Periodic Table of the Elements

| $\overset{2}{\mathrm{Helium}}$ | $\sum_{\substack{\text{Neon}\\20.1797}}^{10}$ | $\overset{18}{\operatorname{Argon}}$ | $\overset{36}{\mathrm{Krypton}}$ | 54 Xenon 131.293 | $\mathop{Rh}\limits^{86}_{\text{Radon}}$ | $\mathop{\rm Oganesson}_{\rm (294)}^{118}$ |
|--|--|---|--|--|---|--|
| | $\frac{\mathbf{p}}{\mathbf{F}}$ Fhorine 18.998403163 | $\sum_{\text{Chlorine}}^{17}$ | $\Pr_{	ext{Bromine}}^{35}$ | $\sum_{\substack{\text{Lodine}\\126.90447}}$ | $\mathop{\mathbf{At}}_{\text{Astatine}}^{85}$ | $\prod_{\text{Temmessine}}^{117}$ |
| | 8 Oxygen 15.99903 | 16 Sulfur 32.059 | Selenium 78.971 | $\prod_{\mathrm{Tellurium}}^{52}$ | 84 PO Polonium (209) | $\sum_{\text{Livermorium}}^{116}$ |
| | $\sum_{\substack{\text{Nitrogen}\\14.00643}}^{7}$ | $\Pr_{\text{Phosphorus}}^{15}$ | $\overset{33}{\mathbf{AS}}$ Arsenic 74.921595 | $\mathop{\mathbf{Sb}}_{\text{Antimony}}^{51}$ | 83 Bi Bismuth 208.98040 | $\overline{\mathbf{MC}}_{\mathrm{Oscovium}}$ |
| | $\bigcap_{\text{Carbon}}^{6}$ | $\overset{14}{\mathbf{Si}}$ | $\mathop{Germanium}^{32}_{\text{Germanium}}$ | $\mathop{\mathbf{Sn}}_{\mathrm{Tin}}^{50}$ | $\Pr_{\text{Lead}\atop 207.2}$ | $\frac{114}{\text{Fl}}$ Flerovium (289) |
| | $\mathop{\mathbf{Boron}}_{10.806}$ | $\mathop{Aluminium}\limits_{26.9815385}$ | $\mathop{Gallium}\limits_{\text{69.723}}$ | $\overset{	ag{1}}{\operatorname{Indium}}$ | 81 Thallium 204.382 | $\mathop{{\rm NIhonium}}_{\rm (286)}$ |
| | | | | $\mathop{\mathrm{Cadmium}}\limits^{48}$ | | |
| | | | $\mathop{\mathrm{Copper}}\limits^{29}_{\mathrm{Copper}}$ | $\overset{47}{A}_{\mathrm{Silver}}^{\mathrm{g}}$ | $\mathop{Au}\limits_{\text{Gold}}^{79}$ | $\mathop{Rg}\limits_{\text{(282)}}^{111}$ |
| | | | $\sum_{\substack{\mathbf{N} \text{idel} \\ 58.6934}}^{28}$ | $\Pr_{\text{Palladium}}^{46}$ | $\Pr_{\text{Platinum}\atop 195.084}^{78}$ | $\sum_{\mathrm{Darmstadtium}}^{\mathrm{110}}$ |
| | name, saw | | $\overset{27}{\text{Cobalt}}$ | $\mathop{\mathrm{Rhodium}}_{102.90550}$ | $\prod_{\substack{	ext{Iridium} \ 	ext{192.217}}}^{77}$ | $M_{ m einerium}^{109}$ |
| | | | 26 Feb Iron 55.845 | $\overset{44}{\mathrm{Ru}}_{\mathrm{uthenium}}$ | 76 Osmium 190.23 | $\mathop{Hassium}\limits_{(269)}$ |
| | $Z={ m atomic}$ number; Sy = Symbol, Name = element = standard / average atomic weight | | $\overline{\sum_{	ext{Manganese}}^{25}}$ | $\prod_{\text{Technetium}\atop{(98)}}^{43}$ | Rhenium 186.207 | $\mathop{Bh}\limits_{\text{Bohrium}}$ |
| | $Z=$ atomic number; $S_{\rm y}=S_{\rm ymbol}$, = standard / average atomic weight | | $\mathop{Cr}_{\text{Chromium}}^{24}$ | ${\displaystyle \bigvee_{\substack{\text{Molybdenum}\\95.95}}}^{42}$ | 74 W Tungsten 183.84 | $\mathbf{S}^{106}_{\mathbf{Seaborgium}}$ |
| | $Z={ m aton} = { m standa}$ | _ | $\sum_{\text{Vanadium}}^{23}$ | $\mathop{\textstyle \sum_{\text{Niobium}}^{41}}_{\text{92.90637}}$ | 73 Ta Tantalum 180.94788 | $\mathop{Dubnium}\limits_{(268)}$ |
| | $\sum_{\substack{N \text{ ame} \\ \text{saw}}}^{\mathbf{Z}}$ | | \prod_{1}^{22} Titanium $_{47.867}$ | $\sum_{	ext{Zirconium}}^{40}$ | 72 Halfnium 178.49 | $\Pr_{	ext{Ruther fordium}} 	ext{104}$ |
| | | | $\overset{21}{\mathrm{Sc}}$ | $\sum_{\substack{\text{Yttrium} \\ 88.90584}}$ | 57-71 * Lanthanides | 89-103 ** Actinides |
| | $\mathop{\mathbf{Beryllium}}^{4}_{\text{Beryllium}}$ | $\displaystyle \sum_{	ext{Magnesium} 24.304}^{12}$ | $\mathop{\text{Calcium}}\limits^{20}_{\text{Calcium}}$ | $\sum_{	ext{Strontium}}^{38}$ | 56 Barium 137.327 | $\mathop{\rm Radium}\limits^{88}_{{\tiny {\rm Radium}}}$ |
| $\coprod_{\text{Hydrogen}\atop 1.00784}$ | $\sum_{\substack{i=1\\6.938}}^3$ | $\overset{11}{\overset{Na}{\operatorname{Nadium}}}_{\text{Sodium}}$ | $\overset{19}{\mathrm{K}}$ Potassium $\overset{39.0983}{}$ | ${{\mathbf{Rb}}\atop{\mathbf{Rb}}}^{37}$ Rubidium 85.4678 | Cesium 132.90545196 | $\Pr_{\text{Francium}}^{87}$ |

