GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ

SESSION 2020-21

CLASS- 9 A, B, C, D, E, F

SUBJECT: CHEMISTRY PRACTICAL

INSTRUCTIONS: Students are advised to write the following Chemistry Practicals in Chemistry Practical File.(D. N. publications). These experiments are to be written neatly. The same pattern of writing is to be followed as given. Write each experiment on a fresh page.

EXPERIMENT NO 3.

Object :-

To identify the gas evolved when dil. HCℓ is added to Na_2S and the mixture is warmed in a clean dry test tube. Then moist blue litmus paper is held into the gas. Also a piece of filter paper soaked in lead acetate solution is held inot the gas.

Observations :-

(i) A colourless gas is evolved with the smell of rotten eggs.
(ii) The litmus paper turns red.
(iii) Filter paper turns silvery black due to the precipitation of lead sulphide.

Inference :-

(i) Hydrogen sulphide (H_2S) gas is present.
(ii) Hydrogen sulphide (H_2S) gas is acidic in nature.
(iii) Hydrogen sulphide (H_2S) gas is confirmed.

EXPERIMENT NO 4

Object :-

To identify the gas evolved when few drops of dil. HCℓ is added to a small amount of Na_2SO_3 taken in a clean dry test tube. Then moist blue litmus paper is held into the gas. Also a piece of filter paper soaked in acidified potassium dichromate solution is held into the gas.

Observations :-

(i) Colourless gas is evolved with the smell of burning sulphur.
(ii) The litmus paper turns red.
(iii)Filter paper turns from orange to green.

Inference :-

(i) Sulphur dioxide (SO_2) gas is present.
(ii) Sulphur dioxide (SO_2) gas is acidic in nature.
(iii)Sulphur dioxide (SO_2) gas is confirmed.

EXPERIMENT NO 5

Object :-

To identify the gas evolved when conc. HNO_3 is added to a few pieces of copper turnings taken in a dry test tube and the mixture is heated. Then moist blue litmus paper is held into the gas. Also a piece of filter paper soaked in KI solution is held into the gas.

Observations :-

(i) Reddish brown gas is evolved with pungent smell.
(ii) The litmus paper turns red.
(iii) Filter paper turns blue black.

Inference :-

(i) Nitrogen dioxide (NO_2) gas is present.
(ii) Nitrogen dioxide (NO_2) gas is acidic in nature.
(iii)Nitrogen dioxide (NO_2) gas is confirmed.

EXPERIMENT NO 6

Object :-

To identify the given cation by flame test.

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous flame of the burner. The process is repeated. When the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame, and the colour imparted to the flame is observed.

Observation :-

Golden yellow flame is seen.

Inference :-

Sodium ion (Na^+) is present.

EXPERIMENT NO 7

Object :-

To identify the given cation by flame test.

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous flame of the burner. The process is repeated. When the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame, and the colour imparted to the flame is observed.

Observation :-

Lilac (violet) flame is seen.

Inference :-

Potassium ion (K^+) is present.

EXPERIMENT NO 8

Object :-

To identify the given cation by flame test.

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous flame of the burner. The process is repeated. When the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame, and the colour imparted to the flame is observed.

Observation :-

Brick red flame is seen.

Inference :-

Calcium ion (Ca^{2+}) is present.

"END"