

Names and Oxidation Numbers of Common Ions, Elements, and Polyatomic Ions

CATIONS

Oxidation Number of 1+

NH ₄ ⁺	ammonium	Li ⁺	lithium
Cu ⁺	copper (I), cuprous	K ⁺	potassium
H ⁺	hydrogen	Ag ⁺	silver
		Na ⁺	sodium

Oxidation Number of 2+

Ba ²⁺	barium	Mn ²⁺	manganese (II), manganous
Cd ²⁺	cadmium	Hg ²⁺	mercury (II), mercuric
Ca ²⁺	calcium	Hg ₂ ²⁺	mercury (I), mercurous
Cr ²⁺	chromium (II), chromous	Ni ²⁺	nickel (II), nickelous
Co ²⁺	cobalt (II), cobaltous	Sr ²⁺	strontium
Cu ²⁺	copper (II), cupric	Sn ²⁺	tin (II), stannous
Fe ²⁺	iron (II), ferrous	UO ₂ ²⁺	uranyl
Pb ²⁺	lead (II), plumbous	VO ²⁺	vanadyl
Mg ²⁺	magnesium	Zn ²⁺	zinc

Number of 3+

Al ³⁺	aluminum	Co ³⁺	cobalt (III), cobaltic
As ³⁺	arsenic (III), arsenious	Fe ³⁺	iron (III), ferric
Cr ³⁺	chromium (III), chromic	Mn ³⁺	manganese (III), manganic

Oxidation Number of 4+

Pb ⁴⁺	lead (IV), plumbic	Sn ⁴⁺	tin (IV), stannic
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Oxidation Number of 5+

V ⁵⁺	vanadium (V)	As ⁵⁺	arsenic (V), arsenic
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ANIONS

Oxidation Number of 1-

CH ₃ COO ⁻	acetate or	H ⁻	hydride
C ₂ H ₃ O ₂ ⁻	acetate	ClO ⁻	hypochlorite
Br ⁻	bromide	I ⁻	iodide
ClO ₃ ⁻	chlorate	NO ₃ ⁻	nitrate
Cl ⁻	chloride	NO ₂ ⁻	nitrite
CN ⁻	cyanide	ClO ₄ ⁻	perchlorate
F ⁻	fluoride	IO ₄ ⁻	periodate
OH ⁻	hydroxide	MnO ₄ ⁻	permanganate

Oxidation Number of 2-

CO ₃ ²⁻	carbonate	C ₂ O ₄ ²⁻	oxalate
CrO ₄ ²⁻	chromate	O ₂ ²⁻	peroxide
Cr ₂ O ₇ ²⁻	dichromate	SO ₄ ²⁻	sulfate
SiO ₃ ²⁻	silicate	SO ₃ ²⁻	sulfite
O ²⁻	oxide	S ²⁻	sulfide
		S ₂ O ₃ ²⁻	thiosulfate

Oxidation Number of 3-

N ³⁻	nitride	P ³⁻	phosphide
PO ₄ ³⁻	phosphate	BO ₃ ³⁻	borate
PO ₃ ³⁻	phosphite	AsO ₃ ³⁻	arsenite
		AsO ₄ ³⁻	arsenate