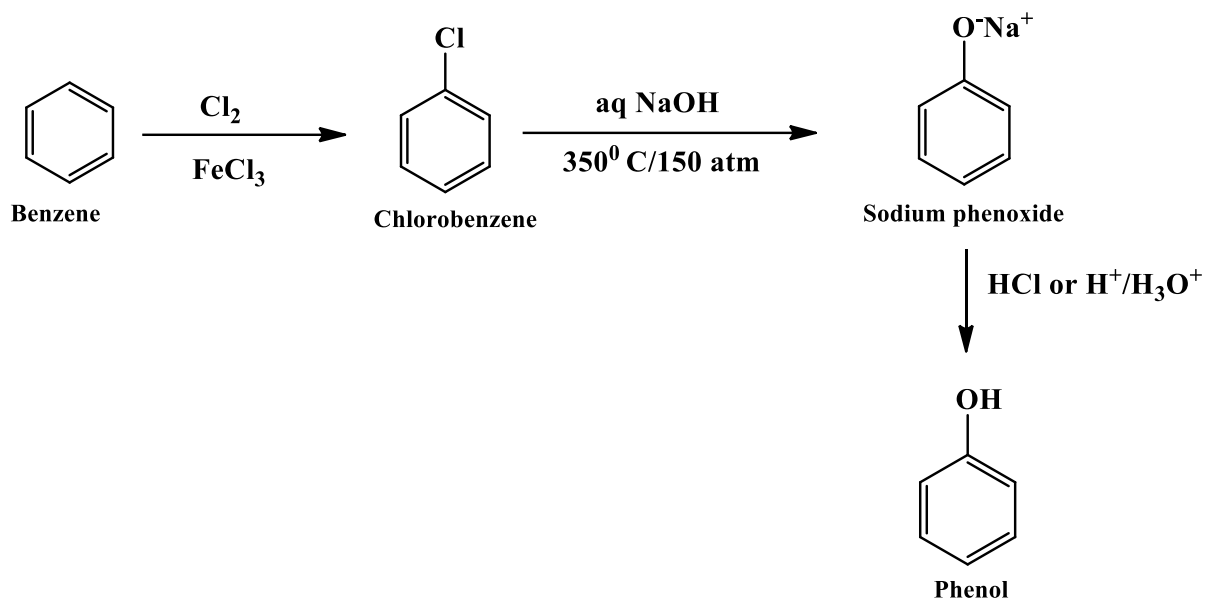


METHODS OF PREPARATION OF PHENOL

1. From chlorobenzene (Dow process): Lab method

In this process, the hydrolysis of chlorobenzene with aqueous NaOH at high temperature and pressure followed by treatment with dilute HCl.

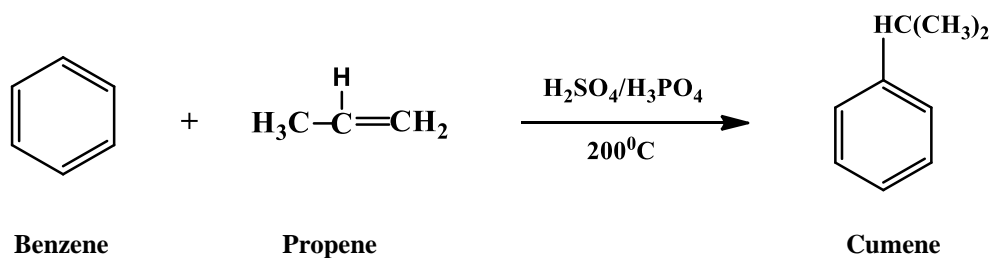


Note: This process was first introduced in 1928 by the Dow Chemical Company of U.S.A..

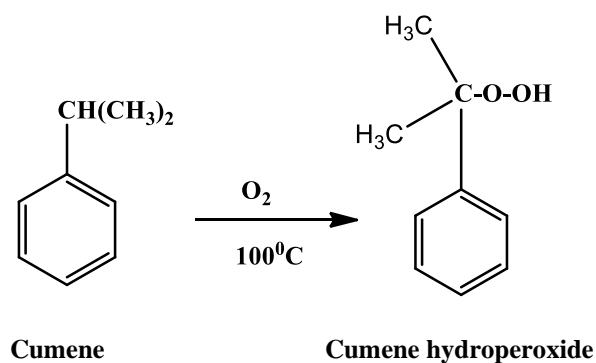
2. From Cumene (Cumene process)

