.32	3	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3063.13	32 636.86	60	$4s^24p^3(^2D^o)4d$	$^1G^o$	4	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
3097.16	32 278.28	40	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3112.25	32 121.78	60	$4s^24p^3(^2D^o)4d$	$^1G^o$	4	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
3120.61	32 035.73	30	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
3122.46	32 016.75	20	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
3124.39	31 996.97	100	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3136.20	31 876.49	10	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
3139.58	31 842.17	15	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
3141.35	31 824.23	60	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
3141.88	31 818.86	20	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
3144.32	31 794.17	9	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
3151.75	31 719.22	10	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3156.63	31 670.19	1 h	$4s^24p^3(^2D^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	35HUM
3170.93	31 527.37	20	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	35HUM
3172.11	31 515.64	1	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
3189.11	31 347.65	100	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3191.21	31 327.02	80	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
3207.78	31 165.20	10	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	0	0.01	98RAI
3218.59	31 060.54	3	$4s^24p^3(^2D^o)5p$	^3D	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.01	98RAI
3220.62	31 040.96	20	$4s^24p^3(^2P^o)5s$	$^3P^o$	0	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
3222.24	31 025.35	10	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
3223.74	31 010.92	3	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3224.85	31 000.24	20	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
3239.52	30 859.87	40	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
3240.44	30 851.10	40	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
3245.69	30 801.20	300	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	3	0.01	35HUM
3246.62	30 792.38	5	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
3253.80	30 724.43	3	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	98RAI
3264.81	30 620.83	150	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
3268.48	30 586.44	100	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
3271.65	30 556.81	30	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
3279.42	30 484.41	2	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
3285.25	30 430.32	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3285.89	30 424.39	30	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
3292.21	30 365.99	1	$4s^24p^3(^2P^o)5s$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
3293.88	30 350.59	4	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
3304.75	30 250.77	30	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3308.16	30 219.58	20	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
3308.73	30 214.38	1 h	$4s^24p^3(^2D^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
3311.47	30 189.38	50	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
3315.04	30 156.87	1	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
3318.37	30 126.61	0.5	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	0.01	98RAI
3322.31	30 090.88	2	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
3325.75	30 059.76	200	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
3330.76	30 014.54	60	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
3332.50	29 998.87	10	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
3335.41	29 972.70	2	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)5d$	$^1P^o$	1	0.01	98RAI
3342.48	29 909.31	50	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
3348.17	29 858.48	10	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
3351.93	29 824.99	100	$4s^24p^3(^4S^o)5s$	$^5S^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
3374.96	29 621.47	40	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
3388.93	29 499.37	20	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
3396.58	29 432.93	15	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
3428.83	29 156.11	10	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
3437.48	29 082.74	2	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.01	98RAI
3439.46	29 066.00	100	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
3442.86	29 037.30	6	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
3446.85	29 003.69	8	$4s^24p^3(^2P^o)5s$	$^3P^o$	0	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
3448.71	28 988.04	10	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
3471.02	28 801.73	3	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
3474.65	28 771.64	70	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
3484.93	28 686.77	2	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
3485.08	28 685.54	1-	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	35HUM
3488.59	28 656.67	100*	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	0	0.01	35HUM
3488.59	28 656.67	100*	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
3492.80	28 622.13	8	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
3497.13	28 586.70	10	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.01	35HUM
3507.42	28 502.83	200	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3514.55	28 445.01	15	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3521.11	28 392.02	4	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
3524.78	28 362.46	5	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
3537.20	28 262.87	2	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3547.06	28 184.31	2	$4s^24p^3(^2P^o)5p$	^3P	0	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	98RAI
3549.42	28 165.57	20	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
3549.93	28 161.52	4	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
3559.12	28 088.81	2	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	0.01	98RAI
3562.09	28 065.39	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3564.23	28 048.54	100	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
3567.72	28 021.10	15	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
3573.74	27 973.90	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	98RAI
3577.75	27 942.55	1	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.01	98RAI
3578.79	27 934.43	2*	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
3578.79	27 934.43	2*	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^1P^o$	1	0.01	98RAI
3579.95	27 925.38	2	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
3582.48	27 905.66	5 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3583.05	27 901.22	1	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^4S^o)6d$	$^3D^o$	3	0.01	98RAI
3598.04	27 784.98	1	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^4S^o)5p$	^5P	3	0.01	35HUM
3603.96	27 739.34	2	$4s^24p^3(^4S^o)4d$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
3611.06	27 684.80	5	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3613.73	27 664.35	1	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.01	98RAI
3615.82	27 648.36	20	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
3625.66	27 573.32	1	$4s^24p^3(^2D^o)5p$	^3S	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	98RAI
3626.98	27 563.29	2	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
3630.96	27 533.08	3	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
3632.51	27 521.33	4	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
3641.34	27 454.59	30	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
3652.81	27 368.39	2	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
3655.77	27 346.23	1	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
3666.19	27 268.51	1	$4s^24p^3(^2D^o)5p$	^1P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
3669.14	27 246.58	1	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	98RAI
3670.23	27 238.49	4	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
3671.14	27 231.74	1	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
3674.23	27 208.84	4	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3690.65	27 087.79	30	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
3696.69	27 043.53	5	$4s^24p^3(^4S^o)4d$	$^3D^o$	3	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
3699.98	27 019.48	2	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
3702.71	26 999.56	2	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	98RAI
3716.54	26 899.09	0.5*	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
3716.54	26 899.09	0.5*	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	2	0.01	98RAI
3726.32	26 828.50	5	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
3761.91	26 574.69	3	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	98RAI
3769.69	26 519.85	2	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3776.54	26 471.74	4	$4s^24p^3(^4S^o)4d$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	98RAI
3792.70	26 358.96	15	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
3802.66	26 289.92	2	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.01	98RAI
3809.16	26 245.06	7	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3822.61	26 152.72	3	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)5d$	$^1G^o$	4	0.01	98RAI
3826.63	26 125.24	3	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
3829.57	26 105.19	1	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
3830.29	26 100.28	3	$4s^24p^3(^2P^o)5p$	^3D	1	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	2	0.01	98RAI
3831.37	26 092.92	1	$4s^24p^3(^2D^o)5p$	^3F	4	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.01	98RAI
3835.37	26 065.71	2	$4s^24p^3(^2D^o)4d$	$^3F^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
3847.49	25 983.60	3	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
3858.50	25 909.46	0.5	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
3867.83	25 846.96	1	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^3S^o$	1	0.01	98RAI
3868.70	25 841.15	6	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	88BRE
3874.04	25 805.53	3	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.01	35HUM
3898.70	25 642.31	10	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3901.71	25 622.53	1	$4s^24p^3(^2P^o)5p$	^3P	0	—	$4s^24p^3(^4S^o)6d$	$^5D^o$	1	0.01	98RAI
3913.90	25 542.73	3	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
3918.68	25 511.57	1	$4s^24p^3(^2P^o)5p$	^3D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
3938.53	25 383.00	4	$4s^24p^3(^2D^o)4d$	$^3F^o$	3	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
3957.67	25 260.24	25	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
3979.05	25 124.52	3	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
3981.41	25 109.63	2	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	0	0.01	98RAI
3993.52	25 033.49	4	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
4002.61	24 976.64	15	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
4016.25	24 891.81	4	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)5d$	$^3P^o$	2	0.01	98RAI
4027.17	24 824.32	1	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
4047.71	24 698.35	1	$4s^24p^3(^2P^o)5p$	^3D	3	—	$4s^24p^3(^2D^o)6s$	$^3D^o$	3	0.01	98RAI
4067.39	24 578.85	12	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	88BRE
4082.43	24 488.30	6	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	98RAI
4131.33	24 198.45	40	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	2	0.01	35HUM
4134.56	24 179.55	6	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	98RAI
4154.46	24 063.73	40	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
4160.21	24 030.47	4 h	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
4171.79	23 963.77	15	$4s^24p^3(^4S^o)5s$	$^3S^o$	1	—	$4s^24p^3(^4S^o)5p$	^5P	1	0.01	35HUM
4184.59	23 890.47	2 h	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
4195.72	23 827.10	1	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
4195.91	23 826.02	1 h	$4s^24p^3(^2P^o)5p$	^3P	1	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	2	0.01	35HUM
4198.25	23 812.74	0.5	$4s^24p^3(^2D^o)5p$	^3F	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	1	0.01	98RAI
4225.35	23 660.02	3	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	3	0.01	98RAI
4225.92	23 656.82	20	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
4226.58	23 653.13	25	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
4232.82	23 618.26	2	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
4233.72	23 613.24	1 h	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
4244.33	23 554.21	5 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
4294.06	23 281.43	3	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
4294.83	23 277.26	10	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
4305.20	23 221.19	9	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
4335.51	23 058.85	1	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
4344.24	23 012.52	8 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
4354.19	22 959.93	0.5	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	1	0.01	98RAI
4354.95	22 955.92	6	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	98RAI
4360.63	22 926.02	1	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
4361.66	22 920.61	4	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	98RAI
4362.06	22 918.51	0.5	$4s^24p^3(^2P^o)5p$	^1P	1	—	$4s^24p^3(^2D^o)6s$	$^1D^o$	2	0.01	98RAI
4378.68	22 831.52	8	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
4403.36	22 703.55	0.5	$4s^24p^3(^2D^o)5p$	^3F	3	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	98RAI
4409.22	22 673.38	0.5	$4s^24p^3(^2D^o)5p$	^3D	2	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	2	0.01	98RAI
4430.52	22 564.38	1	$4s^24p^3(^2D^o)5p$	^3P	1	—	$4s^24p^3(^4S^o)5d$	$^3D^o$	2	0.01	98RAI
4443.28	22 499.58	15	$4s^24p^3(^2D^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
4443.72	22 497.35	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
4491.68	22 257.14	1	$4s^24p^3(^2P^o)5p$	^1D	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
4518.64	22 124.35	2	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
4536.46	22 037.44	10	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
4537.25	22 033.60	6	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
4565.51	21 897.22	1 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
4621.40	21 632.41	1 h	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
4673.80	21 389.88	3	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
4688.79	21 321.50	3	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	3	0.01	98RAI
4693.65	21 299.42	3 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
4710.48	21 223.32	10	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
4729.72	21 136.99	4	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	35HUM
4745.28	21 067.68	7	$4s^24p^3(^2D^o)5p$	^3D	3	—	$4s^24p^3(^4S^o)5d$	$^5D^o$	3	0.01	98RAI
4749.00	21 051.18	2 h	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
4754.48	21 026.91	6	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
4768.92	20 963.25	0.5	$4s^24p^3(^2P^o)5p$	^3P	2	—	$4s^24p^3(^2D^o)5d$	$^3D^o$	1	0.01	98RAI
4789.74	20 872.13	7	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
4826.08	20 714.96	2 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
4841.90	20 647.28	1	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	98RAI
4845.62	20 631.43	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^3F	4	0.01	35HUM
4873.87	20 511.85	1 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
4892.21	20 434.95	5 h	$4s^24p^3(^2P^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
4906.28	20 376.35	6 h	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
4930.26	20 277.25	6	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	88BRE
4940.21	20 236.41	2	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
4965.78	20 132.21	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
4977.08	20 086.50	2 h	$4s^24p^3(^2D^o)4d$	$^3G^o$	3	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
4988.52	20 040.43	10	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
5016.45	19 928.86	20 h	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
5018.72	19 919.84	2 h	$4s^24p^3(^2P^o)4d$	$^3F^o$	4	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
5036.65	19 848.93	9	$4s^24p^3(^2P^o)5s$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	98RAI

TABLE 12. Spectral lines of Kr III—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source
			Configuration	Term	J		Configuration	Term	J		
5042.86	19 824.49	2 h	$4s^24p^3(^2D^o)5s$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
5061.46	19 751.64	2	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
5069.96	19 718.52	4	$4s^24p^3(^2P^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
5110.98	19 560.27	1 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3P	0	0.01	35HUM
5151.68	19 405.74	2	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	2	0.01	35HUM
5152.01	19 404.49	3 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
5160.09	19 374.11	1	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
5188.48	19 268.10	9	$4s^24p^3(^2D^o)5p$	^3P	2	—	$4s^24p^3(^4S^o)6s$	$^3S^o$	1	0.01	98RAI
5257.83	19 013.96	2	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
5263.18	18 994.63	1	$4s^24p^3(^2P^o)4d$	$^3F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	35HUM
5287.02	18 908.98	3	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^1P	1	0.01	98RAI
5338.20	18 727.70	2 h	$4s^24p^3(^2P^o)4d$	$^3P^o$	0	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
5349.77	18 687.19	2	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	3	0.01	35HUM
5362.11	18 644.19	1	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	35HUM
5371.40	18 611.94	4	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1P	1	0.01	35HUM
5381.39	18 577.39	2 h	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
5412.19	18 471.67	5	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	35HUM
5438.20	18 383.33	2 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
5467.75	18 283.98	6	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	98RAI
5475.49	18 258.13	1 h	$4s^24p^3(^2D^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
5477.66	18 250.90	2	$4s^24p^3(^2D^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
5501.43	18 172.04	10	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
5552.69	18 004.29	3	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	98RAI
5597.32	17 860.73	5	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
5715.80	17 490.51	1 h	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	2	0.01	35HUM
5809.88	17 207.29	6	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	98RAI
5858.36	17 064.89	3	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	2	0.01	98RAI
5868.80	17 034.54	3	$4s^24p^3(^2P^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^3F	3	0.01	98RAI
5873.50	17 020.91	1 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	1	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	35HUM
5891.68	16 968.38	9	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	0	0.01	98RAI
5935.03	16 844.45	8 h	$4s^24p^3(^2D^o)4d$	$^3S^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
5945.71	16 814.19	3	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	98RAI
6037.17	16 559.47	10 h	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	1	0.01	35HUM
6050.11	16 524.05	3 h	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	0	0.01	35HUM
6078.38	16 447.20	10 h	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
6110.81	16 359.91	5 h	$4s^24p^3(^2D^o)5s$	$^3D^o$	1	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
6164.76	16 216.74	1 h	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	3	0.01	35HUM
6250.98	15 993.07	5	$4s^24p^3(^2D^o)5s$	$^3D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
6310.22	15 842.93	10 h	$4s^24p^3(^2P^o)5s$	$^1P^o$	1	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
6312.72	15 836.65	6	$4s^24p^3(^2P^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2P^o)5p$	^1D	2	0.01	98RAI
6395.09	15 632.68	2	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3P	1	0.01	35HUM
6444.70	15 512.34	1 h	$4s^24p^3(^2P^o)4d$	$^3F^o$	2	—	$4s^24p^3(^2D^o)5p$	^3D	1	0.01	35HUM
6602.90	15 140.68	10 h	$4s^24p^3(^2D^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	35HUM
6651.75	15 029.49	10 h	$4s^24p^3(^2D^o)5s$	$^3D^o$	3	—	$4s^24p^3(^4S^o)5p$	^3P	2	0.01	35HUM
6683.55	14 957.98	1 h	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3S	1	0.01	35HUM
6728.41	14 858.25	1 h	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	35HUM
6793.53	14 715.83	3 h	$4s^24p^3(^2P^o)5s$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1F	3	0.01	35HUM
6818.13	14 662.73	1	$4s^24p^3(^2P^o)4d$	$^3D^o$	1	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	98RAI
6977.95	14 326.90	3 h	$4s^24p^3(^2D^o)4d$	$^3P^o$	2	—	$4s^24p^3(^2D^o)5p$	^1D	2	0.01	35HUM
7057.45	14 165.52	2 h	$4s^24p^3(^2P^o)4d$	$^1D^o$	2	—	$4s^24p^3(^4S^o)5p$	^3P	1	0.01	35HUM
7353.37	13 595.462	0.5	$4s^24p^3(^2D^o)4d$	$^1D^o$	2	—	$4s^24p^3(^2P^o)5p$	^3D	1	0.01	98RAI
7564.49	13 216.023	0.5	$4s^24p^3(^2P^o)4d$	$^3D^o$	3	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	98RAI
8050.07	12 418.837	3	$4s^24p^3(^2P^o)4d$	$^3D^o$	2	—	$4s^24p^3(^2D^o)5p$	^3P	2	0.01	98RAI
8178.67	12 223.566	2	$4s^24p^3(^2P^o)4d$	$^1F^o$	3	—	$4s^24p^3(^2P^o)5p$	^3D	2	0.01	98RAI

4.4. Kr IV

As isoelectronic sequence
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p^3\ ^4S^o_{3/2}$
Ionization energy 423 400±1600 cm^{-1}
(52.49±0.20 eV) [55FIN]

The energy levels of triply ionized krypton, Kr IV, were compiled by Sugar and Musgrove [91SUG]. They used the analyses of Fawcett and Bromage [80FAW] and Persson and Pettersson [84PER]. We use the extended analysis of Reyna Almandos *et al.* [98REY] for all but two Kr IV levels, 208 920 and 231 940 cm^{-1}, which we take from Sugar and Musgrove [91SUG]. We use these two since Reyna Almandos *et al.* [98REY] report that they fit well with the theoretical values obtained from their least squares fit. Reyna Almandos *et al.* [98REY] quote an uncertainty of 0.60 cm^{-1} for their wave number values. We estimate that the two Sugar and Musgrove [91SUG] values have an uncertainty of about 12 cm^{-1}. As noted by [98REY], the LS designation for some levels has very little physical significance and may not even be the largest eigenvector component.

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Reyna Almandos *et al.* [98REY]

The observed spectral lines of Kr IV were compiled from six sources, Boyce [35BOY], Irwin *et al.* [76IRW], Livingston [76LIV], Fawcett and Bromage [80FAW], Persson and Pettersson [84PER], and Bredice *et al.* [00BRE]. The four sources used in the spectral line compilation are summarized in Table 14. In the line table the uncertainty of the observed wave number for the 794 Å line is about 80 cm^{-1}. This is indicated by the absence of a decimal point on this wave number.

The priority in our choice of duplicate lines is [84PER], [35BOY], [00BRE], [80FAW], [76IRW], and [76LIV]. No [35BOY] or [76LIV] lines are in our final list.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr IV levels. Only classifiable lines are included in our compilation. Two other lines are listed in the references but are not included since we cannot be sure that they are from Kr IV when they do not fit the known levels. Transition probability calculations using the Cowan codes [81COW], with the parameters of Reyna Almandos *et al.* [98REY], were used to help resolve choices between multiple possible classifications of lines. Intensities and intensity codes have been taken from the stated sources. Their meaning is stated below:

Symbol	Definition
aff	affected
BF	beam foil measurement
d	line contour not very clear
w	wide
ul	unsymmetrical-shaded to longer wavelength
us	unsymmetrical-shaded to shorter wavelength
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was obtained by Finkelnburg and Humbach [55FIN].

4.4.1. References

35BOY = J. C. Boyce, Phys. Rev. **47**, 718 (1935).
55FIN = W. Finkelnburg and W. Humbach, Naturwiss. **42**, 35 (1955).
76IRW = D. J. G. Irwin, J. A. Kernahan, E. H. Pinnington, and A. E. Livingston, J. Opt. Soc. Am. **66**, 1396 (1976).
76LIV = A. E. Livingston, J. Phys. B **9**, L215 (1976).
80FAW = B. C. Fawcett and G. E. Bromage, J. Phys. B **13**, 2711 (1980).
81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).
84PER = W. Persson, and S.-G. Pettersson, Phys. Scr. **29**, 308 (1984).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
98REY = J. G. Reyna Almandos, F. Bredice, M. Raineri, M. Gallardo, and A. G. Trigueiros, J. Phys. B **31**, 3129 (1998).
00BRE = F. Bredice, M. Raineri, J. Reyna Almandos, M. Gallardo, and A. G. Trigueiros, J. Quant. Spectrosc. Radiat. Transf. **65**, 805 (2000).

TABLE 13. Energy levels of Kr IV

Energy Level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0.0	1	$4s^2 4p^3$	$^4S^o$	3/2	98			98REY
17 037.6	1	$4s^2 4p^3$	$^2D^o$	3/2	90	10	$4s^2 4p^2(^3P)5p\ ^4P^o$	98REY
18 700.3	1	$4s^2 4p^3$	$^2D^o$	5/2	100			98REY
31 056.4	1	$4s^2 4p^3$	$^2P^o$	1/2	100			98REY
33 405.6	1	$4s^2 4p^3$	$^2P^o$	3/2	88	10	$4s^2 4p^3\ ^2D^o$	98REY
118 761.5	0	$4s4p^4$	^4P	5/2	89	10	$4s^2 4p^2(^3P)4d\ ^4P$	98REY
122 426.5	0	$4s4p^4$	^4P	3/2	89	10	$4s^2 4p^2(^3P)4d\ ^4P$	98REY

TABLE 13. Energy levels of Kr IV—Continued

Energy Level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
124 109.7	0	$4s4p^4$	^{4}P	1/2	89	10	$4s^24p^2(^3$P$)4d$ ^{4}P	98REY
145 772.8	0	$4s4p^4$	^{2}D	3/2	75	19	$4s^24p^2(^1$D$)4d$ ^{2}D	98REY
146 644.7	0	$4s4p^4$	^{2}D	5/2	76	19	$4s^24p^2(^1$D$)4d$ ^{2}D	98REY
166 160.9	0	$4s4p^4$	^{2}P	1/2	34	47	$4s^24p^2(^3$P$)4d$ ^{2}P	98REY
173 952.1	0	$4s4p^4$	^{2}S	1/2	64	19	$4s^24p^2(^1$D$)4d$ ^{2}S	98REY
205 399.6	0	$4s4p^4$	^{2}P	3/2	21	23	$4s^24p^2(^3$P$)4d$ ^{2}D	98REY
163 445.1	0	$4s^24p^2(^3$P$)4d$	^{2}P	3/2	55	37	$4s4p^4$ ^{2}P	98REY
172 724.0	0	$4s^24p^2(^3$P$)4d$	^{4}F	3/2	95			98REY
174 105.7	0	$4s^24p^2(^3$P$)4d$	^{4}F	5/2	91	7	$4s^24p^2(^3$P$)4d$ ^{4}D	98REY
176 231.0	0	$4s^24p^2(^3$P$)4d$	^{4}F	7/2	92			98REY
178 877.0	0	$4s^24p^2(^3$P$)4d$	^{4}F	9/2	97			98REY
179 228.3	0	$4s^24p^2(^1$D$)4d$	^{2}F	5/2	41	31	$4s^24p^2(^3$P$)4d$ ^{2}F	98REY
180 686.7	0	$4s^24p^2(^3$P$)4d$	^{4}D	1/2	97			98REY
180 764.4	0	$4s^24p^2(^3$P$)4d$	^{4}D	7/2	50	30	$4s^24p^2(^1$D$)4d$ ^{2}F	98REY
181 000.5	0	$4s^24p^2(^3$P$)4d$	^{4}D	3/2	94			98REY
182 668.4	0	$4s^24p^2(^3$P$)4d$	^{4}D	5/2	66	15	$4s^24p^2(^1$D$)4d$ ^{2}F	98REY
186 565.6	0	$4s^24p^2(^1$D$)4d$	^{2}F	7/2	30	43	$4s^24p^2(^3$P$)4d$ ^{4}D	98REY
201 424.2	0	$4s^24p^2(^3$P$)4d$	^{4}P	5/2	83	9	$4s4p^4$ ^{4}P	98REY
204 735.4	0	$4s^24p^2(^3$P$)4d$	^{4}P	1/2	54	26	$4s^24p^2(^3$P$)5s$ ^{4}P	98REY
207 595.4	0	$4s^24p^2(^3$P$)4d$	^{2}D	3/2	28	23	$4s^24p^2(^1$D$)4d$ ^{2}P	98REY
210 347.7	0	$4s^24p^2(^1$D$)4d$	^{2}P	1/2	45	30	$4s4p^4$ ^{2}P	98REY
211 860.3	0	$4s^24p^2(^3$P$)4d$	^{2}D	5/2	63	23	$4s^24p^2(^1$S$)4d$ ^{2}D	98REY
217 416.6	0	$4s^24p^2(^1$D$)4d$	^{2}D	5/2	40	34	$4s^24p^2(^1$D$)5s$ ^{2}D	98REY
217 558.6	0	$4s^24p^2(^1$D$)4d$	^{2}D	3/2	45	32	$4s^24p^2(^1$D$)5s$ ^{2}D	98REY
219 988.5	0	$4s^24p^2(^3$P$)4d$	^{2}F	5/2	43	36	$4s^24p^2(^1$D$)4d$ ^{2}F	98REY
221 184.5	0	$4s^24p^2(^3$P$)4d$	^{2}F	7/2	59	37	$4s^24p^2(^1$D$)4d$ ^{2}F	98REY
225 282.0	0	$4s^24p^2(^1$D$)4d$	^{2}P	3/2	36	29	$4s^24p^2(^3$P$)4d$ ^{2}P	98REY
231 940.	0	$4s^24p^2(^1$S$)4d$	^{2}D	5/2				91SUG
232 807.4	0	$4s^24p^2(^1$S$)4d$	^{2}D	3/2	56	37	$4s^24p^2(^3$P$)4d$ ^{2}D	98REY
202 373.3	0	$4s^24p^2(^3$P$)5s$	^{4}P	1/2	67	26	$4s^24p^2(^3$P$)4d$ ^{4}P	98REY
205 214.5	0	$4s^24p^2(^3$P$)5s$	^{4}P	3/2	60	16	$4s^24p^2(^1$D$)4d$ ^{2}P	98REY
208 064.1	0	$4s^24p^2(^3$P$)5s$	^{4}P	5/2	91			98REY
208 920.	0	$4s^24p^2(^3$P$)5s$	^{2}P	1/2				91SUG
211 685.5	0	$4s^24p^2(^3$P$)5s$	^{2}P	3/2	83			98REY
223 033.6	0	$4s^24p^2(^1$D$)5s$	^{2}D	3/2	60	29	$4s^24p^2(^1$D$)4d$ ^{2}D	98REY
223 313.0	0	$4s^24p^2(^1$D$)5s$	^{2}D	5/2	55	26	$4s^24p^2(^1$D$)4d$ ^{2}D	98REY
234 827.9	1	$4s^24p^2(^3$P$)5p$	^{2}S^o	1/2	52	29	$4s^24p^2(^3$P$)5p$ ^{4}D^o	98REY
237 445.1	1	$4s^24p^2(^3$P$)5p$	^{4}D^o	1/2	64	34	$4s^24p^2(^3$P$)5p$ ^{2}S^o	98REY
238 269.4	1	$4s^24p^2(^3$P$)5p$	^{4}D^o	3/2	82	10	$4s^24p^2(^3$P$)5p$ ^{4}P^o	98REY
241 241.6	1	$4s^24p^2(^3$P$)5p$	^{4}D^o	5/2	92	6	$4s^24p^2(^3$P$)5p$ ^{4}P^o	98REY
241 802.6	1	$4s^24p^2(^3$P$)5p$	^{4}P^o	3/2	28	32	$4s^24p^2(^3$P$)5p$ ^{2}D^o	98REY
243 567.2	1	$4s^24p^2(^3$P$)5p$	^{4}P^o	1/2	89	6	$4s^24p^2(^3$P$)5p$ ^{2}S^o	98REY
243 898.8	1	$4s^24p^2(^3$P$)5p$	^{2}D^o	3/2	43	31	$4s^24p^2(^3$P$)5p$ ^{4}S^o	98REY
244 443.6	1	$4s^24p^2(^3$P$)5p$	^{4}D^o	7/2	93	7	$4s^24p^2(^1$D$)5p$ ^{2}F^o	98REY
244 465.9	1	$4s^24p^2(^3$P$)5p$	^{4}P^o	5/2	44	32	$4s^24p^2(^3$P$)5p$ ^{2}D^o	98REY
246 612.9	1	$4s^24p^2(^3$P$)5p$	^{4}S^o	3/2	49	42	$4s^24p^2(^3$P$)5p$ ^{4}P^o	98REY
249 206.2	1	$4s^24p^2(^3$P$)5p$	^{2}D^o	5/2	46	44	$4s^24p^2(^3$P$)5p$ ^{4}P^o	98REY
250 173.8	1	$4s^24p^2(^3$P$)5p$	^{2}P^o	3/2	73	12	$4s^24p^2(^1$D$)5p$ ^{2}P^o	98REY
250 896.7	1	$4s^24p^2(^3$P$)5p$	^{2}P^o	1/2	82	7	$4s^24p^2(^3$P$)5p$ ^{2}S^o	98REY
257 142.7	1	$4s^24p^2(^1$D$)5p$	^{2}F^o	5/2	64	32	$4s^24p^2(^1$D$)5p$ ^{2}D^o	98REY
258 355.4	1	$4s^24p^2(^1$D$)5p$	^{2}D^o	3/2	64	16	$4s^24p^2(^1$D$)5p$ ^{2}P^o	98REY
258 509.6	1	$4s^24p^2(^1$D$)5p$	^{2}F^o	7/2	93	7	$4s^24p^2(^3$P$)5p$ ^{4}D^o	98REY
258 763.2	1	$4s^24p^2(^1$D$)5p$	^{2}D^o	5/2	51	24	$4s^24p^2(^1$D$)5p$ ^{2}F^o	98REY
263 160.1	1	$4s^24p^2(^1$D$)5p$	^{2}P^o	1/2	92	6	$4s^24p^2(^3$P$)5p$ ^{2}P^o	98REY
265 447.4	1	$4s^24p^2(^1$D$)5p$	^{2}P^o	3/2	63	22	$4s^24p^2(^3$P$)5p$ ^{2}P^o	98REY

TABLE 13. Energy levels of Kr IV—Continued

Energy Level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
278 967.3	1	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	93			98REY
290 606.4	0	$4s^24p^2(^3P)5d$	^4F	3/2	74	11	$4s^24p^2(^3P)5d\ ^4D$	98REY
294 367.2	0	$4s^24p^2(^3P)5d$	^4F	7/2	76	20	$4s^24p^2(^3P)5d\ ^4D$	98REY
294 632.3	0	$4s^24p^2(^3P)5d$	^2P	3/2	45	21	$4s^24p^2(^3P)5d\ ^4D$	98REY
295 268.2	0	$4s^24p^2(^3P)5d$	^4D	1/2	76	17	$4s^24p^2(^3P)5d\ ^2P$	98REY
296 954.4	0	$4s^24p^2(^3P)5d$	^2F	5/2	70	15	$4s^24p^2(^3P)5d\ ^4P$	98REY
298 052.4	0	$4s^24p^2(^3P)5d$	^4D	7/2	54	20	$4s^24p^2(^3P)5d\ ^4F$	98REY
299 255.8	0	$4s^24p^2(^3P)5d$	^4P	3/2	38	29	$4s^24p^2(^3P)6s\ ^4P$	98REY
301 796.5	0	$4s^24p^2(^3P)5d$	^2F	7/2	68	20	$4s^24p^2(^3P)5d\ ^4D$	98REY
296 713.3	0	$4s^24p^2(^3P)6s$	^4P	1/2	78	16	$4s^24p^2(^1S)4d\ ^2D$	98REY
299 952.2	0	$4s^24p^2(^3P)6s$	^4P	3/2	61	24	$4s^24p^2(^3P)4d\ ^4P$	98REY
300 899.4	0	$4s^24p^2(^3P)6s$	^2P	1/2	67	14	$4s^24p^2(^3P)6s\ ^4P$	98REY
303 231.3	0	$4s^24p^2(^3P)6s$	^4P	5/2	89	6	$4s^24p^2(^1D)6s\ ^2D$	98REY
304 543.7	0	$4s^24p^2(^3P)6s$	^2P	3/2	84	8	$4s^24p^2(^1D)6s\ ^2D$	98REY
315 802.1	0	$4s^24p^2(^1D)6s$	^2D	5/2	91	6	$4s^24p^2(^3P)6s\ ^4P$	98REY
315 892.9	0	$4s^24p^2(^1D)6s$	^2D	3/2	91	7	$4s^24p^2(^3P)6s\ ^2P$	98REY

TABLE 14. Sources of Kr IV lines

Sourse	Number of classifications	Light source	Wavelength range (Å)	Uncertainty
76IRW	1	beam-foil spectroscopy	794	0.5
80FAW	13	zeta-toroidal plasma	481–521	0.03
84PER	31	theta-pinch discharge	612–1172	0.005 for strong lines 0.01 for weak lines
00BRE	440	both a theta-pinch discharge and a capillary-pulsed discharge for the vuv region and a capillary-pulsed discharge for the visible	501–4704	0.01–0.04

TABLE 15. Spectral lines Kr IV

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
480.61	208 069.	1	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)5s$	^4P	5/2	0.03	80FAW
488.44	204 733.	4	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	1/2	0.03	80FAW
492.71	202 959.	7	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^2F	5/2	0.03	80FAW
493.86	202 487.	8	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^2F	7/2	0.03	80FAW
494.14	202 372.	7	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)5s$	^4P	1/2	0.03	80FAW
495.66	201 751.	3	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^1S)4d$	^2D	3/2	0.03	80FAW
496.46	201 426.	9	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	5/2	0.03	80FAW
496.79	201 292.	3	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^2F	5/2	0.03	80FAW
498.69	200 525.	8	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^1D)4d$	^2D	3/2	0.03	80FAW
499.05	200 381.	3	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^1D)4d$	^2D	5/2	0.03	80FAW
501.50	199 402.	3	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1S)4d$	^2D	3/2	0.01	00BRE
502.87	198 859.	4	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^1D)4d$	^2D	3/2	0.01	00BRE
503.23	198 716.	4	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^1D)4d$	^2D	5/2	0.01	00BRE
503.69	198 535.	6	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1S)4d$	^2D	5/2	0.03	80FAW
513.29	194 822.	6	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^2D	5/2	0.01	00BRE
513.74	194 651.	6	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5s$	^2P	3/2	0.01	00BRE
514.82	194 243.	3	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^1D)4d$	^2P	3/2	0.03	80FAW
517.30	193 311.	6	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^1D)4d$	^2P	1/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
517.71	193 158.	7	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^2D	5/2	0.01	00BRE
518.17	192 987.	7	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5s$	^2P	3/2	0.01	00BRE
520.90	191 975.	4	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^1D)5s$	^2D	3/2	0.01	00BRE
521.15	191 883.	4	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5s$	^2P	1/2	0.03	80FAW
521.17	191 876.	7	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1D)4d$	^2P	3/2	0.01	00BRE
524.78	190 556.	3	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^2D	3/2	0.01	00BRE
526.57	189 908.	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1D)5s$	^2D	5/2	0.01	00BRE
528.08	189 365.	9	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5s$	^4P	5/2	0.01	00BRE
529.39	188 897.	8	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^2D	3/2	0.01	00BRE
530.89	188 363.	8	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^2P	3/2	0.01	00BRE
532.77	187 698.	4	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	1/2	0.01	00BRE
535.63	186 696.	9	$4s^24p^3$	$^2D^o$	5/2	—	$4s4p^4$	^2P	3/2	0.01	00BRE
542.34	184 386.	6	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	5/2	0.01	00BRE
543.03	184 152.	1 d	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1D)4d$	^2D	3/2	0.02	00BRE
547.27	182 725.	9	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4P	5/2	0.01	00BRE
552.48	181 002.	10	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	3/2	0.01	00BRE
553.43	180 691.	5	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	1/2	0.01	00BRE
557.75	179 292.	7	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^1D)4d$	^2P	1/2	0.01	00BRE
557.95	179 228.	10	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^1D)4d$	^2F	5/2	0.01	00BRE
560.92	178 279.	5	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5s$	^2P	3/2	0.01	00BRE
565.16	176 941.	6	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1D)4d$	^2P	1/2	0.01	00BRE
566.44	176 541.	10	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^3P)4d$	^2D	3/2	0.01	00BRE
573.59	174 341.	7	$4s^24p^3$	$^2P^o$	1/2	—	$4s4p^4$	^2P	3/2	0.01	00BRE
574.08	174 192.	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^2D	3/2	0.01	00BRE
574.36	174 107.	10 ul	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4F	5/2	0.02	00BRE
574.87	173 952.	6	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^2S	1/2	0.01	00BRE
578.96	172 724.	7	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^4F	3/2	0.01	00BRE
581.42	171 993.	6	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^2P	3/2	0.01	00BRE
582.04	171 809.	7	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5s$	^4P	3/2	0.01	00BRE
583.68	171 327.	4*	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	1/2	0.01	00BRE
583.68	171 327.	4*	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^3P)5s$	^4P	1/2	0.01	00BRE
591.83	168 967.	3	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5s$	^4P	1/2	0.01	00BRE
595.16	168 022.	3 d	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^4P	5/2	0.02	00BRE
595.72	167 864.	11	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^1D)4d$	^2F	7/2	0.01	00BRE
601.83	166 160.	2d	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^2P	1/2	0.02	00BRE
603.75	165 631.	10	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	5/2	0.01	00BRE
609.87	163 969.	50 w	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4D	5/2	0.02	00BRE
611.07	163 647.	15 ul	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	1/2	0.02	00BRE
611.831	163 444.	3	$4s^24p^3$	$^4S^o$	3/2	—	$4s^24p^2(^3P)4d$	^2P	3/2	0.01	84PER
616.14	162 301.	11	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4D	3/2	0.01	00BRE
616.56	162 190.	11	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^1D)4d$	^2F	5/2	0.01	00BRE
617.04	162 064.	4 us	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4D	7/2	0.02	00BRE
622.94	160 529.	20 w	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^1D)4d$	^2F	5/2	0.02	00BRE
634.80	157 530.	11 w	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4F	7/2	0.02	00BRE
636.67	157 067.	10	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4F	5/2	0.01	00BRE
637.292	156 914.	1	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^2S	1/2	0.01	84PER
642.31	155 688.	15 ul	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^4F	3/2	0.02	00BRE
643.48	155 405.	10	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4F	5/2	0.01	00BRE
649.25	154 024.	3	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^4F	3/2	0.01	00BRE
670.589	149 122.6	9	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^2P	1/2	0.005	84PER
677.53	147 595.	5	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	3/2	0.01	00BRE
678.97	147 282.	10	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^4D	1/2	0.01	00BRE
681.924	146 644.	4	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^2D	5/2	0.01	84PER
683.028	146 406.9	7	$4s^24p^3$	$^2D^o$	3/2	—	$4s^24p^2(^3P)4d$	^2P	3/2	0.005	84PER

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
685.76	145 824.	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^1D)4d$	^2F	5/2	0.01	00BRE
690.873	144 744.4	12	$4s^24p^3$	$^2D^o$	5/2	—	$4s^24p^2(^3P)4d$	^2P	3/2	0.005	84PER
699.812	142 895.5	10	$4s^24p^3$	$^2P^o$	1/2	—	$4s4p^4$	^2S	1/2	0.005	84PER
711.504	140 547.3	10	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^2S	1/2	0.005	84PER
733.48	136 336.	1 d	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.02	00BRE
740.169	135 104.3	10	$4s^24p^3$	$^2P^o$	1/2	—	$4s4p^4$	^2P	1/2	0.005	84PER
753.267	132 755.1	2	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^2P	1/2	0.01	84PER
755.355	132 388.1	10	$4s^24p^3$	$^2P^o$	1/2	—	$4s^24p^2(^3P)4d$	^2P	3/2	0.005	84PER
755.74	132 320.6	6	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
766.61	130 444.4	8	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
769.006	130 038.0	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s^24p^2(^3P)4d$	^2P	3/2	0.005	84PEP
771.560	129 607.5	10	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^2D	5/2	0.005	84PER
776.795	128 734.1	12	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^2D	3/2	0.005	84PER
781.592	127 944.0	12	$4s^24p^3$	$^2D^o$	5/2	—	$4s4p^4$	^2D	5/2	0.005	84PER
782.16	127 851.1	4	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
786.957	127 071.7	8	$4s^24p^3$	$^2D^o$	5/2	—	$4s4p^4$	^2D	3/2	0.005	84PER
788.77	126 779.7	7	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
794.	125 945	BF	$4s4p^4$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.5	76IRW
795.52	125 703.9	12	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
799.12	125 137.7	10	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
805.25	124 185.0	10	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
805.743	124 109.1	12	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^4P	1/2	0.005	84PER
812.74	123 040.6	10	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
816.31	122 502.5	10	$4s4p^4$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
816.816	122 426.6	15	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^4P	3/2	0.005	84PER
819.41	122 039.0	7	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
823.23	121 472.7	6	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
825.49	121 140.2	6	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
836.76	119 508.6	6	$4s4p^4$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
841.74	118 801.5	9	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
842.030	118 760.6	18	$4s^24p^3$	$^4S^o$	3/2	—	$4s4p^4$	^4P	5/2	0.005	84PER
851.88	117 387.4	4	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
865.62	115 524.1	11	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
871.718	114 716.0	10	$4s^24p^3$	$^2P^o$	1/2	—	$4s4p^4$	^2D	3/2	0.005	84PER
883.061	113 242.5	12 aff	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^2D	5/2	0.005	84PER
885.03	112 990.5	4	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
888.24	112 582.2	11	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
889.66	112 402.5	5	$4s4p^4$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
889.938	112 367.4	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^2D	3/2	0.005	84PER
891.92	112 117.7	11	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
893.94	111 864.3	5	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
904.99	110 498.5	11	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
933.950	107 072.1	8	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^4P	1/2	0.005	84PER
948.855	105 390.2	8	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^4P	3/2	0.005	84PER
951.26	105 123.7	11	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
957.85	104 400.5	4	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
964.075	103 726.4	10	$4s^24p^3$	$^2D^o$	5/2	—	$4s4p^4$	^4P	3/2	0.005	84PER
965.91	103 529.3	11	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
966.81	103 432.9	2	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
983.059	101 723.3	10	$4s^24p^3$	$^2D^o$	3/2	—	$4s4p^4$	^4P	5/2	0.005	84PER
999.397	100 060.3	12	$4s^24p^3$	$^2D^o$	5/2	—	$4s4p^4$	^4P	5/2	0.005	84PER
1000.33	99 967.0	8	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
1007.17	99 288.1	2	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1013.24	98 693.3	1	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1019.09	98 126.8	4 d	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.02	00BRE
1022.28	97 820.6	8	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1028.24	97 253.6	3 d	$4s4p^4$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.02	00BRE
1049.12	95 318.0	8	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1053.62	94 910.9	4 d	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1074.640	93 054.4	9	$4s^24p^3$	$^2P^o$	1/2	—	$4s4p^4$	^4P	1/2	0.005	84PER
1092.95	91 495.5	7	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1102.485	90 704.2	1	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^4P	1/2	0.01	84PER
1120.98	89 207.7	5	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
1122.90	89 055.1	3	$4s4p^4$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
1123.328	89 021.2	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^4P	3/2	0.005	84PER
1153.02	86 728.8	9	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1166.03	85 761.1	4	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
1171.568	85 355.7	9	$4s^24p^3$	$^2P^o$	3/2	—	$4s4p^4$	^4P	5/2	0.005	84PER
1180.15	84 735.0	10	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.02	00BRE
1184.18	84 446.6	1 d	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.02	00BRE
1186.95	84 249.5	1 d	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1190.29	84 013.1	7	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1202.39	83 167.7	4	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
1234.24	81 021.5	7	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1242.98	80 451.8	8	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
1248.10	80 121.8	9	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
1255.78	79 631.8	8	$4s^24p^2(^3P)4d$	^4F	9/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
1257.30	79 535.5	9	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1261.33	79 281.4	2 d	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.02	00BRE
1263.79	79 127.1	9	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
1276.21	78 357.0	10	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
1279.23	78 172.0	8	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
1282.07	77 998.9	2	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1283.46	77 914.4	10	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
1285.42	77 795.6	3	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1285.98	77 761.7	12	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1286.25	77 745.4	10	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
1286.37	77 738.1	9	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
1287.52	77 668.7	1 d	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1291.89	77 406.0	2 d	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.02	00BRE
1292.76	77 353.9	8	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
1299.64	76 944.4	10	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
1309.27	76 378.4	10	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
1311.96	76 221.8	2	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1314.14	76 095.4	10	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1318.54	75 841.5	8	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
1321.23	75 687.0	10 ul	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1339.56	74 651.4	1 d	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.02	00BRE
1341.18	74 561.2	10	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1342.74	74 474.6	10	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
1349.68	74 091.6	5	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE
1351.35	74 000.1	11*	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
1351.35	74 000.1	11*	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1359.29	73 567.8	7	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1379.17	72 507.4	6	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
1385.11	72 196.4	11 ul	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.02	00BRE
1386.81	72 107.9	9	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
1389.00	71 994.2	5	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1389.96	71 944.5	12	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
1400.89	71 383.2	12	$4s^24p^2(^3P)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
1401.81	71 336.3	7	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1411.57	70 843.1	8	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
1416.89	70 577.1	10	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
1421.71	70 337.8	9	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1424.29	70 210.4	9	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
1429.65	69 947.2	8	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
1430.68	69 896.8	3 d	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.02	00BRE
1436.48	69 614.6	8	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
1439.12	69 486.9	6	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1443.43	69 279.4	2 d	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.02	00BRE
1445.28	69 190.7	4	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1445.63	69 174.0	9	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1447.62	69 078.9	9	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
1456.30	68 667.2	10 ul	$4s4p^4$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.02	00BRE
1457.30	68 620.1	8	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1459.48	68 517.6	9	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1461.09	68 442.1	9	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
1465.53	68 234.7	5	$4s^24p^2(^3P)4d$	^4F	7/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1466.00	68 212.8	10	$4s^24p^2(^3P)4d$	^4F	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1466.14	68 206.3	9	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
1477.17	67 697.0	10	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
1481.36	67 505.5	2	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
1486.28	67 282.1	10	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1489.52	67 135.7	15 w	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.02	00BRE
1490.18	67 106.0	10	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1501.58	66 596.5	9	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1502.90	66 538.0	12	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
1513.51	66 071.6	3d	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.02	00BRE
1516.85	65 926.1	10 ul	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.02	00BRE
1521.62	65 719.4	3 d	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.02	00BRE
1523.71	65 629.3	7	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1524.11	65 612.1	10	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
1525.15	65 567.3	20 w	$4s^24p^2(^3P)4d$	^4F	9/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.02	00BRE
1525.66	65 545.4	12	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
1532.86	65 237.5	10	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1533.41	65 214.1	11	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1535.53	65 124.1	2	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1545.08	64 721.6	12	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
1546.30	64 670.5	11	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
1558.51	64 163.8	15 w	$4s^24p^2(^3P)4d$	^4F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.02	00BRE
1561.93	64 023.4	8	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1569.82	63 701.6	15 w	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.02	00BRE
1570.38	63 678.9	12	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1574.98	63 492.9	9	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
1575.66	63 465.5	10	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1575.94	63 454.2	4	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.01	00BRE
1579.74	63 301.6	10 w	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.02	00BRE
1581.98	63 211.9	9	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
1589.87	62 898.2	10	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
1590.32	62 880.4	11	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
1593.86	62 740.8	8	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1596.41	62 640.5	15 w	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.02	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1596.67	62 630.3	8 w	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.02	00BRE
1599.82	62 507.0	8	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1610.21	62 103.7	10 w	$4s^24p^2(^3P)4d$	^4F	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.02	00BRE
1612.55	62 013.6	10	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1613.17	61 989.7	8	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.01	00BRE
1615.88	61 885.8	9	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
1617.86	61 810.0	2 d	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.02	00BRE
1618.19	61 797.4	10	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1618.78	61 774.9	10	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1621.20	61 682.7	9	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1624.68	61 550.6	9	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1627.90	61 428.8	4	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.01	00BRE
1628.44	61 408.5	3	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1633.18	61 230.2	10 us	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.02	00BRE
1636.24	61 115.7	10	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
1639.73	60 985.7	7	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.01	00BRE
1639.99	60 976.0	6	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1642.69	60 875.8	5	$4s4p^4$	^2S	1/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
1644.68	60 802.1	10 us	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.02	00BRE
1648.94	60 645.0	2	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1651.40	60 554.7	1	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
1653.51	60 477.4	10	$4s^24p^2(^3P)4d$	^4D	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1654.53	60 440.1	7	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
1664.51	60 077.7	10	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1665.35	60 047.4	10	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1672.11	59 804.7	10	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1687.23	59 268.7	9	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
1691.07	59 134.2	7	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
1692.14	59 096.8	1 d	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.02	00BRE
1693.73	59 041.3	10	$4s^24p^2(^1D)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
1701.04	58 787.6	10	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.01	00BRE
1701.68	58 765.5	10	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.01	00BRE
1702.12	58 750.3	10	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE
1703.27	58 710.6	9	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1704.03	58 684.4	2	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1704.72	58 660.7	1 d	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.02	00BRE
1707.27	58 573.0	10	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1711.03	58 444.3	5	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
1723.74	58 013.4	10 us	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.02	00BRE
1727.11	57 900.2	6	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
1727.78	57 877.7	10	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
1728.55	57 852.0	8	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1729.41	57 823.2	10	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
1731.28	57 760.7	7	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
1736.63	57 582.8	8	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
1738.00	57 537.4	7	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE
1740.56	57 452.8	7	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.01	00BRE
1740.73	57 447.2	8	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1743.58	57 353.3	10	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
1744.26	57 330.9	10	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
1745.40	57 293.5	10	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1746.14	57 269.2	9	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
1748.64	57 187.3	10	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1750.40	57 129.8	8	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1753.15	57 040.2	9 ul	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.02	00BRE
1754.37	57 000.5	9	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.01	00BRE
1760.23	56 810.8	6	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4D	7/2	0.01	00BRE
1761.85	56 758.5	10	$4s^24p^2(^3P)4d$	^4D	1/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
1771.66	56 444.2	8	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
1773.52	56 385.0	8	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1787.82	55 934.0	8	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1792.80	55 778.7	10	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
1794.92	55 712.8	2	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1796.81	55 654.2	10	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1S)5p$	$^2P^o$	3/2	0.01	00BRE
1798.51	55 601.6	9 ul	$4s^24p^2(^3P)4d$	^4D	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.02	00BRE
1802.24	55 486.5	10	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1806.47	55 356.6	9	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.01	00BRE
1807.09	55 337.6	10	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1813.18	55 151.7	10	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1814.90	55 099.5	2 d	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.02	00BRE
1821.12	54 911.3	2 d	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.02	00BRE
1828.94	54 676.5	8	$4s^24p^2(^1D)4d$	^2F	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
1839.25	54 370.0	10	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1842.08	54 286.5	8	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.01	00BRE
1850.99	54 025.1	10	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.01	00BRE
1857.78	53 827.7	11	$4s^24p^2(^3P)4d$	^4D	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
1860.05	53 762.0	9	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
1864.02	53 647.5	7	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
1864.97	53 620.2	1 d	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1865.36	53 609.0	10	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^2(^3P)5d$	^4D	7/2	0.01	00BRE
1866.15	53 586.3	12	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)5d$	^4D	7/2	0.01	00BRE
1867.46	53 548.7	8	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1870.37	53 465.4	4	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
1873.00	53 390.3	9	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1873.93	53 363.8	9	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1874.78	53 339.6	10	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1881.07	53 161.2	10	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
1881.60	53 146.3	10	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
1882.33	53 125.6	20	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4F	7/2	0.01	00BRE
1884.82	53 055.5	12	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1892.88	52 829.6	10	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1893.39	52 815.3	10	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
1893.50	52 812.3	9	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
1896.36	52 732.6	8	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE
1899.61	52 642.4	10	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.01	00BRE
1901.50	52 590.1	15	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
1904.38	52 510.5	1	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1905.18	52 488.5	9	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1910.70	52 336.8	10	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
1925.73	51 928.4	3	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
1934.20	51 701.0	10	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
1942.70	51 474.8	9	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
1946.68	51 369.5	3	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
1954.34	51 168.2	10	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1958.29	51 065.0	7	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1970.60	50 746.0	6	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
1971.08	50 733.6	8	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1971.38	50 725.9	8	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
1972.42	50 699.1	6	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
1982.34	50 445.4	9*	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	3/2	0.01	00BRE
1982.34	50 445.4	9*	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
1985.86	50 356.0	10	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^2(^1D)6s$	^2D	5/2	0.01	00BRE
1986.44	50 341.3	3	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
1988.43	50 290.9	1 d	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
1993.35	50 166.8	8	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
1998.04	50 049.0	2 d	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.02	00BRE
1999.89	50 002.8	10	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.01	00BRE

