

CONCEPT: TEST FOR ANIONS

A chemical reaction occurs when a solid, liquid or gas is formed. Besides these phases being formed ions will also exist within solution. Below are the useful tests that can be employed to identify them.

Anion	Application	Observation(s)
Chloride ion (Cl^-)	To a solution mixture add HNO_3 followed by AgNO_3 .	
Bromide ion (Br^-)	To a solution mixture add HNO_3 followed by AgNO_3 .	
Iodide ion (I^-)	To a solution mixture add HNO_3 followed by AgNO_3 .	
Carbonate ion (CO_3^{2-}) and Bicarbonate ion (HCO_3^-)	Adding hydrochloric acid, HCl .	
Sulfate (SO_4^{2-}) and bisulfate (HSO_4^-)	Adding hydrochloric acid followed by barium chloride, BaCl_2 .	
Sulfite ion (SO_3^{2-})	Add hydrochloric acid	
Nitrate ion (NO_3^-)	Add cold iron (II) sulfate, FeSO_4 followed by sulfuric acid, H_2SO_4 .	