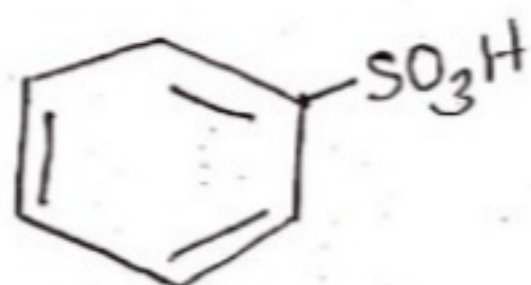


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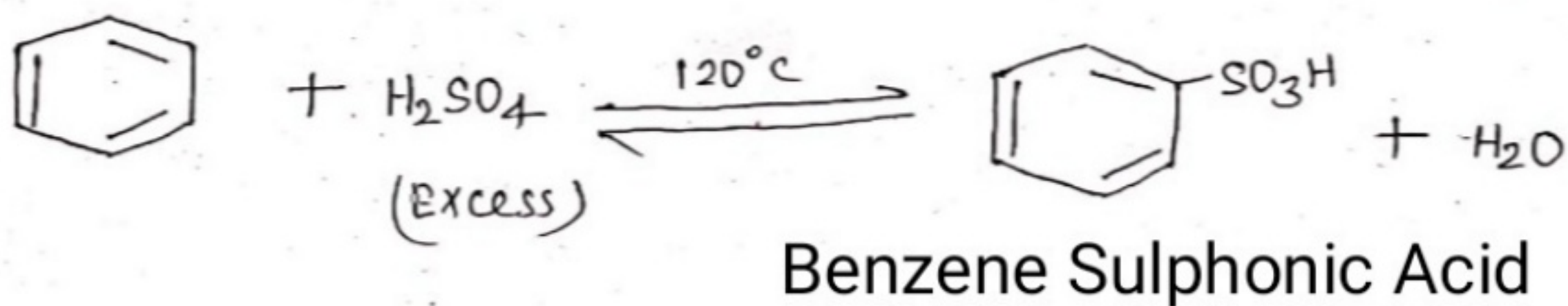
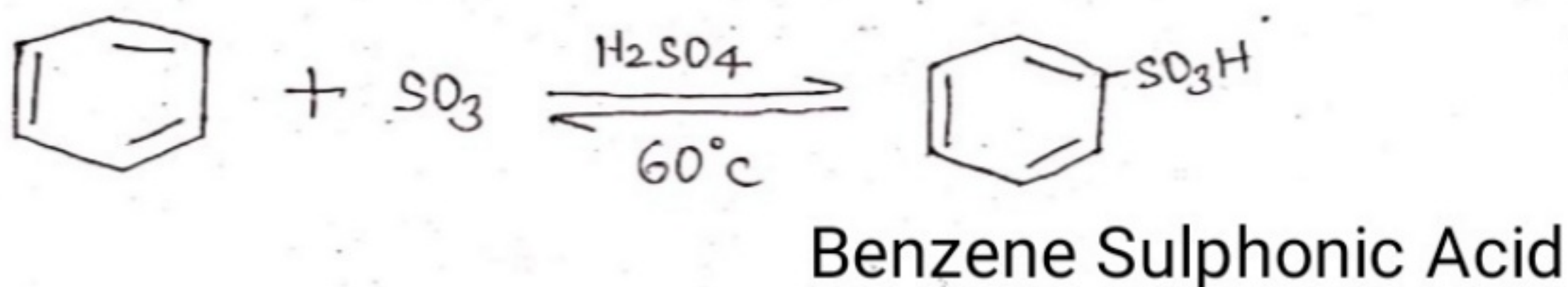
TOPIC - PREPARATION, PROPERTIES & USES OF BENZENE SULPHONIC ACID.



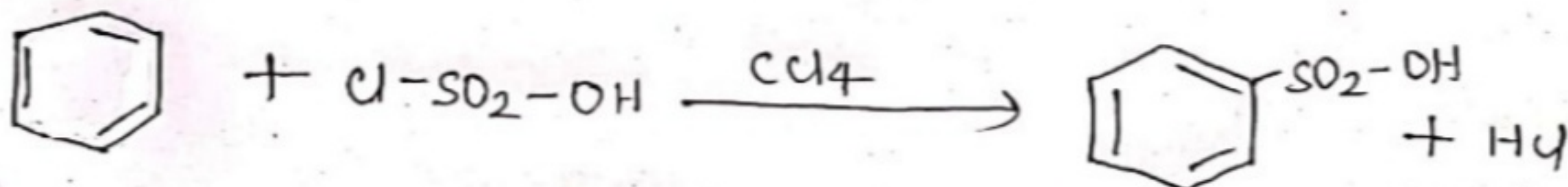
By-Dr. Rinky Kumari.
Dept. of Chemistry.
J.N. College, Madhubani.

