Table 1. Line Positions a) from Mg X-rays, by Element

	Atomic	Range					Photo	oelectr	on Line	s ^{b)}				Range					Auger Lines				
ement	No.	(eV)	1s	2s	2p1	2p ₃					d ₅ 4	s 4p	, 4p ₃	(eV)		****		KL ₁ L ₁	KL ₁ L ₂₃	KL23L23 C)			
Li I Be	3 4	4	56 113						:														
В	5	8	191	er Suce delet Successi		editation and tables.	71 - e Archestic de		er Sana Commence	O CACCAMANA PA			· erontikensterAppoikt	tions of Post of Males Widow	ens. 20 en . 12 pour 12 p			HOSTURARO OT LA SURVIVIO		1082		and the second of the second o	zanco sone care alementos
C N	6 7	12 9	267 402											12	i les					993 875			42.00
O F	8	- 4 - 6	531 686	23 30							All Sales			10	La constitue			779 645	764 626	743 599			
Ne Na	10 11	0	863 1072	41		14 31								0				491 332	468 303	435 264			
Mg Al	12	2	11072	90	1	51								- 4				302	303	204	J		
Si	13 14	- 4 - 6		119 153	103	1 102	1																
Р	15	8		191	134	133	14				an emin						2000						
. !	TO STATE OF THE ST														L ₃ M ₂₃ M ₂₃	d) L ₂ M ₂₃ I	M ₂₃ ⁽³⁾	L ₃ M ₂₃ M ₄₅	L ₃ M ₂₃ M ₄₅	L ₂ M ₂₃ M ₄₅	L3M45M45	e) L ₂ M ₄₅ M ₄₅	
s	16	8		229	166	165	17							6	Г	1103		·P	*P	·b		1.1	
CI Ar	17 18	11	-	270 319	201 243 296 350	199 241	17							4	1037	1071 103	35						
K Ca	19 20	1 2		378 430	296	293 347	22 33 44	17 25						La Artic	1005	100)3						
Sc	21	- 6					53	31						8	964 C	920	"	892					
Ti V	22 23	8		565 630 698	464 523 586 652 723 796 873 954	458 515	62 69	37 40						10	Annual An	873 822		839 784					
Cr Mn	24 25	6		698 770	586 652	577 641	83	46 49	45 48					6	67786	767 715	2000.00	729 670	La 1.5000	YA 1705/25/2014	620		
Fe Co	26 27	- 8 - 6		847 927	723	710 781	93	56 63	48 55 61					6 7	604	659		608 546	41. 20.		553 483	468	
Ni	28	6	Leaning Company	1009	873	855	112	69	67			SMUE AF SPAN		7	548	54	2	482	541 476		410	393	
Cu Zn	29 30	2		1120	1040	1022	140	79 92	77 89	10				5 7	486 429	47 42		416 352	408 343	3 96 329	337 265	317 242	
Ga Ge	31 32	2			1144	1117	160	108 128	105 124	32 T	317			7 10	368 305	36 29		284 215	275 205	257 184	189 113	162 82	
As Se	33 34	7 8			E.		184 207 232	148	143	45	44			della della	44.0								
Br	35	7					256 287	189	182 208	70	57 69			and the second									
Kr Rb	36 37	0					287 322	216 247	208 238 1	89 11 1	88 2 10 2 33 3	22 19	14	la de la composición dela composición de la composición dela composición de la compo					Language (Constitution				
Sr Y	38 39						358 395	247 280 313 345	269 1 301 1	11 1 35 1 60 1 83 1	33 3 58 4	17 15	20 25									- 61	
Zr	40	6					431	345	331 1	83 1	81 5	il	29		100 Hz		and Called Sons	and the same of					

a) Lines enclosed in boxes are the most intense and are the most suitable for use of line energies in identifying chemical states.

b) For brevity, $2p_3$ equals $2p_{3/2}$, $3d_5$ equals $3d_{5/2}$, etc.

c) Includes KVV designation when L₂₃ is not a core level.

d) Designation is oversimplified.

e) Includes LVV when M levels are not in core, and MVV when N levels are not in core.

f) No simple 4p_{1/2} line exists for this group of elements.

g) The 4d doublet for these elements is complex and is variable with chemical state because of multiplet splitting and multiplectron processes.

