Auger peaks in Al Kα XP spectra for Elements All energies are Binding Energies in eV Al Kα 1486.7 eV

At #	Element	KL_1L_1	KL_1L_2	$KL_{23}L_{23}$					
3	Li								
4	Be			**1384**					
5	B			**1310**					
6	C			**1223**					
7	N			**1107**					
8	O	1013	999	**978**					
9	F	878	859	**832**					
10	Ne	725	702	**669**					
11	Na	561	532	**493**					
12	Mg	381	347	**301**					
		$L_3M_{23}M_{23}$	$L_2M_{23}M_{23}$	$L_3M_{23}M_{45}(^1P)$	$L_3M_{23}M_{45}(^3P)$	$L_2M_{23}M_{45}(^1P)$	$L_3M_{245}M_{45}$	$L_2M_{245}M_{45}$	
13	Al		**1419**						
14	Si		**1394**						
15	P		**1367**						
16	S		**1336**						
17	Cl		**1304**						
18	Ar		**1272**						
19	K		**1239**						
20	Ca		**1197**						
21	Sc		**1149**	1118					
22	Ti		1098	**1068**					
23	V		1048	**1014**			977		
24	Cr		997	**959**			917		
25	Mn		944	**900**			852		
26	Fe		888	839			**784**		
27	Co	838	821	777	771		**713**	698	
28	Ni	778	772	745	706		**641**	624	
29	Cu	719	712	648	640	628	**568**	548	
30	Zn	660	652	582	573	559	**495**	472	
31	Ga	597	589	514	504	487	**419**	392	
32	Ge	534	525	444	433	412	**342**	310	
33	As			371	360	336	**262**	226	
34	Se		$M_{23}M_{45}N_{23}$	299	287	257	**181**	140	
35	Br		1390						
36	Kr								
37	Rb		1385						
38	Sr			$M_{45}N_{23}V$	$M_{45}N_{45}N_{45}$				
39	Y				1356				
40	Zr			1368	1337				
At #	Element	$M_{45}N_{23}V$	$M_5N_{45}N_{45}$	$M_4N_{45}N_{45}$	$M_{45}N_{45}V$	M_4VV			
41	Nd	**1319**		1287					
42	Mo	**1299**		1264					
43	Tc	1280		**1241**					
44	Ru	1256		**1212**					
45	Rh	1234		**1185**					
46	Pd	1211		**1159**					
47	Ag	1191	1135	**1129**					
48	Cd		1110	**1103**					
49	In		1084	**1076**					
50	Sn		1058	**1049**					
51	Sb		1032	**1022**					
52	Se		1005	**995**					
53	I		982	**971**					
54	Xe		955	**942**					
55	Cs		931	**918**					
56	Ba		900	**886**					
57	La		867	**854**					
58	Ce			833					

bold number indicate most useful lines

LVV indicated valence level V

MVV when N levels not in core

XPS and X-ray notation used peaks.

quantum number			Notation	
n	l	j	XPS	X-ray
1	0	1/2	1s1/2	K
2	0	1/2	2s1/2	L1
2	1	1/2	2p1/2	L2
2	1	3/2	2p3/2	L3
3	0	1/2	3s1/2	M1
3	1	1/2	3p1/2	M2
3	1	3/2	3p3/2	M3
3	2	3/2	3d3/2	M4
3	2	5/2	3d5/2	M5

59	**Pr**			797														
60	**Nd**			758														
61	**Pm**			714														
62	**Sm**			682														
63	**Eu**			637														
64	**Gd**			602														
65	**Tb**			559	411	26	230											
66	**Dy**			526	368													
67	**Ho**			488	314		117											
68	**Er**			440	273	98	56											
69	**Tm**			398														
70	**Yb**																	
71	**Lu**	$N_5N_{67}N_7$	$N_4N_{67}N_7$															
72	**Hf**	1317	1306															
73	**Ta**	1316	1306															
74	**W**	1320	1307															
75	**Re**	1322	1309															
76	**Ps**	1326	1311															
77	**Ir**	1329	1314															
78	**Pt**	1334	1317	N_5N_7O	N_4N_6O	$N_7O_{45}O_{45}$	$N_6O_{45}O_{45}$											
79	**Au**	1342	1324	1247	1231		1416											
80	**Hg**		1336	1246	1230	1412	1406											
81	**Tl**	1364	1343	1241	1222	1404	1399											
82	**Pb**	1369	1354			1394	1391											
83	**Bi**	$N_5O_{23}V$	$N_{57}O_{45}V$			1387	1383											
90	**Th**	1419	1239			1335	1404											
92	**U**	1412	1204				1386											
93	**Np**																	
94	**Pu**																	
95	**Am**																	
96	**Cm**																	
97	**Bk**																	
98	**Cf**																	