

Expt. No. _____

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Experiment - 4

Objective: Analysis of given inorganic mixture
For the identification of Acidic radicals

Requirement: Test tube, test tube holder, burner, wire, gauze, test tube stand, dropper graduated pipette etc.

Reagent: Inorganic mixture dilute / concentrated H_2SO_4 $K_2Cr_2O_7$ other reagents,

Group I: Test with dilute H_2SO_4

Preliminary TestExperimentObservationInference

1) Place a small amount of mixture in dry test tube and add 2 ml of dil H_2SO_4 and gentle heating
confirmatory Test

Evolution of colourless gas having the suffocating smell

SO_3^{2-} (sulphite) may be present

2) Bring a paper moistened with Acidified potassium dichromate to the mouth of the test tube. paper turns green

SO_3^{2-}
(confirmed)

Teacher's Signature _____

Group II: Test with conc. H_2SO_4

Preliminary Test

- 1) Place a small amount of mixture and add 2 ml conc. H_2SO_4

Dark violet fumes are evolved

I^- may be Present

Confirmatory Test

- 1) Bring a paper dipped in starch solution to the mouth of the test tube the paper turns blue

Iodine (I^-) confirmed

Result The given Inorganic mixture contains SO_3^{2-} and I^- radicals.