

# Chemistry “Must Knows”

## Greek Prefixes

### Twins

(used to name *molecular* compounds)

|       |    |
|-------|----|
| mono  | 1  |
| di    | 2  |
| tri   | 3  |
| tetra | 4  |
| penta | 5  |
| hexa  | 6  |
| hepta | 7  |
| octa  | 8  |
| nona  | 9  |
| deca  | 10 |

## Diatomic Molecules- the BrINCIOHF

(only use when these *elements* are by themselves)

|          |                 |
|----------|-----------------|
| Bromine  | Br <sub>2</sub> |
| Iodine   | I <sub>2</sub>  |
| Nitrogen | N <sub>2</sub>  |
| Chlorine | Cl <sub>2</sub> |
| Hydrogen | H <sub>2</sub>  |
| Oxygen   | O <sub>2</sub>  |
| Fluorine | F <sub>2</sub>  |

## Common Elements and their Symbols

|              |              |              |              |
|--------------|--------------|--------------|--------------|
| Aluminum Al  | Antimony Sb  | Argon Ar     | Arsenic As   |
| Barium Ba    | Beryllium Be | Boron B      | Bromine Br   |
| Calcium Ca   | Carbon C     | Cesium Cs    | Chlorine Cl  |
| Chromium Cr  | Cobalt Co    | Copper Cu    | Fluorine F   |
| Gold Au      | Helium He    | Hydrogen H   | Iodine I     |
| Iron Fe      | Krypton Kr   | Lead Pb      | Lithium Li   |
| Magnesium Mg | Manganese Mn | Mercury Hg   | Neon Ne      |
| Nickel Ni    | Nitrogen N   | Oxygen O     | Palladium Pd |
| Phosphorus P | Platinum Pt  | Plutonium Pu | Potassium K  |
| Radium Ra    | Radon Rn     | Selenium Se  | Silicon Si   |
| Tin Sn       | Tungsten W   | Uranium U    | Xenon Xe     |
| Silver Ag    | Sodium Na    | Strontium Sr | Sulfur S     |
| Zinc Zn      | Zirconium Zr |              |              |

## Common Polyatomic Ions

|  |   |  |  |   |  |
|--|---|--|--|---|--|
| Acetate C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-1</sup> |   | Ammonium NH <sub>4</sub> <sup>+1</sup>                             |  | Phosphate PO <sub>4</sub> <sup>-3</sup>             |  |
| Nitrite NO <sub>2</sub> <sup>-1</sup>                              |   | Nitrate NO <sub>3</sub> <sup>-1</sup>                              |  | Cyanide CN <sup>-1</sup>                            |  |
| Hypochlorite ClO <sup>-1</sup>                                     | Chlorite ClO <sub>2</sub> <sup>-1</sup> | Chlorate ClO <sub>3</sub> <sup>-1</sup>                            |  | Perchlorate ClO <sub>4</sub> <sup>-1</sup>          |  |
| Carbonate CO <sub>3</sub> <sup>-2</sup>                            |   | Hydrogen Carbonate HCO <sub>3</sub> <sup>-1</sup><br>(bicarbonate) |  | Oxalate C <sub>2</sub> O <sub>4</sub> <sup>-2</sup> |  |
| Chromate CrO <sub>4</sub> <sup>-2</sup>                            |   | Dichromate Cr <sub>2</sub> O <sub>7</sub> <sup>-2</sup>            |  | Hydroxide OH <sup>-1</sup>                          |  |
| Sulfite SO <sub>3</sub> <sup>-2</sup>                              |   | Sulfate SO <sub>4</sub> <sup>-2</sup>                              |  | Permanganate MnO <sub>4</sub> <sup>-1</sup>         |  |

