

PERIODIC TABLE OF THE ELEMENTS

GROUP

1 IA **2 IIA** **3 IIIB** **4 IVB** **5 VB** **6 VIB** **7 VIIB** **8** **9** **10** **11 IB** **12 IIB** **13 IIIA** **14 IVA** **15 VA** **16 VIA** **17 VIIA** **18 VIIIA**

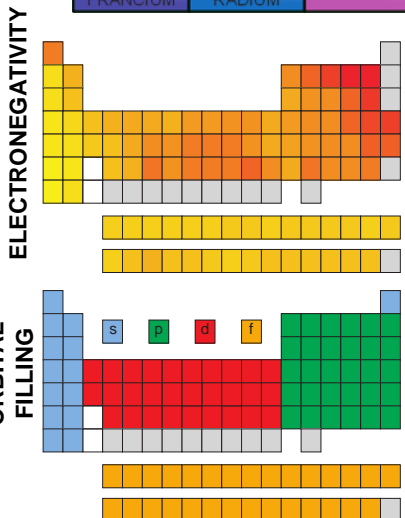
1 1.0079 1s ¹ H HYDROGEN	2 4.0026 1s ² He HELIUM																
3 6.941(2) [He] 2s ¹ Li LITHIUM	4 9.0122 [He] 2s ² Be BERYLLIUM																
11 22.990 [Ne] 3s ¹ Na SODIUM	12 24.305 [Ne] 3s ² Mg MAGNESIUM																
19 39.098 [Ar] 4s ¹ K POTASSIUM	20 40.078 [Ar] 4s ² Ca CALCIUM	39 88.906 [Kr] 4d ¹ 5s ² Y YTTORIUM	40 87.62(1) [Kr] 5s ² Sr STRONTIUM	41 92.906 [Kr] 4d ¹ 5s ¹ Nb NIObIUM	42 95.94(2) [Kr] 4d ⁴ 5s ¹ Mo MOLYBDENUM	43 (98) [Kr] 4d ⁵ 5s ¹ Tc TECHNETIUM	44 101.07(2) [Kr] 4d ⁵ 5s ¹ Ru RUTHENIUM	45 102.906 [Kr] 4d ⁵ 5s ¹ Rh RHODIUM	46 106.42(1) [Kr] 4d ⁸ Pd PALLADIUM	47 107.868 [Kr] 4d ⁹ 5s ¹ Ag SILVER	48 112.411 [Kr] 4d ¹⁰ 5s ¹ Cd CADMIUM	49 114.818 [Kr] 4d ¹⁰ 5s ² 5p ¹ In INDIUM	50 118.710 [Kr] 4d ¹⁰ 5s ² 5p ² Sn TIN	51 121.760 [Kr] 4d ¹⁰ 5s ² 5p ³ Sb ANTIMONY	52 127.60(3) [Kr] 4d ¹⁰ 5s ² 5p ⁴ Te TELLURIUM	53 126.904 [Kr] 4d ¹⁰ 5s ² 5p ⁵ I IODINE	54 131.293 [Kr] 4d ¹⁰ 5s ² 5p ⁶ Xe XENON
55 132.905 [Xe] 6s ¹ Cs CESIUM	56 137.327 [Xe] 6s ² Ba BARIUM	57-71 Lanthanides	72 178.49(2) [Xe] 4f ¹⁴ 5d ² 6s ² Hf HAFNIUM	73 180.947 [Xe] 4f ¹⁴ 5d ³ 6s ² Ta TANTALUM	74 183.84(1) [Xe] 4f ¹⁴ 5d ⁴ 6s ² W TUNGSTEN	75 186.207 [Xe] 4f ¹⁴ 5d ⁵ 6s ² Re RHENIUM	76 190.23(3) [Xe] 4f ¹⁴ 5d ⁶ 6s ² Os OSMIUM	77 192.217 [Xe] 4f ¹⁴ 5d ⁷ 6s ² Ir IRIDIUM	78 195.084 [Xe] 4f ¹⁴ 5d ⁸ 6s ² Pt PLATINUM	79 196.967 [Xe] 4f ¹⁴ 5d ⁹ 6s ¹ Au GOLD	80 200.59(2) [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² Hg MERCURY	81 204.383 [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ¹ Tl THALLIUM	82 207.2(1) [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ² Pb LEAD	83 208.980 [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ³ Bi BISMUTH	84 (209) [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁴ Po POLONIUM	85 (210) [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁵ At ASTATINE	86 (222) [Xe] 4f ¹⁴ 5d ¹⁰ 6s ² 6p ⁶ Rn RADON
87 (223) [Rn] 7s ¹ Fr FRANCIUM	88 (226) [Rn] 7s ² Ra RADIUM	89-103 Actinides	104 (261) Rf RUTHERFORDIUM	105 (262) Db DUBNIUM	106 (266) Sg SEABORGIUM	107 (264) Bh BOHRNIUM	108 (277) Hs HASSIUM	109 (268) Mt MEITNERIUM	110 (281) Ds DARMSTADIUM	111 (272) Rg ROENTGENIUM	112 (285) Cn COPERNICIUM	113 (284) Uut UNUNTRIUM	114 (289) Uuq UNUNQUADIUM	115 (288) Uup UNUNPENTIUM	116 (292) Uuh UNUNHEXIUM	117 Uus* UNUNSEPTIUM	118 (294) Uuo UNUNOCTIUM

