

Experiment-2Objective

Analysis of given inorganic mixture for the identification of Acidic radicals.

Requirement:

Inorganic mixture, concentrated H_2SO_4 , dilute H_2SO_4 and other reagents.

Apparatus:

Test tube, test tube holder, Burner, graduated pipette, measuring Flask, test tube stand etc.

Procedure:

Group 1: Test with dil- H_2SO_4
Preliminary Test

Experiment

1) Place a small amount of mixture in a test tube and add 2ml of diluted H_2SO_4

Observation
Radish brown
Vapour with pungent
Smell in cold

Inference
Maybe NO_2
Present

Confirmatory Test

1) Put a paper soaked in freshly prepared starch and KI sol mouth test tube the paper turns blue

NO_2^- (Nitrite)
Confirmed

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Group II: Test with concentrated H_2SO_4

Experiment

Observation

Inference

1) Place a small amount of mixture in dry test tube and add 2ml of conc. H_2SO_4 . Raddish brown fumes are evolved and whole sol turns yellow/brown. Bromide (Br^-) may be present.

Confirmatory Test

1) Acidity about 3ml of Soda extract of mixture with dil. HNO_3 and heat cool and add about 2ml of $AgNO_3$ sol. light yellow precipitate ($AgBr$) is obtained which is soluble in NH_4OH .

Bromide (Br^-) confirmed

2) Add a pinch of MnO_2 to the mixture dissolve in concentrated H_2SO_4 .

 Br^- confirmed

Result: The given inorganic mixture contains NO_2^- and Br^- radicals.

Teacher's Signature _____