

STUDENT ELEMENT SHEET

| ELEMENT | SYMBOL | AT. WT. | VALENCE |
|----------|--------|---------|----------------|
| Aluminum | Al | 27 | 3 |
| Antimony | Sb | 122 | 3, 5 |
| Argon | Ar | 40 | 0 |
| Arsenic | As | 75 | 3, 5, -3 |
| Barium | Ba | 137 | 2 |
| Bismuth | Bi | 209 | 3, 5 |
| Boron | B | 11 | 3 |
| Bromine | Br | 80 | -1, 1 5 |
| Cadmium | Cd | 112 | 2 |
| Calcium | Ca | 40 | 2 |
| Carbon | C | 12 | 4, -4 |
| Cesium | Cs | 133 | 1 |
| Chlorine | Cl | 35 | -1, 1, 3, 5, 7 |
| Chromium | Cr | 52 | 2, 3, 6 |
| Cobalt | Co | 59 | 2, 3 |
| Copper | Cu | 64 | 1, 2 |
| Fluorine | F | 19 | -1 |
| Francium | Fr | 223 | 1 |
| Gold | Au | 197 | 1, 3 |
| Helium | He | 4 | 0 |
| Hydrogen | H | 1 | 1 |
| Iodine | I | 127 | -1, 3, 5, 7 |
| Iron | Fe | 56 | 2, 3 |
| Krypton | Kr | 84 | 0 |
| Lead | Pb | 207 | 2, 4 |

| ELEMENT | SYMBOL | AT. WT. | VALENCE |
|-------------|--------|---------|-------------------|
| Lithium | Li | 7 | 1 |
| Magnesium | Mg | 24 | 2 |
| Manganese | Mn | 55 | 2, 4, 6, 7 |
| Mercury | Hg | 207 | 1, 2 |
| Neon | Ne | 20 | 0 |
| Nickel | Ni | 59 | 2, 3 |
| Nitrogen | N | 14 | -3, 1, 2, 3, 4, 5 |
| Osmium | Os | 190 | 2, 4, 6, 8 |
| Oxygen | O | 16 | -2 |
| Phosphorous | P | 31 | -3, 3, 5 |
| Platinum | Pt | 195 | 2, 4 |
| Potassium | K | 39 | 1 |
| Radium | Ra | 226 | 2 |
| Radon | Rn | 222 | 0 |
| Rubidium | Rb | 85 | 1 |
| Silicon | Si | 28 | 4, -4 |
| Silver | Ag | 108 | 1 |
| Sodium | Na | 23 | 1 |
| Strontium | Sr | 88 | 2 |
| Sulfur | S | 32 | -2, 4, 6 |
| Tin | Sn | 119 | 2, 4 |
| Titanium | Ti | 48 | 3, 4 |
| Tungsten | W | 184 | 6 |
| Uranium | U | 238 | 6 |
| Zinc | Zn | 65 | 2 |

NEGATIVE VALENT ELEMENTS AND COMMON RADICALS

| SYMBOL | NAME | VALENCE |
|-------------|----------------------|---------|
| $C_2H_3O_2$ | Acetate Radical | -1 |
| NH_4 | Ammonium Radical | +1 |
| HCO_3 | Bicarbonate Radical | -1 |
| HSO_4 | Bisulfate Radical | -1 |
| HSO_3 | Bisulfite Radical | -1 |
| BO_3 | Borate Radical | -3 |
| Br | Bromide | -1 |
| CO_3 | Carbonate Radical | -2 |
| ClO_3 | Chlorate Radical | -1 |
| Cl | Chloride | -1 |
| ClO_2 | Chlorite Radical | -1 |
| CrO_4 | Chromate Radical | -2 |
| CN | Cyanide radical | -1 |
| Cr_2O_7 | Dichromate radical | -2 |
| F | Fluoride | -1 |
| OH | Hydroxide Radical | -1 |
| ClO | Hypochlorite Radical | -1 |
| I | Iodide | -1 |
| N | Nitride | -3 |
| NO_3 | Nitrate Radical | -1 |
| NO_2 | Nitrite Radical | -1 |
| C_2O_4 | Oxalate Radical | -2 |
| O | Oxide | -2 |
| ClO_4 | Perchlorate Radical | -1 |
| O_2 | Peroxide Radical | -2 |
| MnO_4 | Permanganate Radical | -1 |
| P | Phosphide | -3 |
| PO_4 | Phosphate Radical | -3 |
| PO_3 | Phosphite Radical | -3 |
| SO_4 | Sulfate Radical | -2 |
| SO_3 | Sulfite Radical | -2 |
| S | Sulfide | -2 |
| SCN | Thiocyanate Radical | -1 |