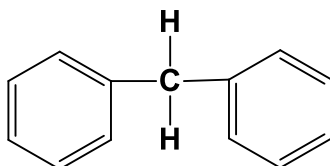


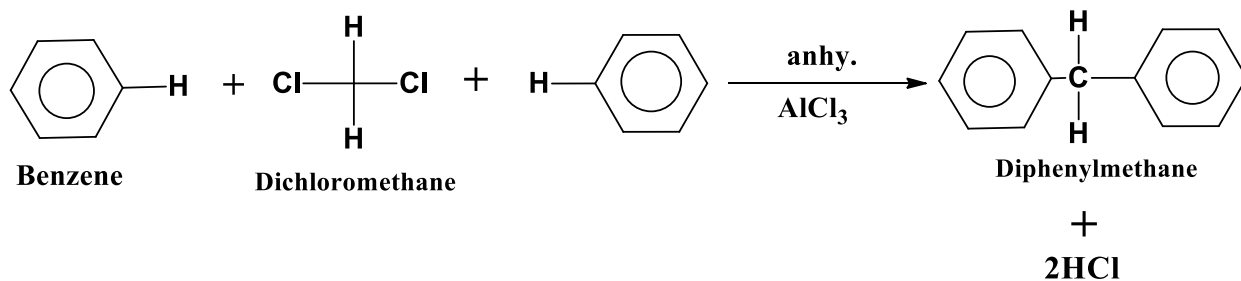
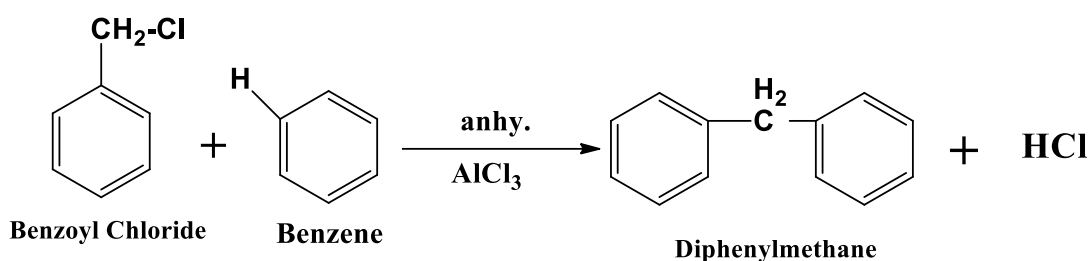
Isolated Polynuclear hydrocarbon

Diphenylmethane

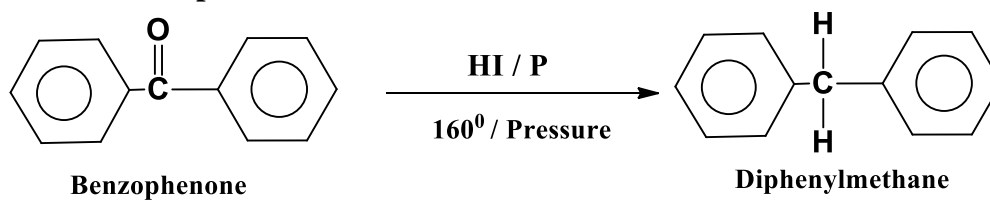


Method of Preparation:

