

The Periodic Table of the Elements (with Ionization Energies)

<div style="display: flex; justify-content: space-between;"> 1 18 </div>																																																																																																																											
<table border="1"> <tr> <td>Hydrogen 1 H 1.01 1312</td> <td>2</td> </tr> <tr> <td>Lithium 3 Li 6.94 520</td> <td>Beryllium 4 Be 9.01 900</td> </tr> <tr> <td>Sodium 11 Na 22.99 496</td> <td>Magnesium 12 Mg 24.31 738</td> </tr> <tr> <td>Potassium 19 K 39.10 419</td> <td>Calcium 20 Ca 40.08 590</td> </tr> <tr> <td>Rubidium 37 Rb 85.47 403</td> <td>Strontium 38 Sr 87.62 550</td> </tr> <tr> <td>Caesium 55 Cs 132.91 376</td> <td>Barium 56 Ba 137.33 503</td> </tr> <tr> <td>Francium 87 Fr (223) 380</td> <td>Radium 88 Ra (226) 509</td> </tr> </table>		Hydrogen 1 H 1.01 1312	2	Lithium 3 Li 6.94 520	Beryllium 4 Be 9.01 900	Sodium 11 Na 22.99 496	Magnesium 12 Mg 24.31 738	Potassium 19 K 39.10 419	Calcium 20 Ca 40.08 590	Rubidium 37 Rb 85.47 403	Strontium 38 Sr 87.62 550	Caesium 55 Cs 132.91 376	Barium 56 Ba 137.33 503	Francium 87 Fr (223) 380	Radium 88 Ra (226) 509	<table border="1"> <tr> <td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>Scandium 21 Sc 44.96 633</td> <td>Titanium 22 Ti 47.88 659</td> <td>Vanadium 23 V 50.94 651</td> <td>Chromium 24 Cr 52.00 653</td> <td>Manganese 25 Mn 54.94 717</td> <td>Iron 26 Fe 55.85 763</td> <td>Cobalt 27 Co 58.93 760</td> <td>Nickel 28 Ni 58.69 737</td> <td>Copper 29 Cu 63.55 746</td> <td>Zinc 30 Zn 65.39 906</td> </tr> <tr> <td>Yttrium 39 Y 88.91 600</td> <td>Zirconium 40 Zr 91.22 640</td> <td>Niobium 41 Nb 92.91 652</td> <td>Molybdenum 42 Mo 95.94 684</td> <td>Technetium 43 Tc (98) 702</td> <td>Ruthenium 44 Ru 101.07 710</td> <td>Rhodium 45 Rh 102.91 720</td> <td>Palladium 46 Pd 106.42 804</td> <td>Silver 47 Ag 107.87 731</td> <td>Cadmium 48 Cd 112.41 868</td> </tr> <tr> <td>Lutetium 71 Lu 174.97 524</td> <td>Hafnium 72 Hf 178.49 659</td> <td>Tantalum 73 Ta 180.95 761</td> <td>Tungsten 74 W 183.84 770</td> <td>Rhenium 75 Re 186.21 760</td> <td>Osmium 76 Os 190.23 840</td> <td>Iridium 77 Ir 192.22 880</td> <td>Platinum 78 Pt 195.08 870</td> <td>Gold 79 Au 196.97 890.1</td> <td>Mercury 80 Hg 200.59 1007</td> </tr> <tr> <td>Lawrencium 103 Lr (262) 470</td> <td>Rutherfordium 104 Rf (267) 580</td> <td>Dubnium 105 Db (268) ---</td> <td>Seaborgium 106 Sg (271) ---</td> <td>Bohrium 107 Bh (272) ---</td> <td>Hassium 108 Hs (270) ---</td> <td>Meitnerium 109 Mt (276) ---</td> <td>Darmstadtium 110 Ds (281) ---</td> <td>Roentgenium 111 Rg (280) ---</td> <td>Copernicium 112 Cn (285) ---</td> </tr> </table>										3	4	5	6	7	8	9	10	11	12	Scandium 21 Sc 44.96 633	Titanium 22 Ti 47.88 659	Vanadium 23 V 50.94 651	Chromium 24 Cr 52.00 653	Manganese 25 Mn 54.94 717	Iron 26 Fe 55.85 763	Cobalt 27 Co 58.93 760	Nickel 28 Ni 58.69 737	Copper 29 Cu 63.55 746	Zinc 30 Zn 65.39 906	Yttrium 39 Y 88.91 600	Zirconium 40 Zr 91.22 640	Niobium 41 Nb 92.91 652	Molybdenum 42 Mo 95.94 684	Technetium 43 Tc (98) 702	Ruthenium 44 Ru 101.07 710	Rhodium 45 Rh 102.91 720	Palladium 46 Pd 106.42 804	Silver 47 Ag 107.87 731	Cadmium 48 Cd 112.41 868	Lutetium 71 Lu 174.97 524	Hafnium 72 Hf 178.49 659	Tantalum 73 Ta 180.95 761	Tungsten 74 W 183.84 770	Rhenium 75 Re 186.21 760	Osmium 76 Os 190.23 840	Iridium 77 Ir 192.22 880	Platinum 78 Pt 195.08 870	Gold 79 Au 196.97 890.1	Mercury 80 Hg 200.59 1007	Lawrencium 103 Lr (262) 470	Rutherfordium 104 Rf (267) 580	Dubnium 105 Db (268) ---	Seaborgium 106 Sg (271) ---	Bohrium 107 Bh (272) ---	Hassium 108 Hs (270) ---	Meitnerium 109 Mt (276) ---	Darmstadtium 110 Ds (281) ---	Roentgenium 111 Rg (280) ---	Copernicium 112 Cn (285) ---	<table border="1"> <tr> <td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td> </tr> <tr> <td>Boron 5 B 10.81 801</td> <td>Carbon 6 C 12.01 1087</td> <td>Nitrogen 7 N 14.01 1402</td> <td>Oxygen 8 O 16.00 1314</td> <td>Fluorine 9 F 19.00 1681</td> <td>Neon 