

The Periodic Table of the Elements

18

group 1																	18	
period 1	1 H Hydrogen 1.00794 1.008																	2 He Helium 4.002602 4.003
2	3 Li Lithium 6.941 6.942	4 Be Beryllium 9.012182 9.013											5 B Boron 10.811 10.812	6 C Carbon 12.0107 12.011	7 N Nitrogen 14.0064 14.007	8 O Oxygen 15.9994 16.000	9 F Fluorine 18.998403 18.999	10 Ne Neon 20.1797 20.180
3	11 Na Sodium 22.98976 22.991	12 Mg Magnesium 24.3050 24.305											13 Al Aluminum 26.981538 26.982	14 Si Silicon 28.0855 28.086	15 P Phosphorus 30.97376 30.974	16 S Sulfur 32.065 32.066	17 Cl Chlorine 35.453 35.454	18 Ar Argon 39.948 39.949
4	19 K Potassium 39.0983 39.100	20 Ca Calcium 40.078 40.078	21 Sc Scandium 44.95591 44.957	22 Ti Titanium 47.867 47.868	23 V Vanadium 50.9415 50.943	24 Cr Chromium 51.9962 51.998	25 Mn Manganese 54.93804 54.940	26 Fe Iron 55.845 55.847	27 Co Cobalt 58.93319 58.935	28 Ni Nickel 58.6934 58.695	29 Cu Copper 63.546 63.548	30 Zn Zinc 65.38 65.38	31 Ga Gallium 69.723 69.724	32 Ge Germanium 72.64 72.64	33 As Arsenic 74.92160 74.923	34 Se Selenium 78.96 78.97	35 Br Bromine 79.904 79.905	36 Kr Krypton 83.798 83.800
5	37 Rb Rubidium 85.4678 85.470	38 Sr Strontium 87.62 87.63	39 Y Yttrium 88.90585 88.908	40 Zr Zirconium 91.224 91.225	41 Nb Niobium 92.90638 92.908	42 Mo Molybdenum 95.96 95.97	43 Tc Technetium (98) 98.00	44 Ru Ruthenium 101.07 101.08	45 Rh Rhodium 102.9055 102.908	46 Pd Palladium 106.42 106.43	47 Ag Silver 107.8682 107.870	48 Cd Cadmium 112.414 112.415	49 In Indium 114.818 114.820	50 Sn Tin 118.710 118.711	51 Sb Antimony 121.760 121.762	52 Te Tellurium 127.60 127.61	53 I Iodine 126.9044 126.905	54 Xe Xenon 131.293 131.295
6	55 Cs Cesium 132.9054 132.909	56 Ba Barium 137.327 137.330	57 Lu Lutetium 174.9668 174.970	58 Hf Hafnium 178.49 178.50	59 Ta Tantalum 180.9478 180.950	60 W Tungsten 183.84 183.85	61 Re Rhenium 186.207 186.210	62 Os Osmium 190.23 190.24	63 Ir Iridium 192.217 192.220	64 Pt Platinum 195.084 195.088	65 Au Gold 196.9665 196.967	66 Hg Mercury 200.59 200.59	67 Tl Thallium 204.3833 204.385	68 Pb Lead 207.2 207.2	69 Bi Bismuth 208.9804 208.981	70 Po Polonium (210) 210.00	71 At Astatine (210) 210.00	72 Rn Radon (222) 222.00
7	87 Fr Francium (223) 223.00	88 Ra Radium (226) 226.00	89 Lr Lawrencium (261) 261.00	90 Rf Rutherfordium (261) 261.00	91 Db Dubnium (262) 262.00	92 Sg Seaborgium (266) 266.00	93 Bh Bohrium (264) 264.00	94 Hs Hassium (277) 277.00	95 Mt Meitnerium (268) 268.00	96 Ds Darmstadtium (271) 271.00	97 Rg Roentgenium (272) 272.00	98 Cn Copernicium (285) 285.00	99 Uut Ununtrium (284) 284.00	100 Uuq Ununquadium (289) 289.00	101 Uup Ununpentium (288) 288.00	102 Uuh Ununhexium (292) 292.00	103 Uus Ununseptium (291) 291.00	104 Uuo Ununoctium (294) 294.00

atomic mass
or most stable mass number

1st ionization energy
in kJ/mol

chemical symbol

name

electron configuration

atomic number

electronegativity

oxidation states
most common are bold

alkali metals

alkaline metals

other metals

transition metals

lanthanoids

actinoids

metalloids

nonmetals

halogens

noble gases

unknown elements

radioactive elements have
masses in parenthesis



notes

- as of yet, elements 113-118 have no official name designated by the IUPAC.
- 1 kJ/mol = 98.485 eV
- all elements are implied to have an oxidation state of zero.

138.9054 138.91	140.116 140.12	140.9076 140.91	144.242 144.25	(145) 145.0	150.36 150.37	151.964 151.97	157.25 157.26	158.9253 158.93	162.500 162.51	164.9303 164.94	167.259 167.26	168.9342 168.94	173.054 173.06
La Lanthanum [Xe] 5d ¹ 6s ²	Ce Cerium [Xe] 4f ¹ 5d ¹ 6s ²	Pr Praseodymium [Xe] 4f ³ 6s ²	Nd Neodymium [Xe] 4f ⁴ 6s ²	Pm Promethium [Xe] 4f ⁵ 6s ²	Sm Samarium [Xe] 4f ⁶ 6s ²	Eu Europium [Xe] 4f ⁷ 6s ²	Gd Gadolinium [Xe] 4f ⁷ 5d ¹ 6s ²	Tb Terbium [Xe] 4f ⁹ 6s ²	Dy Dysprosium [Xe] 4f ¹⁰ 6s ²	Ho Holmium [Xe] 4f ¹¹ 6s ²	Er Erbium [Xe] 4f ¹² 6s ²	Tm Thulium [Xe] 4f ¹³ 6s ²	Yb Ytterbium [Xe] 4f ¹⁴ 6s ²
(227) 227.0	232.0380 232.04	231.0368 231.04	238.0289 238.03	(237) 237.0	(246) 246.0	(243) 243.0	(247) 247.0	(247) 247.0	(251) 251.0	(252) 252.0	(257) 257.0	(258) 258.0	(259) 259.0
Ac Actinium [Rn] 5f ¹ 6d ¹ 7s ²	Th Thorium [Rn] 6d ² 7s ²	Pa Protactinium [Rn] 5f ² 6d ¹ 7s ²	U Uranium [Rn] 5f ³ 6d ¹ 7s ²	Np Neptunium [Rn] 5f ⁴ 6d ¹ 7s ²	Pu Plutonium [Rn] 5f ⁶ 6d ¹ 7s ²	Am Americium [Rn] 5f ⁷ 6d ¹ 7s ²	Cm Curium [Rn] 5f ⁷ 6d ² 7s ²	Bk Berkelium [Rn] 5f ⁹ 6d ¹ 7s ²	Cf Californium [Rn] 5f ¹⁰ 6d ¹ 7s ²	Es Einsteinium [Rn] 5f ¹¹ 6d ¹ 7s ²	Fm Fermium [Rn] 5f ¹² 6d ¹ 7s ²	Md Mendelevium [Rn] 5f ¹³ 6d ¹ 7s ²	No Nobelium [Rn] 5f ¹⁴ 6d ¹ 7s ²