

Group IA	Key to Energy Values in keV																VIII					VIIIA		
H 1	IIA																		IIIA	IVA	VA	VIA	VIIA	He 2
0.052 Li 3	0.110 Be 4		<div>K<sub>α1</sub> K<sub>β1</sub> Au 79 L<sub>α1</sub> L<sub>β1</sub></div>																0.185 B 5	0.282 C 6	0.392 N 7	0.526 O 8	0.677 F 9	0.851 Ne 10
1.04 1.07 Na 11	1.25 1.30 Mg 12																		1.49 1.55 Al 13	1.74 1.83 Si 14	2.02 2.14 P 15	2.31 2.46 S 16	2.62 2.82 Cl 17	2.96 3.19 Ar 18
3.31 3.59 K 19	3.69 4.01 Ca 20	4.09 4.46 Sc 21	4.51 4.93 Ti 22	4.95 5.43 V 23	5.41 5.95 Cr 24	5.90 6.49 Mn 25	6.40 7.06 Fe 26	6.93 7.65 Co 27	7.48 8.26 Ni 28	8.05 8.90 Cu 29	8.64 9.57 Zn 30	9.25 10.26 Ga 31	9.89 10.98 Ge 32	10.54 11.73 As 33	11.22 12.50 Se 34	11.92 13.29 Br 35	12.65 14.11 Kr 36							
13.39 14.96 Rb 37	14.16 15.83 Sr 38	14.96 16.74 Y 39	15.77 17.67 Zr 40	16.61 18.62 Nb 41	17.48 19.61 Mo 42	18.41 19.61 Tc 43	19.28 21.66 Ru 44	20.21 22.72 Rh 45	21.18 23.82 Pd 46	22.16 24.94 Ag 47	23.17 26.09 Cd 48	24.21 27.27 In 49	25.27 28.48 Sn 50	26.36 29.72 Sb 51	27.47 30.99 Te 52	28.61 32.29 I 53	29.80 33.64 Xe 54							
30.97 34.98 Cs 55	32.19 36.38 Ba 56	57 - 71	55.76 63.21 Hf 72	57.52 65.21 Ta 73	59.31 67.23 W 74	61.13 69.30 Re 75	62.99 71.40 Os 76	64.89 73.55 Ir 77	66.82 75.74 Pt 78	68.79 77.97 Au 79	70.82 80.26 Hg 80	72.86 82.56 Tl 81	74.96 84.92 Pb 82	77.10 87.34 Bi 83	79.30 89.81 Po 84	81.53 92.32 At 85	83.80 94.88 Rn 86							
86.12 97.48 Fr 87	88.46 100.14 Ra 88	90.89 102.85 Ac 89	93.33 105.59 Th 90	95.85 108.41 Pa 91	98.43 111.29 U 92	101.00 114.18 Np 93	103.65 117.15 Pu 94	106.35 120.16 Am 95	109.10 123.24 Cm 96	111.90 126.36 Bk 97	114.75 129.54 Cf 98	117.65 132.78 Es 99	120.60 136.08 Fm 100	Md 101	No 102	Lr 103	Actinides 90-103							
Lanthanides 57-71		33.44 37.80 La 57	34.72 39.26 Ce 58	36.02 40.75 Pr 59	37.36 42.27 Nd 60	38.65 43.96 Pm 61	40.12 45.40 Sm 62	41.53 47.03 Eu 63	42.98 48.72 Gd 64	44.47 50.39 Tb 65	45.99 52.18 Dy 66	47.53 53.93 Ho 67	49.10 55.69 Er 68	50.73 57.58 Tm 69	52.36 59.35 Yb 70	54.06 61.28 Lu 71								
Actinium - Ac 89 Aluminum - Al 13 Americium - Am 95 Antimony - Sb 51 Argon - Ar 18 Arsenic - As 33 Astatine - At 85 Barium - Ba 56 Berkelium - Bk 97 Beryllium - Be 4 Bismuth - Bi 83 Boron - B 5		Bromine - Br 35 Cadmium - Cd 48 Calcium - Ca 20 Californium - Cf 98 Carbon - C 6 Cerium - Ce 58 Cesium - Cs 55 Chlorine - Cl 17 Chromium - Cr 24 Cobalt - Co 27 Copper - Cu 29 Curium - Cm 96		Dysprosium - Dy 66 Einsteinium - Es 99 Erbium - Er 68 Europium - Eu 63 Fermium - Fm 100 Fluorine - F 9 Francium - Fr 87 Gadolinium - Gd 64 Gallium - Ga 31 Germanium - Ge 32 Gold - Au 79 Hafnium - Hf - 72		Helium - He 2 Holmium - Ho 67 Hydrogen - H 1 Indium - In 49 Iodine - I 53 Iridium - Ir 77 Iron - Fe 26 Krypton - Kr 36 Lanthanum - La 57 Lawrencium - Lr 103 Lead - Pb 82 Lithium - Li 3		Lutetium - Lu 71 Magnesium - Mg 12 Manganese - Mn 25 Mendelevium - Md 101 Mercury - Hg 80 Molybdenum - Mo 42 Neodymium - Nd 60 Neon - Ne 10 Neptunium - Np 93 Nickel - Ni 28 Niobium - Nb 41 Nitrogen - N 7		Nobelium - No 102 Osmium - Os 76 Oxygen - O 8 Palladium - Pd 46 Phosphorus - P 15 Platinum - Pt 78 Plutonium - Pu 94 Polonium - Po 84 Potassium - K 19 Praseodymium - Pr 59 Promethium - Pm 61 Protactinium - Pa 91		Radium - Ra 88 Radon - Rn 86 Rhenium - Re 75 Rhodium - Rh 45 Rubidium - Rb 37 Ruthenium - Ru 44 Samarium - Sm 62 Scandium - Sc 21 Selenium - Se 34 Silicon - Si 14 Silver - Ag 47 Sodium - Na 11		Strontium - Sr 38 Sulphur - S 16 Tantalum - Ta 73 Technetium - Tc 43 Tellurium - Te 52 Terbium - Tb 65 Thallium - Tl 81 Thorium - Th 90 Thulium - Tm 69 Tin - Sn 50 Titanium - Ti 22 Tungsten - W 74		Uranium - U 92 Vanadium - V 23 Xenon - Xe 54 Ytterbium - Yb 70 Yttrium - Y 39 Zinc - Zn 30 Zirconium - Zr 40								