10 Ne 20.18 2081</td> </tr> <tr> <td>Aluminum 13 Al 26.98 578</td> <td>Silicon 14 Si 28.09 787</td> <td>Phosphorus 15 P 30.97 1012</td> <td>Sulfur 16 S 32.07 1000</td> <td>Chlorine 17 Cl 35.45 1251</td> <td>Argon 18 Ar 39.95 1521</td> </tr> <tr> <td>Gallium 31 Ga 69.72 579</td> <td>Germanium 32 Ge 72.61 762</td> <td>Arsenic 33 As 74.92 947</td> <td>Selenium 34 Se 78.96 941</td> <td>Bromine 35 Br 79.90 1140</td> <td>Krypton 36 Kr 83.80 1351</td> </tr> <tr> <td>Indium 49 In 114.82 558</td> <td>Tin 50 Sn 118.71 709</td> <td>Antimony 51 Sb 121.76 834</td> <td>Tellurium 52 Te 127.60 869</td> <td>Iodine 53 I 126.90 1008</td> <td>Xenon 54 Xe 131.29 1170</td> </tr> <tr> <td>Thallium 81 Tl 204.38 589</td> <td>Lead 82 Pb 207.20 716</td> <td>Bismuth 83 Bi 208.98 703</td> <td>Polonium 84 Po (209) 812</td> <td>Astatine 85 At (210) 890</td> <td>Radon 86 Rn (222) 1037</td> </tr> <tr> <td>Ununtrium 113 Uut (284) ---</td> <td>Ununquadium 114 Uuq (289) ---</td> <td>Ununpentium 115 Uup (288) ---</td> <td>Ununhexium 116 Uuh (293) ---</td> <td>Ununseptium 117 Uus (294?) ---</td> <td>Ununoctium 118 Uuo (294) ---</td> </tr> </table>						13	14	15	16	17	18	Boron 5 B 10.81 801	Carbon 6 C 12.01 1087	Nitrogen 7 N 14.01 1402	Oxygen 8 O 16.00 1314	Fluorine 9 F 19.00 1681	Neon 10 Ne 20.18 2081	Aluminum 13 Al 26.98 578	Silicon 14 Si 28.09 787	Phosphorus 15 P 30.97 1012	Sulfur 16 S 32.07 1000	Chlorine 17 Cl 35.45 1251	Argon 18 Ar 39.95 1521	Gallium 31 Ga 69.72 579	Germanium 32 Ge 72.61 762	Arsenic 33 As 74.92 947	Selenium 34 Se 78.96 941	Bromine 35 Br 79.90 1140	Krypton 36 Kr 83.80 1351	Indium 49 In 114.82 558	Tin 50 Sn 118.71 709	Antimony 51 Sb 121.76 834	Tellurium 52 Te 127.60 869	Iodine 53 I 126.90 1008	Xenon 54 Xe 131.29 1170	Thallium 81 Tl 204.38 589	Lead 82 Pb 207.20 716	Bismuth 83 Bi 208.98 703	Polonium 84 Po (209) 812	Astatine 85 At (210) 890	Radon 86 Rn (222) 1037	Ununtrium 113 Uut (284) ---	Ununquadium 114 Uuq (289) ---	Ununpentium 115 Uup (288) ---	Ununhexium 116 Uuh (293) ---	Ununseptium 117 Uus (294?) ---	Ununoctium 118 Uuo (294) ---
Hydrogen 1 H 1.01 1312	2																																																																																																																										
Lithium 3 Li 6.94 520	Beryllium 4 Be 9.01 900																																																																																																																										
Sodium 11 Na 22.99 496	Magnesium 12 Mg 24.31 738																																																																																																																										
Potassium 19 K 39.10 419	Calcium 20 Ca 40.08 590																																																																																																																										
Rubidium 37 Rb 85.47 403	Strontium 38 Sr 87.62 550																																																																																																																										
Caesium 55 Cs 132.91 376	Barium 56 Ba 137.33 503																																																																																																																										
Francium 87 Fr (223) 380	Radium 88 Ra (226) 509																																																																																																																										
3	4	5	6	7	8	9	10	11	12																																																																																																																		
Scandium 21 Sc 44.96 633	Titanium 22 Ti 47.88 659	Vanadium 23 V 50.94 651	Chromium 24 Cr 52.00 653	Manganese 25 Mn 54.94 717	Iron 26 Fe 55.85 763	Cobalt 27 Co 58.93 760	Nickel 28 Ni 58.69 737	Copper 29 Cu 63.55 746	Zinc 30 Zn 65.39 906																																																																																																																		
Yttrium 39 Y 88.91 600	Zirconium 40 Zr 91.22 640	Niobium 41 Nb 92.91 652	Molybdenum 42 Mo 95.94 684	Technetium 43 Tc (98) 702	Ruthenium 44 Ru 101.07 710	Rhodium 45 Rh 102.91 720	Palladium 46 Pd 106.42 804	Silver 47 Ag 107.87 731	Cadmium 48 Cd 112.41 868																																																																																																																		
