

1 hydrogen 1 <b>H</b> 1.00794(7)	2 helium 2 <b>He</b> 4.002602(2)	3 lithium 3 <b>Li</b> 6.941(2)	4 beryllium 4 <b>Be</b> 9.012182(3)	5 boron 5 <b>B</b> 10.811(7)	6 carbon 6 <b>C</b> 12.0107(8)	7 nitrogen 7 <b>N</b> 14.00674(7)	8 oxygen 8 <b>O</b> 15.9994(3)	9 fluorine 9 <b>F</b> 18.9984032(5)	10 neon 10 <b>Ne</b> 20.1797(6)	11 sodium 11 <b>Na</b> 22.989770(2)	12 magnesium 12 <b>Mg</b> 24.3050(6)	13 aluminium 13 <b>Al</b> 26.981538(2)	14 silicon 14 <b>Si</b> 28.0855(3)	15 phosphorus 15 <b>P</b> 30.973761(2)	16 sulfur 16 <b>S</b> 32.066(6)	17 chlorine 17 <b>Cl</b> 35.4527(9)	18 argon 18 <b>Ar</b> 39.948(1)	
19 potassium 19 <b>K</b> 39.0983(1)	20 calcium 20 <b>Ca</b> 40.078(4)	21 scandium 21 <b>Sc</b> 44.955910(8)	22 titanium 22 <b>Ti</b> 47.867(1)	23 vanadium 23 <b>V</b> 50.9415(1)	24 chromium 24 <b>Cr</b> 51.9961(6)	25 manganese 25 <b>Mn</b> 54.938049(9)	26 iron 26 <b>Fe</b> 55.845(2)	27 cobalt 27 <b>Co</b> 58.933200(9)	28 nickel 28 <b>Ni</b> 58.6934(2)	29 copper 29 <b>Cu</b> 63.546(3)	30 zinc 30 <b>Zn</b> 65.39(2)	31 gallium 31 <b>Ga</b> 69.723(1)	32 germanium 32 <b>Ge</b> 72.61(2)	33 arsenic 33 <b>As</b> 74.92160(2)	34 selenium 34 <b>Se</b> 78.96(3)	35 bromine 35 <b>Br</b> 79.904(1)	36 krypton 36 <b>Kr</b> 83.80(1)	
37 rubidium 37 <b>Rb</b> 85.4678(3)	38 strontium 38 <b>Sr</b> 87.62(1)	39 yttrium 39 <b>Y</b> 88.90585(2)	40 zirconium 40 <b>Zr</b> 91.224(2)	41 niobium 41 <b>Nb</b> 92.90638(2)	42 molybdenum 42 <b>Mo</b> 95.94(1)	43 technetium 43 <b>Tc</b> [97.9072]	44 ruthenium 44 <b>Ru</b> 101.07(2)	45 rhodium 45 <b>Rh</b> 102.90550(2)	46 palladium 46 <b>Pd</b> 106.42(1)	47 silver 47 <b>Ag</b> 107.8682(2)	48 cadmium 48 <b>Cd</b> 112.411(8)	49 indium 49 <b>In</b> 114.818(3)	50 tin 50 <b>Sn</b> 118.710(7)	51 antimony 51 <b>Sb</b> 121.760(1)	52 tellurium 52 <b>Te</b> 127.60(3)	53 iodine 53 <b>I</b> 126.90447(3)	54 xenon 54 <b>Xe</b> 131.29(2)	
55 caesium 55 <b>Cs</b> 132.90545(2)	56 barium 56 <b>Ba</b> 137.327(7)	57-70 * <b>Lu</b> 174.967(1)	71 lutetium 71 <b>Lu</b> 174.967(1)	72 hafnium 72 <b>Hf</b> 178.49(2)	73 tantalum 73 <b>Ta</b> 180.9479(1)	74 tungsten 74 <b>W</b> 183.84(1)	75 rhenium 75 <b>Re</b> 186.207(1)	76 osmium 76 <b>Os</b> 190.23(3)	77 iridium 77 <b>Ir</b> 192.227(3)	78 platinum 78 <b>Pt</b> 195.078(2)	79 gold 79 <b>Au</b> 196.96655(2)	80 mercury 80 <b>Hg</b> 200.59(2)	81 thallium 81 <b>Tl</b> 204.3833(2)	82 lead 82 <b>Pb</b> 207.2(1)	83 bismuth 83 <b>Bi</b> 208.98038(2)	84 polonium 84 <b>Po</b> [208.9824]	85 astatine 85 <b>At</b> [209.9871]	86 radon 86 <b>Rn</b> [222.0176]
87 francium 87 <b>Fr</b> [223.0197]	88 radium 88 <b>Ra</b> [226.0254]	89-102 ** <b>Lr</b> [262.110]	103 lawrencium 103 <b>Lr</b> [262.110]	104 rutherfordium 104 <b>Rf</b> [263.1125]	105 dubnium 105 <b>Db</b> [262.1144]	106 seaborgium 106 <b>Sg</b> [266.1219]	107 bohrium 107 <b>Bh</b> [264.1247]	108 hassium 108 <b>Hs</b> [269.1341]	109 meitnerium 109 <b>Mt</b> [268.1388]	110 ununnilium 110 <b>Uun</b> [272.1463]	111 unununium 111 <b>Uuu</b> [272.1535]	112 ununbium 112 <b>Uub</b> [277]	114 ununquadium 114 <b>Uuq</b> [289]	116 ununhexium 116 <b>Uuh</b> [289]	118 ununoctium 118 <b>Uuo</b> [293]			

