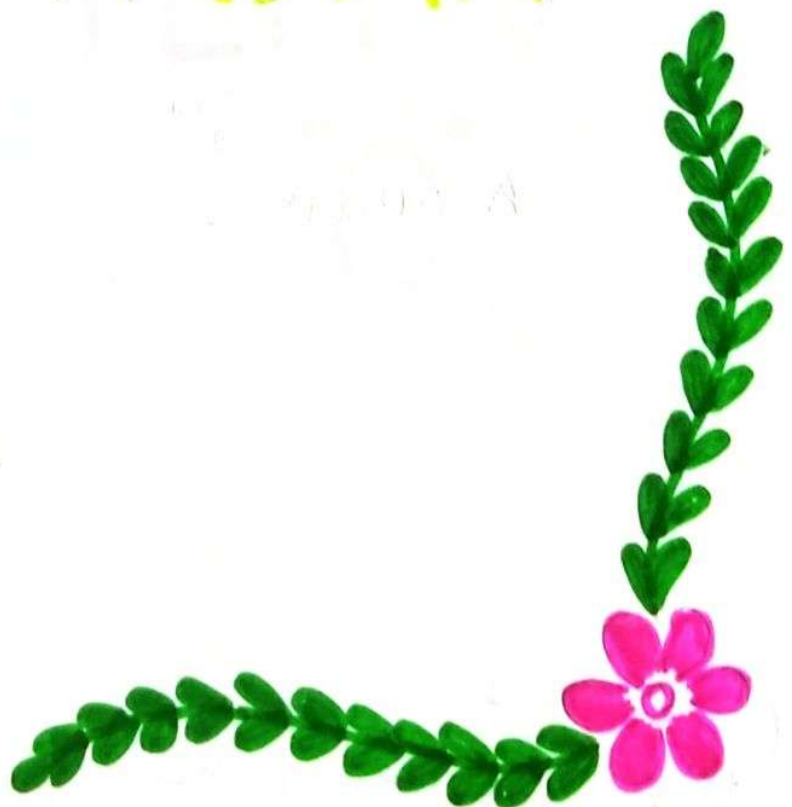


CHEMISTRY

PROJECT

WORK





ORGANIC
REACTION

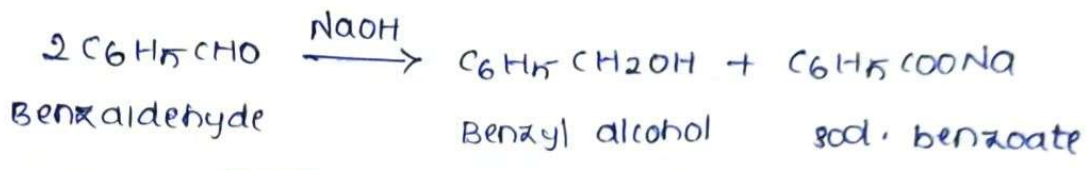
LETTER

"C"