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
2002.40	49 923.9	4	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	—	$4s^24p^2(^3P)5d$	^4F	7/2	0.01	00BRE
2003.30	49 901.5	9	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	—	$4s^24p^2(^3P)5d$	^4F	7/2	0.01	00BRE
2017.63	49 547.1	9 ul	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.02	00BRE
2025.10	49 364.4	1	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
2036.76	49 081.8	1 d	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.02	00BRE
2036.91	49 078.2	1 d	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.02	00BRE
2037.84	49 055.8	9	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	3/2	0.01	00BRE
2048.37	48 803.7	1	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
2067.24	48 358.2	150 w	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)5d$	^4P	3/2	0.02	00BRE
2081.33	48 030.9	4	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
2082.35	48 007.4	10	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
2087.51	47 888.7	10 us	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.02	00BRE
2091.36	47 800.6	1 d	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.02	00BRE
2092.16	47 782.3	7	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
2108.98	47 401.3	1 d	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.02	00BRE
2123.47	47 077.8	12	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2125.22	47 039.1	1	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
2136.96	46 780.7	4	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
2142.97	46 649.5	10	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
2148.01	46 540.1	10	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
2150.07	46 495.5	8	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
2164.38	46 188.1	9	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
2169.06	46 088.5	1 d	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^2(^3P)6s$	^4P	5/2	0.02	00BRE
2181.91	45 817.1	10	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)6s$	^4P	1/2	0.01	00BRE
2183.65	45 780.6	6	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
2192.22	45 601.6	10	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.01	00BRE
2197.26	45 497.0	10	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
2199.10	45 459.0	8	$4s^24p^2(^3P)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
2199.18	45 457.3	10 ul	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.02	00BRE
2200.08	45 438.7	2 d	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.02	00BRE
2200.71	45 425.7	1	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
2212.27	45 188.4	20 w	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.02	00BRE
2213.62	45 160.8	1	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^4F	7/2	0.01	00BRE
2223.54	44 959.3	2	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
2232.73	44 774.3	7	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
2248.59	44 458.53	9	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
2252.99	44 371.71	1	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)5d$	^4D	1/2	0.01	00BRE
2259.73	44 239.38	20	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
2272.46	43 991.6	12 us	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.02	00BRE
2282.09	43 806.0	20 w	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.02	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2285.75	43 735.82	7	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)5d$	^2P	3/2	0.01	00BRE
2308.70	43 301.10	11	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
2309.45	43 287.04	6	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
2322.60	43 041.98	7	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
2323.08	43 033.09	8	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	7/2	0.01	00BRE
2323.82	43 019.4	20 wul	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.04	00BRE
2347.90	42 578.21	15	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
2349.81	42 543.6	15 w	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	1/2	0.02	00BRE
2357.00	42 413.84	12	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.01	00BRE
2372.63	42 134.5	30 w	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.02	00BRE
2387.18	41 877.7	20 w	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.02	00BRE
2407.42	41 525.6	20 w	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.02	00BRE
2414.82	41 398.37	10	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
2415.66	41 384.0	1 d	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.02	00BRE
2417.83	41 346.84	30	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2425.66	41 213.4	2 d	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.02	00BRE
2426.18	41 204.55	7	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2426.80	41 194.02	12	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
2429.87	41 142.0	50 w	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.02	00BRE
2441.93	40 938.81	15	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
2450.42	40 797.0	20 w	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.02	00BRE
2465.42	40 548.78	11	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
2472.49	40 432.84	1	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)5d$	^4F	3/2	0.01	00BRE
2475.82	40 378.5	12 us	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.02	00BRE
2488.95	40 165.5	20 w	$4s^24p^2(^1D)4d$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	0.02	00BRE
2491.37	40 126.5	20 w	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2P^o$	1/2	0.02	00BRE
2510.70	39 817.54	12	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
2511.06	39 811.83	5	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
2516.46	39 726.4	15 w	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.02	00BRE
2525.50	39 584.2	12 w	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.02	00BRE
2535.42	39 429.35	6	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
2546.89	39 251.79	4	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
2552.64	39 163.38	1	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
2557.03	39 096.14	1	$4s^24p^2(^1D)5p$	$^2P^o$	3/2	—	$4s^24p^2(^3P)6s$	^2P	3/2	0.01	00BRE
2574.44	38 831.77	1	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
2584.26	38 684.22	4	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
2589.98	38 598.79	1	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
2593.35	38 548.64	8	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
2595.21	38 521.01	4	$4s^24p^2(^3P)4d$	^2F	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
2596.68	38 499.20	4	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
2606.59	38 352.84	5	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
2609.27	38 313.45	6	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
2617.61	38 191.39	1	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	—	$4s^24p^2(^3P)5d$	^2F	5/2	0.01	00BRE
2619.25	38 167.48	2	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
2660.28	37 578.85	6	$4s^24p^2(^3P)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2676.86	37 346.10	8	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
2678.37	37 325.05	6	$4s^24p^2(^3P)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
2697.01	37 067.10	0.5	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
2713.25	36 845.25	3	$4s^24p^2(^3P)4d$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
2732.29	36 588.51	7	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
2746.31	36 401.73	13	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
2747.99	36 379.48	14	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
2753.77	36 303.12	4	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
2774.84	36 027.48	14	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE

TABLE 15. Spectral lines Kr IV—Continued

Observed air wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2779.14	35 971.74	3	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
2780.19	35 958.15	4	$4s^24p^2(^3P)4d$	^2F	7/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
2785.00	35 896.05	8	$4s^24p^2(^3P)5s$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
2789.21	35 841.87	0.5	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
2798.00	35 729.28	7	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2820.02	35 450.31	8	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	5/2	0.01	00BRE
2830.29	35 321.68	4	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
2840.33	35 196.83	10	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	7/2	0.01	00BRE
2852.84	35 042.49	7	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2D^o$	3/2	0.01	00BRE
2876.62	34 752.82	3	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4S^o$	3/2	0.01	00BRE
2930.91	34 109.12	12	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
2955.14	33 829.46	2	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
2963.06	33 739.04	6	$4s^24p^2(^3P)5s$	^4P	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
2979.65	33 551.20	4	$4s^24p^2(^1D)4d$	^2P	1/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
3024.40	33 054.78	14	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	3/2	0.01	00BRE
3051.88	32 757.16	2	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
3068.13	32 583.67	2	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
3101.74	32 230.62	2	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
3119.66	32 045.48	3	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
3137.76	31 860.64	5	$4s^24p^2(^1D)4d$	^2P	3/2	—	$4s^24p^2(^1D)5p$	$^2F^o$	5/2	0.01	00BRE
3144.77	31 789.62	4	$4s^24p^2(^1D)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
3158.88	31 647.63	2	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
3319.42	30 117.08	7	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
3322.13	30 092.51	3	$4s^24p^2(^3P)4d$	^4P	1/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
3338.79	29 942.36	4	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	3/2	0.01	00BRE
3349.12	29 850.01	5	$4s^24p^2(^3P)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
3375.90	29 613.23	4	$4s^24p^2(^3P)5s$	^4P	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
3397.12	29 428.25	9	$4s4p^4$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2S^o$	1/2	0.01	00BRE
3402.53	29 381.46	2	$4s^24p^2(^3P)4d$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
3587.97	27 862.96	3	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	1/2	0.01	00BRE
3683.52	27 140.22	4	$4s^24p^2(^1D)5s$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
3715.40	26 907.35	3	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	5/2	0.01	00BRE
3843.77	26 008.75	1	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4P^o$	1/2	0.01	00BRE
3860.92	25 893.22	5	$4s^24p^2(^1D)5s$	^2D	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	5/2	0.01	00BRE
3880.96	25 759.52	6	$4s^24p^2(^3P)5s$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	1/2	0.01	00BRE
4016.25	24 891.81	4	$4s^24p^2(^1D)4d$	^2P	3/2	—	$4s^24p^2(^3P)5p$	$^2P^o$	3/2	0.01	00BRE
4181.11	23 910.35	6	$4s^24p^2(^3P)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^2D^o$	3/2	0.01	00BRE
4221.23	23 683.11	0.5	$4s^24p^2(^1D)4d$	^2D	3/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE
4298.20	23 259.01	1	$4s^24p^2(^3P)4d$	^2F	7/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	7/2	0.01	00BRE
4703.85	21 253.23	0.5	$4s^24p^2(^3P)4d$	^2F	5/2	—	$4s^24p^2(^3P)5p$	$^4D^o$	5/2	0.01	00BRE

4.5. Kr V

Ge isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^24p^2\ ^3P_0$

Ionization energy 521 800±1600 cm^{-1} (64.69±0.20 eV) [55FIN]

The energy levels of four times ionized krypton, Kr V, were compiled by Sugar and Musgrove [91SUG]. The observed wavelengths were compiled by Shirai *et al.* [95SHI], [00SHI]. All these compilations are based on the analysis of Trigueiros *et al.* [89TRI]. Subsequent to the work included in these compilations, Trigueiros' group extended their analysis to the $4p^4$ configuration [93TRI], adding five new levels and 13 new lines. Raineri *et al.* [02RAI] further expanded the work to the $4s^24p5s$, $4s^24p4d$, and $4s^24p5p$ configurations adding 14 additional levels and 111 new lines. We include both of these extensions in this compilation along with the lines and levels previously compiled. We estimate the uncertainty in the levels taken from Trigueiros *et al.* [89TRI] (specified with two decimal places) as about 1.7 cm^{-1} from the difference between the wavelengths calculated from the energy levels (Ritz wavelengths) and the observed wavelengths. The uncertainty of the levels from Trigueiros *et al.* [93TRI] is given by the authors as: 318 441 and 331 255 cm^{-1} are 1.9 cm^{-1}; 313 479 cm^{-1} is 2.8 cm^{-1};

356 572 cm^{-1} is 3.0 cm^{-1}; and 319 567 cm^{-1} is 3.1 cm^{-1}. The uncertainty of the levels taken from Raineri *et al.* [02RAI] is given as 2 cm^{-1}. The LS designation for some levels has very little physical significance and may not even be the largest eigenvector component.

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Trigueiros *et al.* [89TRI], [93TRI], and Raineri *et al.* [02RAI].

Raineri *et al.* [02RAI] classified 111 Kr V lines. They used both a discharge tube and a theta-pinch discharge as their sources. They estimate a 0.02 Å wavelength uncertainty for lines from the discharge tube source and a 0.01 Å wavelength uncertainty for lines from the theta pinch (but do not specify which lines were obtained with which sources).

Trigueiros *et al.* [93TRI] classified 13 lines. They used a theta-pinch discharge as their source. They estimate a 0.01 Å wavelength uncertainty. Trigueiros *et al.* [89TRI] classified 50 lines. They also used a theta-pinch discharge as their source and estimate a wavelength uncertainty of 0.01 Å.

Earlier work with greater wavelength uncertainty was carried out by Fawcett and Bromage [80FAW], Irwin *et al.* [76IRW], Livingston [76LIV], Schönheit [66SCH], and Fawcett *et al.* [61FAW]. Any lines from these references were superseded by those from the three above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr V levels. Only classifiable lines are included in our Kr V line table. Intensities and intensity codes have been taken from the stated sources. Their meaning of the codes is stated below:

Symbol	Definition
w	wide
ul	unsymmetrical-shaded to longer wavelength
us	unsymmetrical-shaded to shorter wavelengths
d	line contour not clear in photographic plate
b	blended
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was obtained by extrapolation of the effective charge on the residual ion by Finkelnburg and Humbach [55FIN].

4.5.1. References

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66SCH = E. Schönheit, Optik (Stuttgart) **23**, 409 (1966).
76IRW = D. J. G. Irwin, J. A. Kernahan, E. H. Pinnington, and A. E. Livingston, J. Opt. Soc. Am. **66**, 1396 (1976).
76LIV = A. E. Livingston, J. Phys. B **9**, L215 (1976).
80FAW = B. C. Fawcett and G. E. Bromage, J. Phys. B **13**, 2711 (1980).
89TRI = A. G. Trigueiros, C. J. B. Pagan, S.-G. Pettersson, and J. G. Reyna Almandos, Phys. Rev. A **40**, 3911 (1989).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
93TRI = A. G. Trigueiros, A. J. Mania, S.-G. Pettersson, and J. G. Reyna Almandos, Phys. Rev. A **48**, 3595 (1993).
95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).
02RAI = M. Raineri, F. Bredice, M. Gallardo, A. G. Trigueiros, and J. Reyna Almandos, J. Phys. B **35**, 3411 (2002).

TABLE 16. Energy levels of Kr V

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0.0	0	$4s^24p^2$	^3P	0	98			89TRI
3742.86	0	$4s^24p^2$	^3P	1	100			89TRI
7595.34	0	$4s^24p^2$	^3P	2	96			89TRI
19 722.93	0	$4s^24p^2$	^1D	2	96			89TRI
39 203.92	0	$4s^24p^2$	^1S	0	98			89TRI
129 658.16	1	$4s4p^3$	$^3D^o$	1	86	9	$4s^24p4d\ ^3D^o$	89TRI
129 779.27	1	$4s4p^3$	$^3D^o$	2	85	8	$4s^24p4d\ ^3D^o$	89TRI
131 016.42	1	$4s4p^3$	$^3D^o$	3	90	10	$4s^24p4d\ ^3D^o$	89TRI
147 925.28	1	$4s4p^3$	$^3P^o$	0	90	10	$4s^24p4d\ ^3P^o$	89TRI
148 286.78	1	$4s4p^3$	$^3P^o$	1	86	6	$4s^24p4d\ ^3P^o$	89TRI

TABLE 16. Energy levels of Kr V—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
148 668.41	1	$4s4p^3$	$^3P^o$	2	77	6	$4s4p^3\ ^3D^o$	89TRI
163 387.17	1	$4s4p^3$	$^1D^o$	2	50	31	$4s^24p4d\ ^1D^o$	89TRI
185 063.54	1	$4s4p^3$	$^3S^o$	1	64	36	$4s4p^3\ ^1P^o$	89TRI
194 041.06	1	$4s4p^3$	$^1P^o$	1	46	29	$4s4p^3\ ^3S^o$	89TRI
190 279.	1	$4s^24p4d$	$^3F^o$	2	99			02RAI
192 949.	1	$4s^24p4d$	$^3F^o$	3	99			02RAI
211 336.57	1	$4s^24p4d$	$^3P^o$	2	58	12	$4s^24p4d\ ^1D^o$	89TRI
213 932.87	1	$4s^24p4d$	$^3P^o$	1	56	34	$4s^24p4d\ ^3D^o$	89TRI
216 420.28	1	$4s^24p4d$	$^3P^o$	0	90	10	$4s4p^3\ ^3P^o$	89TRI
216 874.54	1	$4s^24p4d$	$^1D^o$	2	40	44	$4s4p^3\ ^1D^o$	89TRI
218 746.81	1	$4s^24p4d$	$^3D^o$	1	56	32	$4s^24p4d\ ^3P^o$	89TRI
219 381.57	1	$4s^24p4d$	$^3D^o$	3	88	10	$4s4p^3\ ^3D^o$	89TRI
219 823.27	1	$4s^24p4d$	$^3D^o$	2	66	14	$4s^24p4d\ ^1D^o$	89TRI
234 120.87	1	$4s^24p4d$	$^1F^o$	3	100			89TRI
237 720.58	1	$4s^24p4d$	$^1P^o$	1	74	17	$4s4p^{3 1}P^o$	89TRI
240 926.	1	$4s^24p5s$	$^3P^o$	1	67	24	$4s^24p4d\ ^1P^o$	02RAI
246 798.	1	$4s^24p5s$	$^3P^o$	2	100			02RAI
250 993.	1	$4s^24p5s$	$^1P^o$	1	79	12	$4s^24p5s\ ^3P^o$	02RAI
278 928.	0	$4s^24p5p$	^3D	1	56	42	$4s^24p5p\ ^1P$	02RAI
283 559.	0	$4s^24p5p$	^1P	1	32	32	$4s^24p5p\ ^3D$	02RAI
283 677.	0	$4s^24p5p$	^3D	2	85	8	$4s^24p5p\ ^3P$	02RAI
288 683.	0	$4s^24p5p$	^3P	1	64	22	$4s^24p5p\ ^1P$	02RAI
289 998.	0	$4s^24p5p$	^3D	3	99			02RAI
291 138.	0	$4s^24p5p$	^3P	2	78	13	$4s^24p5p\ ^3D$	02RAI
293 705.	0	$4s^24p5p$	^3S	1	86	9	$4s^24p5p\ ^3P$	02RAI
296 600.	0	$4s^24p5p$	^1D	2	85	13	$4s^24p5p\ ^3P$	02RAI
307 667.	0	$4s^24p5p$	^1S	0	68	21	$4p^4\ ^1S$	02RAI
313 479.1	0	$4p^4$	^3P	2	48	44	$4s4p^2(^3P)4d\ ^3P$	93TRI
318 440.7	0	$4p^4$	^3P	1	48	46	$4s4p^2(^3P)4d\ ^3P$	93TRI
319 567.4	0	$4p^4$	^3P	0	48	47	$4s4p^2(^3P)4d\ ^3P$	93TRI
331 254.6	0	$4p^4$	^1D	2	61	29	$4s4p^2(^1D)4d\ ^1D$	93TRI
356 571.8	0	$4p^4$	^1S	0	56	36	$4s4p^2(^1D)4d\ ^1S$	93TRI

TABLE 17. Spectral lines of Kr V

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
404.45	247 249.	6	$4s^24p^2$	^3P	1	—	$4s^24p5s$	$^1P^o$	1	0.02	02RAI
410.87	243 386.	6	$4s^24p^2$	^3P	2	—	$4s^24p5s$	$^1P^o$	1	0.02	02RAI
411.45	243 043.	10	$4s^24p^2$	^3P	1	—	$4s^24p5s$	$^3P^o$	2	0.02	02RAI
415.08	240 917.	10	$4s^24p^2$	^3P	0	—	$4s^24p5s$	$^3P^o$	1	0.02	02RAI
418.08	239 189.	15 w	$4s^24p^2$	^3P	2	—	$4s^24p5s$	$^3P^o$	2	0.02	02RAI
421.63	237 175.	10	$4s^24p^2$	^3P	1	—	$4s^24p5s$	$^3P^o$	1	0.02	02RAI
428.56	233 340.	12 d	$4s^24p^2$	^3P	2	—	$4s^24p5s$	$^3P^o$	1	0.02	02RAI
432.41	231 262.	15	$4s^24p^2$	^1D	2	—	$4s^24p5s$	$^1P^o$	1	0.02	02RAI
434.55	230 123.	4	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^1P^o$	1	0.01	89TRI
440.37	227 082.	6	$4s^24p^2$	^1D	2	—	$4s^24p5s$	$^3P^o$	2	0.02	02RAI
441.44	226 531.	2	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^1F^o$	3	0.01	89TRI
452.08	221 200.	5	$4s^24p^2$	^1D	2	—	$4s^24p5s$	$^3P^o$	1	0.02	02RAI
457.15	218 747.	4	$4s^24p^2$	^3P	0	—	$4s^24p4d$	$^3D^o$	1	0.01	89TRI
462.77	216 090.	7	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3D^o$	2	0.01	89TRI
465.11	215 003.	6	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3D^o$	1	0.01	89TRI

TABLE 17. Spectral lines of Kr V—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
466.43	214 394.	7	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^1F^o$	3	0.01	89TRI
467.45	213 927.	6	$4s^24p^2$	^3P	0	—	$4s^24p4d$	$^3P^o$	1	0.01	89TRI
469.20	213 129.	2	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^1D^o$	2	0.01	89TRI
470.20	212 675.	5	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3P^o$	0	0.01	89TRI
471.21	212 220.	5	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3D^o$	2	0.01	89TRI
472.19	211 779.	7^*	$4s^24p^2$	^1S	0	—	$4s^24p5s$	$^1P^o$	1	0.01	89TRI
472.19	211 779.	7^*	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3D^o$	3	0.01	89TRI
473.59	211 153.	5	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3D^o$	1	0.01	89TRI
475.75	210 194.	6	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3P^o$	1	0.01	89TRI
477.82	209 284.	5	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^1D^o$	2	0.01	89TRI
480.13	208 277.	2	$4s4p^3$	$^3P^o$	1	—	$4p^4$	^1S	0	0.01	93TRI
481.72	207 589.	6	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3P^o$	2	0.01	89TRI
484.64	206 339.	3	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3P^o$	1	0.01	89TRI
490.81	203 745.	7	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3P^o$	2	0.01	89TRI
495.72	201 727.	7	$4s^24p^2$	^1S	0	—	$4s^24p5s$	$^3P^o$	1	0.02	02RAI
499.75	200 100.	2	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3D^o$	2	0.01	89TRI
500.84	199 665.	2	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3D^o$	3	0.01	89TRI
502.45	199 025.	2	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3D^o$	1	0.01	89TRI
503.73	198 519.	7	$4s^24p^2$	^1S	0	—	$4s^24p4d$	$^1P^o$	1	0.01	89TRI
507.23	197 149.	2	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^1D^o$	2	0.01	89TRI
515.35	194 043.	6	$4s^24p^2$	^3P	0	—	$4s4p^3$	$^1P^o$	1	0.01	89TRI
521.87	191 619.	3	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3P^o$	2	0.01	89TRI
525.49	190 299.	4	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^1P^o$	1	0.01	89TRI
526.57	189 908.	9	$4s4p^3$	$^3D^o$	1	—	$4p^4$	^3P	0	0.01	93TRI
530.04	188 665.	6	$4s4p^3$	$^3D^o$	2	—	$4p^4$	^3P	1	0.01	93TRI
536.08	186 539.	11 ul	$4s^24p^2$	^3P	1	—	$4s^24p4d$	$^3F^o$	2	0.02	02RAI
536.34	186 449.	10	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^1P^o$	1	0.01	89TRI
539.50	185 357.	11 w	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3F^o$	3	0.02	02RAI
540.35	185 065.	10	$4s^24p^2$	^3P	0	—	$4s4p^3$	$^3S^o$	1	0.01	89TRI
547.38	182 688.	9	$4s^24p^2$	^3P	2	—	$4s^24p4d$	$^3F^o$	2	0.02	02RAI
547.69	182 585.	1 ul	$4s4p^3$	$^3P^o$	2	—	$4p^4$	^1D	2	0.01	93TRI
548.08	182 455.	10	$4s4p^3$	$^3D^o$	3	—	$4p^4$	^3P	2	0.01	93TRI
551.51	181 320.	10	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3S^o$	1	0.01	89TRI
563.49	177 465.	10	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3S^o$	1	0.01	89TRI
573.67	174 316.	10	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^1P^o$	1	0.01	89TRI
577.28	173 226.	10	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3F^o$	3	0.02	02RAI
586.31	170 558.	12 ul	$4s^24p^2$	^1D	2	—	$4s^24p4d$	$^3F^o$	2	0.02	02RAI
587.73	170 146.	6	$4s4p^3$	$^3P^o$	1	—	$4p^4$	^3P	1	0.01	93TRI
595.72	167 864.	10	$4s4p^3$	$^1D^o$	2	—	$4p^4$	^1D	2	0.01	93TRI
603.91	165 588.	4 b	$4s4p^3$	$^3D^o$	3	—	$4s^24p5p$	^1D	2	0.02	02RAI
605.37	165 188.	5	$4s4p^3$	$^3P^o$	1	—	$4p^4$	^3P	2	0.01	93TRI
606.74	164 815.	10 ul	$4s4p^3$	$^3P^o$	2	—	$4p^4$	^3P	2	0.01	93TRI
615.27	162 530.	5	$4s4p^3$	$^1P^o$	1	—	$4p^4$	^1S	0	0.01	93TRI
619.31	161 470.	5	$4s4p^3$	$^3D^o$	1	—	$4s^24p5p$	^3P	2	0.02	02RAI
619.73	161 361.	8	$4s4p^3$	$^3D^o$	2	—	$4s^24p5p$	^3P	2	0.02	02RAI
624.13	160 223.	3	$4s4p^3$	$^3D^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
624.53	160 120.	40 wul	$4s4p^3$	$^3D^o$	3	—	$4s^24p5p$	^3P	2	0.02	02RAI
627.40	159 388.	8	$4s4p^3$	$^3P^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
628.83	159 025.	9	$4s4p^3$	$^3D^o$	1	—	$4s^24p5p$	^3P	1	0.02	02RAI
629.00	158 983.	9	$4s4p^3$	$^3D^o$	3	—	$4s^24p5p$	^3D	3	0.02	02RAI
641.88	155 792.	5	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^1D^o$	2	0.01	89TRI
644.95	155 051.	4	$4s4p^3$	$^1D^o$	2	—	$4p^4$	^3P	1	0.01	93TRI
645.85	154 835.	10 w	$4s^24p^2$	^1S	0	—	$4s4p^3$	$^1P^o$	1	0.01	89TRI
649.78	153 898.	6^*	$4s4p^3$	$^3D^o$	1	—	$4s^24p5p$	^1P	1	0.02	02RAI
649.78	153 898.	6^*	$4s4p^3$	$^3D^o$	2	—	$4s^24p5p$	^3D	2	0.02	02RAI

TABLE 17. Spectral lines of Kr V—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
650.27	153 782.	10	$4s4p^3$	$^3D^o$	2	—	$4s^24p5p$	^1P	1	0.02	02RAI
655.05	152 660.	7	$4s4p^3$	$^3D^o$	3	—	$4s^24p5p$	^3D	2	0.02	02RAI
674.24	148 315.	6 b	$4s4p^3$	$^3P^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI
674.36	148 289.	10	$4s^24p^2$	^3P	0	—	$4s4p^3$	$^3P^o$	1	0.01	89TRI
676.00	147 929.	3 d	$4s4p^3$	$^3P^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
685.98	145 777.	4 d	$4s4p^3$	$^3P^o$	0	—	$4s^24p5p$	^3S	1	0.02	02RAI
687.66	145 421.	9	$4s4p^3$	$^3P^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
689.47	145 039.	10	$4s4p^3$	$^3P^o$	2	—	$4s^24p5p$	^3S	1	0.02	02RAI
690.01	144 925.	10 w	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3P^o$	2	0.01	89TRI
691.84	144 542.	10 w	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3P^o$	1	0.01	89TRI
693.57	144 182.	10 w	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3P^o$	0	0.01	89TRI
696.07	143 664.	9	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^1D^o$	2	0.01	89TRI
701.9	142 470.	9	$4s4p^3$	$^3P^o$	2	—	$4s^24p5p$	^3P	2	0.02	02RAI
707.56	141 331.	3 d	$4s4p^3$	$^3P^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
708.85	141 073.6	10 w	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3P^o$	2	0.01	89TRI
710.77	140 692.5	10	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3P^o$	1	0.01	89TRI
728.80	137 211.9	3	$4s4p^3$	$^1P^o$	1	—	$4p^4$	^1D	2	0.01	93TRI
749.76	133 376.0	10	$4s4p^3$	$^3S^o$	1	—	$4p^4$	^3P	1	0.01	93TRI
750.67	133 214.	11	$4s4p^3$	$^1D^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
763.35	131 002.	50 w	$4s4p^3$	$^3P^o$	0	—	$4s^24p5p$	^3D	1	0.02	02RAI
767.35	130 319.	8	$4s4p^3$	$^1D^o$	2	—	$4s^24p5p$	^3S	1	0.02	02RAI
767.69	130 261.	4 d	$4s4p^3$	$^3P^o$	2	—	$4s^24p5p$	^3D	1	0.02	02RAI
771.25	129 659.6	10 w	$4s^24p^2$	^3P	0	—	$4s4p^3$	$^3D^o$	1	0.01	89TRI
775.53	128 944.1	6	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^3P^o$	2	0.01	89TRI
777.82	128 564.4	3	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^3P^o$	1	0.01	89TRI
793.43	126 035.1	10 w	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3D^o$	2	0.01	89TRI
794.19	125 914.5	10 w	$4s^24p^2$	^3P	1	—	$4s4p^3$	$^3D^o$	1	0.01	89TRI
810.23	123 421.7	10 w	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3D^o$	3	0.01	89TRI
815.62	122 606.	2	$4s4p^3$	$^3S^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
818.43	122 185.2	9	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3D^o$	2	0.01	89TRI
819.25	122 062.9	10	$4s^24p^2$	^3P	2	—	$4s4p^3$	$^3D^o$	1	0.01	89TRI
880.08	113 626.	9	$4s4p^3$	$^1P^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
898.53	111 292.9	6	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^3D^o$	3	0.01	89TRI
908.63	110 055.8	7	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^3D^o$	2	0.01	89TRI
909.63	109 934.8	7	$4s^24p^2$	^1D	2	—	$4s4p^3$	$^3D^o$	1	0.01	89TRI
940.55	106 321.	2	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
964.77	103 652.	7	$4s^24p4d$	$^3F^o$	3	—	$4s^24p5p$	^1D	2	0.02	02RAI
965.09	103 617.	20 wus	$4s4p^3$	$^3S^o$	1	—	$4s^24p5p$	^3P	1	0.02	02RAI
1002.74	99 726.7	20 wus	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
1003.37	99 664.1	5	$4s4p^3$	$^1P^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
1016.22	98 403.9	11	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^3P	1	0.02	02RAI
1018.44	98 189.4	11	$4s^24p4d$	$^3F^o$	3	—	$4s^24p5p$	^3P	2	0.02	02RAI
1030.40	97 049.7	12	$4s^24p4d$	$^3F^o$	3	—	$4s^24p5p$	^3D	3	0.02	02RAI
1070.69	93 397.7	15 w	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^3D	2	0.02	02RAI
1072.04	93 280.1	12 b	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^1P	1	0.02	02RAI
1102.19	90 728.5	12 w	$4s^24p4d$	$^3F^o$	3	—	$4s^24p5p$	^3D	2	0.02	02RAI
1117.09	89 518.3	3 d	$4s4p^3$	$^1P^o$	1	—	$4s^24p5p$	^1P	1	0.02	02RAI
1128.04	88 649.3	7	$4s^24p4d$	$^3F^o$	2	—	$4s^24p5p$	^3D	1	0.02	02RAI
1209.63	82 669.9	10	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI
1214.07	82 367.6	10	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^3S	1	0.02	02RAI
1253.12	79 800.8	10 b	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^3P	2	0.02	02RAI
1253.54	79 774.1	12	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
1254.32	79 724.5	12 w	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
1271.28	78 660.9	6 d	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
1284.47	77 853.1	7	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI

TABLE 17. Spectral lines of Kr V—Continued

Observed vacuum wavelength (Å)	Observed wave number (cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1292.87	77 347.3	10 b	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^3P	1	0.02	02RAI
1295.08	77 215.3	10	$4s^24p4d$	$^3D^o$	3	—	$4s^24p5p$	^1D	2	0.02	02RAI
1301.58	76 829.7	10	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^3S	1	0.02	02RAI
1302.43	76 779.6	11	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
1334.08	74 958.0	9 b	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
1337.77	74 751.3	10	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^3P	1	0.02	02RAI
1367.56	73 122.9	8	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
1382.35	72 340.6	11	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^3D	2	0.02	02RAI
1383.86	72 261.6	9	$4s^24p4d$	$^3P^o$	0	—	$4s^24p5p$	^3P	1	0.02	02RAI
1384.59	72 223.5	20	$4s^24p4d$	$^3P^o$	2	—	$4s^24p5p$	^1P	1	0.02	02RAI
1392.63	71 806.6	15	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^3P	1	0.02	02RAI
1393.61	71 756.1	14 b	$4s^24p4d$	$^3D^o$	3	—	$4s^24p5p$	^3P	2	0.02	02RAI
1402.20	71 316.5	15	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^3P	2	0.02	02RAI
1416.14	70 614.5	15 w	$4s^24p4d$	$^3D^o$	3	—	$4s^24p5p$	^3D	3	0.02	02RAI
1424.97	70 176.9	12 w	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
1429.84	69 937.9	15 wul*	$4s^24p4d$	$^1P^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
1429.84	69 937.9	15 wul*	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^3P	1	0.02	02RAI
1433.78	69 745.7	10 b	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^3D	2	0.02	02RAI
1436.20	69 628.2	10	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^1P	1	0.02	02RAI
1452.26	68 858.2	10 ul	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^3P	1	0.02	02RAI
1498.28	66 743.2	2 d	$4s^24p5s$	$^3P^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
1499.64	66 682.7	5	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^1P	1	0.02	02RAI
1538.55	64 996.3	9	$4s^24p4d$	$^3P^o$	1	—	$4s^24p5p$	^3D	1	0.02	02RAI
1540.07	64 932.1	15 w	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^3D	2	0.02	02RAI
1542.91	64 812.6	3 d	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^1P	1	0.02	02RAI
1555.39	64 292.6	12 w	$4s^24p4d$	$^3D^o$	3	—	$4s^24p5p$	^3D	2	0.02	02RAI
1566.03	63 855.7	9	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^3D	2	0.02	02RAI
1568.91	63 738.5	10	$4s^24p4d$	$^3D^o$	2	—	$4s^24p5p$	^1P	1	0.02	02RAI
1599.82	62 507.0	8	$4s^24p4d$	$^3P^o$	0	—	$4s^24p5p$	^3D	1	0.02	02RAI
1611.49	62 054.4	10	$4s^24p4d$	$^1D^o$	2	—	$4s^24p5p$	^3D	1	0.02	02RAI
1661.72	60 178.6	10	$4s^24p4d$	$^3D^o$	1	—	$4s^24p5p$	^3D	1	0.02	02RAI
1698.42	58 878.3	3	$4s^24p4d$	$^1P^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI
1764.47	56 674.2	6	$4s^24p5s$	$^1P^o$	1	—	$4s^24p5p$	^1S	0	0.02	02RAI
1789.65	55 876.8	7	$4s^24p4d$	$^1F^o$	3	—	$4s^24p5p$	^3D	3	0.02	02RAI
1796.21	55 672.8	8	$4s^24p5s$	$^3P^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI
1894.70	52 778.8	11	$4s^24p5s$	$^3P^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
1991.63	50 210.1	9	$4s^24p5s$	$^3P^o$	1	—	$4s^24p5p$	^3P	2	0.02	02RAI
Observed air wavelength (Å)	**Observed wave number (cm^{-1})**	**Intensity and comment**	**Configuration**	**Term**	**J**		**Configuration**	**Term**	**J**	**Uncertainty of observed wavelength (Å)**	**Source of line**
2007.31	49 801.8	10	$4s^24p5s$	$^3P^o$	2	—	$4s^24p5p$	^1D	2	0.02	02RAI
2131.16	46 908.0	20 w	$4s^24p5s$	$^3P^o$	2	—	$4s^24p5p$	^3S	1	0.02	02RAI
2175.34	45 955.4	50 w	$4s^24p4d$	$^1P^o$	1	—	$4s^24p5p$	^3D	2	0.02	02RAI
2180.92	45 837.9	20 w	$4s^24p4d$	$^1P^o$	1	—	$4s^24p5p$	^1P	1	0.02	02RAI
2191.91	45 608.1	100 w	$4s^24p5s$	$^1P^o$	1	—	$4s^24p5p$	^1D	2	0.02	02RAI
2254.64	44 339.2	100 w	$4s^24p5s$	$^3P^o$	2	—	$4s^24p5p$	^3P	2	0.02	02RAI
2314.08	43 200.4	100 w	$4s^24p5s$	$^3P^o$	2	—	$4s^24p5p$	^3D	3	0.02	02RAI
2338.47	42 749.9	50 w	$4s^24p5s$	$^3P^o$	1	—	$4s^24p5p$	^3D	2	0.02	02RAI
2340.41	42 714.5	10 w	$4s^24p5s$	$^1P^o$	1	—	$4s^24p5p$	^3S	1	0.02	02RAI
2386.77	41 884.9	20 w	$4s^24p5s$	$^3P^o$	2	—	$4s^24p5p$	^3P	1	0.02	02RAI
2426.06	41 206.6	9	$4s^24p4d$	$^1P^o$	1	—	$4s^24p5p$	^3D	1	0.02	02RAI
2490.20	40 145.3	12	$4s^24p5s$	$^1P^o$	1	—	$4s^24p5p$	^3P	2	0.02	02RAI

4.6. Kr VI

Ga isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10} 4s^2 4p\ ^2P^o_{1/2}$

Ionization energy 633 100±1600 cm^{-1} (78.49±0.20 eV) [55FIN]

The energy levels of five times ionized krypton, Kr VI, were compiled by Sugar and Musgrove [91SUG]. That compilation was based on the work of Trigueiros *et al.* [88TRI] and Tauheed *et al.* [90TAU]. The observed wavelengths were compiled by Shirai *et al.* [95SHI], [00SHI] from several sources: Trigueiros *et al.* [88TRI], Tauheed *et al.* [90TAU], Jacquet *et al.* [93JAC], and Pagan *et al.* [95PAG].

For this compilation, we used the updated and expanded analysis of Pagan *et al.* [95PAG] for the Kr VI energy levels. Their estimated uncertainty is 5 cm^{-1}. We have corrected one typographical error in their designation of the level at 399 599 cm^{-1} and another in the value of the level listed at 398 817 cm^{-1} which is actually 394 817 cm^{-1}.

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Pagan *et al.* [95PAG].

All but two of the lines in this compilation are taken from the line list of Pagan *et al.* [96PAG]. One line, 834.17 Å, comes from their earlier paper [95PAG] due to a likely typographical error in their later paper [96PAG] (which quoted 834.14 Å). We also have one line from Tauheed *et al.* [90TAU]. We note that two lines from Jacquet *et al.* [94JAC], 3394.7 and 3381.7 Å, are not included because their classification involves levels whose relations to the energies of the levels in this compilation are unknown.

Pagan *et al.* [96PAG] classified 137 Kr VI lines. They used both a theta-pinch discharge and a capillary discharge tube source. They estimate a 0.01 Å wavelength uncertainty for unperturbed lines for measurement made in first order and 0.005 Å for second order. Their earlier paper [95PAG] classified 109 lines. They used the same sources and they estimate the same uncertainty.

Jacquet *et al.* [94JAC] classified two lines as 6*g* to 7*h* and 6*h* to 7*i* transitions. Their source was a 120 keV Kr^{8+} beam colliding with an effusive jet of lithium. Their estimated uncertainty is 0.4 Å. Jacquet *et al.* [93JAC] is an earlier report of the above work.

Tauheed *et al.* [90TAU] classified 22 lines. They used beam foil spectroscopy. Their uncertainty ranges from 0.2 to 0.5 Å.

Trigueiros *et al.* [88TRI] classified 15 lines. They used a theta-pinch discharge source. They estimate a 0.01 Å wavelength uncertainty.

Earlier work with greater wavelength uncertainty was carried out by Irwin *et al.* [76IRW], Livingston [76LIV], Druetta and Buchet [76DRU], Schönheit [66SCH], and Fawcett *et al.* [61FAW]. Any lines from these references were superseded by those from the above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr VI levels. Only classifiable lines are included in our compilation. Transition probability calculations using the Cowan codes [81COW], with the parameters of [95PAG], were used to help resolve choices between multiple possible classifications of lines. Intensities have been taken from the stated sources. Intensity codes have the meanings below:

Symbol	Definition
b	blend
BF	beam foil measurement
d	line contour not very clear
s	line superposed with neighbor line
w	wide
a	unsymmetrical
Ua	unsymmetrical-shaded to longer wavelength
La	unsymmetrical-shaded to shorter wavelength
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was obtained by extrapolation of the effective charge on the residual ion by Finkelnburg and Humbach [55FIN].

