



NBS SPECIAL PUBLICATION 363

SUPPLEMENT 1

U.S. DEPARTMENT OF COMMERCE / National Bureau of Standards

**Bibliography
on Atomic Energy Levels
and Spectra**

July 1971 through June 1975

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Foreword

The National Standard Reference Data System was established in 1963 for the purpose of promoting the critical evaluation and dissemination of numerical data of the physical sciences. The program is coordinated by the Office of Standard Reference Data of the National Bureau of Standards but involves the efforts of many groups in universities, government laboratories, and private industry. The primary aim of the program is to provide compilations of critically evaluated physical and chemical property data. These tables are published in the *Journal of Physical and Chemical Reference Data*, in the NSRDS-NBS series of the National Bureau of Standards, and through other appropriate channels.

The task of critical evaluation is carried out in various data centers, each with a well-defined technical scope. A necessary preliminary step to the critical evaluation process is the retrieval from the world scientific literature of all papers falling within the scope of the center. Each center, therefore, builds up a comprehensive well-indexed bibliographical file which forms the base for the evaluation task. Bibliographies derived from these files are published when they appear to be of value to research workers and others interested in the particular technical area.

Further information on NSRDS and the publications which form the primary output of the program may be obtained by writing to the Office of Standard Reference Data, National Bureau of Standards, Washington, D.C. 20234.

DAVID R. LIDE, JR., *Chief*
Office of Standard Reference Data

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Bibliography on Atomic Energy Levels and Spectra July 1971 through June 1975

Lucy Hagan

This is the first supplement to the NBS Special Publication 363, "Bibliography on Atomic Energy Levels and Spectra, July 1968 through June 1971," and it covers the most recent literature from July 1971 through June 1975. It contains approximately 2150 references classified by subject for individual atoms and atomic ions. A number index identifies the references. An author index is included. References included contain data on energy levels, classified lines, wavelengths, Zeeman effect, Stark effect, hyperfine structure, isotope shift, ionization potentials, or theory which gives results for specific atoms or atomic ions.

Key words: Atomic energy levels; atomic spectra; bibliography; energy levels, atomic; spectra, atomic; wavelengths, atoms and ions.

1. Introduction

Since the publication of *Bibliography on Atomic Energy Levels and Spectra, July 1968 through June 1971* [1]¹ by the Atomic Energy Levels Data Center, over 2150 research papers have appeared which contain numerical data. This is twice the number of references included in the previous bibliography and represents an increase of approximately 170 per year compared to the years covered previously. This first supplement contains references to these new papers which have a journal publication date up to June 30, 1975 and were available to us as reprints or in journals in our library. In this supplement the format is the same as in the previously published bibliography.

1.1. Reference Classification Scheme and Scope of Bibliography

The references included contain numerical data on atomic energy levels and spectra. The reference classification categories are the same as used in the previous bibliography and are summarized below. One additional category, QF, has been added for papers containing numerical data on Lamb shifts, either experimental or theoretical results.

EL Energy Levels. Experimental energy differences, except Hfs or IS. Includes references that suggest the rejection of previously reported levels.

ND New Designations. New or changed designations or *J* values for known energy levels.

CL Classified Lines. Indicates the assignment of observed lines to transitions between energy levels that are specified by theoretical designations and/or by their positions in a known level scheme.

W Wavelengths (or wavenumbers). New measurements, or wavelengths newly assigned to a particular spectrum. References that list measurements of other entities corresponding to energy differences between levels may also be included.

ZE Zeeman Effect data or interpretation.

SE Stark Effect data or interpretation.

Hfs Hyperfine Structure. Observations and theory.

IS Isotopic or Isomeric (Nuclear) Shifts.

QF Quantum Field effects. Lamb shifts, experimental and theoretical results.

IP Ionization Potential.

SF Series Formulae. Evaluated series constants, including those appearing in polarization-theory formulae.

TE Theoretical Energies. Restricted to a few references that give calculated energy levels with accuracies about equal to or exceeding those now obtainable by observation.

¹ Figures in brackets refer to the literature references in section 1.3 on page

PT Parametric Theory. Evaluations of the usual energy parameters of Slater-Condon theory, or extensions thereof, based on fitting the theory to experimental levels, *g*-factors and/or other observed quantities.

AT Ab initio Theory. These references are mostly to Hartree-Fock type calculations of energy parameters or levels.

OT Other Theory. Predictions of energy levels by theoretical methods not primarily classifiable as PT or AT (for example, Z expansion techniques).

It is worth noting that this bibliography does not contain references to atomic transition probabilities, line intensities, or broadening. The NBS Data Center on Atomic Transition Probabilities and Atomic Line Shapes and Shifts publishes bibliographies on these subjects [2].

This bibliography is further restricted, with few exceptions, to original research papers or monographs; textbooks and extensive compilations of special interest that are not included in the classified references are given at the end of this introduction in section 1.4.

1.2. Arrangement of Bibliography and Handling of Special Types of References

Each reference has been assigned a number. In section 2.2 the appropriate reference numbers are given under headings for individual spectra (element and ionization stage). The reference numbers under each spectrum heading are listed separately for each of the content categories explained above. Reference numbers for papers reporting wavelengths of unknown ionization stage are given as the last group for the element.

The full references are given in order of the assigned numbers in section 3. Each such reference is followed by the spectra and category symbols appropriate to the content. Except for Russian titles, which are given in English, the titles of articles are given in the language in which they were published. References to articles from Russian journals that also appear in English translations are usually to the translation journals.

Section 2.1 is an index to the spectra for which there are references, and an author index (sec. 4) follows the listing of the complete references.

The main exception from the arrangement described above is for the references 3300 through 3533. Each of these papers gives theoretical results for a rather large number of elements and/or ionization stages and their numbers are followed by a "T" to indicate that the papers give theoretical results only. These references are included in section 4, along with the usual information on their content, and in the author index. However, they were omitted from the reference numbers for the individual spectra (sec. 2.2).

Most of the reference numbers followed by an "A" indicate abstracts of papers presented at meetings of the Optical Society of America, the American Physical Society, or the European Group for Atomic Spectroscopy. The assigned content categories for these abstracts are those thought to be applicable to the paper itself, as indicated by the abstract; the indicated results are not necessarily included in the abstracts. These abstracts frequently provide information about work in progress. A few of the "A" references are to abstracts of theses in Dissertation Abstracts. Some of the other references are to theses for which the AEL Data Center has obtained copies.

References to lanthanide and actinide atomic energy levels and spectra determined from solution or crystal data are included for atoms and atomic ions for which these data have not been determined for the free gaseous atom or ion. Papers older than 1971 have also been included for this particular subject to make the bibliography complete, since these references were not included in previous bibliographies. For these references the reference classification categories which apply are enclosed in parentheses to differentiate them from articles to atomic energy levels and spectra of free gaseous atoms and atomic ions.

Abbreviations of titles of publications cited in this bibliography are those given in the 1970 edition of Chemical Abstracts Source Index [3].

I am grateful to Dr. W. C. Martin for helpful discussions and consultation. I am indebted to Dr. David Garvin, who suggested the original format for references, which has been used with his computer programs for this bibliography. James Koch has been especially helpful in resolving difficulties with the many computer programs used; I am grateful for his help. I thank Keith Draxl, who revised the author sort program and put it into operations with the modifications required. I thank the NSRDS staff, particularly Carla Messina, who revised the reformat program, and Robert Thompson for helpful comments about the programs. I especially thank Kathy Strine for the difficult job of key-boarding the references, putting the references in a consistent format, and for running many of the computer programs to put the bibliography onto magnetic tape. I thank Marsha Ahalt for her assistance in proofreading the bibliography.

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2. Classified References for Individual Spectra

2.1. Index to Spectra

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page				
Actinium	89	Ac I	45	Berkelium	97	Bk I Bk II Bk IV Bk V	46				
Aluminum	13	Al ⁻	18	Beryllium	4	Be I Be II Be III Be IV	13				
		Al I									
		Al II									
		Al III									
		Al IV									
		Al V									
		Al VI									
		Al VII									
		Al VIII									
		Al IX									
		Al X									
		Al XI									
		Al XII									
Al XIII											
Americium	95	Am III	46	Bismuth	83	Bi ⁻ Bi I Bi II Bi IV	45				
		Am IV									
		Am V									
		Am VI									
		Am LXXXV									
Antimony	51	Sb ⁻	38	Boron	5	B ⁻ B I B II B III B IV B V	13				
		Sb I									
		Sb II									
		Sb VII									
Argon	18	Ar ⁻	21	Bromine	35	Br ⁻ Br I Br XVI Br XIX Br XXIV Br XXV Br XXVI	34				
		Ar I									
		Ar II									
		Ar III				22		Cadmium	48	Cd ⁻ Cd I Cd II Cd III	38
		Ar IV									
		Ar V									
		Ar VI									
		Ar VII									
		Ar VIII									
		Ar IX									
		Ar X									
		Ar XI									
		Ar XII									
		Ar XIII									
		Ar XIV									
		Ar XV									
		Ar XVI									
		Ar XVII									
		Ar XVIII									
Ar XIX											
Ar											
Arsenic	33	As ⁻	33	Calcium	20		Ca ⁻ Ca I Ca II Ca III Ca VII Ca IX Ca X Ca XI Ca XII Ca XIII Ca XIV Ca XV Ca XVI Ca XVII Ca XVIII Ca XIX Ca XX			24	
		As I									
		As II				34	Californium	98	Cf I Cf II Cf IV		46
		As XIV									
		As XV									
		As XVI									
		As XVII									
		As XVIII									
		As XXI									
		As XXII									
As XXIII											
Barium	56	Ba I	40	Carbon	6				C ⁻ C ⁻ C I C II C III C IV C V C VI	14	
		Ba II									
		Ba III									

2.1. Index to Spectra—Continued

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page	
Cerium	58	Ce I	40	Copper	29	Co XXI	30	
		Ce II				Co XXII		
		Ce III				Co XXIII		
		Ce IV				Cu ⁻	31	
		Ce V				Cu I		
		Ce VI				Cu II		
Cesium	55	Cs ⁻	39			Cu III		
		Cs I				Cu IV		
		Cs II				Cu V		
Chlorine	17	Cl ⁻	20			Cu VI		32
		Cl I				21		
		Cl II	Cl VIII					
		Cl III	Cl IX					
		Cl IV	Cl X					
		Cl V	Cl XI					
		Cl VI	Cl XII					
		Cl VII	Cl XIII					
		Cl VIII	Cl XIV					
		Cl IX	Cl XV					
		Cl X	Cl XVI					
		Cl XI	Cl XVII					
		Cl XII						
		Cl XIII						
		Cl XIV						
		Cl XV						
		Cl XVI						
Cl XVII								
Chromium	24	Cr ⁻	26	Curium	96	Cm I	46	
		Cr I		Cm II				
		Cr II		Cm III				
		Cr III		Cm IV				
		Cr IV		Cm V				
		Cr V		Dysprosium	66	Dy I	42	
		Cr VI		Dy II				
		Cr VII		Dy III				
		Cr VIII		Dy IV				
		Cr IX		Dy V				
		Cr X		Dy XXXIX				
		Cr XI		Einsteinium	99	Es I	47	
		Cr XII		Es II				
		Cr XIII		Es III				
		Cr XIV		Es IV				
		Cr XV		Erbium	68	Er I	43	
		Cr XVI				Er II		
		Cr XVII				Er III		
		Cr XVIII				Er IV		
		Cr XIX				Er V		
		Cr XX				Er VI		
		Cr XXI				Er VII		
		Cr XXII				Europium		63
Cr XXIII	Eu II							
Cr XXIV	Eu III							
	Eu IV							
Cobalt	27	Co I	30	Fermium	100	Fm I	47	
		Co II		Fm XCV				
		Co III		Fluorine	9	F ⁻	15	
		Co IV				F I		
		Co X				F II		
		Co XI				F III		
		Co XII				F IV		
		Co XIII				F V		
		Co XIV				F VI		
		Co XV				F VII		
		Co XVI				F VIII		
		Co XVII				F IX		
		Co XVIII						
		Co XIX						
		Co XX						

2.1. Index to Spectra—Continued

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page				
Gadolinium	64	Gd I	42	Indium	49	In ⁻	38				
		Gd II				In I					
		Gd III				In III					
		Gd IV				In IV					
		Gd XXXVI		Iodine	53	I ⁻	39				
		Gd XXXVII				I I					
		Gd XXXVIII				I V					
Gd XXXIX	I VI	Iridium	77	Ir I	44						
Gallium	31					Ga ⁻	32	Iron	26	Fe ⁻⁻	28
						Ga I				Fe ⁻	
						Ga III				Fe I	
						Ga IV				Fe II	
		Ga V	Fe III								
		Ga VI	Fe IV								
		Ga VII	Fe V								
		Ga VIII	Fe VI								
		Ga XII	Fe VII								
		Ga XIII	Fe VIII								
		Ga XIV	Fe IX								
		Ga XV	Fe X								
		Ga XVI	Fe XI	Krypton	36	Kr ⁻				35	
Ga XVII	Fe XII										
Ga XVIII	Fe XIII										
Ga XIX	Fe XIV										
Ga XX	Fe XV										
Ga XXI	Fe XVI										
Germanium	32	Ge ⁻	33			Kr I	30				
		Ge I				Kr II					
		Ge III				Kr III					
		Ge IV				Kr IV					
		Ge V				Kr V					
		Ge VI				Kr VI					
		Ge XIII				Kr VII					
		Ge XIV		Kr VIII							
		Ge XV		Kr IX							
		Ge XVI		Kr X							
		Ge XVII		Kr XI							
		Ge XVIII		Kr XII							
		Ge XIX		Kr XIII							
Ge XX	Kr XIV										
Ge XXI	Kr XV										
Ge XXII	Kr XVI										
Ge XXIII	Kr XVII										
Ge XXIV	Kr XVIII										
Gold	79	Au ⁻	44	Kr XIX	30						
		Au I		Kr XX							
		Au II		Kr XXI							
		Au III		Kr XXII							
		Au IV		Kr XXIII							
		Au		Kr XXIV							
Hafnium	72	Hf I	44	Kr XXV	35						
		Hf II		Kr XXVI							
		Hf IV		Kr XXVII							
		Hf V		Kr XXVIII							
Helium	2	He ⁻	12	Kr XXIX	30						
		He I		Kr XXX							
		He II		Kr XXXI							
Holmium	67	Ho I	42	Kr XXXII	30						
		Ho II		Kr XXXIII							
		Ho III		Kr XXXIV							
		Ho IV		Kr XXXV							
Hydrogen	1	H ⁻⁻	12	Kr XXXVI	30						
		H ⁻		Kr XXXVII							
		H I		Kr XXXVIII							