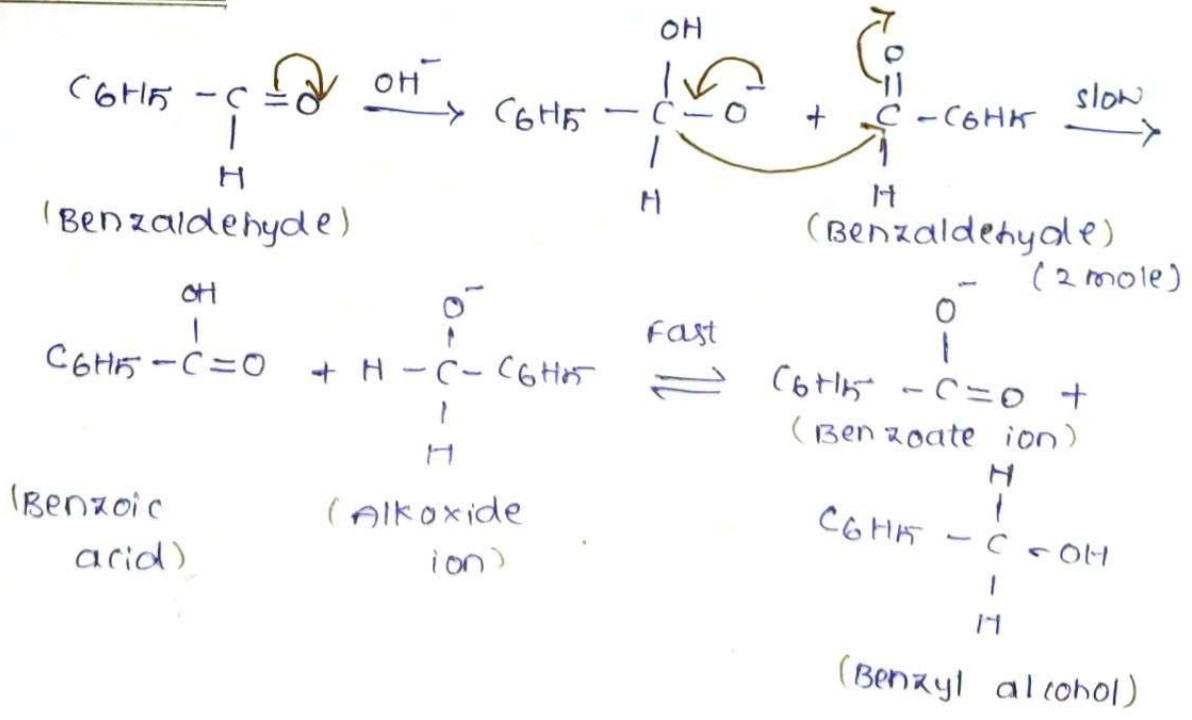


Cannizzaro reaction:

Aldehydes which do not have α -hydrogen undergoes self oxidation and self reduction in the presence of strong base to give salts of same acids or alcohol.

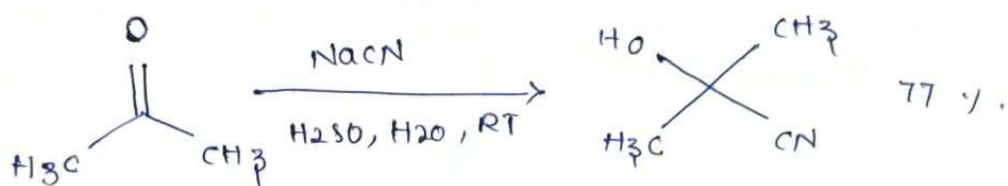


Mechanism:



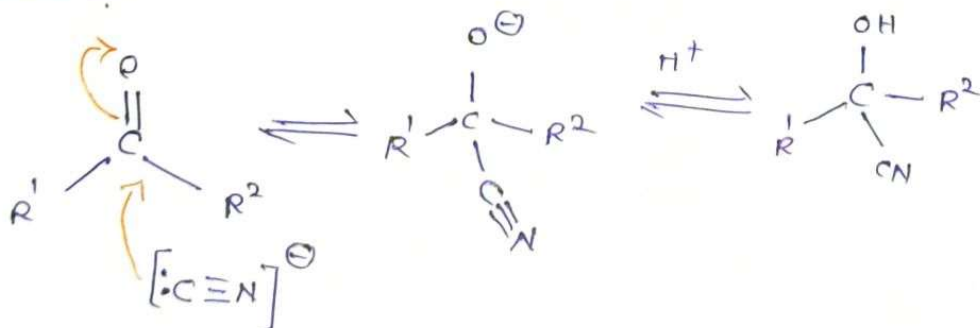
Cyanohydrin reaction:

A cyanohydrin reaction is an organic chemical reaction by an aldehyde or ketone with a cyanide anion or a nitrile to form a cyanohydrin. This nucleophilic addition is a reversible reaction.