Key:  
 element name  
 atomic number  
 symbol  
 1997 atomic weight (mean relative mass)

\*lanthanoids

\*\*actinoids

lanthanum 57 <b>La</b> 138.9055(2)	cerium 58 <b>Ce</b> 140.116(1)	praseodymium 59 <b>Pr</b> 140.90765(2)	neodymium 60 <b>Nd</b> 144.24(3)	promethium 61 <b>Pm</b> [144.9127]	samarium 62 <b>Sm</b> 150.36(3)	europium 63 <b>Eu</b> 151.964(1)	gadolinium 64 <b>Gd</b> 157.25(3)	terbium 65 <b>Tb</b> 158.92534(2)	dysprosium 66 <b>Dy</b> 162.50(3)	holmium 67 <b>Ho</b> 164.93032(2)	erbium 68 <b>Er</b> 167.26(3)	thulium 69 <b>Tm</b> 168.93421(2)	ytterbium 70 <b>Yb</b> 173.04(3)
actinium 89 <b>Ac</b> [227.0277]	thorium 90 <b>Th</b> 232.0381(1)	protactinium 91 <b>Pa</b> 231.03588(2)	uranium 92 <b>U</b> 238.0289(1)	neptunium 93 <b>Np</b> [237.0482]	plutonium 94 <b>Pu</b> [244.0642]	americium 95 <b>Am</b> [243.0614]	curium 96 <b>Cm</b> [247.0703]	berkelium 97 <b>Bk</b> [247.0703]	californium 98 <b>Cf</b> [251.0796]	einsteinium 99 <b>Es</b> [252.0830]	fermium 100 <b>Fm</b> [257.0951]	mendelevium 101 <b>Md</b> [258.0984]	nobelium 102 <b>No</b> [259.1011]

