

Ions: Names and Formulas

Simple Cations

<u>Name</u>	<u>Formula</u>
hydrogen	H ⁺¹
lithium	Li ⁺¹
sodium	Na ⁺¹
potassium	K ⁺¹
rubidium	Rb ⁺¹
cesium	Cs ⁺¹
silver	Ag ⁺¹
nickel	Ni ⁺²
beryllium	Be ⁺²
magnesium	Mg ⁺²
calcium	Ca ⁺²
strontium	Sr ⁺²
barium	Ba ⁺²
zinc	Zn ⁺²
aluminum	Al ⁺³
gold	Au ⁺³

Simple Anions

<u>Name</u>	<u>Formula</u>
hydride	H ⁻¹
fluoride	F ⁻¹
chloride	Cl ⁻¹
bromide	Br ⁻¹
iodide	I ⁻¹
oxide	O ⁻²
sulfide	S ⁻²
selenide	Se ⁻²
telluride	Te ⁻²
nitride	N ⁻³
phosphide	P ⁻³
arsenide	As ⁻³

Type II Cations

<u>Stock Name</u>	<u>Classical Name</u>	<u>Formula</u>
chromium(II)	chromous	Cr ⁺²
chromium(III)	chromic	Cr ⁺³
cobalt(II)	cobaltous	Co ⁺²
cobalt(III)	cobaltic	Co ⁺³
copper(I)	cuprous	Cu ⁺¹
copper(II)	cupric	Cu ⁺²
iron(II)	ferrous	Fe ⁺²
iron(III)	ferric	Fe ⁺³

Type II Cations (cont)

<u>Stock Name</u>	<u>Classical Name</u>	<u>Formula</u>
lead(II)	plumbous	Pb^{+2}
lead(IV)	plumbic	Pb^{+4}
manganese(II)	manganous	Mn^{+2}
manganese(IV)	manganic	Mn^{+4}
mercury(I)	mercurous	Hg_2^{+2}
mercury(II)	mercuric	Hg^{+2}
tin(II)	stannous	Sn^{+2}
tin(IV)	stannic	Sn^{+4}

Common Polyatomic Ions

<u>Name</u>	<u>Formula</u>	<u>Name</u>	<u>Formula</u>
ammonium	$(\text{NH}_4)^{+1}$	sulfite	$(\text{SO}_3)^{-2}$
nitrite	$(\text{NO}_2)^{-1}$	sulfate	$(\text{SO}_4)^{-2}$
nitrate	$(\text{NO}_3)^{-1}$	carbonate	$(\text{CO}_3)^{-2}$
cyanide	$(\text{CN})^{-1}$	oxalate	$(\text{C}_2\text{O}_4)^{-2}$
thiocyanate	$(\text{SCN})^{-1}$	peroxide	O_2^{-2}
hypochlorite	$(\text{ClO})^{-1}$	chromate	$(\text{CrO}_4)^{-2}$
chlorite	$(\text{ClO}_2)^{-1}$	dichromate	$(\text{Cr}_2\text{O}_7)^{-2}$
chlorate	$(\text{ClO}_3)^{-1}$	silicate	$(\text{SiO}_3)^{-2}$
perchlorate	$(\text{ClO}_4)^{-1}$	hydrogen phosphate	$(\text{HPO}_4)^{-2}$
hydroxide	$(\text{OH})^{-1}$		
acetate	$(\text{C}_2\text{H}_3\text{O}_2)^{-1}$		
permanganate	$(\text{MnO}_4)^{-1}$	phosphite	$(\text{PO}_3)^{-3}$
dihydrogen phosphate	$(\text{H}_2\text{PO}_4)^{-1}$	phosphate	$(\text{PO}_4)^{-3}$
hydrogen sulfate (bisulfate)	$(\text{HSO}_4)^{-1}$		
hydrogen sulfite (bisulfite)	$(\text{HSO}_3)^{-1}$		
hydrogen carbonate (bicarbonate)	$(\text{HCO}_3)^{-1}$		