1. By Friedel Craft's alkylation



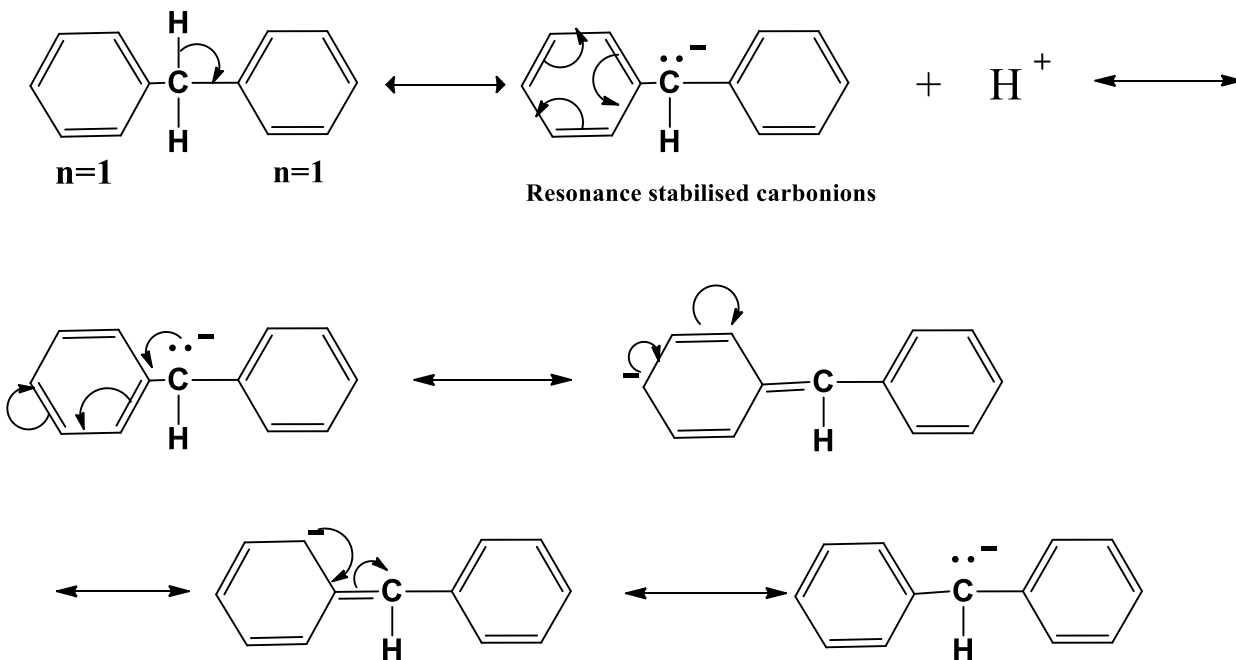
2. Reduction of Benzophenone



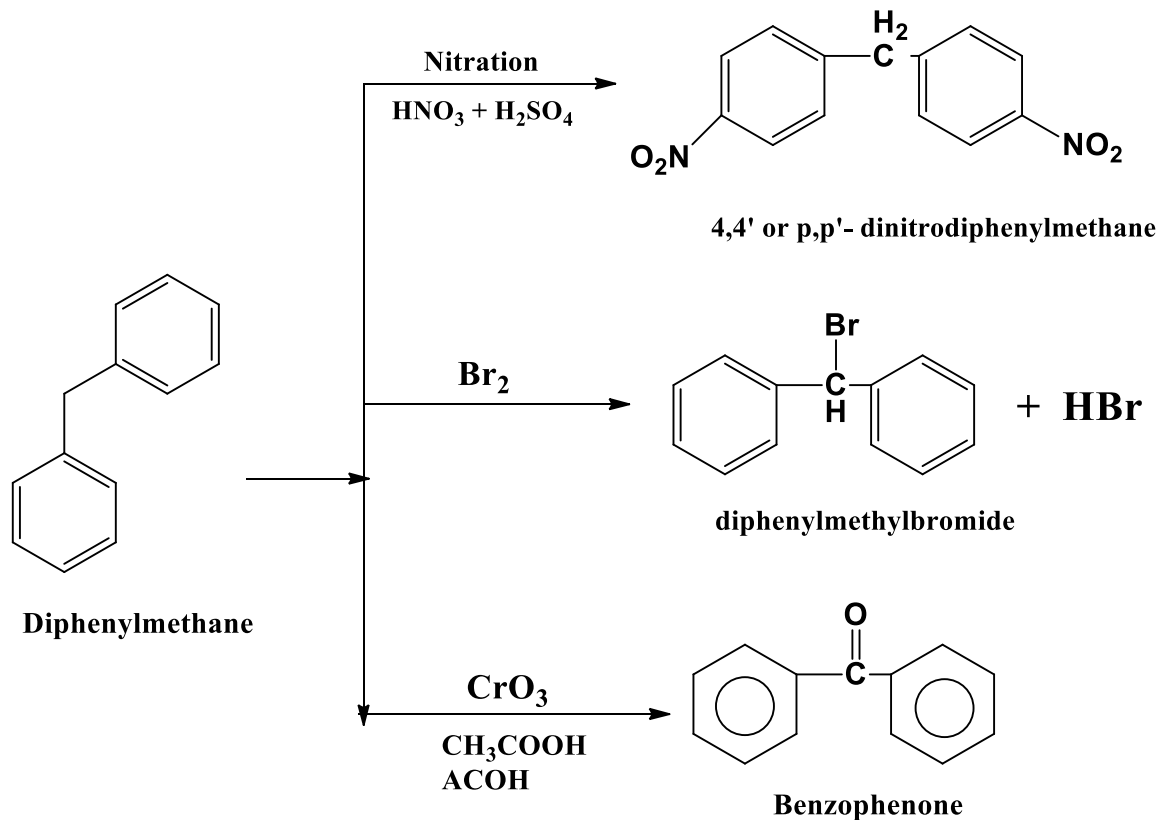
Chemical Properties:

- Aromatic in nature, it undergoes electrophilic aromatic substitution reactions, the benzyl group ($\text{C}_6\text{H}_5\text{-CH}_2$) being *ortho* -*para* directing.