2.1. Index to Spectra – Continued

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page	
Krypton – Continued		Kr XXVII	35			Mn XXIII	28	
		Kr XXVIII				Mn XXIV		
		Kr XXIX			Mendelevium	101	Md I	47
		Kr XXX			Mercury	80	Hg-	44
		Kr XXXI					Hg I	
		Kr XXXII					Hg II	
		Kr XXXIII					Hg LXXX	
		Kr XXXIV			Molybdenum	42	Mo I	37
		Kr XXXV					Mo VII	
		Kr XXXVI					Mo VIII	
Lanthanum	57	La I	40	Mo XV				
		La II		Mo XXXIII				
		La III		Mo XLI				
		La IV		Mo XLII				
		La V						
Lawrencium	103	Lr I	47	Neodymium	60	Nd I	41	
Lead	82	Pb-	45			Nd II		
		Pb I				Nd III		
		Pb II				Nd IV		
		Pb III				Nd V		
		Pb IV				Nd VI		
		Pb V				Nd VII		
Lithium	3	Li-	12	Neon	10	Ne-	15	
		Li I				13		Ne I
		Li II						Ne II
		Li III				Ne III		
Lutetium	71	Lu I	44			Ne IV		
		Lu II				Ne V		
		Lu III				Ne VI		
		Lu IV				Ne VII		
		Lu V				Ne VIII		
Magnesium	12	Mg-	17			Neptunium		93
		Mg I		Np I				
		Mg II		Np IV				
		Mg III		Np V				
		Mg IV		Np VI				
		Mg V		Np VII				
		Mg VI						
		Mg VII		Nickel	28	Ni I	30	
		Mg VIII				Ni II		
		Mg IX				Ni III		
		Mg X				Ni IV		
		Mg XI				Ni V		
Mg XII	18	Ni VI						
Manganese	25	Mn I	27	Ni VII				
		Mn II		Ni VIII				
		Mn III		Ni XI				
		Mn IV		Ni XII				
		Mn V		Ni XIII				
		Mn VI		Ni XIV				
		Mn VII		Ni XV				
		Mn VIII		Ni XVI				
		Mn IX		Ni XVII				
		Mn X		Ni XVIII				
		Mn XI		Ni XIX				
		Mn XII		Ni XX				
		Mn XIII		Ni XXI				
		Mn XIV		Ni XXII				
		Mn XV		Ni XXIII				
		Mn XVI	Ni XXIV					
		Mn XVII	Ni XXV					
		Mn XVIII	Ni XXVI					
		Mn XIX	Ni XXVII					
		Mn XX	Ni XXVIII					
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		Nb VII				K VII														
		Nb IX				K VIII														
		Nb XIV				K IX														
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		N -				K XII														
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Potassium	19	K -	22	Sc XIII																
		K I		Sc XIV																
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		Si XI									Tm III						
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Si XIII	Tin	50	Sn ⁻		38												
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Si XV			Sn II														
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F-	EL 1455, 2401 CL 2401 W 2401 AT 1320, 1753A OT 1802, 2659	F IX	EL 2173A, 2543, 2670, 2714 CL 2543, 2670, 2714 W 2150, 2543, 2670, 2714 ZE 2026 QF 2529A
F I	EL 2401, 2597 ND 1899, 2597 CL 2401, 3057 W 2401, 3057 ZE 2597, 3057 Hfs 1842, 2062A, 2707 PT 1899, 2597, 2598 AT 1320, 1425A, 1960, 2004, 2597, 2598 OT 1610, 1851	F X	EL 2173A
		Ne-	EL 1724, 2219, 2701 CL 1724 W 1724, 2219 AT 1803 OT 2275
		Ne I	EL 1407, 1724, 1752, 1784, 1788, 1819, 2219, 2259, 2329A, 2749, 2750, 2796, 3120 ND 2599

2.2 Reference Numbers for Individual Spectra—Continued

Ne I—Continued		Ne VI	EL	1575, 2303, 2310, 2678, 2834, 2881, 2916, 2939, 2953
CL	1724, 1784, 1788, 1819, 1975, 2219, 2228, 2259	CL	1575, 1760, 2303, 2310, 2678, 2939, 2953	
W	1407, 1724, 1752, 1784, 1788, 1819, 1975, 2219, 2259, 2637, 2852A, 2901, 3225, 3230, 3232	W	1575, 1760, 2303, 2310, 2678, 2939, 2953	
ZE	1805, 1951, 2077A, 2624	ZE	3157	
SE	2802, 2976	AT	1320, 1327, 2257	
Hfs	1589, 2013, 2077A, 2082A, 2272, 2435, 3012, 3022	Ne VII	EL	1808, 2303, 2310, 2481, 2834, 2881, 2916, 2939, 2953, 3170
IS	1361, 1372, 1375, 1377, 1450, 1452, 1453, 1454, 1547, 1589, 1701A, 1900, 2013, 2023, 2082A, 2414, 2435, 2675, 2713, 3102	CL	1721, 1760, 1775, 1808, 2122, 2227, 2303, 2310, 2481, 2939, 2953, 3170	
IP	1407	W	1721, 1760, 1775, 1808, 2009, 2122, 2227, 2303, 2310, 2481, 2939, 2953, 3170	
PT	1985, 2599, 2653	AT	2257	
AT	1320, 1321, 1448, 1605, 1683A, 1803, 1868, 1968, 1991, 2125, 2599, 2620, 2792, 2823, 2896, 2930, 3036, 3135	OT	2509	
OT	1610, 1834, 1841, 1968, 2008, 2313, 2432, 2550, 2672, 2823, 2904, 2978, 3101, 3129	Ne VIII	EL	1313, 1650, 1808, 1822, 1845, 2176A, 2177A, 2303, 2407, 2604, 2834, 2881, 2916, 2939, 2953, 3082, 3170
Ne II	EL	CL	1313, 1650, 1721, 1760, 1808, 1822, 1845, 2122, 2185, 2227, 2303, 2407, 2522A, 2604, 2939, 2953, 3082, 3170	
	1369A, 1406, 1502A, 1966A, 2329A, 2597, 2615, 2616, 2810, 2834, 2881, 2939, 2953	W	1313, 1650, 1721, 1760, 1808, 1822, 1845, 2122, 2185, 2227, 2303, 2407, 2522A, 2604, 2939, 2953, 3082, 3170	
ND	1406, 1899, 2597, 2598	AT	2257	
CL	1406, 1502A, 2615, 2616, 2939, 2953	OT	1808, 1844, 1977, 2120	
W	1369A, 1406, 1502A, 2615, 2616, 2637, 2939, 2953	Ne IX	EL	1343, 1845, 2176A, 2177A, 2303, 2407, 2834, 2881, 2916, 2953, 3170
ZE	1359, 2597, 3157	CL	1343, 1845, 2185, 2303, 2407, 2522A, 2545, 2953, 3170	
IS	1369A, 2589	W	1343, 1845, 2185, 2303, 2407, 2522A, 2636, 2786, 2953, 3082, 3170	
IP	1369A, 1406	QF	2194, 2426	
PT	1899, 2597, 2598	IP	1845, 2194	
AT	1320, 1809, 2257, 2597, 2598, 2948	TE	2194	
OT	2841	AT	2194, 2257, 2547, 2989	
Ne III	EL	OT	1726, 1844, 1977, 1980, 2120, 2545	
	1406, 2303, 2317, 2329A, 2834, 2881, 2939, 2953	Ne X	EL	2303, 2407, 2916, 3170
CL	1406, 2303, 2317, 2939, 2953	CL	2303, 2407, 3170	
W	1406, 2303, 2317, 2939, 2953	W	2303, 2407, 2786, 3170	
ZE	1359, 3157	AT	2257	
PT	2597	Ne	W	2306, 2308
AT	1320, 2257, 2597, 2948	Na ⁻	EL	1749A, 2158A, 2296, 2551, 2671
OT	2841	AT	1439	
Ne IV	EL	OT	2157A, 2241, 2530A, 2633, 2801, 3060	
	2303, 2310, 2329A, 2677, 2834, 2881, 2939, 2953	Ne I	EL	1795, 2018, 2384, 2571A, 2584, 2600, 2661, 2764, 2855A, 2865A, 2870, 2871, 2981, 3008, 3018, 3025, 3073
ND	2677	CL	1795, 2018, 2309, 2369, 2382, 2571A, 2865A, 3018	
CL	2303, 2310, 2677, 2939, 2953	W	1795, 2018, 2382, 2571A, 2600, 2865A, 3018	
W	2303, 2310, 2677, 2939, 2953			
AT	1320, 2257			
OT	1619			
Ne V	EL			
	2009, 2303, 2310, 2329A, 2678, 2834, 2881, 2916, 2939, 2953			
CL	1760, 2009, 2303, 2310, 2678, 2939, 2953			
W	1760, 2009, 2303, 2310, 2678, 2939, 2953			
AT	1320, 1728, 2257			
OT	1481, 1728			

2.2 Reference Numbers for Individual Spectra—Continued

Na I—Continued		Na XI	EL	2304, 2328A, 2560
	ZE		CL	2304, 2328A, 2560
	SE		W	2304, 2328A, 2560
	Hfs	Mg ⁻	EL	2983
		Mg I	EL	1790, 2098A, 2195, 2781, 2926, 3130, 3166
			ND	2030
			CL	1790, 2030, 2098A, 2195, 2309, 2369, 2781, 2926, 3130, 3166
			W	1790, 2098A, 2195, 2781, 2926, 3130, 3166
	IS	Hfs	2515	
	QF	IS	1688A	
	IP	IP	2195, 2374, 2874, 3166	
	AT	AT	1449, 1572, 1626, 2016, 2030, 2688, 2730, 2769, 2872, 2873	
	OT	OT	1572, 1834, 2037, 2117, 2156A, 2290, 3161	
Na II	ZE	Mg II	EL	1790, 2781, 2857A, 3130
	Hfs		CL	1790, 2369, 2781, 3130
	PT		W	1790, 2781, 3130
	AT		AT	1836, 1971, 2872, 2873
	OT		OT	1573, 1971, 2037
Na III	EL	Mg III	EL	1434, 2003, 2781, 3130
	ND		ND	1434, 2149
	CL		CL	1434, 2003, 2781, 3130
	W		W	1434, 2003, 2781, 3130
	IP		IP	1434, 2003
	PT		PT	1434, 2149, 2599
	AT		AT	1683A, 2599
	OT		OT	3129
Na IV	EL	Mg IV	EL	1660, 1965, 2720
	CL		ND	1660, 1899, 1959, 1965
	W		CL	1660, 1959, 1965, 2720
			W	1660, 1965, 2720
			IP	1660, 1965, 2720
			PT	1660, 1899, 1959, 1965, 2598, 2720
			AT	1660, 1959, 2039A, 2598, 2720
Na V	EL	Mg V	EL	1965, 2877
	CL		CL	2277, 2877
	W		W	1965, 2277, 2877
Na VI	EL	Mg VI	OT	1619
	CL	Mg VII	EL	1331
	W		CL	1331
	PT		W	1331, 1459
	OT		OT	1481
Na VIII	EL	Mg VIII	W	1428
	CL	Mg IX	EL	1808, 2481
	W		CL	1808, 2009, 2481
	OT		W	1808, 2009, 2481
Na IX	EL	Mg X	EL	1331, 1808, 2304, 2408, 2479, 2560, 2670, 2728, 2743
	CL		CL	1331, 1808, 2304, 2408, 2479, 2560, 2670, 2728, 2743
	W			
	OT			
Na X	EL			
	CL			
	W			

2.2 Reference Numbers for Individual Spectra—Continued

Mg x—Continued		Al v—Continued	
	W 1331, 1428, 1808, 2304, 2408, 2479, 2560, 2636, 2670, 2728, 2743		PT 2577
	TE 2934		AT 2577
	OT 1808, 1844, 1977, 2479, 2934	Al vi	EL 2877, 2940
Mg xi	EL 1428, 1585, 2304, 2328A, 2408, 2479, 2560, 2602, 2670, 2743, 3123, 3226		CL 1785, 2277, 2877, 2940
	CL 1428, 1585, 2304, 2328A, 2408, 2479, 2545, 2560, 2602, 2670, 2743, 3123, 3226		W 1785, 2277, 2605, 2877, 2940
	W 1428, 1585, 2304, 2328A, 2408, 2479, 2560, 2602, 2636, 2670, 2743, 3123, 3226	Al vii	EL 2940
	AT 2989		CL 1785, 2587, 2940
	OT 1428, 1844, 1977, 2479, 2545		W 1785, 2587, 2605, 2940
Mg xii	EL 2304, 2328A, 2408, 2479, 2560, 2602, 2670, 3226	Al viii	EL 1331
	CL 2304, 2328A, 2408, 2479, 2560, 2602, 2670, 3226		CL 1331, 1785
	W 1428, 2304, 2328A, 2408, 2479, 2560, 2602, 2636, 2670, 3226		W 1331, 1785, 2605
	OT 2479		OT 1481
Al ⁻	EL 3103	Al ix	EL 1471
Al i	EL 1790, 2628		ND 1471
	ND 2293		CL 1471, 1484, 1785
	CL 1790, 2309, 2369, 2628		W 1471, 1484, 1785
	W 1790, 2628, 2685		AT 1327
	SE 2395	Al x	EL 1331, 1471, 1808
	Hfs 1746, 2062A, 2395, 2707		CL 1331, 1471, 1785, 1808
	AT 1971, 2293, 3076		W 1331, 1471, 1785, 1808
	OT 1834, 1971, 2293, 3076	Al xi	EL 1331, 1471, 2081A, 2304, 2408, 2479, 2560, 2670, 2743, 2946
Al ii	EL 1790, 2134A, 2940		CL 1331, 1471, 1484, 2304, 2408, 2479, 2560, 2670, 2743
	ND 1523A, 2293		W 1331, 1471, 1484, 2304, 2408, 2479, 2560, 2670, 2743
	CL 1523A, 1790, 2134A, 2369, 2940		OT 1808, 2479
	W 1790, 2134A, 2940	Al xii	EL 2304, 2328A, 2408, 2479, 2560, 2670, 2743, 3123, 3226
	IP 2134A		CL 2304, 2328A, 2408, 2460, 2479, 2560, 2670, 2743, 3123, 3226
	AT 1572, 2293		W 1428, 2304, 2328A, 2408, 2460, 2479, 2560, 2636, 2670, 2743, 3123, 3226
	OT 1572, 2290		OT 2479
Al iii	EL 2940	Al xiii	EL 2304, 2328A, 2408, 2479, 2560, 3226
	CL 2940		CL 2304, 2328A, 2408, 2460, 2479, 2560, 3226
	W 2940		W 1428, 2304, 2328A, 2408, 2460, 2479, 2560, 2636, 3226
	AT 1836, 1971		OT 2479
	OT 1573, 1971	Si ⁻⁻	AT 2199
Al iv	EL 1607, 1674A, 1963, 2223, 2829, 2940	Si ⁻	EL 2897, 3103
	ND 1963, 2223, 2829	Si i	EL 1790, 2167, 2533A, 2542
	CL 1607, 1674A, 1963, 2223, 2829, 2940		CL 1790, 2167, 2309, 2369, 2533A, 2542
	W 1607, 1674A, 1963, 2223, 2605, 2829, 2940		W 1459, 1790, 2533A, 2542
	IP 2829		IP 2167, 2542
	PT 1963, 2223, 2829		PT 2733
	AT 1491, 1963		AT 2968
	OT 3129		OT 2167
Al v	EL 1660, 2577, 2940	Si ii	CL 2369, 2645
	ND 1630, 1660, 2181, 2577		W 2226
	CL 1630, 2577, 2940		AT 1971
	W 1630, 2577, 2605, 2940		OT 1971

