QUALITATIVE TEST FOR COOH

[DEPTH OF BIOLOGY]

1. LITMUS TEST

Blue litmus turns red

COOH is present

2.ESTERIFICATION TEST;

COOH on reacting with OH in the presence of concentrated H2SO4 give fruity smell

Fruity smell infers that ***COOH is present*** [DEPTH OF BIOLOGY]

3. FLUORESCEIN TEST:

In 0.1 gm sample add 0.1 gm resorcinol, add 0.5ml conc. H2SO4Heat the test tube gently &Pour the mixture into a beaker containing dilute sodium hydroxide solution

Green fluoroscence infers that ***COOH is present***

3. SODIUM HYDROGEN CARBONATE TEST:

$RCOOH + NaHCO_3 \longrightarrow RCOONa + CO_2\,(g) + H_2O$ [DEPTH OF BIOLOGY]

NEXT LECTURE

QUALITATIVE TEST FOR AMIDE

[DEPTH OF BIOLOGY]

1. NaOH TEST-

In 0.1 gm sample add 10 drops of NaOH & boil it; effervescence of NH_3 takes place which turns turmeric paper red

This indicates presence of Amide

2. HYDROXIDE TEST-

In 0.2 ml of sample add 2 ml hydroxamine HCl then boil & mix in waterbath and cool; add few drops of alcoholic $FeCl_3$ solution [DEPTH OF BIOLOGY]

Bluish red colour is obtained

This indicates presence of aliphatic Amide

[DEPTH OF BIOLOGY]

3. NITROUS ACID TEST-

In 0.2 gm of sample add 2 ml dilute HCl and 2 ml $NaNO_2$ solution

Brisk effervescence fue to evolution of nitrogen

This indicates presence of Amide

NEXT LECTURE

QUALITATIVE TEST FOR ESTER

[DEPTH OF BIOLOGY]

1. PHENOPTHALINE TEST-

In 0.1gm sample add 2ml H2O along with 2 drop of phenopthaline and dilute NaOH solution drop by drop till pink colour persists

If pink colour disappears then *it indicates the presence of ester group* [DEPTH OF BIOLOGY]

2. HYDROXAMIC ACID TEST-

Mix 0.4gm of compound with hydroxamic in ethanol then add few ml of ethanoic Naoh solution , heat the mixture & then cool it. Add few drops of HCl along with FeCl3 solution

Deep red colour obtained *it indicates the presence of ester group*

[DEPTH OF BIOLOGY]