4.6.1. References

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TABLE 18. Energy levels of Kr VI

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0.	1	$4s^24p$	$^2P^o$	1/2	97			95PAG
8110.	1	$4s^24p$	$^2P^o$	3/2	97			95PAG
107 836.	0	$4s4p^2$	^4P	1/2	98			95PAG
111 193.	0	$4s4p^2$	^4P	3/2	99			95PAG
115 479.	0	$4s4p^2$	^4P	5/2	98			95PAG
141 672.	0	$4s4p^2$	^2D	3/2	89	8	$4s^24d\ ^2D$	95PAG
142 727.	0	$4s4p^2$	^2D	5/2	88	8	$4s^24d\ ^2D$	95PAG
170 084.	0	$4s4p^2$	^2S	1/2	74	23	$4sp^2\ ^2P$	95PAG
180 339.	0	$4s4p^2$	^2P	1/2	74	23	$4s4p^2\ ^2S$	95PAG
183 817.	0	$4s4p^2$	^2P	3/2	96			95PAG
222 122.	0	$4s^24d$	^2D	3/2	88	8	$4s4p^2\ ^2D$	95PAG
223 040.	0	$4s^24d$	^2D	5/2	88	8	$4s4p^2\ ^2D$	95PAG
275 380.	0	$4s^25s$	^2S	1/2	100			95PAG
276 011.	1	$4p^3$	$^2D^o$	3/2	58	17	$4p^3\ ^4S^o$	95PAG
278 062.	1	$4p^3$	$^2D^o$	5/2	77	22	$4s4p(^3P^o)4d\ ^2D^o$	95PAG
278 787.	1	$4p^3$	$^4S^o$	3/2	79	15	$4p^3\ ^2D^o$	95PAG
303 697.	1	$4p^3$	$^2P^o$	1/2	82	11	$4s4p(^3P^o)4d\ ^2P^o$	95PAG
305 385.	1	$4p^3$	$^2P^o$	3/2	74	11	$4s4p(^3P^o)4d\ ^2P^o$	95PAG
324 120.	1	$4s^25p$	$^2P^o$	1/2	98			95PAG
326 657.	1	$4s^25p$	$^2P^o$	3/2	98			95PAG
331 956.	1	$4s4p(^3P^o)4d$	$^4P^o$	5/2	66	27	$4s4p(^3P^o)4d\ ^4D^o$	95PAG
333 133.	1	$4s4p(^3P^o)4d$	$^4D^o$	3/2	57	40	$4s4p(^3P^o)4d\ ^4P^o$	95PAG
333 936.	1	$4s4p(^3P^o)4d$	$^4D^o$	1/2	86	13	$4s4p(^3P^o)4d\ ^4P^o$	95PAG
338 119.	1	$4s4p(^3P^o)4d$	$^4D^o$	7/2	97			95PAG
338 032.	1	$4s4p(^3P^o)4d$	$^4P^o$	1/2	86	13	$4s4p(^3P^o)4d\ ^4D^o$	95PAG
338 364.	1	$4s4p(^3P^o)4d$	$^4P^o$	3/2	57	41	$4s4p(^3P^o)4d\ ^4D^o$	95PAG
338 447.	1	$4s4p(^3P^o)4d$	$^4D^o$	5/2	71	25	$4s4p(^3P^o)4d\ ^4P^o$	95PAG
343 190.	1	$4s4p(^3P^o)4d$	$^2D^o$	3/2	62	20	$4s4p(^1P^o)4d\ ^2D^o$	95PAG
343 505.	1	$4s4p(^3P^o)4d$	$^2D^o$	5/2	56	18	$4s4p(^1P^o)4d\ ^2D^o$	95PAG
352 547.	1	$4s4p(^3P^o)4d$	$^2F^o$	5/2	68	26	$4s4p(^1P^o)4d\ ^2F^o$	95PAG
359 035.	1	$4s4p(^3P^o)4d$	$^2F^o$	7/2	47	41	$4s4p(^1P^o)4d\ ^2F^o$	95PAG
374 279.	1	$4s4p(^3P^o)4d$	$^2P^o$	3/2	80	12	$4p^3\ ^2P^o$	95PAG
377 255.	1	$4s4p(^3P^o)4d$	$^2P^o$	1/2	87	10	$4p^3\ ^2P^o$	95PAG
390 595.	1	$4s4p(^1P^o)4d$	$^2D^o$	3/2	68	11	$4s4p(^3P^o)4d\ ^2D^o$	95PAG
391 878.	1	$4s4p(^1P^o)4d$	$^2D^o$	5/2	73	14	$4s4p(^3P^o)4d\ ^2D^o$	95PAG
393 018.	1	$4s4p(^1P^o)4d$	$^2P^o$	3/2	86			95PAG
398 678.	1	$4s4p(^1P^o)4d$	$^2F^o$	7/2	49	34	$4s^2f\ ^2F^o$	95PAG
399 599.	1	$4s4p(^1P^o)4d$	$^2F^o$	5/2	48	32	$4s^24f\ ^2F^o$	95PAG
394 817.	1	$4s4p(^3P^o)5s$	$^4P^o$	3/2	96			95PAG
399 630.	1	$4s4p(^3P^o)5s$	$^4P^o$	5/2	98			95PAG
403 436.	1	$4s4p(^3P^o)5s$	$^2P^o$	1/2	97			95PAG
408 520.	1	$4s4p(^3P^o)5s$	$^2P^o$	3/2	94			95PAG
442 106.	1	$4s4p(^1P^o)5s$	$^2P^o$	1/2	87	12	$4s^26p\ ^2P^o$	95PAG
443 176.	1	$4s4p(^1P^o)5s$	$^2P^o$	3/2	88	9	$4s^26p\ ^2P^o$	95PAG

TABLE 19. Spectral lines of Kr VI

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
331.65	301.523	1	$4s4p^2$	^2D	3/2	—	$4s4p(^1P^o)5s$	$^2P^o$	3/2	0.01	96PAG

TABLE 19. Spectral lines of Kr VI—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
332.83	300.454	6*	$4s4p^2$	^2D	5/2	—	$4s4p(^1P^o)5s$	$^2P^o$	3/2	0.01	96PAG
332.83	300.454	6*	$4s4p^2$	^2D	3/2	—	$4s4p(^1P^o)5s$	$^2P^o$	1/2	0.01	96PAG
346.69	288.442	4	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)5s$	$^4P^o$	5/2	0.01	96PAG
348.45	286.985	1	$4s4p^2$	^4P	1/2	—	$4s4p(^3P^o)5s$	$^4P^o$	3/2	0.01	96PAG
351.93	284.147	6 b	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)5s$	$^4P^o$	5/2	0.01	96PAG
357.99	279.337	2	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)5s$	$^4P^o$	3/2	0.01	96PAG
363.12	275.391	8	$4s^24p$	$^2P^o$	1/2	—	$4s^25s$	^2S	1/2	0.01	96PAG
366.17	273.097	4	$4s4p^2$	^2S	1/2	—	$4s4p(^1P^o)5s$	$^2P^o$	3/2	0.01	96PAG
374.2	267.2	BF	$4s^24p$	$^2P^o$	3/2	—	$4s^25s$	^2S	1/2	0.3	90TAU
374.74	266.852	4	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)5s$	$^2P^o$	3/2	0.01	96PAG
376.23	265.795	6	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)5s$	$^2P^o$	3/2	0.01	96PAG
380.48	262.826	2	$4s4p^2$	^2P	1/2	—	$4s4p(^1P^o)5s$	$^2P^o$	3/2	0.01	96PAG
382.01	261.773	6*	$4s4p^2$	^2P	1/2	—	$4s4p(^1P^o)5s$	$^2P^o$	1/2	0.01	96PAG
382.01	261.773	6*	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)5s$	$^2P^o$	1/2	0.01	96PAG
387.17	258.284	4	$4s4p^2$	^2P	3/2	—	$4s4p(^1P^o)5s$	$^2P^o$	1/2	0.01	96PAG
387.72	257.918	4	$4s4p^2$	^2D	3/2	—	$4s4p(^1P^o)4d$	$^2F^o$	5/2	0.01	96PAG
389.29	256.878	2*	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)5s$	$^4P^o$	5/2	0.01	96PAG
389.29	256.878	2*	$4s4p^2$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2F^o$	5/2	0.01	96PAG
390.70	255.951	6	$4s4p^2$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2F^o$	7/2	0.01	96PAG
399.54	250.288	2	$4s4p^2$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2P^o$	3/2	0.01	96PAG
403.43	247.874	2	$4s4p^2$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2D^o$	3/2	0.01	96PAG
410.59	243.552	4	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^2F^o$	7/2	0.01	96PAG
419.42	238.424	6	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)5s$	$^2P^o$	3/2	0.01	96PAG
424.91	235.344	4	$4s4p^2$	^4P	1/2	—	$4s4p(^3P^o)4d$	$^2D^o$	3/2	0.01	96PAG
428.56	233.340	6 s	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)5s$	$^2P^o$	1/2	0.02	96PAG
430.46	232.310	4 w	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.02	96PAG
433.79	230.526	1	$4s4p^2$	^4P	1/2	—	$4s4p(^3P^o)4d$	$^4P^o$	3/2	0.01	96PAG
440.038	227.253	2	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4D^o$	5/2	0.005	96PAG
440.192	227.174	5	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4P^o$	3/2	0.005	96PAG
440.840	226.840	5	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4P^o$	1/2	0.005	96PAG
442.28	226.101	6	$4s4p^2$	^4P	1/2	—	$4s4p(^3P^o)4d$	$^4D^o$	1/2	0.01	96PAG
443.858	225.297	6	$4s4p^2$	^4P	1/2	—	$4s4p(^3P^o)4d$	$^4D^o$	3/2	0.005	96PAG
445.0	224.719	1*	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)5s$	$^4P^o$	3/2	0.03	96PAG
445.0	224.719	1*	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)5s$	$^2P^o$	3/2	0.03	96PAG
448.502	222.964	4	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^4D^o$	5/2	0.005	96PAG
448.668	222.882	5	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^4P^o$	3/2	0.005	96PAG
448.95	222.742	2 b	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4D^o$	1/2	0.02	96PAG
449.15	222.643	7	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^4D^o$	7/2	0.01	96PAG
450.20	222.124	8	$4s^24p$	$^2P^o$	1/2	—	$4s^24d$	^2D	3/2	0.01	96PAG
450.581	221.936	6	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4D^o$	3/2	0.005	96PAG
452.972	220.764	7	$4s4p^2$	^4P	3/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.005	96PAG
459.47	217.642	2 b	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^4D^o$	3/2	0.02	96PAG
461.94	216.478	4	$4s4p^2$	^4P	5/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.01	96PAG
462.31	216.305	8	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)4d$	$^2F^o$	7/2	0.01	96PAG
465.27	214.929	20 w	$4s^24p$	$^2P^o$	3/2	—	$4s^24d$	^2D	5/2	0.02	96PAG
467.26	214.014	9	$4s^24p$	$^2P^o$	3/2	—	$4s^24d$	^2D	3/2	0.01	96PAG
470.191	212.680	5	$4s4p^2$	^2P	1/2	—	$4s4p(^1P^o)4d$	$^2P^o$	3/2	0.005	96PAG
474.209	210.877	7	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)4d$	$^2F^o$	5/2	0.005	96PAG
475.62	210.252	8	$4s4p^2$	^2P	1/2	—	$4s4p(^1P^o)4d$	$^2D^o$	3/2	0.01	96PAG
478.016	209.198	7	$4s4p^2$	^2P	3/2	—	$4s4d(^1P^o)4d$	$^2P^o$	3/2	0.005	96PAG
480.63	208.060	2	$4s4p^2$	^2P	3/2	—	$4s4p(^1P^o)4d$	$^2D^o$	5/2	0.01	96PAG
482.702	207.167	3	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)4d$	$^2P^o$	1/2	0.005	96PAG
489.738	204.191	7	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)4d$	$^2P^o$	3/2	0.005	96PAG
495.46	201.833	7	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.01	96PAG
496.237	201.517	8	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	3/2	0.005	96PAG

TABLE 19. Spectral lines of Kr VI—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
498.061	200.779	9	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.005	96PAG
507.82	196.920	6	$4s4p^2$	^2P	1/2	—	$4s4p(^3P^o)4d$	$^2P^o$	1/2	0.01	96PAG
511.79	195.393	1 d	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)4d$	$^4D^o$	7/2	0.02	96PAG
516.96	193.439	1 d	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)4d$	$^2P^o$	1/2	0.02	96PAG
522.30	191.461	2	$4s4p^2$	^2D	3/2	—	$4s4p(^3P^o)4d$	$^4D^o$	3/2	0.01	96PAG
525.04	190.462	6	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)4d$	$^2P^o$	3/2	0.01	96PAG
528.457	189.2302	5	$4s4p^2$	^2D	5/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.005	96PAG
540.587	184.9841	4	$4s4p^2$	^2D	3/2	—	$4s^25p$	$^2P^o$	3/2	0.005	96PAG
543.689	183.9287	10	$4s4p^2$	^2D	5/2	—	$4s^25p$	$^2P^o$	3/2	0.005	96PAG
544.020	183.817	30 w	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^2P	3/2	0.01	96PAG
548.107	182.446	10 a	$4s4p^2$	^2D	3/2	—	$4s^25p$	$^2P^o$	1/2	0.01	96PAG
554.514	180.338	100 w	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^2P	1/2	0.01	96PAG
563.44	177.481	7	$4s^24d$	^2D	3/2	—	$4s4p(^1P^o)4d$	$^2F^o$	5/2	0.01	96PAG
569.13	175.707	9	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^2P	3/2	0.01	96PAG
569.354	175.6377	11	$4s^24d$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2F^o$	7/2	0.005	96PAG
577.68	173.106	6	$4s4p^2$	^2S	1/2	—	$4s4p(^3P^o)4d$	$^2D^o$	3/2	0.01	96PAG
580.620	172.230	30 w	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^2P	1/2	0.01	96PAG
584.958	170.952	11 w	$4s4p^2$	^4P	1/2	—	$4p^3$	$^4S^o$	3/2	0.01	96PAG
585.14	170.899	4	$4s^24d$	^2D	3/2	—	$4s4p(^1P^o)4d$	$^2P^o$	3/2	0.01	96PAG
587.94	170.085	12	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^2S	1/2	0.01	96PAG
588.31	169.978	9	$4s^24d$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2P^o$	3/2	0.01	96PAG
592.28	168.839	4	$4s^24d$	^2D	5/2	—	$4s4p(^1P^o)4d$	$^2D^o$	5/2	0.01	96PAG
592.68	168.725	2	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)4d$	$^2F^o$	5/2	0.01	96PAG
593.56	168.475	4	$4s^24d$	^2D	3/2	—	$4s4p(^1P^o)4d$	$^2D^o$	3/2	0.01	96PAG
594.618	168.175	12 w	$4s4p^2$	^4P	1/2	—	$4p^3$	$^2D^o$	3/2	0.01	96PAG
595.970	167.7937	9	$4s^25s$	^2S	1/2	—	$4s4p(^1P^o)5s$	$^2P^o$	3/2	0.005	96PAG
596.682	167.593	20 w	$4s4p^2$	^4P	3/2	—	$4p^3$	$^4S^o$	3/2	0.01	96PAG
599.26	166.872	1 d	$4s4p^2$	^4P	3/2	—	$4p^3$	$^2D^o$	5/2	0.02	96PAG
599.79	166.725	9	$4s^25s$	^2S	1/2	—	$4s4p(^1P^o)5s$	$^2P^o$	1/2	0.01	96PAG
606.726	164.8190	20 La	$4s4p^2$	^4P	3/2	—	$4p^3$	$^2D^o$	3/2	0.005	96PAG
610.828	163.7122	5	$4s4p^2$	^2D	3/2	—	$4p^3$	$^2P^o$	3/2	0.005	96PAG
612.34	163.308	11 La	$4s4p^2$	^4P	5/2	—	$4p^3$	$^4S^o$	3/2	0.02	96PAG
614.05	162.853	9	$4s4p^2$	^2P	1/2	—	$4s4p(^3P^o)4d$	$^2D^o$	3/2	0.01	96PAG
614.789	162.6574	11	$4s4p^2$	^2D	5/2	—	$4p^3$	$^2P^o$	3/2	0.005	96PAG
615.07	162.583	10	$4s4p^2$	^4P	5/2	—	$4p^3$	$^2D^o$	5/2	0.01	96PAG
617.18	162.027	150 b	$4s4p^2$	^2D	3/2	—	$4p^3$	$^2P^o$	1/2	0.02	96PAG
617.379	161.9751	9	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^2S	1/2	0.005	96PAG
622.937	160.5299	20 w	$4s4p^2$	^4P	5/2	—	$4p^3$	$^2D^o$	3/2	0.005	96PAG
626.220	159.6883	10	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.005	96PAG
638.68	156.573	5	$4s4p^2$	^2S	1/2	—	$4s^25p$	$^2P^o$	3/2	0.01	96PAG
657.20	152.161	3	$4s^24d$	^2D	3/2	—	$4s4p(^3P^o)4d$	$^2P^o$	3/2	0.01	96PAG
675.033	148.1409	10	$4s4p^2$	^2P	3/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.005	96PAG
700.06	142.845	3d	$4s4p^2$	^2P	3/2	—	$4s^25p$	$^2P^o$	3/2	0.02	96PAG
705.855	141.672	50 w	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^2D	3/2	0.01	96PAG
729.321	137.1138	15 w	$4s4p^2$	^2D	3/2	—	$4p^3$	$^4S^o$	3/2	0.005	96PAG
733.20	136.388	20 w	$4s4p^2$	^2D	3/2	—	$4p^3$	$^2D^o$	5/2	0.02	96PAG
734.98	136.0581	10	$4s4p^2$	^2D	5/2	—	$4p^3$	$^4S^o$	3/2	0.01	96PAG
735.316	135.9960	10	$4s^24d$	^2D	5/2	—	$4s4p(^3P^o)4d$	$^2F^o$	7/2	0.005	96PAG
738.91	135.334	50 w	$4s4p^2$	^2D	5/2	—	$4p^3$	$^2D^o$	5/2	0.02	96PAG
739.096	135.3004	20	$4s4p^2$	^2S	1/2	—	$4p^3$	$^2P^o$	3/2	0.005	96PAG
742.854	134.6160	100 w	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^2D	5/2	0.01	96PAG
744.385	134.3391	20 w	$4s4p^2$	^2D	3/2	—	$4p^3$	$^2D^o$	3/2	0.01	96PAG
748.705	133.5640	30 w	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^2D	3/2	0.01	96PAG
750.277	133.2841	30 w	$4s4p^2$	^2D	5/2	—	$4p^3$	$^2D^o$	3/2	0.01	96PAG
751.10	133.138	2 d	$4s^25s$	^2S	1/2	—	$4s4p(^3P^o)5s$	$^2P^o$	3/2	0.02	96PAG

TABLE 19. Spectral lines of Kr VI—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
766.72	130.4257	6	$4s^24d$	^{2}D	3/2	—	$4s4p(^3P^o)4d$	$^2F^o$	5/2	0.01	96PAG
780.92	128.0541	5	$4s^25s$	^{2}S	1/2	—	$4s4p(^3P^o)5s$	$^2P^o$	1/2	0.01	96PAG
799.71	125.045	4 s	$4s4p^2$	^{2}P	1/2	—	$4p^3$	$^2P^o$	3/2	0.02	96PAG
810.65	123.358	20 w	$4s4p^2$	^{2}P	1/2	—	$4p^3$	$^2P^o$	1/2	0.02	96PAG
822.573	121.5698	20 w	$4s4p^2$	^{2}P	3/2	—	$4p^3$	$^2P^o$	3/2	0.005	96PAG
823.84	121.3828	3	$4s^24d$	^{2}D	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.01	96PAG
825.98	121.0683	5	$4s^24d$	^{2}D	3/2	—	$4s4p(^3P^o)4d$	$^2D^o$	3/2	0.01	96PAG
830.11	120.4660	7	$4s^24d$	^{2}D	5/2	—	$4s4p(^3P^o)4d$	$^2D^o$	5/2	0.01	96PAG
834.17	119.8796	12	$4s4p^2$	^{2}P	3/2	—	$4p^3$	$^2P^o$	1/2	0.01	95PAG
859.65	116.3264	3	$4s^24d$	^{2}D	3/2	—	$4s4p(^3P^o)4d$	$^4D^o$	5/2	0.01	96PAG
868.96	115.0801	9	$4s^24d$	^{2}D	5/2	—	$4s4p(^3P^o)4d$	$^4D^o$	7/2	0.01	96PAG
899.34	111.1927	11	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^{4}P	3/2	0.01	96PAG
910.47	109.8334	3	$4s^24d$	^{2}D	3/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.01	96PAG
918.14	108.9159	8	$4s^24d$	^{2}D	5/2	—	$4s4p(^3P^o)4d$	$^4P^o$	5/2	0.01	96PAG
919.934	108.7035	9	$4s4p^2$	^{2}S	1/2	—	$4p^3$	$^4S^o$	3/2	0.005	96PAG
927.34	107.835	20 w	$4s^24p$	$^2P^o$	1/2	—	$4s4p^2$	^{4}P	1/2	0.02	96PAG
931.39	107.3664	12	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^{4}P	5/2	0.01	96PAG
944.05	105.9266	15	$4s4p^2$	^{2}S	1/2	—	$4p^3$	$^2D^o$	3/2	0.01	96PAG
956.615	104.5353	12	$4s^24d$	^{2}D	3/2	—	$4s^25p$	$^2P^o$	3/2	0.005	96PAG
965.093	103.6170	20 w	$4s^24d$	^{2}D	5/2	—	$4s^25p$	$^2P^o$	3/2	0.01	96PAG
970.087	103.0835	20	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^{4}P	3/2	0.005	96PAG
980.411	101.9980	30 wLa	$4s^24d$	^{2}D	3/2	—	$4s^25p$	$^2P^o$	1/2	0.01	96PAG
1002.746	99.7262	20 wUa	$4s^24p$	$^2P^o$	3/2	—	$4s4p^2$	^{4}P	1/2	0.01	96PAG
1011.14	98.8983	8 Ua	$4s^25s$	^{2}S	1/2	—	$4s4p(^3P^o)4d$	$^2P^o$	3/2	0.02	96PAG
1015.77	98.4475	11 Ua	$4s4p^2$	^{2}P	1/2	—	$4p^3$	$^4S^o$	3/2	0.02	96PAG
1045.23	95.6727	30 w	$4s4p^2$	^{2}P	1/2	—	$4p^3$	$^2D^o$	3/2	0.02	96PAG
1052.95	94.9713	15	$4s4p^2$	^{2}P	3/2	—	$4p^3$	$^4S^o$	3/2	0.01	96PAG
1061.069	94.2446	75 w	$4s4p^2$	^{2}P	3/2	—	$4p^3$	$^2D^o$	5/2	0.01	96PAG
1817.45	55.0221	8	$4s^24d$	^{2}D	5/2	—	$4p^3$	$^2D^o$	5/2	0.01	96PAG
1950.20	51.2768	50 w	$4s^25s$	^{2}S	1/2	—	$4s^25p$	$^2P^o$	3/2	0.02	96PAG

Observed air wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2051.06	48.7397	100 w	$4s^25s$	^{2}S	1/2	—	$4s^25p$	$^2P^o$	1/2	0.02	96PAG

4.7. Kr VII

Zn isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^{10}4s^2\ ^1S_0$

Ionization energy 895 300±3200 cm^{-1} (111.0±0.4 eV) [55FIN]

The energy levels of six times ionized krypton, Kr VII, were compiled by Sugar and Musgrove [91SUG]. That compilation was based on the earlier work of Trigueiros *et al.* [89TRI], [89TRI], and Pinnington *et al.* [91PIN]. The observed wavelengths were compiled by Shirai *et al.* [95SHI], [00SHI] from several sources [86TRI], [89BOU], [89TRI], and [91PIN]. After these compilations new information about lines and levels was published by Raineri *et al.* [00RAI], Churilov [02CHU], and Cavalcanti *et al.* [03CAV]. Unfortunately, for many levels and lines, the results of Churilov [02CHU] are in disagreement with those reported by the collaborators Raineri *et al.* [00RAI] and Cavalcanti *et al.* [03CAV]. Also many of the levels and transitions reported by Cavalcanti *et al.* [03CAV] appear to be inconsistent with the levels of Raineri *et al.* [00RAI]. In this compilation we have not included the lines and levels reported by Cavalcanti *et al.* [03CAV]. Since we cannot determine which (if any) of these results is correct, we compile only those levels and lines for which there is agreement between Trigueiros *et al.* [86TRI], [89TRI], [00RAI] and Churilov [02CHU]. We use the values of Trigueiros *et al.* [86TRI], [89TRI], [00RAI] for these energy levels. Their estimated uncertainty ranges from 2 to 3 cm^{-1}. However, a comparison with values from Churilov [02CHU] suggests an uncertainty a few times this value.

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Trigueiros *et al.* [86TRI] and Raineri *et al.* [00RAI]

We have added to the wavelength compilations of Shirai *et al.* [95SHI], [00SHI] lines from Churilov [02CHU] and Raineri *et al.* [00RAI]. We note that six lines from Jacquet *et al.* [94JAC] are not included because their classification involves levels with high orbital angular momentum whose relations to the energies of the levels in this compilation are unknown.

Cavalcanti *et al.* [03CAV] classified 29 Kr VII lines. They used a theta-pinch discharge as their source. They estimate a 0.01 Å wavelength uncertainty for their measurements.

Churilov [02CHU] classified 80 Kr VII lines. He used a fast capillary discharge with inductive energy storage as his source. He estimates a 0.007 Å wavelength uncertainty for his measurements of unperturbed lines.

Raineri *et al.* [00RAI] classified 56 Kr VII lines. They used both a theta-pinch discharge and a discharge tube source. They estimate a 0.01 Å wavelength uncertainty for measurements made with the theta-pinch source and 0.02 Å for measurement made with the discharge tube.

Jacquet *et al.* [94JAC] classified six lines as transitions between *g*, *h*, *i*, *j*, *k*, and *l* orbitals. Their source was a 120 keV Kr^{8+} beam colliding with an effusive jet of lithium. Their estimated uncertainty ranges from 0.3 to 0.4 Å.

Pinnington *et al.* [91PIN] classified 24 lines. They used beam foil spectroscopy. Their uncertainty ranges from 0.2 to 0.5 Å.

Trigueiros *et al.* [89TRI] classified 17 lines. They used both a theta-pinch discharge and a discharge tube source. They estimate a 0.01 Å wavelength uncertainty.

Bouchama *et al.* [89BOU] classified 14 lines. They studied the radiation emitted from low energy single charge exchange collisions between Kr^{7+} projectiles and He or H_2 targets. They report uncertainties which range between 0.5 and 0.8 Å.

Trigueiros *et al.* [86TRI] classified 22 lines. They used a theta-pinch discharge source. They estimate a 0.01 Å wavelength uncertainty.

The priority for inclusion of duplicate lines was first [02CHU], then [86TRI], [89TRI], [00RAI], [91PIN], and finally [89BOU].

Other work with greater wavelength uncertainty for specific lines was carried out by Hutton *et al.* [93HUT], Pinnington *et al.* [84PIN], Irwin *et al.* [76IRW], Livingston [76LIV], Druetta and Buchet [76DRU], Schönheit [66SCH], and Fawcett *et al.* [61FAW]. Any lines from these references were superseded by those from the above. Also lines involving high angular orbital momentum states were measured by Jacquet *et al.* [94JAC], Martin *et al.* [93MAR], and Boduch *et al.* [92BOD]

All candidate lines were passed through a program to determine if they correspond to a transition between the known undisputed Kr VII levels. Only classifiable lines are included in our compilation. Many lines classified by the various listed sources did not fit the reduced set of levels we used and so are not included in the line table. Six lines included by Shirai *et al.* [00SHI] are not compiled here.

Transition probability calculations using the Cowan codes [81COW], with the parameters of Raineri *et al.* [00RAI] for the odd parity levels and Trigueiros *et al.* [86TRI] for the even parity levels (except for the 4*s*5*d* configuration), were used to help resolve choices between multiple possible classifications of lines. Intensities have been taken from the stated sources. Intensity codes have the meanings below:

Symbol	Definition
bl	blending with a line of O IV
BF	beam foil measurement
d	line contour not very clear
w	wide
m	partial masking by the neighboring line
us	unsymmetrical-shaded to shorter wavelength
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was obtained by extrapolation of the effective charge on the residual ion by Finkelnburg and Humbach [55FIN].

4.7.1. References

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TABLE 20. Energy levels of Kr VII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0.0	0	$4s^2$	^{1}S	0	98			86TRI
117 389.6	1	$4s4p$	^{3}P^o	0	100			86TRI
120 094.8	1	$4s4p$	^{3}P^o	1	100			86TRI
126 553.0	1	$4s4p$	^{3}P^o	2	100			86TRI
170 835.0	1	$4s4p$	^{1}P^o	1	100			86TRI
274 931.7	0	$4p^2$	^{3}P	0	98			86TRI
279 414.5	0	$4p^2$	^{3}P	1	100			86TRI
279 714.8	0	$4p^2$	^{1}D	2	62	27	$4p^2$ ^{3}P	86TRI
288 190.2	0	$4p^2$	^{3}P	2	72	22	$4p^2$ ^{1}D	86TRI
321 794.	0	$4p^2$	^{1}S	0				89TRI
349 973.1	0	$4s4d$	^{3}D	1	100			86TRI
350 416.8	0	$4s4d$	^{3}D	2	100			86TRI
351 116.2	0	$4s4d$	^{3}D	3	100			86TRI
379 488.3	0	$4s4d$	^{1}D	2	85	15	$4p^2$ ^{1}D	86TRI
438 644.	0	$4s5s$	^{3}S	1	100			00RAI
492 776.	1	$4s5p$	^{3}P^o	0	98			00RAI
493 219.	1	$4s5p$	^{3}P^o	1	90	8	$4s5p$ ^{1}P^o	00RAI
495 578.4	1	$4s5p$	^{3}P^o	2				89TRI
530 349.	1	$4s4f$	^{3}F^o	2	94	6	$4p4d$ ^{3}F^o	00RAI
530 491.	1	$4s4f$	^{3}F^o	3	93	6	$4p4d$ ^{3}F^o	00RAI
530 772.	1	$4s4f$	^{3}F^o	4	92	8	$4p4d$ ^{3}F^o	00RAI
578 470.	0	$4s5d$	^{3}D	1	100			00RAI
578 722.	0	$4s5d$	^{3}D	2	99			00RAI
579 109.	0	$4s5d$	^{3}D	3	100			00RAI
479 655.	1	$4p4d$	^{3}F^o	3	92			00RAI
484 543.	1	$4p4d$	^{3}F^o	4	92	7	$4s4f$ ^{3}F^o	00RAI
487 650.	1	$4p4d$	^{1}D^o	2	91	6	$4p4d$ ^{3}F^o	00RAI

TABLE 21. Spectral lines of Kr VII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
221.4	451.7		$4s4p$	^{3}P^o	2	—	$4s5d$	^{3}D	2	0.5	89BOU
311.270	321.264	3	$4s4p$	^{3}P^o	0	—	$4s5s$	^{3}S	1	0.007	02CHU

TABLE 21. Spectral lines of Kr VII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
313.925	318.547	5	$4s4p$	$^3P^o$	1	—	$4s5s$	^3S	1	0.007	02CHU
320.424	312.086	7	$4s4p$	$^3P^o$	2	—	$4s5s$	^3S	1	0.007	02CHU
385.538	259.378	15	$4s4p$	$^3P^o$	1	—	$4s4d$	^1D	2	0.007	02CHU
429.953	232.584	40	$4s4p$	$^3P^o$	0	—	$4s4d$	^3D	1	0.007	02CHU
434.171	230.324	50 m	$4s4p$	$^3P^o$	1	—	$4s4d$	^3D	2	0.007	02CHU
435.027	229.871	35	$4s4p$	$^3P^o$	1	—	$4s4d$	^3D	1	0.007	02CHU
445.315	224.560	65	$4s4p$	$^3P^o$	2	—	$4s4d$	^3D	3	0.007	02CHU
446.697	223.865	40	$4s4p$	$^3P^o$	2	—	$4s4d$	^3D	2	0.007	02CHU
447.609	223.409	17 m	$4s4p$	$^3P^o$	2	—	$4s4d$	^3D	1	0.007	02CHU
458.125	218.281	3	$4p^2$	^3P	0	—	$4s5p$	$^3P^o$	1	0.007	02CHU
462.630	216.155	10	$4p^2$	^3P	1	—	$4s5p$	$^3P^o$	2	0.007	02CHU
468.388	213.498	9	$4p^2$	^1D	2	—	$4s5p$	$^3P^o$	1	0.007	02CHU
479.283	208.645	50	$4s4p$	$^1P^o$	1	—	$4s4d$	^1D	2	0.007	02CHU
480.227	208.235	8	$4p^2$	^3P	1	—	$4p4d$	$^1D^o$	2	0.007	02CHU
480.916	207.937	20	$4p^2$	^1D	2	—	$4p4d$	$^1D^o$	2	0.007	02CHU
482.212	207.378	6	$4p^2$	^3P	2	—	$4s5p$	$^3P^o$	2	0.007	02CHU
487.4	205.2		$4p^2$	^3P	2	—	$4s5p$	$^3P^o$	1	0.8	89BOU
500.165	199.934	6	$4p^2$	^1D	2	—	$4p4d$	$^3F^o$	3	0.007	02CHU
501.343	199.464	5	$4p^2$	^3P	2	—	$4p4d$	$^1D^o$	2	0.007	02CHU
554.425	180.367	40	$4s4d$	^3D	1	—	$4s4f$	$^3F^o$	2	0.007	02CHU
555.270	180.093	65 bl	$4s4d$	^3D	2	—	$4s4f$	$^3F^o$	3	0.007	02CHU
555.833	179.910	22	$4s4d$	^3D	2	—	$4s4f$	$^3F^o$	2	0.007	02CHU
556.607	179.660	55	$4s4d$	^3D	3	—	$4s4f$	$^3F^o$	4	0.007	02CHU
556.855	179.580	5	$4s4p$	$^1P^o$	1	—	$4s4d$	^3D	2	0.007	02CHU
557.52	179.366	8	$4s4d$	^3D	3	—	$4s4f$	$^3F^o$	3	0.02	00RAI
558.221	179.141	4	$4s4p$	$^1P^o$	1	—	$4s4d$	^3D	1	0.01	86TRI
583.335	171.428	10	$4p^2$	^1S	0	—	$4s5p$	$^3P^o$	1	0.007	02CHU
585.357	170.836	80	$4s^2$	^1S	0	—	$4s4p$	$^1P^o$	1	0.007	02CHU
594.890	168.0983	50	$4s4p$	$^3P^o$	1	—	$4p^2$	^3P	2	0.007	02CHU
617.189	162.025	30	$4s4p$	$^3P^o$	0	—	$4p^2$	^3P	1	0.01	86TRI
618.649	161.6425	70	$4s4p$	$^3P^o$	2	—	$4p^2$	^3P	2	0.007	02CHU
626.482	159.6215	53	$4s4p$	$^3P^o$	1	—	$4p^2$	^1D	2	0.007	02CHU
627.657	159.3227	60	$4s4p$	$^3P^o$	1	—	$4p^2$	^3P	1	0.007	02CHU
645.842	154.8366	40	$4s4p$	$^3P^o$	1	—	$4p^2$	^3P	0	0.007	02CHU
652.896	153.1638	55	$4s4p$	$^3P^o$	2	—	$4p^2$	^1D	2	0.007	02CHU
654.168	152.8659	50	$4s4p$	$^3P^o$	2	—	$4p^2$	^3P	1	0.007	02CHU
662.43	150.959	10	$4s4p$	$^1P^o$	1	—	$4p^2$	^1S	0	0.01	89TRI
686.761	145.6111	3	$4s4d$	^3D	1	—	$4s5p$	$^3P^o$	2	0.007	02CHU
688.915	145.1558	4	$4s4d$	^3D	2	—	$4s5p$	$^3P^o$	2	0.007	02CHU
692.231	144.4604	8	$4s4d$	^3D	3	—	$4s5p$	$^3P^o$	2	0.007	02CHU
698.121	143.2416	5	$4s4d$	^3D	1	—	$4s5p$	$^3P^o$	1	0.007	02CHU
700.270	142.8021	10*	$4s4d$	^3D	1	—	$4s5p$	$^3P^o$	0	0.007	02CHU
700.270	142.8021	10*	$4s4d$	^3D	2	—	$4s5p$	$^3P^o$	1	0.007	02CHU
726.30	137.684	5 us	$4s4d$	^3D	1	—	$4p4d$	$^1D^o$	2	0.02	00RAI
749.467	133.4282	16	$4s4d$	^3D	3	—	$4p4d$	$^3F^o$	4	0.007	02CHU
773.771	129.2372	9	$4s4d$	^3D	2	—	$4p4d$	$^3F^o$	3	0.007	02CHU
777.955	128.5421	7	$4s4d$	^3D	3	—	$4p4d$	$^3F^o$	3	0.007	02CHU
832.680	120.0942	15	$4s^2$	^1S	0	—	$4s4p$	$^3P^o$	1	0.007	02CHU
852.100	117.3571	10	$4s4p$	$^1P^o$	1	—	$4p^2$	^3P	2	0.007	02CHU
879.23	113.736	6	$4s4d$	^1D	2	—	$4s5p$	$^3P^o$	1	0.02	00RAI
918.440	108.8803	30	$4s4p$	$^1P^o$	1	—	$4p^2$	^1D	2	0.007	02CHU
920.970	108.5812	3	$4s4p$	$^1P^o$	1	—	$4p^2$	^3P	1	0.007	02CHU
924.52	108.164	6	$4s4d$	^1D	2	—	$4p4d$	$^1D^o$	2	0.02	00RAI
960.640	104.0973	5	$4s4p$	$^1P^o$	1	—	$4p^2$	^3P	0	0.007	02CHU
1005.50	99.4530	8	$4s5d$	^3D	3	—	$4p4d$	$^3F^o$	3	0.02	00RAI

TABLE 21. Spectral lines of Kr VII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1009.43	99.0658	7 d	4*s*5*d*	^{3}D	2	—	4*p*4*d*	^{3}F^o	3	0.02	00RAI
1057.47	94.5653	9 w	4*s*5*d*	^{3}D	3	—	4*p*4*d*	^{3}F^o	4	0.02	00RAI
1166.93	85.6949	1 d	4*s*5*p*	^{3}P^o	0	—	4*s*5*d*	^{3}D	1	0.02	00RAI
1169.54	85.5037	8	4*s*5*p*	^{3}P^o	1	—	4*s*5*d*	^{3}D	2	0.02	00RAI
1172.8	85.266	BF	4*s*5*p*	^{3}P^o	1	—	4*s*5*d*	^{3}D	1	0.2	91PIN
1197.16	83.5310	10	4*s*5*p*	^{3}P^o	2	—	4*s*5*d*	^{3}D	3	0.02	00RAI
1202.74	83.1435	3 wus	4*s*5*p*	^{3}P^o	2	—	4*s*5*d*	^{3}D	2	0.02	00RAI
1756.36	56.9359	10	4*s*5*s*	^{3}S	1	—	4*s*5*p*	^{3}P^o	2	0.01	86TRI
1832.33	54.5753	10 wus	4*s*5*s*	^{3}S	1	—	4*s*5*p*	^{3}P^o	1	0.02	00RAI
1847.31	54.1328	10	4*s*5*s*	^{3}S	1	—	4*s*5*p*	^{3}P^o	0	0.02	00RAI
Observed air wavelength (Å)	**Observed wave number (10^3 cm^{-1})**	**Intensity and comment**	**Configuration**	**Term**	**J**		**Configuration**	**Term**	**J**	**Uncertainty of observed wavelength (Å)**	**Source of line**
2049.8	48.770	BF	4*s*4*f*	^{3}F^o	2	—	4*s*5*d*	^{3}D	3	0.5	91PIN
2056.20	48.6178	7 d	4*s*4*f*	^{3}F^o	3	—	4*s*5*d*	^{3}D	3	0.02	00RAI
2066.65	48.3720	11	4*s*4*f*	^{3}F^o	2	—	4*s*5*d*	^{3}D	2	0.02	00RAI
2068.17	48.3365	8 d	4*s*4*f*	^{3}F^o	4	—	4*s*5*d*	^{3}D	3	0.02	00RAI
2072.70	48.2309	9	4*s*4*f*	^{3}F^o	3	—	4*s*5*d*	^{3}D	2	0.02	00RAI
2076.3	48.147	BF	4*s*4*f*	^{3}F^o	2	—	4*s*5*d*	^{3}D	1	0.5	91PIN

4.8. Kr VIII

Cu isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^{10}4s\ ^2S_{1/2}$

Ionization energy 1 014 665±25 cm^{-1} (125.802±0.003 eV) [91REA]

The energy levels of seven times ionized krypton, Kr VIII, were compiled by Sugar and Musgrove [91SUG] based on the work of Reader *et al.* [91REA]. A large number of additional Kr VIII lines were published after that compilation was completed [92BOD], [93JAC], [93HUT], [94JAC], [98JAC]. Therefore, it was necessary to completely redetermine the energy levels. A set of 171 classified lines was collected from the following six sources given in order of the number of lines contributed: Jacquet *et al.* [94JAC], Reader *et al.* [91REA], Gallardo *et al.* [89GAL], Jacquet *et al.* [98JAC], Hutton *et al.* [93HUT], and Livingston *et al.* [80LIV]. The levels were then obtained by means of a least squares fitting procedure, with the wave numbers weighted with a value corresponding to the square of the reciprocal of the uncertainty in the measured wavelength of each observed line, using the program ELCALC [69RAD]. The uncertainties of the determined energy levels were estimated by taking the maximum of the uncertainties from three sources: the uncertainties quoted by ELCALC; the uncertainties quoted by an unpublished program that performs a similar function [04KRI]; and an estimate made from the uncertainties of the transitions defining the levels. This uncertainty is quoted in the sixth column of the Kr VIII energy level table. Some of the conclusions of this fit for high-angular-momentum Rydberg levels are suspicious and raise questions about the classification of some lines. We note that the fit places the energy levels of the 8*h* configuration higher than that of the 8*k*, that of the 9*h* higher than that of the 9*k*, and that of the 9*i* higher than that of the 9*l*.

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Reader *et al.* [91REA].

Compilations of Kr VIII lines were published by Shirai *et al.* [95SHI], [00SHI]. From the additional line sources listed above, they included only lines from the preliminary report of Jacquet *et al.* [93JAC]. These lines were revised by the authors in a subsequent publication [94JAC]. Also Shirai *et al.* [95SHI], [00SHI] rejected any Jacquet *et al.* [93JAC] lines which deviated by more than 1 Å from values predicted by the levels of Reader *et al.* [91REA]. Our compilation lists 177 lines from the same six sources used for the energy level fit.

Jacquet *et al.* [98JAC] classified 9 Kr VIII lines. Their light source was a 8.4–130 keV Kr^{8+} beam from an electron cyclotron resonance (ECR) ion source colliding with an effusive jet of lithium. Their estimated uncertainty is 0.4 Å.

Jacquet *et al.* [94JAC] classified 53 lines. Their source was a 120 keV Kr^{8+} beam from an ECR ion source colliding with an effusive jet of lithium. Their estimated uncertainty ranges from 0.2 to 0.8 Å.

Hutton *et al.* [93HUT] classified 3 lines. Their source was a 80 keV Kr^{8+} beam from an ECR ion source colliding with helium. Their estimated uncertainty is 0.05 Å.

Reader *et al.* [91REA] classified 46 lines. They used a low-inductance vacuum spark source triggered by injecting a puff of krypton gas into the spark gap. They estimate a 0.008 Å wavelength uncertainty.

Gallardo *et al.* [89GAL] classified 24 lines. They used both a theta-pinch discharge and a discharge tube source. They estimate a 0.02 Å wavelength uncertainty.

Livingston *et al.* [80LIV] classified 25 lines. They used beam foil spectroscopy. Their uncertainty ranges from 0.05 to 0.3 Å except for one line with 2.0 Å.

Other work with greater wavelength uncertainty for specific lines was carried out by Fawcett *et al.* [61FAW], Druetta and Buchet [76DRU], Irwin *et al.* [76IRW], Pinnington *et al.* [79PIN], Bouchama *et al.* [89BOU], Boduch *et al.* [92BOD], and Jacquet *et al.* [93JAC] Any lines from these references were superseded by those from the above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr VIII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr VIII line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
p	perturbed by close line
*	multiply classified line (two or more classification of this line share the same intensity)

The ionization energy was obtained by Reader *et al.* [91REA] by means of spectral analysis.