| $\overset{57}{La}$ | 58 Cerium 140.116 | $\Pr_{	ext{Praseodymium}}$ | $\mathop{\mathrm{Neodymium}}_{144.242}^{60}$ | $\Pr_{\text{(145)}}^{61}$ | $\mathop{\mathrm{Smarium}}_{150.36}$ | $\overset{63}{\textbf{Europium}}$ | $\overset{64}{Gadolinium}$ | $\prod_{\mathrm{Terbium}}^{65}$ | $\bigcup_{\substack{\text{Dysprosium} \\ 162.500}}$ | 67 HOlmium 164.93033 | $\frac{68}{\text{Erbium}}$ Erbium | 69 TmT Thulium 168.93422 | $\sum_{\mathrm{Ytterbium}}^{70}$ | $\overset{71}{\text{Lutetium}}$ Lutetium 174.9668 |
|-----------------------------|---|---|--|--|--------------------------------------|--|---|------------------------------------|---|---|-------------------------------------|-----------------------------------|--|---|
| $\overset{89}{\mathbf{Ac}}$ | ${\displaystyle \prod_{{ m Thorium}}^{90}}$ | $\overset{91}{Pa}$ Protactinium 231.03588 | 92 Uranium 238.02891 | $\mathop{Neptumium}\limits_{(237)}^{93}$ | Pu Plutonium (244) | $\mathop{\mathrm{Am}}_{\text{Americium}}^{95}$ | $\overset{96}{\mathrm{Curium}}^{\mathrm{Curium}}$ | $\mathop{Brkelium}\limits_{(247)}$ | $\mathop{C_{\rm alifornium}}^{98}$ | $\frac{99}{\text{Einsteinium}}$ (252) | $\mathop{Fm}\limits_{\text{(257)}}$ | $M_{\rm midelevium}^{101}$ | $\sum_{\substack{\text{Nobelium} \\ (259)}}^{102}$ | $\sum_{(266)}^{103}$ |

Standard atomic weights taken from the Commission on Isotopic Abundances and Atomic Weights (ciaaw.org/atomic-weights.htm). Adapted from Ivan Griffin's BAEX Periodic Table. © 2018 Paul Danese

An asterisk (*) next to a subshell indicates an anomalous (Aufbau rule-breaking) ground state electron configuration.