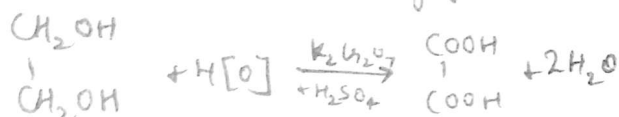


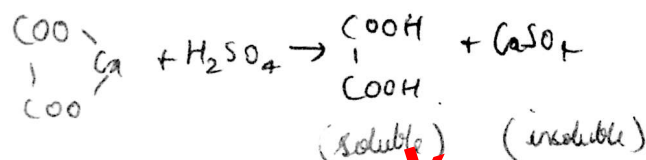
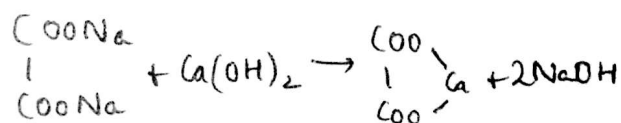
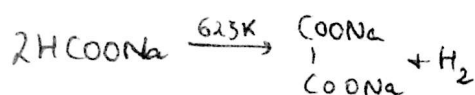
★ Oxalic Acid ($\begin{smallmatrix} \text{COOH} \\ | \\ \text{COOH} \end{smallmatrix}$)

• Preparation

From ethylene glycol

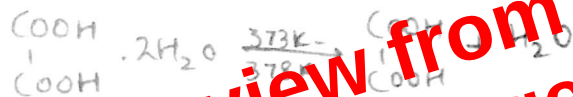


From sodium Formate

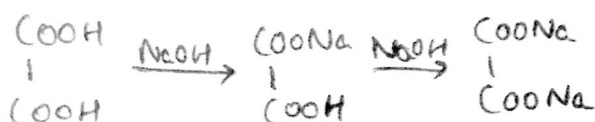


Chemical Properties

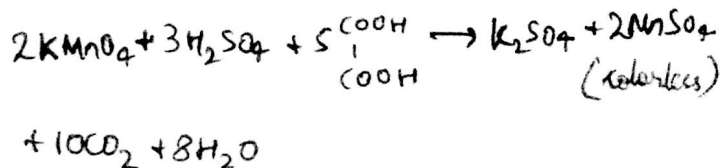
→ Heat



→ Reaction with alkali



→ Reaction with acidified KMnO_4 soln.

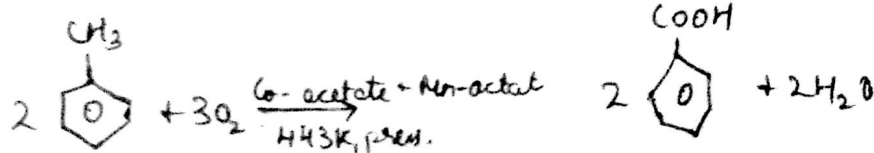


→ Oxalic acid decolorises KMnO_4 solution acidified

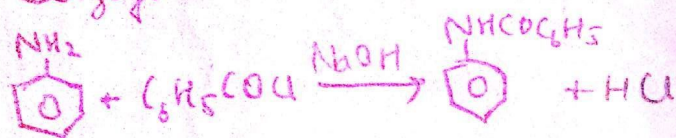
★ Benzoic Acid

Preparation.

From Toluene :

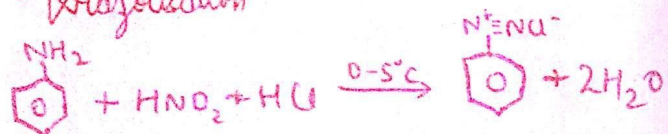


• Benzoylation

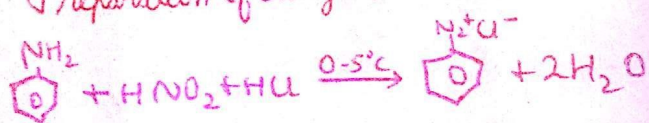


↓
Schotten Baumann Rxn.

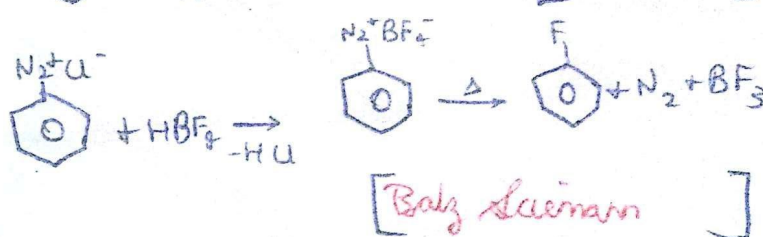
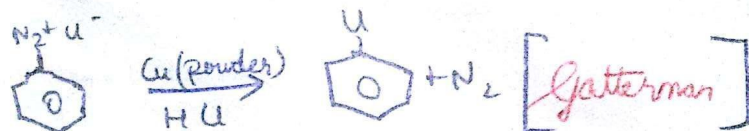
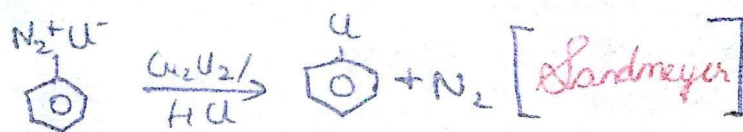
• Diazotisation →



★ Preparation of diazonium salts :-



• Chemical Properties of diazonium salts



• To distinguish b/w 1° amine from 2°/3° amine

1° amine show carbylamine test, secondary

Tertiary amines do not show

• To distinguish aromatic amines from aliphatic

1° amines azo dye test is used

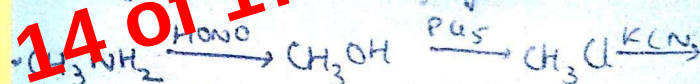
Aromatic gives orange dye when reacted with β naphthol.

• 1° amine form alcohol with HNO_2

• 2° " " nitrosamines "

• 3° " " trialkyl ammonium nitrite with HNO_2

• Ethylamine to ethylamine



• Ethylamine to methylamine