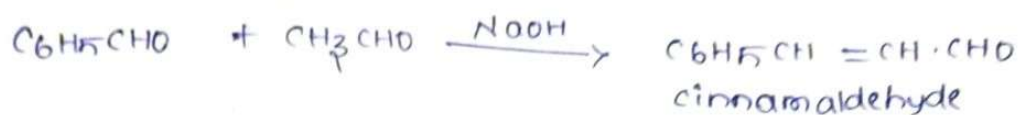
Reaction of acetone with sodium cyanide to hydroxyacetone nitrile.

Mechanism:

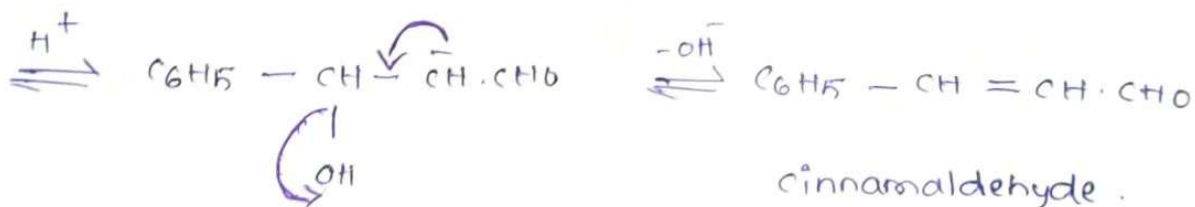
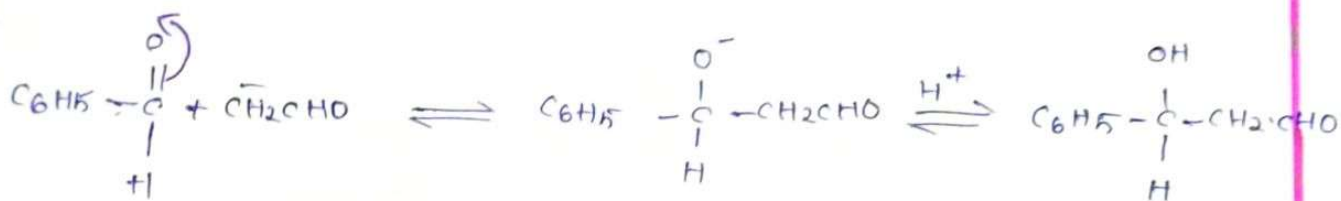


Claisen - Schmidt or claisen reaction:

The condensation of aromatic aldehydes² having no α -hydrogen, with aliphatic aldehydes, ketones or esters, having active hydrogen, in the presence of 10% alkali solution to give α - β -unsaturated aldehydes or ketones is known as Claisen - Schmidt or Claisen reaction.



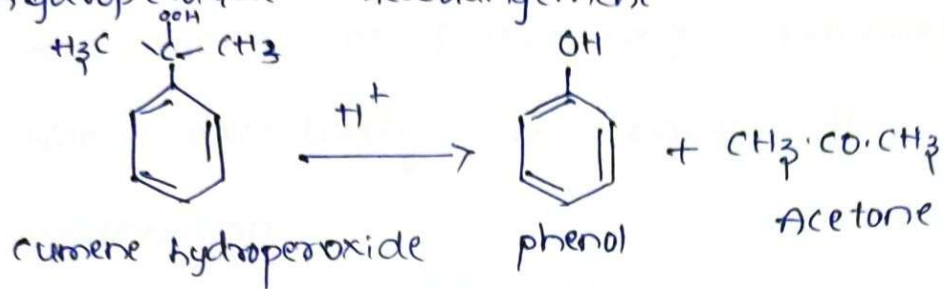
Mechanism:



