

PERIODIC TABLE OF THE ELEMENTS

1 Group IA		2 IIA		New Notation Previous IUPAC Form CAS Version										13 IIIB IIIA	14 IVB IVA	15 VB VA	16 VIB VIA	17 VIIB VIIA	18 VIIIA	Shell						
1 H 1.00794 1																			2 He 4.002602 2							
3 Li 6.941 2-1	4 Be 9.012182 2-2																		5 B 10.811 2-3	6 C 12.0107 2-4	7 N 14.0067 2-5	8 O 15.9994 2-6	9 F 18.9984032 2-7	10 Ne 20.1797 2-8		
11 Na 22.989770 2-8-1	12 Mg 24.3050 2-8-2	3 IIIA IIIB	4 IVA IVB	5 VA VB	6 VIA VIB	7 VIIA VIIB	8 VIIIA VIII	9 VIIIA VIII	10	11 IB IB	12 IIB IIB	13 Al 26.981538 2-8-3	14 Si 28.0855 2-8-4	15 P 30.973761 2-8-5	16 S 32.065 2-8-6	17 Cl 35.453 2-8-7	18 Ar 39.948 2-8-8									
19 K 39.0983 -8-8-1	20 Ca 40.078 -8-8-2	21 Sc 44.955910 -8-9-2	22 Ti 47.867 -8-10-2	23 V 50.9415 -8-11-2	24 Cr 51.9961 -8-13-1	25 Mn 54.938049 -8-13-2	26 Fe 55.845 -8-14-2	27 Co 58.933200 -8-15-2	28 Ni 58.6934 -8-16-2	29 Cu 63.546 -8-18-1	30 Zn 65.409 -8-18-2	31 Ga 69.723 -8-18-3	32 Ge 72.64 -8-18-4	33 As 74.92160 -8-18-5	34 Se 78.96 -8-18-6	35 Br 79.904 -8-18-7	36 Kr 83.798 -8-18-8									
37 Rb 85.4678 -18-8-1	38 Sr 87.62 -18-8-2	39 Y 88.90585 -18-9-2	40 Zr 91.224 -18-10-2	41 Nb 92.90638 -18-12-1	42 Mo 95.94 -18-13-1	43 Tc (98) -18-13-2	44 Ru 101.07 -18-15-1	45 Rh 102.90550 -18-16-1	46 Pd 106.42 -18-18-0	47 Ag 107.8682 -18-18-1	48 Cd 112.411 -18-18-2	49 In 114.818 -18-18-3	50 Sn 118.710 -18-18-4	51 Sb 121.760 -18-18-5	52 Te 127.60 -18-18-6	53 I 126.90447 -18-18-7	54 Xe 131.293 -18-18-8									
55 Cs 132.90545 -18-8-1	56 Ba 137.327 -18-8-2	57* La 138.9055 -18-9-2	72 Hf 178.49 -32-10-2	73 Ta 180.9479 -32-11-2	74 W 183.84 -32-12-2	75 Re 186.207 -32-13-2	76 Os 190.23 -32-14-2	77 Ir 192.217 -32-15-2	78 Pt 195.078 -32-17-1	79 Au 196.96655 -32-18-1	80 Hg 200.59 -32-18-2	81 Tl 204.3833 -32-18-3	82 Pb 207.2 -32-18-4	83 Bi 208.98038 -32-18-5	84 Po (209) -32-18-6	85 At (210) -32-18-7	86 Rn (222) -32-18-8									
87 Fr (223) -18-8-1	88 Ra (226) -18-8-2	89** Ac (227) -18-9-2	104 Rf (261) -32-10-2	105 Db (262) -32-11-2	106 Sg (266) -32-12-2	107 Bh (264) -32-13-2	108 Hs (277) -32-14-2	109 Mt (268) -32-15-2	110 Ds (271) -32-16-2	111 Rg (272)	112 Uub (285)		114 Uuq (289)		116 Uuh (289)											
* Lanthanides		58 Ce 140.116 -19-9-2	59 Pr 140.90765 -21-8-2	60 Nd 144.24 -22-8-2	61 Pm (145) -23-8-2	62 Sm 150.36 -24-8-2	63 Eu 151.964 -25-8-2	64 Gd 157.25 -25-9-2	65 Tb 158.92534 -27-8-2	66 Dy 162.500 -28-8-2	67 Ho 164.93032 -29-8-2	68 Er 167.259 -30-8-2	69 Tm 168.93421 -31-8-2	70 Yb 173.04 -32-8-2	71 Lu 174.967 -32-9-2											
** Actinides		90 Th 232.0381 -18-10-2	91 Pa 231.03588 -20-9-2	92 U 238.02891 -21-9-2	93 Np (237) -22-9-2	94 Pu (244) -24-8-2	95 Am (243) -25-8-2	96 Cm (247) -25-9-2	97 Bk (247)	98 Cf (251) -28-8-2	99 Es (252) -29-8-2	100 Fm (257) -30-8-2	101 Md (258) -31-8-2	102 No (259) -32-8-2	103 Lr (262) -32-8-3											

Key to Chart

Atomic Number → 50
Symbol → Sn
2001 Atomic Weight → 118.710
Oxidation States → +2, +4
Electron Configuration → 18-18-4

The new IUPAC format numbers the groups from 1 to 18. The previous IUPAC numbering system and the system used by Chemical Abstracts Service (CAS) are also shown. For radioactive elements that do not occur in nature, the mass number of the most stable isotope is given in parentheses. Elements 112, 114, and 116 have been reported but not confirmed.

References

- G. J. Leigh, Editor, *Nomenclature of Inorganic Chemistry*, Blackwell Scientific Publications, Oxford, 1990.
- Chemical and Engineering News*, 63(5), 27, 1985.
- Atomic Weights of the Elements, 2001, *Pure & Appl. Chem.*, 75, 1107, 2003.

- Metallic solids
- Non-metallic solids
- Liquids
- Gases