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		Below 1.0										1.0–3.0					Above 3.0				
Alkali metals	IA (1)	<b>H</b> 2.1											IIIA (13)	IVA (14)	VA (15)	VIA (16)	VIIA (17)				
		<b>Li</b> 1.0	<b>Be</b> 1.5											<b>B</b> 2.0	<b>C</b> 2.5	<b>N</b> 3.0	<b>O</b> 3.5	<b>F</b> 4.0			
		<b>Na</b> 0.9	<b>Mg</b> 1.2	IIIB (3)	IVB (4)	VB (5)	VIB (6)	VII B (7)	(8)	VIII B (9)	(10)	IB (11)	IIA (12)	<b>Al</b> 1.5	<b>Si</b> 1.8	<b>P</b> 2.1	<b>S</b> 2.5	<b>Cl</b> 3.0			
		<b>K</b> 0.8	<b>Ca</b> 1.0	<b>Sc</b> 1.3	<b>Ti</b> 1.5	<b>V</b> 1.6	<b>Cr</b> 1.6	<b>Mn</b> 1.5	<b>Fe</b> 1.8	<b>Co</b> 1.9	<b>Ni</b> 1.9	<b>Cu</b> 1.9	<b>Zn</b> 1.6	<b>Ga</b> 1.6	<b>Ge</b> 1.8	<b>As</b> 2.0	<b>Se</b> 2.4	<b>Br</b> 2.8			
		<b>Rb</b> 0.8	<b>Sr</b> 1.0	<b>Y</b> 1.2	<b>Zr</b> 1.4	<b>Nb</b> 1.6	<b>Mo</b> 1.8	<b>Tc</b> 1.9	<b>Ru</b> 2.2	<b>Rh</b> 2.2	<b>Pd</b> 2.2	<b>Ag</b> 1.9	<b>Cd</b> 1.7	<b>In</b> 1.7	<b>Sn</b> 1.8	<b>Sb</b> 1.9	<b>Te</b> 2.1	<b>I</b> 2.5			
		<b>Cs</b> 0.7	<b>Ba</b> 0.9	<b>La*</b> 1.1	<b>Hf</b> 1.3	<b>Ta</b> 1.5	<b>W</b> 1.7	<b>Re</b> 1.9	<b>Os</b> 2.2	<b>Ir</b> 2.2	<b>Pt</b> 2.2	<b>Au</b> 2.4	<b>Hg</b> 1.9	<b>Tl</b> 1.8	<b>Pb</b> 1.9	<b>Bi</b> 1.9	<b>Po</b> 2.0	<b>At</b> 2.2			
		<b>Fr</b> 0.7	<b>Ra</b> 0.9	<b>Ac†</b> 1.1	*Lathanides: 1.1 – 1.3 †Actinides: 1.1 – 1.5																

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Table 4.2		Common Monatomic Cations and Anions		
Cation	Name	Anion	Name	
H <sup>+</sup>	Hydrogen ion	H <sup>-</sup>	Hydride ion	
Li <sup>+</sup>	Lithium ion	F <sup>-</sup>	Fluoride ion	
Na <sup>+</sup>	Sodium ion	Cl <sup>-</sup>	Chloride ion	
K <sup>+</sup>	Potassium ion	Br <sup>-</sup>	Bromide ion	
Cs <sup>+</sup>	Cesium ion	I <sup>-</sup>	Iodide ion	
Be <sup>2+</sup>	Beryllium ion	O <sup>2-</sup>	Oxide ion	
Mg <sup>2+</sup>	Magnesium ion	S <sup>2-</sup>	Sulfide ion	
Ca <sup>2+</sup>	Calcium ion	N <sup>3-</sup>	Nitride ion	
Ba <sup>2+</sup>	Barium ion	P <sup>3-</sup>	Phosphide ion	
Al <sup>3+</sup>	Aluminum ion			
Ag <sup>+</sup>	Silver ion			

Note: The ions of principal importance are highlighted in blue.

**Table 4.1****Systematic (Stock) and Common Names for Iron and Copper Ions**

For systematic name:

<i>Formula</i>	<i>+ Ion Charge</i>	<i>Cation Name</i>	<i>Compound Name</i>
FeCl <sub>2</sub>	2+	Iron(II)	Iron(II) chloride
FeCl <sub>3</sub>	3+	Iron(III)	Iron(III) chloride
Cu <sub>2</sub> O	1+	Copper(I)	Copper(I) oxide
CuO	2+	Copper(II)	Copper(II) oxide

For common nomenclature:

<i>Formula</i>	<i>+ Ion Charge</i>	<i>Cation Name</i>	<i>Common -ous/ic Name</i>
FeCl <sub>2</sub>	2+	Ferrous	Ferrous chloride
FeCl <sub>3</sub>	3+	Ferric	Ferric chloride
Cu <sub>2</sub> O	1+	Cuprous	Cuprous oxide
CuO	2+	Cupric	Cupric oxide

**Table 4.3****Common Polyatomic Cations and Anions**

<b>Ion</b>	<b>Name</b>
NH <sub>4</sub> <sup>+</sup>	Ammonium
NO <sub>2</sub> <sup>-</sup>	Nitrite
NO <sub>3</sub> <sup>-</sup>	Nitrate
SO <sub>3</sub> <sup>2-</sup>	Sulfite
SO <sub>4</sub> <sup>2-</sup>	Sulfate
HSO <sub>4</sub> <sup>-</sup>	Hydrogen sulfate
OH <sup>-</sup>	Hydroxide
CN <sup>-</sup>	Cyanide
PO <sub>4</sub> <sup>3-</sup>	Phosphate
HPO <sub>4</sub> <sup>2-</sup>	Hydrogen phosphate
H <sub>2</sub> PO <sub>4</sub> <sup>-</sup>	Dihydrogen phosphate
CO <sub>3</sub> <sup>2-</sup>	Carbonate
HCO <sub>3</sub> <sup>-</sup>	Bicarbonate
ClO <sup>-</sup>	Hypochlorite
ClO <sub>2</sub> <sup>-</sup>	Chlorite
ClO <sub>3</sub> <sup>-</sup>	Chlorate
ClO <sub>4</sub> <sup>-</sup>	Perchlorate
CH <sub>3</sub> COO <sup>-</sup> (or C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup> )	Acetate
MnO <sub>4</sub> <sup>-</sup>	Permanganate
Cr <sub>2</sub> O <sub>7</sub> <sup>2-</sup>	Dichromate
CrO <sub>4</sub> <sup>2-</sup>	Chromate
O <sub>2</sub> <sup>2-</sup>	Peroxide

**Table 4.4**

**Prefixes Used to Denote Numbers of Atoms in a Compound**

Prefix	Number of Atoms
Mono-	1
Di-	2
Tri-	3
Tetra-	4
Penta-	5
Hexa-	6
Hepta-	7
Octa-	8
Nona-	9
Deca-	10