

# POLYATOMIC IONS

<b>+1 Cations</b>	
Ammonium	$\text{NH}_4^{+1}$
Hydronium	$\text{H}_3\text{O}^{+1}$
<b>-1 Anions</b>	
Acetate	$\text{C}_2\text{H}_3\text{O}_2^{-1}$
Amide	$\text{NH}_2^{-1}$
Azide	$\text{N}_3^{-1}$
Benzoate	$\text{C}_7\text{H}_5\text{O}_2^{-1}$
Bitartrate	$\text{HC}_4\text{H}_4\text{O}_6^{-1}$
Bromate	$\text{BrO}_3^{-1}$
Bromite	$\text{BrO}_2^{-1}$
Chlorate	$\text{ClO}_3^{-1}$
Chlorite	$\text{ClO}_2^{-1}$
Cyanate	$\text{OCN}^{-1}$
Cyanide	$\text{CN}^{-1}$
Hydrazide	$\text{N}_3\text{H}_3^{-1}$
Hydrogen carbonate (Bicarbonate)	$\text{HCO}_3^{-1}$
Hydrogen sulfate (Bisulfate)	$\text{HSO}_4^{-1}$
Hydrogen sulfite (Bisulfite)	$\text{HSO}_3^{-1}$
Hydroxide	$\text{OH}^{-1}$
Hypochlorite	$\text{ClO}^{-1}$
Iodate	$\text{IO}_3^{-1}$
Iodite	$\text{IO}_2^{-1}$
Nitrate	$\text{NO}_3^{-1}$
Nitrite	$\text{NO}_2^{-1}$
Monobasic phosphate (Dihydrogen phosphate)	$\text{H}_2\text{PO}_4^{-1}$
Perchlorate	$\text{ClO}_4^{-1}$
Permanganate	$\text{MnO}_4^{-1}$
Thiocyanate	$\text{SCN}^{-1}$
Triiodide	$\text{I}_3^{-1}$

<b>-2 Anions</b>	
Carbonate	$\text{CO}_3^{-2}$
Chromate	$\text{CrO}_4^{-2}$
Dichromate	$\text{Cr}_2\text{O}_7^{-2}$
dibasic phosphate (Hydrogen phosphate)	$\text{HPO}_4^{-2}$
Disulfate (Pyrosulfate)	$\text{S}_2\text{O}_7^{-2}$
Manganate	$\text{MnO}_4^{-2}$
Metasilicate	$\text{SiO}_3^{-2}$
Oxalate	$\text{C}_2\text{O}_4^{-2}$
Peroxide	$\text{O}_2^{-2}$
Sulfate	$\text{SO}_4^{-2}$
Sulfite	$\text{SO}_3^{-2}$
Tartrate	$\text{C}_4\text{H}_4\text{O}_6^{-2}$
Tetraborate	$\text{B}_4\text{O}_7^{-2}$
Thiosulfate	$\text{S}_2\text{O}_3^{-2}$
<b>-3 Anions</b>	
Aluminate	$\text{AlO}_3^{-3}$
Arsenate	$\text{AsO}_4^{-3}$
Arsenite	$\text{AsO}_3^{-3}$
Borate	$\text{BO}_3^{-3}$
Citrate	$\text{C}_6\text{H}_5\text{O}_7^{-3}$
Ferricyanide	$\text{Fe}(\text{CN})_6^{-3}$
Phosphate	$\text{PO}_4^{-3}$
Phosphite	$\text{PO}_3^{-3}$
<b>-4 Anions</b>	
Ferrocyanide	$\text{Fe}(\text{CN})_6^{-4}$
Silicate (ortho)	$\text{SiO}_4^{-4}$

# “Holy Sheet”

## Elements with several oxidation states

*Remember to use the Roman Numeral system for identifying cations!*

Antimony	Sb	<b>+3</b> +5 -3
Arsenic	As	<b>+3</b> +5 -3
Bismuth	Bi	+3 <b>+5</b>
Bromine	Br	-1 +5 <b>+1</b>
Cadmium	Cd	+2
Carbon	C	+2 <b>+4</b> -4
Chlorine	Cl	-1 +1 +5 <b>+7</b>
Chromium	Cr	<b>+2</b> +3 +6
Cobalt	Co	<b>+2</b> +3
Copper	Cu	+1 <b>+2</b>
Gold	Au	+1 <b>+3</b>
Hydrogen	H	<b>+1</b> -1
Iodine	I	-1 +7 +5 <b>+1</b>
Iron	Fe	+2 <b>+3</b>
Lead	Pb	<b>+2</b> +4
Manganese	Mn	<b>+2</b> +3 +4 +7
Mercury	Hg	+1 <b>+2</b>
Nickel	Ni	<b>+2</b> +3
Nitrogen	N	<b>-3</b> +1 +2 +3 +4 +5 -1 -2
Phosphorus	P	<b>-3</b> +3 +5
Platinum	Pt	+2 <b>+4</b>
Rhodium	Rh	+4
Silver	Ag	+1
Sulfur	S	<b>-2</b> +4 +6
Tin	Sn	+2 <b>+4</b>
Titanium	Ti	+2 +3 <b>+4</b>
Tungsten	W	+6
Uranium	U	+3 +4 +5 <b>+6</b>
Zinc	Zn	+2

*\*\*The boldfaced charge for each element represents the most common ion for that element.*