4.8.1. References

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TABLE 22. Energy levels of Kr VIII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})	Leading percentages
0.	0	4*s*	^2S	1/2	2	
143 696.	1	4*p*	$^2P^o$	1/2	2	
153 476.	1	4*p*	$^2P^o$	3/2	2	
374 046.	0	4*d*	^2D	3/2	3	
375 377.	0	4*d*	^2D	5/2	3	

TABLE 22. Energy levels of Kr VIII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})	Leading percentages		
490 087.	0	5s	^{2}S	1/2	3			
546 681.	1	5p	^{2}P^o	1/2	3			
550 444.	1	5p	^{2}P^o	3/2	3			
562 731.	1	4f	^{2}F^o	7/2	3			
562 765.	1	4f	^{2}F^o	5/2	3			
641 076.	0	5d	^{2}D	3/2	3			
641 617.	0	5d	^{2}D	5/2	3			
657 102	0	3d^9(^{2}D)4s^2	^{2}D	5/2	130			
667 276	0	3d^9(^{2}D)4s^2	^{2}D	3/2	130			
692 518.	0	6s	^{2}S	1/2	10			
720 594.	1	6p	^{2}P^o	1/2	6			
722 471.	1	6p	^{2}P^o	3/2	13			
724 999.	1	5f	^{2}F^o	5/2	3			
725 004.	1	5f	^{2}F^o	7/2	3			
733 091.	0	5g	^{2}G	7/2	3			
733 093.	0	5g	^{2}G	9/2	4			
768 919.	0	6d	^{2}D	3/2	4			
769 247.	0	6d	^{2}D	5/2	4			
782 852	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{4}P^o	3/2	50	82	9	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}D^o
788 563	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{4}F^o	3/2	50	92	5	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}P^o
789 316	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{4}P^o	1/2	50	91	5	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}D^o
797 213	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{2}D^o	3/2	50	52	24	3d^9(^{2}D)4s4p(^{3}P^o) ^{2}P^o
801 134	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{2}P^o	3/2	50	61	28	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}D^o
801 545	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{2}P^o	1/2	50	93	5	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}P^o
803 335	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{4}D^o	1/2	50	93	4	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}P^o
807 161	1	3d^9(^{2}D)4s4p(^{3}P^o)	^{4}D^o	3/2	50	49	38	3d^9(^{2}D)4s4p(^{3}P^o) ^{2}D^o
796 490.	0	7s	^{2}S	1/2	30			
812 476.	1	7p	^{2}P^o	1/2	6			
813 550.	1	7p	^{2}P^o	3/2	6			
813 930.	1	6f	^{2}F^o	7/2	6			
813 961.	1	6f	^{2}F^o	5/2	6			
819 068.	0	6g	^{2}G	7/2	13			
819 068.	0	6g	^{2}G	9/2	11			
819 478.	1	6h	^{2}H^o	9/2	4			
819 478.	1	6h	^{2}H^o	11/2	4			
837 191	1	3d^9(^{2}D)4s4p(^{1}P^o)	^{2}P^o	3/2	60	94	3	3d^9(^{2}D)4s4p(^{3}P^o) ^{2}P^o
846 181	1	3d^9(^{2}D)4s4p(^{1}P^o)	^{2}P^o	1/2	60	98	1	3d^9(^{2}D)4s4p(^{3}P^o) ^{4}D^o
840 561.	0	7d	^{2}D	3/2	7			
840 751.	0	7d	^{2}D	5/2	7			
857 165.	0	8s	^{2}S	1/2	7			
867 081.	1	8p	^{2}P^o	1/2	7			
867 745.	1	8p	^{2}P^o	3/2	14			
867 678.	1	7f	^{2}F^o	7/2	7			

TABLE 22. Energy levels of Kr VIII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})	Leading percentages
867 696.	1	7*f*	$^2F^o$	5/2	7	
871 072.	0	7*g*	^2G	7/2	13	
871 072.	0	7*g*	^2G	9/2	13	
871 241.	1	7*h*	$^2H^o$	9/2	9	
871 241.	1	7*h*	$^2H^o$	11/2	8	
871 316.	0	7*i*	^2I	11/2	4	
871 316.	0	7*i*	^2I	13/2	4	
884 838.	0	8*d*	^2D	3/2	10	
884 960.	0	8*d*	^2D	5/2	14	
895 594.	0	9*s*	^2S	1/2	10	
902 191.	1	9*p*	$^2P^o$	1/2	10	
902 635.	1	9*p*	$^2P^o$	3/2	14	
902 416.	1	8*f*	$^2F^o$	7/2	12	
902 419.	1	8*f*	$^2F^o$	5/2	12	
904 754.	0	8*g*	^2G	7/2	16	
904 755.	0	8*g*	^2G	9/2	16	
904 897.	0	8*i*	^2I	11/2	7	
904 897.	0	8*i*	^2I	13/2	7	
904 936.	1	8*k*	$^2K^o$	13/2	5	
904 936.	1	8*k*	$^2K^o$	15/2	5	
904 970.	1	8*h*	$^2H^o$	9/2	13	
904 970.	1	8*h*	$^2H^o$	11/2	13	
914 112.	0	9*d*	^2D	3/2	8	
914 193.	0	9*d*	^2D	5/2	15	
926 176.	1	9*f*	$^2F^o$	5/2	11	
926 179.	1	9*f*	$^2F^o$	7/2	15	
927 862.	0	9*g*	^2G	9/2	12	
927 863.	0	9*g*	^2G	7/2	12	
927 944.	1	9*k*	$^2K^o$	13/2	7	
927 944.	1	9*k*	$^2K^o$	15/2	7	
927 981.	0	9*l*	^2L	15/2	5	
927 981.	0	9*l*	^2L	17/2	5	
928 006.	1	9*h*	$^2H^o$	9/2	16	
928 007.	1	9*h*	$^2H^o$	11/2	16	
928 046.	0	9*i*	^2I	11/2	13	
928 046.	0	9*i*	^2I	13/2	13	
944 445.	1	10*k*	$^2K^o$	13/2	9	
944 445.	1	10*k*	$^2K^o$	15/2	11	
944 451.	0	10*l*	^2L	17/2	7	
944 451.	0	10*l*	^2L	15/2	7	
944 463.	1	10*m*	$^2M^o$	17/2	6	
944 463.	1	10*m*	$^2M^o$	19/2	6	

TABLE 22. Energy levels of Kr VIII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})	Leading percentages		
951 580	0	$3d^9(^2D)4p^2(^1D)$	^2S	1/2	40	61	16	$3d^9(^2D)4p^2(^1D)\ ^2P$
953 415	0	$3d^9(^2D)4p^2(^1D)$	^2P	3/2	40	66	12	$3d^9(^2D)4p^2(^3P)\ ^2P$
962 734	0	$3d^9(^2D)4p^2(^1D)$	^2P	1/2	50	61	9	$3d^9(^2D)4p^2(^1D)\ ^2S$
970 784	0	$3d^9(^2D)4p^2(^1D)$	^2D	3/2	60	49	19	$3d^9(^2D)4p^2(^3P)\ ^4P$
956 643.	0	$11l$	^2L	15/2	8			
956 643.	0	$11l$	^2L	17/2	9			
956 652.	1	$11m$	$^2M^o$	17/2	6			
956 652.	1	$11m$	$^2M^o$	19/2	8			
964 107	0	$3d^9(^2D)4p^2(^3P)$	^4F	3/2	50	70	24	$3d^9(^2D)4p^2(^3P)\ ^2D$
966 219	0	$3d^9(^2D)4p^2(^3P)$	^2D	3/2	50	50	22	$3d^9(^2D)4p^2(^3P)\ ^4F$
975 878	0	$3d^9(^2D)4p^2(^3P)$	^2D	5/2	50	56	30	$3d^9(^2D)4p^2(^1D)\ ^2D$
976 568	0	$3d^9(^2D)4p^2(^3P)$	^4P	3/2	50	58	16	$3d^9(^2D)4p^2(^1D)\ ^2D$
977 860	0	$3d^9(^2D)4p^2(^3P)$	^2P	1/2	40	70	13	$3d^9(^2D)4p^2(^3P)\ ^4P$
979 795	0	$3d^9(^2D)4p^2(^3P)$	^4P	1/2	60	77	20	$3d^9(^2D)4p^2(^3P)\ ^2P$
980 229	0	$3d^9(^2D)4p^2(^3P)$	^2P	3/2	40	77	8	$3d^9(^2D)4p^2(^1D)\ ^2P$
965 880.	0	$12n$	^2N	19/2	6			
965 880.	0	$12n$	^2N	21/2	7			
1 005 591	0	$3d^9(^2D)4p^2(^1S)$	^2D	5/2	60	91	3	$3d^9(^2D)4p^2(^1D)\ ^2D$
1 015 206	0	$3d^9(^2D)4p^2(^1S)$	^2D	3/2	40	92	3	$3d^9(^2D)4p^2(^1D)\ ^2D$

TABLE 23. Spectral lines of Kr VIII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
114.742	871.52	4	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^1S)$	^2D	3/2	0.008	91REA
115.248	867.69	5	$4s$	^2S	1/2	—	$8p$	$^2P^o$	3/2	0.008	91REA
116.047	861.72	1	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^1S)$	^2D	3/2	0.008	91REA
117.355	852.12	12	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^1S)$	^2D	5/2	0.008	91REA
118.178	846.18	350	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^1P^o)$	$^2P^o$	1/2	0.008	91REA
119.447	837.19	600	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^1P^o)$	$^2P^o$	3/2	0.008	91REA
119.538	836.55	3	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^3P)$	^2P	3/2	0.008	91REA
119.603	836.10	5	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^3P)$	^4P	1/2	0.008	91REA
119.880	834.17	20	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^3P)$	^2P	1/2	0.008	91REA
120.906	827.09	100	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^1D)$	^2D	3/2	0.008	91REA
120.958	826.73	100	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^3P)$	^2P	3/2	0.008	91REA
121.303	824.38	20 p	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^3P)$	^2P	1/2	0.008	91REA
121.493	823.09	35	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^3P)$	^4P	3/2	0.008	91REA
121.577	822.52	90	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^3P)$	^2D	3/2	0.008	91REA
121.595	822.40	250	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^3P)$	^2D	5/2	0.008	91REA
121.890	820.41	80	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^3P)$	^4F	3/2	0.008	91REA
122.914	813.58	50	$4s$	^2S	1/2	—	$7p$	$^2P^o$	3/2	0.008	91REA
123.076	812.51	35	$4s$	^2S	1/2	—	$7p$	$^2P^o$	1/2	0.008	91REA
123.495	809.75	30	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^1D)$	^2P	3/2	0.008	91REA
123.570	809.26	20	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^1D)$	^2P	1/2	0.008	91REA
123.776	807.91	50	$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4p^2(^1D)$	^2S	1/2	0.008	91REA
123.891	807.16	120	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^4D^o$	3/2	0.008	91REA
124.481	803.34	50	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^4D^o$	1/2	0.008	91REA
124.759	801.55	450	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^2P^o$	1/2	0.008	91REA
124.823	801.13	550	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^2P^o$	3/2	0.008	91REA

TABLE 23. Spectral lines of Kr VIII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
125.014	799.91	20	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^1D)$	^2P	3/2	0.008	91REA
125.301	798.08	10	$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4p^2(^1D)$	^2S	1/2	0.008	91REA
125.437	797.21	450	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^2D^o$	3/2	0.008	91REA
126.692	789.32	40	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^4P^o$	1/2	0.008	91REA
126.813	788.56	15	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^4F^o$	3/2	0.008	91REA
127.738	782.85	90	$4s$	^2S	1/2	—	$3d^9(^2D)4s4p(^3P^o)$	$^4P^o$	3/2	0.008	91REA
138.422	722.43	200	$4s$	^2S	1/2	—	$6p$	$^2P^o$	3/2	0.008	91REA
138.780	720.56	100	$4s$	^2S	1/2	—	$6p$	$^2P^o$	1/2	0.008	91REA
140.177	713.38	3	$4p$	$^2P^o$	1/2	—	$8s$	^2S	1/2	0.008	91REA
142.123	703.62	10	$4p$	$^2P^o$	3/2	—	$8s$	^2S	1/2	0.008	91REA
143.512	696.81	3	$4p$	$^2P^o$	1/2	—	$7d$	^2D	3/2	0.008	91REA
145.516	687.21	10	$4p$	$^2P^o$	3/2	—	$7d$	^2D	5/2	0.008	91REA
153.187	652.80	35	$4p$	$^2P^o$	1/2	—	$7s$	^2S	1/2	0.008	91REA
155.518	643.01	50	$4p$	$^2P^o$	3/2	—	$7s$	^2S	1/2	0.008	91REA
159.948	625.20	15	$4p$	$^2P^o$	1/2	—	$6d$	^2D	3/2	0.008	91REA
162.416	615.70	35	$4p$	$^2P^o$	3/2	—	$6d$	^2D	5/2	0.008	91REA
181.673	550.44	1000	$4s$	^2S	1/2	—	$5p$	$^2P^o$	3/2	0.008	91REA
182.222	548.78	70	$4p$	$^2P^o$	1/2	—	$6s$	^2S	1/2	0.008	91REA
182.922	546.68	600	$4s$	^2S	1/2	—	$5p$	$^2P^o$	1/2	0.008	91REA
185.525	539.01	130	$4p$	$^2P^o$	3/2	—	$6s$	^2S	1/2	0.008	91REA
190.97	523.64		$4p$	$^2P^o$	1/2	—	$3d^9(^2D)4s^2$	^2D	3/2	0.05	93HUT
194.65	513.74		$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4s^2$	^2D	3/2	0.05	93HUT
198.56	503.63		$4p$	$^2P^o$	3/2	—	$3d^9(^2D)4s^2$	^2D	5/2	0.05	93HUT
201.061	497.361	10 p	$4p$	$^2P^o$	1/2	—	$5d$	^2D	3/2	0.008	91REA
204.862	488.133	8	$4p$	$^2P^o$	3/2	—	$5d$	^2D	5/2	0.008	91REA
285.0	350.9		$4d$	^2D	3/2	—	$5f$	$^2F^o$	5/2	0.2	80LIV
286.2	349.4	*	$4d$	^2D	5/2	—	$5f$	$^2F^o$	7/2	0.2	80LIV
286.2	349.4	*	$4d$	^2D	5/2	—	$5f$	2F^o	5/2	0.2	80LIV
288.684	346.400	1000	$4p$	$^2P^o$	1/2	—	$5s$	^2S	1/2	0.008	91REA
297.077	336.613	2000	$4p$	$^2P^o$	3/2	—	$5s$	^2S	1/2	0.008	91REA
434.124	230.349	3500	$4p$	$^2P^o$	1/2	—	$4d$	^2D	3/2	0.008	91REA
450.649	221.902	5000	$4p$	$^2P^o$	3/2	—	$4d$	^2D	5/2	0.008	91REA
453.360	220.575	500	$4p$	$^2P^o$	3/2	—	$4d$	^2D	3/2	0.008	91REA
529.893	188.717	400	$4d$	^2D	3/2	—	$4f$	$^2F^o$	5/2	0.008	91REA
533.651	187.388	10 p	$4d$	^2D	5/2	—	$4f$	$^2F^o$	5/2	0.008	91REA
533.753	187.353	500	$4d$	^2D	5/2	—	$4f$	$^2F^o$	7/2	0.008	91REA
571.203	175.069	60	$4d$	^2D	5/2	—	$5p$	$^2P^o$	3/2	0.008	91REA
579.246	172.638	40	$4d$	^2D	3/2	—	$5p$	$^2P^o$	1/2	0.008	91REA
586.969	170.367	50	$4f$	$^2F^o$	7/2	—	$5g$	^2G	9/2	0.008	91REA
587.121	170.323	45	$4f$	$^2F^o$	5/2	—	$5g$	^2G	7/2	0.008	91REA
651.566	153.4764	4000	$4s$	^2S	1/2	—	$4p$	$^2P^o$	3/2	0.008	91REA
695.918	143.6951	2000	$4s$	^2S	1/2	—	$4p$	$^2P^o$	1/2	0.008	91REA
1059.41	94.3922	20	$5p$	$^2P^o$	1/2	—	$5d$	^2D	3/2	0.02	89GAL
1096.77	91.1768	11	$5p$	$^2P^o$	3/2	—	$5d$	^2D	5/2	0.02	89GAL
1157.60	86.3856	4*	$5g$	^2G	7/2	—	$6h$	$^2H^o$	9/2	0.02	89GAL
1157.60	86.3856	4*	$5g$	^2G	9/2	—	$6h$	$^2H^o$	11/2	0.02	89GAL
1157.60	86.3856	4*	$5g$	^2G	9/2	—	$6h$	$^2H^o$	9/2	0.02	89GAL
1191.59	83.9215	2	$5d$	^2D	3/2	—	$5f$	$^2F^o$	5/2	0.02	89GAL
1199.22	83.3875	8	$5d$	^2D	5/2	—	$5f$	$^2F^o$	7/2	0.02	89GAL
1267.68	78.8843	7	$4f$	$^2F^o$	7/2	—	$5d$	^2D	5/2	0.02	89GAL
1276.94	78.3122	6	$4f$	$^2F^o$	5/2	—	$5d$	^2D	3/2	0.02	89GAL
1656.78	60.3580	5	$5s$	^2S	1/2	—	$5p$	$^2P^o$	3/2	0.02	89GAL
1766.99	56.5934	4	$5s$	^2S	1/2	—	$5p$	$^2P^o$	1/2	0.02	89GAL
1916.7	52.173	*	$6g$	^2G	9/2	—	$7h$	$^2H^o$	11/2	0.2	94JAC

TABLE 23. Spectral lines of Kr VIII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
1916.7	52.173	*	6*g*	^{2}G	9/2	—	7*h*	^{2}H^o	9/2	0.2	94JAC
1916.7	52.173	*	6*g*	^{2}G	7/2	—	7*h*	^{2}H^o	9/2	0.2	94JAC
1929.10	51.8376	2*	6*h*	^{2}H^o	9/2	—	7*i*	^{2}I	11/2	0.02	89GAL
1929.10	51.8376	2*	6*h*	^{2}H^o	11/2	—	7*i*	^{2}I	13/2	0.02	89GAL
1929.10	51.8376	2*	6*h*	^{2}H^o	11/2	—	7*i*	^{2}I	11/2	0.02	89GAL
Observed air wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
2068.6	48.326		6*p*	^{2}P^o	1/2	—	6*d*	^{2}D	3/2	0.2	94JAC
2125.6	47.031		8*p*	^{2}P^o	1/2	—	9*d*	^{2}D	3/2	0.2	94JAC
2137.4	46.771		6*p*	^{2}P^o	3/2	—	6*d*	^{2}D	5/2	0.2	94JAC
2152.3	46.447	*	6*p*	^{2}P^o	3/2	—	6*d*	^{2}D	3/2	0.2	94JAC
2152.3	46.447	*	8*p*	^{2}P^o	3/2	—	9*d*	^{2}D	5/2	0.2	94JAC
2219.9	45.033	*	6*d*	^{2}D	3/2	—	6*f*	^{2}F^o	5/2	0.2	94JAC
2219.9	45.033	*	8*s*	^{2}S	1/2	—	9*p*	^{2}P^o	1/2	0.2	94JAC
2237.2	44.685		6*d*	^{2}D	5/2	—	6*f*	^{2}F^o	7/2	0.2	94JAC
2256.4	44.305		6*d*	^{2}D	5/2	—	7*p*	^{2}P^o	3/2	0.2	94JAC
2259.2	44.250		5*f*	^{2}F^o	5/2	—	6*d*	^{2}D	5/2	0.2	94JAC
2276.6	43.912		5*f*	^{2}F^o	5/2	—	6*d*	^{2}D	3/2	0.2	94JAC
2292.0	43.617		7*p*	^{2}P^o	3/2	—	8*s*	^{2}S	1/2	0.2	94JAC
2295.1	43.558		6*d*	^{2}D	3/2	—	7*p*	^{2}P^o	1/2	0.2	94JAC
2418.3	41.339		8*d*	^{2}D	3/2	—	9*f*	^{2}F^o	5/2	0.3	94JAC
2425.3	41.219	*	8*d*	^{2}D	5/2	—	9*f*	^{2}F^o	7/2	0.3	94JAC
2425.3	41.219	*	8*d*	^{2}D	5/2	—	9*f*	^{2}F^o	5/2	0.3	94JAC
2527.8	39.548	*	8*i*	^{2}I	13/2	—	10*k*	^{2}K^o	13/2	0.3	94JAC
2527.8	39.548	*	8*i*	^{2}I	11/2	—	10*k*	^{2}K^o	13/2	0.3	94JAC
2527.8	39.548	*	8*i*	^{2}I	13/2	—	10*k*	^{2}K^o	15/2	0.3	94JAC
2529.9	39.515	*	8*k*	^{2}K^o	13/2	—	10*l*	^{2}L	15/2	0.3	94JAC
2529.9	39.515	*	8*k*	^{2}K^o	15/2	—	10*l*	^{2}L	15/2	0.3	94JAC
2529.9	39.515	*	8*k*	^{2}K^o	15/2	—	10*l*	^{2}L	17/2	0.3	94JAC
2696.2	37.078		7*f*	^{2}F^o	7/2	—	8*g*	^{2}G	9/2	0.3	94JAC
2698.0	37.053		7*f*	^{2}F^o	5/2	—	8*g*	^{2}G	7/2	0.3	94JAC
2949.2	33.898	*	7*g*	^{2}G	9/2	—	8*h*	^{2}H^o	9/2	0.3	94JAC
2949.2	33.898	*	7*g*	^{2}G	9/2	—	8*h*	^{2}H^o	11/2	0.3	94JAC
2949.2	33.898	*	7*g*	^{2}G	7/2	—	8*h*	^{2}H^o	9/2	0.3	94JAC
2970.4	33.656	*	7*h*	^{2}H^o	9/2	—	8*i*	^{2}I	11/2	0.3	94JAC
2970.4	33.656	*	7*h*	^{2}H^o	11/2	—	8*i*	^{2}I	11/2	0.3	94JAC
2970.4	33.656	*	7*h*	^{2}H^o	11/2	—	8*i*	^{2}I	13/2	0.3	94JAC
2970.4	33.656	*	7*i*	^{2}I	11/2	—	8*h*	^{2}H^o	9/2	0.3	94JAC
2970.4	33.656	*	7*i*	^{2}I	11/2	—	8*h*	^{2}H^o	11/2	0.3	94JAC
2970.4	33.656	*	7*i*	^{2}I	13/2	—	8*h*	^{2}H^o	11/2	0.3	94JAC
2973.5	33.621	*	7*i*	^{2}I	11/2	—	8*k*	^{2}K^o	13/2	0.3	94JAC
2973.5	33.621	*	7*i*	^{2}I	13/2	—	8*k*	^{2}K^o	15/2	0.3	94JAC
2973.5	33.621	*	7*i*	^{2}I	13/2	—	8*k*	^{2}K^o	13/2	0.3	94JAC
3189.4	31.345	*	7*g*	^{2}G	7/2	—	8*f*	^{2}F^o	5/2	0.4	94JAC
3189.4	31.345	*	7*g*	^{2}G	9/2	—	8*f*	^{2}F^o	7/2	0.4	94JAC
3189.4	31.345	*	7*g*	^{2}G	7/2	—	8*f*	^{2}F^o	7/2	0.4	94JAC
3337.8	29.951		6*s*	^{2}S	1/2	—	6*p*	^{2}P^o	3/2	0.4	94JAC
3483.5	28.699	*	9*k*	^{2}K^o	15/2	—	11*l*	^{2}L	17/2	0.4	94JAC
3483.5	28.699	*	9*k*	^{2}K^o	15/2	—	11*l*	^{2}L	15/2	0.4	94JAC
3483.5	28.699	*	9*k*	^{2}K^o	13/2	—	11*l*	^{2}L	15/2	0.4	94JAC
3486.9	28.671	*	9*l*	^{2}L	17/2	—	11*m*	^{2}M^o	19/2	0.4	94JAC

TABLE 23. Spectral lines of Kr VIII—Continued

Observed air wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
3486.9	28.671	*	9*l*	^{2}L	15/2	—	11*m*	^{2}M^o	17/2	0.4	94JAC
3486.9	28.671	*	9*l*	^{2}L	17/2	—	11*m*	^{2}M^o	17/2	0.4	94JAC
3506.2	28.513		8*p*	^{2}P^o	1/2	—	9*s*	^{2}S	1/2	0.4	94JAC
3559.6	28.085		7*p*	^{2}P^o	1/2	—	7*d*	^{2}D	3/2	0.4	94JAC
3560.7	28.076		6*s*	^{2}S	1/2	—	6*p*	^{2}P^o	1/2	0.4	94JAC
3589.8	27.849		8*p*	^{2}P^o	3/2	—	9*s*	^{2}S	1/2	0.4	94JAC
3675.3	27.201		7*p*	^{2}P^o	3/2	—	7*d*	^{2}D	5/2	0.4	94JAC
3677.8	27.182		7*d*	^{2}D	3/2	—	8*p*	^{2}P^o	3/2	0.4	94JAC
3684.1	27.136		7*d*	^{2}D	3/2	—	7*f*	^{2}F^o	5/2	0.4	94JAC
3700.7	27.014		7*p*	^{2}P^o	3/2	—	7*d*	^{2}D	3/2	0.4	94JAC
3702.9	26.998		7*d*	^{2}D	5/2	—	8*p*	^{2}P^o	3/2	0.4	94JAC
3710.5	26.943		7*d*	^{2}D	5/2	—	7*f*	^{2}F^o	5/2	0.4	94JAC
3712.7	26.927		7*d*	^{2}D	5/2	—	7*f*	^{2}F^o	7/2	0.4	94JAC
3727.4	26.821		6*f*	^{2}F^o	7/2	—	7*d*	^{2}D	5/2	0.4	94JAC
3759.0	26.595		6*f*	^{2}F^o	5/2	—	7*d*	^{2}D	3/2	0.4	94JAC
3770.2	26.516		7*d*	^{2}D	3/2	—	8*p*	^{2}P^o	1/2	0.4	94JAC
3928.8	25.446	*	8*f*	^{2}F^o	7/2	—	9*g*	^{2}G	7/2	0.4	94JAC
3928.8	25.446	*	8*f*	^{2}F^o	7/2	—	9*g*	^{2}G	9/2	0.4	94JAC
3928.8	25.446	*	8*f*	^{2}F^o	5/2	—	9*g*	^{2}G	7/2	0.4	94JAC
4299.5	23.252	*	8*g*	^{2}G	7/2	—	9*h*	^{2}H^o	9/2	0.4	94JAC
4299.5	23.252	*	8*g*	^{2}G	9/2	—	9*h*	^{2}H^o	11/2	0.4	94JAC
4299.5	23.252	*	8*g*	^{2}G	9/2	—	9*h*	^{2}H^o	9/2	0.4	94JAC
4332.2	23.076	*	8*h*	^{2}H^o	11/2	—	9*i*	^{2}I	11/2	0.4	94JAC
4332.2	23.076	*	8*h*	^{2}H^o	9/2	—	9*i*	^{2}I	11/2	0.4	94JAC
4332.2	23.076	*	8*h*	^{2}H^o	11/2	—	9*i*	^{2}I	13/2	0.4	94JAC
4337.7	23.0472	*	8*i*	^{2}I	13/2	—	9*k*	^{2}K^o	13/2	0.1	94JAC
4337.7	23.0472	*	8*i*	^{2}I	11/2	—	9*k*	^{2}K^o	13/2	0.1	94JAC
4337.7	23.0472	*	8*i*	^{2}I	13/2	—	9*k*	^{2}K^o	15/2	0.1	94JAC
4338.1	23.0451	*	8*k*	^{2}K^o	15/2	—	9*l*	^{2}L	17/2	0.1	94JAC
4338.1	23.0451	*	8*k*	^{2}K^o	13/2	—	9*l*	^{2}L	15/2	0.1	94JAC
4338.1	23.0451	*	8*k*	^{2}K^o	15/2	—	9*l*	^{2}L	15/2	0.1	94JAC
4667.9	21.4169	*	10*m*	^{2}M^o	19/2	—	12*n*	^{2}N	21/2	0.4	94JAC
4667.9	21.4169	*	10*m*	^{2}M^o	17/2	—	12*n*	^{2}N	19/2	0.4	94JAC
4667.9	21.4169	*	10*m*	^{2}M^o	19/2	—	12*n*	^{2}N	19/2	0.4	94JAC
5630.5	17.7555		8*p*	^{2}P^o	1/2	—	8*d*	^{2}D	3/2	0.4	98JAC
5656.0	17.6754		8*d*	^{2}D	5/2	—	9*p*	^{2}P^o	3/2	0.4	98JAC
5686.3	17.5812		8*d*	^{2}D	3/2	—	8*f*	^{2}F^o	5/2	0.4	98JAC
5727.1	17.4560		8*d*	^{2}D	5/2	—	8*f*	^{2}F^o	7/2	0.4	98JAC
5761.0	17.3533		8*d*	^{2}D	3/2	—	9*p*	^{2}P^o	1/2	0.4	98JAC
5784.9	17.2816		7*f*	^{2}F^o	7/2	—	8*d*	^{2}D	5/2	0.4	98JAC
5807.7	17.2137		8*p*	^{2}P^o	3/2	—	8*d*	^{2}D	5/2	0.4	98JAC
5832.0	17.1420		7*f*	^{2}F^o	5/2	—	8*d*	^{2}D	3/2	0.4	98JAC
5848.8	17.0928		8*p*	^{2}P^o	3/2	—	8*d*	^{2}D	3/2	0.4	98JAC
6056.3	16.507	*	9*k*	^{2}K^o	15/2	—	10*l*	^{2}L	15/2	0.8	94JAC
6056.3	16.507	*	9*k*	^{2}K^o	13/2	—	10*l*	^{2}L	15/2	0.8	94JAC
6056.3	16.507	*	9*k*	^{2}K^o	15/2	—	10*l*	^{2}L	17/2	0.8	94JAC
6065.8	16.481	*	9*l*	^{2}L	17/2	—	10*m*	^{2}M^o	19/2	0.8	94JAC
6065.8	16.481	*	9*l*	^{2}L	15/2	—	10*m*	^{2}M^o	17/2	0.8	94JAC
6065.8	16.481	*	9*l*	^{2}L	17/2	—	10*m*	^{2}M^o	17/2	0.8	94JAC

4.9. Kr IX

Ni isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^{10}\ ^1S_0$

Ionization energy 1 867 000±20 000 cm^{-1} (231.5±2.5 eV)

The energy levels of eight times ionized krypton, Kr IX, Ni-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Reader *et al.* [91REA]. The uncertainties of the energy levels range from 36 to 88 cm^{-1}. Compilations of Kr IX lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Reader *et al.* [91REA].

For this compilation we have added to the above the semi-empirical energy levels obtained by Wyart and Ryabtsev [86WYA] by extrapolation of generalized least squares parameters along the Ni isoelectronic sequence. An estimate of the uncertainty of these values is roughly 200 cm^{-1}. We have also added values calculated from lines quoted by Kim [68KIM] for the $3d^95f$ and $3d^96f$ levels. These levels have uncertainties of about 20 000 cm^{-1}. In addition, lines reported by Druetta *et al.* [88DRU], Kim [68KIM] and Chen *et al.* [02CHE] are included.

In the energy level table the levels are designated using either LS or pair coupling. We include the leading percentages obtained by Reader *et al.* [91REA].

We note that in the Kr IX spectral line table the first observed wave number has no decimal point. This is to indicate the uncertainty associated with the value is a bit over 20 000 cm^{-1}.

Chen *et al.* [02CHE] classified one Kr IX resonance line. They used an EBIT as their radiation source. Their estimated wavelength uncertainty is 0.2 Å for this line.

Reader *et al.* [91REA] classified six Kr IX resonance lines. They used a low-inductance vacuum spark source triggered by injecting a puff of krypton gas into the spark gap. They estimate a 0.005 Å wavelength uncertainty.

Druetta *et al.* [88DRU] classified eight Kr IX lines. Their radiation source was a 90 keV Kr^{9+} beam from an ECR ion source colliding with hydrogen gas. They report uncertainties of 0.5–1 Å.

Kim [68KIM] reported five resonance lines. He used a hollow cathode capillary tube as his source. He does not report any uncertainties; however we estimate them as about 0.8 Å.

Work with greater wavelength uncertainty for specific lines was carried out by Fawcett and Gabriel [64FAW] and Wang *et al.* [03WAN]. All classifiable lines from these references were superseded by those from the above.

The priority for selection of duplicate lines was first [91REA], then [02CHE], [88DRU] and finally [68KIM].

Sebban, Mocek, *et al.* [02SEB], [04MOC] report soft x-ray lasing in Kr IX at 328 Å. They attribute the lasing to the transition $3d^94p\ ^1P^o{}_1-3d^94d\ ^1S_0\ (3d^9(^2D_{3/2})4d^2[1/2]_0$ in the $J_l l$ coupling notation [86WYA]).

Transition probability calculations using the Cowan codes [81COW] were used to help resolve choices between multiple possible classifications of lines. All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr IX levels. Only classifiable lines are included in our compilation. The intensity code given in the Kr IX line table has the meaning stated below:

Symbol	Definition
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated from a fit of three lines quoted by Kim [68KIM] for transitions between the ground state and the $3d^94f$, $3d^95f$ and $3d^96f$ levels. (We wanted to use lines from a single source in this calculation.) This value is in good agreement (0.2%) with an interpolation over known ionization energies for the Ni isoelectronic sequence. The value used here disagrees by a small amount, though well within our uncertainty, with the value (230.85 eV) quoted by Kim [68KIM], with no estimate of the uncertainty.

4.9.1. References

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TABLE 24. Energy levels of Kr IX

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	0	$3d^{10}$	^{1}S	0				91REA
[690 437]	0	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	3				86WYA
[693 422]	0	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	2				86WYA
[700 749]	0	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	1				86WYA
[704 584]	0	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	2				86WYA
[838 759]	1	$3d^9(^2D_{5/2})4p$	$^2[3/2]^o$	2				86WYA
[844 255]	1	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	3				86WYA
849 553	1	$3d^9(^2D_{3/2})4p$	$^2[1/2]^o$	1				91REA
[852 008]	1	$3d^9(^2D_{3/2})4p$	$^2[5/2]^o$	2				86WYA
[852 311]	1	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	4				86WYA
[856 140]	1	$3d^9(^2D_{3/2})4p$	$^2[1/2]^o$	0				86WYA
[860 273]	1	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	2				86WYA
[861 782]	1	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	3				86WYA
864 020	1	$3d^9(^2D_{5/2})4p$	$^2[3/2]^o$	1				91REA
[866 442]	1	$3d^9(^2D_{3/2})4p$	$^2[5/2]^o$	3				86WYA
869 959	1	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	1				91REA
[871 947]	1	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	2				86WYA
[1 081 246]	0	$3d^9(^2D_{5/2})4d$	$^2[1/2]$	1				86WYA
[1 093 033]	0	$3d^9(^2D_{5/2})4d$	$^2[9/2]$	4				86WYA
[1 093 152]	0	$3d^9(^2D_{5/2})4d$	$^2[9/2]$	5				86WYA
[1 093 778]	0	$3d^9(^2D_{5/2})4d$	$^2[3/2]$	2				86WYA
[1 093 864]	0	$3d^9(^2D_{5/2})4d$	$^2[3/2]$	1				86WYA
[1 096 690]	0	$3d^9(^2D_{5/2})4d$	$^2[5/2]$	3				86WYA
[1 098 421]	0	$3d^9(^2D_{5/2})4d$	$^2[7/2]$	3				86WYA
[1 098 968]	0	$3d^9(^2D_{5/2})4d$	$^2[1/2]$	0				86WYA
[1 099 903]	0	$3d^9(^2D_{5/2})4d$	$^2[5/2]$	2				86WYA
[1 100 439]	0	$3d^9(^2D_{5/2})4d$	$^2[7/2]$	4				86WYA
[1 101 083]	0	$3d^9(^2D_{3/2})4d$	$^2[1/2]$	1				86WYA
[1 104 304]	0	$3d^9(^2D_{3/2})4d$	$^2[7/2]$	3				86WYA
[1 105 020]	0	$3d^9(^2D_{3/2})4d$	$^2[3/2]$	1				86WYA
[1 106 607]	0	$3d^9(^2D_{3/2})4d$	$^2[7/2]$	4				86WYA
[1 109 305]	0	$3d^9(^2D_{3/2})4d$	$^2[3/2]$	2				86WYA
[1 111 320]	0	$3d^9(^2D_{3/2})4d$	$^2[5/2]$	2				86WYA
[1 111 363]	0	$3d^9(^2D_{3/2})4d$	$^2[5/2]$	3				86WYA
[1 184 400]	0	$3d^9(^2D_{3/2})4d$	$^2[1/2]$	0				86WYA
1 302 270	1	$3d^94f$	^{3}P^o	1	92	8	$3d^94f$ ^{3}D^o	91REA
1 310 680	1	$3d^94f$	^{3}D^o	1	87	7	$3d^94f$ ^{3}P^o	91REA
1 325 290	1	$3d^94f$	^{1}P^o	1	93	5	$3d^94f$ ^{3}D^o	91REA
1 493 000	1	$3d^95f$	o	1				68KIM
1 608 000	1	$3d^96f$	o	1				68KIM

TABLE 25. Spectral lines of Kr IX

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
62.2	1608		$3d^{10}$	^{1}S	0	—	$3d^96f$	o	1	0.8	68KIM
66.1	1513.		$3d^{10}$	^{1}S	0	—	$3d^95f$	o	1	0.2	02CHE
75.455	1325.29	40	$3d^{10}$	^{1}S	0	—	$3d^94f$	^{1}P^o	1	0.005	91REA
76.296	1310.68	20	$3d^{10}$	^{1}S	0	—	$3d^94f$	^{3}D^o	1	0.005	91REA
76.789	1302.27	5	$3d^{10}$	^{1}S	0	—	$3d^94f$	^{3}P^o	1	0.005	91REA

TABLE 25. Spectral lines of Kr IX—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
114.948	869.96	400	$3d^{10}$	^{1}S	0	—	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	1	0.005	91REA
115.738	864.02	1000	$3d^{10}$	^{1}S	0	—	$3d^9(^2D_{5/2})4p$	$^2[3/2]^o$	1	0.005	91REA
117.709	849.55	30	$3d^{10}$	^{1}S	0	—	$3d^9(^2D_{3/2})4p$	$^2[1/2]^o$	1	0.005	91REA
402.6	248.4	250*	$3d^9(^2D_{3/2})4p$	$^2[1/2]^o$	0	—	$3d^9(^2D_{3/2})4d$	$^2[3/2]$	1	0.5	88DRU
402.6	248.4	250*	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	3	—	$3d^9(^2D_{5/2})4d$	$^2[9/2]$	4	0.5	88DRU
402.6	248.4	250*	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	4	—	$3d^9(^2D_{5/2})4d$	$^2[7/2]$	4	0.5	88DRU
418.2	239.1	600*	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	2	—	$3d^9(^2D_{5/2})4d$	$^2[5/2]$	2	0.5	88DRU
418.2	239.1	600*	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	2	—	$3d^9(^2D_{3/2})4d$	$^2[5/2]$	3	0.5	88DRU
418.2	239.1	600*	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	2	—	$3d^9(^2D_{3/2})4d$	$^2[5/2]$	2	0.5	88DRU
418.2	239.1	600*	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	1	—	$3d^9(^2D_{3/2})4d$	$^2[3/2]$	2	0.5	88DRU
418.2	239.1	600*	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	3	—	$3d^9(^2D_{5/2})4d$	$^2[7/2]$	4	0.5	88DRU
585.0	170.9	300*	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	3	—	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	3	1.	88DRU
585.0	170.9	300*	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	1	—	$3d^9(^2D_{3/2})4p$	$^2[3/2]^o$	2	1.	88DRU
600.0	166.7	400	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	2	—	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	2	1.	88DRU
618.9	161.58	1000*	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	3	—	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	4	0.5	88DRU
618.9	161.58	1000*	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	2	—	$3d^9(^2D_{3/2})4p$	$^2[5/2]^o$	3	0.5	88DRU
641.4	155.91	100*	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	2	—	$3d^9(^2D_{3/2})4p$	$^2[1/2]^o$	1	0.5	88DRU
641.4	155.91	100*	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	2	—	$3d^9(^2D_{5/2})4p$	$^2[5/2]^o$	2	0.5	88DRU
662.1	151.03	500*	$3d^9(^2D_{3/2})4s$	$^2[3/2]$	1	—	$3d^9(^2D_{3/2})4p$	$^2[5/2]^o$	2	0.5	88DRU
662.1	151.03	500*	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	2	—	$3d^9(^2D_{5/2})4p$	$^2[7/2]^o$	3	0.5	88DRU
674.5	148.26	300	$3d^9(^2D_{5/2})4s$	$^2[5/2]$	3	—	$3d^9(^2D_{5/2})4p$	$^2[3/2]^o$	2	0.5	88DRU

4.10. Kr X

Co isoelectronic sequence.

Ground State $1s^22s^22p^63s^23p^63d^9\ ^2D_{5/2}$

Ionization energy 2 163 000±22 000 cm^{-1} (268.2±3 eV).

The energy levels of nine times ionized krypton, Kr X, Co-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Reader *et al.* [85REA]. The uncertainty of the energy levels is 50 cm^{-1}. Compilations of Kr X lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Reader *et al.* [85REA]. We use the level designations of Sugar and Musgrove [91SUG].

In the energy level table the levels are designated using LS coupling. We include the leading percentages obtained by Reader *et al.* [85REA].

Reader *et al.* [85REA] classified 46 Kr X lines. They used a low-inductance vacuum spark source triggered by injecting a puff of krypton gas into the spark gap. They estimate a 0.005 Å wavelength uncertainty.

Other work with greater wavelength uncertainty for specific lines was carried out by Fawcett and Gabriel [64FAW] and Wang *et al.* [03WAN]. All lines from these references were superseded by those from the above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr X levels. Only classifiable lines are included in our compilation.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of three Kr X lines (with estimated wavelength uncertainty of 0.3 Å): 57.6 Å as $3d-5f$; 66.9 Å and 67.1 Å as $3d-4f$. We have not included these lines in the Kr X spectral line table. Two visible Kr X lines (4371±5 and 5328±18 Å) were reported [01CHE] but cannot be reliably related to energy levels due to their large wavelength uncertainty.

The intensity codes given in the Kr X line table have the meaning stated below:

Symbol	Definition
u	unresolved from close line
w	wide
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

TABLE 26. Energy levels of Kr X

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	0	$3p^63d^9$	^2D	5/2				85REA
10 367	0	$3p^63d^9$	^2D	3/2				85REA
965 513	1	$3p^63d^8(^3F)4p$	$^4D^o$	3/2	42	27	$3p^53d^{10}$ $^2P^o$	85REA
966 252	1	$3p^63d^8(^3F)4p$	$^4G^o$	5/2	75	8	$3p^63d^8(^3F)4p$ $^4F^o$	85REA
968 510	1	$3p^53d^{10}$	$^2P^o$	3/2	54	31	$3p^63d^8(^3F)4p$ $^4D^o$	85REA
1 044 605	1	$3p^53d^{10}$	$^2P^o$	1/2	68	16	$3p^63d^8(^1D)4p$ $^2P^o$	85REA
971 691	1	$3p^63d^8(^3F)4p$	$^2D^o$	3/2	25	29	$3p^63d^8(^3F)4p$ $^4F^o$	85REA
972 410	1	$3p^63d^8(^3F)4p$	$^2F^o$	7/2	46	34	$3p^63d^8(^3F)4p$ $^4F^o$	85REA
973 832	1	$3p^63d^8(^3F)4p$	$^2D^o$	5/2	46	26	$3p^63d^8(^3F)4p$ $^4F^o$	85REA
978 945	1	$3p^63d^8(^3F)4p$	$^4F^o$	5/2	34	26	$3p^63d^8(^3F)4p$ $^2D^o$	85REA
980 534	1	$3p^63d^8(^3F)4p$	$^4F^o$	7/2	41	44	$3p^63d^8(^3F)4p$ $^2F^o$	85REA
983 099	1	$3p^63d^8(^3F)4p$	$^2G^o$	7/2	72	15	$3p^63d^8(^3F)4p$ $^4G^o$	85REA
983 596	1	$3p^63d^8(^3F)4p$	$^4F^o$	3/2	42	24	$3p^63d^8(^3P)4p$ $^4P^o$	85REA
986 513	1	$3p^63d^8(^3F)4p$	$^2F^o$	5/2	31	21	$3p^63d^8(^3F)4p$ $^2D^o$	85REA
987 902	1	$3p^63d^8(^3P)4p$	$^4P^o$	3/2	43	38	$3p^63d^8(^3F)4p$ $^2D^o$	85REA
988 265	1	$3p^63d^8(^3P)4p$	$^4P^o$	5/2	26	32	$3p^63d^8(^3F)4p$ $^2F^o$	85REA
993 739	1	$3p^63d^8(^1D)4p$	$^2F^o$	5/2	49	39	$3p^63d^8(^3P)4p$ $^4P^o$	85REA
998 883	1	$3p^63d^8(^1D)4p$	$^2D^o$	3/2	36	22	$3p^63d^8(^3F)4p$ $^2D^o$	85REA
999 248	1	$3p^63d^8(^1D)4p$	$^2F^o$	7/2	49	24	$3p^63d^8(^1G)4p$ $^2F^o$	85REA
999 829	1	$3p^63d^8(^1D)4p$	$^2P^o$	1/2	55	23	$3p^63d^8(^3P)4p$ $^2P^o$	85REA
1 001 691	1	$3p^63d^8(^1D)4p$	$^2D^o$	5/2	50	25	$3p^63d^8(^3P)4p$ $^2D^o$	85REA
1 003 790	1	$3p^63d^8(^3P)4p$	$^4D^o$	3/2	51	12	$3p^63d^8(^3F)4p$ $^4D^o$	85REA
1 003 879	1	$3p^63d^8(^3P)4p$	$^4D^o$	1/2	71	12	$3p^63d^8(^3F)4p$ $^4D^o$	85REA
1 007 410	1	$3p^63d^8(^3P)4p$	$^4D^o$	5/2	32	18	$3p^63d^8(^1D)4p$ $^2D^o$	85REA
1 007 600	1	$3p^63d^8(^1G)4p$	$^2F^o$	7/2	43	50	$3p^63d^8(^3P)4p$ $^4D^o$	85REA
1 007 768	1	$3p^63d^8(^1D)4p$	$^2P^o$	3/2	43	24	$3p^63d^8(^1D)4p$ $^2D^o$	85REA
1 013 897	1	$3p^63d^8(^3P)4p$	$^2P^o$	1/2	53	20	$3p^53d^{10}$ $^2P^o$	85REA
1 015 092	1	$3p^63d^8(^3P)4p$	$^2P^o$	3/2	54	24	$3p^63d^8(^3P)4p$ $^2D^o$	85REA
1 015 092	1	$3p^63d^8(^3P)4p$	$^2D^o$	5/2	52	35	$3p^63d^8(^3P)4p$ $^4D^o$	85REA
1 016 153	1	$3p^63d^8(^3P)4p$	$^4D^o$	7/2	28	40	$3p^63d^8(^1D)4p$ $^2F^o$	85REA
1 018 468	1	$3p^63d^8(^3P)4p$	$^2D^o$	3/2	63	13	$3p^63d^8(^3P)4p$ $^4D^o$	85REA
1 020 095	1	$3p^63d^8(^1G)4p$	$^2F^o$	5/2	73	10	$3p^63d^8(^1D)4p$ $^2F^o$	85REA
1 021 383	1	$3p^63d^8(^3P)4p$	$^2S^o$	1/2	91	3	$3p^53d^{10}$ $^2P^o$	85REA
1 030 797	1	$3p^63d^8(^1G)4p$	$^2G^o$	7/2	92	8	$3p^63d^8(^1G)4p$ $^2F^o$	85REA
1 089 708	1	$3p^63d^8(^1S)4p$	$^2P^o$	3/2	96	1	$3p^63d^8(^1D)4p$ $^2P^o$	85REA

TABLE 27. Spectral Lines of Kr X

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
91.768	1089.70	50	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^1S)4p$	$^2P^o$	3/2	0.005	85REA
96.690	1034.23	200	$3p^63d^9$	^2D	3/2	—	$3p^53d^{10}$	$^2P^o$	1/2	0.005	85REA
97.012	1030.80	100	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^1G)4p$	$^2G^o$	7/2	0.005	85REA
98.187	1018.46	150	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^3P)4p$	$^2D^o$	3/2	0.005	85REA
98.410	1016.16	1200	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^3P)4p$	$^4D^o$	7/2	0.005	85REA
98.513	1015.09	250*	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^3P)4p$	$^2P^o$	3/2	0.005	85REA
98.513	1015.09	250*	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^3P)4p$	$^2D^o$	5/2	0.005	85REA
98.910	1011.02	75	$3p^63d^9$	^2D	3/2	—	$3p^63d^8(^3P)4p$	$^2S^o$	1/2	0.005	85REA
99.037	1009.72	6000	$3p^63d^9$	^2D	3/2	—	$3p^63d^8(^1G)4p$	$^2F^o$	5/2	0.005	85REA
99.196	1008.11	5	$3p^63d^9$	^2D	3/2	—	$3p^63d^8(^3P)4p$	$^2D^o$	3/2	0.005	85REA
99.246	1007.60	8000	$3p^63d^9$	^2D	5/2	—	$3p^63d^8(^1G)4p$	$^2F^o$	7/2	0.005	85REA

TABLE 27. Spectral Lines of Kr X—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
99.262	1007.43	2000 wu	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$P$)4p$	^{4}D^o	5/2	0.005	85REA
99.530	1004.72	1000*	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{2}D^o	5/2	0.005	85REA
99.530	1004.72	1000*	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{2}P^o	3/2	0.005	85REA
99.648	1003.53	1200	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{2}P^o	1/2	0.005	85REA
99.831	1001.69	3000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^1$D$)4p$	^{2}D^o	5/2	0.005	85REA
100.075	999.25	4000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^1$D$)4p$	^{2}F^o	7/2	0.005	85REA
100.111	998.89	125	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^1$D$)4p$	^{2}D^o	3/2	0.005	85REA
100.261	997.40	150	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^1$D$)4p$	^{2}P^o	3/2	0.005	85REA
100.297	997.04	100	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{4}D^o	5/2	0.005	85REA
100.653	993.51	150	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{4}D^o	1/2	0.005	85REA
100.662	993.42	100	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{4}D^o	3/2	0.005	85REA
100.876	991.32	100	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^1$D$)4p$	^{2}D^o	5/2	0.005	85REA
101.065	989.46	5	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^1$D$)4p$	^{2}P^o	1/2	0.005	85REA
101.162	988.51	1500	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^1$D$)4p$	^{2}D^o	3/2	0.005	85REA
101.181	988.33	30 u	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$P$)4p$	^{4}P^o	5/2	0.005	85REA
101.224	987.91	100	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$P$)4p$	^{4}P^o	3/2	0.005	85REA
101.367	986.51	10 000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{2}F^o	5/2	0.005	85REA
101.668	983.59	200	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{4}F^o	3/2	0.005	85REA
101.691	983.37	300	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^1$D$)4p$	^{2}F^o	5/2	0.005	85REA
101.719	983.10	250	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{2}G^o	7/2	0.005	85REA
101.985	980.54	5000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{4}F^o	7/2	0.005	85REA
102.151	978.94	1500	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{4}F^o	5/2	0.005	85REA
102.260	977.90	1500	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{4}P^o	5/2	0.005	85REA
102.299	977.53	1500	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$P$)4p$	^{4}P^o	3/2	0.005	85REA
102.687	973.83	10 000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{2}D^o	5/2	0.005	85REA
102.750	973.24	200	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$F$)4p$	^{4}F^o	3/2	0.005	85REA
102.837	972.41	8000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{2}F^o	7/2	0.005	85REA
102.914	971.69	300	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{2}D^o	3/2	0.005	85REA
103.251	968.51	20 000	$3p^63d^9$	^{2}D	5/2	—	$3p^53d^{10}$	^{2}P^o	3/2	0.005	85REA
103.493	966.25	100	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{4}G^o	5/2	0.005	85REA
103.572	965.51	10 000	$3p^63d^9$	^{2}D	5/2	—	$3p^63d^8(^3$F$)4p$	^{4}D^o	3/2	0.005	85REA
103.796	963.43	50	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$F$)4p$	^{2}D^o	5/2	0.005	85REA
104.023	961.33	1000	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$F$)4p$	^{2}D^o	3/2	0.005	85REA
104.369	958.14	75	$3p^63d^9$	^{2}D	3/2	—	$3p^53d^{10}$	^{2}P^o	3/2	0.005	85REA
104.618	955.86	25	$3p^63d^9$	^{2}D	3/2	—	$3p^63d^8(^3$F$)4p$	^{4}G^o	5/2	0.005	85REA

4.10.1. References

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81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

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91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

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4.11. Kr XI

Fe isolelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^8\ ^3F_4$

Ionization energy 2 486 000±25 000 cm^{-1} (308.2±3 eV) [91SUG]

The ground state of Kr XI was determined by means of a calculation using the Cowan codes [81COW].

