

Solubility of Ions in Aqueous Solutions

Ions That Form Soluble Compounds

Group 1 Ions (Li^{+1} , Na^{+1} , K^{+1} , etc.)	
Acetate ($\text{C}_2\text{H}_3\text{O}_2^{-1}$)	
Ammonium (NH_4^{+1})	
Chlorate (ClO_3^{-1})	
Cl^{-1} , Br^{-1} , I^{-1}	Exceptions: when in solution with: Ag^{+1} , Pb^{+2} , or Hg_2^{+2}
Nitrate (NO_3^{-1})	
Sulfate (SO_4^{-2})	Exceptions: when in solution with: Ag^{+1} , Ca^{+2} , Sr^{+2} , Ba^{+2} , or Pb^{+2}

Ions That Form Insoluble Compounds

Carbonate (CO_3^{-2})	Exceptions: When in solution with: Group 1 ions or ammonium (NH_4^{+1})
Chromate (CrO_4^{-2})	Exceptions: When in solution with: Group 1 ions, Ca^{+2} , Mg^{+2} , or Ammonium (NH_4^{+1})
Hydroxide (OH^{-1})	Exceptions: When in solution with: Group 1 ions, Ca^{+2} , Ba^{+2} , Sr^{+2} , or Ammonium (NH_4^{+1})
Phosphate (PO_4^{-3})	Exceptions: When in solution with: Group 1 ions or ammonium (NH_4^{+1})
Sulfide (S^{-2})	Exceptions: When in solution with: Group 1 ions or ammonium (NH_4^{+1})