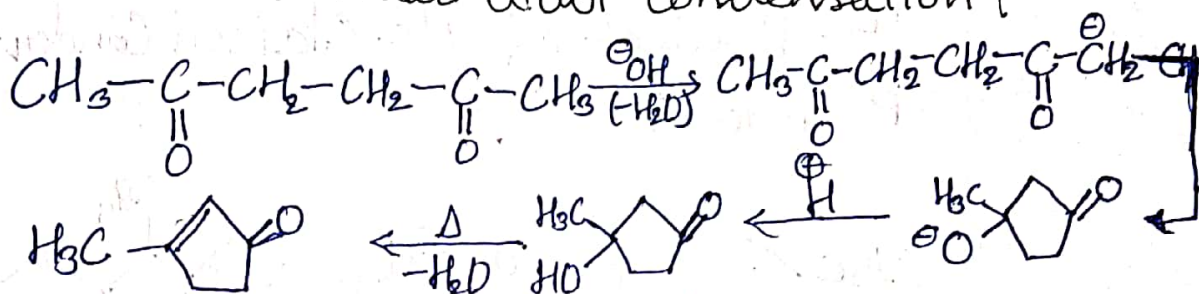


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□ Intramolecular aldol Condensation I

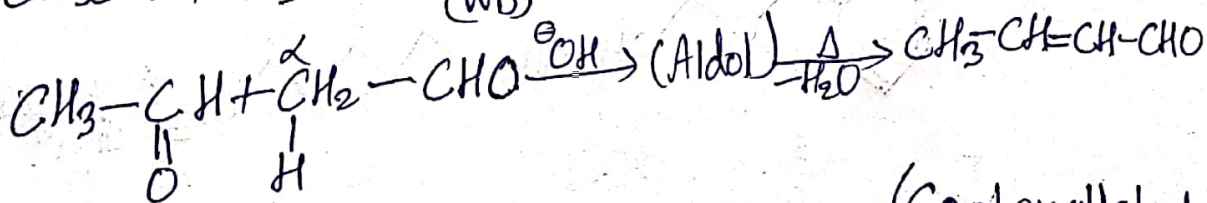
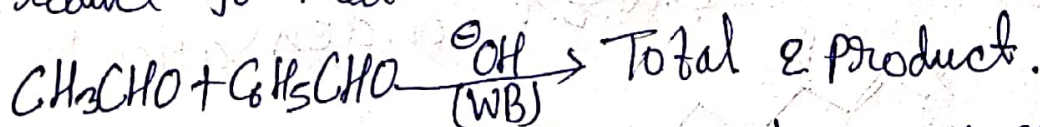


(α,β -Unsatuated ketone) (Aldol)

Here 5 membered ring is more stable than 3 membered ring so above product is formed as a major product.

Note:

◆ If in Crossed aldol Condensation reaction, only one carbonyl compound have α -H than total two product formed.



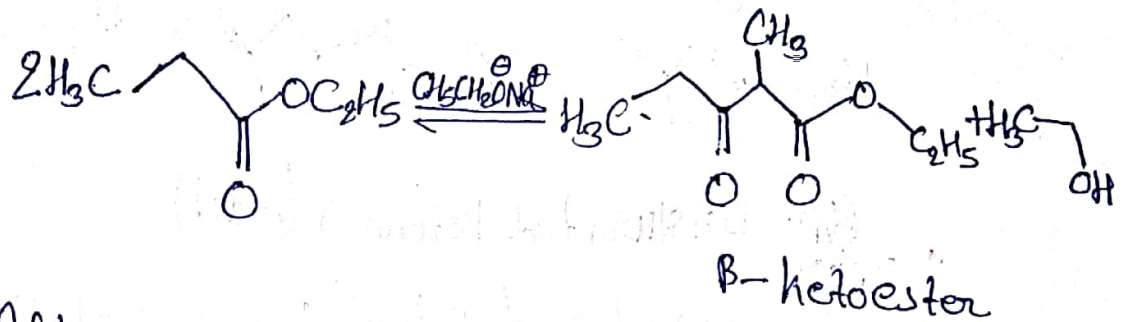
(Crotonaldehyde)

