

**Important elements/ions to know for CHM 4, 1A, and 1B**

Element	Symbol
aluminum	Al
antimony	Sb
argon	Ar
arsenic	As
barium	Ba
beryllium	Be
bismuth	Bi
boron	B
bromine	Br
cadmium	Cd
calcium	Ca
carbon	C
cesium	Cs
chlorine	Cl
chromium	Cr
cobalt	Co
copper	Cu
fluorine	F
francium	Fr
gold	Au
helium	He
hydrogen	H
iodine	I
iron	Fe

Element	Symbol
krypton	Kr
lead	Pb
lithium	Li
magnesium	Mg
manganese	Mn
mercury	Hg
neon	Ne
nickel	Ni
nitrogen	N
oxygen	O
phosphorus	P
potassium	K
radium	Ra
rubidium	Rb
selenium	Se
silicon	Si
silver	Ag
sodium	Na
strontium	Sr
sulfur	S
tin	Sn
titanium	Ti
xenon	Xe
zinc	Zn

Monatomic ion	Symbol
bromide ion	Br <sup>-</sup>
chloride ion	Cl <sup>-</sup>
fluoride ion	F <sup>-</sup>
iodide ion	I <sup>-</sup>
nitride ion	N <sup>3-</sup>
oxide ion	O <sup>2-</sup>
sulfide ion	S <sup>2-</sup>

Ions made by adding "H"	Symbol
hydrogen carbonate ion (bicarbonate)	HCO <sub>3</sub> <sup>-</sup>
hydrogen oxalate ion (bioxalate)	HC <sub>2</sub> O <sub>4</sub> <sup>-</sup>
hydrogen phosphate ion	HPO <sub>4</sub> <sup>2-</sup>
dihydrogen phosphate ion	H <sub>2</sub> PO <sub>4</sub> <sup>-</sup>
hydrogen sulfate ion (bisulfate)	HSO <sub>4</sub> <sup>-</sup>
hydrogen sulfide ion (bisulfide)	HS <sup>-</sup>
hydrogen sulfite ion (bisulfite)	HSO <sub>3</sub> <sup>-</sup>

Polyatomic ion	Symbol
acetate ion	C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> <sup>-</sup>
ammonium ion	NH <sub>4</sub> <sup>+</sup>
arsenate ion	AsO <sub>4</sub> <sup>3-</sup>
borate ion	BO <sub>3</sub> <sup>3-</sup>
bromate ion	BrO <sub>3</sub> <sup>-</sup>
bromite ion	BrO <sub>2</sub> <sup>-</sup>
carbonate ion	CO <sub>3</sub> <sup>2-</sup>
chlorate ion	ClO <sub>3</sub> <sup>-</sup>
chlorite ion	ClO <sub>2</sub> <sup>-</sup>
chromate ion	CrO <sub>4</sub> <sup>2-</sup>
cyanide ion	CN <sup>-</sup>
dichromate ion	Cr <sub>2</sub> O <sub>7</sub> <sup>2-</sup>
hydroxide ion	OH <sup>-</sup>
hypobromite ion	BrO <sup>-</sup>
hypochlorite ion	ClO <sup>-</sup>

Polyatomic ion	Symbol
hypoiodite ion	IO <sup>-</sup>
iodate ion	IO <sub>3</sub> <sup>-</sup>
iodite ion	IO <sub>2</sub> <sup>-</sup>
nitrate ion	NO <sub>3</sub> <sup>-</sup>
nitrite ion	NO <sub>2</sub> <sup>-</sup>
oxalate ion	C <sub>2</sub> O <sub>4</sub> <sup>2-</sup>
perbromate ion	BrO <sub>4</sub> <sup>-</sup>
perchlorate ion	ClO <sub>4</sub> <sup>-</sup>
periodate ion	IO <sub>4</sub> <sup>-</sup>
permanganate ion	MnO <sub>4</sub> <sup>-</sup>
phosphate ion	PO <sub>4</sub> <sup>3-</sup>
phosphite ion	PO <sub>3</sub> <sup>3-</sup>
sulfate ion	SO <sub>4</sub> <sup>2-</sup>
sulfite ion	SO <sub>3</sub> <sup>2-</sup>
thiosulfate ion	S <sub>2</sub> O <sub>3</sub> <sup>2-</sup>