2.2 Reference Numbers for Individual Spectra—Continued

Si III	W	2226	Si XIV	EL	2304, 2328A, 2479, 2560
	AT	1572		CL	2304, 2328A, 2479, 2560
	OT	1572		W	1428, 2304, 2328A, 2479, 2560, 2636
Si IV	W	2226		OT	2479
	OT	1731, 2129	Si XV	EL	2479
Si V	ND	2223		CL	2479
	TE	2843		W	2479
	AT	1491		OT	2479
	OT	2843, 3129	Si XVIII	EL	1334
Si VI	ND	1660, 2181		CL	1334
	AT	2004		W	1334
Si VII	EL	1334, 2877	P--	AT	2199
	CL	1334, 2277, 2877	P-	EL	2296
	W	1334, 1459, 2277, 2877	P I	CL	2309, 2369, 2548
	AT	2004		W	2548
Si VIII	EL	2728		Hfs	2709
	CL	2728		AT	2459A
	W	1459, 2728	P II	EL	1778
	AT	2004		ND	1778
	OT	1619		CL	1778, 2369
Si IX	EL	1331, 1334, 2479		W	1778
	ND	1334		ZE	1778
	CL	1331, 1334, 2479		PT	1778, 2733
	W	1331, 1334, 1428, 1459, 2479		AT	1777
	AT	2004	P III	EL	2608
	OT	2106, 2479		CL	2608
Si X	EL	2479		W	2608
	CL	2479		AT	1971
	W	1428, 2479, 2636		OT	1971
	AT	1327, 2004	P IV	EL	1558, 2608, 3055
	OT	2106, 2479		ND	1558
Si XI	EL	1331, 1808, 2479, 2481		CL	1508, 2608, 3055
	CL	1331, 1808, 2479, 2481		W	1508, 2608, 3055
	W	1331, 1808, 2479, 2481		IP	1558
	AT	2004	P V	EL	2608, 2613
	OT	2479		CL	2608, 2613
Si XII	EL	1331, 1808, 2081A, 2304, 2479, 2560, 2728, 2743, 2863A, 2946		W	2608, 2613
	CL	1331, 1808, 2304, 2479, 2560, 2728, 2743, 2863A		IP	2613
	W	1331, 1428, 1808, 2304, 2479, 2560, 2728, 2743, 2863A		SF	2613
	TE	2934	P VI	ND	2223
	AT	2989		AT	1491
	OT	1808, 1844, 2479, 2934		OT	3129
Si XIII	EL	1428, 1592, 2304, 2328A, 2479, 2560, 2722, 2743	P VII	ND	1660, 2181
	CL	1428, 2285, 2304, 2328A, 2479, 2545, 2560, 2743	P VIII	EL	2299, 2877
	W	1428, 2304, 2328A, 2479, 2560, 2636, 2743		CL	2277, 2299, 2877
	TE	2285		W	2277, 2299, 2877
	OT	1428, 1844, 2285, 2479, 2545, 2748	P IX	EL	2299
				CL	2299
				W	2299
			P X	EL	1334, 2279, 2299
				ND	1334
				CL	1334, 2279, 2299
				W	1334, 2279, 2299

2.2 Reference Numbers for Individual Spectra—Continued

P XI	EL 2279, 2299 CL 2279, 2299 W 2279, 2299	S VIII—Continued CL 2577 AT 2039A
P XII	EL 1924, 2279, 2299 CL 1924, 2279, 2299 W 1924, 2279, 2299 IP 1924 OT 1680, 1924, 3136	S IX EL 1347, 2321, 2877 ND 1334 CL 1334, 1347, 2277, 2321, 2877 W 1334, 1347, 1459, 2277, 2321, 2877 AT 1555, 2321
P XIII	EL 1924, 2299, 2560 ND 1924 CL 1924, 2299, 2560 W 1924, 2299, 2560 OT 1808, 1924	S X EL 1334, 1347, 2279, 2321, 2728 CL 1334, 1347, 2279, 2321, 2728 W 1334, 1347, 2279, 2321, 2728 AT 1555, 2321
P XIV	EL 2560, 3123 CL 2560, 3123 W 2560, 3123	S XI EL 1334, 1347, 2279 ND 1334 CL 1334, 1347, 2279 W 1334, 1347, 1459, 2279 AT 1555 OT 1481
P XV	EL 2560 CL 2560 W 2560	S XII EL 1334, 1347, 2279, 2479 CL 1334, 1347, 2279, 2479 W 1334, 1347, 1428, 2279, 2479 TE 2934 AT 1327, 1555 OT 2479, 2934
S--	AT 2199	S XIII EL 1347, 1808, 2279, 2315, 2479, 2481 CL 1347, 1808, 2279, 2315, 2479, 2481 W 1347, 1428, 1808, 2279, 2315, 2479, 2481 OT 2479, 3136
S I	EL 1500, 1982 ND 2043A CL 1500, 2309, 2369, 2645 W 1500, 1982 ZE 1817 IP 1500 PT 2192 AT 2043A, 2126, 2459A OT 2126	S XIV EL 1808, 2168A, 2279, 2304, 2315, 2330A, 2404, 2421, 2479, 2560, 2728, 2743 CL 1808, 2279, 2304, 2315, 2421, 2479, 2560, 2728, 2743 W 1428, 1808, 2279, 2304, 2315, 2421, 2479, 2560, 2728, 2743 TE 2934 OT 1808, 1844, 1977, 2479, 2934, 3111
S II	CL 1927 W 1927, 2226, 2514A PT 2192	S XV EL 1428, 1592, 2174A, 2304, 2330A, 2421, 2479, 2560, 2722, 3123 CL 1428, 2304, 2421, 2479, 2545, 2560, 3123 W 1428, 2304, 2421, 2479, 2560, 3123 OT 1428, 1844, 1977, 2479, 2545
S III	CL 1927, 2645 W 1927, 2226, 2514A PT 2733	S XVI EL 2304, 2479, 2560 CL 1462, 2304, 2479, 2560 W 1428, 1462, 2304, 2479, 2560 SE 3121 OT 2479
S IV	EL 1329 CL 1329, 1927 W 1329, 1927, 2226, 2514A	CI- EL 2205 ND 2206 CL 2205 W 2205 AT 1516 OT 1802, 2206, 2659
S V	EL 1329, 2514A, 3055 CL 1329, 1927, 2127, 2514A, 3055 W 1329, 1927, 2226, 2514A, 3055 IP 1558 OT 2290	
S VI	EL 1329, 2514A CL 1329, 2514A W 1329, 1927, 2226, 2514A	
S VII	ND 1483 TE 2843 AT 1491 OT 1745, 2843	
S VIII	EL 1660, 2577 ND 1660, 2181	

2.2 Reference Numbers for Individual Spectra—Continued

Cl I	EL	2069, 2379	Cl XII—Continued	CL	1334, 1481, 2267, 2279, 3105	
	ND	2043A		W	1334, 1481, 2267, 2279, 3105	
	CL	1505, 2069		OT	1481	
	W	1505, 2069		Cl XIII	EL	1334, 2267, 2279, 3105
	ZE	2734			CL	1334, 2267, 2279, 3105
	SE	1490			W	1334, 2267, 2279, 3105
	Hfs	2062A, 2707, 2734		Cl XIV	EL	1334, 2267, 2279, 3105
	AT	2043A, 2459A, 2475, 2820			CL	1334, 2267, 2279, 3105
		W	1334, 2267, 2279, 3105			
		OT	3136			
Cl II	EL	1617, 2043A, 2940	Cl XV		EL	1642, 2330A, 2398, 2560, 2667, 2818, 3105, 3169
	ND	1617, 2043A			CL	2398, 2560, 2667, 3105, 3169
	CL	1617, 2043A, 2940			W	2398, 2560, 2667, 3105, 3169
	W	1617, 2043A, 2940	OT	1642, 1808, 2215, 3111		
	SE	1490	Cl XVI	EL	2330A, 2398, 2446, 2560, 3105, 3169	
	IP	1617		CL	2398, 2446, 2560, 3105, 3169	
	PT	1617, 2043A		W	2398, 2446, 2560, 3105, 3169	
AT	1617, 2043A	Cl XVII		EL	3105	
Cl III	EL		2940	CL	3105	
	CL		2940	W	3105	
	W	2940	Ar ⁻	EL	1495, 2219, 2405, 2576, 2701, 3031	
Cl IV	EL	1401, 2258, 2940		CL	2405	
	CL	1401, 2258, 2645, 2940		W	2219, 2405	
	W	1401, 2258, 2940	AT	2556		
	PT	2733	Ar I	EL	1495, 1788, 1819, 1827, 2057A, 2131, 2162A, 2219, 2244, 2228, 2325A, 2427, 2429, 2576, 2578, 2634, 2640, 2749, 3031, 3236	
Cl V	EL	1401, 2258, 2940		ND	2899	
	CL	1401, 2258, 2940		CL	1788, 1819, 1827, 2145, 2219, 2244, 2325A, 2427, 2429, 2634, 2958, 3236	
	W	1401, 2940		W	1788, 1819, 1827, 2057A, 2131, 2219, 2244, 2325A, 2427, 2429, 2578, 2634, 3236	
Cl VI	EL	1401, 2258, 2267, 2940		ZE	1708A, 2121, 2644	
	CL	1401, 1941, 2258, 2267, 2381, 2940	IP	2131		
	W	1401, 2258, 2267, 2381, 2940	PT	1319, 1985, 2191, 2599		
	IP	1558, 2381	AT	1516, 1605, 1837, 1865, 1978, 1991, 2153A, 2274, 2599, 2620, 2736, 2823, 2899, 2908, 3182A		
Cl VII	EL	1401, 2258, 2267, 2863A, 2940	OT	2213, 2399, 2427, 2823, 2899, 2904, 2908, 2910		
	CL	1401, 2258, 2267, 2381, 2863A, 2940		Ar II	EL	1317, 1845, 2057A, 2162A, 2634, 3236
	W	1401, 2258, 2267, 2381, 2666, 2667, 2863A, 2940			ND	1794
	IP	2381	CL		1845, 2145, 2634, 2958, 3236	
Cl VIII	EL	2258, 2267, 2940	W		1317, 1845, 2057A, 2634, 3236	
	CL	2258, 2267, 2940	ZE	1525, 1588, 1833		
	W	2258, 2267, 2381, 2940	PT	1509, 1794		
	AT	1491	AT	2740		
	OT	1745	Ar III	EL	1328, 2727, 2998	
Cl IX	EL	2258, 2267, 2577, 2940		CL	1328, 2145, 2727, 2958	
	ND	2181				
	CL	2258, 2267, 2577, 2940				
	W	2258, 2267, 2381, 2940				
Cl X	EL	2183, 2258, 2267				
	ND	1334				
	CL	1334, 2183, 2258, 2267				
	W	1334, 2183, 2258, 2267				
Cl XI	EL	1334, 2267, 2279				
	CL	1334, 2267, 2279				
	W	1334, 2267, 2279				
Cl XII	EL	1334, 1481, 2267, 2279, 3105				
	ND	1334				

2.2 Reference Numbers for Individual Spectra—Continued

Ar III—Continued			Ar XV—Continued		
	W	1328, 2727		W	1334, 1428, 1808, 1845, 2479, 2481, 3221
	ZE	1525, 1588		OT	2479, 3136
	AT	2740			
Ar IV			Ar XVI		
	EL	1328, 2727, 2998		EL	1642, 1808, 1845, 2304, 2331A, 2479, 2728, 2818
	CL	1328, 2145, 2727, 2958		CL	1808, 1845, 2304, 2331A, 2479, 2728
	W	1328, 2727		W	1428, 1808, 1845, 2304, 2331A, 2479, 2728
Ar V				TE	2934
	EL	3055		OT	1642, 1808, 1844, 1977, 2215, 2479, 2934, 3111
	CL	3055			
	W	3055			
	PT	2733			
Ar VI			Ar XVII		
	EL	3055		EL	1428, 1592, 1845, 2304, 2479, 2618, 2722, 2815
	CL	3055		CL	1428, 1845, 2304, 2479, 2545, 2815
	W	3055		W	1428, 1845, 2304, 2479, 2815
Ar VII				IP	1845
	EL	3055, 3236		OT	1428, 1494, 1844, 1977, 2479, 2545
	CL	3055, 3236			
	W	2885A, 3055, 3236			
	IP	1558			
	OT	2290		Ar XVIII	EL 1845, 2479, 2722
Ar VIII				CL	1462, 1845, 2479
	EL	1650		W	1462, 1845, 2479
	CL	1458, 1650		OT	2479
	W	1458, 1650, 2885A			
	OT	1731		Ar XIX	W 1428
Ar IX				Ar	W 1334, 3055
	EL	1845			
	CL	1845, 2143		K ⁻	EL 2158A, 2296, 2671, 3218
	W	1845, 2885A		OT	2157A, 2633, 3060
	TE	2843		K I	EL 1792, 2152A, 2996, 3069, 3131, 3183, 3218, 3219
	AT	1491		CL	1792, 2309, 2369, 2996, 3131, 3183, 3219, 3227
	OT	2843		W	1427, 1792, 1906A, 2996, 3131, 3183, 3219, 3227
Ar X				ZE	1747A, 1810, 2789
	EL	1334, 3221		SE	1418, 1590, 2202, 3001
	CL	1334, 2143, 3221		Hfs	1416, 1682A, 1703A, 1707A, 1748A, 1763, 1876, 1913A, 1961, 2001, 2203, 2254, 2505A, 2744, 2789, 2819, 2845A, 3137
	W	1334, 2885A, 3221		IS	1315
	OT	2181		IP	3131
Ar XI				AT	2731, 2962
	EL	1334, 3221		OT	1456, 1742, 2332A, 2809, 3024
	CL	1334, 2029, 2754, 3221			
	W	1334, 2885A, 3221		K II	EL 2857A, 2940
	AT	2029		ND	2191, 2760
Ar XII				CL	2940
	EL	1334, 1845, 2279, 3221, 3236		W	2940
	CL	1334, 1845, 2279, 3221, 3236		PT	2191, 2599, 2760, 2933
	W	1334, 1845, 2279, 3221, 3236		AT	1516, 1665, 1837, 2409, 2599, 2760
Ar XIII				OT	2809
	EL	1334, 1481, 2279, 3221			
	CL	1334, 1481, 2279, 3221		K III	EL 2940
	W	1334, 1428, 1481, 2279, 3221		CL	2940
	OT	1481		W	2940
Ar XIV					
	EL	1334, 1845, 2479, 3221		K IV	EL 2940
	CL	1334, 1845, 2479, 3221		CL	2940
	W	1334, 1428, 1845, 2479, 3221		W	2940
	AT	1327			
	OT	2479			
Ar XV					
	EL	1334, 1808, 1845, 2479, 2481, 3221			
	CL	1334, 1808, 1845, 2479, 2481, 3221			

2.2 Reference Numbers for Individual Spectra—Continued

K v	EL	2940	Ca I—Continued	W	2182
	CL	2940		ZE	2307, 2689A
	W	2940		SE	2307
K vi	EL	2940	Hfs	2515	
	CL	2940	IS	1322	
	W	2940	IP	2182, 2374, 2874	
	PT	2733	PT	2808	
K vii	EL	2940	AT	1566, 1626, 1804, 2459A, 3076	
	CL	2940	OT	3076, 3220	
	W	2940			
K viii	EL	1558, 2940	Ca ii	CL	2309, 2369
	CL	1558, 2940	Ca iii	EL	1405, 2911
	W	1558, 2940		ND	2191, 2911
	IP	1558		CL	1405, 2911
	OT	1467		W	1405, 2911
K ix	EL	2940		IP	1405
	CL	2940		SF	1405
	W	2940		PT	1405, 1837, 2191, 2599, 2911
K x	AT	1491		AT	1665, 1837, 2599, 2911
K xi	EL	2039A, 2181	Ca vii	PT	2733
	CL	2039A, 2181	Ca ix	EL	1558
	W	2039A, 2181		CL	1558
	AT	2039A		W	1558
				IP	1558
K xii	EL	2183, 2563, 2877	Ca x	CL	1458
	CL	2183, 2277, 2563, 2877		W	1458
	W	2183, 2277, 2563, 2877			
K xiii	EL	2563	Ca xi	TE	2843
	CL	2563		AT	1491
	W	2563		OT	2843
K xiv	EL	2076, 2563	Ca xii	EL	2039A, 2181
	CL	2563		CL	2039A, 2181
	W	2563		W	2039A, 2181
K xv	EL	2076, 2563		OT	3104
	CL	2563	Ca xiii	EL	1333, 2183, 2563, 2877
	W	2563		ND	2563
K xvi	EL	2563		CL	1333, 2183, 2277, 2563, 2877
	CL	2563		W	1333, 2183, 2277, 2563, 2877
	W	2563		OT	3104
	OT	3136	Ca xiv	EL	1333, 2563, 3043
K xvii	EL	1808, 1816, 2560, 3169		ND	2563
	CL	1808, 1816, 2560, 3169		CL	1333, 2563, 3043
	W	1808, 1816, 2560, 3169		W	1333, 2563, 3043
	IP	1816		PT	3043
	OT	1808, 1816	Ca xv	EL	1333, 1808, 2076, 2563, 3043
K xviii	EL	2479, 2560, 3169		ND	2563
	CL	2479, 2560, 3169		CL	1333, 1808, 2563, 3043
	W	2479, 2560, 3169		W	1333, 1808, 2563, 3043
	OT	2479		AT	1728
Ca-	EL	1687		OT	1728, 1808, 3104
Ca i	EL	2182	Ca xvi	EL	1808, 2479, 2076, 2563, 3043
	CL	2182, 2309, 2369		CL	1808, 2479, 2563, 3043
				W	1428, 1808, 2479, 2563, 3043
				OT	1808, 2479

