

Table A-6

Oxidation Numbers of Monatomic Ions			
1+	2+	3+	
cesium, Cs ⁺ copper(I), Cu ⁺ hydrogen, H ⁺ indium(I), In ⁺ lithium, Li ⁺ potassium, K ⁺ rubidium, Rb ⁺ silver, Ag ⁺ sodium, Na ⁺ thallium(I), Tl ⁺	barium, Ba ²⁺ beryllium, Be ²⁺ cadmium, Cd ²⁺ calcium, Ca ²⁺ chromium(II), Cr ²⁺ cobalt(II), Co ²⁺ copper(II), Cu ²⁺ iridium(II), Ir ²⁺ iron(II), Fe ²⁺ lead(II), Pb ²⁺ magnesium, Mg ²⁺ manganese(II), Mn ²⁺ mercury(II), Hg ²⁺ nickel(II), Ni ²⁺ platinum(II), Pt ²⁺ strontium, Sr ²⁺ tin(II), Sn ²⁺ titanium(II), Ti ²⁺ tungsten(II), W ²⁺ vanadium(II), V ²⁺ zinc, Zn ²⁺ zirconium(II), Zr ²⁺	aluminum, Al ³⁺ antimony(III), Sb ³⁺ bismuth(III), Bi ³⁺ boron, B ³⁺ cerium(III), Ce ³⁺ cobalt(III), Co ³⁺ chromium(III), Cr ³⁺ gallium(III), Ga ³⁺ indium(III), In ³⁺ iridium(III), Ir ³⁺ iron(III), Fe ³⁺ phosphorus(III), P ³⁺ rhodium(III), Rh ³⁺ thallium(III), Tl ³⁺ titanium(III), Ti ³⁺ uranium(III), U ³⁺ vanadium(III), V ³⁺	
4+	5+		
cerium(IV), Ce ⁴⁺ germanium(IV), Ge ⁴⁺ iridium(IV), Ir ⁴⁺ lead(IV), Pb ⁴⁺ platinum(IV), Pt ⁴⁺ thorium(IV), Th ⁴⁺	lithium(IV), Li ⁴⁺ tin(IV), Sn ⁴⁺ tungsten(IV), W ⁴⁺ uranium(IV), U ⁴⁺ vanadium(IV), V ⁴⁺ zirconium(IV), Zr ⁴⁺		antimony(V), Sb ⁵⁺ bismuth(V), Bi ⁵⁺ phosphorus(V), P ⁵⁺ tungsten(V), W ⁵⁺ uranium(V), U ⁵⁺ vanadium(V), V ⁵⁺
1-	2-	3-	4-
bromide, Br ⁻ chloride, Cl ⁻ fluoride, F ⁻ hydride, H ⁻ iodide, I ⁻	oxide, O ²⁻ selenide, Se ²⁻ sulfide, S ²⁻	nitride, N ³⁻ phosphide, P ³⁻	carbide, C ⁴⁻

Table A-7

Charges of Common Polyatomic Ions	
1+	2+
ammonium, NH ₄ ⁺	mercury(I), Hg ₂ ²⁺
1-	2-
acetate C ₂ H ₃ O ₂ ⁻ -or- acetate CH ₃ COO ⁻ amide NH ₂ ⁻ azide N ₃ ⁻ benzoate C ₆ H ₅ COO ⁻ bicarbonate HCO ₃ ⁻ bisulfate HSO ₄ ⁻ bromate BrO ₃ ⁻ chlorate ClO ₃ ⁻ chlorite ClO ₂ ⁻ cyanate CNO ⁻ cyanide CN ⁻ formate HCOO ⁻ hydroxide OH ⁻ hypochlorite ClO ⁻ hypophosphite H ₂ PO ₂ ⁻ iodate IO ₃ ⁻ metaphosphate PO ₃ ⁻ nitrate NO ₃ ⁻ nitrite NO ₂ ⁻ perchlorate ClO ₄ ⁻ periodate IO ₄ ⁻ permanganate MnO ₄ ⁻ peroxyborate BO ₃ ⁻ thiocyanate SCN ⁻ vanadate VO ₃ ⁻	carbonate, CO ₃ ²⁻ chromate, CrO ₄ ²⁻ dichromate, Cr ₂ O ₇ ²⁻ hexachloroplatinate(IV), PtCl ₆ ²⁻ hexafluorosilicate, SiF ₆ ²⁻ molybdate, MoO ₄ ²⁻ oxalate, C ₂ O ₄ ²⁻ peroxide, O ₂ ²⁻ peroxydisulfate, S ₂ O ₈ ²⁻ selenate, SeO ₄ ²⁻ silicate, SiO ₃ ²⁻ sulfate, SO ₄ ²⁻ sulfite, SO ₃ ²⁻ tartrate, C ₄ H ₄ O ₆ ²⁻ tellurate, TeO ₄ ²⁻ tetraborate, B ₄ O ₇ ²⁻ thiosulfate, S ₂ O ₃ ²⁻ tungstate, WO ₄ ²⁻
	3-
	arsenate, AsO ₄ ³⁻ citrate, C ₆ H ₅ O ₇ ³⁻ hexacyanoferrate(III), Fe(CN) ₆ ³⁻ phosphate, PO ₄ ³⁻ phosphite PO ₃ ³⁻
	4-
	hexacyanoferrate(II), Fe(CN) ₆ ⁴⁻ diphosphate, P ₂ O ₇ ⁴⁻