

# Periodic Table of the Elements

Metals - form cations (lose e<sup>-</sup>)  
 ↑ More shielding = easier to ionize

Most reactive nonmetal

Nonmetals = form anions (gain e<sup>-</sup>)  
 ↓ More shielding = harder to ionize  
 gases excluding noble

- Alkali Metals
- Alkaline Earth Metals
- Transition Metals
- Metalloids
- Nonmetals
- Halogens
- Noble Gases

Metals

Type II

Hydrogen 1 1.0079	Helium 2 4.0026																
Lithium 3 6.941	Beryllium 4 9.0122	Boron 5 10.811	Carbon 6 12.011	Nitrogen 7 14.007	Oxygen 8 15.999	Fluorine 9 18.998	Neon 10 20.180	Sodium 11 22.990	Magnesium 12 24.305	Aluminum 13 26.982	Silicon 14 28.086	Phosphorus 15 30.974	Sulfur 16 32.065	Chlorine 17 35.463	Argon 18 39.948		
Potassium 19 39.098	Calcium 20 40.078	Scandium 21 44.956	Titanium 22 47.867	Vanadium 23 50.942	Chromium 24 51.996	Manganese 25 54.938	Iron 26 55.845	Cobalt 27 58.933	Nickel 28 58.693	Copper 29 63.546	Zinc 30 65.39	Gallium 31 69.723	Germanium 32 72.61	Arsenic 33 74.922	Selenium 34 78.96	Bromine 35 79.904	Krypton 36 83.80
Rubidium 37 85.468	Strontium 38 87.62	Yttrium 39 88.906	Zirconium 40 91.224	Niobium 41 92.906	Molybdenum 42 95.94	Technetium 43 [98]	Ruthenium 44 101.07	Rhodium 45 102.91	Palladium 46 106.42	Silver 47 107.87	Cadmium 48 112.41	Indium 49 114.82	Tin 50 118.71	Antimony 51 121.76	Tellurium 52 127.60	Iodine 53 126.90	Xenon 54 131.29
Cesium 55 132.91	Barium 56 137.33	Lanthanum 57 138.91	Hafnium 72 178.49	Tantalum 73 180.95	Tungsten 74 183.84	Rhenium 75 186.21	Osmium 76 190.23	Iridium 77 192.22	Platinum 78 195.08	Gold 79 196.97	Mercury 80 200.59	Thallium 81 204.38	Lead 82 207.2	Bismuth 83 208.98	Polonium 84 [209]	Astatine 85 [210]	Radon 86 [222]
Francium 87 [223]	Radium 88 [226]	Actinium 89 [227]	Rutherfordium 104 [261]	Dubnium 105 [262]	Seaborgium 106 [263]	Bohrium 107 [264]	Hassium 108 [265]	Mtnerium 109 [266]	Ununnilium 110 [267]	Ununnilium 111 [268]	Ununnilium 112 [269]	Ununnilium 113 [270]	Ununnilium 114 [271]	Ununnilium 115 [272]	Ununnilium 116 [273]	Ununnilium 117 [274]	Ununnilium 118 [275]

Type I  
 \* Lanthanide series  
 \*\* Actinide series  
 Most Reactive Metal

Lanthanum 57 138.91	Cerium 58 140.12	Praseodymium 59 140.91	Niodymium 60 144.24	Promethium 61 [145]	Samarium 62 150.36	Europium 63 151.96	Gadolinium 64 157.25	Terbium 65 158.93	Dysprosium 66 162.50	Holmium 67 164.93	Erbium 68 167.26	Thulium 69 168.93	Ytterbium 70 173.04
Actinium 89 [227]	Thorium 90 232.04	Protactinium 91 231.04	Uranium 92 238.03	Neptunium 93 [237]	Plutonium 94 [244]	Americium 95 [243]	Berkelium 96 [247]	Californium 97 [251]	Einsteinium 98 [252]	Fermium 99 [257]	Mendelevium 100 [258]	Nobelium 101 [259]	No

Parent Trends:  
 • Nuclear Charge - + charge of nucleus due to protons