PREPARATION

1. By sulphonation of Benzene



2. By action of Chlorosulphonic Acid on Benzene



PHYSICAL PROPERTIES

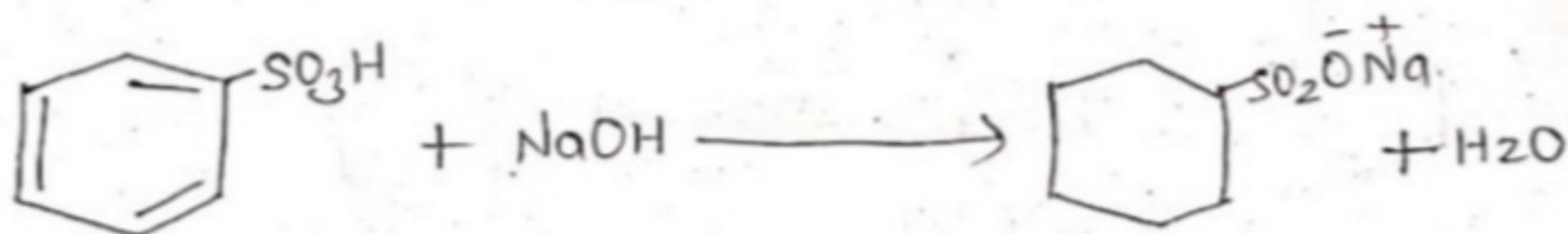
2.

1. Benzene sulphonic acids are white crystalline solids.
2. They are extremely soluble in water and this causes them to be deliquescent in moisture.
3. Relatively non-volatile.
4. They are strong acids and are completely ionized in aqueous solutions.

