

I. Symbols and Charges for Monoatomic Ions

A. Fixed Charge

<u>Symbol</u>	<u>Name</u>	<u>Symbol</u>	<u>Name</u>
H ⁺	hydrogen ion	H ⁻	hydride ion
Li ⁺	lithium ion	F ⁻	fluoride ion
Na ⁺	sodium ion	Cl ⁻	chloride ion
K ⁺	potassium ion	Br ⁻	bromide ion
Ag ⁺	silver ion	I ⁻	iodide ion
Mg ²⁺	magnesium ion	O ²⁻	oxide ion
Ca ²⁺	calcium ion	S ²⁻	sulfide ion
Ba ²⁺	barium ion	N ³⁻	nitride ion
Zn ²⁺	zinc ion	P ³⁻	phosphide ion
Al ³⁺	aluminum ion		
Bi ³⁺	bismuth ion		

B. Variable Charge

<u>Symbol</u>	<u>Systematic Name</u>	<u>Common Name</u>	<u>Symbol</u>	<u>Systematic Name</u>	<u>Common Name</u>
Cu ⁺	copper(I) ion	cuprous ion	Hg ₂ ²⁺	mercury(I) ion	mercurous ion
Cu ²⁺	copper(II) ion	cupric ion	Hg ²⁺	mercury(II) ion	mercuric ion
Fe ²⁺	iron(II) ion	ferrous ion	Pb ²⁺	lead(II) ion	plumbous ion
Fe ³⁺	iron(III) ion	ferric ion	Pb ⁴⁺	lead(IV) ion	plumbic ion
Sn ²⁺	tin(II) ion	stannous ion	Co ²⁺	cobalt(II) ion	cobaltous ion
Sn ⁴⁺	tin(IV) ion	stannic ion	Co ³⁺	cobalt(III) ion	cobaltic ion
Cr ²⁺	chromium(II) ion	chromous ion	Ni ²⁺	nickel(II) ion	nickelous ion
Cr ³⁺	chromium(III) ion	chromic ion	Ni ⁴⁺	nickel(IV) ion	nickelic ion
Mn ²⁺	manganese(II) ion	manganous ion	Ti ³⁺	titanium(III) ion	titanous ion
Mn ³⁺	manganese(III) ion	manganic ion	Ti ⁴⁺	titanium(IV) ion	titanic ion

II. Symbols and Charges for Polyatomic Ions

<u>Formula</u>	<u>Name</u>	<u>Formula</u>	<u>Name</u>
NO ₃ ⁻	nitrate ion	ClO ₄ ⁻	perchlorate ion
NO ₂ ⁻	nitrite ion	ClO ₃ ⁻	chlorate ion
CrO ₄ ²⁻	chromate ion	ClO ₂ ⁻	chlorite ion
Cr ₂ O ₇ ²⁻	dichromate ion	ClO ⁻	hypochlorite
CN ⁻	cyanide ion	MnO ₄ ⁻	permanganate ion
OH ⁻	hydroxide ion	O ₂ ²⁻	peroxide ion
CO ₃ ²⁻	carbonate ion	HCO ₃ ⁻	hydrogen carbonate ion (bicarbonate ion)
SO ₄ ²⁻	sulfate ion	HSO ₄ ⁻	hydrogen sulfate ion (bisulfate ion)
SO ₃ ²⁻	sulfite ion	HSO ₃ ⁻	hydrogen sulfite ion (bisulfite ion)
C ₂ O ₄ ²⁻	oxalate ion	HC ₂ O ₄ ⁻	hydrogen oxalate ion (binoxalate ion)
PO ₄ ³⁻	phosphate ion	HPO ₄ ²⁻	hydrogen phosphate ion
PO ₃ ³⁻	phosphite ion	H ₂ PO ₄ ⁻	dihydrogen phosphate ion
		HS ⁻	hydrogen sulfide ion (bisulfide ion)

C₂H₃O₂⁻ acetate ion (an alternate way to write acetate is CH₃COO⁻)

There is only one polyatomic cation, NH₄⁺ = ammonium ion