

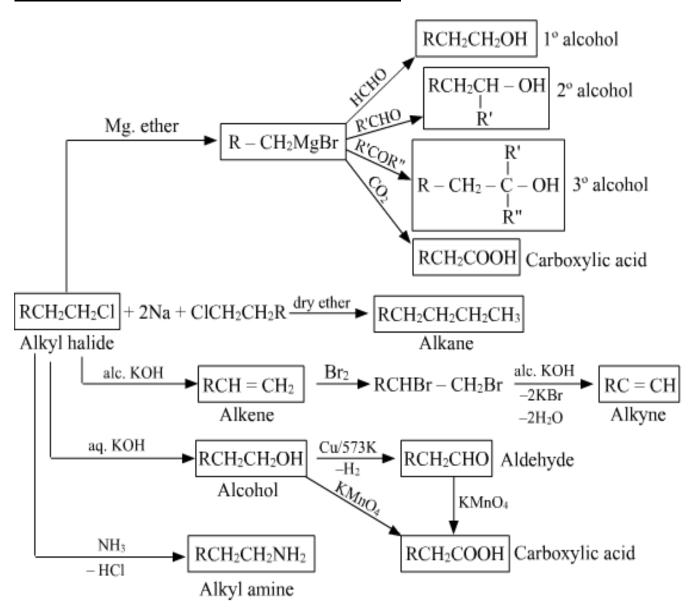




CONVERSION SCHEMES IN ORGANIC CHEMISTRY

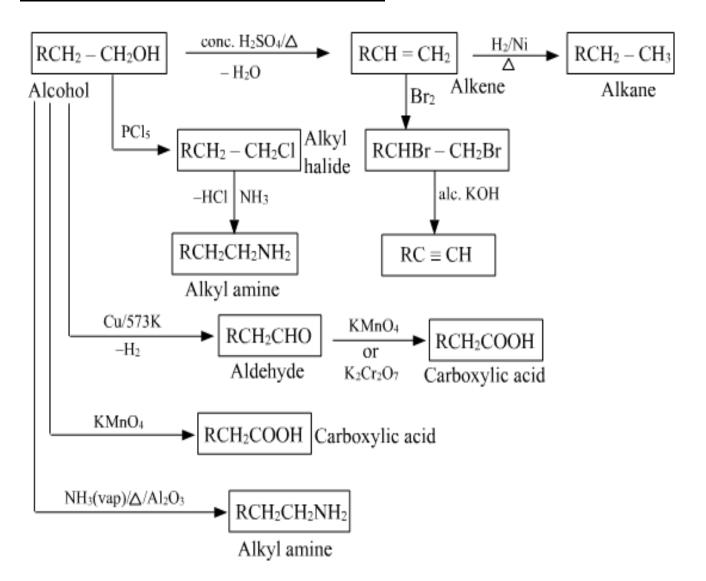
GRADE: 12 CHEMISTRY

SCHEME - I: Conversions related to alkyl halides



SCHEME – II: Conversions related to aryl halides

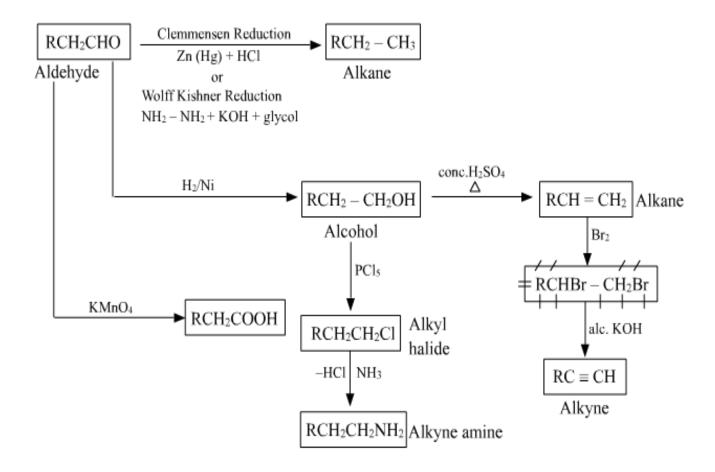
SCHEME – III: Conversions related to alcohols



