

Exceptions to the Rules of Nomenclature

(All of these ions and molecular formulas must be memorized!!)

Ions

Positive

ammonium	NH_4^{1+}
hydrogen	H^{1+}
hydronium	H_3O^{1+}
mercury(I) (mercurous)	Hg_2^{2+}

Negative

nitrate	NO_3^{1-}	
cyanide	CN^{1-}	
hydroxide	OH^{1-}	
permanganate	MnO_4^{1-}	
acetate-ethanoate	$\text{C}_2\text{H}_3\text{O}_2^{1-}$	(The term acetate is being
acetate-ethanoate	$\text{CH}_3\text{COO}^{1-}$	replaced by the term ethanoate)
thiocyanate	SCN^{1-}	
thiosulfate	$\text{S}_2\text{O}_3^{2-}$	
chromate	CrO_4^{2-}	
dichromate	$\text{Cr}_2\text{O}_7^{2-}$	
oxalate	$\text{C}_2\text{O}_4^{2-}$	
peroxide	O_2^{2-}	
(superoxide)	O_2^{1-}	

Molecular Substances - trivial names

water	H_2O
hydrogen peroxide	H_2O_2
ammonia	NH_3
hydrazine	N_2H_4
phosphine	PH_3
arsine	AsH_3
nitric oxide	NO
nitrous oxide (laughing gas)	N_2O