

Class - B.Sc. Part III

Subject - Chemistry (Organic)

Paper - VII

Topic - Aldol condensation

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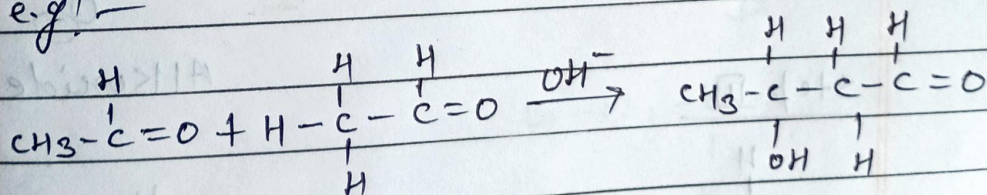
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Aldol Condensation

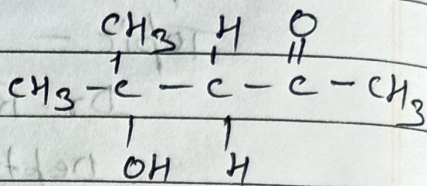
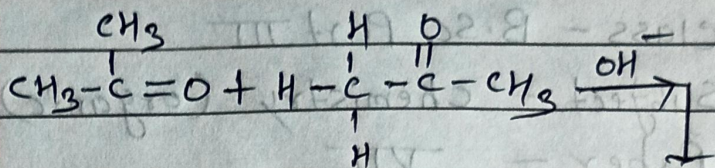
In presence of a dilute base or acid when two molecules of an aldehyde or ketone containing α -hydrogen atom reacts to form a β -Hydroxy aldehyde or β -hydroxy ketone, the product is known as aldol and the reaction is generally known as Aldol condensation. Mixed or crossed aldol condensation may also takes place, when two different carbonyl compound reacts with each other.

e.g! -



Aldol

β -Hydroxy aldehyde

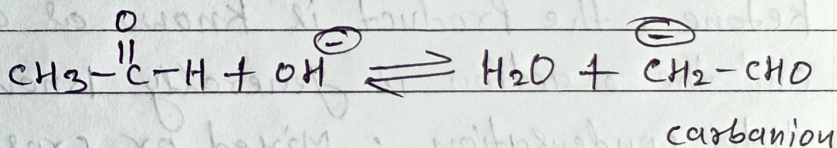


β -Hydroxy, β -methyl Ketone

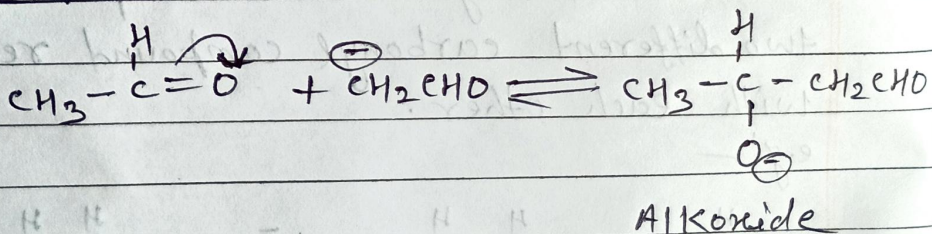
If the aldehyde or ketone does not contain an α -Hydrogen atom, a simple aldol condensation cannot take place.

Mechanism! -

Step I



Step II



Step III