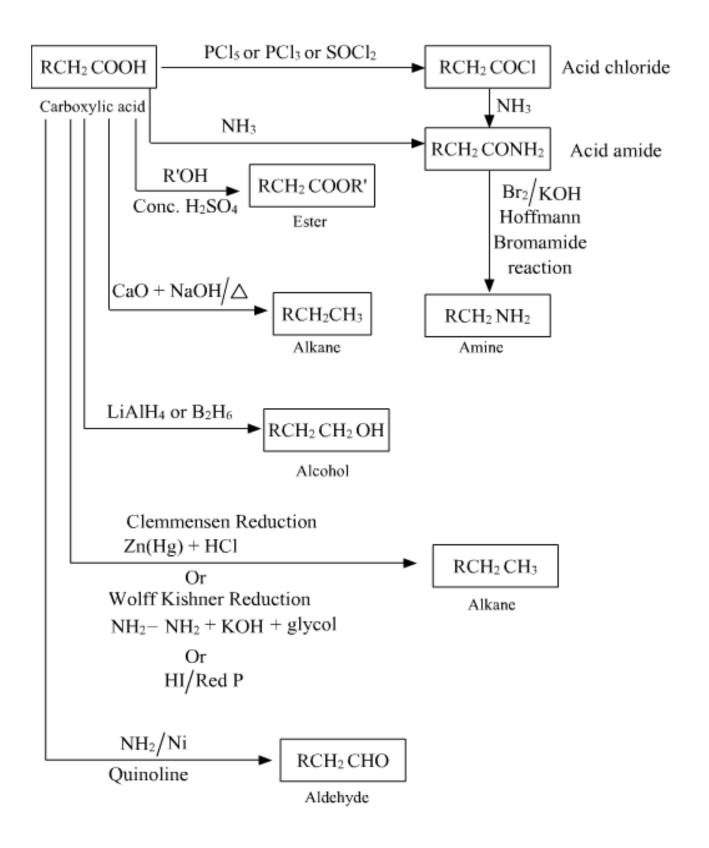
SCHEME - IV: Conversion related to phenols - I

SCHEME - V: Conversion related to phenols - II

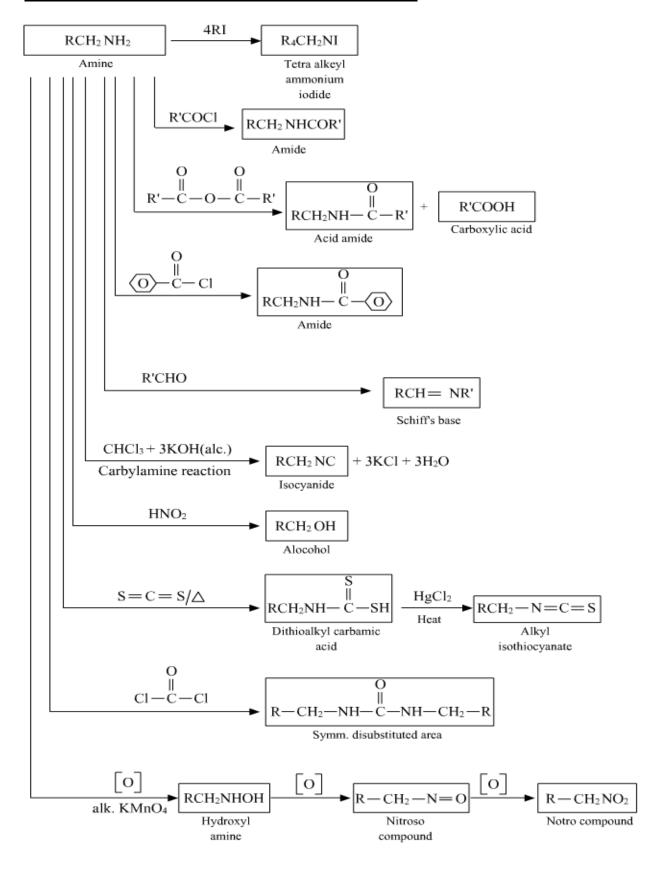
SCHEME – VI: Conversion related to aldehydes



