

### Common Nonmetallic ROOTS

|             |                |
|-------------|----------------|
| H = hydr-   | B = bor-       |
| C = carb-   | N = nitr-      |
| O = ox-     | F = fluor-     |
| Si = silic- | P = phosph-    |
| S = sulf-   | Cl = chlor-    |
| As = arsen- | Se = selen-    |
| Br = brom-  | Sb = antimony- |
| I = iod-    |                |



### Common NONMETAL Ions

|                           |                           |
|---------------------------|---------------------------|
| S <sup>2-</sup> sulfide   | Br <sup>1-</sup> bromide  |
| F <sup>1-</sup> fluoride  | H <sup>1-</sup> hydride   |
| Cl <sup>1-</sup> chloride | I <sup>1-</sup> iodide    |
| P <sup>3-</sup> phosphide | O <sup>2-</sup> oxide     |
| N <sup>3-</sup> nitride   | Se <sup>3-</sup> selenide |

### Greek PREFIXES

|             |              |
|-------------|--------------|
| mono- one   | hexa- six    |
| di- two     | hepta- seven |
| tri- three  | octa- eight  |
| tetra- four | nona- nine   |
| penta- five | deca- ten    |

### Common METAL Ions

|                                                        |                                 |
|--------------------------------------------------------|---------------------------------|
| Cu <sup>+</sup> copper (I) (cuprous)                   | Mn <sup>2+</sup> manganese (II) |
| Cu <sup>2+</sup> copper (II) (cupric)                  | Ni <sup>2+</sup> nickel (II)    |
| Fe <sup>2+</sup> iron (II) (ferrous)                   | Cr <sup>2+</sup> chromium (II)  |
| Fe <sup>3+</sup> iron (III) (ferric)                   | Cr <sup>3+</sup> chromium (III) |
| Hg <sub>2</sub> <sup>2+</sup> mercury (I) (mercurious) | Co <sup>2+</sup> cobalt (II)    |
| Hg <sup>2+</sup> mercury (II) (mercuric)               |                                 |
| Pb <sup>2+</sup> lead (II) (plumbous)                  |                                 |
| Pb <sup>4+</sup> lead (IV) (plumbic)                   |                                 |
| Sn <sup>2+</sup> tin (II) (stannous)                   |                                 |
| Sn <sup>4+</sup> tin (IV) (stannic)                    |                                 |

## Polyatomic Ions

|                                                                                                           |                                                             |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| BO <sub>3</sub> <sup>3-</sup> borate ion                                                                  |                                                             |
| BrO <sub>3</sub> <sup>-</sup> bromate ion                                                                 |                                                             |
| BrO <sub>4</sub> <sup>-</sup> perbromate                                                                  |                                                             |
| B <sub>4</sub> O <sub>7</sub> <sup>2-</sup> tetraborate                                                   |                                                             |
| C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup> acetate ion (CH <sub>3</sub> COO <sup>-</sup> ) |                                                             |
| C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> <sup>3-</sup> citrate ion                                    |                                                             |
| ClO <sup>-</sup> hypochlorite ion                                                                         |                                                             |
| ClO <sub>2</sub> <sup>-</sup> chlorite ion                                                                |                                                             |
| ClO <sub>3</sub> <sup>-</sup> chlorate ion                                                                |                                                             |
| ClO <sub>4</sub> <sup>-</sup> perchlorate ion                                                             |                                                             |
| CN <sup>-</sup> cyanide ion                                                                               |                                                             |
| CO <sub>3</sub> <sup>2-</sup> carbonate ion                                                               |                                                             |
| C <sub>2</sub> O <sub>4</sub> <sup>2-</sup> oxalate ion                                                   |                                                             |
| CrO <sub>4</sub> <sup>2-</sup> chromate ion                                                               |                                                             |
| Cr <sub>2</sub> O <sub>7</sub> <sup>2-</sup> dichromate ion                                               |                                                             |
| HPO <sub>4</sub> <sup>2-</sup> hydrogen phosphate ion                                                     |                                                             |
| HSO <sub>4</sub> <sup>-</sup> hydrogen sulfate ion                                                        |                                                             |
| HCO <sub>3</sub> <sup>-</sup> hydrogen carbonate ion                                                      |                                                             |
| H <sub>2</sub> PO <sub>4</sub> <sup>-</sup> dihydrogen phosphate ion                                      |                                                             |
| IO <sup>-</sup> hypiodite ion                                                                             |                                                             |
| IO <sub>2</sub> <sup>-</sup> iodite ion                                                                   |                                                             |
| IO <sub>3</sub> <sup>-</sup> iodate ion                                                                   |                                                             |
| IO <sub>4</sub> <sup>-</sup> periodate ion                                                                |                                                             |
| MnO <sub>4</sub> <sup>-</sup> permanganate ion                                                            |                                                             |
| NH <sub>4</sub> <sup>+</sup> ammonium ion                                                                 | SeO <sub>3</sub> <sup>2-</sup> selenite ion                 |
| NO <sub>2</sub> <sup>-</sup> nitrite ion                                                                  | SeO <sub>4</sub> <sup>2-</sup> selenate ion                 |
| NO <sub>3</sub> <sup>-</sup> nitrate ion                                                                  | SiO <sub>4</sub> <sup>4-</sup> silicate ion                 |
| O <sub>2</sub> <sup>2-</sup> peroxide ion                                                                 | S <sub>2</sub> O <sub>3</sub> <sup>2-</sup> thiosulfate ion |
| OH <sup>-</sup> hydroxide ion                                                                             | SO <sub>3</sub> <sup>2-</sup> sulfite ion                   |
| PO <sub>3</sub> <sup>3-</sup> phosphite ion                                                               | SO <sub>4</sub> <sup>2-</sup> sulfate ion                   |
| PO <sub>4</sub> <sup>3-</sup> phosphate ion                                                               | SCN <sup>-</sup> thiocyanate ion                            |