

## Symbols and Charges for Monoatomic Ions

### Fixed Charge

Symbol	Name	Symbol	Name
H <sup>+</sup>	hydrogen ion	H <sup>-</sup>	hydride
Li <sup>+</sup>	lithium ion	F <sup>-</sup>	fluoride
Na <sup>+</sup>	sodium ion	Cl <sup>-</sup>	chloride
K <sup>+</sup>	potassium ion	Br <sup>-</sup>	bromide
Rb <sup>+</sup>	rubidium ion	I <sup>-</sup>	iodide
Cs <sup>+</sup>	cesium ion	O <sup>2-</sup>	oxide
Be <sup>2+</sup>	beryllium ion	S <sup>2-</sup>	sulfide
Mg <sup>2+</sup>	magnesium ion	Se <sup>2-</sup>	selenide
Ca <sup>2+</sup>	calcium ion	Te <sup>2-</sup>	telluride
Sr <sup>2+</sup>	strontium ion	N <sup>3-</sup>	nitride
Ba <sup>2+</sup>	barium ion	P <sup>3-</sup>	phosphide
Ra <sup>2+</sup>	radium ion	As <sup>3-</sup>	arsenide
Ag <sup>+</sup>	silver ion		
Zn <sup>2+</sup>	zinc ion	Al <sup>3+</sup>	aluminum ion

Note that the letters in an ion's name before the -ide ending is the stem. For example, the stem for bromide is brom-. Also, just in case, the P for phosphide is a capital P.

## Symbols and Charges for Monoatomic Ions

### Variable Charge

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

## Symbols and Charges for Polyatomic Ions

Formula	Name	Formula	Name
NO <sub>3</sub> <sup>-</sup>	nitrate	ClO <sub>4</sub> <sup>-</sup>	perchlorate
NO <sub>2</sub> <sup>-</sup>	nitrite	ClO <sub>3</sub> <sup>-</sup>	chlorate
CrO <sub>4</sub> <sup>2-</sup>	chromate	ClO <sub>2</sub> <sup>-</sup>	chlorite
Cr <sub>2</sub> O <sub>7</sub> <sup>2-</sup>	dichromate	ClO <sup>-</sup>	hypochlorite
CN <sup>-</sup>	cyanide	IO <sub>4</sub> <sup>-</sup>	periodate
MnO <sub>4</sub> <sup>-</sup>	permanganate	IO <sub>3</sub> <sup>-</sup>	iodate
OH <sup>-</sup>	hydroxide	IO <sup>-</sup>	hypoiodite
O <sub>2</sub> <sup>2-</sup>	peroxide	BrO <sub>3</sub> <sup>-</sup>	bromate
NH <sub>2</sub> <sup>-</sup>	amine	BrO <sup>-</sup>	hypobromite
CO <sub>3</sub> <sup>2-</sup>	carbonate	HCO <sub>3</sub> <sup>-</sup>	hydrogen carbonate (bicarbonate)
SO <sub>4</sub> <sup>2-</sup>	sulfate	HSO <sub>4</sub> <sup>-</sup>	hydrogen sulfate (bisulfate)
SO <sub>3</sub> <sup>2-</sup>	sulfite	HSO <sub>3</sub> <sup>-</sup>	hydrogen sulfite (bisulfite)
C <sub>2</sub> O <sub>4</sub> <sup>2-</sup>	oxalate	HC <sub>2</sub> O <sub>4</sub> <sup>-</sup>	hydrogen oxalate (binoxalate)
PO <sub>4</sub> <sup>3-</sup>	phosphate	HPO <sub>4</sub> <sup>2-</sup>	hydrogen phosphate
PO <sub>3</sub> <sup>3-</sup>	phosphite	H <sub>2</sub> PO <sub>4</sub> <sup>-</sup>	dihydrogen phosphate
S <sub>2</sub> O <sub>3</sub> <sup>2-</sup>	thiosulfate	HS <sup>-</sup>	hydrogen sulfide
AsO <sub>4</sub> <sup>3-</sup>	arsenate	BO <sub>3</sub> <sup>3-</sup>	borate
SeO <sub>4</sub> <sup>2-</sup>	selenate	B <sub>4</sub> O <sub>7</sub> <sup>2-</sup>	tetraborate
SiO <sub>3</sub> <sup>2-</sup>	silicate	SiF <sub>6</sub> <sup>2-</sup>	hexafluorosilicate
C <sub>4</sub> H <sub>4</sub> O <sub>6</sub> <sup>2-</sup>	tartrate	C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup>	acetate
			(an alternate way to write acetate is CH <sub>3</sub> COO <sup>-</sup> )

There is one positive polyatomic ion. It is NH<sub>4</sub><sup>+</sup> and is called the ammonium ion.

Note: Writing just the plus sign or minus sign for ions with +1 or -1 charges is acceptable.