2.2 Reference Numbers for Individual Spectra—Continued

Ca xvii	EL	1808, 2479, 2481, 2487A, 2563, 3043, 3136	Sc vii	EL	1941
	CL	1808, 2479, 2481, 2487A, 2563, 3043, 3136		CL	1941
	W	1428, 1808, 2479, 2481, 2487A, 2563, 3043, 3136		W	1941
	OT	2479, 3136		Sc viii	EL
Ca xviii	EL	1808, 1816, 2479, 2560, 2728, 3169	Sc x	CL	1941
	CL	1808, 1816, 2479, 2560, 2728, 3169		W	1941
	W	1428, 1808, 1816, 2479, 2560, 2728, 3169		EL	1558
	IP	1816	CL	1558	
	TE	2934	W	1558	
	OT	1808, 1816, 1844, 1977, 2479, 2934	IP	1558	
	Ca xix	EL	1428, 2479, 2560, 3169	Sc xii	OT
CL		1428, 2285, 2479, 2545, 2560, 3169	Sc xiii	EL	1333, 2039A, 2181
W		1428, 2479, 2560, 3169	ND	2180	
TE		2285	CL	1333, 2039A, 2181	
OT		1428, 1844, 1977, 2285, 2479, 2545, 2748	W	1333, 2039A, 2181	
Ca xx	EL	2479	AT	2180	
	CL	2479	Sc xiv	EL	1333, 2183, 2321, 2563, 2877
	W	1428, 2479	ND	2563	
	OT	2479	CL	1333, 2183, 2277, 2563, 2877	
Sc i	EL	1473, 2110, 3140	W	1333, 2183, 2277, 2563, 2877	
	ND	2032	Sc xv	EL	1333, 2321, 2563
	CL	1473, 2110	ND	2563	
	W	1473, 2110	CL	1333, 2321, 2563	
	ZE	1380, 1473, 3140	W	1333, 2563	
	Hfs	1380, 2032, 2066A, 2708, 3066	Sc xvi	EL	1333, 1481, 2076, 2563
	IP	1473, 2110	ND	2563	
	AT	1983, 2423	CL	1333, 1481, 2563	
	OT	1983	W	1333, 1481, 2563	
Sc ii	EL	1473	OT	1481	
	CL	1473, 1608	Sc xvii	EL	2076, 2563
	W	1473, 1608	CL	2563	
	ZE	1473	W	2563	
Sc iii	EL	1884, 1891, 2123, 2625	Sc xviii	EL	2563
	CL	1608, 1884, 1891, 2123, 2625	CL	2563	
	W	1608, 1884, 1891, 2123, 2625	W	2563	
	IP	1884, 1891, 2123, 2625	OT	3136	
	SF	1884, 1891, 2123, 2625	Sc xix	EL	1816
	EL	2826	CL	1816	
Sc iv	CL	2826	W	1816	
	W	2826	IP	1816	
	IP	2826	OT	1816	
	PT	2826	Ti i	EL	1727A
	AT	1837	CL	1727A, 2645	
	EL	2826	W	1727A	
Sc v	W	2826	ZE	1628	
	EL	2826	Hfs	2101, 2708	
Sc vi	CL	1941	IP	2374	
	W	1941	PT	2375	
Sc vii	EL	1941	AT	1586	
	CL	1941	OT	1586, 1831, 2375	
	W	1941	Ti ii	EL	1727A
	EL	1941	CL	1727A, 2645	
	CL	1941			
	W	1941			
	EL	1941			
	CL	1941			
	W	1941			
	EL	1941			

2.2 Reference Numbers for Individual Spectra—Continued

Ti II—Continued			Ti XVIII	EL	2076, 2412, 2563, 2935
	W	1727A		ND	2563
	AT	1571, 1821, 1973		CL	2412, 2563, 2935
	OT	1571, 3028		W	2412, 2563, 2935
Ti III	CL	2645	Ti XIX	EL	2412, 2487A, 2563, 3136
	PT	1373, 1655		ND	2563
	AT	1576, 1624		CL	2412, 2487A, 2563, 3136
				W	2412, 2487A, 2563, 3136
Ti IV	EL	2753		OT	3136
	CL	2753			
	W	2753	Ti XX	EL	1816, 2560, 2561, 3122
	IP	2753		CL	1816, 2560, 2561, 3122
	SF	2753		W	1816, 2560, 2561, 3122
				IP	1816, 2561
Ti V	PT	1837		OT	1816
	AT	1837			
Ti VI	EL	1559, 1941	Ti XXI	EL	2479, 2560, 2618, 2991, 3027, 3122
	CL	1559, 1941		CL	2479, 2560, 2991, 3027, 3122
	W	1559		W	1428, 2479, 2560, 2991, 3027, 3122
				IP	3122
				OT	2479, 2991
Ti VII	EL	1559, 1941	Ti XXII	EL	2991, 3027
	CL	1559, 1941		CL	2991, 3027
	W	1559		W	2991, 3027
				OT	2991
Ti VIII	EL	1941			
	CL	1941	V I	ND	2032
				Hfs	2032, 2075A, 2101, 2708
Ti IX	EL	1941		AT	2964, 3124
	CL	1941			
			V II	EL	2047A
Ti XI	EL	1558		CL	2047A, 2645
	CL	1558, 1941		W	2047A
	W	1558		PT	2375
	IP	1558		AT	1586
				OT	1586, 2049A, 2375
Ti XII	OT	1731	V III	CL	2645
Ti XIII	TE	2843		PT	1373, 1655
	OT	1745, 2843		AT	1983
				OT	1983
Ti XIV	EL	1333, 2039A, 2181, 2549	V IV	PT	1373
	CL	1333, 2039A, 2181		AT	1576, 1624, 2320
	W	1333, 2039A, 2181, 2549		OT	2320
Ti XV	EL	1333, 2183, 2321, 2412, 2549, 2563, 2877	V V	EL	2123, 2284, 2447
	ND	2563		CL	2123, 2284, 2447
	CL	1333, 2183, 2277, 2412, 2563, 2877		W	2123, 2284, 2447
	W	1333, 2183, 2277, 2412, 2549, 2563, 2877		IP	2123, 2284, 2447
				SF	2123, 2447
Ti XVI	EL	1333, 2412, 2549, 2563, 2937	V VI	EL	1837
	ND	2563		CL	1837
	CL	1333, 2412, 2549, 2563, 2937		W	1837
	W	1333, 2412, 2549, 2563, 2937		PT	1837
	OT	2549		AT	1837
Ti XVII	EL	1481, 2076, 2277, 2412, 2563, 2877, 2937	V VII	EL	1941
	ND	2563		CL	1941
	CL	1481, 2277, 2412, 2563, 2877, 2937		W	1941
	W	1481, 2277, 2412, 2563, 2877, 2937			
	OT	1481, 2937			

2.2 Reference Numbers for Individual Spectra—Continued

V VIII	EL	1941	VXX—Continued	
	CL	1941	AT	2076
	W	1941	OT	3136
V IX	EL	1468, 1941	V XXI	EL 1816, 2560, 2561, 3122
	CL	1468, 1941		CL 1816, 2560, 2561, 3122
	W	1468, 1941		W 1816, 2341, 2560, 2561, 3122
V X	EL	1468, 1941		IP 1816, 2561
	CL	1468, 1941		OT 1816
	W	1468, 1941	V XXII	EL 2560, 3122
V XI	EL	1669		CL 2560, 3122
	CL	1669		W 2560, 3122
	W	1669		IP 3122
V XII	EL	1669, 1941	Cr ⁻	EL 2296
	CL	1669, 1941	Cr I	EL 2832
	W	1669, 1941		CL 2832
	IP	1558		W 2832
				Hfs 2708
V XIII	EL	1669, 1941		IP 2832
	CL	1669, 1941		AT 1768
	W	1669, 1941		OT 1831
	IP	1941	Cr II	AT 1821, 1973
	OT	1731, 2129		OT 1467
V XIV	OT	1745	Cr III	CL 2645
V XV	EL	1333, 2039A, 2181, 2549		PT 1373, 1655
	CL	1333, 2039A, 2181		AT 1586
	W	1333, 2039A, 2181, 2549		OT 1586
	AT	2039A	Cr IV	EL 1932
V XVI	EL	1333, 2183, 2341, 2549, 2563, 2877		ND 1932
	ND	2563		CL 1932
	CL	1333, 2183, 2277, 2341, 2563, 2877		W 1932
	W	1333, 2183, 2277, 2341, 2549, 2563, 2877		AT 1571
				OT 1571
V XVII	EL	1333, 2277, 2341, 2549, 2563, 2877, 2937	Cr V	EL 1933
	ND	2563		CL 1933
	CL	1333, 2277, 2341, 2549, 2563, 2877, 2937		W 1933
	W	1333, 2277, 2341, 2549, 2563, 2877, 2937		IP 1933
	OT	2549		AT 1576, 1624, 2320
				OT 2320
V XVIII	EL	1481, 2076, 2277, 2341, 2563, 2877, 2937	Cr VI	EL 2229
	ND	2563		CL 2229
	CL	1481, 2277, 2341, 2563, 2877, 2937		W 2229
	W	1481, 2277, 2341, 2563, 2877, 2937		IP 2229
	OT	1481, 2937	Cr VII	EL 1837
V XIX	EL	2076, 2277, 2341, 2563, 2877, 2935		CL 1837
	ND	2563		W 1837
	CL	2277, 2341, 2563, 2877		PT 1837
	W	2277, 2341, 2563, 2877, 2935		AT 1837
V XX	EL	2277, 2341, 2563, 2877	Cr VIII	EL 1941
	ND	2563		CL 1941
	CL	2277, 2341, 2563, 2877		W 1941
	W	2277, 2341, 2563, 2877	Cr IX	EL 1468, 1941
				CL 1468, 1941
				W 1468, 1941

2.2 Reference Numbers for Individual Spectra—Continued

Cr x	EL	1468, 1941	Cr xxii—Continued	IP	1816, 2561
	CL	1468, 1941		OT	1816
	W	1468, 1941			
Cr xi	EL	1468, 1941	Cr xxiii	EL	1476, 2479
	CL	1468, 1941		CL	1476, 2479
	W	1468, 1941		W	1428, 1476, 2479
				OT	1476, 2479
Cr xii	EL	1468, 1669	Cr xxiv	EL	1476
	CL	1468, 1669		CL	1476
	W	1468, 1669		W	1476
				OT	1476
Cr xiii	EL	1669, 1941			
	CL	1669, 1941	Mn i	Hfs	1651, 1969, 2708
	W	1669, 1941		PT	1969
	IP	1558		AT	1969
Cr xiv	EL	1669, 1941	Mn ii	OT	2049A
	CL	1458, 1669, 1941	Mn iii	ND	2402
	W	1458, 1669, 1941		PT	1655, 2402
	IP	1941			
	OT	1731	Mn iv	AT	1571, 1586, 2732, 3014
Cr xv	EL	1476		OT	1571, 1586
	CL	1476			
	W	1476	Mn vi	EL	2583A
	TE	2843		CL	2583A
	OT	1476, 1745, 2843		W	2583A
Cr xvi	EL	1333, 1476, 2039A, 2181, 2549		AT	2320
	CL	1333, 1476, 2039A, 2181		OT	2320
	W	1333, 1476, 2039A, 2181, 2549	Mn viii	EL	1837
	OT	1476		CL	1837
Cr xvii	EL	1333, 1476, 2183, 2549, 2563		W	1837
	CL	1333, 1476, 2183, 2549, 2563		PT	1837
	W	1333, 1476, 2183, 2549, 2563		AT	1837
	OT	1476, 2549	Mn ix	EL	1669
Cr xviii	EL	1333, 1476, 2549, 2563, 2937		CL	1669
	CL	1333, 1476, 2549, 2563, 2937		W	1669
	W	1333, 1476, 2549, 2563, 2937	Mn x	EL	1468, 1669
	OT	1476, 2549		CL	1468, 1669
Cr xix	EL	1476, 2076, 2563, 2937		W	1468, 1669
	CL	1476, 2563, 2937	Mn xi	EL	1468, 1669
	W	1476, 2563, 2937		CL	1468, 1669
	OT	1476, 2937		W	1468, 1669
Cr xx	EL	2563, 2935	Mn xii	EL	1468, 1669, 1941
	CL	2563, 2935		CL	1468, 1669, 1941
	W	2563, 2935		W	1468, 1669, 1941
	TE	2076	Mn xiii	EL	1468, 1669
	AT	2076		CL	1468, 1669
Cr xxi	EL	2481, 2563		W	1468, 1669
	CL	2481, 2563	Mn xiv	EL	1468, 1669, 1941
	W	2481, 2563		CL	1468, 1669, 1941
	AT	2076		W	1468, 1669, 1941
	OT	3136		IP	1558
Cr xxii	EL	1816, 2561	Mn xv	EL	1669, 1941
	CL	1816, 2561		CL	1458, 1669, 1941
	W	1816, 2561			

2.2 Reference Numbers for Individual Spectra—Continued

Mn xv—Continued			Fe I—Continued		
	W	1458, 1669, 1941		W	1681, 2637
	IP	1941		Hfs	2708
	OT	1731		PT	1936, 2375, 2518
Mn xvi	EL	1476		AT	1308, 1443, 1656, 1768, 2119, 2459A
	CL	1476		OT	1312, 2375, 2878
	W	1476	Fe II	EL	2479, 2719
	OT	1476, 2108		ND	2719
Mn xvii	EL	1333, 1476, 2039A, 2181, 2549		CL	2479, 2645, 2719
	CL	1333, 1476, 2039A, 2181		W	1459, 1681, 2479, 2637, 2719
	W	1333, 1476, 2039A, 2181, 2549		AT	1571, 1656, 1768, 1821, 1973
	OT	1476		OT	1571, 2479, 2878
Mn xviii	EL	1333, 1476, 2183, 2277, 2549, 2563, 2877	Fe III	W	1459, 1681
	CL	1333, 1476, 2183, 2277, 2549, 2563, 2877		PT	1655
	W	1333, 1476, 2183, 2277, 2549, 2563, 2877		AT	1571, 1656
	OT	1333, 1476, 2549		OT	1571, 2049A, 2878
Mn xix	EL	1333, 1476, 2277, 2549, 2563, 2877, 2937	Fe IV	W	1767
	CL	1333, 1476, 2277, 2549, 2563, 2877, 2937		AT	1656, 2699
	W	1333, 1476, 2277, 2549, 2563, 2877, 2937		OT	2878, 3029
	OT	1333, 1476, 2549	Fe v	EL	2884
Mn xx	EL	1476, 2076, 2563, 2937		CL	2884
	CL	1476, 2076, 2563, 2937		W	1370A, 1767, 2884
	W	1476, 2563, 2937		PT	2884
	AT	2076		AT	1656, 3014
	OT	1476, 2937		OT	2878, 2884
Mn XXI	EL	2563, 2935	Fe VI	EL	2278, 2327
	CL	2563, 2935		ND	2278, 2327
	W	2563, 2935		CL	2278, 2327, 2884
	TE	2076		W	1370A, 1767, 2278, 2327, 2884
	AT	2076		PT	2327
Mn xxii	EL	2563		AT	1656, 2278, 2327
	CL	2563		OT	1467, 2878
	W	2563	Fe VII	EL	2278
	AT	2076		ND	2278
	OT	3136		CL	2278
Mn xxiii	EL	1816		W	1370A, 1767, 2278
	CL	1816		AT	2278
	W	1816	Fe VIII	W	1370A, 1767
	IP	1816		OT	1312
	OT	1816	Fe IX	EL	1837, 2546, 2754
Mn xxiv	EL	2479		CL	1837, 2546, 2754, 3151
	CL	2479		W	1669, 1837, 2546
	W	1428, 2479		PT	1837
	OT	2479		AT	1837
Fe ⁺⁺	AT	1656	Fe x	EL	1468, 1669, 2546
Fe ⁻	AT	1656		CL	1458, 1468, 1669, 2546
Fe I	EL	2637		W	1458, 1468, 1669, 1905A, 2546
	ND	2518		AT	1458, 1669
	CL	2637		OT	3104
			Fe xi	EL	1468, 1669, 2546, 2728
				CL	1458, 1468, 1669, 2546, 2728
				W	1457, 1458, 1459, 1468, 1669, 2546, 2728
				AT	1458, 1669
				OT	3104

