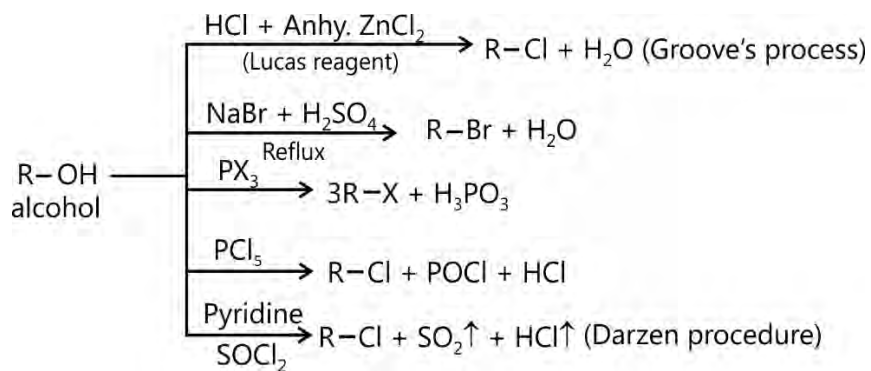


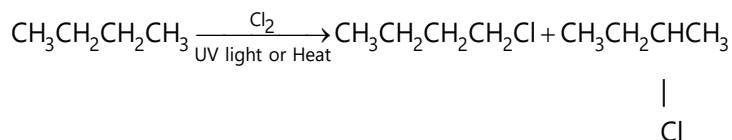
19. HALOALKANES AND HALOARENES

General Methods of Preparation of Haloalkanes

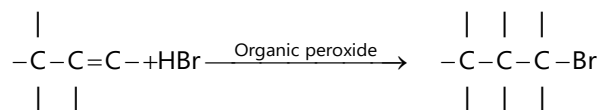
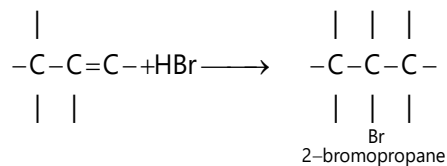
From Alcohols



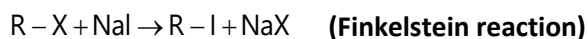
Free Radical Halogenation of Alkanes



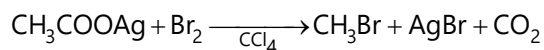
Addition of hydrogen Halides on Alkenes



(i) Halogen Exchange method :

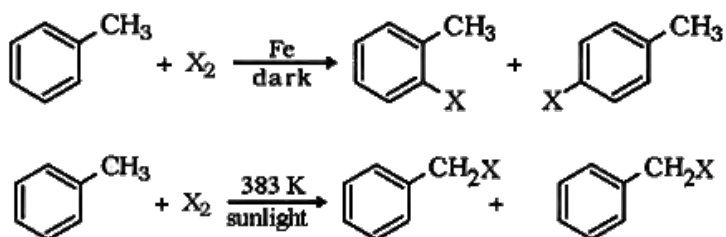


Hunsdiecker Reaction

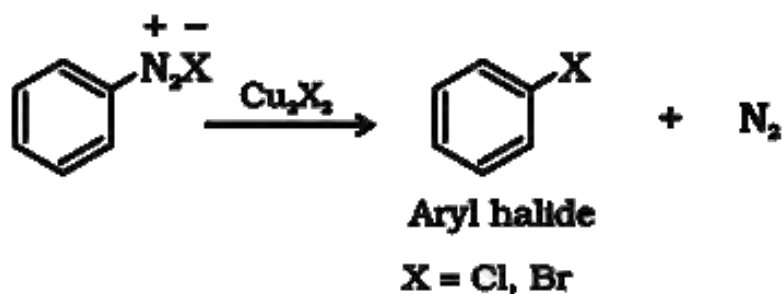
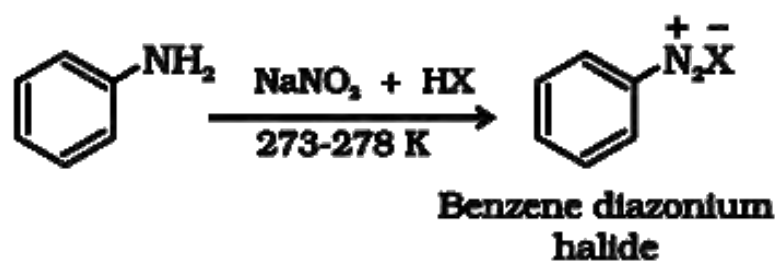


