

B.Sc. Part III Hons.

Organic Chemistry

Paper : VII

Topic : Dyes

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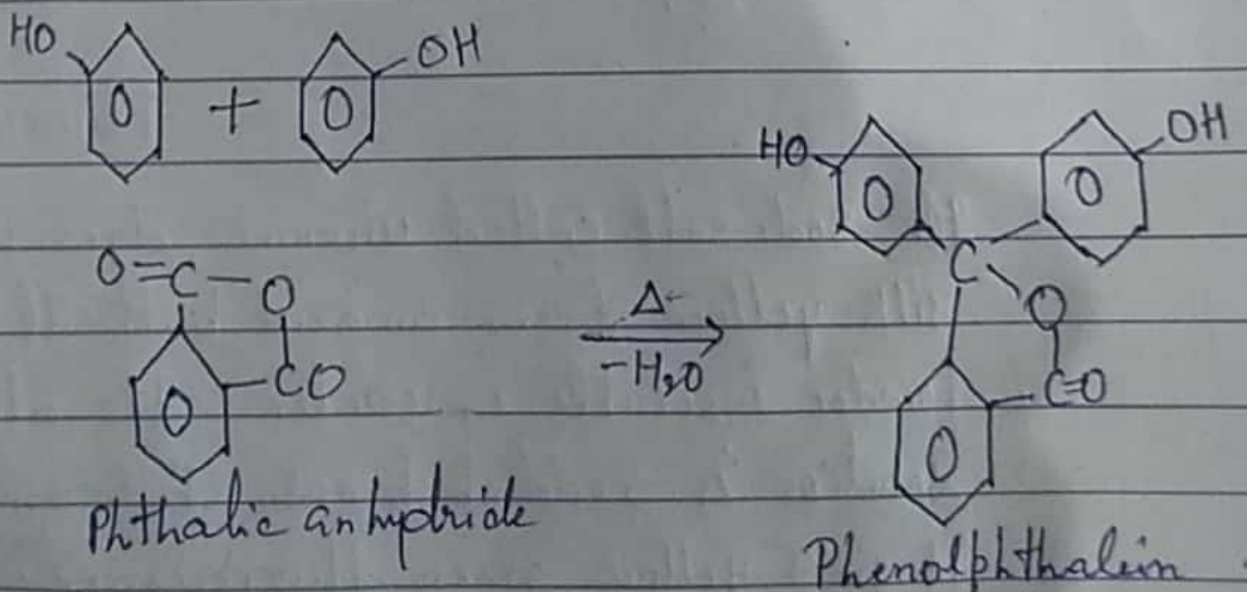
Q. Write short notes on phthalein dyes.

Ans.

Phthalein Dyes : These are prepared by the condensing phthalic anhydride with phenols in the presence of a dehydrating agent. Phenolphthalein, Fluorescein and Eosin are important phthalein dyes.

1. Phenolphthalein :

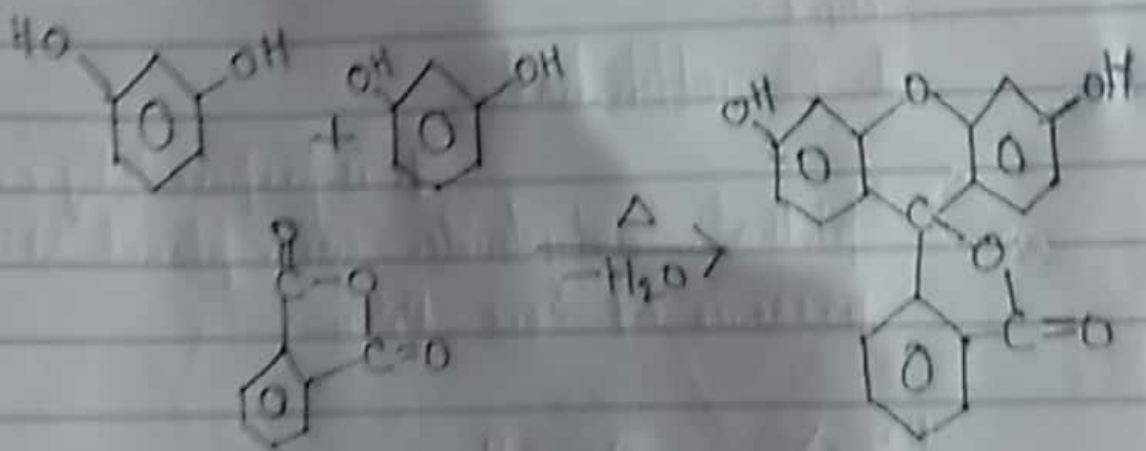
It is prepared by condensing phthalic anhydride with phenol (1:2) in the presence of conc. H_2SO_4 .



It is colourless crystalline in nature. It is insoluble in water but soluble in alcohol. It is an important acid-base indicator. It is colourless in acidic medium but shows pink colour in alkaline medium.

2. Fluorescein :

It is prepared by heating phthalic anhydride and 1,3 benzene diol (1:2) in the presence of conc. H_2SO_4 .



Fluorescein.

The sodi salt called uranine, dyes wool and silk yellow from an acid bath. It is red powder insoluble in water. Its alkaline solution is reddish brown but on dilution it gives yellow green fluorescence.