2.2 Reference Numbers for Individual Spectra—Continued

Fe XII	EL 1468, 1669 CL 1458, 1468, 1609, 1669 W 1457, 1458, 1459, 1468, 1609, 1669 PT 2609 AT 1458, 1669	Fe XIX—Continued AT 2321, 2478, 2866A OT 1333, 1476, 2321, 2534A, 2549, 2721, 2936
Fe XIII	EL 1468, 1669 ND 2690 CL 1458, 1468, 1669, 2557 W 1428, 1458, 1459, 1468, 1669 PT 2690 AT 1458, 1669, 2063 OT 2107, 2557, 2635	Fe XX EL 1333, 1476, 2277, 2321, 2519A, 2537, 2549, 2563, 2636, 2877, 2937 CL 1333, 1476, 2076, 2277, 2321, 2519A, 2537, 2549, 2563, 2636, 2877, 2937 W 1333, 1428, 1462, 1476, 2277, 2519A, 2537, 2549, 2563, 2636, 2877, 2937 AT 2321 OT 1333, 1476, 2321, 2479, 2549
Fe XIV	EL 1468, 1669, 1976, 3074 CL 1458, 1468, 1669, 1976, 3074 W 1457, 1458, 1468, 1669, 1976, 3074 AT 1458, 1669 OT 3104	Fe XXI EL 1476, 2076, 2321, 2519A, 2534A, 2537, 2563, 2636, 2936, 2937 CL 1476, 2076, 2321, 2519A, 2534A, 2537, 2563, 2636, 2936, 2937 W 1462, 1476, 2479, 2519A, 2534A, 2537, 2563, 2636, 2936, 2937 AT 2076, 2321, 2478 OT 1476, 2321, 2479, 2534A, 2936, 2937
Fe XV	EL 1468, 1476, 1669, 1808, 1976, 1999 CL 1468, 1476, 1669, 1808, 1941, 1976, 1999 W 1468, 1476, 1669, 1808, 1976, 1999 IP 1558 AT 1999 OT 1467, 1476, 1808	Fe XXII EL 2321, 2479, 2519A, 2537, 2563, 2636, 2935 CL 2076, 2321, 2479, 2519A, 2537, 2563, 2636, 2935 W 1428, 1462, 2479, 2519A, 2537, 2563, 2636, 2935 TE 2076 AT 1327, 2076, 2321, 2478 OT 2321, 2479, 2936, 2937, 3136
Fe XVI	EL 1669, 1976 CL 1458, 1669, 1976 W 1458, 1669, 1976, 2034 IP 1399 AT 1399, 1622	Fe XXIII EL 1797, 2304, 2321, 2479, 2534A, 2537, 2481, 2563, 2602, 2636 CL 1797, 2076, 2304, 2321, 2479, 2534A, 2481, 2537, 2563, 2602, 2636 W 1462, 1797, 2304, 2479, 2481, 2534A, 2537, 2563, 2602, 2636 AT 1797, 2076, 2321, 2478 OT 1808, 2321, 2479, 2534A, 2936, 3136
Fe XVII	EL 1476, 2034, 2537, 2866A CL 1476, 2034, 2114, 2187, 2537, 2866A W 1428, 1476, 2034, 2114, 2187, 2537, 2786, 2866A, 3224 TE 2843 PT 1381 AT 2866A OT 1476, 2108, 2843	Fe XXIV EL 1797, 1808, 2304, 2321, 2479, 2602, 2636, 2728, 3224 CL 1797, 1808, 2304, 2321, 2479, 2602, 2636, 2728, 3224 W 1428, 1462, 1797, 1808, 2304, 2479, 2602, 2636, 2728, 3153, 3224 TE 2934 PT 2040A AT 1797, 2321, 2478 OT 1808, 1844, 1977, 2321, 2479, 2561, 2934
Fe XVIII	EL 1333, 1476, 1663, 2039A, 2181, 2537, 2549, 2636, 2721, 2866A, 2936 ND 2180 CL 1333, 1476, 1663, 2039A, 2076, 2181, 2537, 2636, 2721, 2866A, 2936 W 1333, 1476, 1663, 2039A, 2181, 2537, 2549, 2636, 2721, 2866A, 2936 PT 2040A AT 2039A, 2180, 2181, 2478, 2866A OT 1333, 1476, 2721, 2936	Fe XXV EL 1428, 2479, 2602, 2636, 2991, 3027 CL 1428, 2285, 2479, 2602, 2636, 2664, 2665, 2991, 3027 W 1428, 1462, 2479, 2602, 2636, 2664, 2665, 2991, 3027, 3153, 3224 TE 2285 PT 2040A AT 2989 OT 1428, 1844, 1977, 2285, 2479, 2748, 2991
Fe XIX	EL 1333, 1476, 2321, 2519A, 2534A, 2537, 2549, 2563, 2636, 2721, 2866A, 2877, 2936 CL 1333, 1476, 2076, 2277, 2321, 2519A, 2534A, 2537, 2549, 2563, 2636, 2721, 2866A, 2877, 2936 W 1333, 1476, 2277, 2519A, 2534A, 2537, 2549, 2563, 2636, 2721, 2866A, 2877, 2936 PT 2040A	

2.2 Reference Numbers for Individual Spectra—Continued

Fe xxvi	EL	2479, 2991, 3027	Co xx	EL	1476, 2519A, 2549		
	CL	2479, 2991, 3027		CL	1476, 2519A, 2549		
	W	1428, 2479, 2991, 3027		W	1476, 2519A, 2549		
	OT	2479, 2991		PT	1430		
Co i	Hfs	1738A, 2708	OT	1476, 2549	Co xxi	EL	1476, 2519A, 2549
	AT	1768, 2964	CL	1476, 2519A, 2549		CL	1476, 2519A, 2549
Co ii	EL	2115	W	1476, 2519A, 2549		OT	1476, 2549
	CL	2645	Co xxii	EL		1476, 2519A, 2937	
	ZE	2115		CL	1476, 2519A, 2937		
	IP	2115		W	1476, 2519A, 2937		
	OT	2049A		TE	2076		
OT	2049A	OT		1476, 2937			
Co iii	PT	1655	Co xxiii	EL	2519A, 2935		
Co iv	EL	2763		CL	2519A, 2935		
CL	2763	W		2519A, 2935			
W	2763	TE		2076			
Co x	EL	1941	Ni i	CL	2645		
	CL	1941		ZE	1712		
	W	1639, 1941		Hfs	1712, 2516A, 2708		
	AT	1837		AT	1768		
Co xi	EL	1639, 1941	OT	1831	Ni ii	EL	1398
	CL	1639, 1941	ND	1398		ND	1398
	W	1639, 1941	CL	1398, 2645		CL	1398, 2645
Co xii	EL	1639, 1941	W	1398, 1459		W	1398, 1459
	CL	1639, 1941	PT	1631		PT	1631
	W	1639, 1941	OT	2049A, 2895	OT	2049A, 2895	
Co xiii	EL	1639, 1941	Ni iii	EL	2048A, 2453A		
	CL	1639, 1941		CL	2048A		
	W	1639, 1941		W	2048A		
Co xiv	EL	1639, 1941		PT	1373, 1655, 2048A		
	CL	1639, 1941	OT	2049A			
	W	1639, 1941	Ni iv	W	1767		
Co xv	EL	1639, 1941		Ni v	EL	2763	
	CL	1639, 1941		CL	2763		
	W	1639, 1941	W	1767, 2763			
Co xvi	EL	1476, 1639, 1941	Ni vi	W	1767		
	CL	1476, 1639, 1941		Ni vii	W	1767	
	W	1476, 1639, 1941		Ni viii	W	1767	
	OT	1476	Ni xi	EL	1837, 1941		
Co xvii	EL	1639, 1941	Ni xii	CL	1837, 1941, 2754, 3151		
	CL	1458, 1639, 1941		W	1457, 1639, 1941		
	W	1458, 1639, 1941		TE	2754		
	IP	1399		PT	1837		
	AT	1399, 1622		AT	1837		
Co xviii	EL	1476	OT	2754	Ni xiii	EL	1639, 1941
	CL	1476	Ni xii	EL		1639, 1941	
	W	1476		CL		1639, 1941	
	OT	1476, 2108		W	1639, 1941		
Co xix	EL	1476, 2039A, 2181, 2549	Ni xiii	EL	1639, 1941		
	CL	1476, 2039A, 2181, 2549		CL	1639, 1941		
	W	1476, 2039A, 2181, 2549		W	1459, 1639, 1941		
	OT	1476, 2549					

2.2 Reference Numbers for Individual Spectra—Continued

Ni xiv	EL	1639, 1941	Ni xxvi	TE	2934
	CL	1639, 1941		OT	1844, 2934
	W	1459, 1639, 1941	Ni xxvii	W	1428
	PT	2609		OT	1844
Ni xv	EL	1639, 1941	Ni xxviii	W	1428
	CL	1639, 1941	Cu ⁻	EL	1470, 1916, 1996A
	W	1459, 1639, 1941	Cu I	EL	1418, 1923
Ni xvi	EL	1639, 1941		CL	1418, 1923, 2263
	CL	1639, 1941		W	1418, 1923, 2471
	W	1639, 1941		SE	2467, 2663
Ni xvii	EL	1639, 1941		Hfs	1904, 2708
	CL	1458, 1639, 1941		IP	1923
	W	1458, 1639, 1941		PT	3052
	AT	1458		AT	1516
	OT	1476, 1941	Cu II	EL	1408
Ni xviii	EL	1941		ND	1408
	CL	1458, 1941		CL	1408
	W	1458, 1941		W	1408
	IP	1399		Hfs	1408
	AT	1399, 1458, 1622		AT	1516, 1566, 1605, 1821, 1973
				OT	1664
Ni xix	EL	1476	Cu III	EL	2987
	CL	1476		CL	2987
	W	1476		W	2987
	OT	1476, 2108		IP	2987
Ni xx	EL	1476, 2549		PT	1373
	CL	1476, 2549		AT	1516
	W	1476, 2549	Cu IV	EL	2987
	OT	1476, 2549		W	1493
Ni xxi	EL	1476, 2519A, 2549, 2563	Cu v	EL	2840
	CL	1476, 2519A, 2549, 2563		CL	2840
	W	1476, 2519A, 2549, 2563		W	1493, 2840
	PT	1430	Cu VI	EL	2763, 2840
	OT	1476, 2549		CL	2763, 2840
Ni xxii	EL	1476, 2519A, 2549, 2563		W	1493, 2763, 2840
	CL	1476, 2519A, 2549, 2563	Cu XII	AT	1837
	W	1476, 2519A, 2549, 2563	Cu XIII	EL	2923
	OT	1476, 2549		CL	2923
Ni xxiii	EL	1476, 2519A, 2563, 2937		W	2923
	CL	1476, 2519A, 2563, 2937	Cu XIV	EL	2923
	W	1476, 2519A, 2563, 2937		CL	2923
	TE	2076		W	2923
	OT	1476, 2937	Cu XV	EL	2923
Ni xxiv	EL	2519A, 2563, 2935		CL	2923
	CL	2519A, 2563, 2935		W	2923
	W	2519A, 2563, 2935	Cu XVI	EL	2923
	TE	2076		CL	2923
	OT	2937		W	2923
Ni xxv	EL	2563	Cu XVII	EL	2923
	CL	2563		CL	2923
	W	2563		W	2923
	TE	2481			
	OT	2481			

2.2 Reference Numbers for Individual Spectra—Continued

Cu XVIII	EL	1476, 2923	Zn VII	OT	2763, 2840
	CL	1476, 2923	Zn XIII	EL	2923
	W	1476, 2923		CL	2923
	OT	1476		W	2923
Cu XX	EL	1476	Zn XIV	EL	2923
	CL	1476		CL	2923
	W	1476		W	2923
	OT	1476, 2108			
Cu XXI	EL	1476	Zn XV	EL	2923
	ND	2180		CL	2923
	CL	1476		W	2923
	W	1476	Zn XVI	EL	2923
	AT	2180		CL	2923
	OT	1476		W	2923
Cu XXII	EL	1476	Zn XVII	EL	2923
	CL	1476		CL	2923
	W	1476		W	2923
	PT	1430	Zn XVIII	EL	2923
	OT	1476		CL	2923
Cu XXIII	EL	1476		W	2923
	CL	1476	Zn XIX	EL	2923
	W	1476		CL	2923
	OT	1476		W	2923
Cu XXIV	EL	1476	Zn XX	EL	2923
	CL	1476		CL	2923
	W	1476		W	2923
	OT	1476			
Cu XXVII	OT	1844	Zn XXI	EL	2951
Cu XXVIII	EL	2479, 2991, 3027		CL	2460, 2951
	CL	2479, 2991, 3027		W	2460, 2951
	W	1428, 2479, 2991, 3027		OT	2108
	OT	1844, 2479, 2991	Zn XXII	CL	2460
Cu XXIX	EL	2991, 3027		W	2460
	CL	2991, 3027	Zn XXIII	CL	2460
	W	2991, 3027		W	2460
	OT	2991			
Zn ⁻	EL	3112	Ga ⁻	EL	2296
Zn I	EL	1679, 2882, 3131	Ga I	Hfs	1466
	ND	1779	Ga III	EL	2051A, 3141
	CL	1679, 1886, 3131		ND	2051A
	W	1679, 1886, 3131		CL	2051A, 3141
	IP	3131		W	2051A, 3141
	PT	1779, 1886		IP	2051A
	AT	2898	Ga IV	EL	2051A, 2716, 3042, 3141
Zn III	PT	1373		ND	2051A, 2716
Zn V	EL	2289		CL	2051A, 2716, 3042
	CL	2289		W	2051A, 2716, 3042, 3141
	W	2289		IP	2051A
	OT	2289		PT	1373
Zn VI	EL	2289	Ga V	EL	1964, 2051A, 2289, 2612, 2703
	CL	2289		ND	2051A, 2703
	W	2289		CL	1964, 2051A, 2289, 2612, 2703
	OT	2289, 2840		W	1964, 2051A, 2289, 2612, 2703
				IP	2051A
				OT	2289

