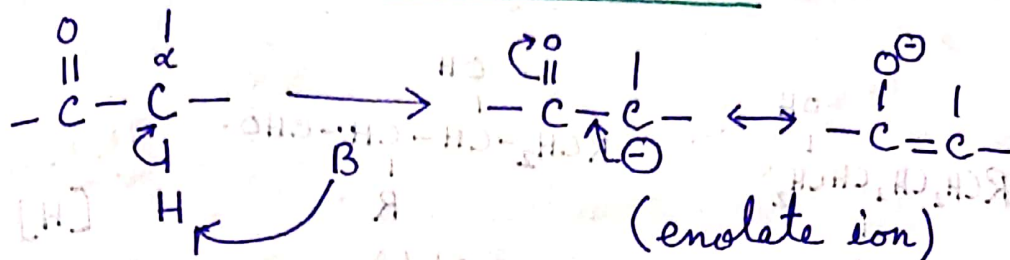
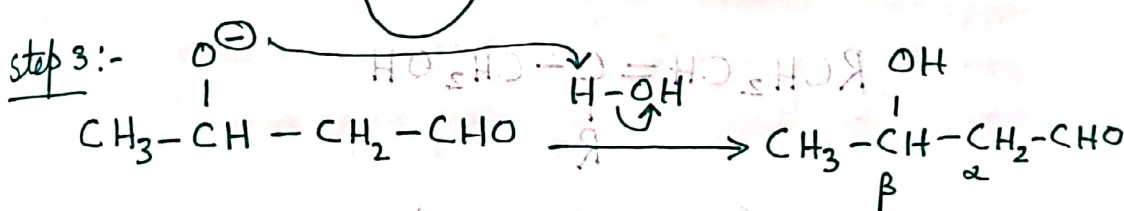
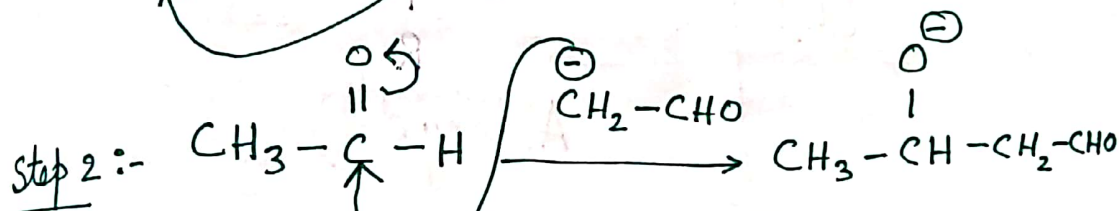
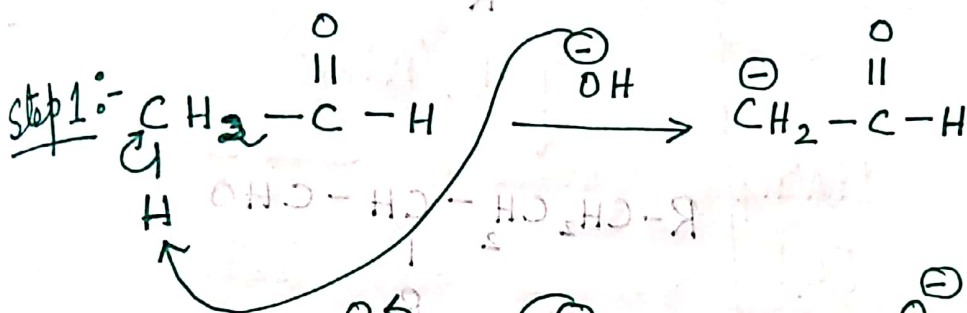