Bleach [80BLE], using a relativistic electron beam incident on a preionized puff of Kr gas, reported two unresolved transition arrays due to Kr XI. He attributed the one with a center of gravity at 89.0 Å to $3d-4p$ transitions and the one at 53.5 Å to $3p-4s$ transitions. His wavelength uncertainty was 0.5 Å.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of three Kr XI lines (with estimated wavelength uncertainty of 0.3 Å): 60.0 Å as a $3d-4f$ transition; 50.4 Å and approximately 52.0 Å as $3d-5f$ transitions. Wang *et al.* [03WAN] irradiated small-sized Kr clusters with 150 fs laser pulses and reported lines at 53.5 Å and 89.4 Å We estimate their uncertainty at about 0.2 Å.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.11.1. References

80BLE = R. D. Bleach, J. Opt. Soc. Am. **70**, 861 (1980).
81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
02CHE = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).
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4.12. Kr XII

Mn isoelectronic sequence
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^7\ ^4F_{9/2}$
Ionization energy 2 824 000±28 000 cm^{-1}
(350.1±3 eV) [91SUG]

The ground state of Kr XII was determined by means of a calculation using the Cowan codes [81COW].

Bleach [80BLE], using a relativistic electron beam incident on a preionized puff of Kr gas, reported two unresolved transition arrays due to Kr XII. He attributed the one with a center of gravity at 79.0 Å to $3d-4p$ transitions and the one at 49.5 Å to $3p-4s$ transitions. His wavelength uncertainty was 0.5 Å.

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XII they reported two lines with 1 Å uncertainty, 3644.9 Å attributed to $10m-11n$ transitions, and 4794.8 Å attributed to $11n-12o$ transitions and noted as a blend.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of two Kr XII lines (with estimated wavelength uncertainty of 0.2 Å): 54.1 Å as a $3d-4f$ transition; and approximately 44.3 Å as a $3d-5f$ transition. Two visible Kr XII lines (5204.3±9.8 Å and 4469.6 Å with no uncertainty specified) were reported [01CHE] but cannot be reliably related to energy levels due to their large wavelength uncertainty.

Crespo López-Urrutia [02CRE], using an EBIT reported two forbidden Kr XII intraconfiguration lines. One at 4478±4 Å with an intensity of 8 was suggested as the transition $3d^7\ ^2H_{9/2}-^2G_{9/2}$ and the other at 5527±10 Å with an intensity of 2 was suggested as the transition $3d^7\ ^2D_{3/2}-^2P_{3/2}$.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.12.1. References

80BLE = R. D. Bleach, J. Opt. Soc. Am. **70**, 861 (1980).
81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).
90MAR = S. Martin, A. Denis, Y. Ouerdane, A. Salmoun, A. El Motassedeq, J. Désesquelles, M. Druetta, D. Church, and T. Lamy, Phys. Rev. Lett. **64**, 2633 (1990).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
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4.13. Kr XIII

Cr isoelectronic sequence
Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^6\ ^5D_4$
Ionization energy 3 153 000±32 000 cm^{-1}
(390.9±4 eV) [91SUG]

The ground state of Kr XIII was determined by means of a calculation using the Cowan codes [81COW].

Bleach [80BLE], using a relativistic electron beam incident on a preionized puff of Kr gas, reported two unresolved transition arrays due to Kr XIII. He attributed the one with a center of gravity at 71.0 Å to $3d-4p$ transitions and the one at 45.5 Å to $3p-4s$ transitions. His wavelength uncertainty was 0.5 Å.

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XIII they reported two lines with 0.5 Å uncertainty, 3106.5 Å attributed to $10m-11n$ transitions, and 4084.7 Å attributed to $11n-12o$ transitions.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of three Kr XIII lines (with estimated wavelength uncertainty of 0.2 Å): 49.5 and 48.8 Å as $3d-4f$ transitions; and approximately 40.7 Å as a $3d-5f$ transition. A visible Kr XIII line at 5151±11.5 Å was reported [01CHE] but cannot be reliably related to energy levels due to its large wavelength uncertainty.

Crespo López-Urrutia [02CRE], using an EBIT reported a forbidden Kr XIII intraconfiguration line at 4380±4 Å with an intensity of 6 and suggested that it was the transition $3d^6\ {}^3G_3-{}^3H_4$

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.13.1. References

80BLE = R. D. Bleach, J. Opt. Soc. Am. **70**, 861 (1980).

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

90MAR = S. Martin, A. Denis, Y. Ouerdane, A. Salmoun, A. El Motassedeq, J. Désesquelles, M. Druetta, D. Church, and T. Lamy, Phys. Rev. Lett. **64**, 2633 (1990).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

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4.14. Kr XIV

V isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5\ {}^6S_{5/2}$

Ionization energy 3 602 000±36 000 cm^{-1} (446.6±4 eV) [91SUG]

The ground state of Kr XIV was determined by means of a calculation using the Cowan codes [81COW].

Bleach [80BLE], using a relativistic electron beam incident on a preionized puff of Kr gas, reported an unresolved transition array due to Kr XIV. It had a center of gravity at 63.5 Å and he attributed it to $3d-4p$ transitions. His wavelength uncertainty was 0.5 Å.

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XIV they reported three lines with 0.5 Å uncertainty: 2679.0 Å attributed to $10m-11n$ transitions, 3521.6 Å attributed to $11n-12o$ transitions, and 4525.0 Å attributed to $12o-13p$ transitions. Martin *et al.* [93MAR] reported an additional $n=13-14$ transition at 5710 Å when colliding a 340 keV Kr^{17+} beam and Kr gas.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of two Kr XIV lines (with estimated wavelength uncertainty of 0.2 Å): 45.2 Å as a $3d-4f$ transition; and 37.5 Å as a $3d-5f$ transition.

Crespo López-Urrutia [02CRE], using an EBIT reported two forbidden Kr XIV intraconfiguration lines at 4634±5 Å with an intensity of 1 and 5200±6 Å with an intensity of 3. They suggested the same transition within the $3d^6$ configuration for both lines. Wang *et al.* [03WAN] irradiated small-sized Kr clusters with 150 fs laser pulses and reported a line at 59.4 Å. We estimate their uncertainty at about 0.2 Å.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.14.1. References

80BLE = R. D. Bleach, J. Opt. Soc. Am. **70**, 861 (1980).

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4.15. Kr XV

Ti isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d^4\ {}^5D_0$

Ionization energy 3 967 000±40 000 cm^{-1} (491.8±5 eV) [91SUG]

The ground state of Kr XV was determined by means of a calculation using the Cowan codes [81COW].

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XV they reported four lines: 2333.2±0.5 Å attributed to $10m-11n$ transitions; 3069.5±1.0 Å (a blend) attributed to $11n-12o$ transitions; 3942.1±0.5 Å attributed to $12o-13p$ transitions; and 4968.6±0.5 Å attributed to $13p-14q$ transitions.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest a possible classification of one Kr XV line at 33.9 Å, with an estimated wavelength uncertainty of 0.1 Å, as a $3d-5f$ transition. Three visible Kr XV lines (4365.1±3, 5060±16, and 5159±11.9 Å) were reported [01CHE] but cannot be reliably related to energy levels due to their large wavelength uncertainties.

Crespo López-Urrutia [02CRE], using an EBIT, reported three forbidden Kr XV intraconfiguration lines. One at 4372±4 Å with an intensity of 6 was suggested as the transition $3d^4\ ^1G_4-^3G_3$ and the other at 4500±5 Å with an intensity of 3 was suggested as the transition $3d^4\ ^3G_5-^3H_5$.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.15.1. References

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

90MAR = S. Martin, A. Denis, Y. Ouerdane, A. Salmoun, A. El Motassedeq, J. Désesquelles, M. Druetta, D. Church, and T. Lamy, Phys. Rev. Lett. **64**, 2633 (1990).

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4.16. Kr XVI

Sc isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^3\ ^4F_{3/2}$

Ionization energy 4 361 000±44 000 cm^{-1} (540.7±5 eV) [91SUG]

The ground state of Kr XVI was determined by means of a calculation using the Cowan codes [81COW].

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XVI they reported three lines: 2697.0±0.5 Å attributed to $11n-12o$ transitions; 3465.1±0.5 Å attributed to $12o-13p$ transitions; and 4367.0±0.5 Å attributed to $13p-14q$ transitions. Martin *et al.* [93MAR] reported an additional $n=14-15$ transition at 5420 Å

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of two Kr XVI lines: one at 31.2±0.1 Å, as a $3d-5f$ transition, and another at 39.6±0.2 Å, as a $3d-4f$ transition.

Crespo López-Urrutia *et al.* [02CRE], using an EBIT, reported five forbidden Kr XVI intraconfiguration lines, all with an uncertainty of 6 Å. One at 5090 Å, with an intensity of 5, was suggested as the transition $3d^3\ ^2D_{3/2}-^4P_{3/2}$ and another at 5205 Å with an intensity of 4 was suggested as the transition $3d^3\ ^2P_{3/2}-^2D_{3/2}$. The other three were without suggested classifications: 5113 Å with an intensity of 5; 5128 Å with an intensity of 3; and 5212 Å with an intensity of 3.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.16.1. References

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

90MAR = S. Martin, A. Denis, Y. Ouerdane, A. Salmoun, A. El Motassedeq, J. Désesquelles, M. Druetta, D. Church, and T. Lamy, Phys. Rev. Lett. **64**, 2633 (1990).

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02CRE = J. R. Crespo López-Urrutia, P. Beiersdorfer, K. Widmann, and V. Decaux, Can. J. Phys. **80**, 1687 (2002).

4.17. Kr XVII

Ca isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^63d^2\ ^3F_2$

Ionization energy 4 771 000±48 000 cm^{-1} (591.5±6 eV) [91SUG]

The ground state of Kr XVII was determined by means of a calculation using the Cowan codes [81COW].

Martin *et al.* [90MAR] observed collisions between a 360 keV Kr^{18+} beam and Kr gas. They observed high n, high l Rydberg transitions for several Kr ionization stages. In the case of Kr XVII they reported four: 2389.6±0.5 Å attributed to $11n-12o$ transitions; 3067.4±0.5 Å attributed to $12o-13p$ transitions; 3867.9±1.0 Å (a blend) attributed to $13p-14q$ transitions; and 4794.8±1.0 Å (a blend) attributed to $14q-15r$ transitions.

Crespo López-Urrutia [02CRE], using an EBIT, reported two forbidden Kr XVII intraconfiguration lines, both with an uncertainty of 10 Å. One at 5453 Å with an intensity of 15 was suggested as the transition $3d^2\ ^3P_2-^1D_2$ and another at 5411 Å with an intensity of 3 was not provided with a suggested classification.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.17.1. References

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

90MAR = S. Martin, A. Denis, Y. Ouerdane, A. Salmoun, A. El Motassedeq, J. Désesquelles, M. Druetta, D. Church, and T. Lamy, Phys. Rev. Lett. **64**, 2633 (1990).

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4.18. Kr XVIII

K isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^6 3d\ ^2D_{3/2}$

Ionization energy 5 169 000±52 000 cm^{-1} (640.9±6 eV) [91SUG]

The energy levels of 17 times ionized krypton, Kr XVIII, K like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Kaufman *et al.* [89KAU] for the ground term and the $3p^5 3d^2$ configuration and on the work of Wyart *et al.* [85WYA] for the $3p^6 4f$ term. The uncertainties of the energy levels are 10 cm^{-1} for the ground term, 60 cm^{-1} for the levels of the $3p^5 3d^2$ configuration, and 1200 cm^{-1} for the $3p^6 4f$ term. In the energy level table the levels are designated using LS coupling.

Compilations of Kr XVIII lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on these works. An additional magnetic dipole line in the visible was reported by Crespo López-Urrutia *et al.* [02CRE].

Crespo López-Urrutia *et al.* [02CRE] classified one Kr XVIII line. They used an EBIT as their source. They estimate a 15 Å uncertainty on their wavelength measurement with a prism spectrograph.

Kaufman *et al.* [89KAU] classified six lines. They used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty.

Wyart *et al.* [85WYA] classified nine lines. They used a tokamak as their line source. They estimate a 0.015 Å wavelength uncertainty.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest a possible classification of a Kr XVIII line at 27.1±0.1 Å as a $3d-5f$ transition.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XVIII levels. Only classifiable lines are included in our compilation. The intensity code M1 indicates a magnetic dipole line.

The ionization energy was calculated by Sugar and Musgrove [91SUG] using the Hartree–Fock code with relativistic corrections of Cowan [81COW].

4.18.1. References

81COW = R. D. Cowan, *The Theory of Atomic Structure and Spectra* (University of California Press, Berkeley, 1981).

85WYA = J. F. Wyart and the TFR Group, Phys. Scr. **31**, 539 (1985).

89KAU = V. Kaufman, J. Sugar, and W. L. Rowan, J. Opt. Soc. Am. B **6**, 142 (1989).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SRI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

02CHE = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).

02CRE = J. R. Crespo López-Urrutia, P. Beiersdorfer, K. Widmann, and V. Decaux, Can. J. Phys. **80**, 1687 (2002).

TABLE 28. Energy levels of Kr XVIII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$3p^6 3d$	^{2}D	3/2	89KAU
15 694	0	$3p^6 3d$	^{2}D	5/2	89KAU
980 380	1	$3p^5(^2P^o)3d^2(^3F)$	$^2F^o$	5/2	89KAU
1 022 440	1	$3p^5(^2P^o)3d^2(^1G)$	$^2F^o$	7/2	89KAU
1 075 860	1	$3p^5(^2P^o)3d^2(^3P)$	$^2P^o$	1/2	89KAU
1 084 470	1	$3p^5(^2P^o)3d^2(^3F)$	$^2D^o$	3/2	89KAU
1 086 940	1	$3p^5(^2P^o)3d^2(^3F)$	$^2D^o$	5/2	89KAU
1 094 200	1	$3p^5(^2P^o)3d^2(^3P)$	$^2P^o$	3/2	89KAU
2 840 800	1	$3p^6 4f$	$^2F^o$	7/2	85WYA
2 841 700	1	$3p^6 4f$	$^2F^o$	5/2	85WYA

TABLE 29. Spectral lines of Kr XVIII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
35.190	2841.7	10	$3p^63d$	^{2}D	3/2	—	$3p^64f$	^{2}F^o	5/2	0.015	85WYA
35.397	2825.1	20	$3p^63d$	^{2}D	5/2	—	$3p^64f$	^{2}F^o	7/2	0.015	85WYA
91.391	1094.20	5	$3p^63d$	^{2}D	3/2	—	$3p^5(^2$P$^o)3d^2(^3$P)	^{2}P^o	3/2	0.015	85WYA
92.005	1086.90	3	$3p^63d$	^{2}D	3/2	—	$3p^5(^2$P$^o)3d^2(^3$F)	^{2}D^o	5/2	0.015	85WYA
92.211	1084.47	100	$3p^63d$	^{2}D	3/2	—	$3p^5(^2$P$^o)3d^2(^3$F)	^{2}D^o	3/2	0.005	89KAU
92.721	1078.50	30	$3p^63d$	^{2}D	5/2	—	$3p^5(^2$P$^o)3d^2(^3$P)	^{2}P^o	3/2	0.005	89KAU
92.949	1075.86	20	$3p^63d$	^{2}D	3/2	—	$3p^5(^2$P$^o)3d^2(^3$P)	^{2}P^o	1/2	0.005	89KAU
93.349	1071.25	100	$3p^63d$	^{2}D	5/2	—	$3p^5(^2$P$^o)3d^2(^3$F)	^{2}D^o	5/2	0.005	89KAU
93.569	1068.73	2	$3p^63d$	^{2}D	5/2	—	$3p^5(^2$P$^o)3d^2(^3$F)	^{2}D^o	3/2	0.015	85WYA
99.330	1006.75	100	$3p^63d$	^{2}D	5/2	—	$3p^5(^2$P$^o)3d^2(^1$G)	^{2}F^o	7/2	0.005	89KAU
102.001	980.38	50	$3p^63d$	^{2}D	3/2	—	$3p^5(^2$P$^o)3d^2(^3$F)	^{2}F^o	5/2	0.005	89KAU
Observed air wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
6369.	15.70	M1	$3p^63d$	^{2}D	3/2	—	$3p^63d$	^{2}D	5/2	15	02CRE

4.19. Kr XIX

Ar isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^6\ ^1S_0$

Ionization energy 6 334 000±21 000 cm^{-1} (785.3±2.6 eV) [99BIE]

Three energy levels of 18 times ionized krypton, Kr XIX, Ar-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Sugar *et al.* [87SUG]. The uncertainty of the energy levels is 100 cm^{-1}. In the energy level table the levels are designated using LS coupling.

Compilations of Kr XIX lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on this work. Two additional magnetic dipole lines in the visible were reported by Crespo López-Urrutia *et al.* [02CRE]. Their wavelengths, relative intensities, and suggested classifications are: 4027±2 Å, 30, $3p^53d\ ^3$P$^o{}_2$–^{3}P$^o{}_1$; and 5793±10 Å, 15, $3p^5\,3d\ ^3$F$^o{}_2$–^{3}F$^o{}_3$. These lines are not included in our line table since we do not have a measurement of the energy of the levels in the transitions with respect to the ground state.

Crespo López-Urrutia *et al.* [02CRE] classified two Kr XIX lines. They used an EBIT as their source. They made their wavelength measurement with a prism spectrograph.

Sugar *et al.* [87SUG] classified two lines. They used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty based on semiempirical corrections, across the Ar isoelectronic sequence, to their 0.010 Å measurements.

Wyart *et al.* [85WYA] classified two lines. They used a tokamak as their line source. They estimate a 0.015 Å wavelength uncertainty. Their wavelengths were superseded by those from Sugar *et al.* [87SUG] but their relative intensities were used in the table.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of three Kr XIX lines: at 26.0±0.1 Å (a blend) as a $3d-5f$ transition, at 27.9±0.1 Å as a $3p-4d$ transition, and 33.4±0.1 Å as a $3d-4f$ transition.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XIX levels. Only classifiable lines are included in our compilation.

The intensity code given in the Kr XIX line table has the meaning is stated below:

Symbol	Definition
s	wavelength smoothed along isoelectronic sequence

The ionization energy was calculated by Biémont *et al.* [99BIE] using a multiconfiguration Dirac–Fock (MCDF) calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.19.1. References

85WYA = J. F. Wyart and the TFR Group, Phys. Scr. **31**, 539 (1985).
87SUG = J. Sugar, V. Kaufman, and W. L. Rowan, J. Opt. Soc. Am. B **4**, 1927 (1987).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).
02CHE = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).
02CRE = J. R. Crespo López-Urrutia, P. Beiersdorfer, K. Widmann, and V. Decaux, Can. J. Phys. **80**, 1687 (2002).

TABLE 30. Energy levels of Kr XIX

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$3s^2 3p^6$	^1S	0	87SUG
842 690	1	$3s^2 3p^5 3d$	$^3D^o$	1	87SUG
1 039 160	1	$3s^2 3p^5 3d$	$^1P^o$	1	87SUG

TABLE 31. Spectral lines of Kr XIX

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
96.232	1039.16	45 s	$3s^2 3p^6$	^1S	0	—	$3s^2 3p^5 3d$	$^1P^o$	1	0.005	87SUG
118.667	842.69	15 s	$3s^2 3p^6$	^1S	0	—	$3s^2 3p^5 3d$	$^3D^o$	1	0.005	87SUG

4.20. Kr XX

Cl isoelectronic sequence

Ground State $1s^2 2s^2 2p^6 3s^2 3p^5\ ^2P^o_{3/2}$

Ionization energy 6 707 600±7 100 cm^{-1} (831.6±0.9 eV) [99BIE]

Seven energy levels of 19 times ionized krypton, Kr XX, Cl-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Kaufman *et al.* [89KAU]. We have added the revisions to this work provided by the original authors [90KAU]. Note that the 87 287, 1 035 510, and 1 084 750 cm^{-1} levels were determined by semiempirical fits across the Cl isoelectronic sequence and are not direct measurements. The uncertainty of the energy levels is 50 cm^{-1}. In the energy level table the levels are designated using LS coupling.

Compilations of Kr XX lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Kaufman *et al.* [89KAU]. A line at 1142.5 Å was reported by Roberts *et al.* [87ROB] and tentatively identified as a magnetic dipole transition within the ground state configuration. It is not included since it is inconsistent with the results of Kaufman *et al.* [89KAU] which we use here. Earlier work by Wyart *et al.* [88WYA] has been superseded by the above.

Kaufman *et al.* [90KAU] reclassified one line (as Kr XXI) previously classified [89KAU] as Kr XX. They then used a semiempirical fit along the Cl isoelectronic sequence to determine the $3s^2 3p^4(^3P)3d\ ^2P^o_{1/2}$ level.

Kaufman *et al.* [89KAU] classified four Kr XX lines (besides the one corrected in [90KAU]). They used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty in their measurements.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of three Kr XX lines: at 27.5±0.1 Å and at 30.6±0.1 Å as $3p-4d$ transitions; and at 32.5±0.1 Å as a $3d-4f$ transition.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XX levels. Only classifiable lines are included in our compilation.

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.20.1. References

87ROB = J. R. Roberts, T. L. Pittman, J. Sugar, V. Kaufman, and W. L. Rowan, Phys. Rev. A **35**, 2591 (1987).
88WYA = The TFR Group and J. F. Wyart, Phys. Scr. **37**, 66 (1988).
89KAU = V. Kaufman, J. Sugar, and W. L. Rowan, J. Opt. Soc. Am. B **6**, 1444 (1989).
90KAU = V. Kaufman, J. Sugar, and W. L. Rowan, J. Opt. Soc. Am. B **7**, 1169 (1990).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized At-*

oms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

02CHE = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).

TABLE 32. Energy levels of Kr XX

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	1	$3s^23p^5$	$^2P^o$	3/2	89KAU
[87 287]	1	$3s^23p^5$	$^2P^o$	1/2	89KAU
970 680	0	$3s^23p^4(^1D)3d$	^2S	1/2	89KAU
1 003 410	0	$3s^23p^4(^3P)3d$	^2P	3/2	89KAU
1 008 510	0	$3s^23p^4(^3P)3d$	^2D	5/2	89KAU
[1 035 510]	0	$3s^23p^4(^3P)3d$	^2P	1/2	89KAU
[1 084 750]	0	$3s^23p^4(^3P)3d$	^2D	3/2	89KAU

TABLE 33. Spectral lines of Kr XX

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
99.156	1008.51	200	$3s^23p^5$	$^2P^o$	3/2	—	$3s^23p^4(^3P)3d$	^2D	5/2	0.005	89KAU
99.660	1003.41	200	$3s^23p^5$	$^2P^o$	3/2	—	$3s^23p^4(^3P)3d$	^2P	3/2	0.005	89KAU
100.254	997.47	60	$3s^23p^5$	$^2P^o$	1/2	—	$3s^23p^4(^3P)3d$	^2D	3/2	0.005	89KAU
103.021	970.68	20	$3s^23p^5$	$^2P^o$	3/2	—	$3s^23p^4(^1D)3d$	^2S	1/2	0.005	89KAU

4.21. Kr XXI

S isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^4$ $^3P_2$

Ionization energy 7 120 300±10 100 cm^{-1} (882.8±1.3 eV) [99B1E]

Energy levels of 20 times ionized krypton, Kr XXI, S-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Kaufman *et al.* [90KAU]. Note that other than the ground state, the levels of the $3s^23p^4$ ground configuration are based on isoelectronic semiempirical predicted values of M1 transitions within this configuration. The uncertainty of these levels ranges from 20 to 100 cm^{-1}. The uncertainty of the $3s^23p^33d$ levels is 140 cm^{-1}.

In the energy level table the levels are designated using LS coupling. We include the leading percentages reported by Sugar and Musgrove [91SUG].

Compilations of Kr XXI lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Kaufman *et al.* [90KAU]. They also include a magnetic dipole line at 1268.7 Å that was reported by Roberts *et al.* [87ROB], but differs from the semiempirical results[90KAU]. We do not include this line or the one at 868.4 Å, reported by Kaufman and Sugar [86KAU], which was also rejected by Kaufman *et al.* [90KAU].

Kaufman *et al.* [90KAU] classified six Kr XXI lines. They used a tokamak as their light source. They estimate a 0.007 Å wavelength uncertainty in their measurements.

Chen *et al.* [02CHE] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of two Kr XXI lines: at 26.0±0.1 Å (a blend) as a $3p-4d$ transition; and at 29.8±0.1 Å as a $3d-4f$ transition.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXI levels. Only classifiable lines are included in our compilation.

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.21.1. References

86KAU = V. Kaufman and J. Sugar, J. Phys. Chem. Ref. Data **15**, 321 (1986).

87ROB = J. R. Roberts, T. L. Pittman, J. Sugar, V. Kaufman, and W. L. Rowan, Phys. Rev. A **35**, 2591 (1987).

90KAU = V. Kaufman, J. Sugar, and W. L. Rowan, J. Opt. Soc. Am. B **7**, 1169 (1990).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and*

Mo, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).
02CHE = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).

TABLE 34. Energy levels of Kr XXI

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	0	$3s^23p^4$	^{3}P	2	84	16	$3s^23p^4$ ^{1}D	90KAU
[46 900]	0	$3s^23p^4$	^{3}P	0	65	35	$3s^23p^4$ ^{1}S	90KAU
[78 670]	0	$3s^23p^4$	^{3}P	1	100			90KAU
[114 820]	0	$3s^23p^4$	^{1}D	2	84	16	$3s^23p^4$ ^{3}P	90KAU
[225 100]	0	$3s^23p^4$	^{1}S	0	65	35	$3s^23p^4$ ^{3}P	90KAU
933 070	1	$3s^23p^3(^2P^o)3d$	$^3P^o$	2	50	15	$3s^23p^3(^2D^o)3d$ $^3D^o$	90KAU
964 470	1	$3s^23p^3(^2D^o)3d$	$^3P^o$	2	55	15	$3s^23p^3(^2P^o)3d$ $^3P^o$	90KAU
968 350	1	$3s^23p^3(^2D^o)3d$	$^3D^o$	3	38	30	$3s^23p^3(^4S^o)3d$ $^3D^o$	90KAU
1 007 100	1	$3s^23p^3(^2D^o)3d$	$^1D^o$	2	24	21	$3s^23p^3(^4S^o)3d$ $^3D^o$	90KAU
1 076 100	1	$3s^23p^3(^2D^o)3d$	$^1F^o$	3	50	32	$3s^23p^3(^2P^o)3d$ $^1F^o$	90KAU
1 143 760	1	$3s^23p^3(^2P^o)3d$	$^1P^o$	1	68	11	$3s^23p^3(^4S^o)3d$ $^3D^o$	90KAU

TABLE 35. Spectral lines of Kr XXI

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
103.268	968.35	100	$3s^23p^4$	^{3}P	2	—	$3s^23p^3(^2D^o)3d$	$^3D^o$	3	0.007	90KAU
103.684	964.47	5	$3s^23p^4$	^{3}P	2	—	$3s^23p^3(^2D^o)3d$	$^3P^o$	2	0.007	90KAU
104.028	961.28	10	$3s^23p^4$	^{1}D	2	—	$3s^23p^3(^2D^o)3d$	$^1F^o$	3	0.007	90KAU
107.173	933.07	15	$3s^23p^4$	^{3}P	2	—	$3s^23p^3(^2P^o)3d$	$^3P^o$	2	0.007	90KAU
107.709	928.43	10	$3s^23p^4$	^{3}P	1	—	$3s^23p^3(^2D^o)3d$	$^1D^o$	2	0.007	90KAU
108.854	918.66	5	$3s^23p^4$	^{1}S	0	—	$3s^23p^3(^2P^o)3d$	$^1P^o$	1	0.007	90KAU

4.22. Kr XXII

P isoelectronic sequence
Ground State $1s^22s^22p^63s^23p^3$ $^4S^o_{3/2}$
Ionization energy 7 625 000±27 000 cm^{-1} (945.4±3.3 eV) [99BIE]

Energy levels of 21 times ionized krypton, Kr XXII, P-like Kr, were compiled by Sugar and Musgrove [91SUG$_b$] based on the work of Sugar *et al.* [91SUG$_a$]. Note that other than the ground state, the levels of the $3s^23p^3$ ground configuration are based on isoelectronic semiempirical predicted values of M1 transitions within this configuration. The uncertainty of these levels is 50 cm^{-1}. The uncertainty of the $3s^23p^23d$ levels is 120 cm^{-1}.

In the energy level table the levels are designated using LS coupling. We include the leading percentages reported by Sugar and Musgrove [91SUG$_b$].

Compilations of Kr XXII lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Sugar *et al.* [91SUG$_a$]. They also include a magnetic dipole line at 912.0 Å that was reported by Roberts *et al.* [87ROB] from tokamak studies. Since it agrees with the semiempirical results of Sugar *et al.* [91SUG$_a$] within their combined uncertainties, we also include this line. From studies with EBIT, another M1 line was reported at 3464.7±0.6 Å [97SER] and at 3466.6±0.2 Å [02CHE$_a$] and classified as the $3s^23p^3$ $^2D^o_{5/2}-{}^2D^o_{3/2}$ transition. Since it disagrees with the energy levels (which predict 3429±8 Å) we have not included it in our line list.

Sugar *et al.* [91SUG$_a$] classified six Kr XXII lines. They used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty in their measurements.

Chen *et al.* [02CHE$_b$] used an EBIT to study Kr in various stages of ionization. They suggest possible classifications of four Kr XXII lines: at 25.0±0.1 Å, at 25.4±0.1 Å, and at 26.4±0.1 Å as $3p-4d$ transitions; and at 28.5±0.1 Å as a $3d-4f$ transition.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXII line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
b	blend
M1	magnetic dipole line

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.22.1. References

87ROB = J. R. Roberts, T. L. Pittman, J. Sugar, V. Kaufman, and W. L. Rowan, Phys. Rev. A **35**, 2591 (1987).

$91SUG_a$ = J. Sugar, V. Kaufman, and W. L. Rowan, J. Opt. Soc. Am. B **8**, 22 (1991).

$91SUG_b$ = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

97SER = F. G. Serpa, E. W. Bell, E. S. Meyer, J. D. Gillaspy, and J. R. Roberts, Phys. Rev. A **55**, 1832 (1997).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

$02CHE_a$ = H. Chen, P. Beiersdorfer, C. L. Harris, and S. B. Utter, Phys. Scr. **66**, 133 (2002).

$02CHE_b$ = H. Chen, P. Beiersdorfer, K. B. Fournier, and E. Träbert, Phys. Rev. E **65**, 056401 (2002).

TABLE 36. Energy levels of Kr XXII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	1	$3s^23p^3$	$^4S^o$	3/2	69	22	$3s^23p^3\ ^2P^o$	$91SUG_a$
[77 801]	1	$3s^23p^3$	$^2D^o$	3/2	65	23	$3s^23p^3\ ^4S^o$	$91SUG_a$
[106 960]	1	$3s^23p^3$	$^2D^o$	5/2	100			$91SUG_a$
[153 025]	1	$3s^23p^3$	$^2P^o$	1/2	100			$91SUG_a$
[216 479]	1	$3s^23p^3$	$^2P^o$	3/2	66	26	$3s^23p^3\ ^2D^o$	$91SUG_a$
895 500	0	$3s^23p^2(^3P)3d$	^4P	5/2				$91SUG_a$
908 570	0	$3s^23p^2(^3P)3d$	^4P	3/2				$91SUG_a$
989 810	0	$3s^23p^2(^1D)3d$	^2D	3/2				$91SUG_a$
995 430	0	$3s^23p^2(^1D)3d$	^2D	5/2				$91SUG_a$
1 029 790	0	$3s^23p^2(^3P)3d$	^2F	7/2				$91SUG_a$
1 093 630	0	$3s^23p^2(^3P)3d$	^2D	5/2				$91SUG_a$

TABLE 37. Spectral lines of Kr XXII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
108.362	922.83	300	$3s^23p^3$	$^2D^o$	5/2	—	$3s^23p^2(^3P)3d$	^2F	7/2	0.005	$91SUG_a$
108.977	917.62	10	$3s^23p^3$	$^2D^o$	3/2	—	$3s^23p^2(^1D)3d$	^2D	5/2	0.005	$91SUG_a$
109.648	912.01	10	$3s^23p^3$	$^2D^o$	3/2	—	$3s^23p^2(^1D)3d$	^2D	3/2	0.005	$91SUG_a$
110.063	908.57	20	$3s^23p^3$	$^4S^o$	3/2	—	$3s^23p^2(^3P)3d$	^4P	3/2	0.005	$91SUG_a$
111.669	895.50	100	$3s^23p^3$	$^4S^o$	3/2	—	$3s^23p^2(^3P)3d$	^4P	5/2	0.005	$91SUG_a$
114.005	877.15	10 b	$3s^23p^3$	$^2P^o$	3/2	—	$3s^23p^2(^3P)3d$	^2D	5/2	0.005	$91SUG_a$
912.0	109.65	M1	$3s^23p^3$	$^2D^o$	5/2	—	$3s^23p^3$	$^2P^o$	3/2	1.0	87ROB

4.23. Kr XXIII

Si isoelectronic sequence

Ground State $1s^22s^22p^63s^23p^2\ ^3P_0$

Ionization energy 8 057 300±19 200 cm^{-1} (999.0±2.4 eV) [99BIE]

Energy levels of 22 times ionized krypton, Kr XXIII, Si-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Sugar *et al.* [90SUG]. Note that the energy of the $3s^23p^2\ ^1S_0$ level of the ground configuration is based on isoelectronic semiempirical predicted values of an M1 transition within this configuration. The uncertainty of this level is 100 cm^{-1}. The uncertainty of the lowest interval in this configuration is 14 cm^{-1} and increases for higher intervals to 100 cm^{-1}. The uncertainty of the levels of the excited configurations determined by Sugar *et al.* [90SUG] is 120 cm^{-1}. We add two additional levels which were determined by Jupén *et al.* [91JUP]. The uncertainty of their $3s3p^3\ ^5S^o_2$ level is about 42 cm^{-1} and that of their $3s^23p3d\ ^1P^o_1$ level is about 190 cm^{-1}.

In the energy level table the levels are designated using LS coupling. We include the leading percentages reported by Sugar and Musgrove [91SUG].

Compilations of Kr XXIII lines that were published by Shirai *et al.* [95SHI], [00SHI] are based on Sugar *et al.* [90SUG] with three added M1 lines [87BEN], [87ROB]. We add to this the lines of [91JUP] and replace the value of one line from Roberts *et al.* [87ROB] with one from Chen *et al.* [01CHE] that has a smaller uncertainty.

Chen *et al.* [01CHE] observed one Kr XXIII M1 line. They used an EBIT as their source. They quoted a wavelength uncertainty of 0.18 Å.

Jupén *et al.* [91JUP] classified nine new lines (plus two tentative classifications we did not include). They also reported observing all the E1 lines observed by Sugar *et al.* [90SUG]. They used a tokamak as their line source. They quote a wavelength uncertainty of 0.025 Å.

Sugar *et al.* [90SUG] classified 12 Kr XXIII lines. They also used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty in their measurements.

Bengtsson *et al.* [87BEN] classified one M1 line. They also used a tokamak as their line source. They quote a wavelength uncertainty of 0.03 Å.

Roberts *et al.* [87ROB] classified three M1 lines (two of which were superseded by works listed above). They also used a tokamak as their line source. They quote uncertainties ranging from 0.2 to 1.0 Å.

Other work with greater wavelength uncertainty was carried out [00TRA], [99CRE], [97BEN], [88WYA]. All lines from these sources were superseded by those from the references above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXIII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXIII line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
b	blend
M1	magnetic dipole line
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.23.1. References

87ROB = J. R. Roberts, T. L. Pittman, J. Sugar, V. Kaufman, and W. L. Rowan, Phys. Rev. A **35**, 2591 (1987).

87BEN = R. D. Benjamin, J. L. Terry, and H. W. Moos, Phys. Rev. A **36**, 4504 (1987).

88WYA = TFR Group and J. F. Wyart, Phys. Scr. **37**, 66 (1988).

90SUG = J. Sugar, V. Kaufman, and W. L. Rowan, J. Opt. Soc. Am. B **7**, 152 (1990).

91JUP = C. Jupén, I. Martinson, and B. Denne-Hinnov, Phys. Scr. **44**, 562 (1991).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

97BEN = P. Bengtsson, K. Ando, T. Kambara, Y. Awaya, and R. Hutton, Phys. Scr. T **T73**, 81 (1997).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

99CRE = J. R. Crespo López-Urrutia, P. Beiersdorfer, K. Widmann, and V. Decaux, Phys. Scr. T **T80**, 448 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

00TRA = E. Träbert, S. B. Utter, and P. Beiersdorfer, Phys. Lett. A **272**, 86 (2000).

01CHE = H. Chen, P. Beiersdorfer, C. L. Harris, E. Träbert, S. B. Utter, and K. L. Wong, Phys. Scr. T **T92**, 284 (2001).

TABLE 38. Energy levels of Kr XXIII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	0	$3s^23p^2$	^{3}P	0	86	14	$3s^23p^2$ ^{1}S	90SUG
68 369	0	$3s^23p^2$	^{3}P	1	100			90SUG
94 397	0	$3s^23p^2$	^{3}P	2	59	41	$3s^23p^2$ ^{1}D	90SUG
185 490	0	$3s^23p^2$	^{1}D	2	59	41	$3s^23p^2$ ^{3}P	90SUG
[254 520]	0	$3s^23p^2$	^{1}S	0	86	14	$3s^23p^2$ ^{3}P	90SUG
468 240	1	$3s3p^3$	^{5}S°	2				91JUP

TABLE 38. Energy levels of Kr XXIII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
785 644	1	$3s3p^3$	$^3S^o$	1	54	37	$3s3p^3\ ^1P^o$	90SUG
872 750	1	$3s^23p3d$	$^3P^o$	2	51	20	$3s^23p3d^3\ ^3D^o$	90SUG
888 210	1	$3s^23p3d$	$^3D^o$	1	48	22	$3s3p^3\ ^1P^o$	90SUG
938 520	1	$3s^23p3d$	$^1D^o$	2	32	39	$3s^23p3d\ ^3D^o$	90SUG
945 520	1	$3s^23p3d$	$^3P^o$	0	92	8	$3s3p^3\ ^3P^o$	90SUG
950 580	1	$3s^23p3d$	$^3D^o$	3	78	8	$3s3p^3\ ^1F^o$	90SUG
956 580	1	$3s^23p3d$	$^3P^o$	1	63	22	$3s^23p3d\ ^3D^o$	90SUG
968 860	1	$3s^23p3d$	$^3D^o$	2	28	40	$3s^23p3d\ ^3P^o$	90SUG
1 026 920	1	$3s^23p3d$	$^1F^o$	3	89	9	$3s^23p3d\ ^3D^o$	90SUG
1 057 580	1	$3s^23p3d$	$^1P^o$	1				91JUP

TABLE 39. Spectral lines of Kr XXIII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
107.231	932.57	7	$3s^23p^2$	^3P	2	—	$3s^23p3d$	$^1F^o$	3	0.005	90SUG
111.051	900.5	1	$3s^23p^2$	^3P	1	—	$3s^23p3d$	$^3D^o$	2	0.025	91JUP
112.586	888.21	5 b*	$3s^23p^2$	^3P	1	—	$3s^23p3d$	$^3P^o$	1	0.005	90SUG
112.586	888.21	5 b*	$3s^23p^2$	^3P	0	—	$3s^23p3d$	$^3D^o$	1	0.005	90SUG
114.005	877.15	10	$3s^23p^2$	^3P	1	—	$3s^23p3d$	$^3P^o$	0	0.005	90SUG
114.39	874.20	3	$3s^23p^2$	^3P	2	—	$3s^23p3d$	$^3D^o$	2	0.025	91JUP
114.921	870.16	10	$3s^23p^2$	^3P	1	—	$3s^23p3d$	$^1D^o$	2	0.005	90SUG
116.797	856.19	50	$3s^23p^2$	^3P	2	—	$3s^23p3d$	$^3D^o$	3	0.005	90SUG
118.468	844.11	8	$3s^23p^2$	^3P	2	—	$3s^23p3d$	$^1D^o$	2	0.005	90SUG
118.850	841.40	10	$3s^23p^2$	^1D	2	—	$3s^23p3d$	$^1F^o$	3	0.005	90SUG
124.322	804.36	5	$3s^23p^2$	^3P	1	—	$3s^23p3d$	$^3P^o$	2	0.005	90SUG
124.52	803.08	3	$3s^23p^2$	^1S	0	—	$3s^23p3d$	$^1P^o$	1	0.025	91JUP
127.288	785.62	1	$3s^23p^2$	^3P	0	—	$3s3p3$	$^3S^o$	1	0.025	91JUP
127.653	783.37	20	$3s^23p^2$	^1D	2	—	$3s^23p3d$	$^3D^o$	2	0.005	90SUG
128.500	778.21	2	$3s^23p^2$	^3P	2	—	$3s^23p3d$	$^3P^o$	2	0.025	91JUP
130.703	765.09	30	$3s^23p^2$	^1D	2	—	$3s^23p3d$	$^3D^o$	3	0.005	90SUG
132.789	753.07	1	$3s^23p^2$	^1D	2	—	$3s^23p3d$	$^1D^o$	2	0.025	91JUP
139.42	717.26	3	$3s^23p^2$	^3P	1	—	$3s3p3$	$^3S^o$	1	0.025	91JUP
144.666	691.25	5	$3s^23p^2$	^3P	2	—	$3s3p3$	$^3S^o$	1	0.005	90SUG
250.08	399.87	1	$3s^23p^2$	^3P	1	—	$3s3p3$	$^5S^o$	2	0.025	91JUP
267.51	373.82	2	$3s^23p^2$	^3P	2	—	$3s3p3$	$^5S^o$	2	0.025	91JUP
853.8	117.12	M1	$3s^23p^2$	^3P	1	—	$3s^23p^2$	^1D	2	1.0	87ROB
1462.65	68.3691	M1	$3s^23p^2$	^3P	0	—	$3s^23p^2$	^3P	1	0.03	87BEN
Observed air wavelength (Å)	**Observed wave number (10^3 cm^{-1})**	**Intensity and comment**	**Classification Configuration**	**Term**	**J**		**Configuration**	**Term**	**J**	**Uncertainty of observed wavelength (Å)**	**Source of line**
3840.9	26.0282	M1	$3s^23p^2$	^3P	1	—	$3s^23p^2$	^3P	2	0.18	01CHE

4.24. Kr XXIV

Al isoelectronic sequence

Ground State $1s^22s^22p^63s^23p\ ^2P^o_{1/2}$

Ionization energy 8 407 000±40 000 cm^{-1} (1042.±5. eV) [99BIE]

Energy levels of 23 times ionized krypton, Kr XXIV, Al-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Sugar *et al.* [88SUG] and Jupén *et al.* [90JUP] Jupén and Curtis [96JUP] revised and extended the work of Jupén *et al.* [90JUP]. However, their "recommended smoothed and interpolated excitation energies" do not agree with their observed wavelengths within several times their stated uncertainties. Therefore, we include in this compilation the energy values determined from their observed wavelengths for the $3s3p^2\ ^4P$ levels rather than the isoelectronically smoothed values. The uncertainty of these levels is 50 cm^{-1}. The uncertainty of the $3s^23p$ $^2P^o_{3/2}$ ground configuration level is 30 cm^{-1}. The uncertainty of the rest of the excited levels is 80 cm^{-1}.

