

Symbols and Charges for Polyatomic Ions

Formula	Name	Formula	Name
NO_3^-	nitrate	ClO_4^-	perchlorate
NO_2^-	nitrite	ClO_3^-	chlorate
CrO_4^{2-}	chromate	ClO_2^-	chlorite
$\text{Cr}_2\text{O}_7^{2-}$	dichromate	ClO^-	hypochlorite
CN^-	cyanide	IO_4^-	periodate
MnO_4^-	permanganate	IO_3^-	iodate
OH^-	hydroxide	IO^-	hypoiodite
O_2^{2-}	peroxide	BrO_3^-	bromate
NH_2^-	amide	BrO^-	hypobromite
CO_3^{2-}	carbonate	HCO_3^-	hydrogen carbonate (bicarbonate)
SO_4^{2-}	sulfate	HSO_4^-	hydrogen sulfate (bisulfate)
SO_3^{2-}	sulfite	HSO_3^-	hydrogen sulfite (bisulfite)
$\text{C}_2\text{O}_4^{2-}$	oxalate	HC_2O_4^-	hydrogen oxalate (bioxalate)
PO_4^{3-}	phosphate	HPO_4^{2-}	hydrogen phosphate
PO_3^{3-}	phosphite	H_2PO_4^-	dihydrogen phosphate
$\text{S}_2\text{O}_3^{2-}$	thiosulfate	HS^-	hydrogen sulfide
AsO_4^{3-}	arsenate	BO_3^{3-}	borate
SeO_4^{2-}	selenate	$\text{B}_4\text{O}_7^{2-}$	tetraborate
SiO_3^{2-}	silicate	SiF_6^{2-}	hexafluorosilicate
$\text{C}_4\text{H}_4\text{O}_6^{2-}$	tartrate		

$\text{C}_2\text{H}_3\text{O}_2^-$ acetate (an alternate way to write acetate is CH_3COO^-)

There are only two positive polyatomic ions:

NH_4^+ is called the ammonium ion and

Hg_2^{2+} is called the mercury(I) ion

Ion Tests

September 23, 2005: Positive Ion Test: All of the monatomic ions and these polyatomic ions: ammonium and mercury(I)

September 30, 2005: Negative Ion Test: All of the monatomic ions and these polyatomic ions: nitrate, nitrite, chromate, dichromate, cyanide, permanganate, hydroxide, peroxide, carbonate, sulfate, sulfite, phosphate, acetate, perchlorate, chlorate, chlorite, hypochlorite, hydrogen carbonate (bicarbonate), hydrogen sulfate (bisulfate), hydrogen sulfite (bisulfite), hydrogen phosphate, dihydrogen phosphate, hydrogen sulfide, borate