CHEMICAL PROPERTIES

REACTION AS ACIDS

1. Salt Formation

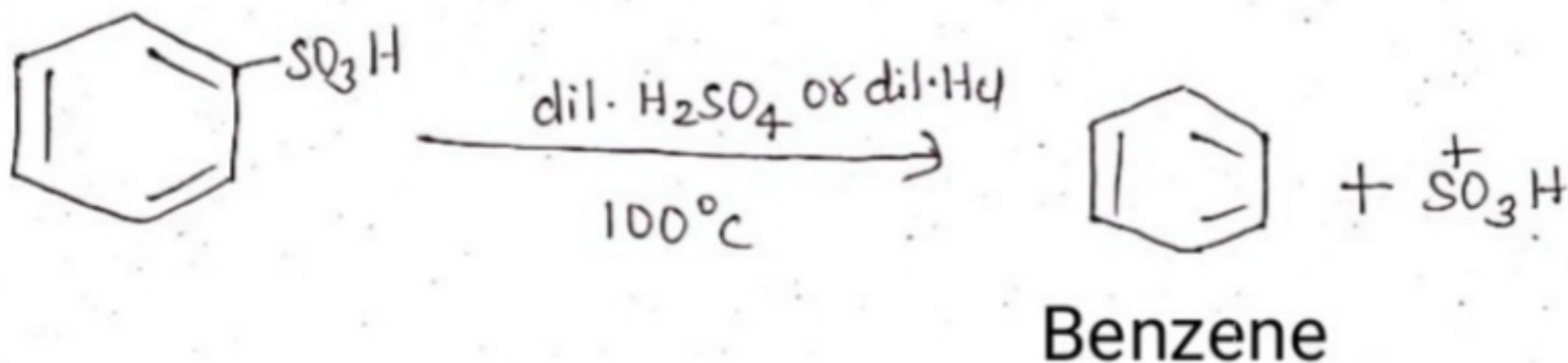


2. Formation of Sulphones

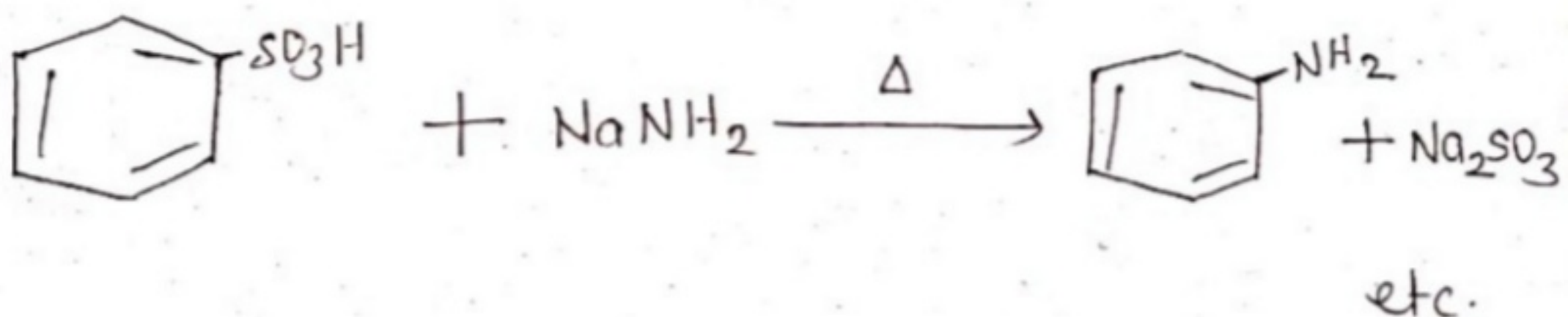


REACTION IN WHICH -SO₃H GROUP REPLACED **3.**

3. Desulphonation

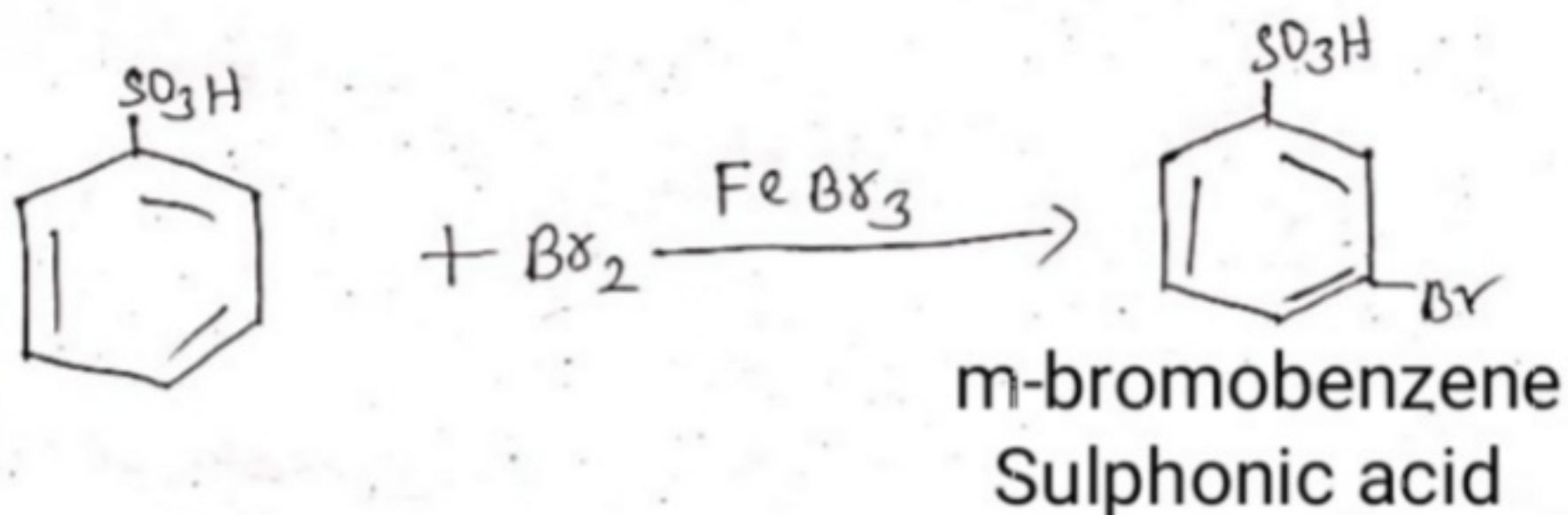


4. Formation of Amines