- The hydrogen in methylene group of diphenyl methane is acidic because the resulting carbonions is resonance stabilise.

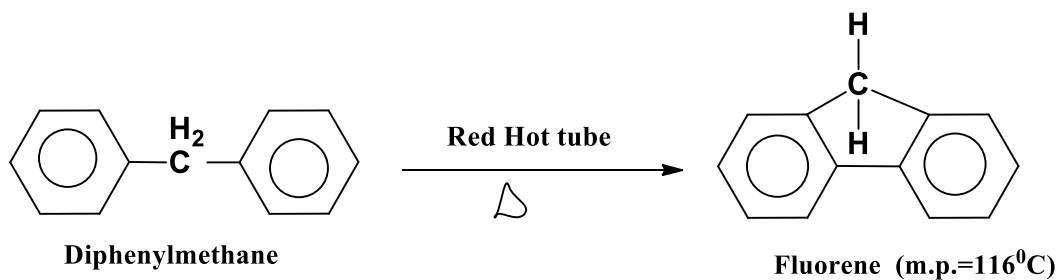


Examples; Electrophillic substitution reaction:

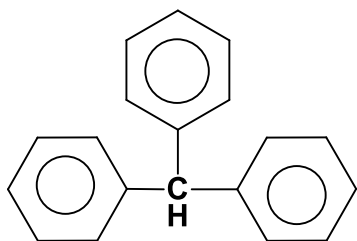


The methylene group between two benzene is very reactive.

- When the vapour of diphenylmethane passed through a red hot tube fluorene is obtained.

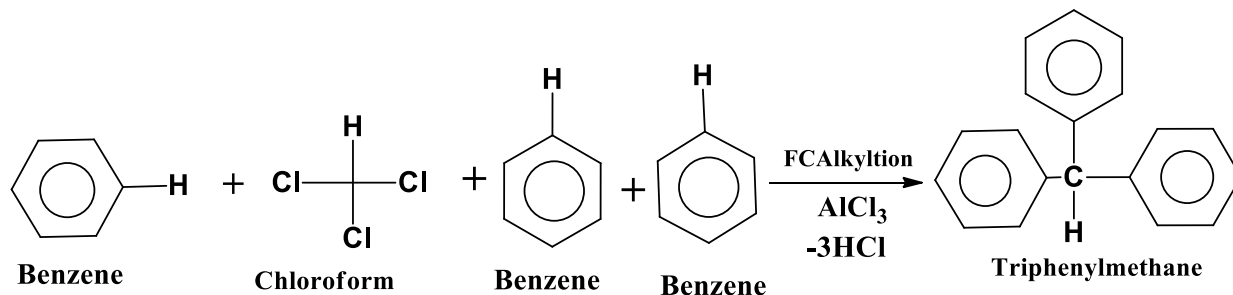
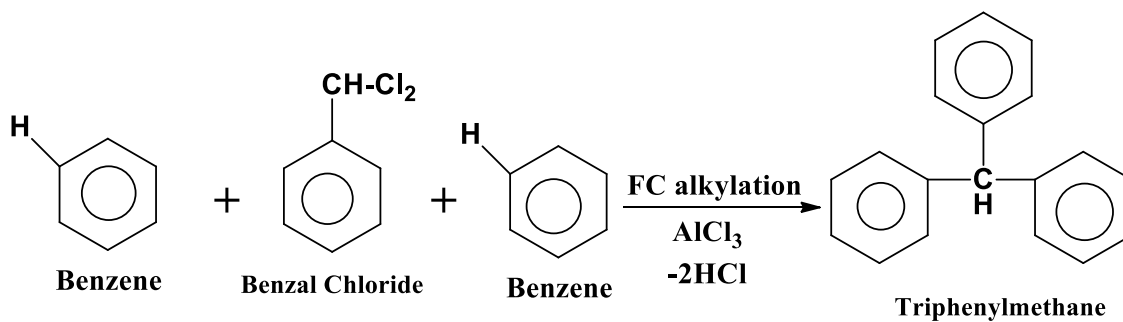


