

Honors Common Ions

CATIONS (+ve)			ANIONS (-ve)		
Name	Symbol/ Formula	Alternative*	Name	Symbol/ Formula	Alternative*
Aluminum	Al ³⁺		Bromide	Br ⁻	
Ammonium	NH ₄ ⁺		Bromate (I)	BrO ⁻	(<u>Hypobromite</u>)
Arsenic (III)	As ³⁺		Bromate (III)	BrO ₂ ⁻	(<u>Bromite</u>)
Arsenic (V)	As ⁵⁺		Bromate (V)	BrO ₃ ⁻	(<u>Bromate</u>)
Barium	Ba ²⁺		Bromate (VII)	BrO ₄ ⁻	(<u>Perbromate</u>)
Bismuth (III)	Bi ³⁺		Carbonate	CO ₃ ²⁻	
Bismuth (V)	Bi ⁵⁺		Chlorate (I)	ClO ⁻	(<u>Hypochlorite</u>)
Cadmium	Cd ²⁺		Chlorate (III)	ClO ₂ ⁻	(<u>Chlorite</u>)
Calcium	Ca ²⁺		Chlorate (V)	ClO ₃ ⁻	(<u>Chlorate</u>)
Chromium (II)	Cr ²⁺		Chlorate (VII)	ClO ₄ ⁻	(<u>Perchlorate</u>)
Chromium (III)	Cr ³⁺		Chloride	Cl ⁻	
Cobalt (II)	Co ²⁺		Chromate	CrO ₄ ²⁻	
Cobalt (III)	Co ³⁺		Cyanide	CN ⁻	
<u>Copper (I)</u>	Cu ⁺	(Cuprous)	Dichromate	Cr ₂ O ₇ ²⁻	
<u>Copper (II)</u>	Cu ²⁺	(Cupric)	Dihydrogen Phosphate	H ₂ PO ₄ ⁻	
Hydrogen	H ⁺		Ethanoate	C ₂ H ₃ O ₂ ⁻	(<u>Acetate</u>)
Hydronium	H ₃ O ⁺		Fluoride	F ⁻	
<u>Iron (II)</u>	Fe ²⁺	(Ferrous)	Hydride	H ⁻	
<u>Iron (III)</u>	Fe ³⁺	(Ferric)	<u>Hydrogen Carbonate</u>	HCO ₃ ⁻	(Bicarbonate)
<u>Lead (II)</u>	Pb ²⁺	(Plumbous)	<u>Hydrogen Oxalate</u>	HC ₂ O ₄ ⁻	(Binoxalate)
<u>Lead (IV)</u>	Pb ⁴⁺	(Plumbic)	Hydrogen Phosphate	HPO ₄ ²⁻	
Lithium	Li ⁺		<u>Hydrogen Sulfate</u>	HSO ₄ ⁻	(Bisulfate)
Magnesium	Mg ²⁺		<u>Hydrogen Sulfide</u>	HS ⁻	(Bisulfide)
Manganese (II)	Mn ²⁺		<u>Hydrogen Sulfite</u>	HSO ₃ ⁻	(Bisulfite)
Manganese (IV)	Mn ⁴⁺		Hydroxide	OH ⁻	
<u>Mercury (I)</u>	Hg ₂ ²⁺	(Mercurous)	Iodate (I)	IO ⁻	(<u>Hypoiodite</u>)
<u>Mercury (II)</u>	Hg ²⁺	(Mercuric)	Iodate (III)	IO ₂ ⁻	(<u>Iodite</u>)
Nickel (II)	Ni ²⁺		Iodate (V)	IO ₃ ⁻	(<u>Iodate</u>)
Potassium	K ⁺		Iodate (VII)	IO ₄ ⁻	(<u>Periodate</u>)
Silver	Ag ⁺		Iodide	I ⁻	
Sodium	Na ⁺		Manganate (VII)	MnO ₄ ⁻	(<u>Permanganate</u>)
Strontium	Sr ²⁺		Nitrate	NO ₃ ⁻	
<u>Tin (II)</u>	Sn ²⁺	(Stannous)	Nitride	N ³⁻	
<u>Tin (IV)</u>	Sn ⁴⁺	(Stannic)	Nitrite	NO ₂ ⁻	
Zinc	Zn ²⁺		<u>Oxalate</u>	C ₂ O ₄ ²⁻	(Ethandioate)
			Oxide	O ²⁻	
			Peroxide	O ₂ ²⁻	
			Phosphate	PO ₄ ³⁻	
			Phosphide	P ³⁻	
			Phosphite	PO ₃ ³⁻	
			Sulfate	SO ₄ ²⁻	
			Sulfide	S ²⁻	
			Sulfite	SO ₃ ²⁻	
			Thiosulfate	S ₂ O ₃ ²⁻	
			Thiocyanate	SCN ⁻	

* In the case of the cations, the alternative names are generally redundant in modern chemistry, but the anions *sometimes* use the alternate names. E.g. the oxyhalogen ions (bromate, chlorate, iodate etc.) are usually referred to by the alternate names, but HSO₃⁻ is more commonly called Hydrogen Sulfite. In each case where two names are given, the more common one used in the United States is underlined.

POLYATOMIC IONS				
+2	+1	-1	-2	-3
Hg ₂ ²⁺	NH ₄ ⁺	BrO ⁻	CO ₃ ²⁻	PO ₃ ³⁻
		BrO ₂ ⁻	C ₂ O ₄ ²⁻	PO ₄ ³⁻
		BrO ₃ ⁻	CrO ₄ ²⁻	
		BrO ₄ ⁻	Cr ₂ O ₇ ²⁻	
		C ₂ H ₃ O ₂ ⁻	HPO ₄ ²⁻	
		ClO ⁻	SO ₃ ²⁻	
		ClO ₂ ⁻	SO ₄ ²⁻	
		ClO ₃ ⁻	S ₂ O ₃ ²⁻	
		ClO ₄ ⁻		
		CN ⁻		
		HCO ₃ ⁻		
		HC ₂ O ₄ ⁻		
		H ₂ PO ₄ ⁻		
		HS ⁻		
		HSO ₃ ⁻		
		HSO ₄ ⁻		
		IO ⁻		
		IO ₂ ⁻		
		IO ₃ ⁻		
		IO ₄ ⁻		
		MnO ₄ ⁻		
		NO ₂ ⁻		
		NO ₃ ⁻		
		OH ⁻		
		SCN ⁻		



Adrian Dingle's
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