EX: 06

TO SYNTHESIS SULPHANILIC ACID FROM ANILNE

(SULPHONATION REACTION)

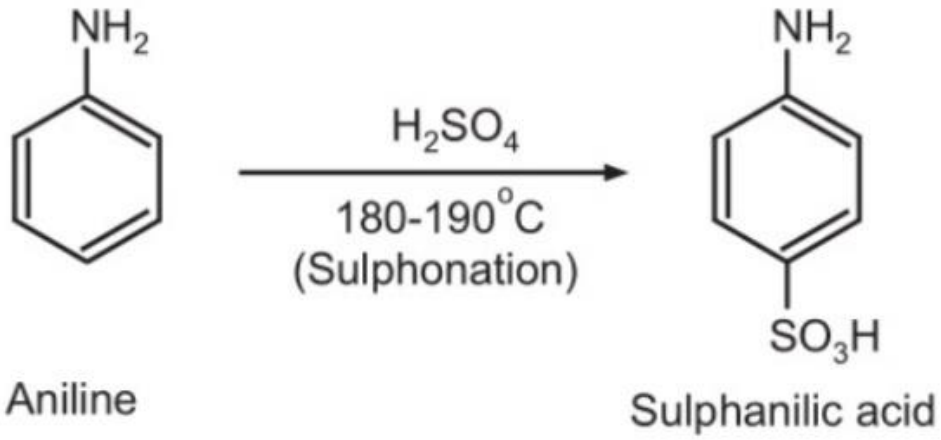
REQUIREMENTS:

1. ANILINE 10 ml

2. CONCENTRATED SULPHUIC ACID 20ml

PRINCIPLE:

Sulphanilic acid is highly crystalline substance which having a low solubility in cold water, can be readily isolated. Aniline is treated with excess of concentrated Sulphuric acid, aniline hydrogen sulphate is formed first, and following heating at 180-190 0C, is converted in to sulphanilic acid



Procedure

Place 10ml of aniline in a 150ml conical flask and add 20ml of concentrated Sulphuric acid shake the mix the mixture gently during the addition and keep it cool in ice cold water, add cautiously 10% fuming Sulphuric acid and then heat the mixture in an oil bath at 180-190 0C for 1 Hr.

Allow to cool and pour it carefully into about 200 ml of cold water, stirring the mixture continuously and allow to stand for 5 minutes. Filter off the crude sulphanilic acid

Recrystallization

Purified from about 250 ml boiling water

Sulphanilic acid has no sharp melting point it decomposes on heating. It is only slightly soluble in cold water.

Uses: used as an anti-fungal and anti-bacterial agent against gram positive and gram negative micro organism