

# IUPAC Periodic Table of the Elements

1	2											13	14	15	16	17	18
<b>H</b> hydrogen [1.007; 1.008]	<b>He</b> helium 4.003											<b>B</b> boron [10.80; 10.83]	<b>C</b> carbon [12.00; 12.02]	<b>N</b> nitrogen [14.00; 14.01]	<b>O</b> oxygen [15.99; 16.00]	<b>F</b> fluorine 19.00	<b>Ne</b> neon 20.18
3	4											13	14	15	16	17	18
<b>Li</b> lithium [6.938; 6.997]	<b>Be</b> beryllium 9.012											<b>Al</b> aluminium 26.98	<b>Si</b> silicon [28.08; 28.09]	<b>P</b> phosphorus 30.97	<b>S</b> sulfur [32.05; 32.08]	<b>Cl</b> chlorine [35.44; 35.46]	<b>Ar</b> argon 39.95
11	12											13	14	15	16	17	18
<b>Na</b> sodium 22.99	<b>Mg</b> magnesium 24.31											<b>Al</b> aluminium 26.98	<b>Si</b> silicon [28.08; 28.09]	<b>P</b> phosphorus 30.97	<b>S</b> sulfur [32.05; 32.08]	<b>Cl</b> chlorine [35.44; 35.46]	<b>Ar</b> argon 39.95
19	20	3	4	5	6	7	8	9	10	11	12						
<b>K</b> potassium 39.10	<b>Ca</b> calcium 40.08	<b>Sc</b> scandium 44.96	<b>Ti</b> titanium 47.87	<b>V</b> vanadium 50.94	<b>Cr</b> chromium 52.00	<b>Mn</b> manganese 54.94	<b>Fe</b> iron 55.85	<b>Co</b> cobalt 58.93	<b>Ni</b> nickel 58.69	<b>Cu</b> copper 63.55	<b>Zn</b> zinc 65.38(2)						
37	38	<b>Y</b> yttrium 88.91	<b>Zr</b> zirconium 91.22	<b>Nb</b> niobium 92.91	<b>Mo</b> molybdenum 95.96(2)	<b>Tc</b> technetium	<b>Ru</b> ruthenium 101.1	<b>Rh</b> rhodium 102.9	<b>Pd</b> palladium 106.4	<b>Ag</b> silver 107.9	<b>Cd</b> cadmium 112.4						
55	56	57-71	<b>Hf</b> hafnium 178.5	<b>Ta</b> tantalum 180.9	<b>W</b> tungsten 183.8	<b>Re</b> rhenium 186.2	<b>Os</b> osmium 190.2	<b>Ir</b> iridium 192.2	<b>Pt</b> platinum 195.1	<b>Au</b> gold 197.0	<b>Hg</b> mercury 200.6						
87	88	89-103	<b>Rf</b> rutherfordium 261	<b>Db</b> dubnium 262	<b>Sg</b> seaborgium 263	<b>Bh</b> bohrium 264	<b>Hs</b> hassium 265	<b>Mt</b> meitnerium 266	<b>Ds</b> darmstadtium 267	<b>Rg</b> roentgenium 268	<b>Cn</b> copernicium 269						
1	2											13	14	15	16	17	18
<b>Fr</b> francium 223	<b>Ra</b> radium 226											<b>Ac</b> actinoids	<b>Fl</b> flerovium 289	<b>Mc</b> moscovium 288	<b>Lv</b> livermorium 116	<b>Uu</b> ununoctium 118	<b>Og</b> oganesson 114

Key:

atomic number
<b>Symbol</b>
name
standard atomic weight

## Notes

- IUPAC 2009 Standard atomic weights abridged to four significant digits (Table 4 published in *Pure Appl. Chem.* 83, 359-396 (2011); doi: 10.1351/PAC-REP-10-09-14). The uncertainty in the last digit of the standard atomic weight value is listed in parentheses following the value. In the absence of parentheses, the uncertainty is one in that last digit. An interval in square brackets provides the lower and upper bounds of the standard atomic weight for that element. No values are listed for elements which lack isotopes with a characteristic isotopic abundance in natural terrestrial samples. See PAC for more details.

- "Aluminium" and "caesium" are commonly used alternative spellings for "aluminum" and "caesium".

- Claims for the discovery of all the remaining elements in the last row of the Table, namely elements with atomic numbers 113, 115, 117 and 118, and for which no assignments have yet been made, are being considered by a IUPAC and IUPAP Joint Working Party.

For updates to this table, see [iupac.org/reports/periodic\\_table/](http://iupac.org/reports/periodic_table/). This version is dated 1 June 2012.  
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