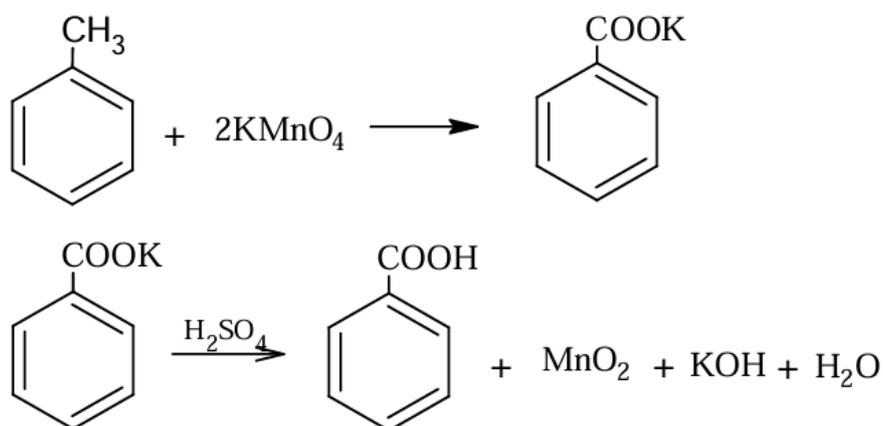


BENZOIC ACID



Reagents:

KMnO₄ - 8.4 g
Na₂CO₃ - 2.8 g
Toluene - 3.2 ml
50% H₂SO₄
Na₂SO₃

Apparatus:

round-bottomed flask 100 ml
reflux condenser
beakers 250 ml, 100 ml
crystallizer
glass and PP funnel
glass rod
Petri glass
stirring rod

Preparation:

In a 100ml round-bottomed flask, 8.4 g KMnO₄ is placed, 40 ml distilled water is poured in and 2.8 g Na₂CO₃ and 3.2 ml toluene are added. The whole is heated (stirring on a magnetic stirrer) under a reflux condenser at boiling point until the KMnO₄ colour disappears (2-2.5h). The precipitate of MnO₂ is drained off. The solution is acidified with 50% H₂SO₄ to a clearly acidic reaction (~30ml). If the solution is coloured, a small amount of Na₂SO₃ is added. The cooled solution of the precipitated benzoic acid is drained and washed with a small amount of cold water.

The crude product is crystallised from the water after drying.

Melting point: 122 °C