

Table 4.1. Revised June 2016 by D.E. Groom (LBNL). The atomic number (top left) is the number of protons in the nucleus. The atomic masses (bottom) of stable elements are weighted by isotopic abundances in the Earth’s surface. Atomic masses are relative to the mass of ¹²C, defined to be exactly 12 unified atomic mass units (u) (approx. g/mole). The exceptions are Th, Pa, and U, which have no stable isotopes but do have characteristic terrestrial compositions. Relative isotopic abundances often vary considerably, both in natural and commercial samples; this is reflected in the number of significant figures given for the mass. Masses may be found at http://physics.nist.gov/cgi-bin/Compositions/stand_alone.pl . If there is no stable isotope the atomic mass of the most stable isotope is given in parentheses.

IUPAC announced verification of the discoveries of elements 113, 115, 117, and 118 in December 2015. Provisional names were assigned in June 2016. The 7th period of the periodic table is now complete.

1 IA																	18 VIIIA																		
1 H hydrogen 1.008		2 IIA															13 IIIA		14 IVA		15 VA		16 VIA		17 VIIA		2 He helium 4.002602								
3 Li lithium 6.94		4 Be beryllium 9.012182		PERIODIC TABLE OF THE ELEMENTS														5 B boron 10.81		6 C carbon 12.0107		7 N nitrogen 14.007		8 O oxygen 15.999		9 F fluorine 18.998403163		10 Ne neon 20.1797							
11 Na sodium 22.98976928		12 Mg magnesium 24.305		3 IIIB		4 IVB		5 VB		6 VIB		7 VIIB		8 VIII		9 VIII		10		11 IB		12 IIB		13 Al aluminum 26.9815385		14 Si silicon 28.085		15 P phosphorus 30.973761998		16 S sulfur 32.06		17 Cl chlorine 35.45		18 Ar argon 39.948	
19 K potassium 39.0983		20 Ca calcium 40.078		21 Sc scandium 44.955908		22 Ti titanium 47.867		23 V vanadium 50.9415		24 Cr chromium 51.9961		25 Mn manganese 54.938044		26 Fe iron 55.845		27 Co cobalt 58.933195		28 Ni nickel 58.6934		29 Cu copper 63.546		30 Zn zinc 65.38		31 Ga gallium 69.723		32 Ge germanium 72.630		33 As arsenic 74.921595		34 Se selenium 78.971		35 Br bromine 79.904		36 Kr krypton 83.798	
37 Rb rubidium 85.4678		38 Sr strontium 87.62		39 Y yttrium 88.90584		40 Zr zirconium 91.224		41 Nb niobium 92.90637		42 Mo molybdenum 95.95		43 Tc technetium (97.907212)		44 Ru ruthenium 101.07		45 Rh rhodium 102.90550		46 Pd palladium 106.42		47 Ag silver 107.8682		48 Cd cadmium 112.414		49 In indium 114.818		50 Sn tin 118.710		51 Sb antimony 121.760		52 Te tellurium 127.60		53 I iodine 126.90447		54 Xe xenon 131.293	
55 Cs caesium 132.90545196		56 Ba barium 137.327		57–71 LANTHANA- NIDES		72 Hf hafnium 178.49		73 Ta tantalum 180.94788		74 W tungsten 183.84		75 Re rhenium 186.207		76 Os osmium 190.23		77 Ir iridium 192.217		78 Pt platinum 195.084		79 Au gold 196.966569		80 Hg mercury 200.592		81 Tl thallium 204.38		82 Pb lead 207.2		83 Bi bismuth 208.98040		84 Po polonium (208.98243)		85 At astatine (209.98715)		86 Rn radon (222.01758)	
87 Fr francium (223.01974)		88 Ra radium (226.02541)		89–103 ACTINIDES		104 Rf rutherford. (267.12169)		105 Db dubnium (268.12567)		106 Sg seaborgium (271.13393)		107 Bh bohrium (272.13826)		108 Hs hassium (270.13429)		109 Mt meitnerium (276.15159)		110 Ds darmstadt. (281.16451)		111 Rg roentgen. (280.16514)		112 Cn copernicium (285.17712)		113 Nh (nihonium) (284.17873)		114 Fl flerovium (289.19042)		115 Mc (moscovium) (288.19274)		116 Lv livermorium (293.20449)		117 Ts (tennessine) (292.20746)		118 Og (oganesson) (294.21392)	

Lanthanide series	57 La lanthanum 138.90547	58 Ce cerium 140.116	59 Pr praseodym. 140.90766	60 Nd neodymium 144.242	61 Pm promethium (144.91276)	62 Sm samarium 150.36	63 Eu europium 151.964	64 Gd gadolinium 157.25	65 Tb terbium 158.92535	66 Dy dysprosium 162.500	67 Ho holmium 164.93033	68 Er erbium 167.259	69 Tm thulium 168.93422	70 Yb ytterbium 173.054	71 Lu lutetium 174.9668
Actinide series	89 Ac actinium (227.02775)	90 Th thorium 232.0377	91 Pa protactinium 231.03588	92 U uranium 238.02891	93 Np neptunium (237.04817)	94 Pu plutonium (244.06420)	95 Am americium (243.06138)	96 Cm curium (247.07035)	97 Bk berkelium (247.07031)	98 Cf californium (251.07959)	99 Es einsteinium (252.08298)	100 Fm fermium (257.09511)	101 Md mendelevium (258.09844)	102 No nobelium (259.10103)	103 Lr lawrencium (262.10961)

4. PERIODIC TABLE OF THE ELEMENTS