- Preparation of haloarenes :

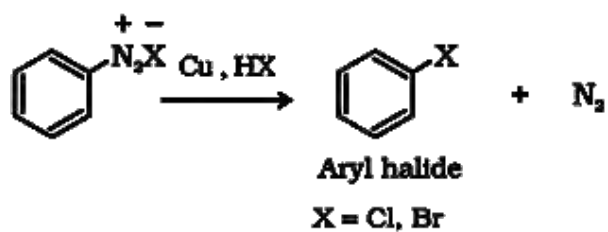
(a) By electrophilic substitution reaction :



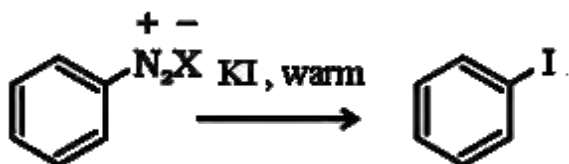
(b) Sandmeyer's reaction :



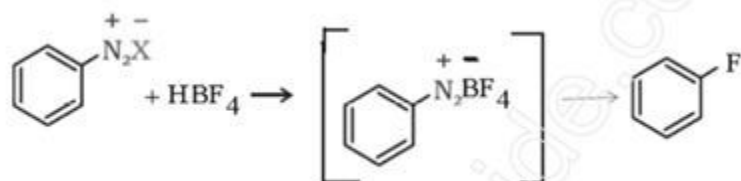
(c) Gattermann reaction :



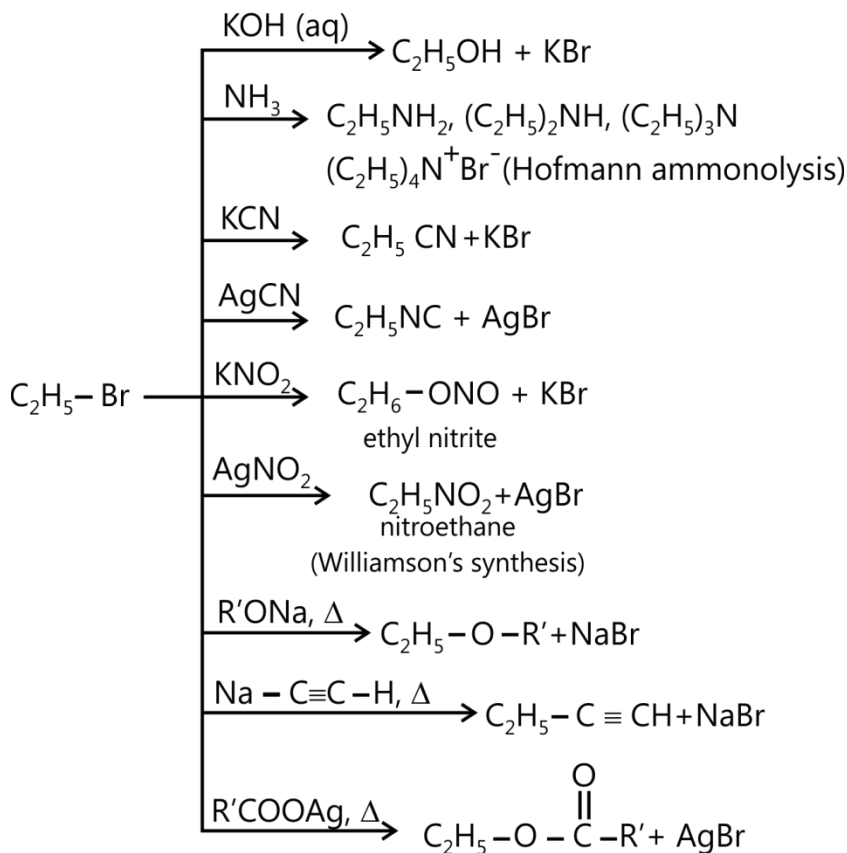
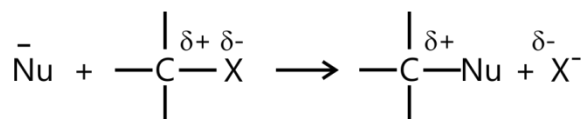
(d) From Diazonium Chloride :