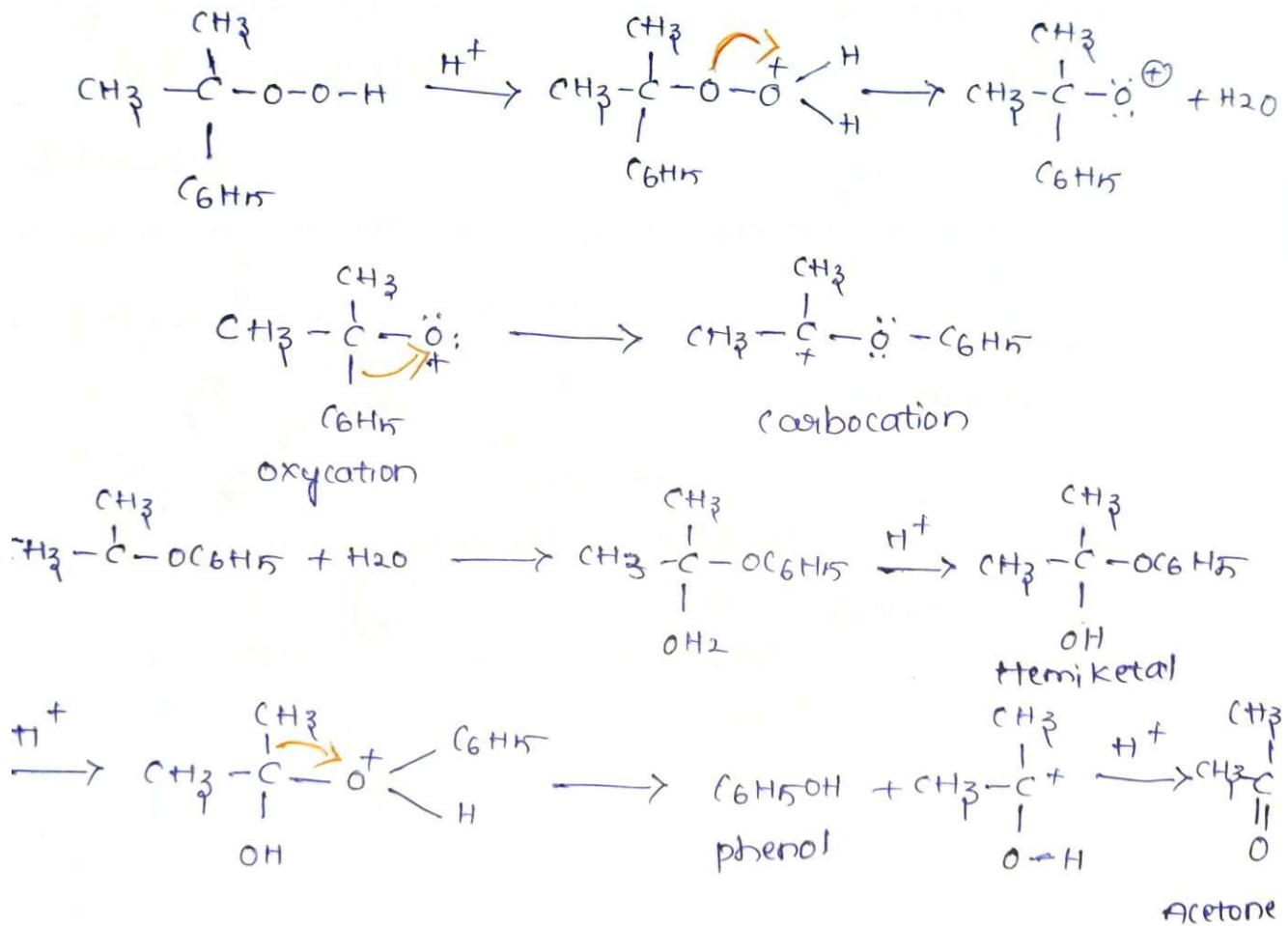
CUMENE HYDROPEROXIDE REARRANGEMENT:

The acid catalysed rearrangement of cumene hydroperoxide to phenol is known as

hydroperoxide rearrangement.