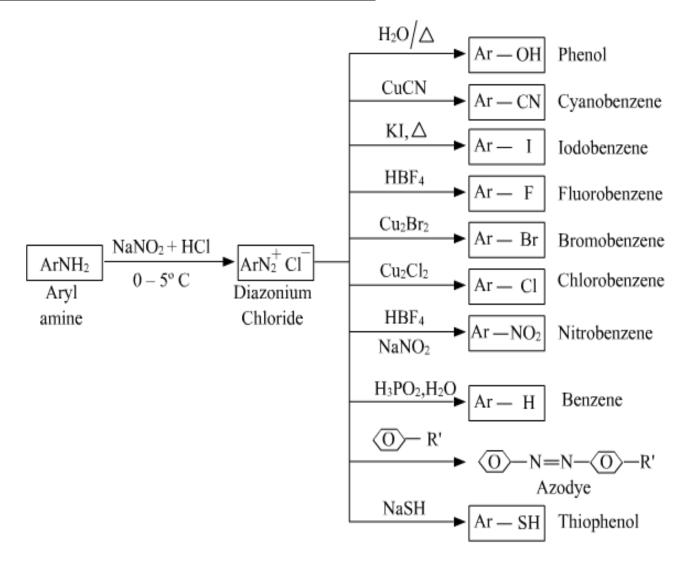
SCHEME - VI: Conversion related to carboxylic acids



SCHEME – VII: Conversion related to alkyl amines



SCHEME - VIII: Conversion related to aryl amines



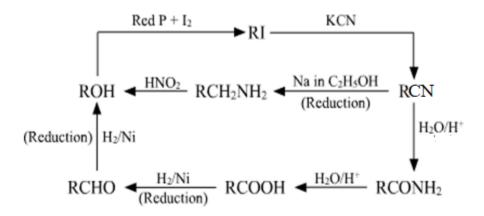
ASCENDING SERIES

(1) By Wurtz Reaction

$$R - X + 2Na + X - R \xrightarrow{Dry \text{ ether}} R - R + 2NaX$$

$$R - X + 2Na + X - R'$$
 Dry ether $R - R' + 2NaX$

(2) By Using Cyanide



(1) By using Grignard's Reagent

$$RMgX \xrightarrow{HCHO} H \xrightarrow{C} H \xrightarrow{H^+/H_2O} H \xrightarrow{C} H \xrightarrow{H^+/H_2O} H \xrightarrow{R} (1^{\circ} \text{ alcohol})$$

$$RMgX \xrightarrow{RCHO} R \xrightarrow{C} H \xrightarrow{H^+/H_2O} R' \xrightarrow{C} H (2^{\circ} \text{ alcohol})$$

$$R \xrightarrow{RCHO} R \xrightarrow{C} H \xrightarrow{H^+/H_2O} R' \xrightarrow{R} C \xrightarrow{R'} R \xrightarrow{H^+/H_2O} R \xrightarrow{R'} R$$

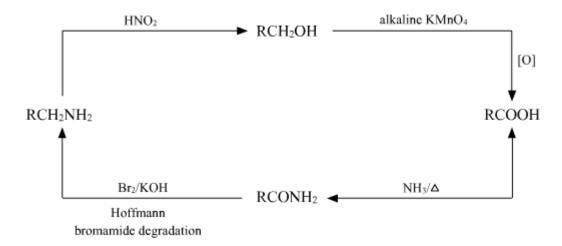
(2) By using Sodium Alkylnides

$$R - X + NaC \equiv C - R \longrightarrow R - C \equiv C - R + NaX$$

This reaction is used for terminal alkynes

DESCENT OF SERIES

(1) Hoffmann Bromamide reaction



(1) Decarboxylation reaction