RELATIVE ATOMIC MASS (g.mol⁻¹)
ATOMIC NUMBER
ELECTRON CONFIGURATION⁽⁹⁾
ATOMIC SYMBOL
ELEMENT NAME

FAMILY

- Metal
- Alkaline metals
- Alkaline earth metals
- Transition metals
- Lanthanides
- Actinides
- Metalloids
- Chalcogens
- Halogens
- Noble gases

Physical State (25°C, 1 atm)
Ne - gas **Fe** - solid
Hg - liquid **Tc** - Man-made



LANTHANIDES

57 138.905 [Xe] 5d ¹ 6s ² La LANTHANUM	58 140.116 [Xe] 4f ¹ 5d ¹ 6s ² Ce CERIUM	59 140.908 [Xe] 4f ¹ 6s ² Pr PRASEODYMIUM	60 144.242 [Xe] 4f ¹ 6s ² Nd NEODYMIUM	61 (145) [Xe] 4f ¹ 6s ² Pm PROMETHIUM	62 150.36(2) [Xe] 4f ¹ 6s ² Sm SAMARIUM	63 151.964 [Xe] 4f ¹ 6s ² Eu EUROPIUM	64 157.25(3) [Xe] 4f ¹ 5d ¹ 6s ² Gd GADOLINIUM	65 158.925 [Xe] 4f ¹ 6s ² Tb TERBIUM	66 162.500 [Xe] 4f ¹ 6s ² Dy DYSPROSIUM	67 164.930 [Xe] 4f ¹ 6s ² Ho HOLMIUM	68 167.259 [Xe] 4f ¹ 6s ² Er ERBIUM	69 168.934 [Xe] 4f ¹ 6s ² Tm THULIUM	70 173.04(3) [Xe] 4f ¹ 6s ² Yb YTTERIUM	71 174.967 [Xe] 4f ¹ 5d ¹ 6s ² Lu LUTETIUM
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ACTINIDES

89 (227) [Rn] 6d ¹ 7s ² Ac ACTINIUM	90 232.038 [Rn] 6d ² 7s ² Th THORIUM	91 231.036 [Rn] 5f ² 6d ¹ 7s ² Pa PROTACTINIUM	92 238.029 [Rn] 5f ³ 6d ¹ 7s ² U URANIUM	93 (237) [Rn] 5f ³ 6d ¹ 7s ² Np NEPTUNIUM	94 (244) [Rn] 5f ⁶ 7s ² Pu PLUTONIUM	95 (243) [Rn] 5f ⁷ 7s ² Am AMERICIUM	96 (247) [Rn] 5f ⁷ 6d ¹ 7s ² Cm CURIUM	97 (247) [Rn] 5f ⁷ 7s ² Bk BERKELIUM	98 (251) [Rn] 5f ¹⁰ 7s ² Cf CALIFORNIUM	99 (252) [Rn] 5f ¹¹ 7s ² Es EINSTEINIUM	100 (257) [Rn] 5f ¹² 7s ² Fm FERMIUM	101 (258) [Rn] 5f ¹³ 7s ² Md MENDELEVIUM	102 (259) [Rn] 5f ¹⁴ 7s ² No NOBELIUM	103 (262) Lr LAWRENCIUM
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(2) The relative atomic mass is given with five significant digits. For items that do not have a stable radionuclide, the value in parentheses indicates the mass number of the isotope of the element with the longest half-life. However, the three elements Th, Pa and Pu which have a characteristic terrestrial isotopic composition, an atomic weight is indicated.

(3) The electronic configurations for which there is doubt are not given.

(1) Pure & Applied Chemistry, Vol. 78, No. 11, pp. 2051–2066 (2006)
<http://www.iupac.org/publications/pac/2006/pdf/7811x2051.pdf>