

Contents

	Page		Page
Preface	II	7. Tables of Predicted and Observed Arrays of Terms—Continued	
1. Introduction	VII	7.3. Arrays of predicted terms of the sequences Mg I through Ar (tables 12 to 18)	XVI
2. Scope of the Present Tables	VII	7.4. Arrays of predicted levels of the Ne I and Ar sequences (tables 11 and 18) ..	XVI
3. Nomenclature (atomic energy levels, spectroscopic terms, multiplets)	VIII	7.5. Arrays of predicted terms of the sequences Ca I through V I (tables 19 to 22)	XVI
4. Arrangement	VIII	8. The Periodic Table	XVII
4.1. Headings, remarks	VIII	8.1. The chemical elements by atomic number, ionization potentials (table 23) ..	XVII
4.2. References	IX	8.2. The chemical elements by chemical symbol (table 24)	XVII
4.3. Reference symbols	IX	8.3. The periodic system (table 25)	XVII
5. Spectroscopic Notation	IX	8.4. Index—isoelectronic sequences (table 26)	XVII
5.1. Series spectra	X	9. Future Investigations	XVII
5.2. Inert gases	XI	9.1. Need for further analysis	XVII
5.3. Complex spectra	XII	9.2. Term intervals	XVIII
6. Columns of the Table	XII	9.3. Series spectra—Rydberg denominators ..	XVIII
6.1. Author	XII	9.4. Observed Zeeman patterns	XVIII
6.2. Configuration	XII	9.5. Energy or Grotrian diagrams	XVIII
6.3. Designation	XII	10. Acknowledgments	XIX
6.4. Inner quantum number <i>J</i>	XIII		
6.5. Atomic energy level	XIII		
6.6. Interval	XIII		
6.7. Observed <i>g</i> -value (tables 1 to 4, Landé <i>g</i> -values)	XIV		
7. Tables of Predicted and Observed Arrays of Terms	XV		
7.1. Shells	XV		
7.2. Arrays of predicted terms of the sequences Be I through Ne I (tables 5 to 11)	XV		

List of Tables

Table	Subject	Page	Table	Subject	Page
1 to 4	Landé <i>g</i> -values	XX to XXVII			
	PREDICTED TERMS			PREDICTED TERMS—continued	
5	Be I	XXVIII	16	S I	XXXIV
6	B I	XXVIII	17	Cl I	XXXIV
7	C I	XXIX	18	A I	XXXV
8	N I	XXIX	19	Ca I	XXXV
9	O I	XXX	20	Sc I	XXXVI
10	F I	XXXI	21	Ti I	XXXVII
11	Ne I	XXXI	22	V I	XXXVIII
12	Mg I	XXXII	23	Ionization Potentials	XL
13	Al I	XXXII	24	Chemical Symbols	XLI
14	Si I	XXXIII	25	The Periodic System	XLII
15	P I	XXXIII	26	Index—Isoelectronic Sequences	XLIII