2.2 Reference Numbers for Individual Spectra—Continued

Ga VI	EL	2051A, 2289	Ge IV—Continued	W	2051A		
	ND	2051A		IP	2051A		
	CL	2051A, 2289		Ge V	EL	2051A, 2716, 3045	
	W	2051A, 2289			ND	2051A, 2716	
	IP	2051A			CL	2051A, 2716, 3045	
	OT	2289			W	2051A, 2716, 3045	
Ga VII	EL	2289		IP	2051A		
	CL	2289		Ge VI	EL	2051A, 3044	
	W	2289			ND	2051A	
	OT	2289, 2840			CL	2051A, 3044	
Ga VIII	OT	2840			W	2051A, 3044	
	Ga XII	EL		2923	IP	2051A	
		CL		2923	Ge XIII	EL	2923
W		2923		CL		2923	
Ga XIII	EL	2923		W		2923	
	CL	2923		Ge XIV	EL	2923	
	W	2923			CL	2923	
Ga XIV	EL	2923			W	2923	
	CL	2923		Ge XV	EL	2923	
	W	2923			CL	2923	
Ga XV	EL	2923			W	2923	
	CL	2923		Ge XVI	EL	2923	
	W	2923			CL	2923	
Ga XVI	EL	2923			W	2923	
	CL	2923	Ge XVII	EL	2923		
	W	2923		CL	2923		
Ga XVII	EL	2923		W	2923		
	CL	2923	Ge XVIII	EL	2923		
	W	2923		CL	2923		
Ga XVIII	EL	2923		W	2923		
	CL	2923	Ge XIX	EL	2923		
	W	2923		CL	2923		
Ga XIX	EL	2923		W	2923		
	CL	2923	Ge XX	EL	2923		
	W	2923		CL	2923		
Ga XX	EL	2923		W	2923		
	CL	2923	Ge XXI	EL	2923		
	W	2923		CL	2923		
Ga XXI	EL	2923		W	2923		
	CL	2923	Ge XXII	EL	2923		
	W	2923		CL	2923		
Ge ⁻	EL	2296		W	2923		
	Ge I	PT	1643	Ge XXIII	EL	2951	
		Ge III	EL		2051A	CL	2951
			ND		2051A	W	2951
			CL		2051A	Ge XXIV	W
W			2051A		As ⁻		EL
IP	2051A		As I	EL	1351		
Ge IV	EL	2051A	ND	1351			
	ND	2051A					
	CL	2051A					

2.2 Reference Numbers for Individual Spectra—Continued

As I—Continued			Se IV	EL	1427, 2611
	CL	1351, 2559		CL	1427, 2611
	W	1351, 2559		W	1427, 2611
	Hfs	2541, 2709		IP	1427
	IP	1351		OT	1427
	AT	2541			
As II	EL	1368A, 1480	Se V	EL	1427
	ZE	1368A, 1480		CL	1427
	PT	1368A, 1777		W	1427
	AT	1368A, 1777		IP	1427
As XIV	EL	2923	Se XV	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XV	EL	2923	Se XVI	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XVI	EL	2923	Se XVIII	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XVII	EL	2923	Se XIX	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XVIII	EL	2923	Se XXII	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XXI	EL	2923	Se XXIII	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923
As XXII	EL	2923	Se XXIV	EL	2923
	CL	2923		CL	2923
	W	2923		W	2923, 2951
As XXIII	EL	2923	Se XXV	EL	2951
	CL	2923		CL	2951
	W	2923		W	2951
Se ⁻	EL	1420A, 2247	Br ⁻	EL	2880
Se I	EL	1791, 2647		CL	2880
	ND	2647		W	2880
	CL	1791, 2647		OT	1802
	W	1557, 1791, 2647, 2888A	Br I	EL	2069, 2379, 2880
	ZE	1643		CL	1505, 2069, 2880
	Hfs	1643		W	1505, 2069, 2880
	IP	2647		Hfs	2681
	PT	1643, 3095		PT	2933
	AT	3095		AT	2681
	OT	2647		OT	2647
Se II	CL	1427	Br XVI	EL	2923
	W	1427		CL	2923
Se III	EL	1427		W	2923
	CL	1427	Br XIX	EL	2923
	W	1427		CL	2923
	IP	1427		W	2923
	OT	1427			

2.2 Reference Numbers for Individual Spectra—Continued

Br xxiv	EL	2923	Kr xii	OT	2208	
	CL	2923		Kr xiii	OT	2208
	W	2923		Kr xiv	OT	2208
Br xxv	EL	2923	Kr xv	OT	2208	
	CL	2923	Kr xvi	OT	2208	
	W	2923	Kr xvii	OT	2208	
	OT	2129	Kr xviii	OT	2208	
Br xxvi	EL	2951	Kr xix	OT	2208	
	CL	2951	Kr xx	OT	2208	
	W	2951	Kr xxi	OT	2208	
Kr	EL	1545, 2200, 2219, 2700	Kr xxii	OT	2208	
	CL	1545, 2200, 2219	Kr xxiii	OT	2208	
	W	1545, 2200, 2219	Kr xxiv	OT	2208	
Kr i	EL	1437, 1526, 1788, 1819, 2325A, 2385, 2427, 2429, 2524A, 2963	Kr xxv	OT	2208	
	CL	1437, 1526, 1788, 1819, 2325A, 2385, 2427, 2429, 2524A	Kr xxvi	OT	2208	
	W	1437, 1526, 1788, 1819, 2325A, 2385, 2427, 2429, 2524A, 3032	Kr xxvii	OT	2208	
	SE	2220, 2619, 2905	Kr xxviii	OT	2208	
	IP	2431	Kr xxix	OT	2208	
	PT	1985, 2619	Kr xxx	OT	2208	
	AT	1991, 2553, 2823	Kr xxxi	OT	2208	
	OT	2208, 2313, 2427, 2647, 2823, 2905	Kr xxxii	OT	2208	
			Kr xxxiii	OT	2208	
			Kr xxxiv	OT	2208	
Kr ii	EL	1526	Kr xxxv	QF	2907A	
	ND	2919		OT	2208	
	PT	2919	Kr xxxvi	OT	2208	
	OT	2208				
Kr iii	ND	2287, 2919	Rb-	EL	2158A, 2296, 2551, 2671	
	PT	2287, 2919		OT	2157A, 2633	
	AT	2287	Rb i	EL	2152A, 2660, 2751, 3058, 3219	
	OT	2208		CL	2660, 3058, 3219	
Kr iv	EL	3055		W	2660, 3058, 3219	
	ND	2491A		ZE	1364A, 1747A, 1914A, 1950, 2113, 2160A, 2161A, 2291, 2390, 2394, 2532A, 2540, 2565A, 2755, 3046	
	CL	3055		SE	1497A, 1590, 1707A, 1877, 2253, 2506A, 3001	
	W	3055		Hfs	1416, 1512, 1527A, 1529A, 1530A, 1531A, 1620, 1763, 1815, 1857A, 1908A, 1950, 1979, 1981, 2001, 2113, 2118, 2203, 2390, 2505A, 2506A, 2526A, 2540, 2751, 2755, 2851, 2927, 2954, 2956, 2984, 3000, 3137	
	OT	2208		IS	1529A, 1698A, 1759	
Kr v	EL	3055		IP	2660	
	CL	3055		AT	2731, 3058	
	W	3055		OT	1456, 1742, 2647	
	OT	2208				
Kr vi	OT	2208	Rb ii	EL	1483, 2590, 2698	
Kr vii	EL	3055		ND	2590, 2698	
	CL	3055		CL	1483, 2590, 2698	
	W	3055		W	1483, 2590, 2698	
	OT	2208		ZE	2161A, 2590, 2698	
		Hfs		2291		
		IP	1483, 2590, 2698			
Kr viii	OT	2208		PT	2044A, 2590, 2698	
Kr ix	W	2885A		AT	1665, 2044A, 2553, 2590, 2698	
	OT	2208				
Kr x	W	2885A	Rb iii	EL	1677A, 1776, 1896, 2485A	
	OT	2208		ND	1776, 1896, 2492A, 2933	
		CL		1677A, 1776, 2485A		
		W		1677A, 1776, 2485A		
		ZE		1776		
Kr xi	OT	2208				

2.2 Reference Numbers for Individual Spectra—Continued

Rb III—Continued		Y IV—Continued	
	IP 1776	W	1483, 1599, 1743A
	PT 1677A, 1776	IP	1483, 1599
	AT 1776, 2740	PT	1743A
		AT	1599, 1665, 1743A
Rb IV	EL 2287, 2485A	Y V	EL 1577, 2492A, 2955
	ND 2287		CL 1577, 2492A, 2955
	CL 2287, 2485A		W 1577, 2492A, 2955
	W 2287, 2485A		IP 1577, 2492A, 2955
	PT 2287		PT 1577, 2492A, 2933
	AT 2287, 2740		AT 1577
			OT 2955
Sr I	EL 2631, 2800, 2812A	Y VI	EL 1921
	CL 2631, 2800, 2812A		CL 1921
	W 1492, 2631, 2800, 2812A		W 1921
	ZE 2066A, 2307		IP 1921
	SE 1465, 2020, 2307	Y VII	EL 2491A
	Hfs 2066A, 2515		IP 2491A
	IP 2874		
	PT 2808	Y XII	PT 1773
	AT 1626, 2800		OT 1773
Sr II	CL 2631	Y XXX	EL 2562
	W 2631		CL 2562
	AT 2800		W 2562
Sr III	EL 1483, 1771, 2486A, 2596	Zr I	ND 3047
	ND 2596		IS 3071
	CL 1483, 1771, 2486A		IP 2374
	W 1483, 1771, 2486A		PT 3047
	IP 1483, 1771		
	PT 1771, 2044A, 2596	Zr IV	IP 2592
	AT 1665, 2044A, 2596	Zr V	EL 1483
Sr IV	EL 1676A, 2485A, 2486A		CL 1483
	CL 1676A, 2485A, 2486A		W 1483
	W 1676A, 2485A, 2486A		IP 1479, 1483
	IP 2492A, 2955	Zr VI	EL 1756, 2492A, 2933
	PT 1676A		ND 1756
	AT 1676A		CL 1483, 1756, 2492A, 2933
	OT 2955		W 1756, 2492A, 2933
Sr V	EL 2287, 2485A, 2486A		IP 1756, 2492A, 2933
	ND 2287		PT 1756, 2492A, 2933
	CL 2287, 2485A, 2486A		AT 1756
	W 2287, 2485A, 2486A	Zr VII	ND 1921
	PT 2287		IP 2491A
	AT 2287	Zr XIII	PT 1773
Y I	EL 2111		OT 1773
	CL 2111	Zr XXIX	W 2951
	W 2111	Zr XXX	W 2951
	ZE 1478	Zr XXXI	EL 2562, 2951
	Hfs 1478		CL 2562, 2951
	IP 2111, 2374		W 2562, 2951
	AT 2423	Nb II	PT 2375
Y III	EL 2592		OT 2375
	CL 2592	Nb VI	EL 1483
	W 2592		CL 1483
	IP 2592		
Y IV	EL 1483, 1599, 1743A		
	CL 1483, 1599, 1743A		

2.2 Reference Numbers for Individual Spectra—Continued

Nb VI—Continued		Ru I—Continued			
	W	1483	PT	2375	
	IP	1479, 1483	OT	2375	
Nb VII	EL	1757, 2492A, 2933	Ru III	EL	2050A
	ND	1757		CL	2050A
	CL	1757, 2492A, 2933		W	2050A
	W	1757, 2492A, 2933	Ru VIII	EL	1798, 2083
	IP	1757, 2492A, 2933		ND	2083
	PT	1757, 2492A, 2933		CL	1798, 2083
	AT	1757		W	1798, 2083
		IP		1798	
		AT	2083		
Nb IX	EL	1318	OT	1798	
	ND	2491A	Ru IX	EL	1798
	CL	1318		CL	1798
	W	1318		W	1798
		IP		1798	
Nb XIV	PT	1773	Ru X	EL	1798
	OT	1773		CL	1798
Nb XXXII	EL	2562		W	1798
	CL	2562		PT	2933
	W	2562	Rh IX	EL	1798, 2083
Mo I	W	2471		ND	2083
	ZE	1640		CL	1798, 2083
	Hfs	1640, 2067A, 2068A, 2386, 2687, 3171		W	1798, 2083
	IS	3071		IP	1798
Mo VII	EL	1483	AT	2083	
	CL	1483	OT	1798	
	W	1483	Rh X	EL	1798
	IP	1479, 1483		CL	1798
		W		1798	
		IP		1798	
Mo VIII	EL	1758, 2492A	Rh XI	EL	1798
	ND	1758		CL	1798
	CL	1758, 2492A		W	1798
	W	1758, 2492A		PT	2933
	IP	1758, 2492A	Pd I	Hfs	1603, 2078A, 2655, 2811
	PT	1758, 2492A, 2933		IS	2085A, 3071
	AT	1758		Pd X	EL
Mo XV	PT	1773	ND		2083
	OT	1773	CL		1798, 2083
			W		1798, 2083
Mo XXXIII	EL	2562	IP	1798	
	CL	2562	AT	2083	
	W	2562	OT	1798	
Mo XLI	EL	2991, 3027	Pd XI	EL	1798
	CL	2991, 3027		CL	1798
	W	2991, 3027		W	1798
	OT	2991		IP	1798
Mo XLII	EL	2991, 3027	Pd XII	EL	1798
	CL	2991, 3027		CL	1798
	W	2991, 3027		W	1798
	OT	2991		IP	1798
Tc I	Hfs	2068A, 2071A			
Ru I	ZE	2067A, 2787			
	Hfs	2067A, 2787			
	IS	3071			

2.2 Reference Numbers for Individual Spectra—Continued

Ag ⁻	EL	1916, 1996A	Sn ⁻	EL	1470, 2296
Ag I	EL	1418, 2489	Sn I	EL	3149A
	ND	2489		CL	3146, 3149A
	CL	1418, 2489		W	3146, 3149A
	W	1418, 2489		ZE	1352
	SE	1349, 2663		Hfs	1352, 1600, 1692A, 2022
	Hfs	1349, 1421A, 1696A, 1907A		IS	2021, 2022, 2623, 3071
	IS	1696A		PT	1643, 1692A
	PT	2488A		AT	1692A
Ag II	EL	3064	Sn II	EL	3149A
	ND	3047, 3064		CL	3149A
	CL	3064		W	3149A
	W	3064		Hfs	2022
	PT	3047, 3064		IS	1697A, 2022
Ag III	EL	3039	Sn IV	IS	1410, 1417
	CL	3039	Sn VI	EL	1798
	W	3039		CL	1798
	PT	3039		W	1798
Ag XI	EL	1798	Sn XXI	EL	2468
	CL	1798		CL	2468
	W	1798		W	2468
	IP	1798		AT	2468
	OT	1798	Sn XXII	EL	2468
Ag XII	EL	1798		CL	2468
	CL	1798		W	2468
	W	1798		AT	2468
	IP	1798	Sn XXIII	EL	2468
Cd ⁻	EL	3112, 3152		ND	2468
Cd I	EL	1881, 1920, 2632		CL	2468
	ND	1779		W	2468
	CL	1881, 1886, 1920, 2632		AT	2468
	W	1881, 1886, 1920, 2632	Sn XXIV	EL	2468
	ZE	1514, 2501A, 2794		ND	2468
	Hfs	2335A, 2568A, 2614, 2794		CL	2468
	IS	2894A, 3071		W	2468
	PT	1685A, 1779, 1886		AT	2468
	AT	1486, 1881, 3076	Sn XLV	AT	1728
	OT	3076		OT	1728
Cd II	EL	2839	Sb ⁻	EL	2296
	ZE	2601	Sb I	ZE	2280
	Hfs	2112, 2601		Hfs	1692A, 2497A, 2973
	IS	1410, 1417, 1812		PT	1692A
	AT	2005, 2839		AT	1692A
Cd III	EL	2839	Sb II	AT	1777
	AT	2839	Sb VII	EL	1798
In ⁻	EL	2296		CL	1798
In I	Hfs	1466, 2709		W	1798
In III	CL	1949	Te ⁻	EL	2296
	W	1949	Te I	EL	2104
In IV	EL	1869		CL	2104
	CL	1869, 1949		W	1557, 2104
	W	1869, 1949		ZE	1409
	IP	1869		Hfs	1770
	PT	1869		IS	3071

