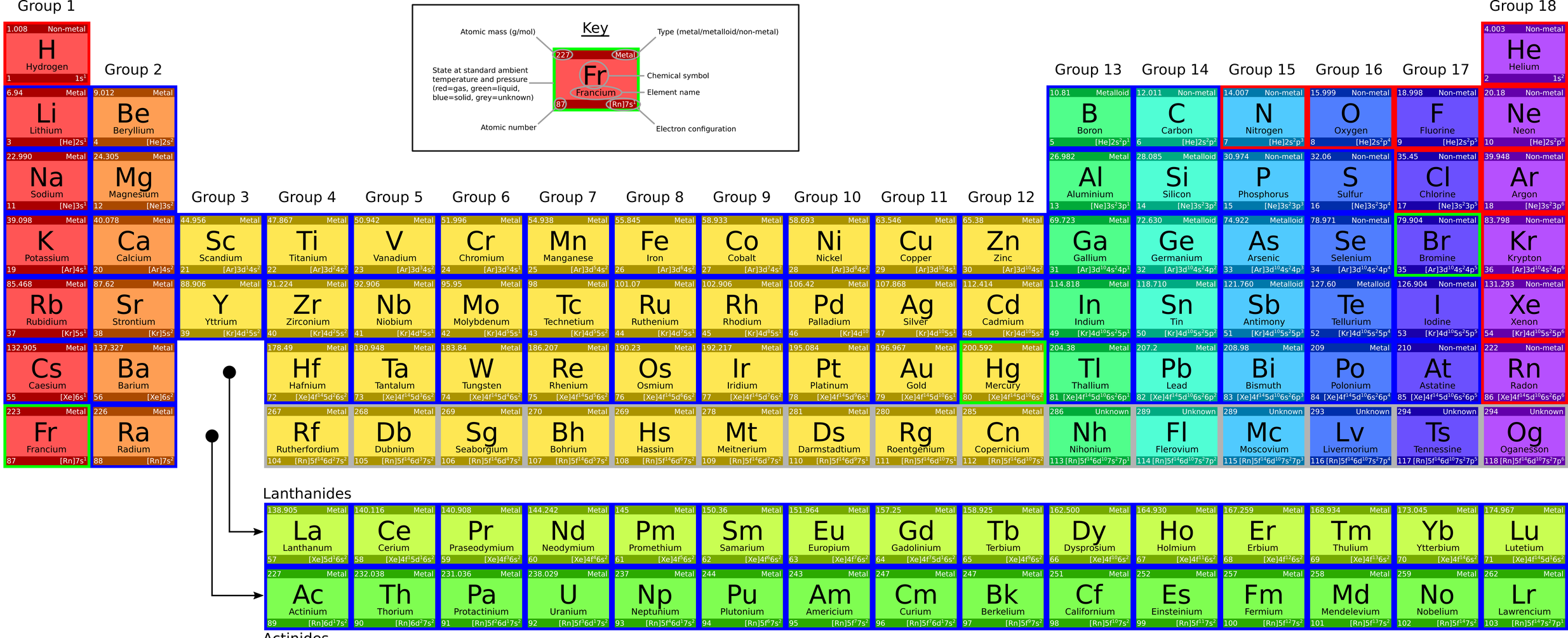
Key
Atomic mass (g/mol)
Type (metal/metalloid/non-metal)
State at standard ambient temperature and pressure (red=gas, green=liquid, blue=solid, grey=unknown)
Chemical symbol
Element name
Atomic number
Electron configuration
227 Metal
Fr
Francium
87 [Rn]7s1
Group 1
Group 2
Group 3
Group 4
Group 5
Group 6
Group 7
Group 8
Group 9
Group 10
Group 11
Group 12
Group 13
Group 14
Group 15
Group 16
Group 17
Group 18
Period 1
Period 2
Period 3
Period 4
Period 5
Period 6
Period 7
1.008 Non-metal H Hydrogen 1 1s1
4.003 Non-metal He Helium 2 1s2
6.94 Metal Li Lithium 3 [He]2s1
9.012 Metal Be Beryllium 4 [He]2s2
10.81 Metalloid B Boron 5 [He]2s22p1
12.011 Non-metal C Carbon 6 [He]2s22p2
14.007 Non-metal N Nitrogen 7 [He]2s22p3
15.999 Non-metal O Oxygen 8 [He]2s22p4
18.998 Non-metal F Fluorine 9 [He]2s22p5
20.18 Non-metal Ne Neon 10 [He]2s22p6
22.990 Metal Na Sodium 11 [Ne]3s1
24.305 Metal Mg Magnesium 12 [Ne]3s2
26.982 Metal Al Aluminium 13 [Ne]3s23p1
28.085 Metalloid Si Silicon 14 [Ne]3s23p2
30.974 Non-metal P Phosphorus 15 [Ne]3s23p3
32.06 Non-metal S Sulfur 16 [Ne]3s23p4
35.45 Non-metal Cl Chlorine 17 [Ne]3s23p5
39.948 Non-metal Ar Argon 18 [Ne]3s23p6
39.098 Metal K Potassium 19 [Ar]4s1
40.078 Metal Ca Calcium 20 [Ar]4s2
44.956 Metal Sc Scandium 21 [Ar]3d14s2
47.867 Metal Ti Titanium 22 [Ar]3d24s2
50.942 Metal V Vanadium 23 [Ar]3d34s2
51.996 Metal Cr Chromium 24 [Ar]3d54s1
54.938 Metal Mn Manganese 25 [Ar]3d54s2
55.845 Metal Fe Iron 26 [Ar]3d64s2
58.933 Metal Co Cobalt 27 [Ar]3d74s2
58.693 Metal Ni Nickel 28 [Ar]3d84s2
63.546 Metal Cu Copper 29 [Ar]3d104s1
65.38 Metal Zn Zinc 30 [Ar]3d104s2
69.723 Metal Ga Gallium 31 [Ar]3d104s24p1
72.630 Metalloid Ge Germanium 32 [Ar]3d104s24p2
74.922 Metalloid As Arsenic 33 [Ar]3d104s24p3