Compilations of Kr XXIV lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Sugar *et al.* [88SUG] and Jupén *et al.* [90JUP] with one additional line from Wyart *et al.* [88WYA] We use the lines of Jupén and Curtis [96JUP] in place of those from Jupén *et al.* [90JUP]. Note that the wavelengths from Sugar *et al.* [88SUG] are smoothed values from an isoelectronic comparison with Hartree–Fock calculations. A line reported by Kink *et al.* [01KIN] was not included since in their work many lines are blended, due to the relatively low resolution of the measurement, making the classification uncertain.

In the energy level table the levels are designated using LS coupling. We include the leading percentages reported by Sugar and Musgrove [91SUG].

Jupén and Curtis [96JUP] classified four Kr XXIV lines. They used a tokamak as their line source. They quote wavelength uncertainties between 0.025 and 0.03 Å.

Sugar *et al.* [88SUG] classified nine lines. They also used a tokamak as their line source. They estimate a 0.01 Å wavelength uncertainty in their measurements.

Wyart *et al.* [88WYA] classified ten lines. They also used a tokamak as their line source. They quote a wavelength uncertainty of 0.02 Å.

Other work with greater wavelength uncertainty was carried out [97BEN], [90JUP], [87STE], [85WYA]. All lines from these references were superseded by those from the references above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXIV levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXIV line table are taken from the specified sources. Their meanings are stated below:

Symbol	Definition
c	close but distinguishable
s	wavelength smoothed along isoelectronic sequence

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.24.1. References

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87STE = R. E. Stewart, D. D. Dietrich, R. J. Fortner, and R. Dukart, J. Opt. Soc. Am. B **4**, 396 (1987).

88SUG = J. Sugar, V. Kaufman, and W. L. Rowan, J. Opt. Soc. Am. B **5**, 2183 (1988).

88WYA = TFR Group and J. F. Wyart, Phys. Scr. **37**, 66 (1988).

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91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

96JUP = C. Jupén and L. J. Curtis, Phys. Scr. **53**, 312 (1996).

97BEN = P. Bengtsson, K. Ando, T. Kambara, Y. Awaya, and R. Hutton, Phys. Scr. T **73**, 81 (1997).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

01KIN = I. Kink, J. M. Laming, E. Takács, J. V. Porto, J. D. Gillaspy, E. Silver, H. Schnopper, S. R. Bandler, M. Barbera, N. Brickhouse, S. Murray, N. Madden, D. Landis, J. Beeman, and E. E. Haller, Phys. Rev. E **63**, 046409 (2001).

TABLE 40. Energy level of Kr XXIV

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	1	$3s^23p$	$^2P^o$	1/2				88SUG
97 312	1	$3s^23p$	$^2P^o$	3/2				88SUG
411 750	0	$3s3p^2$	^4P	1/2	92	7	$3s3p^2\ ^2S$	96JUP
464 204	0	$3s3p^2$	^4P	3/2	98	1	$3s3p^2\ ^2D$	96JUP
500 424	0	$3s3p^2$	^4P	5/2	81	18	$3s3p^2\ ^2D$	96JUP
579 808	0	$3s3p^2$	^2D	3/2	82	12	$3s^23d\ ^2D$	88SUG
611 662	0	$3s3p^2$	^2D	5/2	70	19	$3s3p^2\ ^4P$	88SUG
657 825	0	$3s3p^2$	^2P	1/2	61	33	$3s3p^2\ ^2S$	88SUG

TABLE 40. Energy level of Kr XXIV—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
754 727	0	$3s3p^2$	^2S	1/2	60	38	$3s3p^2\ ^2P$	88SUG
765 062	0	$3s3p^2$	^2P	3/2	90	8	$3s^23d\ ^2D$	88SUG
843 013	0	$3s^23d$	^2D	3/2	80	15	$3s3p^2\ ^2D$	88SUG
856 066	0	$3s^23d$	^2D	5/2	87	13	$3s3p^2\ ^2D$	88SUG

TABLE 41. Spectral lines of Kr XXIV

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
118.626	842.99	50 cs	$3s^23p$	$^2P^o$	1/2	—	$3s^23d$	^2D	3/2	0.01	88SUG
130.702	765.10	30 s	$3s^23p$	$^2P^o$	1/2	—	$3s3p^2$	^2P	3/2	0.01	88SUG
131.795	758.75	200 s	$3s^23p$	$^2P^o$	3/2	—	$3s^23d$	^2D	5/2	0.01	88SUG
132.44	755.6		$3s^23p$	$^2P^o$	1/2	—	$3s3p^2$	^2S	1/2	0.02	88WYA
134.097	745.73	15 s	$3s^23p$	$^2P^o$	3/2	—	$3s^23d$	^2D	3/2	0.01	88SUG
149.765	667.71	50 s	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^2P	3/2	0.01	88SUG
152.016	657.83	20 s	$3s^23p$	$^2P^o$	1/2	—	$3s3p^2$	^2P	1/2	0.01	88SUG
152.111	657.41	10 s	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^2S	1/2	0.01	88SUG
172.471	579.81	10 s	$3s^23p$	$^2P^o$	1/2	—	$3s3p^2$	^2D	3/2	0.01	88SUG
194.420	514.35	2 s	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^2D	5/2	0.01	88SUG
242.86	411.76	60	$3s^23p$	$^2P^o$	1/2	—	$3s3p^2$	^4P	1/2	0.03	96JUP
248.07	403.11	170	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^4P	5/2	0.025	96JUP
272.56	366.89	70	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^4P	3/2	0.03	96JUP
318.04	314.43	50	$3s^23p$	$^2P^o$	3/2	—	$3s3p^2$	^4P	1/2	0.025	96JUP

4.25. Kr XXV

Mg isoelectronic sequence

Ground State $1s^22s^22p^63s^2\ ^1S_0$

Ionization energy 9 315 400±12 800 cm^{-1} (1155.0±1.6 eV) [99BIE]

Energy levels of 24 times ionized krypton, Kr XXV, Mg-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Wyart *et al.* [85WYA], [88WYA] Sugar *et al.* [89SUG], Churilov *et al.* [89CHU], and Jupén *et al.* [90JUP]. We dropped the 168.55 Å line from Churilov *et al.*[89CHU] because it disagreed with the energy levels by many times the measurement uncertainty. As a result, the tentative level $3d^2\ ^1G_4$ listed by Sugar and Musgrove [91SUG] at 2 464 200 cm^{-1} was dropped. Five $2p^53s^2nd$ levels were obtained from classified lines observed by Rice *et al.* [00RIC] and two $2p^53s3d4d$ levels were obtained from a doubly classified line of Nagels *et al.* [03NAG]. Otherwise, the levels provided are the same as in [91SUG]. The uncertainty of the $3s3p\ ^3P_1^o$ level is 9 cm^{-1}. The uncertainties of the $3s3d\ ^3D_2$ and $3p^2\ ^1S_0$ are 130 and 200 cm^{-1}, respectively. The uncertainty of the other excited levels below 1 400 000 cm^{-1} ranges from 20 to 100 cm^{-1}. The levels between 1 400 000 and 5 000 000 cm^{-1} have an uncertainty of about 200 cm^{-1}, except for the $3s4p\ ^1P_0^o$ whose uncertainty is 3000 cm^{-1}. The $2p^53s^23d$ levels have uncertainties between 900 and 1100 cm^{-1} while the $2p^53s^24d$ and $2p^53s^25d$ levels have uncertainties of about 2000 cm^{-1} and the $2p^53s3d4d$ levels have uncertainties of about 32 000 cm^{-1}.

In the energy level table the levels are designated using LS and jj coupling. We include the leading percentages reported by Sugar and Musgrove [91SUG].

Compilations of Kr XXV lines that were published by Shirai *et al.* [95SHI], [00SHI] are also based on Wyart *et al.* [85WYA], Sugar *et al.* [89SUG], Churilov *et al.* [89CHU], and Jupén *et al.* [90JUP]. In addition to 168.55 Å, we dropped one classification of the 168.9 Å line because it involved a level not included in the level compilation. We also dropped the 145.498 Å line since its classification also involved a level not in the compilation and is likely the same as the 145.508 Å line we still include. Note that the wavelengths from Sugar *et al.* [89SUG] are smoothed values from an isoelectronic comparison with Hartree–Fock calculations. We added five lines from Rice *et al.* [00RIC] and two classifications from Nagels *et al.* [03NAG] to the list. We also added the magnetic dipole line reported by Roberts *et al.* [87ROB].

Nagels *et al.* [03NAG] classified two Kr XXV lines. They used a laser irradiated Kr gas jet as their line source. They quote a wavelength uncertainty of 0.01 Å.

Rice *et al.* [00RIC] classified five lines. They also used a tokamak as their line source. They quote a wavelength uncertainty of 0.0005 Å.

Jupén *et al.* [90JUP] classified 11 lines. They also used a tokamak as their line source. They quote a wavelength uncertainty of 0.02 Å.

Sugar *et al.* [89SUG] classified six lines. They also used a tokamak as their line source. They estimate a 0.005 Å wavelength uncertainty in their measurements.

Churilov *et al.* [89CHU] analyzed the spectral data previously reported by Wyart *et al.* [85WYA], [88WYA] and Stewart *et al.* [87STE]. They classified 35 lines. Much of the data of Stewart *et al.* [87STE] were reinterpreted. Their data were obtained using a gas-puff Z-pinch plasma source. The quoted wavelength uncertainty was 0.03 Å.

Wyart *et al.* [88WYA] reanalyzed the results of Wyart *et al.* [85WYA] using extended *ab initio* predictions and reported some changes.

Roberts *et al.* [87ROB] reported one magnetic dipole line. They used a tokamak as their line source. They quote a wavelength uncertainty of 1.0 Å.

Wyart *et al.* [85WYA] classified 13 lines (of which two were rejected in Wyart *et al.* [88WYA]). They also used a tokamak as their line source. They quote a wavelength uncertainty between 0.015 and 0.03 Å.

Other work with greater wavelength uncertainty was carried out [01KIN], [97BEN], [87SUG], [86KON], [76HIN]. All lines from these references were superseded by those from the references above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXV levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXV line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
b	blend
s	wavelength smoothed along isoelectronic sequence
M1	magnetic dipole line
*	multiply classified line (two or more classification of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.25.1. References

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TABLE 42. Energy levels of Kr XXV

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
0	0	$3s^2$	^1S	0	98	2	$3p^2\ ^1S$	91SUG
389 580	1	$3s3p$	$^3P^o$	0	100			91SUG

TABLE 42. Energy levels of Kr XXV—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Leading percentages			Source of level
412 290	1	$3s3p$	$^3P^o$	1	95	5	$3s3p\ ^1P^o$	91SUG
490 722	1	$3s3p$	$^3P^o$	2	100			91SUG
632 187	1	$3s3p$	$^1P^o$	1	94	5	$3s3p\ ^3P^o$	91SUG
930 645	0	$3p^2$	^3P	0	86	13	$3p^2\ ^1S$	91SUG
996 610	0	$3p^2$	^1D	2	60	26	$3p^2\ ^3P$	91SUG
1 001 890	0	$3p^2$	^3P	1	100			91SUG
1 092 830	0	$3p^2$	^3P	2	73	17	$3p^2\ ^1D$	91SUG
1 206 900	0	$3p^2$	^1S	0	84	14	$3p^2\ ^3P$	91SUG
1 177 690	0	$3s3d$	^3D	1	100			91SUG
1 184 970	0	$3s3d$	^3D	2	100			91SUG
1 196 618	0	$3s3d$	^3D	3	100			91SUG
1 319 434	0	$3s3d$	^1D	2	76	22	$3p^2\ ^1D$	91SUG
1 645 700	1	$3p3d$	$^3F^o$	3	90	8	$3p3d\ ^3D^o$	91SUG
1 664 300	1	$3p3d$	$^1D^o$	2	45	28	$3p3d\ ^3P^o$	91SUG
1 689 400	1	$3p3d$	$^3D^o$	1	72	20	$3p3d\ ^3P^o$	91SUG
1 715 000	1	$3p3d$	$^3F^o$	4	100			91SUG
1 031 900	1	$3p3d$	$^3D^o$	2	41	32	$3p3d\ ^1D^o$	91SUG
1 765 500	1	$3p3d$	$^3D^o$	3	87	9	$3p3d\ ^3F^o$	91SUG
1 771 700	1	$3p3d$	$^3P^o$	1	76	23	$3p3d\ ^3D^o$	91SUG
1 777 000	1	$3p3d$	$^3P^o$	2	55	40	$3p3d\ ^3D^o$	91SUG
1 869 500?	1	$3p3d$	$^1F^o$	3	93	6	$3p3d\ ^3D^o$	91SUG
1 891 300	1	$3p3d$	$^1P^o$	1	90	5	$3p3d\ ^3D^o$	91SUG
2 381 900	0	$3d^2$	^3F	2	97	3	$3d^2\ ^1D$	91SUG
2 396 500	0	$3d^2$	^3F	3	100			91SUG
2 410 000	0	$3d^2$	^3F	4	98	2	$3d^2\ ^1G$	91SUG
4 579 000	1	$3s4p$	$^1P^o$	1				91SUG
14 328 700	1	$2p^53s^23d$	$(3/2,5/2)^o$	1				00RIC
14 677 200	1	$2p^53s^23d$	$(1/2,5/2)^o$	3				00RIC
14 725 600	1	$2p^53s^23d$	$(1/2,3/2)^o$	1				00RIC
18 393 800	1	$2p^53s^24d$	$(1/2,3/2)^o$	1				00RIC
19 140 000	1	$2p^53s3d4d$	o	4				03NAG
19 263 000	1	$2p^53s3d4d$	o	3				03NAG
20 068 600	1	$2p^53s^25d$	$(1/2,3/2)^o$	1				00RIC

TABLE 43. Spectral lines of Kr XXV

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4.9829	20 069		$3s^2$	^1S	0	—	$2p^53s^25d$	$(1/2,3/2)^o$	1	0.0005	00RIC
5.4366	18 393.8		$3s^2$	^1S	0	—	$2p^53s^24d$	$(1/2,3/2)^o$	1	0.0005	00RIC
5.573	17 944	*	$3s3d$	^1D	2	—	$2p^53s3d4d$	o	3	0.01	03NAG
5.573	17 944	*	$3s3d$	^3D	3	—	$2p^53s3d4d$	o	4	0.01	03NAG
6.7909	14 725.6		$3s^2$	^1S	0	—	$2p^53s^23d$	$(1/2,3/2)^o$	1	0.0005	00RIC
6.9790	14 328.7		$3s^2$	^1S	0	—	$2p^53s^23d$	$(3/2,5/2)^o$	1	0.0005	00RIC
7.4181	13 480.5		$3s3d$	^3D	3	—	$2p^53s^23d$	$(1/2,5/2)^o$	3	0.0005	00RIC
21.840	4579	5	$3s^2$	^1S	0	—	$3s4p$	$^1P^o$	1	0.015	85WYA
110.242	907.1	10	$3s3p$	$^3P^o$	1	—	$3s3d$	^1D	2	0.03	85WYA
126.886	788.11	4	$3s3p$	$^3P^o$	0	—	$3s3d$	^3D	1	0.005	89SUG
129.420	772.68	50	$3s3p$	$^3P^o$	1	—	$3s3d$	^3D	2	0.02	90JUP

TABLE 43. Spectral lines of Kr XXV—Continued

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
129.895	769.85	b*	$3p^2$	^{3}P	1	—	$3p3d$	^{3}P^o	1	0.03	89CHU
129.895	769.85	b*	$3p^2$	^{1}D	2	—	$3p3d$	^{3}D^o	3	0.03	89CHU
131.789	758.79	b	$3p^2$	^{3}P	0	—	$3p3d$	^{3}D^o	1	0.03	89CHU
133.24	750.53	10	$3p3d$	^{3}F^o	3	—	$3d^2$	^{3}F	3	0.03	89CHU
136.04	735.08	11	$3p^2$	^{1}D	2	—	$3p3d$	^{3}D^o	2	0.03	89CHU
136.97	730.09	14	$3p^2$	^{3}P	1	—	$3p3d$	^{3}D^o	2	0.03	89CHU
141.664	705.90	15 s	$3s3p$	^{3}P^o	2	—	$3s3d$	^{3}D	3	0.005	89SUG
143.90	694.93	10 b*	$3p3d$	^{3}F^o	4	—	$3d^2$	^{3}F	4	0.03	89CHU
143.90	694.93	10 b*	$3s3p$	^{3}P^o	2	—	$3s3d$	^{3}D	2	0.03	89CHU
144.40	692.52	8	$3p3d$	^{3}D^o	1	—	$3d^2$	^{3}F	2	0.03	89CHU
145.508	687.25	10 s	$3s3p$	^{1}P^o	1	—	$3s3d$	^{1}D	2	0.005	89SUG
146.15	684.23	7 b*	$3p^2$	^{1}S	0	—	$3p3d$	^{1}P^o	1	0.03	89CHU
146.15	684.23	7 b*	$3p^2$	^{3}P	2	—	$3p3d$	^{3}P^o	2	0.03	89CHU
146.942	680.54	s	$3s3p$	^{3}P^o	1	—	$3p^2$	^{3}P	2	0.005	89SUG
148.61	672.90	16	$3p^2$	^{3}P	2	—	$3p3d$	^{3}D^o	3	0.03	89CHU
149.768	667.70	23	$3p^2$	^{1}D	2	—	$3p3d$	^{1}D^o	2	0.03	89CHU
150.42	664.81	13	$3p3d$	^{3}D^o	2	—	$3d^2$	^{3}F	3	0.03	89CHU
155.09	644.79	15	$3p3d$	^{3}D^o	3	—	$3d^2$	^{3}F	4	0.03	89CHU
158.181	632.187	600 s	$3s^2$	^{1}S	0	—	$3s3p$	^{1}P^o	1	0.005	89SUG
161.31	619.92	4	$3p3d$	^{3}P^o	2	—	$3d^2$	^{3}F	3	0.03	89CHU
163.32	612.29	60	$3s3p$	^{3}P^o	0	—	$3p^2$	^{3}P	1	0.02	90JUP
166.083	602.109	2 s	$3s3p$	^{3}P^o	2	—	$3p^2$	^{3}P	2	0.005	89SUG
168.9	592.07	8 b	$3s3d$	^{3}D	2	—	$3p3d$	^{3}P^o	2	0.03	89CHU
169.61	589.59	40	$3s3p$	^{3}P^o	1	—	$3p^2$	^{3}P	1	0.02	90JUP
171.14	584.32	70	$3s3p$	^{3}P^o	1	—	$3p^2$	^{1}D	2	0.02	90JUP
172.38	580.11	10	$3s3d$	^{3}D	2	—	$3p3d$	^{3}D^o	3	0.03	89CHU
174.01	574.68	10 b	$3s3p$	^{1}P^o	1	—	$3p^2$	^{1}S	0	0.03	89CHU
174.86	571.89	6	$3s3d$	^{1}D	2	—	$3p3d$	^{1}P^o	1	0.03	89CHU
175.77	568.93	10 b	$3s3d$	^{3}D	3	—	$3p3d$	^{3}D^o	3	0.03	89CHU
181.90	549.75	18	$3s3d$	^{1}D	2	—	$3p3d$	^{1}F^o	3	0.03	89CHU
186.79	535.36	8 b	$3s3d$	^{3}D	3	—	$3p3d$	^{3}D^o	2	0.03	89CHU
192.92	518.35	15 b*	$3s3d$	^{3}D	3	—	$3p3d$	^{3}F^o	4	0.03	89CHU
192.92	518.35	15 b*	$3s3p$	^{3}P^o	1	—	$3p^2$	^{3}P	0	0.03	89CHU
195.63	511.17	20	$3s3p$	^{3}P^o	2	—	$3p^2$	^{3}P	1	0.02	90JUP
197.620	506.02	7	$3s3p$	^{3}P^o	2	—	$3p^2$	^{1}D	2	0.03	85WYA
217.03	460.77	5*	$3s3d$	^{3}D	2	—	$3p3d$	^{3}F^o	3	0.02	89CHU
217.03	460.77	5*	$3s3p$	^{1}P^o	1	—	$3p^2$	^{3}P	2	0.02	90JUP
242.548	412.290	20 s	$3s^2$	^{1}S	0	—	$3s3p$	^{3}P^o	1	0.005	89SUG
1277.1	78.30	M1	$3s3p$	^{3}P^o	1	—	$3s3p$	^{3}P^o	2	1.0	87ROB

4.26. Kr XXVI

Na isoelectronic sequence

Ground State $1s^22s^22p^63s\ ^2S_{1/2}$

Ionization energy 9 720 860±320 cm^{-1} (1205.23±0.04 eV) [99BIE]

Energy levels of 25 times ionized krypton, Kr XXVI, Na-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Wyart *et al.* [85WYA] and Reader *et al.* [87REA] For our compilation we have used the semiempirical energy levels of Matsushima *et al.* [91MAT] for the singly excited levels. They agree well with the levels compiled in Sugar and Musgrove [91SUG] as well as providing additional levels. The uncertainty quoted for their $2p^64l$ levels is about 500 cm^{-1}, for the $2p^65l$ levels it is about 1000 cm^{-1}, and for the $2p^66l$ levels it is about 2000 cm^{-1}. From the close agreement with Sugar and Musgrove [91SUG], we estimate that the uncertainty of the $2p^63l$ levels is 40 cm^{-1}. We also include some levels for which an inner shell electron is excited to the n=3–6 shells. We calculate the energy of 31 levels from the lines classified by Rice *et al.* [00RIC]. We do not use the one triply classified line (6.7556 Å) since it is difficult to determine reliable energies from such blended lines. The classifications by Rice *et al.* [00RIC] only specify the relativistic configurations and total angular momentum. In most cases this can allow two different energy levels classifications. A Hartree–Fock calculation with relativistic corrections [81COW] was carried out to fully classify these levels. The uncertainty in these levels below 18 000 000 cm^{-1} is 1000 cm^{-1}. However, we note that the two lines determining the 14 376 200 cm^{-1} level disagree by 9300 cm^{-1}, leading to a larger uncertainty for this level. Above 18 000 000 cm^{-1} the uncertainty is about 2000 cm^{-1}. We calculate the energy of nine levels from the lines classified by Hansen *et al.* [02HAN]. Ambiguous classifications here were also resolved through the use of the Hartree–Fock calculation. The uncertainty of these levels is about 3500 cm^{-1}. An additional level was determined from a line of Nagels *et al.* [03NAG]. Its uncertainty is about 22 000 cm^{-1}. The calculation was again used to fully classify this level. Other measurements of lines classified as having upper levels in which an inner shell electron is excited to the $n=4$ shell exist [97DYA], [95KHA], [94KHA] but due to multiple classifications we cannot unambiguously determine most of the levels. We have not included these lines in this compilation. In the energy level table the levels are designated using LS and jj coupling.

Compilations of Kr XXVI lines by Shirai *et al.* [95SHI], [00SHI] are based on Burkhalter *et al.* [79BUR], Wyart *et al.* [85WYA], Reader *et al.* [87REA], and Stewart *et al.* [87STE]. Note that the wavelengths from Reader *et al.* [87REA] are smoothed values from an isoelectronic comparison with Hartree–Fock calculations. To these sources we add lines from Rice *et al.* [00RIC], Hansen *et al.* [02HAN], and Nagels *et al.* [03NAG]. Since they provided no intensity information, we used the intensities from Wyart *et al.* [85WYA] for the Reader *et al.* [87REA] lines and from Gordon *et al.* [79GOR] for some of the Rice *et al.* [00RIC] lines.

Nagels *et al.* [03NAG] reported 12 Kr XXVI lines but most were multiply classified. They used a laser irradiated gas jet as their radiation source. Their wavelength uncertainty is 0.01 Å.

Hansen *et al.* [02HAN] classified 12 lines. They quote a wavelength uncertainty of 0.001 Å. They analyzed data from Dyakin *et al.* [97DYA] who used a laser irradiated gas target as their radiation source.

Rice *et al.* [00RIC] classified 35 Kr XXVI lines. They used tokamaks as their line source. They quote a wavelength uncertainty of 0.0005 Å.

Stewart *et al.* [87STE] classified 25 lines. They used a gas-puff Z-pinch plasma as their line source. They quote a wavelength uncertainty of 0.03 Å for most lines.

Reader *et al.* [87REA] classified seven lines. They used a tokamak as their line source. They estimate a 0.007 Å wavelength uncertainty in their isoelectronically smoothed values.

Wyart *et al.* [85WYA] classified 14 lines. They used a tokamak as their line source. They quote a wavelength uncertainty between 0.015 and 0.03 Å.

Burkhalter *et al.* [79BUR] classified 13 lines but most were blended. They used a gas-puff pulsed discharge source. Their estimated uncertainty was 0.007 Å.

Gordon *et al.* [79GOR] classified five lines but all were blended. They used a plasma focus device as their source. Their estimated uncertainty was 0.005 Å.

There exists other work with greater wavelength uncertainty: Kink *et al.* [01KIN], [90JUP], [86KON], [76HIN]. All lines from these references were superseded by those from the references above.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXVI levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXVI line table are taken from the specified sources. Their meaning is stated below:

Symbol	definition
p	perturbed by close line
s	wavelength smoothed along isoelectronic sequence
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.26.1. References

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TABLE 44. Energy levels of Kr XXVI

Energy level (cm^{-1})	Parity	Configuration	Term	*J*	Source of level
0	0	3*s*	^2S	1/2	91MAT
[454 413]	1	3*p*	$^2P^o$	1/2	91MAT
[558 678]	1	3*p*	$^2P^o$	3/2	91MAT
[1 164 184]	0	3*d*	^2D	3/2	91MAT
[1 183 991]	0	3*d*	^2D	5/2	91MAT
[4 493 690]	0	4*s*	^2S	1/2	91MAT
[4 679 430]	1	4*p*	$^2P^o$	1/2	91MAT
[4 720 640]	1	4*p*	$^2P^o$	3/2	91MAT
[4947 290]	0	4*d*	^2D	3/2	91MAT
[4 955 980]	0	4*d*	^2D	5/2	91MAT
[5 067 310]	1	4*f*	$^2F^o$	5/2	91MAT
[5 070 870]	1	4*f*	$^2F^o$	7/2	91MAT
[6 459 150]	0	5*s*	^2S	1/2	91MAT
[6 551 930]	1	5*p*	$^2P^o$	1/2	91MAT
[6 572 690]	1	5*p*	$^2P^o$	3/2	91MAT
[6 682 670]	0	5*d*	^2D	3/2	91MAT
[6 687 210]	0	5*d*	^2D	5/2	91MAT
[6 741 940]	1	5*f*	$^2F^o$	5/2	91MAT
[6 743 720]	1	5*f*	$^2F^o$	7/2	91MAT
[6 751 050]	0	5*g*	^2G	7/2	91MAT
[6 752 110]	0	5*g*	^2G	9/2	91MAT
[7 492 200]	0	6*s*	^2S	1/2	91MAT
[7 545 010]	1	6*p*	$^2P^o$	1/2	91MAT
[7 556 850]	1	6*p*	$^2P^o$	3/2	91MAT
[7 618 560]	0	6*d*	^2D	3/2	91MAT
[7 621 220]	0	6*d*	^2D	5/2	91MAT

TABLE 44. Energy levels of Kr XXVI—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
[7 652 900]	1	$6f$	$^2F^o$	5/2	91MAT
[7 653 950]	1	$6f$	$^2F^o$	7/2	91MAT
13 154 600	1	$2p^5(^2P^o{}_{3/2})3s^2$	$(3/2,0)^o$	3/2	00RIC
13 761 600	0	$2p^5(^2P^o{}_{3/2})3s3p$	(1,3/2)	5/2	00RIC
13 979 600	0	$2p^5(^2P^o{}_{1/2})3s3p$	(1,1/2)	3/2	00RIC
14 068 000	0	$2p^5(^2P^o{}_{1/2})3s3p$	(1,3/2)	5/2	00RIC
14 114 700	0	$2p^5(^2P^o{}_{1/2})3s3p$	(1,1/2)	1/2	00RIC
14 336 100	1	$2p^5(^2P^o{}_{3/2})3s3d$	$(1,5/2)^o$	1/2	00RIC
14 376 200	1	$2p^5(^2P^o{}_{3/2})3s3d$	$(1,3/2)^o$	3/2	00RIC
14 448 600	1	$2p^5(^2P^o{}_{3/2})3s3d$	$(2,5/2)^o$	1/2	00RIC
14 466 300	1	$2p^5(^2P^o{}_{3/2})3s3d$	$(2,5/2)^o$	3/2	00RIC
14 706 800	1	$2p^5(^2P^o{}_{1/2})3s3d$	$(0,5/2)^o$	5/2	00RIC
14 772 600	1	$2p^5(^2P^o{}_{1/2})3s3d$	$(1,3/2)^o$	3/2	00RIC
14 876 400	1	$2p^5(^2P^o{}_{1/2})3s3d$	$(1,5/2)^o$	5/2	00RIC
14 893 100	1	$2p^5(^2P^o{}_{1/2})3s3d$	$(1,5/2)^o$	3/2	00RIC
14 521 600	1	$2p^5(^2P^o{}_{1/2})3p^2(^3P_1)$	$(1/2,1)^o$	3/2	00RIC
14 604 500	1	$2p^5(^2P^o{}_{1/2})3p^2(^1D_2)$	$(1/2,2)^o$	3/2	00RIC
15 211 500	0	$2p^5(^2P^o{}_{1/2})3p3d$	(1,3/2)	3/2	00RIC
15 577 800	1	$2s3s(^1S_0)3p$	$(0,1/2)^o$	1/2	00RIC
15 629 400	1	$2s3s(^1S_0)3p$	$(0,3/2)^o$	3/2	00RIC
16 032 000	1	$2p^5(^2P^o{}_{1/2})3d^2(^3P_1)$	$(1/2,1)^o$	3/2	03NAG
18 240 500	1	$2p^5(^2P^o{}_{3/2})3s4d$	$(2,5/2)^o$	1/2	00RIC
18 255 800	1	$2p^5(^2P^o{}_{3/2})3s4d$	$(1,5/2)^o$	3/2	00RIC
18 668 200	1	$2p^5(^2P^o{}_{1/2})3s4d$	$(1,3/2)^o$	3/2	00RIC
18 668 200	1	$2p^5(^2P^o{}_{1/2})3s4d$	$(1,3/2)^o$	1/2	00RIC
18 628 000	0	$2p^5(^2P^o{}_{1/2})3p4s$	(1,1/2)	3/2	02HAN
18 679 300	0	$2p^5(^2P^o{}_{3/2})3p4d$	(2,5/2)	3/2	00RIC
18 785 000	0	$2p^5(^2P^o{}_{3/2})3p4d$	(2,5/2)	5/2	02HAN
18 892 000	0	$2p^5(^2P^o{}_{3/2})3p4d$	(0,5/2)	5/2	02HAN
19 080 200	0	$2p^5(^2P^o{}_{1/2})3p4d$	(1,3/2)	3/2	00RIC
19 211 200	0	$2p^5(^2P^o{}_{1/2})3p4d$	(1,3/2)	5/2	00RIC
19 222 000	0	$2p^5(^2P^o{}_{1/2})3p4d$	(0,5/2)	5/2	02HAN
19 245 000	0	$2p^5(^2P^o{}_{1/2})3p4d$	(0,3/2)	3/2	02HAN
19 308 000	1	$2p^5(^2P^o{}_{3/2})3d4d$	$(4,5/2)^o$	5/2	02HAN
19 448 000	1	$2p^5(^2P^o{}_{3/2})3d4d$	$(1,5/2)^o$	5/2	02HAN
19 770 000	1	$2p^5(^2P^o{}_{1/2})3d4d$	$(2,3/2)^o$	5/2	02HAN
19 856 000	1	$2p^5(^2P^o{}_{1/2})3d4d$	$(1,3/2)^o$	3/2	02HAN
19 889 400	1	$2s3s(^3S_1)4p$	$(1,3/2)^o$	3/2	00RIC
19 985 600	1	$2p^5(^2P^o{}_{3/2})3s5d$	$(1,3/2)^o$	1/2	00RIC
20 001 600	1	$2p^5(^2P^o{}_{3/2})3s5d$	$(1,5/2)^o$	3/2	00RIC
20 421 900	1	$2p^5(^2P^o{}_{1/2})3s5d$	$(1,3/2)^o$	3/2	00RIC
20 421 900	1	$2p^5(^2P^o{}_{1/2})3s5d$	$(1,3/2)^o$	1/2	00RIC
20 938 500	1	$2p^5(^2P^o{}_{3/2})3s6d$	$(2,5/2)^o$	1/2	00RIC

TABLE 45. Spectral lines of Kr XXVI

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4.7759	20 938.		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s6d$	$(2,5/2)^o$	1/2	0.0005	00RIC
4.8967	20 422.	*	3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s5d$	$(1,3/2)^o$	1/2	0.0005	00RIC
4.8967	20 422.	*	3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s5d$	$(1,3/2)^o$	3/2	0.0005	00RIC
4.9996	20 002.		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s5d$	$(1,5/2)^o$	3/2	0.0005	00RIC
5.0036	19 985.6		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s5d$	$(1,3/2)^o$	1/2	0.0005	00RIC
5.0278	19 889.4		3s	^{2}S	1/2	—	$2s3s(^3S_1)4p$	$(1,3/2)^o$	3/2	0.0005	00RIC
5.3217	18 791.	0.29	3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3p4d$	$(0,3/2)$	3/2	0.001	02HAN
5.3500	18 692.	0.27	3d	^{2}D	3/2	—	$2p^5(^2P^o_{1/2})3d4d$	$(1,3/2)^o$	3/2	0.001	02HAN
5.3567	18 668.2	*	3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s4d$	$(1,3/2)^o$	1/2	0.0005	00RIC
5.3567	18 668.2	*	3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s4d$	$(1,3/2)^o$	3/2	0.0005	00RIC
5.3581	18 663.	0.55	3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{1/2})3p4d$	$(0,5/2)$	5/2	0.001	02HAN
5.3612	18 652.5		3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{1/2})3p4d$	$(1,3/2)$	5/2	0.0005	00RIC
5.3689	18 625.8		3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3p4d$	$(1,3/2)$	3/2	0.0005	00RIC
5.3805	18 586.	0.72	3d	^{2}D	5/2	—	$2p^5(^2P^o_{1/2})3d4d$	$(2,3/2)^o$	5/2	0.001	02HAN
5.4546	18 333.	0.31	3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{3/2})3p4d$	$(0,5/2)$	5/2	0.001	02HAN
5.4752	18 264.	0.28	3d	^{2}D	5/2	—	$2p^5(^2P^o_{3/2})3d4d$	$(1,5/2)^o$	5/2	0.001	02HAN
5.4777	18 255.8		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s4d$	$(1,5/2)^o$	3/2	0.0005	00RIC
5.4823	18 240.5		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s4d$	$(2,5/2)^o$	1/2	0.0005	00RIC
5.4865	18 227.	0.67	3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{3/2})3p4d$	$(2,5/2)$	5/2	0.001	02HAN
5.4870	18 224.9		3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{3/2})3p4d$	$(2,5/2)$	3/2	0.0005	00RIC
5.5025	18 174.	0.96	3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3p4s$	$(1,1/2)$	3/2	0.001	02HAN
5.5176	18 124.	0.33	3d	^{2}D	5/2	—	$2p^5(^2P^o_{3/2})3d4d$	$(4,5/2)^o$	5/2	0.001	02HAN
6.3982	15 629.4		3s	^{2}S	1/2	—	$2s3s(^1S_0)3p$	$(0,3/2)^o$	3/2	0.0005	00RIC
6.4194	15 577.8		3s	^{2}S	1/2	—	$2s3s(^1S_0)3p$	$(0,1/2)^o$	1/2	0.0005	00RIC
6.7145	14 893.1	4	3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s3d$	$(1,5/2)^o$	3/2	0.0005	00RIC
6.735	14 848.		3d	^{2}D	5/2	—	$2p^5(^2P^o_{1/2})3d^2(^3P_1)$	$(1/2,1)^o$	3/2	0.01	03NAG
6.7688	14 773.7		3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3s3d$	$(1,3/2)^o$	3/2	0.0005	00RIC
6.7764	14 757.1		3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3p3d$	$(1,3/2)$	3/2	0.0005	00RIC
6.8472	14 604.5		3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3p^2(^1D_2)$	$(1/2,2)^o$	3/2	0.0005	00RIC
6.8863	14 521.6		3s	^{2}S	1/2	—	$2p^5(^2P^o_{1/2})3p^2(^3P_1)$	$(1/2,1)^o$	3/2	0.0005	00RIC
6.9126	14 466.3		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(2,5/2)^o$	3/2	0.0005	00RIC
6.9211	14 448.6	6	3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(2,5/2)^o$	1/2	0.0005	00RIC
6.9537	14 380.8	7	3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(1,3/2)^o$	3/2	0.0005	00RIC
6.9754	14 336.1		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(1,5/2)^o$	1/2	0.0005	00RIC
7.3033	13 692.4		3d	^{2}D	5/2	—	$2p^5(^2P^o_{1/2})3s3d$	$(1,5/2)^o$	5/2	0.0005	00RIC
7.3211	13 659.1		3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3s3p$	$(1,1/2)$	1/2	0.0005	00RIC
7.3490	13 607.3		3d	^{2}D	3/2	—	$2p^5(^2P^o_{1/2})3s3d$	$(1,3/2)^o$	3/2	0.0005	00RIC
7.3762	13 557.1		3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{1/2})3s3p$	$(1,1/2)$	1/2	0.0005	00RIC
7.3841	13 542.6		3d	^{2}D	3/2	—	$2p^5(^2P^o_{1/2})3s3d$	$(0,5/2)^o$	5/2	0.0005	00RIC
7.3936	13 525.2		3p	^{2}P^o	1/2	—	$2p^5(^2P^o_{1/2})3s3p$	$(1,1/2)$	3/2	0.0005	00RIC
7.4023	13 509.3		3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{1/2})3s3p$	$(1,3/2)$	5/2	0.0005	00RIC
7.538	13 266.		3d	^{2}D	5/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(2,5/2)^o$	3/2	0.007	79BUR
7.5741	13 203.		3p	^{2}P^o	3/2	—	$2p^5(^2P^o_{3/2})3s3p$	$(1,3/2)$	5/2	0.0005	00RIC
7.5829	13 188.		3d	^{2}D	5/2	—	$2p^5(^2P^o_{3/2})3s3d$	$(1,3/2)^o$	3/2	0.0005	00RIC
7.6019	13 155.		3s	^{2}S	1/2	—	$2p^5(^2P^o_{3/2})3s^2$	$(3/2,0)^o$	3/2	0.0005	00RIC
15.21	6575.		3s	^{2}S	1/2	—	$5p$	^{2}P^o	3/2	0.05	87STE
16.07	6223.		3p	^{2}P^o	1/2	—	$5d$	^{2}D	3/2	0.05	87STE
16.34	6120.		3p	^{2}P^o	3/2	—	$5d$	^{2}D	5/2	0.05	87STE
17.94	5574.		3d	^{2}D	3/2	—	$5f$	^{2}F^o	5/2	0.05	87STE
17.99	5559.		3d	^{2}D	5/2	—	$5f$	^{2}F^o	7/2	0.05	87STE
21.185	4720.	15	3s	^{2}S	1/2	—	$4p$	^{2}P^o	3/2	0.015	85WYA
21.369	4680.	10	3s	^{2}S	1/2	—	$4p$	^{2}P^o	1/2	0.015	85WYA
22.257	4493.	5	3p	^{2}P^o	1/2	—	$4d$	^{2}D	3/2	0.015	85WYA
22.743	4397.	10	3p	^{2}P^o	3/2	—	$4d$	^{2}D	5/2	0.015	85WYA
24.766	4038.	10 p	3p	^{2}P^o	1/2	—	$4s$	^{2}S	1/2	0.015	85WYA

TABLE 45. Spectral lines of Kr XXVI—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
25.416	3935.	30	3p	^{2}P^o	3/2	—	4s	^{2}S	1/2	0.015	85WYA
25.621	3903.0	30 s	3d	^{2}D	3/2	—	4f	^{2}F^o	5/2	0.007	87REA
25.728	3886.8	40 s	3d	^{2}D	5/2	—	4f	^{2}F^o	7/2	0.007	87REA
48.11	2078.6		4s	^{2}S	1/2	—	5p	^{2}P^o	3/2	0.03	87STE
48.59	2058.0		4s	^{2}S	1/2	—	5p	^{2}P^o	1/2	0.03	87STE
49.93	2002.8		4p	^{2}P^o	1/2	—	5d	^{2}D	3/2	0.03	87STE
50.86	1966.2		4p	^{2}P^o	3/2	—	5d	^{2}D	5/2	0.03	87STE
55.71	1795.0		4d	^{2}D	3/2	—	5f	^{2}F^o	5/2	0.03	87STE
55.93	1787.9		4d	^{2}D	5/2	—	5f	^{2}F^o	7/2	0.03	87STE
59.377	1684.2	6	4f	^{2}F^o	5/2	—	5g	^{2}G	7/2	0.015	85WYA
59.459	1681.8	8	4f	^{2}F^o	7/2	—	5g	^{2}G	9/2	0.015	85WYA
140.891	709.77	25 s	3p	^{2}P^o	1/2	—	3d	^{2}D	3/2	0.007	87REA
159.920	625.31	30 s	3p	^{2}P^o	3/2	—	3d	^{2}D	5/2	0.007	87REA
165.160	605.47	s	3p	^{2}P^o	3/2	—	3d	^{2}D	3/2	0.007	87REA
178.994	558.68	70 s	3s	^{2}S	1/2	—	3p	^{2}P^o	3/2	0.007	87REA
220.064	454.413	50 s	3s	^{2}S	1/2	—	3p	^{2}P^o	1/2	0.007	87REA

4.27. Kr XXVII

Ne isoelectronic sequence

Ground State $1s^2 2s^2 2p^6\ ^1S_0$

Ionization energy 23 623 000±14 000 cm^{-1} (2928.9±1.7 eV) [99BIE]

Energy levels of 26 times ionized krypton, Kr XXVII, Ne-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Buchet *et al.* [88BUC], Gordon *et al.* [79GOR], and Burkhalter *et al.* [79BUR]. Calculated values were used to relate levels based on the two $2p^5$ ($^2P^o_{1/2}$ and $^2P^o_{3/2}$) core states. A number of improved measurements and additional Kr XXVII lines were published after that compilation was completed [94KHA], [95KHA], [97DYA], [00RIC], [01KIN], [02HAN], [03NAG]. Therefore, it was necessary to completely redetermine the energy levels. A set of 62 classified lines was collected from the following three sources given in decreasing order of the number of lines contributed: Buchet *et al.* [88BUC], Rice *et al.* [00RIC], and Dyakin *et al.* [97DYA]. The levels were then obtained by means of a least squares fitting procedure, weighted according to the reciprocal of the square of the uncertainty in the measured wavelength of each observed line, using the program ELCALC [69RAD]. The electric and magnetic quadrupole lines were included in the fit. The uncertainties of the fit range from 170 to 2700 cm^{-1} (except for one level with 4100 cm^{-1}) and are listed in the far right column of the table of Kr XXVII energy levels. The levels are designated using LS and jj coupling.

Compilations of Kr XXVII lines were published by Shirai *et al.* [95SHI], [00SHI]. Our line compilation uses the same three line sources we used to determine the energy levels. Since they provided no intensity information, we used the intensities (when available) from Khakhalin *et al.* [95KHA] for the Dyakin *et al.* [97DYA] lines, from Gordon *et al.* [79GOR] for the Rice *et al.* [00RIC] lines, and from Stewart *et al.* [87STE] for the Buchet *et al.* [88BUC] lines. We note that Hansen *et al.* [02HAN] reevaluated the data of Dyakin *et al.* [97DYA] and reported slightly different wavelengths and an uncertainty of 0.001 Å for four of the lines we use from Dyakin *et al.* [97DYA]. The lines reported by Nagels *et al.* [03NAG] were measured with lower uncertainty by Rice *et al.* [00RIC] or Dyakin *et al.* [97DYA].

Rice *et al.* [00RIC], classified 31 Kr XXVII lines, all involving a transition to the ground state. They used tokamaks as their line source. They quote a wavelength uncertainty of 0.0005 Å.

Dyakin *et al.* [97DYA] classified five lines, also to the ground state. Their source was a laser-excited gas-puff plasma. They quote wavelength uncertainties of 0.0004–0.0012 Å.

Khakhalin *et al.* [95KHA] classified seven lines, also to the ground state. Their source was a laser-excited gas-puff plasma. They quote a relative wavelength uncertainty of 0.001 Å.

Buchet *et al.* [88BUC] classified 28 lines. They used beam foil spectroscopy for their measurements. They quote wavelength uncertainties of 0.05–0.20 Å.

Stewart *et al.* [87STE] tentatively classified 14 lines. They used a gas-puff Z-pinch plasma as their line source. They quote a wavelength uncertainty of 0.03 Å for most lines (0.05 Å for very weak lines).