(e) Balz-Schiemann reaction :

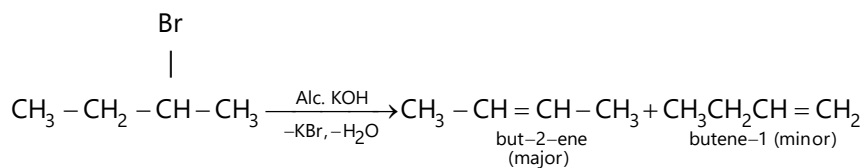


Nucleophilic Substitution Reactions

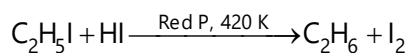
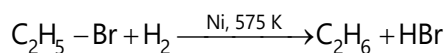


2. Elimination Reactions

Dehydrohalogenation is a β -elimination reaction in which halogen is from α -carbon atom and the hydrogen from the β -carbon according to Saytzeff rule, e.g.

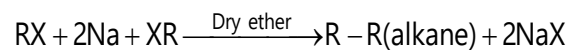


Reduction

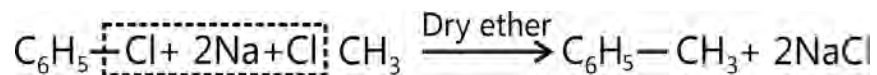


Reaction with Metals

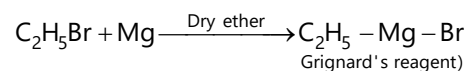
(i) Wurtz reaction



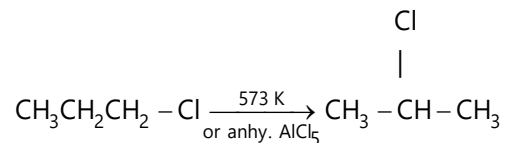
(ii) Wurtz-Fitting reaction



(iii) Reaction with Mg

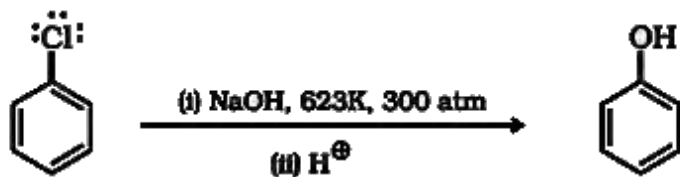


Isomerisation



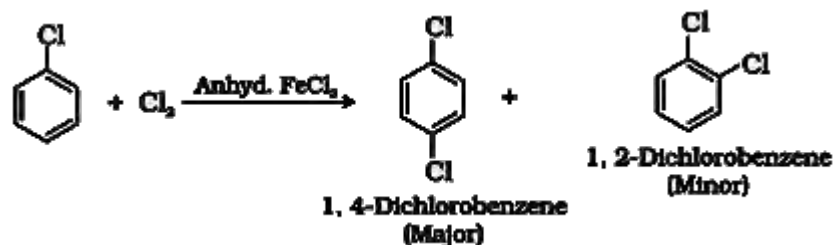
Chemical properties of haloarenes :