Triphenylmethane

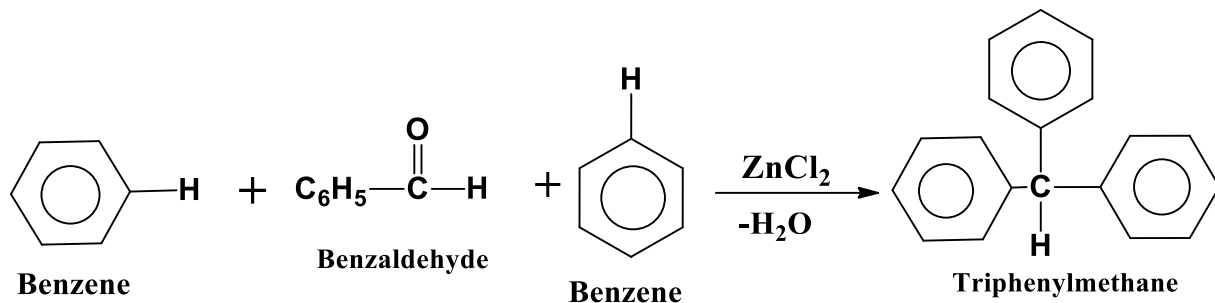


Methods of Preparation:

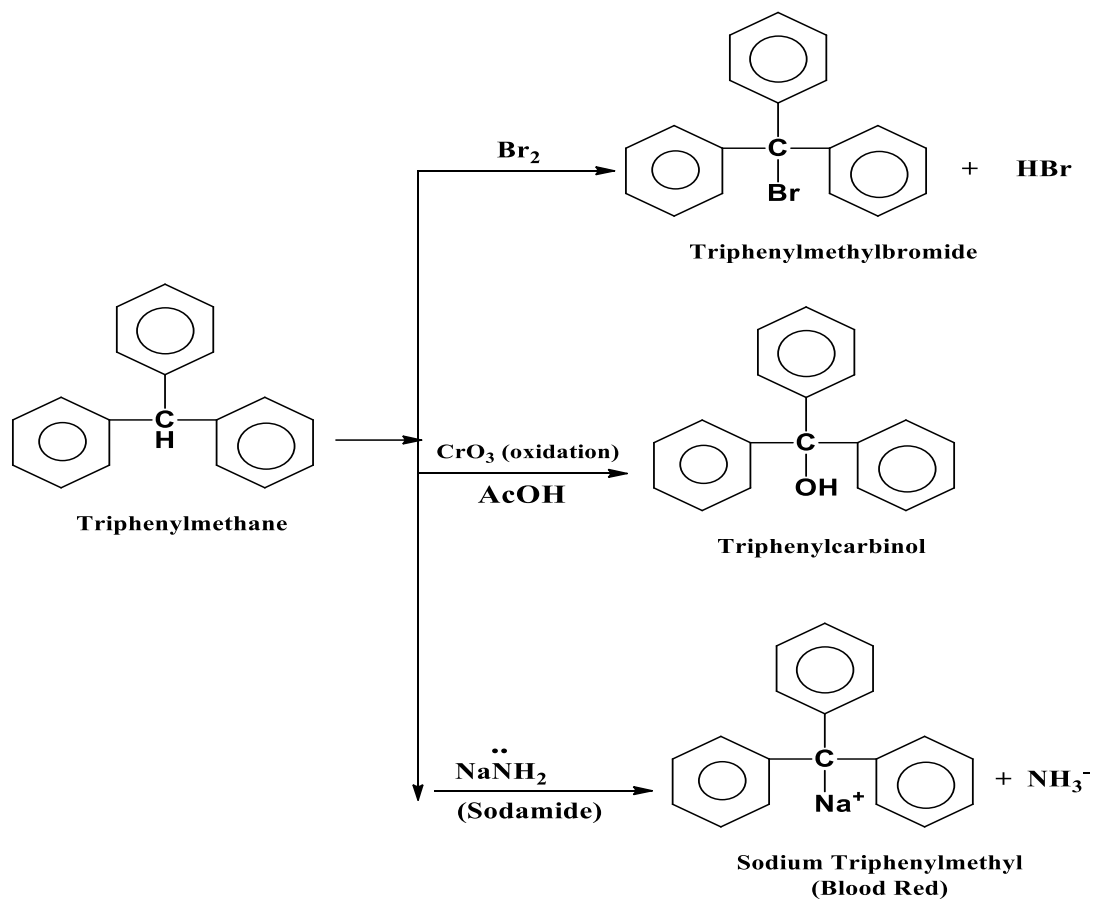
A. Friedel Craft's Reaction



B. From Benzaldehyde



Chemical Reaction:



Hence triphenylmethane is relatively acidic compared to methane

NOTE: Triphenylmethane system or compound is present in an important group of synthetic dyes called triphenylmethane dye.