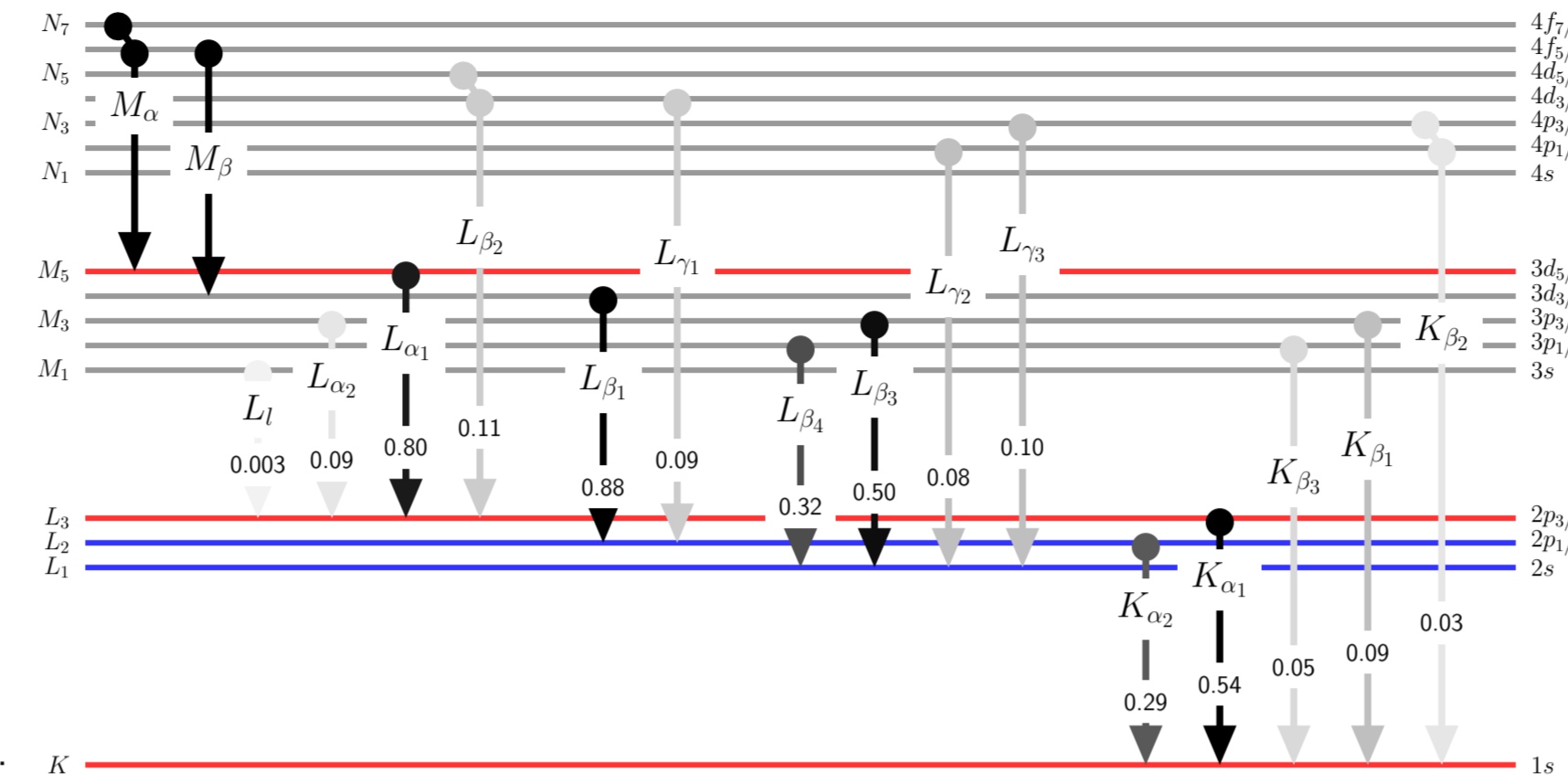


H hydrogen 1 1.0078	He helium 2 4.0026
Li lithium 3 6.94	Be beryllium 4 9.0122
Na sodium 11 22.9898	Mg magnesium 12 24.305
K potassium 19 39.0983	Ca calcium 20 40.078
Rb rubidium 37 85.4678	Sr strontium 38 87.62
Cs cesium 55 132.905	Ba barium 56 137.327
Fr francium 87 223.0	Ra radium 88 226.0

X-ray Absorption and Emission Energies of the Elements



Atomic Data and Energies from
W. T. Elam, B. D. Ravel and J. R. Sieber,
Radiation Physics and Chemistry 63, pp 121-128 (2002)

Common oxidation states from wikipedia.org, after
N. N. Greenwood and A. Earnshaw,
Chemistry of the Elements, 2nd ed. (1997).

All energies in eV.
Emission line strengths are approximate, and vary with element.

Symbol	Z
K edge	K_{α1}
L₁ edge	L_{β3}
L₂ edge	L_{β1}
L₃ edge	L_{α1}
M₅ edge	M_α
Mass	oxidation states

B boron 5 10.81	C carbon 6 12.011	N nitrogen 7 14.007	O oxygen 8 15.999	F fluorine 9 18.9984	Ne neon 10 20.1797
Al aluminum 13 26.9815	Si silicon 14 28.085	P phosphorus 15 30.9738	S sulfur 16 32.06	Cl chlorine 17 35.453	Ar argon 18 39.948
Ga gallium 31 69.72	Ge germanium 32 72.63	As arsenic 33 74.9216	Se selenium 34 78.971	Br bromine 35 79.904	Kr krypton 36 83.798
In indium 49 114.818	Sn tin 50 118.71	Sb antimony 51 121.76	Te tellurium 52 127.6	I iodine 53 126.905	Xe xenon 54 131.293
Tl thallium 81 204.383	Pb lead 82 207.2	Bi bismuth 83 208.98	Po polonium 84 209.0	At astatine 85 210.0	Rn radon 86 222.0

Ce cerium 58 140.116	Pr praseodymium 59 140.908	Nd neodymium 60 144.242	Pm promethium 61 145.0	Sm samarium 62 150.36	Eu europium 63 151.96	Gd gadolinium 64 157.25	Tb terbium 65 158.925	Dy dysprosium 66 162.5	Ho holmium 67 164.93	Er erbium 68 167.259	Tm thulium 69 168.934	Yb ytterbium 70 173.045	Lu lutetium 71 174.967
Th thorium 90 232.038	Pa protactinium 91 231.036	U uranium 92 238.029	Np neptunium 93 237.048	Pu plutonium 94 239.052	Am americium 95 243.0	Cm curium 96 247.0	Bk berkelium 97 247.0	Cf californium 98 251.0	Es einsteinium 99 251.0	Fm fermium 100 251.0	Md mendelevium 101 251.0	No nobelium 102 251.0	Lr lawrencium 103 251.0



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