

Testing for Ions

Chemistry

The standard qualitative tests, cation and anion.

Test and positive result.

Ion	Test	Result
Carbonate	Dilute acid	Effervescence, limewater milky
Sulfate	BaCl_2 with HCl	White precipitate
Chloride	AgNO_3 with HNO_3	White precipitate, soluble in dilute NH_3
Bromide	AgNO_3	Cream, soluble in concentrated NH_3
Iodide	AgNO_3	Yellow, insoluble in NH_3
Ammonium	NaOH, warm	Pungent gas, damp red litmus turns blue

Test carbonate first: it also gives a precipitate with silver nitrate and would produce a false halide result.