My

lement	Atomic No.	Range (eV)	***	2	2	0.4	2.4						n Line								_	_	Range (eV)		Auger Lines	e)
. Nb	41	8	3s 470	3p ₁ 379	3p ₃ 364	3d ₃	3d ₅	4s 59	4p.	************	4d ₃	405	415	417	5s	5p :	5p ₃	5d ₃	5d ₅	68	6p₁	6p ₃	(84)	promoterno de la compansa de la comp	M ₅ N ₄₅ N ₄₅	
Мо	42	6	508	413	396	209 233	206 230	65	3	5 8														1088 1068	10	
Tc Ru	43 44	4	544 587	445 485	425 4 63	257 286	253 282	68 77	3	9 45 ⁿ				altantos.	rii ingana	Mississifica	(1944ese)			Project (1)			-4	1047 1025	10	08 81
Rh Pd	45 46	4 5	629 673	485 522 561	463 498 534	314 342	309 337	83 88		491) 541)													5	1002	9	54 28
Ag	47	2	718	604	573	374	368 405	97		581)					Ariban ind				(Josephan)				4	979	903	897
Cd In	48 49	2 3	772 828	652 704	618 666	412 453	445	109		68° 79°		11 19											5 7		889 853	872 846
Sn Sb	50 51	3	884 946	757 814	715 768	494 539 585	486 530 575	137 155		910 1059	26 35	25 34				100							7 10		827 803	819 794
Te I	52 53	5	1009 1071	814 873 930	768 822 874	585	575	171 186		1149	44	43	T. Allen		14 16								6		775 748	765
Xe	54	4	1144	997	936	685	619 672 724	209		123 ⁰ 141 ⁰	52 65	63			19								4		724	737 711
Cs Ba	55 56	2 2		997 1064 1137	997 1 062	738 795	780	254	170 192	158 179	77 92	75 90			24 23										698 671	684 657
La Ce	57 58				1126 1184	630 685 738 795 851 900	834 882	274 290	210 222	195 207	104	101 108			34 37	1	7 8									32 94
Pr Nd	59 60	P. (799) 744-744-745		######################################		950 1001	930 980	305 318	237 248	218	1	14 ⁹⁾ 20 ⁹⁾			38	2	.0	100000000000000000000000000000000000000			12.00 (13.00 to 13.00 to 13.0				5	55
Pm	61			400a.		1060	1034	337	264	227 242	1	29	Stanica errolau	The admission research	38 38	2	2	mental and a second	F117845100 1007 Code	ua limon turo es		II Iaka kumatyak I		Control of the second	. 4	19 81
Sm Eu	62 63					1110 1166	1083 1136	349 366	283 289	250 261		32 36			41 34	2 2 2 2	0 '4									40 02
Gd Tb	64 65						1186	380 398	301 317	270 284	• 1	41 50			36 42	2 2	1								3	62
Dy	66							412	329	293	1	54			63	2	6									
Ho Er	67 68							431 451	345 362	306 320	1.1	61 69			51 61	2	5	er er er	E STEWNSON S							
Tm Yb	69 70							470 483	378 392	333 342	194	80 <u> </u>] 185	1		54 55	32 33	26 26									
Lu Hf	71 72	6		DANGER STREET	Deur - Live Fréder	nu - ne mesher takna	51 1809(F) - 521 N-41	507 537	412 437	359 382	207	107]	17	58	34 37	27 30	, essential	DE 0	A 12 2 1 4 2 4 4 1	7.7.780900000.V					e pare man and proposition of the second
Ta	73	8	Car And Associations	David Silving Control Control	- Galetti var avi var savana sav	No tion continued to deficient to the	all the control of the least	566	464 491	403 425	241	229	19 27	25	64 71	45	37 37	várodní ment	· · · · · · · · · · · · · · · · · · ·	. chry samen		andrania arang a andra				
W Re	74 75	6						566 594 628	521	449	257 277	213 229 245 263	36 45	34 43	77 81	47 44	33									
Os	76	3						657	549	475	294	279	55	52	86	60	48									
			Trender					1																N7O45O	15 N ₈ O ₄₈ O ₄₅	N ₆₇ O ₄₅ V
Ir Pt	77 78	4 5						692 726	579 610	497 521	313 333	297 316	65 76	62 73	98 105	65 69	53 54								1192	
Au	79	3					and the second second	763	643	547	354	336	76 89	85	110	75	57								1184	
Hg Ti	80 81	2 2						803 845	681 721	577 608	379 406	336 359 385 413	104 122	100	137	84 100	65 76	15	13					1176	1169	
Pb Bi	82 83	3 4						893 942	762 807	645 681	435 467	413 443	143 164	138 159	148 161	107 120	84 94	22 29	19 26					11 62 1155	1159 1151	
Th U	90 92	3 5	-						1168	968 1046	714	677	344	335 380	290 325	226	179 197	94 104	87 96	43 46	26 29	18 19			1100	1005
Np	93	3								1086	781 816	739 771 502	414	402	323	202	206	104	101	40	29	18			1064	970
Pu Am	94 95									1121	883	832	463	427 449	351		216 216	119	105 109		31 31	18 18				
Cm Bk	96 97										919 958	865 901	487 514	473			232 246		113 120		32 34	18 18				
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