(a) Dow's Process

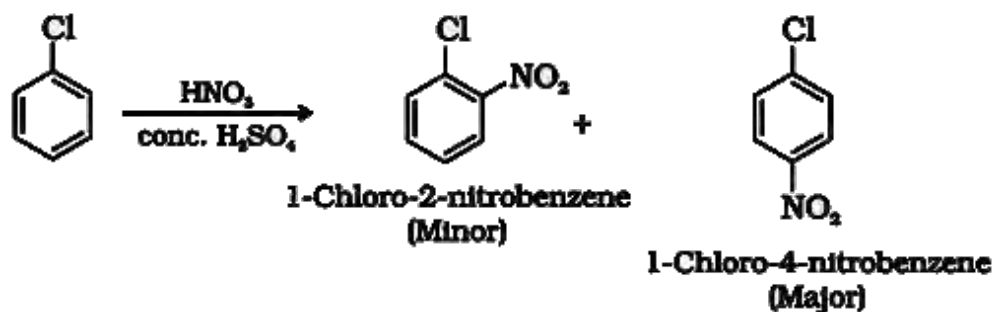


Electrophilic substitution Reactions

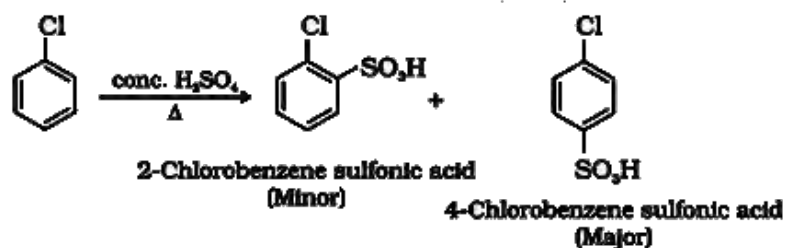
(b) With halogens



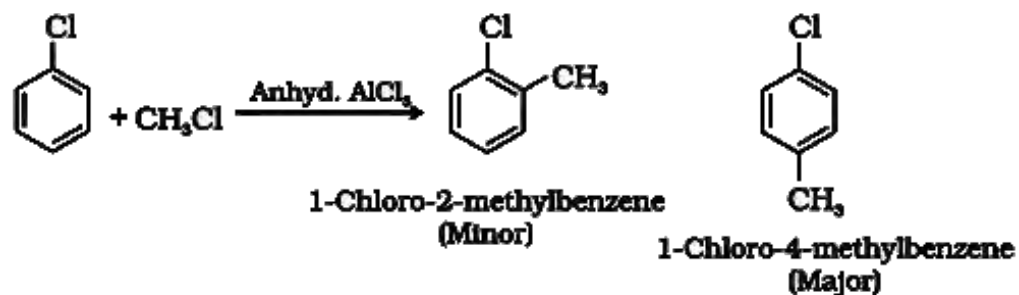
(c) With conc. sulphuric acid and nitric acid



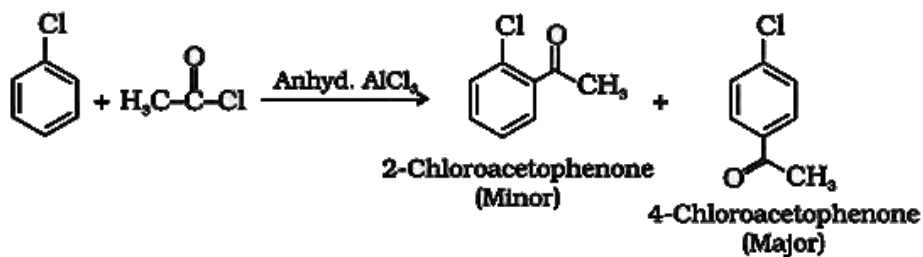
(d) On heating with conc. sulphuric acid



(e) With methyl chloride



(f) With acetyl chloride



(i) Other conversions :

