

Transition and Other Metals

Symbols and Charges for Monoatomic Ions Fixed Charge

Ag ⁺	silver ion		
Zn ²⁺	zinc ion	Al ³⁺	aluminum ion
Cd ²⁺	cadmium ion		
H ⁺	hydrogen ion	H ⁻	hydride ion

Symbols and Charges for Monoatomic Ions Variable Charge

Symbol	Systematic name (Stock system)	Common name	Symbol	Systematic name (Stock system)	Common name
Cu ⁺	copper (I)	cuprous	Hg ₂ ²⁺	mercury (I)	mercurous
Cu ²⁺	copper (II)	cupric	Hg ²⁺	mercury (II)	mercuric
Fe ²⁺	iron (II)	ferrous	Pb ²⁺	lead (II)	plumbous
Fe ³⁺	iron (III)	ferric	Pb ⁴⁺	lead (IV)	plumbic
Sn ²⁺	tin (II)	stannous	Co ²⁺	cobalt (II)	cobaltous
Sn ⁴⁺	tin (IV)	stannic	Co ³⁺	cobalt (III)	cobaltic
Cr ²⁺	chromium (II)	chromous	Au ⁺	gold (I)	aurous
Cr ³⁺	chromium (III)	chromic	Au ³⁺	gold (III)	auric
Mn ²⁺	manganese (II)	manganous	Ni ²⁺	nickel (II)	
Mn ³⁺	manganese (III)	manganic	Ni ³⁺	nickel (III)	

Symbols and Charges for Polyatomic Ions

Formula	Name	Formula	Name
NO ₃ ⁻	nitrate	AsO ₄ ³⁻	arsenate
NO ₂ ⁻	nitrite	SeO ₄ ²⁻	selenate
SO ₄ ²⁻	sulfate	HSO ₄ ⁻	hydrogen sulfate (bisulfate)
SO ₃ ²⁻	sulfite	HSO ₃ ⁻	hydrogen sulfite (bisulfite)
PO ₄ ³⁻	phosphate	HPO ₄ ²⁻	hydrogen phosphate (biphosphate)
PO ₃ ³⁻	phosphite	H ₂ PO ₄ ⁻	dihydrogen phosphate
CO ₃ ²⁻	carbonate	HCO ₃ ⁻	hydrogen carbonate (bicarbonate)
C ₂ O ₄ ²⁻	oxalate	HC ₂ O ₄ ⁻	hydrogen oxalate (binoxalate)
C ₄ H ₄ O ₆ ²⁻	tartrate	BO ₃ ³⁻	borate
ClO ₄ ⁻	perchlorate	B ₄ O ₇ ²⁻	tetraborate
ClO ₃ ⁻	chlorate	S ₂ O ₃ ²⁻	thiosulfate
ClO ₂ ⁻	chlorite	SiO ₃ ²⁻	silicate
ClO ⁻	hypochlorite		
IO ₄ ⁻	periodate	OH ⁻	hydroxide
IO ₃ ⁻	iodate	O ₂ ²⁻	peroxide
IO ⁻	hypoiodite	CN ⁻	cyanide
BrO ₃ ⁻	bromate	NH ₂ ⁻	amide
BrO ⁻	hypobromite	HS ⁻	hydrogen sulfide
CrO ₄ ²⁻	chromate	SiF ₆ ²⁻	hexafluorosilicate
Cr ₂ O ₇ ²⁻	dichromate	SCN ⁻	thiocyanate
MnO ₄ ⁻	permanganate		

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

There is one positive polyatomic ion. It is NH₄⁺ and is called the ammonium ion.