2.2 Reference Numbers for Individual Spectra—Continued

Te I—Continued			Xe I—Continued		
	PT	1643, 3095		AT	1566, 1991, 2823
	AT	3095		OT	1348, 1536, 2823, 2906
Te II			Xe II		
	EL	2581		EL	1526
	CL	2581		CL	2046A, 2145, 2958
	W	2581		W	1404, 1926, 2046A, 3002
Te VIII			Xe III		
	EL	1798		CL	2046A
	CL	1798		W	1926, 2046A, 2765, 3002
	W	1798			
I ⁻			Xe IV		
	EL	2137, 2659, 3081		CL	2046A
	CL	2137, 2659, 3081		W	1926, 2046A, 2765, 3002
	W	2137, 2659, 3081			
	AT	1720			
	OT	1802			
I I			Xe V		
	EL	2379		EL	2856A
	CL	1504, 1505	Xe VI		
	W	1504, 1505	EL 2856A		
	ZE	1699	Xe VII		
	Hfs	1919, 2255, 2681	EL 2856A		
	AT	2681	Xe VIII		
			EL 2856A		
			Xe IX		
			EL 2856A		
			W 2885A		
			Xe X		
			EL 2856A		
			Xe XI		
			EL 2856A		
			Xe XII		
			EL 2856A		
			Xe XIII		
			EL 2856A		
			Xe XIV		
			EL 2856A		
			Xe XV		
			EL 2856A		
			Xe XVI		
			EL 2856A		
			Xe XVII		
			EL 2856A		
			Xe XVIII		
			EL 2856A		
			Xe XIX		
			EL 2856A		
			Xe XX		
			EL 2856A		
			Xe XXI		
			EL 2856A		
			Xe		
			W 1412		
			Cs ⁻		
			EL 2158A, 2296, 2551, 2671		
			OT 2157A, 2573A, 2633		
			Cs I		
			EL 2198, 2324A, 2574A, 2783, 2931, 2938, 3030		
			CL 2198, 2324A, 2574A, 2783, 2931, 2938		
			W 1314, 2198, 2324A, 2574A, 2783, 2931, 2938		
			ZE 1364A, 1613, 1659, 1774, 1840, 2059A, 2390, 2394, 2742, 2755, 2977, 3046		
			SE 1556, 1590, 1707A, 1877, 2165A, 2506A, 2627, 3001		
			Hfs 1416, 1613, 1684A, 1763, 1774, 1840, 1857A, 1863A, 1908A, 1942, 1943, 2001, 2118, 2197, 2203, 2390, 2505A, 2506A, 2574A, 2595, 2627, 2742, 2744, 2755, 2927, 2929, 2954, 2956, 2966, 2977, 3000, 3075, 3137, 3179		
			IP 2931		
			PT 1943, 2931		
			AT 2124, 2731, 2931		
			OT 1417, 1456, 1742, 2994, 3148		
			Cs II		
			EL 2925		
			ND 2925		
			CL 2925		
			W 2925		
			IP 2925		
Xe I					
	EL	1437, 1526, 1788, 2429, 2691, 2924, 3115			
	CL	1437, 1526, 1788, 1975, 2046A, 2145, 2228, 2429, 2924, 2958, 3063			
	W	1437, 1526, 1788, 1926, 1975, 2046A, 2429, 2924, 2941, 3002, 3063, 3115			
	ZE	1360, 1487, 2121			
	SE	1793, 2220, 2621, 2906, 3176			
	Hfs	1350, 1487, 1568, 1648, 1684A, 2662, 2779, 2848, 2959, 3041			
	IS	1444, 1472A, 1895, 2087A, 2779, 2849, 2959, 3041, 3071, 3077, 3078			
	PT	1985			

2.2 Reference Numbers for Individual Spectra—Continued

Ba I	EL	1739A, 2098A, 2218, 2473, 2766, 2775, 2844, 2926, 3132, 3133, 3134	Ce I—Continued	PT	2053A, 2188							
	ND	2844, 3017		AT	1725, 1946, 1948, 2188							
	CL	1739A, 2098A, 2218, 2473, 2766, 2775, 2844, 2926, 3132, 3133, 3134		Ce II	ND	1946						
	W	1492, 1739A, 2098A, 2218, 2473, 2766, 2775, 2844, 2926, 3132, 3133, 3134			CL	1636						
	ZE	1686, 2066A, 2261, 2307, 2689A, 3142			W	1636						
					IS	1946, 1948						
	SE	2307, 3067		AT	1946, 1948							
	Hfs	1862A, 2066A, 2232, 2403, 2515		Ce III	EL	1734						
	IS	2232, 3071			ND	1751						
	IP	2218, 2374, 2766, 2775, 2844, 2874			CL	1734						
	PT	1733			W	1734						
	AT	1626, 2095, 2178, 2461, 2844, 2922, 3017, 3132, 3134			PT	1353						
	OT	2674		AT	1725, 1751							
	Ba II	ND		2773	Ce IV	EL	2323, 2342A, 2344, 2346, 2347, 2363, 2452A					
		Hfs		2511A		ND	1958					
IS		2554	CL	2323, 2342A, 2346, 2347, 2363								
AT		2473, 2773	W	2323, 2342A, 2344, 2346, 2347, 2363								
Ba III	EL	2483A, 2925	Ce V	IS	1417							
	CL	2483A, 2925		PT	1597, 2346							
	W	2483A, 2925		AT	1582, 1725, 1958, 3177							
	IP	2925		Ce VI	EL	1507, 2925						
La I	EL	2052A, 2105, 2536, 2889A	CL		1507, 2925							
			W		1507, 2925							
			IP		2925							
			AT	3177								
ND	1733, 2105, 2831	Ce VI	EL	1507								
CL	2052A, 2536		CL	1507								
W	2052A, 2536		W	1507								
ZE	2536		Pr I	EL	1854, 2054A, 2136A							
Hfs	1429, 1694A, 1715, 1755, 2052A, 2536	CL		2054A, 2136A								
IS	1694A, 2831	W		2054A, 2136A								
IP	2374, 2869	ZE		1854, 2054A, 2136A								
La II	ND	1564	Hfs	2054A	PT	2054A	AT	1725, 2439				
									PT	1353, 1365, 1564		
											AT	1623
CL	1338											
		W	1338									
				AT	1582, 1725							
						La III	EL	1366A, 2925				
ND	1958											
		CL	1366A, 2925									
				W	1366A, 2925							
						IP	1366A, 2925					
PT	1366A, 1597, 1835											
		AT	1598, 1666, 1725, 1958, 2364, 3177									
				La IV	AT			3177				
						EL	2889A					
ND	1946, 2188											
		CL	1636									
				W	1636							
						IS	1688A, 1946, 1948, 2496A, 3006					
Pr II	EL							2054A				
		CL	2054A									
				W	2054A							
						ZE	2054A					
Hfs	2054A											
		PT	2054A, 2469									
				Pr III	EL			2469				
						ND	1376, 1751, 2469					
CL	1376, 2466, 2469											
		W	2466									
				PT	1376, 2469							
						AT	1431, 1510, 1618, 1725, 1751					
Pr IV	EL							2342A, 2343, 2344, 2345, 2366, 2452A, 2457A, 2462A, 2520, 3228				
		ND	1325, 1751									
				CL	2342A, 2345, 2366, 2520, 3228							

2.2 Reference Numbers for Individual Spectra—Continued

Pr IV—Continued		Pm IV	EL	2262
	W		CL	2262
	2342A, 2343, 2344, 2345, 2366, 2520, 3228		W	2262
	SE		PT	2262
	2462A		AT	1618, 1725
	Hfs			
	2147, 3004	Pm V	AT	1618
	PT		EL	1888A, 3054
	1353, 1376, 1597, 3228	Sm I	CL	1888A
	AT		W	1492, 1888A
	1431, 1510, 1561A, 1725, 1751, 1765, 2116, 2147, 2646		ZE	1850
	OT		Hfs	1850
	1325		IS	1688A, 2496A
			AT	1540, 1543, 1570, 1725
			OT	1994
Nd I	EL	Sm II	AT	1570
	1335	Sm III	EL	2365, 2391, 2451A, 2458A, 2463A
	ND		CL	2365, 2391
	1335		W	2365, 2391
	CL		IP	2316
	2217		AT	1540, 1543, 1570, 1725, 1937
	ZE			
	1335, 1814	Sm IV	EL	2342A, 2344, 2354, 2452A, 2455A
	Hfs		CL	2342A, 2354
	1814		W	2342A, 2344, 2354
	IS		PT	1870, 1887
	1332, 1688A		AT	1570, 1725
	IP		OT	1432
	2300	Sm V	AT	1618
	PT	Sm XXXV	EL	2424
	1335		CL	2424
	AT		W	2424
	1539, 1725, 2300		AT	2424
			OT	2424
Nd II	EL	Eu I	EL	2252, 2502
	1335, 2141		ND	2502
	ND		CL	2252, 2502
	2084A, 2141		W	2502
	ZE		Hfs	1436, 1695A, 1972, 2314
	1335, 2141		IP	2502
	IS		SF	2502
	2084A, 2353		PT	2141
	IP		AT	1541, 1542, 1570, 1725, 1931, 1937
	2300	Eu II	CL	3178
	PT		W	3178
	1335, 2141, 2469		AT	1570, 1931, 1937
	AT	Eu III	EL	2133, 2342A, 2350, 2354, 2367, 2413, 2464A, 2539, 2830
	2300, 2353		ND	2349, 2539
			CL	2133, 2342A, 2349, 2350, 2354, 2367, 2413, 2539
Nd III	IP		W	2133, 2342A, 2350, 2354, 2367, 2413, 2539
	2300		Hfs	1436
	AT		IP	2539
	1618, 1725, 1937, 2300		PT	2349, 2539, 2830
			AT	1541, 1542, 1570, 1725, 1931, 1937
Nd IV	EL			
	2342A, 2343, 2347, 2366, 2377, 2452A, 2610, 2723, 2768, 3228			
	CL			
	2342A, 2347, 2366, 2377, 2610, 2723, 2768, 3228			
	W			
	2342A, 2343, 2347, 2366, 2377, 2610, 2723, 2768, 3228			
	Hfs			
	2147			
	IP			
	2300			
	PT			
	1740, 2610, 2723, 2768, 3228			
	AT			
	1618, 1725, 1751, 2147, 2300			
Nd V	EL			
	3059			
	CL			
	3059			
	W			
	3059			
	IP			
	2300			
	PT			
	3059, 3113			
	AT			
	2300			
Nd VI	IP			
	2300			
	AT			
	2300			
Nd VII	AT			
	2300			
Pm I	W			
	1741A			
	Hfs			
	1741A			
	AT			
	1725			
Pm II	EL			
	1741A			
	CL			
	1741A			
	W			
	1741A			
	Hfs			
	1741A			
Pm III	AT			
	1725			

2.2 Reference Numbers for Individual Spectra—Continued

Eu iv	EL	2045, 2070, 2342A, 2344, 2345, 3228	Tb ii	EL	2450
	CL	2045, 2070, 2342A, 2345, 2816, 3228		CL	2450
	W	2045, 2070, 2342A, 2344, 2345, 3228		Hfs	1433
	PT	1597, 3228	Tb iii	EL	1820
	AT	1540, 1543, 1570, 1725, 1931, 1937		ND	1820
	OT	1432		PT	1820
		AT		1725	
Gd i	EL	1337, 1414	Tb iv	EL	2342A, 2343, 2344, 2354, 2356, 2452A, 2717, 2718, 2980, 3228
	ND	1337, 1414, 2141		CL	2342A, 2354, 2356, 2717, 2718, 2980, 3228
	ZE	1414		W	2342A, 2343, 2344, 2354, 2356, 2717, 2718, 2980, 3228
	PT	1337, 1374, 1414, 2141	PT	2980, 3228	
	AT	1540, 1543, 1725, 1937	AT	1540, 1543, 1725	
	OT	1994	Tb v	ZE	2420
		PT		2420, 3113	
Gd ii	EL	1413	Dy i	EL	1415, 1880, 1998, 2141, 2437
	ND	1413		ND	1337, 1415, 1554, 2141, 2437
	CL	1413		CL	1880, 1998, 2141
	W	1413		W	1880, 1998
	ZE	1413		ZE	1880, 1998, 2141, 2437, 2780
	PT	1413, 2141		Hfs	1986, 2000, 2780
AT	1937	IS	1433, 1552, 1554, 2141		
Gd iii	EL	2283	IP	2141	
	CL	2283	PT	1337, 1554, 2141, 2437	
	W	2283	AT	1539, 1725, 1937	
	IP	2316	Dy ii	EL	1871, 1872, 2141
	AT	1540, 1543, 1725, 1937		ND	1871, 1872, 2141
				ZE	1871, 1872, 2141
Gd iv	EL	2250, 2452A	PT	1871, 1872, 2141	
	CL	2250	Dy iii	W	3004
	W	2250		AT	1346, 1725, 1765
	PT	1597, 2250		Dy iv	EL
	AT	1541, 1542, 1725, 1937	CL		2354, 2357, 2373, 3004
			W		2343, 2354, 2357, 2373, 3004
Gd xxxvi	EL	2424	PT	2141, 3004	
	AT	2424	AT	1725	
	OT	2424	Dy v	EL	3113
				CL	3113
				W	3113
	Gd xxxvii	EL	2424	PT	3113
CL		2424, 2460	Dy xxxix	EL	2424
W		2424, 2460		CL	2424
AT		2424		W	2424
OT		2424		AT	2424
				OT	2424
Gd xxxviii	EL	2424	Ho i	EL	1339, 1649, 1801, 2055A, 2141
	CL	2424, 2460		ND	1801, 2141, 2370
	W	2424, 2460		CL	2055A
	AT	2424		W	1339, 2055A
	OT	2424		ZE	1339, 1799, 1800, 2055A, 2388
				Hfs	1799, 1800, 2055A, 2065A, 2359, 2388
Gd xxxix	EL	2424			
	CL	2424, 2460			
	W	2424, 2460			
	AT	2424			
	OT	2424			
Tb i	EL	1548, 2380			
	ND	1337, 2380			
	CL	1548			
	W	1548			
	ZE	1548			
	Hfs	1754, 2064A			
	PT	1754			
	AT	1725			
	OT	1994			

2.2 Reference Numbers for Individual Spectra—Continued

Ho I—Continued				Er v	IP	2300
	PT	1801, 2055A, 2141			AT	2300
	AT	1725				
Ho II	EL	1339, 2450, 2535		Er VI	IP	2300
	CL	2450			AT	2300
	W	2450				
	Hfs	2450		Er VII	AT	2300
	PT	2535		Tm I	EL	1637, 2006
					CL	2006
					W	1492, 2006
Ho III	EL	3004, 3049, 3114			ZE	1621, 1637, 2006
	CL	3004			Hfs	1621, 1783, 1945
	W	3004			IP	2006
	ZE	3049, 3114			PT	1637
	Hfs	3004			AT	1725
	PT	3004, 3114				
	AT	1725		Tm II	EL	1633, 1634, 2469
					CL	2469
Ho IV	EL	2345, 2360, 2368, 2452A, 3167, 3228			ZE	1633, 1634
	CL	2345, 2360, 2368, 3167, 3228			IP	1634
	W	2345, 2360, 2368, 3167, 3228			PT	1633, 1634, 2469
	PT	1597, 3228			AT	1623
	AT	1539, 1725				
				Tm III	PT	2469
Er I	EL	1337, 1344, 1953A, 2139A, 2370, 2480A, 2527A, 2535			AT	1582, 1725
	ND	2527A			OT	2470
	CL	1337, 1344, 1953A, 2139A, 2370, 2480A		Tm IV	EL	2342A, 2344, 2354, 2361, 2452A, 2520, 2990, 3037, 3079
	W	1337, 1342, 1953A, 2139A, 2480A			ND	3037
	ZE	2139A, 2480A, 2527A, 2535			CL	2342A, 2354, 2361, 2520, 2990, 3037, 3079
	Hfs	1952			W	2342A, 2344, 2354, 2361, 2520, 2990, 3079
	IS	1552, 1939, 2582A			PT	1597, 1835, 2990, 3037, 3079
	IP	2300			AT	1670, 1725, 1962
	PT	1337, 2480A, 2535			OT	1670, 2470
	AT	1725, 2300				
Er II	EL	1345, 1953A, 2139A, 2480A, 2527A, 2535		Yb I	EL	1337
	ND	2527A			ND	1337, 1374
	CL	1345, 1953A, 2139A, 2480A			CL	1374
	W	1342, 1953A, 2139A, 2480A			Hfs	2433, 2759
	ZE	2139A, 2480A, 2527A			IS	1492, 2759
	IS	1939			PT	1337, 1374
	IP	2300			AT	1725
	PT	2480A, 2535		Yb II	EL	2378
	AT	2300			CL	2378
					W	2378
					ZE	2378
Er III	EL	1925, 2469			IP	2378
	ND	2469			AT	1623
	CL	1925				
	W	1925		Yb III	EL	2456A
	IP	2300			W	2391
	PT	1925, 2469			PT	1353, 2469
	AT	1725, 2300			AT	1582, 1725, 1735A, 1937
				Yb IV	EL	2344, 2376, 3038, 3173
Er IV	EL	2342A, 2345, 2368, 2376, 2452A, 3228			CL	2376, 3038, 3173
	CL	2342A, 2345, 2368, 2376, 3228			W	2344, 2376, 3038, 3173
	W	2342A, 2345, 2368, 2376, 3228			ZE	2970
	IP	2300			Hfs	2970
	PT	1376, 1597, 1740, 1835, 3228			PT	2348, 2970, 3038
	AT	1725, 1765, 1962, 2300, 2646			AT	1582, 1725, 1962, 3177

