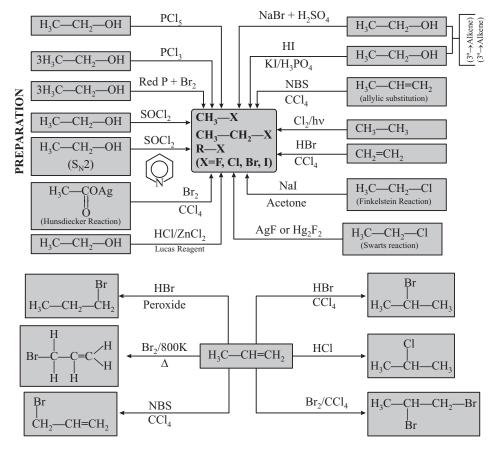
10

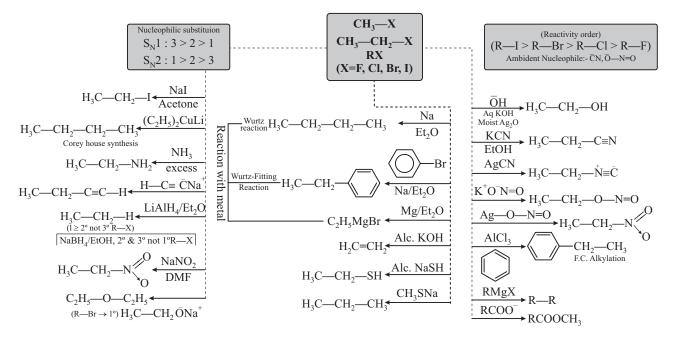


Haloalkanes and Haloarenes

Preparation of Alkyl Halides



Chemical Reactions of Alkyl Halides

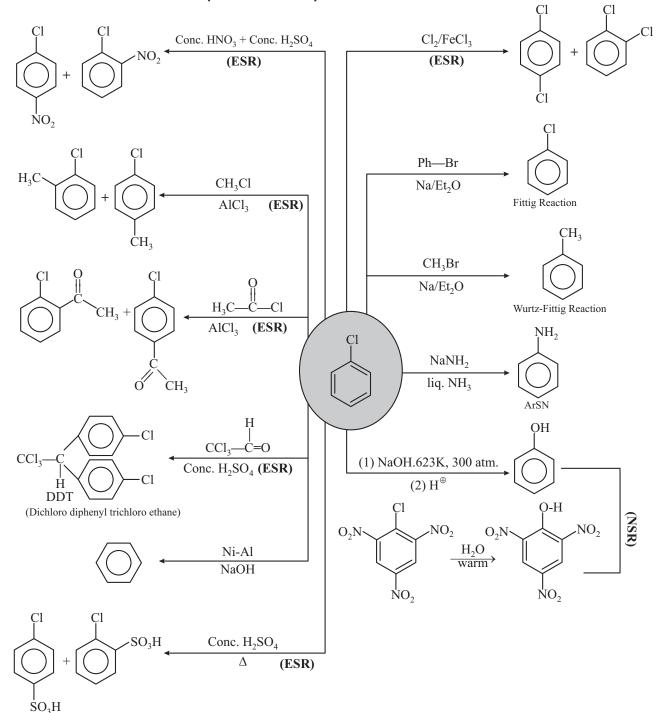


Physical Properties of Alkyl Halides

- (1) Dipole moment: $CH_3-CI > CH_3-F > CH_3-Br > CH_3-I$
- (2) Bond enthalpies: $CH_3-F > CH_3-Cl > CH_3-Br > CH_3-I$
- (3) Boiling point: R-I > R-Br > R-Cl > R-F

- (4) Density: $n-C_3H_7Cl < n-C_3H_7Br < n-C_3H_7I$
- (5) Solubility \rightarrow slightly soluble in water

Chemical Reactions of Haloarene (Chlorobenzene)



Reactivity of Haloarenes Towards Nucleophile

$$(i) \bigvee_{NO_{2}}^{F} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{Br} \bigvee_{NO_{2}}^{I} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{Cl} \bigvee_{NO_{2}}^{NO_{2}} \bigvee_{NO_{2}}^{NO$$

Physical Properties of Haloarenes

(A) Boiling Point

(B) Melting Point

$$(i) \bigcup_{C1}^{C1} > \bigcup_{C1}^{C1} > \bigcup_{C1}^{C1}$$

Preparation and Chemical Reactions of Trichloro-Methane