~~CH₃~~

6) Claisen Condensation

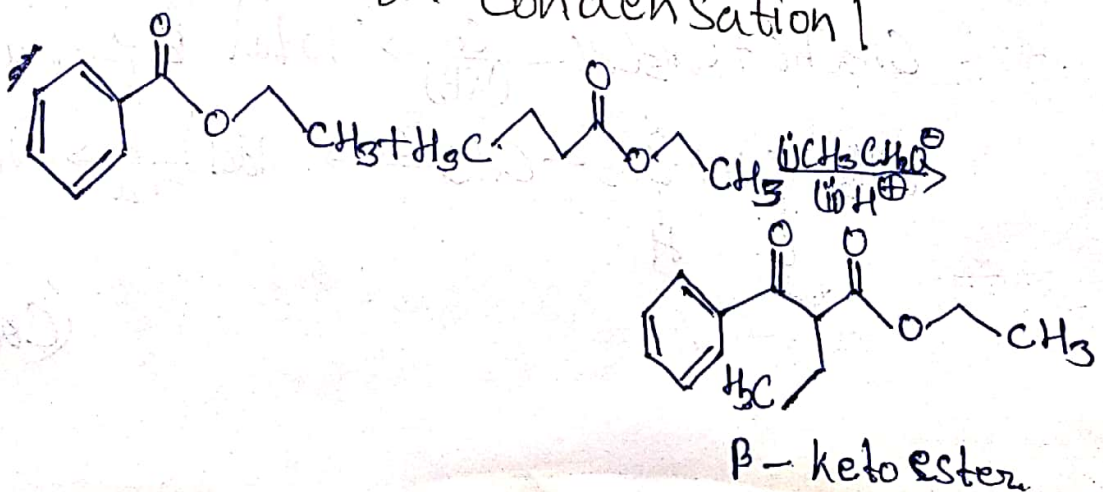
When two molecules of ester undergo a condensation reaction, the reaction is called Claisen Condensation.

The product of the Claisen Condensation is a β -keto ester.

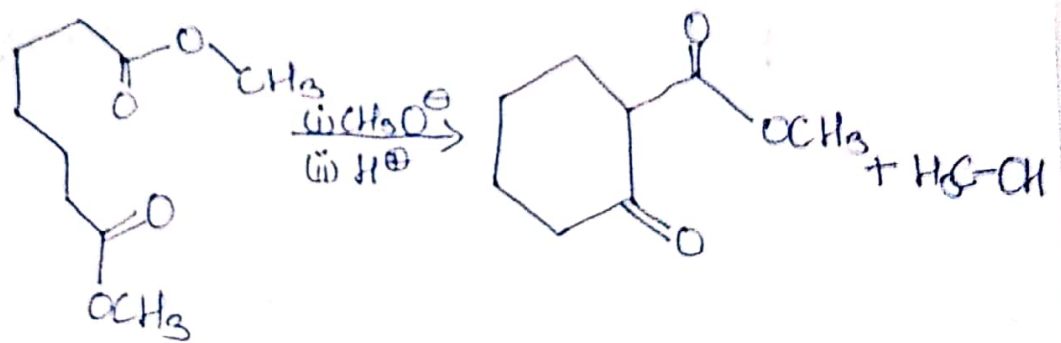
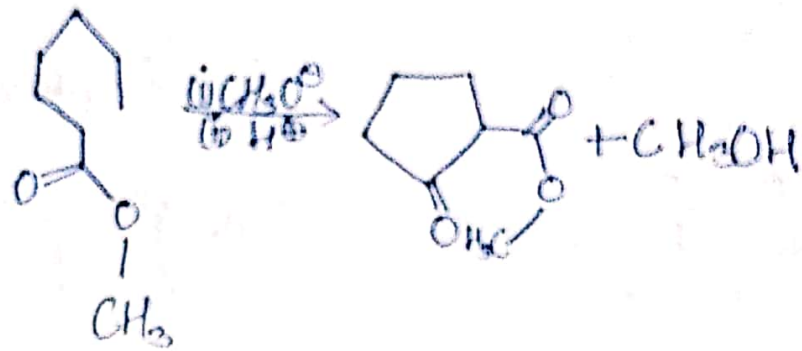


Aster nucleophilic attack, the aldol addition and the Claisen Condensation differ. In the Claisen Condensation, the negatively charged oxygen reforms the carbon oxygen π -bond and eliminates the OR group.

Mixed Claisen Condensation



(7) Intramolecular Claisen Condensation:
 Dieckmann Condensation! The addition of base to a 1,6-diester causes the diester to undergo Claisen Condensation is called a Dieckmann Condensation.



(8) Peikin reaction!

In Peikin reaction, Condensation has been effected between aromatic and aliphatic acid anhydride in the presence of Sodium or potassium salt of the acid corresponding to the anhydride, to yield α, β -unsaturated aromatic acids.

The acid anhydride should have at least two α -H.