This involves three reactions-

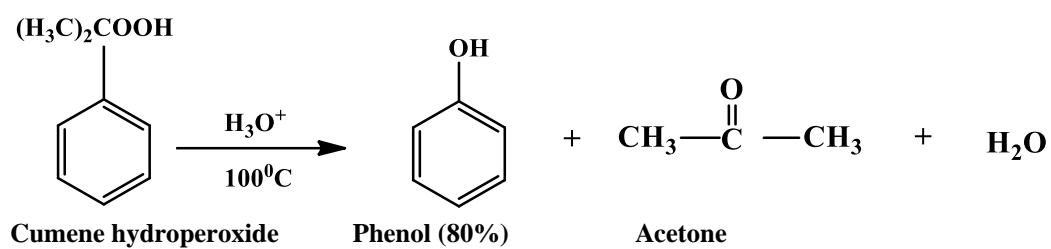
(a) Friedel-Craft alkylation reaction



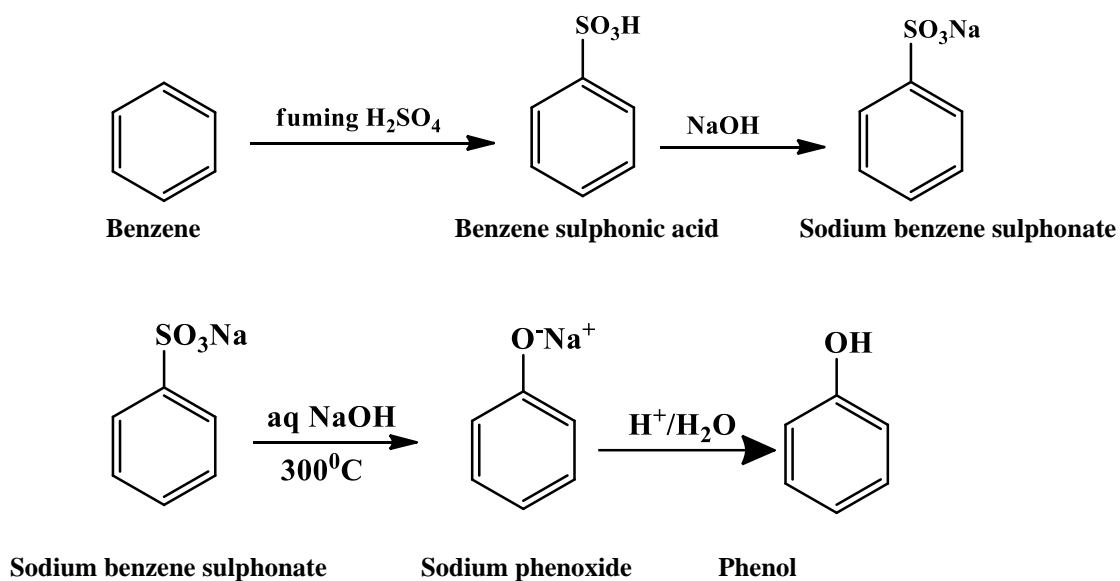
(b) Cumene is oxidised using air to give cumene hydroperoxide (auto-oxidation).



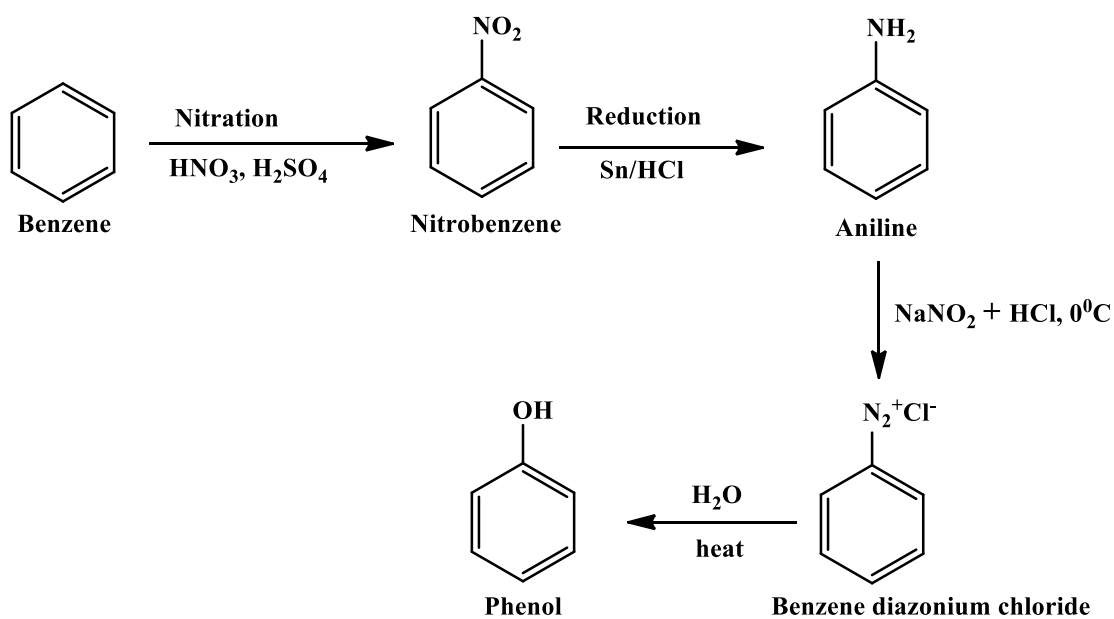
(c)



3. From sodium benzene sulphonate



4. From benzene diazonium salt



Note: The liquid form of phenol containing about 5% water is known as **Carbolic acid**.