Gordon *et al.* [79GOR] classified seven lines. They used a plasma focus device as their source. Their estimated uncertainty was 0.005 Å.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXVII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXVII line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
t	tentative classification
E2	electric quadrupole line
M2	magnetic quadrupole line.
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.27.1. References

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TABLE 46. Energy levels of Kr XXVII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})
0	0	$2s^22p^6$	^1S	0	700
13 300 650	1	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	170
13 326 600	1	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	200
13 748 300	1	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	0	300
13 761 000	1	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	200
13 713 400	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,1/2)$	1	200
13 738 400	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,1/2)$	2	200
13 831 400	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,3/2)$	3	200
13 836 100	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,3/2)$	1	400
13 870 500	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,3/2)$	2	300
14 004 500	0	$2s^22p^5(^2P^o_{3/2})3p$	$(3/2,3/2)$	0	500
14 175 300	0	$2s^22p^5(^2P^o_{1/2})3p$	$(1/2,1/2)$	1	300

TABLE 46. Energy levels of Kr XXVII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Uncertainty of level (cm^{-1})
14 286 900	0	$2s^22p^5(^2P^o{}_{1/2})3p$	(1/2,3/2)	1	300
14 296 600	0	$2s^22p^5(^2P^o{}_{1/2})3p$	(1/2,3/2)	2	300
14 347 300	0	$2s^22p^5(^2P^o{}_{1/2})3p$	(1/2,1/2)	0	300
14 342 000	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,3/2)^o$	0	300
14 369 600	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,3/2)^o$	1	300
14 394 600	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,3/2)^o$	3	200
14 399 100	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,5/2)^o$	4	700
14 401 210	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,5/2)^o$	2	170
14 424 400	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,3/2)^o$	2	400
14 448 400	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,5/2)^o$	3	200
14 537 600	1	$2s^22p^5(^2P^o{}_{3/2})3d$	$(3/2,5/2)^o$	1	1300
14 843 100	1	$2s^22p^5(^2P^o{}_{1/2})3d$	$(1/2,3/2)^o$	2	300
14 861 300	1	$2s^22p^5(^2P^o{}_{1/2})3d$	$(1/2,5/2)^o$	2	500
14 872 800	1	$2s^22p^5(^2P^o{}_{1/2})3d$	$(1/2,5/2)^o$	3	300
14 931 400	1	$2s^22p^5(^2P^o{}_{1/2})3d$	$(1/2,3/2)^o$	1	1300
15 661 200	1	$2s2p^63p$	$(1/2,1/2)^o$	1	1400
15 784 100	1	$2s2p^63p$	$(1/2,3/2)^o$	1	1400
16 383 200	0	$2s2p^63d$	(1/2,5/2)	2	1500
18 039 500	1	$2s^22p^5(^2P^o{}_{3/2})4s$	$(3/2,1/2)^o$	1	1800
18 477 100	1	$2s^22p^5(^2P^o{}_{1/2})4s$	$(1/2,1/2)^o$	1	1500
18 449 000	1	$2s^22p^5(^2P^o{}_{3/2})4d$	$(3/2,3/2)^o$	1	4100
18 516 800	1	$2s^22p^5(^2P^o{}_{3/2})4d$	$(3/2,5/2)^o$	1	1500
18 943 000	1	$2s^22p^5(^2P^o{}_{1/2})4d$	$(1/2,3/2)^o$	1	1600
20 110 200	1	$2s^22p^5(^2P^o{}_{3/2})5s$	$(3/2,1/2)^o$	1	2000
20 128 000	1	$2s2p^64p$	$(1/2,1/2)^o$	1	2000
20 167 400	1	$2s2p^64p$	$(1/2,3/2)^o$	1	2000
20 357 100	1	$2s^22p^5(^2P^o{}_{3/2})5d$	$(3/2,5/2)^o$	1	2100
20 794 300	1	$2s^22p^5(^2P^o{}_{1/2})5d$	$(1/2,3/2)^o$	1	2200
21 357 900	1	$2s^22p^5(^2P^o{}_{3/2})6d$	$(3/2,5/2)^o$	1	2300
21 795 000	1	$2s^22p^5(^2P^o{}_{1/2})6d$	$(1/2,3/2)^o$	1	2400
21 955 300	1	$2s^22p^5(^2P^o{}_{3/2})7d$	$(3/2,5/2)^o$	1	2400
22 398 900	1	$2s^22p^5(^2P^o{}_{1/2})7d$	$(1/2,3/2)^o$	1	2500
22 121 400	1	$2s2p^65p$	$(1/2,1/2)^o$	1	2400
22 141 500	1	$2s2p^65p$	$(1/2,3/2)^o$	1	2500
22 343 400	1	$2s^22p^5(^2P^o{}_{3/2})8d$	$(3/2,5/2)^o$	1	2500
22 793 600	1	$2s^22p^5(^2P^o{}_{1/2})8d$	$(1/2,3/2)^o$	1	2600
22 606 500	1	$2s^22p^5(^2P^o{}_{3/2})9d$	$(3/2,5/2)^o$	1	2600
23 045 700	1	$2s^22p^5(^2P^o{}_{1/2})9d$	$(1/2,3/2)^o$	1	2700

TABLE 47. Spectral lines of Kr XXVII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification Configuration	Term	J		Configuration	Term	J	Uncertainty of observed wavelength (Å)	Source of line
4.3392	23 046.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})9d$	(1/2,3/2)*	1	0.0005	00RIC
4.3872	22 794.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})8d$	(1/2,3/2)*	1	0.0005	00RIC
4.4235	22 607.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})9d$	$(3/2,5/2)^o$	1	0.0005	00RIC
4.4645	22 399.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})7d$	$(1/2,3/2)^o$	1	0.0005	00RIC
4.4756	22 343.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})8d$	$(3/2,5/2)^o$	1	0.0005	00RIC
4.5164	22 142.		$2s^22p^6$	^{1}S	0	—	$2s2p^65p$	$(1/2,3/2)^o$	1	0.0005	00RIC
4.5205	22 121.		$2s^22p^6$	^{1}S	0	—	$2s2p^65p$	$(1/2,1/2)^o$	1	0.0005	00RIC
4.5547	21 955.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})7d$	$(3/2,5/2)^o$	1	0.0005	00RIC
4.5882	21 795.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})6d$	$(1/2,3/2)^o$	1	0.0005	00RIC
4.6821	21 358.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})6d$	$(3/2,5/2)^o$	1	0.0005	00RIC
4.8090	20 794.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})5d$	$(1/2,3/2)^o$	1	0.0005	00RIC
4.9123	20 357.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})5d$	$(3/2,5/2)^o$	1	0.0005	00RIC
4.9585	20 167.		$2s^22p^6$	^{1}S	0	—	$2s2p^64p$	$(1/2,3/2)^o$	1	0.0005	00RIC
4.9682	20 128.		$2s^22p^6$	^{1}S	0	—	$2s2p^64p$	$(1/2,1/2)^o$	1	0.0005	00RIC
4.9726	20 110.		$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})5s$	$(3/2,1/2)^o$	1	0.0005	00RIC
5.2790	18 943.0	40	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})4d$	$(1/2,3/2)^o$	1	0.0004	97DYA
5.4005	18 516.8	50	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})4d$	$(3/2,5/2)^o$	1	0.0004	97DYA
5.4121	18 477.1	25	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})4s$	$(1/2,1/2)^o$	1	0.0004	97DYA
5.4204	18 449.	5	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})4d$	$(3/2,3/2)^o$	1	0.0012	97DYA
5.5434	18 039.5	35	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})4s$	$(3/2,1/2)^o$	1	0.0005	97DYA
6.1038	16 383.2	E2	$2s^22p^6$	^{1}S	0	—	$2s2p^63d$	(1/2,5/2)	2	0.0005	00RIC
6.3355	15 784.1	4	$2s^22p^6$	^{1}S	0	—	$2s2p^63p$	$(1/2,3/2)^o$	1	0.0005	00RIC
6.3852	15 661.2	5	$2s^22p^6$	^{1}S	0	—	$2s2p^63p$	$(1/2,1/2)^o$	1	0.0005	00RIC
6.6973	14 931.4	8	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})3d$	$(1/2,3/2)^o$	1	0.0005	00RIC
6.8787	14 537.6	10	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	1	0.0005	00RIC
6.9594	14 369.1	7	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	1	0.0005	00RIC
6.9952	14 295.5	E2	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	2	0.0005	00RIC
7.2081	13 873.3	E2	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	2	0.0005	00RIC
7.2675	13 759.9	6	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	0.0005	00RIC
7.2775	13 741.0	E2	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	0.0005	00RIC
7.5044	13 325.5	9	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	0.0005	00RIC
7.5192	13 299.3	M2	$2s^22p^6$	^{1}S	0	—	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	0.0005	00RIC
145.35	688.0		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	1	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	2	0.10	88BUC
145.75	686.1		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	2	0.10	88BUC
147.51	677.9	t	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	0	0.10	88BUC
149.75	667.8		$2s^22p^5(^2P^o_{1/2})3p$	(1/2,1/2)	1	—	$2s^22p^5(^2P^o_{1/2})3d$	$(1/2,3/2)^o$	2	0.05	88BUC
150.89	662.7		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	2	0.05	88BUC
152.38	656.3	*	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	1	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	1	0.05	88BUC
152.38	656.3	*	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	3	0.05	88BUC
158.45	631.1	t	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	1	0.10	88BUC
159.06	628.69		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	1	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	0	0.05	88BUC
162.08	616.98		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	3	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	3	0.05	88BUC
169.97	588.34		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	1	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	2	0.05	88BUC
170.55	586.34	t	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,1/2)	0	0.05	88BUC
173.05	577.9		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	3	0.08	88BUC
173.60	576.0		$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	2	—	$2s^22p^5(^2P^o_{1/2})3d$	$(1/2,5/2)^o$	3	0.10	88BUC
174.10	574.4	10	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	1	—	$2s^22p^5(^2P^o_{1/2})3d$	$(1/2,5/2)^o$	2	0.10	88BUC
175.55	569.6		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	2	0.20	88BUC
176.15	567.7	10	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	3	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	4	0.20	88BUC
177.65	562.9		$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	3	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,3/2)^o$	3	0.20	88BUC
183.90	543.8		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	2	0.15	88BUC
185.65	538.6	4	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	0	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	1	0.20	88BUC
186.70	535.6	8	$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	2	0.10	88BUC
188.38	530.8	11*	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	2	—	$2s^22p^5(^2P^o_{3/2})3d$	$(3/2,5/2)^o$	2	0.10	88BUC
188.38	530.8	11*	$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	3	0.10	88BUC

TABLE 47. Spectral lines of Kr XXVII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
190.14	525.9		$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,3/2)	1	0.10	88BUC
196.30	509.4		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,3/2)	1	0.20	88BUC
228.50	437.64		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	0.10	88BUC
234.18	427.02		$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	0	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,1/2)	1	0.10	88BUC
241.37	414.3		$2s^22p^5(^2P^o_{1/2})3s$	$(1/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{1/2})3p$	(1/2,1/2)	1	0.15	88BUC
242.25	412.8		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	2	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	1	0.15	88BUC
242.85	411.8		$2s^22p^5(^2P^o_{3/2})3s$	$(3/2,1/2)^o$	1	—	$2s^22p^5(^2P^o_{3/2})3p$	(3/2,1/2)	2	0.15	88BUC

4.28. Kr XXVIII

F isoelectronic sequence

Ground State $1s^22s^22p^5\ ^2P^o_{3/2}$

Ionization energy 24 775 000±43 000 cm^{-1} (3072.±5. eV) [99BIE]

Energy levels of 27 times ionized krypton, Kr XXVIII, F-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN], Dietrich *et al.* [86DIE], and Burkhalter *et al.* [79BUR]. Improved measurements and additional Kr XXVIII lines were published after that compilation was completed [00RIC], [02HAN]. These lines were used to revise some levels and define new levels. The data reported by Rice *et al.* [00RIC] and Hansen [02HAN] did not uniquely define the upper levels of the transitions. A Hartree–Fock calculation with relativistic corrections [81COW] was made to classify these levels as well as to resolve some multiple classifications. All determined lines involve at least one of the three lowest levels. For the levels with higher energies than those, only four are determined by two lines, while the rest are determined by a single line. The energies of all these levels were determined from the lines. We did not include the three triply classified lines from Rice *et al.* [00RIC] (4.4756, 5.0552, and 5.1954 Å) and the levels they define since it is difficult to determine reliable energies from such blended lines. The three lowest levels have the values used by Sugar and Musgrove [91SUG]. The $2s2p^5\ ^2P^o_{1/2}$ level has an uncertainty of 60 cm^{-1} and the $2s2p^6\ ^2S_{1/2}$ level has an uncertainty of 500 cm^{-1}. The 15 554 600 cm^{-1} level has an uncertainty of 11 000 cm^{-1} due to the differing values obtained from the two lines connecting it to the ground configuration. (The calculation indicated that the two lines were to the same level.) The rest of the levels determined by Rice *et al.* [00RIC] lines have about 1200 cm^{-1} uncertainty for levels below 19 000 000 cm^{-1} and about 2300 cm^{-1} for higher levels. The levels determined by Burkhalter *et al.* [79BUR] lines have 17 000 cm^{-1} uncertainty, while the levels due to Hansen *et al.* [02HAN] have 10 000 cm^{-1} uncertainty. In the energy level table the levels are designated using LS and jj coupling.

Compilations of Kr XXVIII lines were published by Shirai *et al.* [95SHI], [00SHI]. Our line compilation uses four line sources: [02HAN], [00RIC], [79BUR], [89DEN]. Since they provided no intensity information, we used the intensities from Wyart *et al.* [85WYA] for the Denne *et al.* [89DEN] lines. Lines from Kink *et al.* [01KIN] were not used because they are highly blended due to the relatively low resolution of their measurements which makes their classification uncertain.

Hansen *et al.* [02HAN] classified four Kr XXVIII lines. They used Kr clusters, produced by a pulsed supersonic gas jet, and irradiated by femtosecond laser pulses as their radiation source. They quote a wavelength uncertainty of 0.0025 Å.

[01KIN] classified 18 lines. They used an EBIT as their line source. Their wavelength uncertainty was about 0.013 Å (for lines in the 6–8 Å range).

[00RIC] classified 42 lines. They used tokamaks as their line source. They quote a wavelength uncertainty of 0.0005 Å.

Denne *et al.* [89DEN] classified three lines. They used a tokamak as their line source. They quote wavelength uncertainties of 0.02–0.03 Å.

Wyart *et al.* [85WYA] classified two lines. They also used a tokamak as their line source. They quote wavelength uncertainties of 0.015 Å.

Burkhalter *et al.* [79BUR] classified 32 lines. They used a gas-puff Z-pinch plasma as their line source. They quote a wavelength uncertainty of 0.007 Å.

Other work with similar wavelength uncertainty was carried out by Dietrich *et al.* [86DIE]. All lines from this reference were superseded by those from the references above as were lines from Nagels *et al.* [03NAG]. For common lines the order of choice was [00RIC], [02NAG], [79BUR], and then [89DEN].

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXVIII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXVIII line table are taken from the specified sources. Their meanings are stated below:

Symbol	Definition
E2	electric quadrupole line
M1	magnetic dipole line

Symbol	Definition
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.28.1. References

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TABLE 48. Energy levels of Kr XXVIII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	1	$2s^22p^5$	$^2P^o$	3/2	89DEN
446 440	1	$2s^22p^5$	$^2P^o$	1/2	89DEN
1 901 350	0	$2s2p^6$	^2S	1/2	91SUG
13 866 400	0	$2s^22p^4(^3P_2)3s$	(2, 1/2)	5/2	00RIC
13 903 800	0	$2s^22p^4(^3P_2)3s$	(2, 1/2)	3/2	00RIC
14 041 400	0	$2s^22p^4(^3P_0)3s$	(0, 1/2)	1/2	00RIC
14 306 200	0	$2s^22p^4(^3P_1)3s$	(1, 1/2)	3/2	00RIC
14 337 000	0	$2s^22p^4(^3P_1)3s$	(1, 1/2)	1/2	79BUR
14 400 100	0	$2s^22p^4(^1D_2)3s$	(2, 1/2)	5/2	00RIC
14 412 900	0	$2s^22p^4(^2D_1)3s$	(2, 1/2)	3/2	00RIC
14 271 400	1	$2s^22p^4(^3P_2)3p$	$(2, 1/2)^o$	5/2	00RIC
14 945 100	1	$2s^22p^4(^1D_2)3p$	$(2, 3/2)^o$	5/2	00RIC
14 861 900	0	$2s^22p^4(^3P_2)3d$	(2, 3/2)	3/2	00RIC
14 892 000	0	$2s^22p^4(^3P_2)3d$	(2, 3/2)	1/2	79BUR
14 980 400	0	$2s^22p^4(^3P_2)3d$	(2, 5/2)	3/2	00RIC
15 008 900	0	$2s^22p^4(^3P_2)3d$	(2, 5/2)	5/2	00RIC
15 062 700	0	$2s^22p^4(^3P_0)3d$	(0, 3/2)	3/2	00RIC
15 090 900	0	$2s^22p^4(^3P_0)3d$	(0, 5/2)	5/2	00RIC
15 309 500	0	$2s^22p^4(^3P_1)3d$	(1, 3/2)	3/2	00RIC
15 338 800	0	$2s^22p^4(^3P_1)3d$	(1, 3/2)	5/2	00RIC
15 374 000	0	$2s^22p^4(^3P_1)3d$	(1, 5/2)	3/2	79BUR
15 380 000	0	$2s^22p^4(^3P_1)3d$	(1, 5/2)	5/2	79BUR

TABLE 48. Energy levels of Kr XXVIII—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
15 434 500	0	$2s^22p^4(^1D_2)3d$	(2,3/2)	1/2	00RIC
15 434 500	0	$2s^22p^4(^1D_2)3d$	(2,5/2)	5/2	00RIC
15 465 500	0	$2s^22p^4(^1D_2)3d$	(2,3/2)	3/2	00RIC
15 465 500	0	$2s^22p^4(^1D_2)3d$	(2,3/2)	5/2	00RIC
15 554 600	0	$2s^22p^4(^1D_2)3d$	(2,5/2)	3/2	00RIC
15 578 500	0	$2s^22p^4(^1D_2)3d$	(2,5/2)	1/2	00RIC
15 953 000	0	$2s^22p^4(^1S_0)3d$	(0,3/2)	3/2	79BUR
15 790 000	1	$2s^22p^5(^2P_{3/2})3s$	$(1,1/2)^o$	3/2	00RIC
15 976 000	0	$2s^22p^5(^2P_{3/2})3p$	(2,1/2)	5/2	00RIC
16 086 000	0	$2s^22p^5(^2P_{3/2})3p$	(2,3/2)	3/2	00RIC
16 113 200	0	$2s^22p^5(^2P_{3/2})3p$	(2,3/2)	5/2	00RIC
16 205 000	0	$2s^22p^5(^2P_{3/2})3p$	(2,3/2)	1/2	79BUR
16 218 000	0	$2s^22p^5(^2P_{3/2})3p$	(1,1/2)	3/2	79BUR
162 771 00	0	$2s^22p^5(^2P_{3/2})3p$	(1,3/2)	5/2	00RIC
16 316 000	0	$2s^22p^5(^2P_{3/2})3p$	(1,3/2)	3/2	79BUR
16 651 000	0	$2s^22p^5(^2P_{1/2})3p$	(1,1/2)	3/2	79BUR
16 776 600	0	$2s^22p^5(^2P_{1/2})3p$	(1,3/2)	5/2	00RIC
16 625 100	1	$2s^22p^5(^2P_{3/2})3d$	$(2,5/2)^o$	5/2	00RIC
16 625 100	1	$2s^22p^5(^2P_{3/2})3d$	$(2,5/2)^o$	7/2	00RIC
16 769 200	1	$2s^22p^5(^2P_{3/2})3d$	$(1,3/2)^o$	1/2	00RIC
16 769 200	1	$2s^22p^5(^2P_{3/2})3d$	$(1,3/2)^o$	3/2	00RIC
16 776 600	1	$2s^22p^5(^2P_{3/2})3d$	$(1,5/2)^o$	5/2	00RIC
16 776 600	1	$2s^22p^5(^2P_{3/2})3d$	$(1,5/2)^o$	7/2	00RIC
17 066 900	1	$2s^22p^5(^2P_{1/2})3d$	$(0,3/2)^o$	3/2	00RIC
18 069 000	1	$2p^63p$	$^2P^o$	1/2	79BUR
18 175 000	1	$2p^63p$	$^2P^o$	3/2	79BUR
18 855 000	0	$2s^22p^4(^3P_2)4s$	(2,1/2)	3/2	02HAN
19 255 000	0	$2s^22p^4(^3P_2)4d$	(2,5/2)	1/2	02HAN
19 289 800	0	$2s^22p^4(^3P_2)4d$	(2,5/2)	3/2	00RIC
19 299 100	0	$2s^22p^4(^3P_2)4d$	(2,5/2)	5/2	00RIC
19 422 000	0	$2s^22p^4(^3P_0)4d$	(0,5/2)	5/2	00RIC
19 669 600	0	$2s^22p^4(^3P_1)4d$	(1,3/2)	5/2	00RIC
19 702 000	0	$2s^22p^4(^3P_1)4d$	(1,5/2)	3/2	02HAN
19 774 200	0	$2s^22p^4(^1D_2)4d$	(2,3/2)	3/2	00RIC
19 774 200	0	$2s^22p^4(^1D_2)4d$	(2,3/2)	1/2	00RIC
19 807 500	0	$2s^22p^4(^1D_2)4d$	(2,5/2)	3/2	00RIC
19 826 000	0	$2s^22p^4(^1D_2)4d$	(2,5/2)	1/2	02HAN
21 272 100	0	$2s^22p^4(^3P_2)5d$	(2,5/2)	5/2	00RIC
21 272 100	0	$2s^22p^4(^3P_2)5d$	(2,5/2)	3/2	00RIC
21 674 600	0	$2s^22p^4(^3P_1)5d$	(1,3/2)	5/2	00RIC
21 778 900	0	$2s^22p^4(^1D_2)5d$	(2,3/2)	3/2	00RIC
217 789 00	0	$2s^22p^4(^1D_2)5d$	(2,3/2)	1/2	00RIC
22 939 500	0	$2s^22p^4(^3P_2)7d$	(2,5/2)	5/2	00RIC

TABLE 49. Spectral lines of Kr XXVIII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4.3593	22 939.		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)7d$	(2,5/2)	5/2	0.0005	00RIC

TABLE 49. Spectral lines of Kr XXVIII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4.5916	21 779.	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)5d$	(2,3/2)	3/2	0.0005	00RIC
4.5916	21 779.	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)5d$	(2,3/2)	1/2	0.0005	00RIC
4.6137	21 675.		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)5d$	(1,3/2)	5/2	0.0005	00RIC
4.7010	21 272.	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)5d$	(2,5/2)	5/2	0.0005	00RIC
4.7010	21 272.	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)5d$	(2,5/2)	3/2	0.0005	00RIC
5.0840	19 669.6		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)4d$	(1,3/2)	5/2	0.0005	00RIC
5.1488	19 422.0		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_0)4d$	(0,5/2)	5/2	0.0005	00RIC
5.1602	19 379.	0.2	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)4d$	(2,5/2)	1/2	0.0025	02HAN
5.1650	19 361.1		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)4d$	(2,5/2)	3/2	0.0005	00RIC
5.1739	19 327.8	*	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)4d$	(2,3/2)	3/2	0.0005	00RIC
5.1739	19 327.8	*	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)4d$	(2,3/2)	1/2	0.0005	00RIC
5.1816	19 299.1		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)4d$	(2,5/2)	5/2	0.0005	00RIC
5.1841	19 289.8		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)4d$	(2,5/2)	3/2	0.0005	00RIC
5.1934	19 255.	0.2*	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^3P_1)4d$	(1,5/2)	3/2	0.0025	02HAN
5.1934	19 255.	0.2*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)4d$	(2,5/2)	1/2	0.0025	02HAN
5.3036	18 855.	.16	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)4s$	(2,1/2)	3/2	0.0025	02HAN
5.9607	16 776.6	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{1/2})3p$	(1,3/2)	5/2	0.0005	00RIC
5.9607	16 776.6	*$E2$	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3d$	$(1,5/2)^o$	5/2	0.0005	00RIC
5.9607	16 776.6	*E2	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3d$	$(1,5/2)^o$	7/2	0.0005	00RIC
6.0150	16 625.1	*E2	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3d$	$(2,5/2)^o$	7/2	0.0005	00RIC
6.0150	16 625.1	*E2	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3d$	$(2,5/2)^o$	5/2	0.0005	00RIC
6.129	16 316.		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(1,3/2)	3/2	0.007	79BUR
6.1436	16 277.1		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(1,3/2)	5/2	0.0005	00RIC
6.145	16 273.		$2s2p^6$	^2S	1/2	—	$2p^63p$	$^2P^o$	3/2	0.007	79BUR
6.166	16 218.		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(1,1/2)	3/2	0.007	79BUR
6.171	16 205.	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(2,3/2)	1/2	0.007	79BUR
6.171	16 205.	*	$2s^22p^5$	$^2P^o$	1/2	—	$2s2p^5(^2P_{1/2})3p$	(1,1/2)	3/2	0.007	79BUR
6.185	16 168.		$2s2p^6$	^2S	1/2	—	$2p^63p$	$^2P^o$	1/2	0.007	79BUR
6.2061	16 113.2		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(2,3/2)	5/2	0.0005	00RIC
6.2166	16 086.0		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(2,3/2)	3/2	0.0005	00RIC
6.2594	15 976.0		$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^5(^2P_{3/2})3p$	(2,1/2)	5/2	0.0005	00RIC
6.4321	15 547.0		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3d$	(2,5/2)	3/2	0.0005	00RIC
6.449	15 506.		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1S_0)3d$	(0,3/2)	3/2	0.007	79BUR
6.4660	15 465.5	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3d$	(2,3/2)	5/2	0.0005	00RIC
6.4660	15 465.5	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3d$	(2,3/2)	3/2	0.0005	00RIC
6.4790	15 434.5	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3d$	(2,3/2)	1/2	0.0005	00RIC
6.4790	15 434.5	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3d$	(2,5/2)	5/2	0.0005	00RIC
6.502	15 380.		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)3d$	(1,5/2)	5/2	0.007	79BUR
6.5194	15 338.8		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)3d$	(1,3/2)	5/2	0.0005	00RIC
6.5319	15 309.5		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)3d$	(1,3/2)	3/2	0.0005	00RIC
6.5939	15 165.5		$2s2p^6$	^2S	1/2	—	$2s2p^5(^2P_{1/2})3d$	$(0,3/2)^o$	3/2	0.0005	00RIC
6.6085	15 132.0		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)3d$	(2,5/2)	1/2	0.0005	00RIC
6.6156	15 115.8		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)3d$	(2,5/2)	3/2	0.0005	00RIC
6.6265	15 090.9		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_0)3d$	(0,5/2)	5/2	0.0005	00RIC
6.6389	15 062.7		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_0)3d$	(0,3/2)	3/2	0.0005	00RIC
6.6627	15 008.9		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3d$	(2,5/2)	5/2	0.0005	00RIC
6.6754	14 980.4		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3d$	(2,5/2)	3/2	0.0005	00RIC
6.699	14 928.		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^3P_1)3d$	(1,5/2)	3/2	0.007	79BUR
6.715	14 892.		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3d$	(2,3/2)	1/2	0.007	79BUR
6.7259	14 868.	*	$2s2p^6$	^2S	1/2	—	$2s2p^5(^2P_{3/2})3d$	$(1,3/2)^o$	1/2	0.0005	00RIC
6.7259	14 868.	*	$2s2p^6$	^2S	1/2	—	$2s2p^5(^2P_{3/2})3d$	$(1,3/2)^o$	3/2	0.0005	00RIC
6.881	14 533.		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^3P_2)3d$	(2,5/2)	3/2	0.007	79BUR
6.8972	14 498.6	E2	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)3p$	$(2,3/2)^o$	5/2	0.0005	00RIC
6.9370	14 415.5	*	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^3P_2)3d$	(2,3/2)	3/2	0.0005	00RIC
6.9370	14 415.5	*	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3s$	(2,1/2)	3/2	0.0005	00RIC

TABLE 49. Spectral lines of Kr XXVIII—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
6.9444	14 400.1		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^1D_2)3s$	(2,1/2)	5/2	0.0005	00RIC
6.975	14 337.		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)3s$	(1,1/2)	1/2	0.007	79BUR
6.9900	14 306.2		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_1)3s$	(1,1/2)	3/2	0.0005	00RIC
7.0070	14 271.4	E2	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3p$	$(2,1/2)^o$	5/2	0.0005	00RIC
7.1218	14 041.4		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_0)3s$	(0,1/2)	1/2	0.0005	00RIC
7.1600	13 966.5		$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^1D_2)3s$	(2,1/2)	3/2	0.0005	00RIC
7.1923	13 903.8		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3s$	(2,1/2)	3/2	0.0005	00RIC
7.2001	13 888.7	*	$2s^22p^5$	$^2P^o$	1/2	—	$2s^22p^4(^3P_1)3s$	(1,1/2)	1/2	0.0005	00RIC
7.2001	13 888.7	*	$2s2p^6$	^2S	1/2	—	$2s2p^5(^2P_{3/2})3s$	$(1,1/2)^o$	3/2	0.0005	00RIC
7.2117	13 866.4		$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^4(^3P_2)3s$	(2,1/2)	5/2	0.0005	00RIC
52.594	1901.4	25	$2s^22p^5$	$^2P^o$	3/2	—	$2s2p^6$	^2S	1/2	0.020	89DEN
68.733	1454.9	10	$2s^22p^5$	$^2P^o$	1/2	—	$2s2p^6$	^2S	1/2	0.030	89DEN
223.995	446.44	M1	$2s^22p^5$	$^2P^o$	3/2	—	$2s^22p^5$	$^2P^o$	1/2	0.030	89DEN

4.29. Kr XXIX

O isoelectronic sequence

Ground State $1s^22s^22p^4\ ^3P_2$

Ionization energy 26 036 000±58 000 cm^{-1} (3228.±7. eV) [99BIE]

Energy levels of 28 times ionized krypton, Kr XXIX, O-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN], Dietrich *et al.* [86DIE], and Wyart *et al.* [85WYA]. Additional Kr XXIX lines were published by Rice *et al.* [00RIC] after that compilation was completed. These lines are used to define new levels. The data reported by Rice *et al.* [00RIC] did not uniquely define the upper levels of some of the transitions. A Hartree–Fock calculation with relativistic corrections [81COW] was made to classify these levels. We did not include the quadruply classified line from Rice *et al.* [00RIC] (4.4970 Å) and the levels it defines since it is difficult to determine reliable energies from such blended lines. The eight lowest levels have the values of Sugar and Musgrove [91SUG]. These levels have uncertainties of 100–1000 cm^{-1} except for the $2s^22p^4\ ^3P_0$ and the $2s2p^5\ ^3P^o{}_0$ levels with 1500 cm^{-1} uncertainty. The levels above 20 000 000 cm^{-1} have 1900–2500 cm^{-1} uncertainty. In the energy level table the levels are designated using LS and jj coupling.

Compilations of Kr XXIX lines were published by Shirai *et al.* [95SHI], [00SHI]. Our line compilation uses four line sources [00RIC], [89DEN], [86DIE], [85WYA]. Since they provided no intensity information, we used the intensities from Wyart *et al.* [85WYA] for some of the Denne *et al.* [89DEN] lines. Lines from Kink *et al.* [01KIN] were not used because they are highly blended, due to the relatively low resolution of their measurements, which makes their classification uncertain.

Kink *et al.* [01KIN] classified 14 Kr XXIX lines. They used an EBIT as their line source. Their wavelength uncertainty was about 0.012 Å (for lines in the 6–7 Å range).

Rice *et al.* [00RIC] classified six lines. They used tokamaks as their line source. They quote a wavelength uncertainty of 0.0005 Å.

Denne *et al.* [89DEN] classified nine lines. They also used a tokamak as their line source. They quote wavelength uncertainties of 0.03–0.10 Å.

Dietrich *et al.* [86DIE] classified seven lines. They used a gas-puff Z-pinch plasma as their line source. They quote wavelength uncertainties of 0.03–0.05 Å.

Wyart *et al.* [85WYA] classified three lines. They used a tokamak as their line source. They quote wavelength uncertainties of 0.015 Å.

For common lines the order of choice was [00RIC], [89DEN], [85WYA], and finally [86DIE].

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXIX levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXIX line table are taken from the specified sources. Their meanings are stated below:

Symbol	Definition
M1	magnetic dipole line
b	blended line
w	wide line

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.29.1. References

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TABLE 50. Energy levels of Kr XXIX

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$2s^22p^4$	^{3}P	2	91SUG
160 700	0	$2s^22p^4$	^{3}P	0	91SUG
423 820	0	$2s^22p^4$	^{3}P	1	91SUG
524 890	0	$2s^22p^4$	^{1}D	2	91SUG
1 674 650	1	$2s2p^5$	^{3}P°	2	91SUG
1 864 320	1	$2s2p^5$	^{3}P°	1	91SUG
2 133 800	1	$2s2p^5$	^{3}P°	0	91SUG
2 377 700	1	$2s2p^5$	^{1}P°	1	91SUG
20 142 200	1	$2s^22p^3(^4S^o_{3/2})4d$	(3/2,5/2)°	3	00RIC
20 162 300	1	$2s^22p^3(^4S^o_{3/2})4d$	(3/2,5/2)°	1	00RIC
21 161 800	0	$2s2p^4(^3P_2)4s$	(5/2,1/2)	2	00RIC
21 570 000	0	$2s2p^4(^3P_2)4d$	(5/2,5/2)	3	00RIC
22 281 100	1	$2s^22p^3(^4S^o_{3/2})5d$	(3/2,5/2)°	3	00RIC

TABLE 51. Spectral lines of Kr XXIX

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
4.4881	22 281.		$2s^22p^4$	^{3}P	2	—	$2s^22p^3(^4S^o_{3/2})5d$	(3/2,5/2)°	3	0.0005	00RIC
4.9647	20 142.		$2s^22p^4$	^{3}P	2	—	$2s^22p^3(^4S^o_{3/2})4d$	(3/2,5/2)°	3	0.0005	00RIC
4.9996	20 002.		$2s^22p^4$	^{3}P	0	—	$2s^22p^3(^4S^o_{3/2})4d$	(3/2,5/2)°	1	0.0005	00RIC
5.0263	19 895.4		$2s2p^5$	^{3}P°	2	—	$2s2p^4(^3P_2)4d$	(5/2,5/2)	3	0.0005	00RIC
5.1316	19 487.1		$2s2p^5$	^{3}P°	2	—	$2s2p^4(^3P_2)4s$	(5/2,1/2)	2	0.0005	00RIC
53.640	1864.3	2	$2s^22p^4$	^{3}P	2	—	$2s2p^5$	^{3}P°	1	0.03	89DEN
53.977	1852.6	4 w	$2s^22p^4$	^{1}D	2	—	$2s2p^5$	^{1}P°	1	0.015	85WYA
58.48	1710.0		$2s^22p^4$	^{3}P	1	—	$2s2p^5$	^{3}P°	0	0.05	86DIE
58.700	1703.6	4 b	$2s^22p^4$	^{3}P	0	—	$2s2p^5$	^{3}P°	1	0.05	89DEN
58.714	1674.6		$2s^22p^4$	^{3}P	2	—	$2s2p^5$	^{3}P°	2	0.03	89DEN
69.414	1440.6		$2s^22p^4$	^{3}P	1	—	$2s2p^5$	^{3}P°	1	0.033	89DEN
74.663	1339.4		$2s^22p^4$	^{1}D	2	—	$2s2p^5$	^{3}P°	1	0.05	89DEN
79.947	1250.8		$2s^22p^4$	^{3}P	1	—	$2s2p^5$	^{3}P°	2	0.03	89DEN
86.98	1149.7		$2s^22p^4$	^{1}D	2	—	$2s2p^5$	^{3}P°	2	0.04	89DEN
190.515	524.89	M1	$2s^22p^4$	^{3}P	2	—	$2s^22p^4$	^{1}D	2	0.03	89DEN
235.95	423.82	bM1	$2s^22p^4$	^{3}P	2	—	$2s^22p^4$	^{3}P	1	0.10	89DEN

4.30. Kr XXX

N isoelectronic sequence
Ground State $1s^2 2s^2 2p^3\ ^4S^o_{3/2}$
Ionization energy 27 269 000±210 000 cm^{-1} (3381±26 eV) [99BIE]

Energy levels of 29 times ionized krypton, Kr XXX, N-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN]. We add no additional Kr XXX levels to this compilation. The listed $2s^2 2p^3$ levels have uncertainties of 30–380 cm^{-1} while the reported $2s2p^4$ levels have uncertainties of 480–1700 cm^{-1}. In the energy level table the levels are designated using LS coupling.

Compilations of Kr XXX lines were published by Shirai *et al.* [95SHI], [00SHI] using the lines of Denne *et al.* [89DEN]. Kink *et al.* [01KIN] reported some x-ray lines and provided an interpretation; however their lines were not used here since they are highly blended, due to the relatively low resolution of their measurements, which makes their classification uncertain.

Kink *et al.* [01KIN] classified eight Kr XXX lines. They used an EBIT as their line source. Their wavelength uncertainty was about 0.012 Å (for lines in the 6–7 Å range).

Denne *et al.* [89DEN] classified ten lines. They used a tokamak as their line source. They quote wavelength uncertainties of 0.02–0.10 Å.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXX levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXX line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
M1	magnetic dipole line
b	blended line
w	weak line
t	tentatively classified line

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.30.1. References

89DEN = B. Denne, E. Hinnov, J. Ramette, and B. Saoutic, Phys. Rev. A **40**, 1488 (1989).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).
01KIN = I. Kink, J. M. Laming, E. Takács, J. V. Porto, J. D. Gillaspy, E. Silver, H. Schnopper, S. R. Bandler, M. Barbera, N. Brickhouse, S. Murray, N. Madden, D. Landis, J. Beeman, and E. E. Haller, Phys. Rev. E **63**, 046409 (2001).

TABLE 52. Energy levels of Kr XXX

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	1	$2s^2 2p^3$	$^4S^o$	3/2	89DEN
384 900	1	$2s^2 2p^3$	$^2D^o$	3/2	89DEN
487 220	1	$2s^2 2p^3$	$^2D^o$	5/2	89DEN
621 500?	1	$2s^2 2p^3$	$^2P^o$	1/2	89DEN
1 391 300	0	$2s2p^4$	^4P	5/2	89DEN
1 646 580	0	$2s2p^4$	^4P	3/2	89DEN
1 657 500	0	$2s2p^4$	^4P	1/2	89DEN
1 955 480	0	$2s2p^4$	^2D	3/2	89DEN
2 318 860	0	$2s2p^4$	^2P	3/2	89DEN

TABLE 53. Spectral lines of Kr XXX

Observed vacuum wavelength(Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
54.596	1831.6	w	$2s^2 2p^3$	$^2D^o$	5/2	—	$2s2p^4$	^2P	3/2	0.05	89DEN

TABLE 53. Spectral lines of Kr XXX—Continued

Observed vacuum wavelength(Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
60.332	1657.5		$2s^22p^3$	$^4S^o$	3/2	—	$2s2p^4$	^4P	1/2	0.03	89DEN
60.732	1646.6		$2s^22p^3$	$^4S^o$	3/2	—	$2s2p^4$	^4P	3/2	0.025	89DEN
63.671	1570.6	w	$2s^22p^3$	$^2D^o$	3/2	—	$2s2p^4$	^2D	3/2	0.03	89DEN
71.875	1391.3		$2s^22p^3$	$^4S^o$	3/2	—	$2s2p^4$	^4P	5/2	0.025	89DEN
86.26	1159.3	w	$2s^22p^3$	$^2D^o$	5/2	—	$2s2p^4$	^4P	3/2	0.05	89DEN
110.62	904.0	w	$2s^22p^3$	$^2D^o$	5/2	—	$2s2p^4$	^4P	5/2	0.06	89DEN
160.90	621.5	tbM1	$2s^22p^3$	$^4S^o$	3/2	—	$2s^22p^3$	$^2P^o$	1/2	0.10	89DEN
205.247	487.22	M1	$2s^22p^3$	$^4S^o$	3/2	—	$2s^22p^3$	$^2D^o$	5/2	0.025	89DEN
259.807	384.90	M1	$2s^22p^3$	$^4S^o$	3/2	—	$2s^22p^3$	$^2D^o$	3/2	0.02	89DEN

4.31. Kr XXXI

C isoelectronic sequence

Ground State $1s^22s^22p^2\ ^3P_0$

Ionization energy 28 910 000±30 000 cm^{-1} (3584.±4. eV) [99BIE]

Energy levels of 30 times ionized krypton, Kr XXXI, C-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. We add to that compilation the additional $2p^4$ level that was used by Shirai *et al.* [95SHI], [00SHI] to classify a line from Martin *et al.* [90MAR]. The listed $2s^22p^2$ levels have uncertainties of 30–300 cm^{-1} while the reported $2s2p^3$ levels have uncertainties of 470–1500 cm^{-1} and the $2p^4$ level has an uncertainty of 1500 cm^{-1}. In the energy level table the levels are designated using LS coupling.

Compilations of Kr XXXI lines were published by Shirai *et al.* [95SHI], [00SHI] using the lines of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. The same lines are used in this compilation. Kink *et al.* [01KIN] reported some x-ray lines and provided an interpretation; however their lines were not used here because they are highly blended, due to the relatively low resolution of their measurements, which makes their classification uncertain.

Kink *et al.* [01KIN] classified four Kr XXXI lines. They used an EBIT as their line source. Their wavelength uncertainty was about 0.011 Å (for lines in the 5.8–6.6 Å range).

Martin *et al.* [90MAR] classified four lines. They used beam foil spectroscopy. They quote a wavelength uncertainty of 0.05 Å.

Denne *et al.* [89DEN] classified nine lines. They used a tokamak as their line source. They quote a wavelength uncertainty of 0.02–0.05 Å.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXXI levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXXI line table are taken from the specified sources. Their meaning is stated below:

Symbol	Definition
M1	magnetic dipole line
b	blended line
t	tentatively classified line

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.31.1. References

89DEN = B. Denne, E. Hinnov, J. Ramette, and B. Saoutic, Phys. Rev. A **40**, 1488 (1989).

90MAR = S. Martin, A. Denis, M. C. Buchet-Poulizac, J. P. Buchet, and J. Désesquelles, Phys. Rev. A **42**, 6570 (1990).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

01KIN = I. Kink, J. M. Laming, E. Takács, J. V. Porto, J. D. Gillaspy, E. Silver, H. Schnopper, S. R. Bandler, M. Barbera, N. Brickhouse, S. Murray, N. Madden, D. Landis, J. Beeman, and E. E. Haller, Phys. Rev. E **63**, 046409 (2001).

TABLE 54. Energy levels of Kr XXXI

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$2s^22p^2$	^{3}P	0	89DEN
396 820	0	$2s^22p^2$	^{3}P	1	89DEN
478 200	0	$2s^22p^2$	^{3}P	2	89DEN
1 530 200	1	$2s2p^3$	^{3}D^o	1	89DEN
1 653 800	1	$2s2p^3$	^{3}D^o	2	89DEN
1 783 500	1	$2s2p^3$	^{3}D^o	3	89DEN
1 955 900	1	$2s2p^3$	^{3}P^o	0	90MAR
1 999 100	1	$2s2p^3$	^{3}P^o	1	89DEN
2 062 900	1	$2s2p^3$	^{3}P^o	2	89DEN
2 151 900	1	$2s2p^3$	^{3}S^o	1	89DEN
3 258 000	0	$2p^4$	^{3}P	0	90MAR

TABLE 55. Spectral line of Kr XXXI

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
56.976	1755.1	t	$2s^22p^2$	3P	1	—	$2s2p^3$	^{3}S^o	1	0.05	89DEN
59.748	1673.7	b	$2s^22p^2$	3P	2	—	$2s2p^3$	^{3}S^o	1	0.03	89DEN
62.411	1602.3		$2s^22p^2$	3P	1	—	$2s2p^3$	^{3}P^o	1	0.05	89DEN
63.103	1584.7		$2s^22p^2$	3P	2	—	$2s2p^3$	^{3}P^o	2	0.025	89DEN
64.14	1559.1		$2s^22p^2$	3P	1	—	$2s2p^3$	^{3}P^o	0	0.05	90MAR
65.352	1530.2		$2s^22p^2$	3P	0	—	$2s2p^3$	^{3}D^o	1	0.02	89DEN
76.610	1305.3		$2s^22p^2$	3P	2	—	$2s2p^3$	^{3}D^o	3	0.035	89DEN
79.45	1258.7		$2s2p^3$	3P	1	—	$2p^4$	^{3}P	0	0.05	90MAR
79.557	1257.0		$2s^22p^2$	3P	1	—	$2s2p^3$	^{3}D^o	2	0.05	89DEN
95.057	1052.0		$2s^22p^2$	3P	2	—	$2s2p^3$	^{3}D^o	1	0.05	89DEN
252.001	396.82	M1	$2s^22p^2$	3P	0	—	$2s^22p^2$	^{3}P	1	0.02	89DEN

4.32. Kr XXXII

B isoelectronic sequence

Ground State $1s^22s^22p$ ^{2}P$^o_{1/2}$

Ionization energy 30 262 000±20 000 cm^{-1} (3752.±2. eV) [99BIE]

Energy levels of 31 times ionized krypton, Kr XXXII, B-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. We add to that compilation the additional $2s2p^2$ levels determined by Myrnäs *et al.* [94MYR] and use the improved level energies determined in this work. The levels with energies below 2 500 000 cm^{-1} have uncertainties of 50–600 cm^{-1} while the $2p^3$ ^{2}D$^o_{5/2}$ level has an uncertainty of 2300 cm^{-1} and the $2p^3$ ^{2}P$^o_{3/2}$ level has an uncertainty of 3200 cm^{-1}. In the energy level table the levels are designated using LS coupling.

A compilation of Kr XXXII lines was published by Shirai *et al.* [00SHI] using the lines of Denne *et al.* [89DEN], Martin *et al.* [90MAR] and Myrnäs *et al.* [94MYR] The same lines are used in this compilation. Kink *et al.* [01KIN] reported some x-ray lines and provided an interpretation; however their lines were not used here because they are highly blended, due to the relatively low resolution of their measurements, which makes their classification uncertain.

Kink *et al.* [01KIN] classified seven Kr XXXII lines. They used an EBIT as their line source. Their wavelength uncertainty was about 0.01 Å (for lines in the 5.5–6.2 Å range).

Myrnäs *et al.* [94MYR] classified five lines. Their results come from additional study of the experimental data of Denne *et al.* [89DEN]. They quote wavelength uncertainties of 0.010–0.025 Å.

Martin *et al.* [90MAR] classified seven lines. They used beam foil spectroscopy. They quote wavelength uncertainties of 0.05–0.20 Å.

Denne *et al.* [89DEN] classified five lines. They used a tokamak as their line source. They quote wavelength uncertainties of 0.02–0.10 Å.

For common lines the order of choice was Myrnäs *et al.* [94MYR], Denne *et al.* [89DEN], and then Martin *et al.* [90MAR].

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXXII levels. Only classifiable lines are included in our compilation. The intensity code given in the Kr XXXII line table is taken from the specified source. Its meaning is stated below:

Symbol	Definition
M1	magnetic dipole line

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.32.1. References

89DEN = B. Denne, E. Hinnov, J. Ramette, and B. Saoutic, Phys. Rev. A **40**, 1488 (1989).

90MAR = S. Martin, A. Denis, M. C. Buchet-Poulizac, J. P. Buchet, and J. Désesquelles, Phys. Rev. A **42**, 6570 (1990).

91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).

94MYR = R. Myrnäs, C. Jupén, G. Miecznik, I. Martinson, and B. Denne-Hinnov, Phys. Scr. **49**, 429 (1994).

99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).

00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

01KIN = I. Kink, J. M. Laming, E. Takács, J. V. Porto, J. D. Gillaspy, E. Silver, H. Schnopper, S. R. Bandler, M. Barbera, N. Brickhouse, S. Murray, N. Madden, D. Landis, J. Beeman, and E. E. Haller, Phys. Rev. E **63**, 046409 (2001).