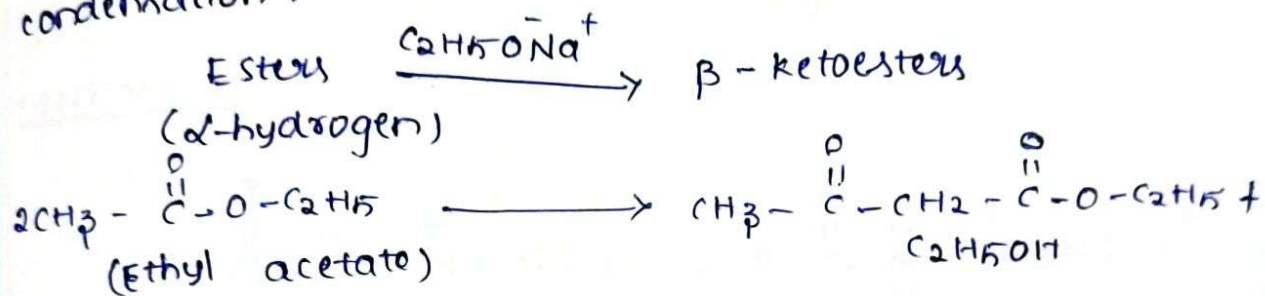


Mechanism:

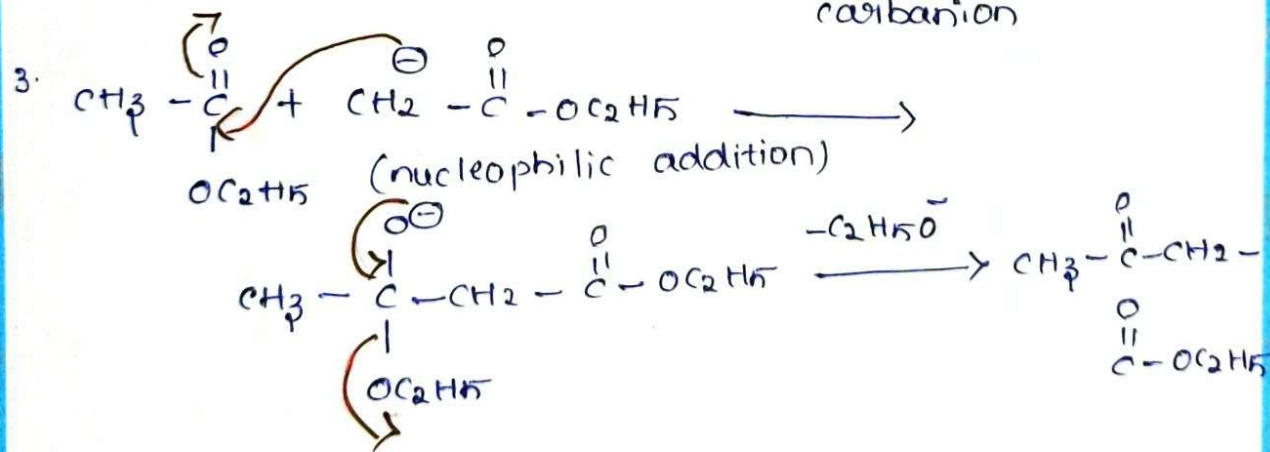
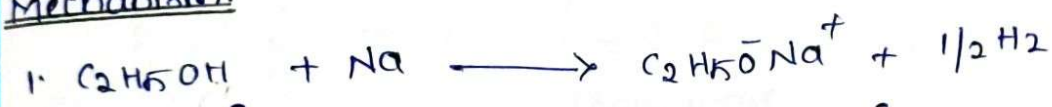


Claisen condensation:

The condensation of an ester and an α -hydrogen containing ester, ketone or nitrile to form $\alpha\beta$ -ketoester, ketone or nitrile respectively is known as Claisen condensation.