Lutetium 71 Lu 174.97 524	Hafnium 72 Hf 178.49 659	Tantalum 73 Ta 180.95 761	Tungsten 74 W 183.84 770	Rhenium 75 Re 186.21 760	Osmium 76 Os 190.23 840	Iridium 77 Ir 192.22 880	Platinum 78 Pt 195.08 870	Gold 79 Au 196.97 890.1	Mercury 80 Hg 200.59 1007																																																																																																																		
Lawrencium 103 Lr (262) 470	Rutherfordium 104 Rf (267) 580	Dubnium 105 Db (268) ---	Seaborgium 106 Sg (271) ---	Bohrium 107 Bh (272) ---	Hassium 108 Hs (270) ---	Meitnerium 109 Mt (276) ---	Darmstadtium 110 Ds (281) ---	Roentgenium 111 Rg (280) ---	Copernicium 112 Cn (285) ---																																																																																																																		
13	14	15	16	17	18																																																																																																																						
Boron 5 B 10.81 801	Carbon 6 C 12.01 1087	Nitrogen 7 N 14.01 1402	Oxygen 8 O 16.00 1314	Fluorine 9 F 19.00 1681	Neon 10 Ne 20.18 2081																																																																																																																						
Aluminum 13 Al 26.98 578	Silicon 14 Si 28.09 787	Phosphorus 15 P 30.97 1012	Sulfur 16 S 32.07 1000	Chlorine 17 Cl 35.45 1251	Argon 18 Ar 39.95 1521																																																																																																																						
Gallium 31 Ga 69.72 579	Germanium 32 Ge 72.61 762	Arsenic 33 As 74.92 947	Selenium 34 Se 78.96 941	Bromine 35 Br 79.90 1140	Krypton 36 Kr 83.80 1351																																																																																																																						
Indium 49 In 114.82 558	Tin 50 Sn 118.71 709	Antimony 51 Sb 121.76 834	Tellurium 52 Te 127.60 869	Iodine 53 I 126.90 1008	Xenon 54 Xe 131.29 1170																																																																																																																						
Thallium 81 Tl 204.38 589	Lead 82 Pb 207.20 716	Bismuth 83 Bi 208.98 703	Polonium 84 Po (209) 812	Astatine 85 At (210) 890	Radon 86 Rn (222) 1037																																																																																																																						
Ununtrium 113 Uut (284) ---	Ununquadium 114 Uuq (289) ---	Ununpentium 115 Uup (288) ---	Ununhexium 116 Uuh (293) ---	Ununseptium 117 Uus (294?) ---	Ununoctium 118 Uuo (294) ---																																																																																																																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <ul style="list-style-type: none"> Alkali metals Alkaline earth metals Transition metals Lanthanides Actinides Other metals Metalloids (semi-metal) Nonmetals Halogens Noble gases </div> <div style="width: 60%; text-align: center;"> <p>Element name → Mercury ← Atomic #</p> <p>Symbol → Hg ← Avg. Mass</p> <p>First ionization energy (kJ/mol) → 1007</p> </div> </div>																																																																																																																											

*lanthanides

Lanthanum 57 La 138.91 538	Cerium 58 Ce 140.12 534	Praseodymium 59 Pr 140.91 527	Neodymium 60 Nd 144.24 533	Promethium 61 Pm (145) 540	Samarium 62 Sm 150.36 545	Europium 63 Eu 151.97 547	Gadolinium 64 Gd 157.25 593	Terbium 65 Tb 158.93 566	Dysprosium 66 Dy 162.50 573	Holmium 67 Ho 164.93 581	Erbium 68 Er 167.26 589	Thulium 69 Tm 168.93 597	Ytterbium 70 Yb 173.04 603
Actinium 89 Ac (227) 499	Thorium 90 Th 232.04 587	Protactinium 91 Pa 231.04 568	Uranium 92 U 238.03 598	Neptunium 93 Np (237) 605	Plutonium 94 Pu (244) 585	Americium 95 Am (243) 578	Curium 96 Cm (247) 581	Berkelium 97 Bk (247) 601	Californium 98 Cf (251) 608	Einsteinium 99 Es (252) 609	Fermium 100 Fm (257) 627	Mendelevium 101 Md (258) 635	Nobelium 102 No (259) 642

**actinides