Index to Spectra

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page
Hydrogen	1	H I.....	1	Neon	10	Ne I.....	76
		D.....	3			Ne II.....	81
		T.....	3			Ne III.....	83
Helium	2	He I.....	4			Ne IV.....	84
		He II.....	6			Ne V.....	86
Lithium	3	Li I.....	8			Ne VI.....	88
		Li II.....	10	Sodium	11	Na I.....	89
		Li III.....	11			Na II.....	91
Beryllium	4	Be I.....	12			Na III.....	93
		Be II.....	14			Na IV.....	95
		Be III.....	14			Na V.....	96
		Be IV.....	15			Na VI.....	98
Boron	5	B I.....	16			Na VII.....	100
		B II.....	17			Na VIII.....	103
		B III.....	19			Na IX.....	105
		B IV.....	19	Magnesium	12	Mg I.....	106
		B V.....	20			Mg II.....	108
Carbon	6	C I.....	21			Mg III.....	109
		C II.....	24			Mg IV.....	111
		C III.....	26			Mg V.....	113
		C IV.....	29			Mg VI.....	114
		C V.....	30			Mg VII.....	117
		C VI.....	31			Mg VIII.....	119
Nitrogen	7	N I.....	32			Mg IX.....	121
		N II.....	35	Mg X.....	122		
		N III.....	38	Mg XI.....	123		
		N IV.....	40	Aluminum	13	Al I.....	124
		N V.....	42			Al II.....	126
		N VI.....	43			Al III.....	129
		N VII.....	44			Al IV.....	130
Oxygen	8	O I.....	45			Al V.....	131
		O II.....	47			Al VI.....	133
		O III.....	50			Al VII.....	135
		O IV.....	53			Al VIII.....	136
		O V.....	56			Al IX.....	138
		O VI.....	58	Al X.....	140		
		O VII.....	59	Al XI.....	142		
		O VIII.....	59	Al XII.....	143		
Fluorine	9	F I.....	60	Silicon	14	Si I.....	144
		F II.....	62			Si II.....	147
		F III.....	64			Si III.....	148
		F IV.....	66			Si IV.....	150
		F V.....	69			Si V.....	151
		F VI.....	71			Si VI.....	152
		F VII.....	74			Si VII.....	154
		F VIII.....	75			Si VIII.....	156
						Si IX.....	157
						Si X.....	159
						Si XI.....	160
						Si XII.....	162

Index to Spectra—Continued

Element	Z	Spectrum	Page	Element	Z	Spectrum	Page
Phosphorus	15	P I.....	163	Potassium— (Continued)	19	K IX.....	239
		P II.....	164			K X.....	239
		P III.....	166			K XI.....	241
		P IV.....	168	Calcium	20	Ca I.....	242
		P V.....	169			Ca II.....	245
		P VI.....	170			Ca III.....	247
		P VII.....	171			Ca IV.....	248
		P VIII.....	173			Ca V.....	249
		P IX.....	174			Ca VI.....	251
		P X.....	176			Ca VII.....	252
		P XI.....	177			Ca VIII.....	253
		P XII.....	179			Ca IX.....	254
		P XIII.....	180			Ca X.....	255
Sulfur	16	S I.....	181			Ca XI.....	255
		S II.....	183			Ca XII.....	257
		S III.....	185	Ca XIII.....	258		
		S IV.....	187	Ca XV.....	258		
		S V.....	188	Scandium	21	Sc I.....	259
		S VI.....	189			Sc II.....	262
		S VII.....	190			Sc III.....	263
		S VIII.....	191			Sc IV.....	264
		S IX.....	193			Sc V.....	265
		S X.....	194			Sc VI.....	266
		S XII.....	194			Sc VII.....	267
		Chlorine	17			Cl I.....	195
Cl II.....	197					Sc IX.....	269
Cl III.....	199					Sc X.....	270
Cl IV.....	201					Sc XI.....	271
Cl V.....	202					Sc XII.....	272
Cl VI.....	204			Titanium	22	Ti I.....	273
Cl VII.....	205					Ti II.....	279
Cl VIII.....	206					Ti III.....	281
Cl IX.....	207					Ti IV.....	283
Cl X.....	209					Ti V.....	284
Cl XI.....	210					Ti VI.....	285
Argon	18	A I.....	211			Ti VII.....	286
		A II.....	216			Ti VIII.....	287
		A III.....	218			Ti IX.....	288
		A IV.....	220			Ti X.....	288
		A V.....	222			Ti XI.....	289
		A VI.....	223	Ti XII.....	289		
		A VII.....	224	Ti XIII.....	290		
		A VIII.....	224	Vanadium	23	V I.....	291
		A IX.....	225			V II.....	298
		A X.....	226			V III.....	301
		A XI.....	226			V IV.....	303
A XIV.....	226	V V.....	304				
Potassium	19	K I.....	227			V VI.....	304
		K II.....	230			V VII.....	305
		K III.....	231			V VIII.....	306
		K IV.....	233			V IX.....	306
		K V.....	234			V XI.....	307
		K VI.....	236			V XII.....	307
		K VII.....	237	V XIII.....	308		
		K VIII.....	238	V XIV.....	309		