TABLE 56. Energy levels of Kr XXXII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	1	$2s^22p$	$^2P^o$	1/2	89DEN
492 560	1	$2s^22p$	$^2P^o$	3/2	89DEN
698 000	0	$2s2p^2$	^4P	1/2	94MYR
1 154 280	0	$2s2p^2$	^4P	5/2	94MYR
1 429 450	0	$2s2p^2$	^2D	3/2	89DEN
1 502 900	0	$2s2p^2$	^2S	1/2	89DEN
1 676 630	0	$2s2p^2$	^2D	5/2	94MYR
2 029 440	0	$2s2p^2$	^2P	1/2	94MYR
2 039 330	0	$2s2p^2$	^2P	3/2	94MYR
2 743 300	1	$2p^3$	$^2D^o$	5/2	90MAR
3 306 800	1	$2p^3$	$^2P^o$	3/2	90MAR

TABLE 57. Spectral lines of Kr XXXII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
64.651	1546.8		$2s^22p$	$^2P^o$	3/2	—	$2s2p^2$	^2P	3/2	0.010	94MYR
65.067	1536.9		$2s^22p$	$^2P^o$	3/2	—	$2s2p^2$	^2P	1/2	0.025	94MYR
66.538	1502.9		$2s^22p$	$^2P^o$	1/2	—	$2s2p^2$	^2S	1/2	0.025	89DEN
69.957	1429.4		$2s^22p$	$^2P^o$	1/2	—	$2s2p^2$	^2D	3/2	0.020	89DEN
78.90	1267.		$2s2p^2$	^2P	3/2	—	$2p^3$	$^2P^o$	3/2	0.200	90MAR
84.454	1184.1		$2s^22p$	$^2P^o$	3/2	—	$2s2p^2$	^2D	5/2	0.025	94MYR
93.75	1067.		$2s2p^2$	^2D	5/2	—	$2p^3$	$^2D^o$	5/2	0.200	90MAR
143.266	698.00		$2s^22p$	$^2P^o$	1/2	—	$2s2p^2$	^4P	1/2	0.010	94MYR
151.121	661.72		$2s^22p$	$^2P^o$	3/2	—	$2s2p^2$	^4P	5/2	0.025	94MYR
203.021	492.56	M1	$2s^22p$	$^2P^o$	1/2	—	$2s^22p$	$^2P^o$	3/2	0.020	89DEN

4.33. Kr XXXIII

Be isoelectronic sequence

Ground State $1s^22s^2\ ^1S_0$

Ionization energy 32 027 000±32 000 cm^{-1} (3971.±4. eV) [99BIE]

Energy levels of 32 times ionized krypton, Kr XXXIII, Be-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. We add no additional Kr XXXIII levels to this compilation. The $2s2p\,^3P^o{}_1$, $^3P^o{}_2$, and $^1P^o{}_1$ levels have uncertainties of 90, 130, and 380 cm^{-1}, respectively, while the other levels have uncertainties of about 1000 cm^{-1}. Compilations of Kr XXXIII lines were published by Shirai *et al.* [95SHI], [00SHI] using the lines of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. The same lines are included in this compilation. In the energy level table the levels are designated using LS coupling.

Martin *et al.* [90MAR] classified nine Kr XXXIII lines. They used beam foil spectroscopy. They quote wavelength uncertainties of 0.05–0.20 Å.

Denne *et al.* [89DEN] classified three lines. They used a tokamak as their line source. They quote wavelength uncertainties of 0.02–0.05 Å.

For common lines the order of choice was [89DEN] then [90MAR]. An earlier line measured by Dietrich *et al.* [80DIE] was superseded.

All candidate lines were passed through a program to determine if they correspond to a transition between the known Kr XXXIII levels. Only classifiable lines are included in our compilation. The intensity codes given in the Kr XXXIII line table are taken from the specified source. Its meaning is stated below:

Symbol	Definition
w	weak line
b	blended line
M1	magnetic dipole line
*	multiply classified line (two or more classifications of this line share the same intensity)

The ionization energy was calculated by Biémont *et al.* [99BIE] using a MCDF calculation with relativistic two-body Breit interaction and quantum electrodynamical corrections due to self energy and vacuum polarization. Corrections were made to the results by means of a fit to available data along the isoelectronic sequence.

4.33.1. References

80DIE = D. D. Dietrich, J. A. Leavitt, H. Gould, and R. Marrus, Phys. Rev. A **22**, 1109 (1980).
89DEN = B. Denne, E. Hinnov, J. Ramette, and B. Saoutic, Phys. Rev. A **40**, 1488 (1989).
89MAR = S. Martin, A. Denis, M. C. Buchet-Poulizac, J. P. Buchet, and J. Désesquelles, Phys. Rev. A **42**, 6570 (1990).
91SUG = J. Sugar and A. Musgrove, J. Phys. Chem. Ref. Data **20**, 859 (1991).
95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
99BIE = E. Biémont, Y. Frémat, and P. Quinet, At. Data Nucl. Data Tables **71**, 117 (1999).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

TABLE 58. Energy levels of Kr XXXIII

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$2s^2$	^1S	0	89DEN
505 500	1	$2s2p$	$^3P^o$	0	90MAR
588 770	1	$2s2p$	$^3P^o$	1	89DEN
1 013 440	1	$2s2p$	$^3P^o$	2	89DEN
1 374 460	1	$2s2p$	$^1P^o$	1	89DEN
1 438 100	0	$2p^2$	^3P	0	90MAR
1 827 200	0	$2p^2$	^3P	1	90MAR
1 909 800	0	$2p^2$	^3P	2	90MAR
2 391 300	0	$2p^2$	^1D	2	90MAR
2 671 500	0	$2p^2$	^1S	0	90MAR

TABLE 59. Spectral lines of Kr XXXIII

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
72.66	1376.3		$2s2p$	$^3P^o$	2	—	$2p^2$	^1D	2	0.05	90MAR
72.756	1374.5		$2s^2$	^1S	0	—	$2s2p$	$^1P^o$	1	0.020	89DEN
75.66	1321.7	*	$2s2p$	$^3P^o$	0	—	$2p^2$	^3P	1	0.05	90MAR
75.66	1321.7	*	$2s2p$	$^3P^o$	1	—	$2p^2$	^3P	2	0.05	90MAR
77.10	1297.0		$2s2p$	$^1P^o$	1	—	$2p^2$	^1S	0	0.05	90MAR
80.75	1238.4		$2s2p$	$^3P^o$	1	—	$2p^2$	^3P	1	0.08	90MAR
98.19	1018.4		$2s2p$	$^1P^o$	1	—	$2p^2$	^1D	2	0.10	90MAR
111.65	895.7		$2s2p$	$^3P^o$	2	—	$2p^2$	^3P	2	0.05	90MAR
117.74	849.3		$2s2p$	$^3P^o$	1	—	$2p^2$	^3P	0	0.10	90MAR
123.10	812.3		$2s2p$	$^3P^o$	2	—	$2p^2$	^3P	1	0.20	90MAR
169.845	588.77		$2s^2$	^1S	0	—	$2s2p$	$^3P^o$	1	0.025	89DEN
235.48	424.66	wbM1	$2s2p$	$^3P^o$	1	—	$2s2p$	$^3P^o$	2	0.05	89DEN

4.34. Kr XXXIV

Li isoelectronic sequence
Ground State $1s^22s\ ^2S_{1/2}$
Ionization energy 33 137 600±800 cm^{-1} (4108.54±0.10 eV) [89IND]

Three energy levels of 33 times ionized krypton, Kr XXXIV, Li-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the work of Denne *et al.* [89DEN] and Martin *et al.* [90MAR]. Shirai *et al.* [00SHI] replaced the level values used by Sugar and Musgrove [91SUG] with isoelectronically smoothed values of Kim *et al.* [91KIM] which relied on Denne *et al.* [89DEN] for its Kr XXXIV experimental input. These levels are denoted with an 'S' as their source. Recent measurements [02MAD], [93BUT] are consistent with these values. Shirai *et al.* [00SHI] also added 30 additional levels which relied on an unpublished calculation of Vainshtein and Safronova [85VAI] with all the levels adjusted to the experimental levels of Denne *et al.* [89DEN] by adding 1360 cm^{-1}. These levels are denoted with a 'C' as their source. We use the same lines and levels as Shirai *et al.* [00SHI] in this compilation. In the energy level table the levels are designated using LS coupling.

Martin *et al.* [90MAR] classified two Kr XXXIV lines. They used beam foil spectroscopy. They quote wavelength uncertainties of 0.03–0.04 Å.

Denne *et al.* [89DEN] also classified these two lines. They used a tokamak as their line source. They quote wavelength uncertainties of about 0.025 Å.

An earlier measurement of these lines by Dietrich *et al.* [80DIE] was superseded.

The intensity codes given in the Kr XXXIV line table have the meaning stated below:

Symbol	Definition
S	smoothed value of wavelength obtained from semi-empirical determination along isoelectronic sequence
C	wavelength obtained from calculated energy levels using Ritz combination principle

The ionization energy was calculated by Indelicato [89IND] using a MCDF calculation with radiative corrections to determine the ground state binding energies of Kr XXXV and Kr XXXIV. This is the value used by Sugar and Musgrove [91SUG].

4.34.1. References

80DIE = D. D. Dietrich, J. A. Leavitt, H. Gould, and R. Marrus, Phys. Rev. A **22**, 1109 (1980).
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274, 423 (1993).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).
02MAD = S. Madzunkov, E. Lindroth, N. Eklöw, M. Tokman, A. Paál, and R. Schuch, Phys. Rev. A **65**, 032505 (2002).

TABLE 60. Energy levels of Kr XXXIV

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$1s^22s$	^2S	1/2	S
574 582	1	$1s^22p$	$^2P^o$	1/2	S
1 098 294	1	$1s^22p$	$^2P^o$	3/2	S
[18 599 000]	0	$1s^23s$	^2S	1/2	C
[18 756 000]	1	$1s^23p$	$^2P^o$	1/2	C
[18 911 000]	1	$1s^23p$	$^2P^o$	3/2	C
[18 971 000]	0	$1s^23d$	^2D	3/2	C
[19 020 000]	0	$1s^23d$	^2D	5/2	C
[25 017 000]	0	$1s^24s$	^2S	1/2	C
[25 082 000]	1	$1s^24p$	$^2P^o$	1/2	C
[25 147 000]	1	$1s^24p$	$^2P^o$	3/2	C
[25 173 000]	0	$1s^24d$	^2D	3/2	C
[25 194 000]	0	$1s^24d$	^2D	5/2	C
[27 964 000]	0	$1s^25s$	^2S	1/2	C
[27 997 000]	1	$1s^25p$	$^2P^o$	1/2	C
[28 030 000]	1	$1s^25p$	$^2P^o$	3/2	C
[28 045 000]	0	$1s^25d$	^2D	3/2	C
[28 055 000]	0	$1s^25d$	^2D	5/2	C
[104 304 000]	0	$1s2s^2$	^2S	1/2	C
[104 466 000]	1	$1s(^2S)2s2p(^3P^o)$	$^4P^o$	1/2	C
[104 546 000]	1	$1s(^2S)2s2p(^3P^o)$	$^4P^o$	3/2	C
[104 945 000]	1	$1s(^2S)2s2p(^3P^o)$	$^2P^o$	1/2	C
[105 306 000]	1	$1s(^2S)2s2p(^3P^o)$	$^2P^o$	3/2	C
[105 481 000]	1	$1s(^2S)2s2p(^1P^o)$	$^2P^o$	1/2	C
[105 545 000]	1	$1s(^2S)2s2p(^1P^o)$	$^2P^o$	3/2	C
[105 225 000]	0	$1s(^2S)2p^2(^3P)$	^4P	1/2	C
[105 582 000]	0	$1s(^2S)2p^2(^3P)$	^4P	3/2	C
[105 674 000]	0	$1s(^2S)2p^2(^3P)$	^4P	5/2	C
[105 810 000]	0	$1s(^2S)2p^2(^3P)$	^2P	1/2	C
[105 854 000]	0	$1s(^2S)2p^2(^1D)$	^2D	3/2	C
[106 199 000]	0	$1s(^2S)2p^2(^1D)$	^2D	5/2	C
[106 393 000]	0	$1s(^2S)2p^2(^3P)$	^2P	3/2	C
[106 564 000]	0	$1s(^2S)2p^2(^1S)$	^2S	1/2	C

TABLE 61. Spectral lines of Kr XXXIV

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelenth (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[0.94359]	[105 978.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^1S)$	^2S	1/2		85VAI

TABLE 61. Spectral lines of Kr XXXIV—Continued

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[0.94511]	[105 808.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^3P)$	^2P	3/2		85VAI
[0.94746]	[105 545.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^1P^o)$	$^2P^o$	3/2		85VAI
[0.94804]	[105 481.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^1P^o)$	$^2P^o$	1/2		85VAI
[0.94808]	[105 476.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^1S)$	^2S	1/2		85VAI
[0.94961]	[105 306.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^3P^o)$	$^2P^o$	3/2		85VAI
[0.94963]	[105 304.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^3P)$	^2P	3/2		85VAI
[0.94995]	[105 269.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^1D)$	^2D	3/2		85VAI
[0.95034]	[105 225.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^3P)$	^2P	1/2		85VAI
[0.95137]	[105 112.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^1D)$	^2D	5/2		85VAI
[0.95241]	[104 997.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^3P)$	^4P	3/2		85VAI
[0.95288]	[104 945.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^3P^o)$	$^2P^o$	1/2		85VAI
[0.95451]	[104 766.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^1D)$	^2D	3/2		85VAI
[0.95491]	[104 722.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^3P)$	^2P	1/2		85VAI
[0.95566]	[104 640.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s(^2S)2p^2(^3P)$	^4P	1/2		85VAI
[0.95615]	[104 586.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^3P)$	^4P	5/2		85VAI
[0.95652]	[104 546.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^3P^o)$	$^4P^o$	3/2		85VAI
[0.95699]	[104 494.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^3P)$	^4P	3/2		85VAI
[0.95725]	[104 466.]	C	$1s^22s$	^2S	1/2	—	$1s(^2S)2s2p(^3P^o)$	$^4P^o$	1/2		85VAI
[0.96028]	[104 136.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s(^2S)2p^2(^3P)$	^4P	1/2		85VAI
[0.96415]	[103 718.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s2s^2$	^2S	1/2		85VAI
[0.96884]	[103 216.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s2s^2$	^2S	1/2		85VAI
[3.5676]	[28 030.]	C	$1s^22s$	^2S	1/2	—	$1s^25p$	$^2P^o$	3/2		85VAI
[3.5718]	[27 997.]	C	$1s^22s$	^2S	1/2	—	$1s^25p$	$^2P^o$	1/2		85VAI
[3.6404]	[27 470.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^25d$	^2D	3/2		85VAI
[3.6510]	[27 390.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^25s$	^2S	1/2		85VAI
[3.7097]	[26 956.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^25d$	^2D	5/2		85VAI
[3.7111]	[26 946.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^25d$	^2D	3/2		85VAI
[3.7222]	[26 866.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^25s$	^2S	1/2		85VAI
[3.9766]	[25 147.]	C	$1s^22s$	^2S	1/2	—	$1s^24p$	$^2P^o$	3/2		85VAI
[3.9870]	[25 082.]	C	$1s^22s$	^2S	1/2	—	$1s^24p$	$^2P^o$	1/2		85VAI
[4.0653]	[24 598.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^24d$	^2D	3/2		85VAI
[4.0913]	[24 442.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^24s$	^2S	1/2		85VAI
[4.1502]	[24 095.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^24d$	^2D	5/2		85VAI
[4.1537]	[24 075.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^24d$	^2D	3/2		85VAI
[4.1809]	[23 918.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^24s$	^2S	1/2		85VAI
[5.2879]	[18 911.]	C	$1s^22s$	^2S	1/2	—	$1s^23p$	$^2P^o$	3/2		85VAI
[5.3316]	[18 756.]	C	$1s^22s$	^2S	1/2	—	$1s^23p$	$^2P^o$	1/2		85VAI
[5.4359]	[18 396.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^23d$	^2D	3/2		85VAI
[5.5482]	[18 024.]	C	$1s^22p$	$^2P^o$	1/2	—	$1s^23s$	^2S	1/2		85VAI
[5.5799]	[17 921.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^23d$	^2D	5/2		85VAI
[5.5951]	[17 873.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^23d$	^2D	3/2		85VAI
[5.7143]	[17 500.]	C	$1s^22p$	$^2P^o$	3/2	—	$1s^23s$	^2S	1/2		85VAI
[10.765]	[9289.]	C	$1s^23p$	$^2P^o$	1/2	—	$1s^25d$	^2D	3/2		85VAI
[10.860]	[9208.]	C	$1s^23p$	$^2P^o$	1/2	—	$1s^25s$	^2S	1/2		85VAI
[10.936]	[9144.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^25d$	^2D	5/2		85VAI
[10.948]	[9134.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^25d$	^2D	3/2		85VAI
[11.046]	[9053.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^25s$	^2S	1/2		85VAI
[15.272]	[6548.]	C	$1s^23s$	^2S	1/2	—	$1s^24p$	$^2P^o$	3/2		85VAI
[15.425]	[6483.]	C	$1s^23s$	^2S	1/2	—	$1s^24p$	$^2P^o$	1/2		85VAI
[15.584]	[6417.]	C	$1s^23p$	$^2P^o$	1/2	—	$1s^24d$	^2D	3/2		85VAI
[15.916]	[6283.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^24d$	^2D	5/2		85VAI
[15.969]	[6262.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^24d$	^2D	3/2		85VAI
[15.972]	[6261.]	C	$1s^23p$	$^2P^o$	1/2	—	$1s^24s$	^2S	1/2		85VAI
[16.377]	[6106.]	C	$1s^23p$	$^2P^o$	3/2	—	$1s^24s$	^2S	1/2		85VAI
[33.750]	[2963.]	C	$1s^24p$	$^2P^o$	1/2	—	$1s^25d$	^2D	3/2		85VAI

TABLE 61. Spectral lines of Kr XXXIV—Continued

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelenth (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[34.388]	[2908.]	C	$1s^24p$	$^2P^o$	3/2	—	$1s^25d$	^2D	5/2		85VAI
[34.507]	[2898.]	C	$1s^24p$	$^2P^o$	3/2	—	$1s^25d$	^2D	3/2		85VAI
91.050	1098.29	S	$1s^22s$	^2S	1/2	—	$1s^22p$	$^2P^o$	3/2	0.010	91KIM
174.040	574.58	S	$1s^22s$	^2S	1/2	—	$1s^22p$	$^2P^o$	1/2	0.010	91KIM

4.35. Kr XXXV

He isoelectronic sequence

Ground State $1s^2\ ^1S_0$

Ionization energy 139 506 200 ±1800 cm^{-1} (17 296.56±0.22 eV) [00CHE]

Seven energy levels of 34 times ionized krypton, Kr XXXV, He-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the experimental work of Indelicato *et al.* [86IND] and Martin *et al.* [90MAR] and a privately communicated calculation by Indelicato. Shirai *et al.* [00SHI] both replaced the level values used by Sugar and Musgrove [91SUG] and added 35 new levels with theoretical values obtained from three unpublished sources: For $1s2l$ configurations they used a calculation by Cheng [96CHE]; for the $1s3l$ levels they used a calculation by Drake [85DRA]; and for the $1s4l$ and $1s5l$ levels they used a calculation by Vainshtein and Safronova [85VAI] with all the levels adjusted to the level values at lower n of Drake [85DRA] by adding 1400 cm^{-1}. Shirai *et al.* [00SHI] also used uncorrected wavelengths from Vainshtein and Safronova [85VAI] for the $1s2s-2s2p$, $1s2p-2s^2$, and $1s2p-2p^2$ transitions to define the $2s2p$, $2s^2$, and $2p^2$ levels. We use the same levels as Shirai *et al.* [00SHI] except that we replace the levels from Cheng [96CHE] with the published revised values of Cheng and Chen [00CHE]. All levels in our compilation are calculated and so are denoted with square brackets. In the energy level table the levels are designated using LS coupling.

Shirai *et al.* [00SHI] used the wavelengths measured by Martin *et al.* [90MAR] and Indelicato *et al.* [86IND]. We replace the two Indelicato *et al.* [86IND] lines with the more recent EBIT measurements of Widmann *et al.* [96WID] in this compilation since they agree better with several theoretical calculations [88DRA], [94PLA], [00CHE]. They also provide two additional lines. We recalculated the lines involved with the changed $1s2l$ levels but kept the other calculated lines of Shirai *et al.* [00SHI] including those taken from Vainshtein and Safronova [85VAI].

Widmann *et al.* [96WID] classified four Kr XXXV lines. They used an EBIT as their line source. They quote wavelength uncertainties of 0.000 026–0.000 030 Å (at about 0.95 Å).

Martin *et al.* [90MAR] classified two lines. They used beam foil spectroscopy. They quote wavelength uncertainties of 0.03 and 0.2 Å (at 111 and 280 Å, respectively).

Other measurements of these lines [93BUT], [86IND], [84BRI], [76GOU] were superseded by these.

The intensity codes given in the Kr XXXV line table have the meaning stated below:

Symbol	Definition
M1	magnetic dipole line
M2	magnetic quadrupole line
C	wavelength obtained from calculated energy levels using Ritz combination principle
*	multiply classified line

The ionization energy was calculated by Cheng and Chen [00CHE] by a large-scale, relativistic configuration–interaction method with quantum electrodynamic corrections. The estimated uncertainty we use is based on the differences in predicted $K\alpha$ x-ray energies from several calculations [88DRA], [94PLA], and [00CHE] scaled to the ionization energy.

4.35.1. References

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TABLE 62. Energy levels of Kr XXXV

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
0	0	$1s^2$	^{1}S	0	00CHE
[104 685 170]	0	$1s2s$	^{3}S	1	00CHE
[105 066 500]	0	$1s2s$	^{1}S	0	00CHE
[105 042 090]	1	$1s2p$	^{3}P^o	0	00CHE
[105 063 130]	1	$1s2p$	^{3}P^o	1	00CHE
[105 585 410]	1	$1s2p$	^{3}P^o	2	00CHE
[105 775 630]	1	$1s2p$	^{1}P^o	1	00CHE
[124 175 700]	0	$1s3s$	^{3}S	1	85DRA
[124 278 000]	0	$1s3s$	^{1}S	0	85DRA
[124 273 800]	1	$1s3p$	^{3}P^o	0	85DRA
[124 279 600]	1	$1s3p$	^{3}P^o	1	85DRA
[124 435 300]	1	$1s3p$	^{3}P^o	2	85DRA
[124 487 500]	1	$1s3p$	^{1}P^o	1	85DRA
[124 483 100]	0	$1s3d$	^{3}D	2	85DRA
[124 485 900]	0	$1s3d$	^{3}D	1	85DRA
[124 537 200]	0	$1s3d$	^{3}D	3	85DRA
[124 541 600]	0	$1s3d$	^{1}D	2	85DRA
[130 928 700]	0	$1s4s$	^{3}S	1	85VAI
[130 970 800]	0	$1s4s$	^{1}S	0	85VAI
[130 969 500]	1	$1s4p$	^{3}P^o	0	85VAI
[130 972 200]	1	$1s4p$	^{3}P^o	1	85VAI
[131 037 700]	1	$1s4p$	^{3}P^o	2	85VAI
[131 059 600]	1	$1s4p$	^{1}P^o	1	85VAI
[131 057 800]	0	$1s4d$	^{3}D	2	85VAI
[131 059 000]	0	$1s4d$	^{3}D	1	85VAI
[131 080 700]	0	$1s4d$	^{3}D	3	85VAI
[131 082 500]	0	$1s4d$	^{1}D	2	85VAI
[134 035 500]	0	$1s5s$	^{3}S	1	85VAI
[134 056 900]	0	$1s5s$	^{1}S	0	85VAI
[134 057 600]	1	$1s5p$	^{3}P^o	1	85VAI
[134 091 100]	1	$1s5p$	^{3}P^o	2	85VAI
[134 102 400]	1	$1s5p$	^{1}P^o	1	85VAI
[212 560 000]	0	$2s^2$	^{1}S	0	85VAI
[212 602 000]	1	$2s2p$	^{3}P^o	0	85VAI
[212 693 000]	1	$2s2p$	^{3}P^o	1	85VAI
[213 198 000]	1	$2s2p$	^{3}P^o	2	85VAI

TABLE 62. Energy levels of Kr XXXV—Continued

Energy level (cm^{-1})	Parity	Configuration	Term	J	Source of level
[213 563 000]	1	$2s2p$	^{1}P^{o}	1	85VAI
[213 049 000]	0	$2p^2$	^{3}P	0	85VAI
[213 458 000]	0	$2p^2$	^{3}P	1	85VAI
[213 548 000]	0	$2p^2$	^{1}D	2	85VAI
[214 116 000]	0	$2p^2$	^{3}P	2	85VAI
[214 433 000]	0	$2p^2$	^{1}S	0	85VAI

TABLE 63. Spectral lines of Kr XXXV

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[0.745699]	[134 102.4]	C	$1s^2$	^{1}S	0	—	$1s5p$	^{1}P^{o}	1		
[0.745948]	[134 057.6]	C	$1s^2$	^{1}S	0	—	$1s5p$	^{3}P^{o}	1		
[0.763012]	[131 059.6]	C	$1s^2$	^{1}S	0	—	$1s4p$	^{1}P^{o}	1		
[0.763521]	[130 972.2]	C	$1s^2$	^{1}S	0	—	$1s4p$	^{3}P^{o}	1		
[0.803294]	[124 487.5]	C	$1s^2$	^{1}S	0	—	$1s3p$	^{1}P^{o}	1		
[0.804637]	[124 279.6]	C	$1s^2$	^{1}S	0	—	$1s3p$	^{3}P^{o}	1		
[0.91448]	[109 352.]	C	$1s2p$	^{3}P^{o}	1	—	$2p^2$	^{1}S	0		85VAI
[0.91717]	[109 031.]	C	$1s2p$	^{3}P^{o}	1	—	$2p^2$	^{3}P	2		85VAI
[0.91852]	[108 871.]	C	$1s2s$	^{3}S	1	—	$2s2p$	^{1}P^{o}	1		85VAI
[0.92027]	[108 664.]	C	$1s2p$	^{1}P^{o}	1	—	$2p^2$	^{1}S	0		85VAI
[0.92138]	[108 533.]	C	$1s2p$	^{3}P^{o}	2	—	$2p^2$	^{3}P	2		85VAI
[0.92160]	[108 507.]	C	$1s2s$	^{3}S	1	—	$2s2p$	^{3}P^{o}	2		85VAI
[0.92173]	[108 492.]	C	$1s2s$	^{1}S	0	—	$2s2p$	^{1}P^{o}	1		85VAI
[0.92198]	[108 462.]	C	$1s2p$	^{3}P^{o}	1	—	$2p^2$	^{1}D	2		85VAI
[0.92252]	[108 399.]	C	$1s2p$	^{3}P^{o}	0	—	$2p^2$	^{3}P	1		85VAI
[0.92271]	[108 376.]	C	$1s2p$	^{3}P^{o}	1	—	$2p^2$	^{3}P	1		85VAI
[0.92300]	[108 342.]	C	$1s2p$	^{1}P^{o}	1	—	$2p^2$	^{3}P	2		85VAI
[0.92592]	[108 001.]	C	$1s2s$	^{3}S	1	—	$2s2p$	^{3}P^{o}	1		85VAI
[0.92621]	[107 967.]	C	$1s2p$	^{3}P^{o}	1	—	$2p^2$	^{3}P	0		85VAI
[0.92623]	[107 965.]	C	$1s2p$	^{3}P^{o}	2	—	$2p^2$	^{1}D	2		85VAI
[0.92670]	[107 910.]	C	$1s2s$	^{3}S	1	—	$2s2p$	^{3}P^{o}	0		85VAI
[0.92697]	[107 878.]	C	$1s2p$	^{3}P^{o}	2	—	$2p^2$	^{3}P	1		85VAI
[0.92787]	[107 774.]	C	$1s2p$	^{1}P^{o}	1	—	$2p^2$	^{1}D	2		85VAI
[0.92861]	[107 688.]	C	$1s2p$	^{1}P^{o}	1	—	$2p^2$	^{3}P	1		85VAI
[0.92919]	[107 621.]	C	$1s2s$	^{1}S	0	—	$2s2p$	^{3}P^{o}	1		85VAI
[0.93042]	[107 478.]	C	$1s2p$	^{3}P^{o}	1	—	$2s^2$	^{1}S	0		85VAI
[0.93215]	[107 279.]	C	$1s2p$	^{1}P^{o}	1	—	$2p^2$	^{3}P	0		85VAI
[0.93642]	[106 790.]	C	$1s2p$	^{1}P^{o}	1	—	$2s^2$	^{1}S	0		85VAI
0.94538	105 778.		$1s^2$	^{1}S	0	—	$1s2p$	^{1}P^{o}	1	0.00005	96WID
0.94708	105 588.	M2	$1s^2$	^{1}S	0	—	$1s2p$	^{3}P^{o}	2	0.00005	96WID
0.95180	105 064.		$1s^2$	^{1}S	0	—	$1s2p$	^{3}P^{o}	1	0.00005	96WID
0.95522	104 688.	M1	$1s^2$	^{1}S	0	—	$1s2s$	^{3}S	1	0.00005	96WID
[3.40067]	[29 405.9]	C	$1s2s$	^{3}S	1	—	$1s5p$	^{3}P^{o}	2		
[3.40455]	[29 372.4]	C	$1s2s$	^{3}S	1	—	$1s5p$	^{3}P^{o}	1		
[3.44401]	[29 035.9]	C	$1s2s$	^{1}S	0	—	$1s5p$	^{1}P^{o}	1		
[3.45156]	[28 972.4]	C	$1s2p$	^{3}P^{o}	1	—	$1s5s$	^{3}S	1		
[3.51493]	[28 450.1]	C	$1s2p$	^{3}P^{o}	2	—	$1s5s$	^{3}S	1		
[3.53591]	[28 281.3]	C	$1s2p$	^{1}P^{o}	1	—	$1s5s$	^{1}S	0		
[3.79470]	[26 352.5]	C	$1s2s$	^{3}S	1	—	$1s4p$	^{3}P^{o}	2		
[3.80416]	[26 287.0]	C	$1s2s$	^{3}S	1	—	$1s4p$	^{3}P^{o}	1		
[3.84365]	[26 016.9]	C	$1s2p$	^{3}P^{o}	0	—	$1s4d$	^{3}D	1		
[3.84676]	[25 995.9]	C	$1s2p$	^{3}P^{o}	1	—	$1s4d$	^{3}D	1		
[3.84694]	[25 994.7]	C	$1s2p$	^{3}P^{o}	1	—	$1s4d$	^{3}D	2		

TABLE 63. Spectral lines of Kr XXXV—Continued

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[3.84717]	[25 993.1]	C	$1s2s$	^{1}S	0	—	$1s4p$	^{1}P^o	1		
[3.86614]	[25 865.6]	C	$1s2p$	^{3}P^o	1	—	$1s4s$	^{3}S	1		
[3.92229]	[25 495.3]	C	$1s2p$	^{3}P^o	2	—	$1s4d$	^{3}D	3		
[3.92582]	[25 472.4]	C	$1s2p$	^{3}P^o	2	—	$1s4d$	^{3}D	2		
[3.94582]	[25 343.3]	C	$1s2p$	^{3}P^o	2	—	$1s4s$	^{3}S	1		
[3.95150]	[25 306.9]	C	$1s2p$	^{1}P^o	1	—	$1s4d$	^{1}D	2		
[3.96901]	[25 195.2]	C	$1s2p$	^{1}P^o	1	—	$1s4s$	^{1}S	0		
[5.0633]	[19 750.1]	C	$1s2s$	^{3}S	1	—	$1s3p$	^{3}P^o	2		
[5.1035]	[19 594.4]	C	$1s2s$	^{3}S	1	—	$1s3p$	^{3}P^o	1		
[5.1430]	[19 443.8]	C	$1s2p$	^{3}P^o	0	—	$1s3d$	^{3}D	1		
[5.1486]	[19 422.8]	C	$1s2p$	^{3}P^o	1	—	$1s3d$	^{3}D	1		
[5.1491]	[19 421.0]	C	$1s2s$	^{1}S	0	—	$1s3p$	^{1}P^o	1		
[5.1493]	[19 420.0]	C	$1s2p$	^{3}P^o	1	—	$1s3d$	^{3}D	2		
[5.2322]	[19 112.6]	C	$1s2p$	^{3}P^o	1	—	$1s3s$	^{3}S	1		
[5.2765]	[18 951.8]	C	$1s2p$	^{3}P^o	2	—	$1s3d$	^{3}D	3		
[5.2917]	[18 897.7]	C	$1s2p$	^{3}P^o	2	—	$1s3d$	^{3}D	2		
[5.3288]	[18 766.0]	C	$1s2p$	^{1}P^o	1	—	$1s3d$	^{1}D	2		
[5.3792]	[18 590.3]	C	$1s2p$	^{3}P^o	2	—	$1s3s$	^{3}S	1		
[5.4047]	[18 502.4]	C	$1s2p$	^{1}P^o	1	—	$1s3s$	^{1}S	0		
[10.085]	[9915.4]	C	$1s3s$	^{3}S	1	—	$1s5p$	^{3}P^o	2		
[10.120]	[9881.9]	C	$1s3s$	^{3}S	1	—	$1s5p$	^{3}P^o	1		
[10.179]	[9824.4]	C	$1s3s$	^{1}S	0	—	$1s5p$	^{1}P^o	1		
[10.250]	[9755.9]	C	$1s3p$	^{3}P^o	1	—	$1s5s$	^{3}S	1		
[10.416]	[9600.2]	C	$1s3p$	^{3}P^o	2	—	$1s5s$	^{3}S	1		
[10.450]	[9569.4]	C	$1s3p$	^{1}P^o	1	—	$1s5s$	^{1}S	0		
[14.573]	[6862.0]	C	$1s3s$	^{3}S	1	—	$1s4p$	^{3}P^o	2		
[14.713]	[6796.5]	C	$1s3s$	^{3}S	1	—	$1s4p$	^{3}P^o	1		
[14.738]	[6785.2]	C	$1s3p$	^{3}P^o	0	—	$1s4d$	^{3}D	1		
[14.746]	[6781.6]	C	$1s3s$	^{1}S	0	—	$1s4p$	^{1}P^o	1		
[14.751]	[6779.4]	C	$1s3p$	^{3}P^o	1	—	$1s4d$	^{3}D	1		
[14.753]	[6778.2]	C	$1s3p$	^{3}P^o	1	—	$1s4d$	^{3}D	2		
[15.040]	[6649.1]	C	$1s3p$	^{3}P^o	1	—	$1s4s$	^{3}S	1		
[15.048]	[6645.4]	C	$1s3p$	^{3}P^o	2	—	$1s4d$	^{3}D	3		
[15.100]	[6622.5]	C	$1s3p$	^{3}P^o	2	—	$1s4d$	^{3}D	2		
[15.163]	[6595.0]	C	$1s3p$	^{1}P^o	1	—	$1s4d$	^{1}D	2		
[15.256]	[6554.6]	C	$1s3d$	^{3}D	2	—	$1s4p$	^{3}P^o	2		
[15.342]	[6518.0]	C	$1s3d$	^{1}D	2	—	$1s4p$	^{1}P^o	1		
[15.383]	[6500.5]	C	$1s3d$	^{3}D	3	—	$1s4p$	^{3}P^o	2		
[15.400]	[6493.4]	C	$1s3p$	^{3}P^o	2	—	$1s4s$	^{3}S	1		
[15.410]	[6489.1]	C	$1s3d$	^{3}D	2	—	$1s4p$	^{3}P^o	1		
[15.417]	[6486.3]	C	$1s3d$	^{3}D	1	—	$1s4p$	^{3}P^o	1		
[15.424]	[6483.6]	C*	$1s3d$	^{3}D	1	—	$1s4p$	^{3}P^o	0		
[15.424]	[6483.3]	C*	$1s3p$	^{1}P^o	1	—	$1s4s$	^{1}S	0		
[31.933]	[3131.6]	C	$1s4s$	^{1}S	0	—	$1s5p$	^{1}P^o	1		
[31.960]	[3128.9]	C	$1s4s$	^{3}S	1	—	$1s5p$	^{3}P^o	1		
[32.645]	[3063.3]	C	$1s4p$	^{3}P^o	1	—	$1s5s$	^{3}S	1		
[33.358]	[2997.8]	C	$1s4p$	^{3}P^o	2	—	$1s5s$	^{3}S	1		
[33.363]	[2997.3]	C	$1s4p$	^{1}P^o	1	—	$1s5s$	^{1}S	0		
[91.7]	[1090.5]	C	$1s2s$	^{3}S	1	—	$1s2p$	^{1}P^o	1		
111.11	900.0		$1s2s$	^{3}S	1	—	$1s2p$	^{3}P^o	2	0.03	90MAR
[141.0]	[709.1]	C	$1s2s$	^{1}S	0	—	$1s2p$	^{1}P^o	1		
[264.6]	[378.0]	C	$1s2s$	^{3}S	1	—	$1s2p$	^{3}P^o	1		
279.8	357.4		$1s2s$	^{3}S	1	—	$1s2p$	^{3}P^o	0	0.2	90MAR
[385.2]	[259.6]	C	$1s3s$	^{3}S	1	—	$1s3p$	^{3}P^o	2		
[477.3]	[209.5]	C	$1s3s$	^{1}S	0	—	$1s3p$	^{1}P^o	1		

TABLE 63. Spectral lines of Kr XXXV—Continued

Observed vacuum wavelenth (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Classification							Uncertainty of observed wavelength (Å)	Source of line
			Configuration	Term	J		Configuration	Term	J		
[917]	[109.0]	C	$1s4s$	^{3}S	1	—	$1s4p$	^{3}P^o	2		
[962]	[103.9]	C	$1s3s$	^{3}S	1	—	$1s3p$	^{3}P^o	1		
[1120]	[89.5]	C	$1s4p$	^{3}P^o	0	—	$1s4d$	^{3}D	1		
[1117]	[88.8]	C	$1s4s$	^{1}S	0	—	$1s4p$	^{1}P^o	1		
[1152]	[86.8]	C	$1s4p$	^{3}P^o	1	—	$1s4d$	^{3}D	1		
[1168]	[85.6]	C	$1s4p$	^{3}P^o	1	—	$1s4d$	^{3}D	2		
[1799]	[55.6]	C	$1s5s$	^{3}S	1	—	$1s5p$	^{3}P^o	2		
[2198]	[45.5]	C	$1s5s$	^{1}S	0	—	$1s5p$	^{1}P^o	1		
[2299]	[43.5]	C	$1s4s$	^{3}S	1	—	$1s4p$	^{3}P^o	1		
[2326]	[43.0]	C	$1s4p$	^{3}P^o	2	—	$1s4d$	^{3}D	3		
[4525]	[22.1]	C	$1s5s$	^{3}S	1	—	$1s5p$	^{3}P^o	1		
[4975]	[20.1]	C	$1s4p$	^{3}P^o	2	—	$1s4d$	^{3}D	2		

4.36. Kr XXXVI

H isoelectronic sequence
Ground State $1s\ ^2S_{1/2}$
Ionization energy 144 665 280±90 cm^{-1}
(17 936.208±0.011 eV) [85JOH]

Twenty five energy levels of 35 times ionized krypton, Kr XXXVI, H-like Kr, were compiled by Sugar and Musgrove [91SUG] based on the calculations of Johnson and Soff [85JOH] for the $n=1,2$ levels and Erickson [77ERI] for the $n=3,4,5$ levels. The Erickson [77ERI] levels used were obtained by subtracting the binding energy they calculated from the Johnson and Soff [85JOH] value for the binding energy of the ground state. We use the same levels as Sugar and Musgrove [91SUG] except that we correct a typographical error in one level. All levels in our compilation are calculated and so are denoted with square brackets. The estimated uncertainty of most of the levels with respect to the ground state is 90 cm^{-1}. Noting the deviation of the Erickson [77ERI] value for the 2s level from the improved value of Johnson and Soff [85JOH] and using a n^{-3} scaling for the Lamb shift, Sugar and Musgrove [91SUG] estimate that this produces an uncertainty for the 3s and 4s levels of 260 and 110 cm^{-1}, respectively.

Shirai *et al.* [95SHI], [00SHI] used wavelengths calculated from the energy levels. We use the same lines. Experimental measurements were made of one line by Tavernier *et al.* [85TAV] and its value is consistent with the calculated energy levels as is a determination of the 2p fine structure splitting by Briand *et al.* [84BRI]

Tavernier *et al.* [85TAV] used beam foil spectroscopy to measure the $1s\ ^2S_{1/2}-2p\ ^2P^o_{3/2}$ transition in Kr XXXVI. They obtained a wavelength of 0.917 79±0.000 03 Å.

Briand *et al.* [84BRI] used beam foil spectroscopy to measure the energy difference between the $2p\ ^2P^o_{3/2}$ and $2p\ ^2P^o_{1/2}$ levels. They obtained an energy difference of $6.52\times10^5\pm0.11\times10^5$ cm^{-1}.

The intensity code given in the Kr XXXVI line table has the meaning stated below:

Symbol	Definition
C	Wavelength obtained from calculated energy levels using Ritz combination principle

The ionization energy was calculated by Johnson and Soff [85JOH] using the Dirac equation with finite nuclear size corrections, reduced mass corrections, recoil corrections, and electrodynamical corrections of first and second order in the fine structure constant.

4.36.1. References

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95SHI = T. Shirai, K. Okazaki, and J. Sugar, J. Phys. Chem. Ref. Data **24**, 1577 (1995).
00SHI = T. Shirai, J. Sugar, A. Musgrove, and W. L. Wiese, *Spectral Data for Highly Ionized Atoms: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Kr, and Mo*, J. Phys. Chem. Ref. Data Monograph No. 8 (2000).

TABLE 64. Energy levels of Kr XXXVI

Energy level (cm^{-1})	Parity	Configuration	Term	*J*	Source of level
0	0	1*s*	^2S	1/2	85JOH
[108 314 470]	1	2*p*	$^2P^o$	1/2	85JOH
[108 956 890]	1	2*p*	$^2P^o$	3/2	85JOH
[108 328 400]	0	2*s*	^2S	1/2	85JOH
[128 581 180]	1	3*p*	$^2P^o$	1/2	77ERI
[128 771 760]	1	3*p*	$^2P^o$	3/2	77ERI
[128 585 640]	0	3*s*	^2S	1/2	77ERI
[128 771 410]	0	3*d*	^2D	3/2	77ERI
[128 832 870]	0	3*d*	^2D	5/2	77ERI
[135 648 100]	1	4*p*	$^2P^o$	1/2	77ERI
[135 728 370]	1	4*p*	$^2P^o$	3/2	77ERI
[135 649 980]	0	4*s*	^2S	1/2	77ERI
[135 728 220]	0	4*d*	^2D	3/2	77ERI
[135 754 190]	0	4*d*	^2D	5/2	77ERI
[135 754 140]	1	4*f*	$^2F^o$	5/2	77ERI
[135 767 020]	1	4*f*	$^2F^o$	7/2	77ERI
[138 907 840]	1	5*p*	$^2P^o$	1/2	77ERI
[138 948 880]	1	5*p*	$^2P^o$	3/2	77ERI
[138 908 810]	0	5*s*	^2S	1/2	77ERI
[138 948 800]	0	5*d*	^2D	3/2	77ERI
[138 962 100]	0	5*d*	^2D	5/2	77ERI
[138 962 070]	1	5*f*	$^2F^o$	5/2	77ERI
[138 968 670]	1	5*f*	$^2F^o$	7/2	77ERI
[138 968 660]	0	5*g*	^2G	7/2	77ERI
[138 972 610]	0	5*g*	^2G	9/2	77ERI

TABLE 65. Spectral lines of Kr XXXVI

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Configuration						
			Configuration	Term	*J*		Configuration	Term	*J*
[0.7196891]	[138 948.88]	C	1*s*	^2S	1/2	—	5*p*	$^2P^o$	3/2
[0.7367656]	[135 728.37]	C	1*s*	^2S	1/2	—	4*p*	$^2P^o$	3/2
[0.7765678]	[128 771.76]	C	1*s*	^2S	1/2	—	3*p*	$^2P^o$	3/2
[0.7777188]	[128 581.18]	C	1*s*	^2S	1/2	—	3*p*	$^2P^o$	1/2
[0.9177942]	[108 956.89]	C	1*s*	^2S	1/2	—	2*p*	$^2P^o$	3/2
[0.9232377]	[108 314.47]	C	1*s*	^2S	1/2	—	2*p*	$^2P^o$	1/2
[3.26579]	[30 620.48]	C	2*s*	^2S	1/2	—	5*p*	$^2P^o$	3/2
[3.33275]	[30 005.21]	C	2*p*	$^2P^o$	3/2	—	5*d*	^2D	5/2
[3.64964]	[27 399.97]	C	2*s*	^2S	1/2	—	4*p*	$^2P^o$	3/2
[3.73172]	[26 797.30]	C	2*p*	$^2P^o$	3/2	—	4*d*	^2D	5/2
[4.89156]	[20 443.36]	C	2*s*	^2S	1/2	—	3*p*	$^2P^o$	3/2
[5.03120]	[19 875.98]	C	2*p*	$^2P^o$	3/2	—	3*d*	^2D	5/2
[9.64949]	[10 363.24]	C	3*s*	^2S	1/2	—	5*p*	$^2P^o$	3/2
[9.81322]	[10 190.34]	C	3*p*	$^2P^o$	3/2	—	5*d*	^2D	5/2
[9.86602]	[10 135.80]	C	3*d*	^2D	5/2	—	5*f*	$^2F^o$	7/2

TABLE 65. Spectral lines of Kr XXXVI—Continued

Observed vacuum wavelength (Å)	Observed wave number (10^3 cm^{-1})	Intensity and comment	Configuration						
			Configuration	Term	J		Configuration	Term	J
[14.0002]	[7142.73]	C	$3s$	^{2}S	1/2	—	$4p$	^{2}P^o	3/2
[14.3217]	[6982.43]	C	$3p$	^{2}P^o	3/2	—	$4d$	^{2}D	5/2
[14.4214]	[6934.15]	C	$3d$	^{2}D	5/2	—	$4f$	^{2}F^o	7/2
[159.11]	[628.49]	C	$2s$	^{2}S	1/2	—	$2p$	^{2}P^o	3/2
[525.7]	[190.23]	C	$3p$	^{2}P^o	1/2	—	$3d$	^{2}D	3/2
[537.3]	[186.12]	C	$3s$	^{2}S	1/2	—	$3p$	^{2}P^o	3/2

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