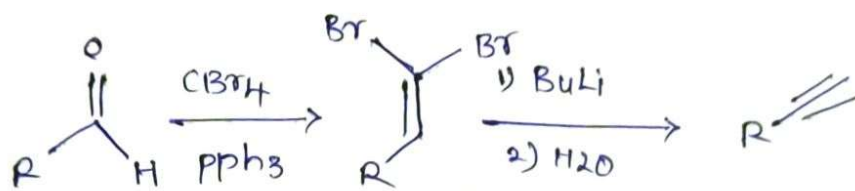


Mechanism:

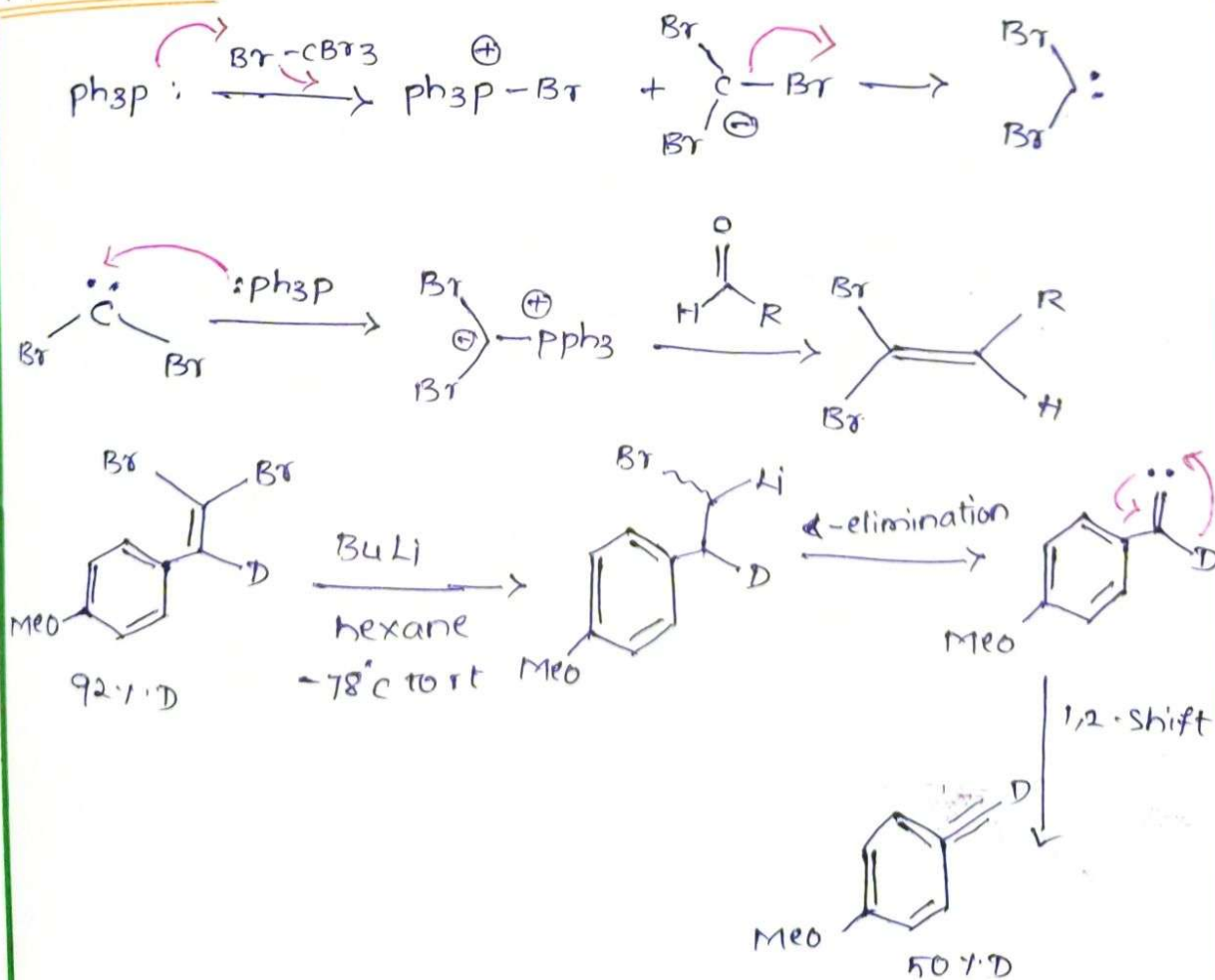


Corey-Fuchs reaction:

The Corey-Fuchs reaction also known as the Ramirez-Corey-Fuchs reaction is a series of chemical reactions designed to transform an aldehyde into an alkyne. 1,1-dibromomethylenes or 1,1-dibromoolefines phosphine dibromomethylenes are formed.



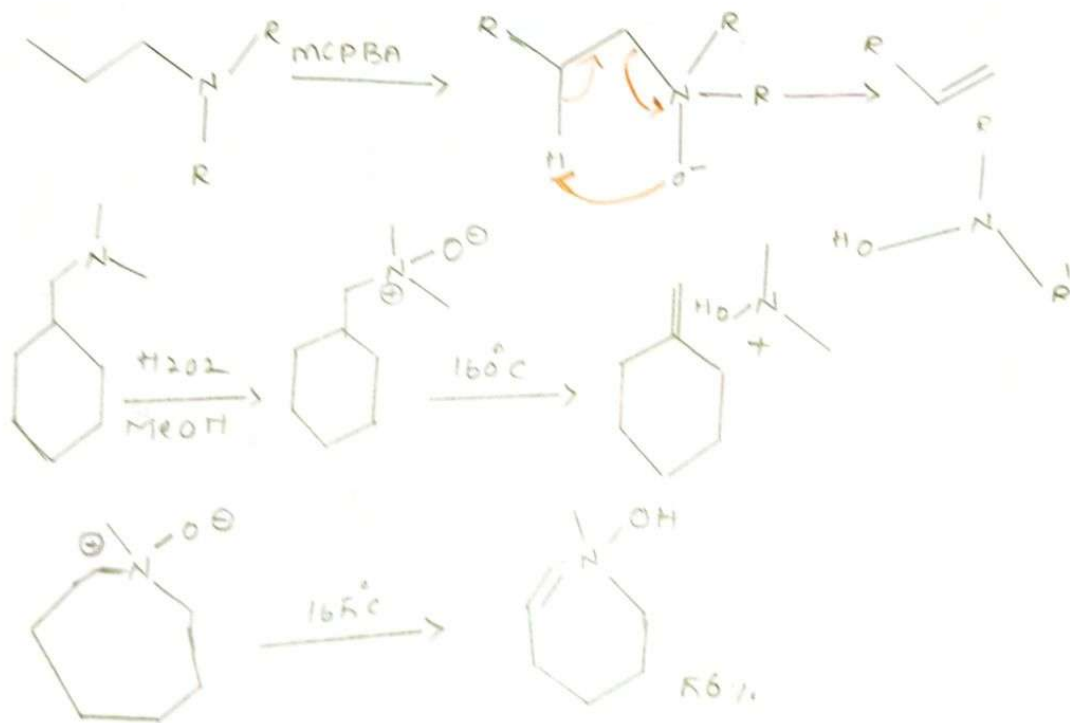
Mechanism:



COPE ELIMINATION REACTION:

The cope reaction or cope elimination, developed by Arthur C. Cope, is an elimination reaction of the N-oxide to form an alkene and hydroxylamine. This reaction follows the Hofmann rule.

Mechanism:



Clemmensen

reduction:

When an aldehyde or ketone is treated with zinc amalgam and conc. HCl, the carbonyl group is converted into methylene group. This is called clemmensen reduction.