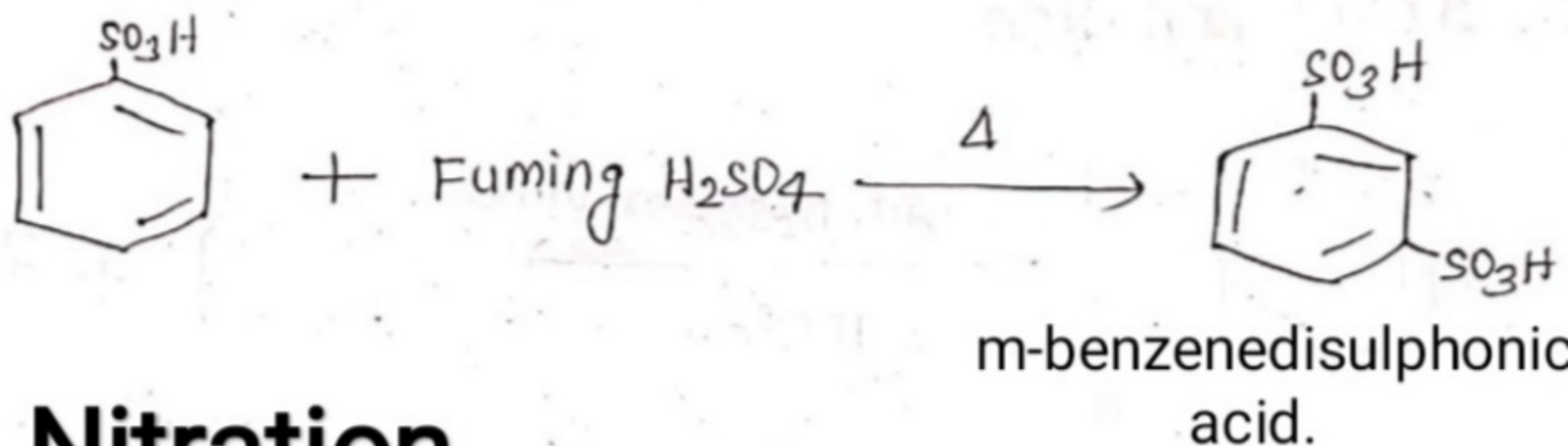


ELECTROPHILIC SUBSTITUTION REACTION

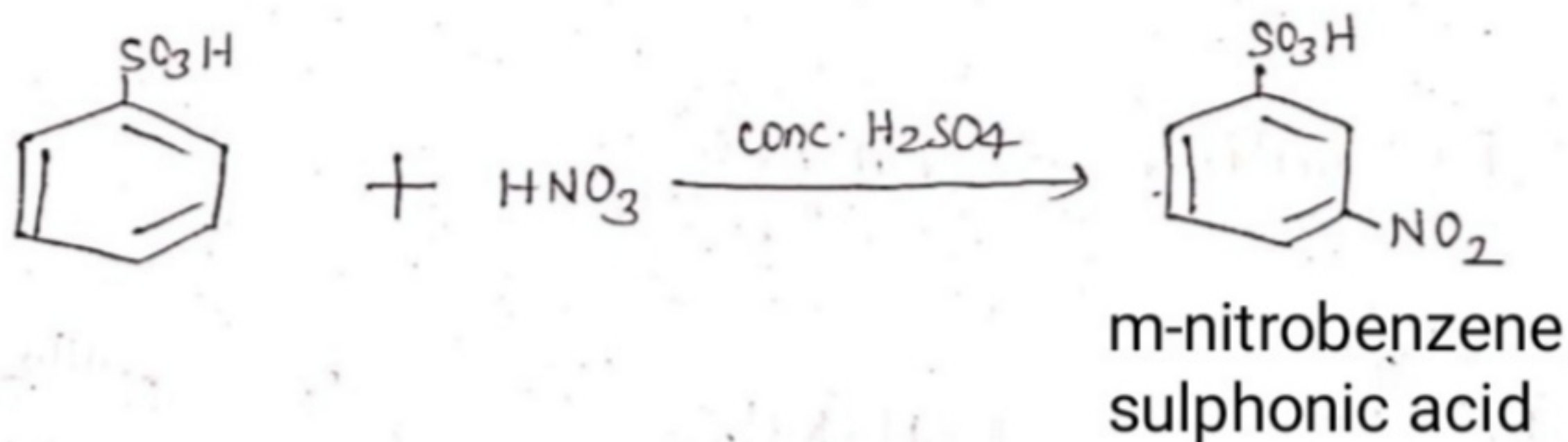
a. Halogenation



b. Sulphonation



c. Nitration



USES

1. They are frequently used as acid catalyst.
2. Sodium sulphonate are used for making phenol by fusion with NaOH.

Completed