

## COMMON IONS AND THEIR CHARGES

CATIONS				ANIONS									
+1		+2		+3		+4		-1		-2		-3	
H <sup>+1</sup> Hydrogen Li <sup>+1</sup> Lithium Na <sup>+1</sup> Sodium K <sup>+1</sup> Potassium Ag <sup>+1</sup> Silver Au <sup>+1</sup> Gold Cu <sup>+1</sup> Copper I (Cuprous) NH <sub>4</sub> <sup>+1</sup> Ammonium H <sub>3</sub> O <sup>+1</sup> Hydronium O <sub>2</sub> <sup>+1</sup> Dioxygenyl	Be <sup>+2</sup> Mg <sup>+2</sup> Ca <sup>+2</sup> Sr <sup>+2</sup> Ba <sup>+2</sup> Ra <sup>+2</sup> Zn <sup>+2</sup> Cu <sup>+2</sup> Copper II (Cupric) Ni <sup>+2</sup> Nickel II (Nickellous) Pb <sup>+2</sup> Lead II (Plumbous) Sn <sup>+2</sup> Tin II (Stannous) Hg <sup>+2</sup> Mercury II (Mercuric) Fe <sup>+2</sup> Iron II (Ferrous) Co <sup>+2</sup> Cobalt II (Cobaltous) *Hg <sub>2</sub> <sup>+2</sup> Mercury I (Mercurous) Hg <sup>+2</sup> Mercury II (Mercuric) CrO <sub>2</sub> <sup>+2</sup> Chromyl	Al <sup>+3</sup> Aluminum Cr <sup>+3</sup> Chrom- ium III (Chrom- ous) Fe <sup>+3</sup> Iron III (Ferric) Ni <sup>+3</sup> Nickel III (Nickellic) Co <sup>+3</sup> Cobalt III (Cobaltic) As <sup>+3</sup> Arsenic III Bi <sup>+3</sup> Bismuth III	Sn <sup>+4</sup> Tin IV (Stannic) Pb <sup>+4</sup> Lead IV (Plumbic) Cr <sup>+4</sup> Chrom- ium IV (Chromic)  <div style="text-align: center;"><b>+5</b></div> As <sup>+5</sup> Arsenic V Bi <sup>+5</sup> Bismuth V	F <sup>-1</sup> Fluoride Cl <sup>-1</sup> Chloride Br <sup>-1</sup> Bromide I <sup>-1</sup> Iodide C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-1</sup> Acetate OH <sup>-1</sup> Hydroxide CN <sup>-1</sup> Cyanide MnO <sub>4</sub> <sup>-1</sup> Permanganate NO <sub>3</sub> <sup>-1</sup> Nitrate NO <sub>2</sub> <sup>-1</sup> Nitrite ClO <sup>-1</sup> Hypochlorite ClO <sub>2</sub> <sup>-1</sup> Chlorite ClO <sub>3</sub> <sup>-1</sup> Chlorate ClO <sub>4</sub> <sup>-1</sup> Perchlorate HSO <sub>4</sub> <sup>-1</sup> Hydrogen- sulfate HSO <sub>3</sub> <sup>-1</sup> Hydrogen- sulfite HCO <sub>3</sub> <sup>-1</sup> Hydrogen- carbonate HS <sup>-1</sup> Hydrogen- sulfide H <sub>2</sub> PO <sub>4</sub> <sup>-1</sup> Dihydrogen phosphate SCN <sup>-1</sup> Thiocyanate IO <sub>2</sub> <sup>-1</sup> Iodite IO <sub>3</sub> <sup>-1</sup> Iodate IO <sub>4</sub> <sup>-1</sup> Periodate BrO <sub>3</sub> <sup>-1</sup> Bromate O <sub>2</sub> <sup>-1</sup> Superoxide NH <sub>2</sub> <sup>-1</sup> Amide HCO <sub>2</sub> <sup>-1</sup> Formate	O <sup>-2</sup> Oxide S <sup>-2</sup> Sulfide CO <sub>3</sub> <sup>-2</sup> Carbonate SO <sub>4</sub> <sup>-2</sup> Sulfate SO <sub>3</sub> <sup>-2</sup> Sulfite CrO <sub>4</sub> <sup>-2</sup> Chromate Cr <sub>2</sub> O <sub>7</sub> <sup>-2</sup> Dichromate C <sub>2</sub> O <sub>4</sub> <sup>-2</sup> Oxalate HPO <sub>4</sub> <sup>-2</sup> Mono- hydrogen phosphate O <sub>2</sub> <sup>-2</sup> Peroxide S <sub>2</sub> O <sub>3</sub> <sup>-2</sup> Thiosulfate SnO <sub>3</sub> <sup>-2</sup> Stannate SnO <sub>2</sub> <sup>-2</sup> Stannite MoO <sub>4</sub> <sup>-2</sup> Molybdate TeO <sub>3</sub> <sup>-2</sup> Tellurite S <sub>2</sub> <sup>-2</sup> Disulfide FeO <sub>4</sub> <sup>-2</sup> Ferrate HAsO <sub>4</sub> <sup>-2</sup> Hydrogen Arsenate	N <sup>-3</sup> Nitride P <sup>-3</sup> Phosphide PO <sub>4</sub> <sup>-3</sup> Phosphate PO <sub>3</sub> <sup>-3</sup> Phosphite C <sub>6</sub> H <sub>5</sub> O <sub>7</sub> <sup>-3</sup> Citrate Fe(CN) <sub>6</sub> <sup>-3</sup> Ferri- cyanide  <div style="text-align: center;"><b>-4</b></div> Fe(CN) <sub>6</sub> <sup>-4</sup> Ferro- cyanide  <div style="text-align: center;"><b>-6</b></div> Si <sub>2</sub> O <sub>7</sub> <sup>-6</sup> Pyrosilicate TeO <sub>6</sub> <sup>-6</sup> Orthotell- urate							
*The cation Mercury I exists as two Mercury I ions covalently bonded called Dimercury													
<ul style="list-style-type: none"> <li>• Bold ions mean atoms form multiple ionic charges</li> <li>• Suffix <i>-ate</i> means more Oxygen</li> <li>• Suffix <i>-ite</i> means less Oxygen</li> <li>• Prefix <i>hypo-</i> means less than</li> <li>• Prefix <i>hyper-</i> means more than</li> </ul>				<b>ACID NAMING RULES</b>									
				<b>Dry Name</b>				<b>Acid Name</b>					
				Binary acids		Hydrogen _____ide		Hydro _____ic					
				Ternary acids		Hydrogen _____ate		_____ic					
				Ternary acids		Hydrogen _____ite		_____ous					