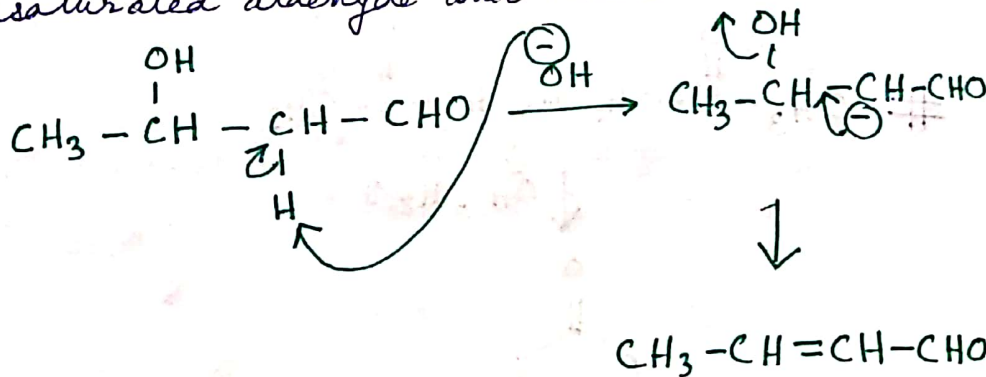
# ALDOL CONDENSATION



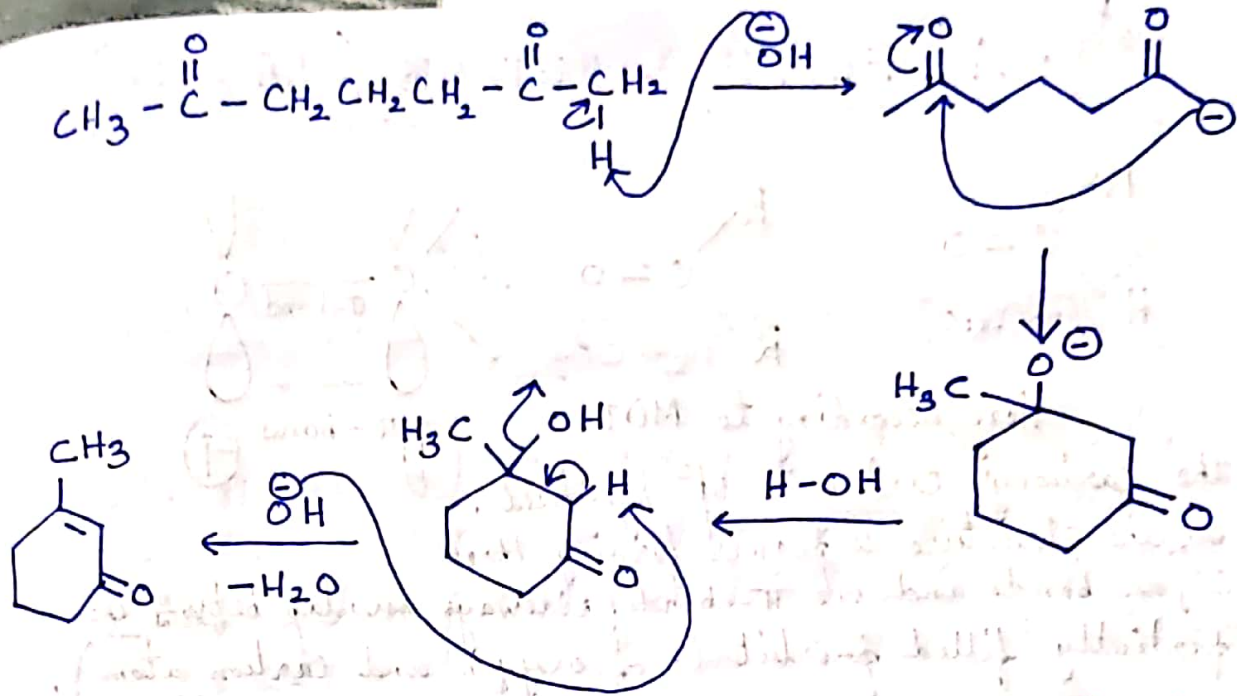
Under the influence of dilute base, two molecules of aldehyde containing at least one  $\alpha$ -H atom dimerize to form  $\beta$ -hydroxyaldehyde. Since the prod contains both aldehyde and an alcohol, the common name is (aldol).



Now, the product obtained if heated with dilute acid, it undergoes dehydration leading to the formation of  $\beta$ -unsaturated aldehyde and ketone.