78.971 Non-metal Se Selenium 34 [Ar]3d104s24p4
79.904 Non-metal Br Bromine 35 [Ar]3d104s24p5
83.798 Non-metal Kr Krypton 36 [Ar]3d104s24p6
85.468 Metal Rb Rubidium 37 [Kr]5s1
87.62 Metal Sr Strontium 38 [Kr]5s2
88.906 Metal Y Yttrium 39 [Kr]4d15s2
91.224 Metal Zr Zirconium 40 [Kr]4d25s2
92.906 Metal Nb Niobium 41 [Kr]4d45s1
95.95 Metal Mo Molybdenum 42 [Kr]4d55s1
98 Metal Tc Technetium 43 [Kr]4d55s2
101.07 Metal Ru Ruthenium 44 [Kr]4d75s1
102.906 Metal Rh Rhodium 45 [Kr]4d85s1
106.42 Metal Pd Palladium 46 [Kr]4d10
107.868 Metal Ag Silver 47 [Kr]4d105s1
112.414 Metal Cd Cadmium 48 [Kr]4d105s2
114.818 Metal In Indium 49 [Kr]4d105s25p1
118.710 Metal Sn Tin 50 [Kr]4d105s25p2
121.760 Metalloid Sb Antimony 51 [Kr]4d105s25p3
127.60 Metalloid Te Tellurium 52 [Kr]4d105s25p4
126.904 Non-metal I Iodine 53 [Kr]4d105s25p5
131.293 Non-metal Xe Xenon 54 [Kr]4d105s25p6
132.905 Metal Cs Caesium 55 [Xe]6s1
137.327 Metal Ba Barium 56 [Xe]6s2
178.49 Metal Hf Hafnium 72 [Xe]4f145d26s2
180.948 Metal Ta Tantalum 73 [Xe]4f145d36s2
183.84 Metal W Tungsten 74 [Xe]4f145d46s2
186.207 Metal Re Rhenium 75 [Xe]4f145d56s2
190.23 Metal Os Osmium 76 [Xe]4f145d66s2
192.217 Metal Ir Iridium 77 [Xe]4f145d76s2
195.084 Metal Pt Platinum 78 [Xe]4f145d96s1
196.967 Metal Au Gold 79 [Xe]4f145d106s1
200.592 Metal Hg Mercury 80 [Xe]4f145d106s2
204.38 Metal Tl Thallium 81 [Xe]4f145d106s26p1
207.2 Metal Pb Lead 82 [Xe]4f145d106s26p2
208.98 Metal Bi Bismuth 83 [Xe]4f145d106s26p3
209 Metal Po Polonium 84 [Xe]4f145d106s26p4
210 Non-metal At Astatine 85 [Xe]4f145d106s26p5
222 Non-metal Rn Radon 86 [Xe]4f145d106s26p6
223 Metal Fr Francium 87 [Rn]7s1
226 Metal Ra Radium 88 [Rn]7s2
267 Metal Rf Rutherfordium 104 [Rn]5f146d27s2
268 Metal Db Dubnium 105 [Rn]5f146d37s2
269 Metal Sg Seaborgium 106 [Rn]5f146d47s2
