

Alcohol, Phenol & Ether

Preparation of Alcohol from Alkones

1. Acid Catalysed Hydration (M.O)
2. Hydroboration Oxidation (A.M.O)

3. Oxymercuration demercuration: Conc

From Haloalkanes

From Grignard Reagent

From Carbonyl Comp

Names of the reducing agents

Physical prop. of Alcohols

Imp points

Chemical prop of Alcohols $[R-OH \text{ \& } R-O-H]$

Reactions involving cleavage of $R-O-H$ bond

Esterification Reactions

- i) with carboxylic acid
- ii) with acid chloride
- iii) $CH_3-C(=O)-O-C(=O)-CH_3$

Reactions involving $[R-O-H]$ bond

LUCAS reagent / Turbidity test

pKa Value

Preparation of phenols i) Wurtz-Fittig process ii) From $Ca(OH)_2$ iii) From Aniline / Diazonium salt

iv) From $Ca(OH)_2$ v) From Salicylic acid

Imp point [E.W.G]

Electrophilic Substitution Reaction

1. Nitration i) dil — ii) conc —
2. Sulphonation i) low temp ii) high temp
3. Halogenation [Bromination]
i) with Polar Solvent (H_2O)
4. Oxidation
5. Reaction with zinc
6. Reimer-Tiemann Reaction

Recall Sheet