## Periodic Table of the Elements

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
IA												IIIA	IVA	VA	VIA	VIIA	VIIIA
1 <b>H</b> 1.008																	2 <b>He</b> 4.002
3 <b>Li</b> 6.941	4 <b>Be</b> 9.012											5 <b>B</b> 10.81	6 <b>C</b> 12.01	7 <b>N</b> 14.01	8 <b>O</b> 16.00	9 <b>F</b> 19.00	10 <b>Ne</b> 20.18
11 <b>Na</b> 22.99	12 <b>Mg</b> 24.30											13 <b>Al</b> 26.98	14 <b>Si</b> 28.09	15 <b>P</b> 30.97	16 <b>S</b> 32.06	17 <b>Cl</b> 35.45	18 <b>Ar</b> 39.95
		IIIB	IVB	VB	VIB	VII B	VIII	VIII	VIII	IB	IIB						
19 <b>K</b> 39.10	20 <b>Ca</b> 40.08	21 <b>Sc</b> 44.96	22 <b>Ti</b> 47.90	23 <b>V</b> 50.94	24 <b>Cr</b> 52.00	25 <b>Mn</b> 54.94	26 <b>Fe</b> 55.85	27 <b>Co</b> 58.93	28 <b>Ni</b> 58.70	29 <b>Cu</b> 63.55	30 <b>Zn</b> 65.38	31 <b>Ga</b> 69.72	32 <b>Ge</b> 72.59	33 <b>As</b> 74.92	34 <b>Se</b> 78.96	35 <b>Br</b> 79.90	36 <b>Kr</b> 83.80
37 <b>Rb</b> 85.47	38 <b>Sr</b> 87.62	39 <b>Y</b> 88.91	40 <b>Zr</b> 91.22	41 <b>Nb</b> 92.91	42 <b>Mo</b> 95.94	43 <b>Tc</b> (99)	44 <b>Ru</b> 101.1	45 <b>Rh</b> 102.9	46 <b>Pd</b> 106.4	47 <b>Ag</b> 107.9	48 <b>Cd</b> 112.4	49 <b>In</b> 114.8	50 <b>Sn</b> 118.7	51 <b>Sb</b> 121.8	52 <b>Te</b> 127.6	53 <b>I</b> 126.9	54 <b>Xe</b> 131.3
55 <b>Cs</b> 132.9	56 <b>Ba</b> 137.3	57 <b>La</b> 138.9	72 <b>Hf</b> 178.5	73 <b>Ta</b> 180.9	74 <b>W</b> 183.9	75 <b>Re</b> 186.2	76 <b>Os</b> 190.2	77 <b>Ir</b> 192.2	78 <b>Pt</b> 195.1	79 <b>Au</b> 197.0	80 <b>Hg</b> 200.6	81 <b>Tl</b> 204.4	82 <b>Pb</b> 207.2	83 <b>Bi</b> 209.0	84 <b>Po</b> (209)	85 <b>At</b> (210)	86 <b>Rn</b> (222)
87 <b>Fr</b> (223)	88 <b>Ra</b> 226.0	89 <b>Ac</b> 227.0	104 <b>Rf</b> (261)	105 <b>Db</b> (262)	106 <b>Sg</b> (263)	107 <b>Bh</b> (262)	108 <b>Hs</b> (265)	109 <b>Mt</b> (266)	110 <b>??</b> (269)								

Lanthanide series

58 <b>Ce</b> 140.1	59 <b>Pr</b> 140.9	60 <b>Nd</b> 144.2	61 <b>Pm</b> (147)	62 <b>Sm</b> 150.4	63 <b>Eu</b> 152.0	64 <b>Gd</b> 157.3	65 <b>Tb</b> 158.9	66 <b>Dy</b> 162.5	67 <b>Ho</b> 164.9	68 <b>Er</b> 167.3	69 <b>Tm</b> 168.9	70 <b>Yb</b> 173.0	71 <b>Lu</b> 175.0
90 <b>Th</b> 232.0	91 <b>Pa</b> 231.0	92 <b>U</b> 238.0	93 <b>Np</b> (237)	94 <b>Pu</b> (244)	95 <b>Am</b> (243)	96 <b>Cm</b> (247)	97 <b>Bk</b> (247)	98 <b>Cf</b> (251)	99 <b>Es</b> (252)	100 <b>Fm</b> (257)	101 <b>Md</b> (258)	102 <b>No</b> (259)	103 <b>Lr</b> (260)

Actinide series