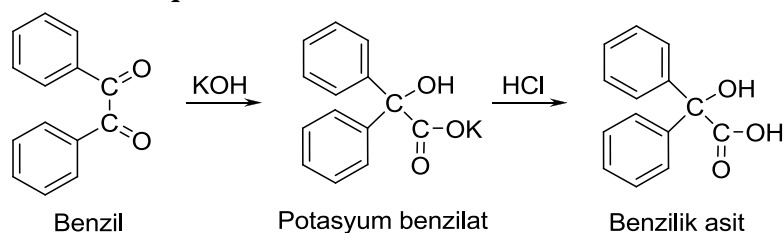


## SYNTHESIS OF BENZYLIC ACID

### Reaction Equation:



**Points to Note:** Concentrated HCl is a highly corrosive acid. Care must be taken.

### Required Items:

Benzil  
KOH  
Ethanol  
Activated Carcoal  
Concentrated HCl

### Experimental Procedure:

- In the sealed balloon, 2 g of benzyl, 2.5 g of KOH, 5 ml of ethanol and 5 ml of water were refluxed for half an hour.
- After completion of reaction, the reaction mixture is taken in to 250 ml of erlenmeyer flask.
- 50 ml of water was added and a remaining amount of benzylic acid in the form of a colloidal suspension was seperated by filtration.
- In other erlenmeyer flask, 10 ml of concd. HCl is added to 25 ml of water and ice and to this mixture, filtrate (potassium benzoate solution) which is obtained below is added continuously with stirring.
- The resulting benzylic acid crystals are filtered and left to dry at room temperature.
- If pure product is desired it can be recrystallized from hot water.

**M.P. and Yield of the Product:** 150 °C, 49%

**Soru:** Explain the mechanism of the synthesis reaction.