

APPENDIX A

ELECTRON CONFIGURATIONS
OF THE ELEMENTS

Atomic Number			Atomic Number			Atomic Number		
1	H	$1s^1$	40	Zr	$[\text{Kr}] 5s^2 4d^2$	79	Au	$[\text{Xe}] 6s^1 4f^{14} 5d^{10}$
2	He	$1s^2$	41	Nb	$[\text{Kr}] 5s^1 4d^4$	80	Hg	$[\text{Xe}] 6s^2 4f^{14} 5d^{10}$
3	Li	$[\text{He}] 2s^1$	42	Mo	$[\text{Kr}] 5s^1 4d^5$	81	Tl	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^1$
4	Be	$[\text{He}] 2s^2$	43	Tc	$[\text{Kr}] 5s^2 4d^5$	82	Pb	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^2$
5	B	$[\text{He}] 2s^2 2p^1$	44	Ru	$[\text{Kr}] 5s^1 4d^7$	83	Bi	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^3$
6	C	$[\text{He}] 2s^2 2p^2$	45	Rh	$[\text{Kr}] 5s^1 4d^8$	84	Po	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^4$
7	N	$[\text{He}] 2s^2 2p^3$	46	Pd	$[\text{Kr}] 4d^{10}$	85	At	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^5$
8	O	$[\text{He}] 2s^2 2p^4$	47	Ag	$[\text{Kr}] 5s^1 4d^{10}$	86	Rn	$[\text{Xe}] 6s^2 4f^{14} 5d^{10} 6p^6$
9	F	$[\text{He}] 2s^2 2p^5$	48	Cd	$[\text{Kr}] 5s^2 4d^{10}$	87	Fr	$[\text{Rn}] 7s^1$
10	Ne	$[\text{He}] 2s^2 2p^6$	49	In	$[\text{Kr}] 5s^2 4d^{10} 5p^1$	88	Ra	$[\text{Rn}] 7s^2$
11	Na	$[\text{Ne}] 3s^1$	50	Sn	$[\text{Kr}] 5s^2 4d^{10} 5p^2$	89	Ac	$[\text{Rn}] 7s^2 6d^1$
12	Mg	$[\text{Ne}] 3s^2$	51	Sb	$[\text{Kr}] 5s^2 4d^{10} 5p^3$	90	Th	$[\text{Rn}] 7s^2 6d^2$
13	Al	$[\text{Ne}] 3s^2 3p^1$	52	Te	$[\text{Kr}] 5s^2 4d^{10} 5p^4$	91	Pa	$[\text{Rn}] 7s^2 5f^2 6d^1$
14	Si	$[\text{Ne}] 3s^2 3p^2$	53	I	$[\text{Kr}] 5s^2 4d^{10} 5p^5$	92	U	$[\text{Rn}] 7s^2 5f^3 6d^1$
15	P	$[\text{Ne}] 3s^2 3p^3$	54	Xe	$[\text{Kr}] 5s^2 4d^{10} 5p^6$	93	Np	$[\text{Rn}] 7s^2 5f^4 6d^1$
16	S	$[\text{Ne}] 3s^2 3p^4$	55	Cs	$[\text{Xe}] 6s^1$	94	Pu	$[\text{Rn}] 7s^2 5f^6$
17	Cl	$[\text{Ne}] 3s^2 3p^5$	56	Ba	$[\text{Xe}] 6s^2$	95	Am	$[\text{Rn}] 7s^2 5f^7$
18	Ar	$[\text{Ne}] 3s^2 3p^6$	57	La	$[\text{Xe}] 6s^2 5d^1$	96	Cm	$[\text{Rn}] 7s^2 5f^7 6d^1$
19	K	$[\text{Ar}] 4s^1$	58	Ce	$[\text{Xe}] 6s^2 4f^1 5d^1$	97	Bk	$[\text{Rn}] 7s^2 5f^9$
20	Ca	$[\text{Ar}] 4s^2$	59	Pr	$[\text{Xe}] 6s^2 4f^3$	98	Cf	$[\text{Rn}] 7s^2 5f^{10}$
