

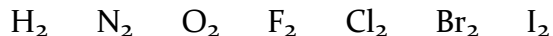
Names of Common Elements and Ions - Chem 30A

Common Elements

H	hydrogen	P	phosphorus	Zn	zinc
He	helium	S	sulfur	Br	bromine
C	carbon	Cl	chlorine	Ag	silver
N	nitrogen	Ar	argon	Sn	tin
O	oxygen	K	potassium	I	iodine
F	fluorine	Ca	calcium	Pt	platinum
Ne	neon	Cr	chromium	Au	gold
Na	sodium	Fe	iron	Hg	mercury
Mg	magnesium	Co	cobalt	Pb	lead
Al	aluminum	Ni	nickel	B	boron
Si	silicon	Cu	copper	Li	lithium
Mn	manganese	Rn	radon	Ba	barium

Diatomic Elements

Seven elements form diatomic molecules when they are not combined in a chemical compound. These are:



Common Molecular Compounds

H ₂ O	water	HCl	hydrochloric acid
NH ₃	ammonia	HNO ₃	nitric acid
CO	carbon monoxide	H ₂ SO ₄	sulfuric acid
CO ₂	carbon dioxide		

Ions

H ⁺	hydrogen ion	Mg ²⁺	magnesium ion
Na ⁺	sodium ion	Ca ²⁺	calcium ion
K ⁺	potassium ion	Zn ²⁺	zinc ion
Ag ⁺	silver ion	Ba ²⁺	barium ion
Al ³⁺	aluminum ion		
F ⁻	fluoride	O ²⁻	oxide
Cl ⁻	chloride	S ²⁻	sulfide
Br ⁻	bromide	N ³⁻	nitride
I ⁻	iodide	P ³⁻	phosphide

Metals that have more than one possible charge

Fe^{2+}	iron (II) or ferrous	Fe^{3+}	iron (III) or ferric
Cu^{+}	copper (I) or cuprous	Cu^{2+}	copper (II) or cupric
Sn^{2+}	tin (II) or stannous	Sn^{4+}	tin (IV) or stannic
Cr^{2+}	chromium (II) or chromous	Cr^{3+}	chromium (III) or chromic
Co^{2+}	cobalt (II) or cobaltous	Co^{3+}	cobalt (III) or cobaltic
Hg_2^{2+}	mercury (I)	Hg^{2+}	mercury (II)
Pb^{2+}	lead (II)	Pb^{4+}	lead (IV)
Au^{+}	gold (I)	Au^{3+}	gold (III)

Polyatomic Ions (make sure to memorize these)

$\text{C}_2\text{H}_3\text{O}_2^{-}$	acetate	NH_4^{+}	ammonium
CO_3^{2-}	carbonate	OH^{-}	hydroxide
HCO_3^{-}	hydrogen carbonate (bicarbonate)	SO_4^{2-}	sulfate
		SO_3^{2-}	sulfite
CN^{-}	cyanide	HSO_4^{-}	hydrogen sulfate (bisulfate)
PO_4^{3-}	phosphate	ClO_4^{-}	perchlorate
HPO_4^{2-}	hydrogen phosphate	ClO_3^{-}	chlorate
$\text{H}_2\text{PO}_4^{-}$	dihydrogen phosphate	ClO_2^{-}	chlorite
NO_3^{-}	nitrate	ClO^{-}	hypochlorite
NO_2^{-}	nitrite	CrO_4^{2-}	chromate
MnO_4^{-}	permanganate	$\text{Cr}_2\text{O}_7^{2-}$	dichromate