B.SC Semester VI, Chemistry General

DSE – 1B (THEO.)

Course Title : Functional Group Organic Chemistry

2b. : Diazo compounds

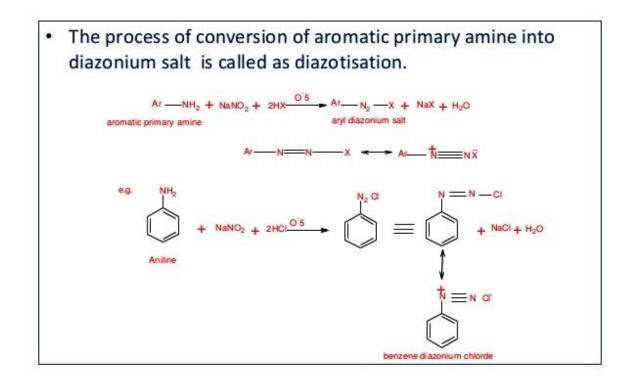
Preparation Of Diazonium Salt From Aromatic Amine

$$\underbrace{\bigcirc}^{\text{NH}_2}_{\text{Aniline}} + \text{NaNO}_2 + 2\text{HCl} \xrightarrow{0-4^\circ\text{C}}_{\text{O}} \underbrace{\bigcirc}^{\text{H}_2\text{Cl}}_{\text{O}} + \text{NaCl} + 2\text{H}_2\text{O}$$

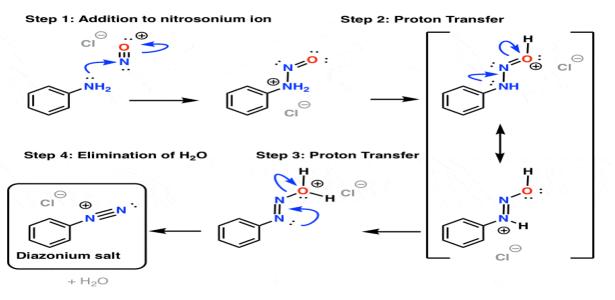
Diazonium salt

Or

Diazotisation



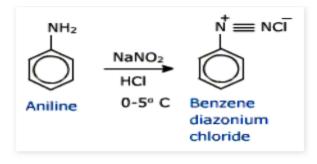
Mechanism of Reaction



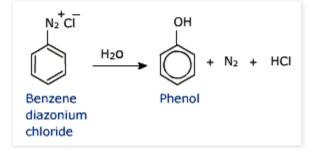
Mechanism: Formation of Diazonium Ions From Aromatic Amines

Reaction of Diazonium Salt

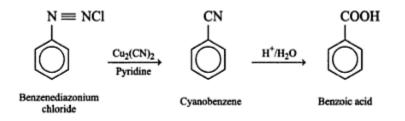
1. Diazonium to Phenol



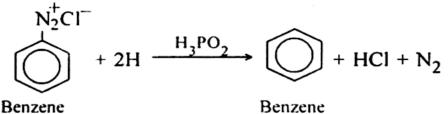
Diazonium salts are hydrolysed to phenols treating with dilute acids.



2. Diazonium to Benzoic Acid

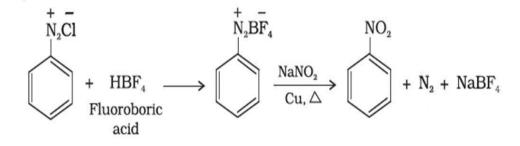


3. Diazonium To Benzene



Benzene diazonium chloride

4. Diazonium To Nitro Benzene



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