270 Metal Bh Bohrium 107 [Rn]5f146d57s2
269 Metal Hs Hassium 108 [Rn]5f146d67s2
278 Metal Mt Meitnerium 109 [Rn]5f146d77s2
281 Metal Ds Darmstadtium 110 [Rn]5f146d97s1
280 Metal Rg Roentgenium 111 [Rn]5f146d107s1
285 Metal Cn Copernicium 112 [Rn]5f146d107s2
286 Unknown Nh Nihonium 113 [Rn]5f146d107s27p1
289 Unknown Fl Flerovium 114 [Rn]5f146d107s27p2
289 Unknown Mc Moscovium 115 [Rn]5f146d107s27p3
293 Unknown Lv Livermorium 116 [Rn]5f146d107s27p4
294 Unknown Ts Tennessine 117 [Rn]5f146d107s27p5
294 Unknown Og Oganesson 118 [Rn]5f146d107s27p6
Lanthanides
138.905 Metal La Lanthanum 57 [Xe]5d16s2
140.116 Metal Ce Cerium 58 [Xe]4f15d16s2
140.908 Metal Pr Praseodymium 59 [Xe]4f36s2
144.242 Metal Nd Neodymium 60 [Xe]4f46s2
145 Metal Pm Promethium 61 [Xe]4f56s2
150.36 Metal Sm Samarium 62 [Xe]4f66s2
151.964 Metal Eu Europium 63 [Xe]4f76s2
157.25 Metal Gd Gadolinium 64 [Xe]4f75d16s2
158.925 Metal Tb Terbium 65 [Xe]4f96s2
162.500 Metal Dy Dysprosium 66 [Xe]4f106s2
164.930 Metal Ho Holmium 67 [Xe]4f116s2
167.259 Metal Er Erbium 68 [Xe]4f126s2
168.934 Metal Tm Thulium 69 [Xe]4f136s2
173.045 Metal Yb Ytterbium 70 [Xe]4f146s2
174.967 Metal Lu Lutetium 71 [Xe]4f145d16s2
Actinides
227 Metal Ac Actinium 89 [Rn]6d17s2
232.038 Metal Th Thorium 90 [Rn]6d27s2
231.036 Metal Pa Protactinium 91 [Rn]5f26d17s2
238.029 Metal U Uranium 92 [Rn]5f36d17s2
237 Metal Np Neptunium 93 [Rn]5f46d17s2
244 Metal Pu Plutonium 94 [Rn]5f67s2
243 Metal Am Americium 95 [Rn]5f77s2
247 Metal Cm Curium 96 [Rn]5f76d17s2
247 Metal Bk Berkelium 97 [Rn]5f97s2
251 Metal Cf Californium 98 [Rn]5f107s2
252 Metal Es Einsteinium 99 [Rn]5f117s2
257 Metal Fm Fermium 100 [Rn]5f127s2
258 Metal Md Mendelevium 101 [Rn]5f137s2
259 Metal No Nobelium 102 [Rn]5f147s2
262 Metal Lr Lawrencium 103 [Rn]5f147s27p1