

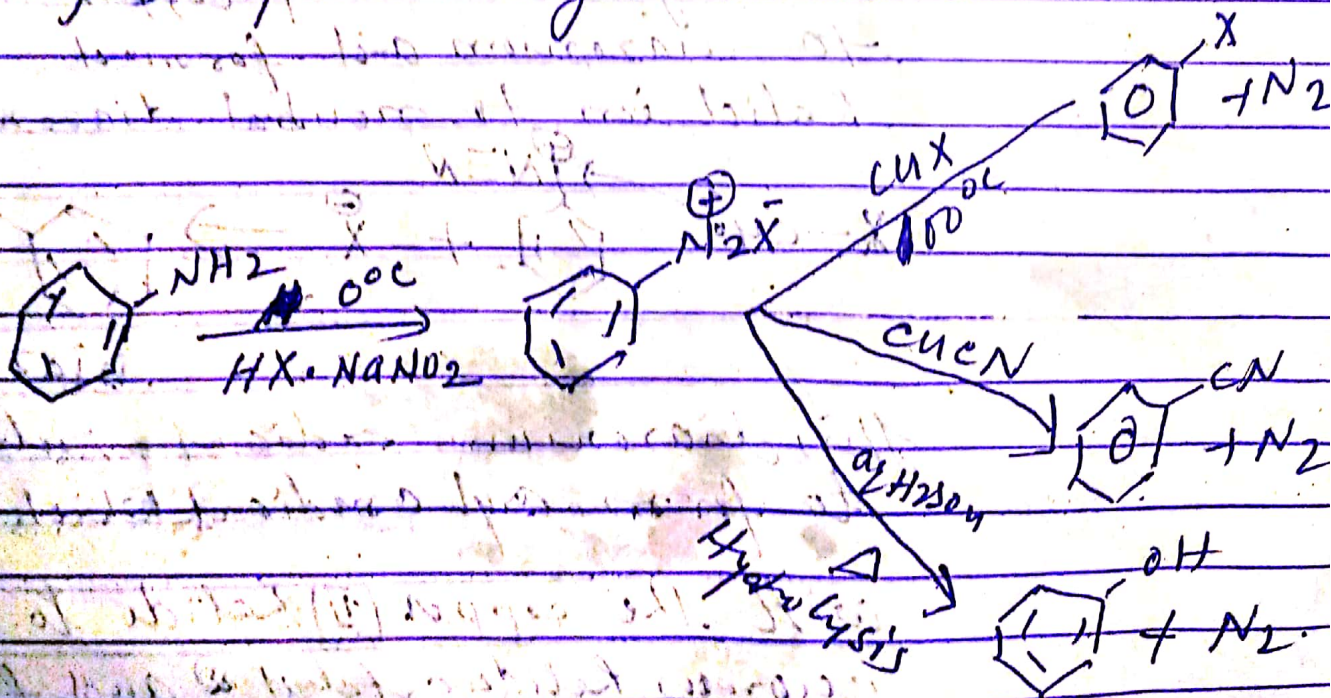
B.Sc. II (H) - III C.

SANDMEYER REACTION

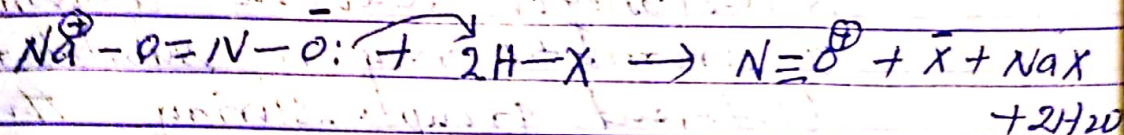
Sandmeyer reaction is a type of nucleophilic radical substitution reaction. In the Sandmeyer reaction amino group in a aromatic ring is substituted by different group. During this reaction

amino group is transferred into firstly a diazonium salt which then converted into different group in presence of catalyst.

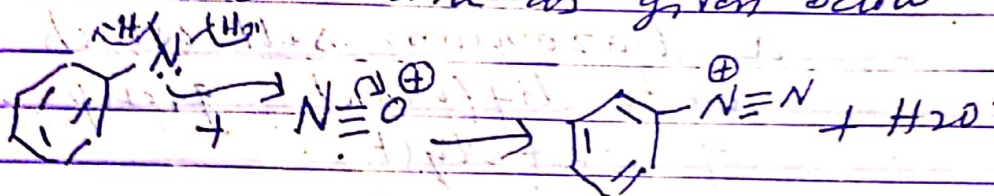
Examples of Sandmeyer reaction



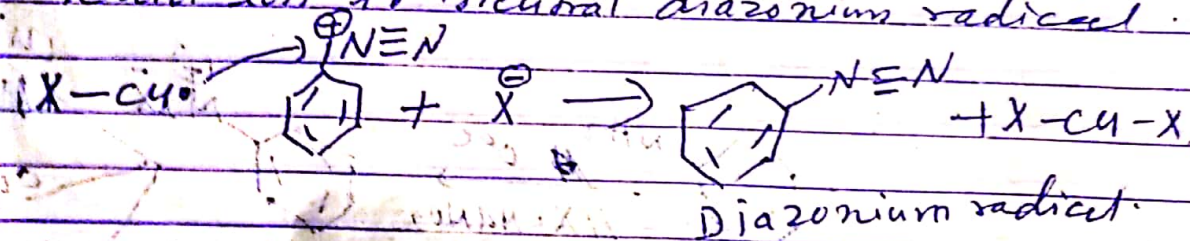
Mechanism: - NaNO_2 reacts with hydrogen halide to form nitrosonium and halide ion in the first step.



Then Nitrosonium ion Nitrogen ~~is~~ is bonded with aromatic amine as given below.



Now single electron of copper is transferred to diazonium and formed cuprous halide ion to neutral diazonium radical.



This diazonium radical releases N_2 gas to form aryl radical which reacts

with the copper (II) halide to regenerate cuprous halide catalyst and form final aryl products.