21	Sc	$[\text{Ar}] 4s^2 3d^1$	60	Nd	$[\text{Xe}] 6s^2 4f^4$	99	Es	$[\text{Rn}] 7s^2 5f^{11}$
22	Ti	$[\text{Ar}] 4s^2 3d^2$	61	Pm	$[\text{Xe}] 6s^2 4f^5$	100	Fm	$[\text{Rn}] 7s^2 5f^{12}$
23	V	$[\text{Ar}] 4s^2 3d^3$	62	Sm	$[\text{Xe}] 6s^2 4f^6$	101	Md	$[\text{Rn}] 7s^2 5f^{13}$
24	Cr	$[\text{Ar}] 4s^1 3d^5$	63	Eu	$[\text{Xe}] 6s^2 4f^7$	102	No	$[\text{Rn}] 7s^2 5f^{14}$
25	Mn	$[\text{Ar}] 4s^2 3d^5$	64	Gd	$[\text{Xe}] 6s^2 4f^7 5d^1$	103	Lr	$[\text{Rn}] 7s^2 5f^{14} 6d^1$
26	Fe	$[\text{Ar}] 4s^2 3d^6$	65	Tb	$[\text{Xe}] 6s^2 4f^9$	104	Rf	$[\text{Rn}] 7s^2 5f^{14} 6d^2$
27	Co	$[\text{Ar}] 4s^2 3d^7$	66	Dy	$[\text{Xe}] 6s^2 4f^{10}$	105	Db	$[\text{Rn}] 7s^2 5f^{14} 6d^3$
28	Ni	$[\text{Ar}] 4s^2 3d^8$	67	Ho	$[\text{Xe}] 6s^2 4f^{11}$	106	Sg	$[\text{Rn}] 7s^2 5f^{14} 6d^4$
29	Cu	$[\text{Ar}] 4s^1 3d^{10}$	68	Er	$[\text{Xe}] 6s^2 4f^{12}$	107	Bh	$[\text{Rn}] 7s^2 5f^{14} 6d^5$
30	Zn	$[\text{Ar}] 4s^2 3d^{10}$	69	Tm	$[\text{Xe}] 6s^2 4f^{13}$	108	Hs	$[\text{Rn}] 7s^2 5f^{14} 6d^6$
31	Ga	$[\text{Ar}] 4s^2 3d^{10} 4p^1$	70	Yb	$[\text{Xe}] 6s^2 4f^{14}$	109	Mt	$[\text{Rn}] 7s^2 5f^{14} 6d^7$
32	Ge	$[\text{Ar}] 4s^2 3d^{10} 4p^2$	71	Lu	$[\text{Xe}] 6s^2 4f^{14} 5d^1$	110	Ds	$[\text{Rn}] 7s^2 5f^{14} 6d^8$
33	As	$[\text{Ar}] 4s^2 3d^{10} 4p^3$	72	Hf	$[\text{Xe}] 6s^2 4f^{14} 5d^2$	111	Rg	$[\text{Rn}] 7s^2 5f^{14} 6d^9$
34	Se	$[\text{Ar}] 4s^2 3d^{10} 4p^4$	73	Ta	$[\text{Xe}] 6s^2 4f^{14} 5d^3$	112	Uub	$[\text{Rn}] 7s^2 5f^{14} 6d^{10}$
35	Br	$[\text{Ar}] 4s^2 3d^{10} 4p^5$	74	W	$[\text{Xe}] 6s^2 4f^{14} 5d^4$	113	Uut	$[\text{Rn}] 7s^2 5f^{14} 6d^{10} 7p^1$
36	Kr	$[\text{Ar}] 4s^2 3d^{10} 4p^6$	75	Re	$[\text{Xe}] 6s^2 4f^{14} 5d^5$	114	Uuq	$[\text{Rn}] 7s^2 5f^{14} 6d^{10} 7p^2$
37	Rb	$[\text{Kr}] 5s^1$	76	Os	$[\text{Xe}] 6s^2 4f^{14} 5d^6$	115	Uup	$[\text{Rn}] 7s^2 5f^{14} 6d^{10} 7p^3$
38	Sr	$[\text{Kr}] 5s^2$	77	Ir	$[\text{Xe}] 6s^2 4f^{14} 5d^7$	116	Uuh	$[\text{Rn}] 7s^2 5f^{14} 6d^{10} 7p^4$
39	Y	$[\text{Kr}] 5s^2 4d^1$	78	Pt	$[\text{Xe}] 6s^1 4f^{14} 5d^9$	118	Uuo	$[\text{Rn}] 7s^2 5f^{14} 6d^{10} 7p^6$