2.2 Reference Numbers for Individual Spectra—Continued

Yb v	AT	3177	W VI—Continued		
Lu I	EL	1638, 1705		W	2056A, 2658
	ND	1638, 1705, 1880		IP	2658
	CL	1638			
	W	1638			
	ZE	1705		W VII	EL 2585A
	Hfs	1515, 1632, 2079A, 2276			CL 2585A
	IP	1638			W 2585A
	PT	1374, 1705, 1880			AT 2585A
	AT	2423		W	W 2805
Lu II	PT	1365, 2025	Re VIII	EL	2585A
Lu III	EL	1402		CL	2585A
	CL	1402		W	2585A
	W	1402		AT	2585A
	Hfs	1402			
	IP	1402, 2316		Os I	ZE 2500A
					PT 2375
Lu IV	EL	1553		OT	2375
	CL	1553			
	W	1553		Ir I	ND 2806
	IP	1553			ZE 2189
	PT	1553, 2469			Hfs 2067A, 2189, 2806
	AT	1735A, 3177			PT 2806
Lu v	EL	1553	Pt—	EL	1917, 1996A
	PT	1553	Pt I	Hfs	2073A, 2838
	AT	3177		IS	2838
Hf I	ZE	1584	Pt II	IS	2269
	Hfs	1584, 2067A, 2099, 2100, 2196	Au—	EL	1917, 1996A
	IP	2374	Au I	EL	1336, 1502A, 2890A, 2891A
Hf II				ND	1336
	PT	2025		CL	1336, 1502A
Hf IV	EL	2056A, 2538, 2603		W	1336, 1418, 1502A
	CL	2056A, 2538, 2603		SE	1371
	W	2056A, 2538, 2603		Hfs	1371, 1482, 1502A, 2072A
	IP	2538, 2603		IP	1336
	PT	2538		Au II	EL 1336
Hf v	EL	2538, 2585A		CL	1336
	CL	2538, 2585A		W	1336, 1502A
	W	2538, 2585A		Hfs	1502A
	IP	2538			
	PT	2469, 2538		Au III	EL 1336
	AT	2585A			CL 1336
Ta v				W	1336, 1502A
	EL	1671A, 2236	Au IV	W	1502A
	CL	1671A, 2236	Au	W	1336
	W	1671A, 2236			
	IP	1671A, 2236	Hg—	EL	2270, 3070
Ta VI				CL	2270
	EL	2585A, 2591		W	2270
	ND	2591			
	CL	2585A, 2591		Hg I	EL 1310, 2231, 2725
	W	2585A, 2591			ND 1779, 1839, 2441, 2879
	IP	2591			CL 1310, 2231, 2494, 2555, 2725
	PT	2591			W 1310, 2058A, 2231, 2494, 2555, 2725
AT	2585A, 2591			ZE 1514, 1524, 1604, 2422, 2745, 2785	
W I	Hfs	2434		SE	1580, 2038, 2441, 2785, 2879, 3033
	IS	2434		Hfs	1400, 1477, 1519, 1596, 1604, 1647, 1657A, 1702A, 1938A, 2086A, 2400, 2422, 2569A, 2643, 2684, 2696, 2965, 3013, 3117
W VI	EL	2056A, 2658			
	CL	2056A, 2658			

2.2 Reference Numbers for Individual Spectra—Continued

Hg I—Continued		Bi I—Continued		
	IS	1400, 1596, 1647, 1657A, 1702A, 1781, 2086A, 2400, 2422, 2569A, 2586, 2684, 3013, 3088, 3117, 3231	IS	1499A, 2334A
	IP	2725	PT	1692A, 2498A
	PT	1310, 1779, 1839, 2441, 2879	AT	1692A
	AT	1839, 3023	OT	3099
Hg II		Bi II		
	EL	2975	ND	2772
	ZE	3094A	Hfs	2772
	Hfs	1981, 2526A, 2657, 3094A	AT	1777, 2772
	AT	2975	Bi IV	
Hg LXXX		ND		1839
Tl—		PT		1839
Tl I		Ac I		AT
	EL	1581, 3019, 3040, 3090	AT	2423
	CL	1581, 3019, 3040, 3090	Th I	
	W	1581, 2867A, 3019, 3040, 3090	CL	2351
	SE	1464A	W	2351, 2982
	Hfs	1520, 1706A, 2883, 2966	IP	2312, 2374, 2392, 2758
	IS	2883, 3093A	Th II	
	IP	1581, 3040	EL	2372
	PT	1581	ND	2358, 2372
	OT	3148	CL	2351, 2358, 2372
Tl II		W		2351, 2358, 2372, 2982
	ND	1839	ZE	2372
	PT	1839	Hfs	2358
	OT	2027	PT	2358, 2372
Tl III		Th III		EL
	EL	3138	EL	2362
	IP	3138	CL	2362
	PT	3138	W	2362
Pb—		Pa v		PT
Pb I		EL		2476, 2544, 3126, 3229
	EL	3233A	CL	2476, 2544, 3229
	CL	1551, 1930, 3233A	W	2476, 2544, 3126, 3184, 3229
	W	1551, 1930, 3233A	ZE	2544, 3229
	ZE	1718	PT	2476, 2544, 3126, 3229
	Hfs	1692A, 1860A, 2233, 2798, 2966	U I	
	IS	1528A, 1860A	EL	1379, 1463, 1879, 2774, 2892A
	PT	1692A	ND	1379, 1879, 2209, 2774
	AT	1692A, 2922	CL	1379, 1813, 1879
Pb II		W		1363, 1379, 1463, 1813, 1879
	EL	2579	ZE	1379, 1879, 2774
	CL	2579	Hfs	1904, 2352
	W	2579	IS	1379, 1879, 2352
Pb III		IP		1379, 2374, 2392
	EL	1839	PT	1879, 2209, 2774
	ND	1839	AT	1379, 1463, 2638
	PT	1839	U II	
	AT	1839	EL	1379, 1463, 1879, 2774
Pb IV		ND		1379, 2141, 2774
	EL	3138	CL	1379, 1813, 1879
	IP	3138	W	1363, 1379, 1813, 1879, 1903
	PT	3138	ZE	1379, 1879, 2774
Pb v		IS		1379, 1879, 1903
Bi—	EL	2296	IP	1379, 1463
Bi I	CL	1551	PT	2141, 2774
	W	1551, 2715	U IV	
	ZE	1693A	EL	2344, 3139, 3185
	Hfs	1499A, 1511, 1692A, 1693A, 2002, 2074A, 2076A, 2334A, 2498A, 2499A, 2626, 2709	ND	2264
			CL	3139, 3185
			W	2344, 3139, 3185
			ZE	3235
			PT	2264, 3139

2.2 Reference Numbers for Individual Spectra—Continued

U v	EL	2171, 2594, 2776, 3185, 3186, 3187, 3188, 3189, 3190, 3191	Am III	EL	2297, 3202		
	CL	2171, 2594, 3185, 3187, 3188, 3190		ZE	3202		
	W	2171, 2389, 2594, 3185, 3186, 3187, 3188, 3190, 3191		PT	3202		
	ZE	2171, 2776, 3189		Am IV	EL	2251, 2344, 3196, 3203, 3214	
	PT	2171, 2594, 3186, 3187, 3188, 3190, 3191			CL	2251, 3196, 3203, 3214	
U vi	EL	2474, 2476, 3192	W		2251, 2344, 3196, 3203, 3204, 3214		
	CL	2474, 2476, 3192	ZE		2371		
	W	2474, 2476, 3192	PT	2251, 3196, 3203, 3214			
	PT	2474, 2476, 3192	Am v	EL	2222, 3201		
	W	3068		ND	3217		
Np I	EL	1678A		CL	2222		
	CL	1678A		W	2222		
	W	1678A		ZE	3201		
	ZE	1678A	Hfs	3201			
	Hfs	1678A, 1736A	PT	3201, 3217			
	IP	2869	Am VI	EL	3205		
	PT	1678A, 1736A		ND	3205		
AT	1736A	CL		3205			
Np IV	EL	2322A, 2454A, 2988, 3193		W	3205		
	ND	2264		PT	3205		
	CL	2322A, 2988, 3193	Am LXXXV	OT	2129		
	W	2322A, 2988, 3193		EL	1562A, 1563A, 2495A		
	PT	2264, 3193		CL	2495A		
Np v	EL	3186		W	2495A		
	W	3186		IP	1563A		
	PT	3186	Cm II	EL	1562A		
Np VI	EL	3194		EL	3202, 3206, 3207		
	CL	3194		ND	3202, 3206		
	W	3194		CL	3206		
PT	3194	ZE		3202, 3207			
Np VII	W	3195	PT	2264, 3202, 3206			
	Pu I	ND	3196	Cm v	EL	2221	
		Hfs	2132		CL	2221	
PT		3196	W		2221		
Pu II	Hfs	2132	Bk I		EL	1562A	
	Pu IV	EL			2222, 2248, 2355, 2790, 3175, 3197, 3198, 3199, 3200, 3201, 3216	OT	1994
		ND		3197, 3198, 3199, 3217	Bk II	EL	1562A
		CL	2222, 2248, 2355, 3197, 3199	EL		2019, 2102, 2221, 2344, 3208, 3209	
		W	2222, 2248, 2355, 2790, 3175, 3197, 3199	CL		2019, 2102, 2221, 3209	
		ZE	2355, 2371, 3198, 3199, 3200, 3201	W		2019, 2102, 2221, 2344, 3208, 3209, 3210	
		Hfs	2355, 3201, 3215, 3216	PT		2019, 2102, 3209	
		PT	2248, 2264, 2355, 3197, 3198, 3199, 3201, 3217	Bk v	EL	2019, 2686, 3208, 3209	
		AT	1561A, 1765		CL	2019, 2686, 3209	
		Pu v	EL		3175, 3186	W	2019, 2686, 3208, 3209, 3210
			W		3175, 3186	PT	3209
PT			3186	Cf I	EL	1562A	
Pu VII	EL	3175, 3194	EL		1562A		
	CL	3194	EL		2103, 2222, 2344, 2449A, 2970		
	W	3175, 3194	CL		2103, 2222		
	PT	3194	W		2103, 2222, 2344, 3211		
	Am III	EL	2297, 3202	ZE	2970		
ZE		3202	Hfs	2970			
PT		3202	PT	2103, 2970			
Am IV		EL	2251, 2344, 3196, 3203, 3214	Cf II	EL	1562A	
		CL	2251, 3196, 3203, 3214		Cf IV	EL	2103, 2222, 2344, 2449A, 2970
	W	2251, 2344, 3196, 3203, 3204, 3214	CL			2103, 2222	
	ZE	2371	W			2103, 2222, 2344, 3211	
PT	2251, 3196, 3203, 3214	ZE	2970				
Am v	EL	2222, 3201	Cf III	EL		1562A	
	ND	3217		Cf IV	EL	2103, 2222, 2344, 2449A, 2970	
	CL	2222			CL	2103, 2222	
	W	2222			W	2103, 2222, 2344, 3211	
	ZE	3201			ZE	2970	
Hfs	3201	Hfs	2970				
PT	3201, 3217	PT	2103, 2970				
Am VI	EL	3205	Am LXXXV	OT	2129		
	ND	3205		EL	1562A, 1563A, 2495A		
	CL	3205		CL	2495A		
	W	3205		W	2495A		
	PT	3205		IP	1563A		
Am LXXXV	OT	2129	Cm I	EL	1562A, 1563A, 2495A		
	EL	1562A, 1563A, 2495A		CL	2495A		
	CL	2495A		W	2495A		
	W	2495A		IP	1563A		
	IP	1563A		Cm II	EL	1562A	
Cm I	OT	2129	EL		3202, 3206, 3207		
	EL	1562A, 1563A, 2495A	ND		3202, 3206		
	CL	2495A	CL		3206		
	W	2495A	ZE		3202, 3207		
	IP	1563A	PT	2264, 3202, 3206			
Cm II	EL	1562A	Cm IV	EL	3202, 3206, 3207		
	EL	3202, 3206, 3207		ND	3202, 3206		
	ND	3202, 3206		CL	3206		
	CL	3206		ZE	3202, 3207		
	ZE	3202, 3207		PT	2264, 3202, 3206		
PT	2264, 3202, 3206	Cm v	EL	2221			
Cm v	EL		2221	CL	2221		
	CL		2221	W	2221		
	W		2221	Bk I	EL	1562A	
	Bk I		EL		1562A	OT	1994
		OT	1994		Bk II	EL	1562A
Bk II		EL	1562A			EL	2019, 2102, 2221, 2344, 3208, 3209
		EL	2019, 2102, 2221, 2344, 3208, 3209			CL	2019, 2102, 2221, 3209
		CL	2019, 2102, 2221, 3209	W		2019, 2102, 2221, 2344, 3208, 3209, 3210	
	W	2019, 2102, 2221, 2344, 3208, 3209, 3210	PT	2019, 2102, 3209			
	PT	2019, 2102, 3209	Bk v	EL	2019, 2686, 3208, 3209		
Bk v	EL	2019, 2686, 3208, 3209		CL	2019, 2686, 3209		
	CL	2019, 2686, 3209		W	2019, 2686, 3208, 3209, 3210		
	W	2019, 2686, 3208, 3209, 3210		PT	3209		
	PT	3209		Cf I	EL	1562A	
	Cf I	EL	1562A		Cf II	EL	1562A
EL		2103, 2222, 2344, 2449A, 2970	Cf IV			EL	2103, 2222, 2344, 2449A, 2970
CL		2103, 2222				CL	2103, 2222
W		2103, 2222, 2344, 3211				W	2103, 2222, 2344, 3211
ZE		2970		ZE		2970	
Hfs	2970	Hfs		2970			
PT	2103, 2970	PT	2103, 2970				

2.2 Reference Numbers for Individual Spectra—Continued

Es I	EL	2225	Es IV—Continued	W	2224, 2249, 2344, 3038, 3150, 3212	
	CL	2225		PT	2249, 3038	
	W	2225		Fm I	EL	1326, 1357
	ZE	2525A, 2947			ZE	1326
	Hfs	2225, 2525A, 2947			PT	1326
Es II	EL	1562A, 2225	AT	1574, 1606		
	CL	2225	Fm xcv	AT	1728	
	W	2225		OT	1728	
	Hfs	2225	Md I	OT	1994	
Es III	EL	3213		No III	EL	2298
	ZE	3213		Lr I	AT	2423, 2777
	Hfs	3213		Trans Lr	AT	1445, 1544, 1546, 1629, 1732, 2724, 2777
	PT	3213	OT		1503, 1772	
Es IV	EL	2224, 2249, 2344, 3038, 3150				
	CL	2224, 2249, 3038, 3150				

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P I – XIII, XV, S II – VII, X – XIV: OT
Cl I – VIII, XII – XVI, Ar I, III – VII: OT
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