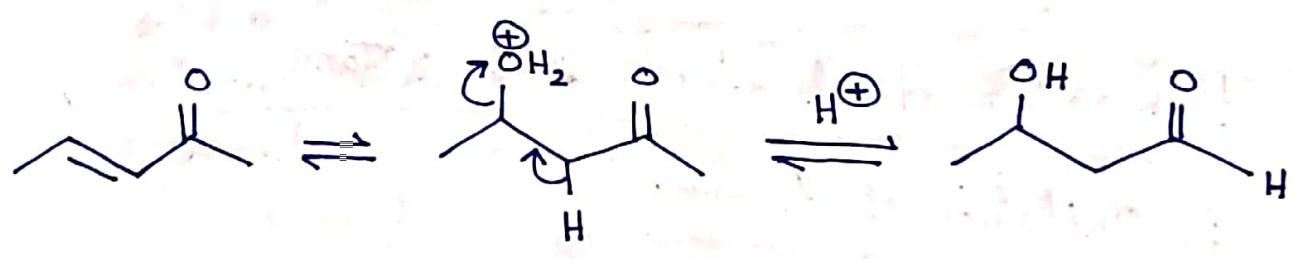
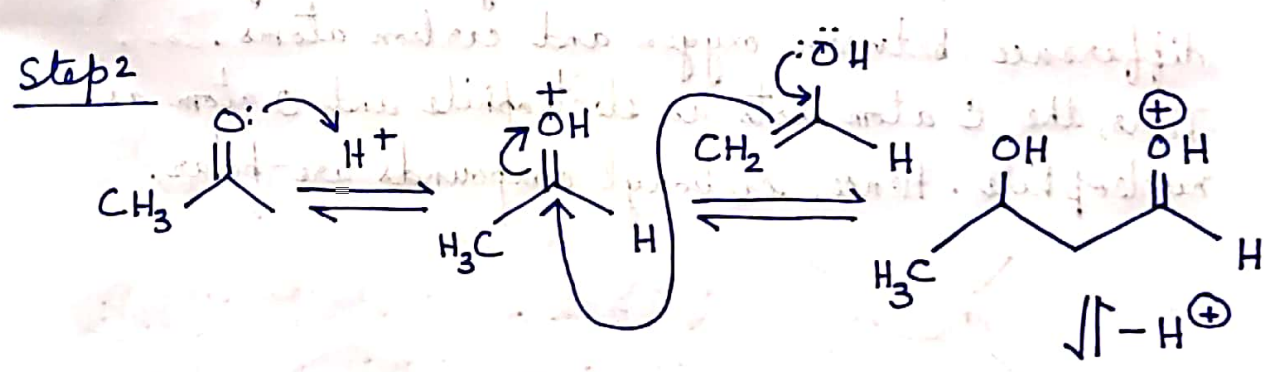
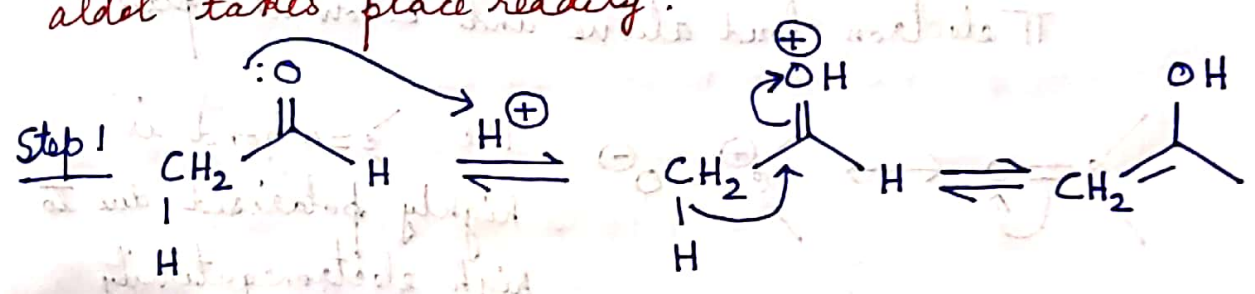






VO  
2

If the aldol condensation is acid catalysed, then it is impossible to stop the reaction at the aldol stage. Elimination of water from the aldol takes place readily.



## Claisen Schmidt Condensation

Dehydration of  $\beta$ -hydroxy carbonyl compound bearing a benzene ring or other unsaturated group on  $\beta$ -carbon leads to a stable extended conjugated system. So, such compounds undergoes rapid dehydration and cannot be isolated.

