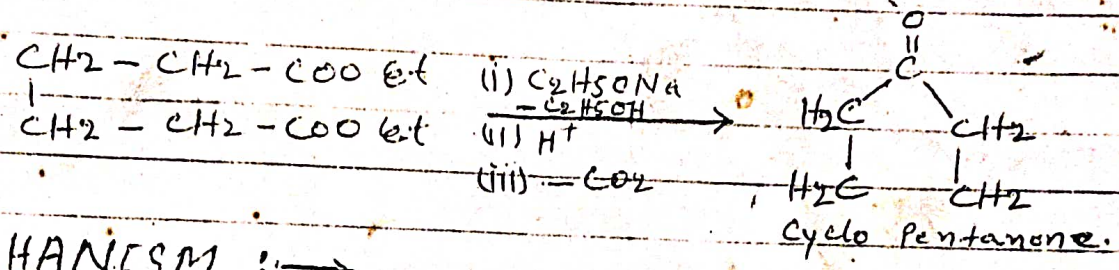
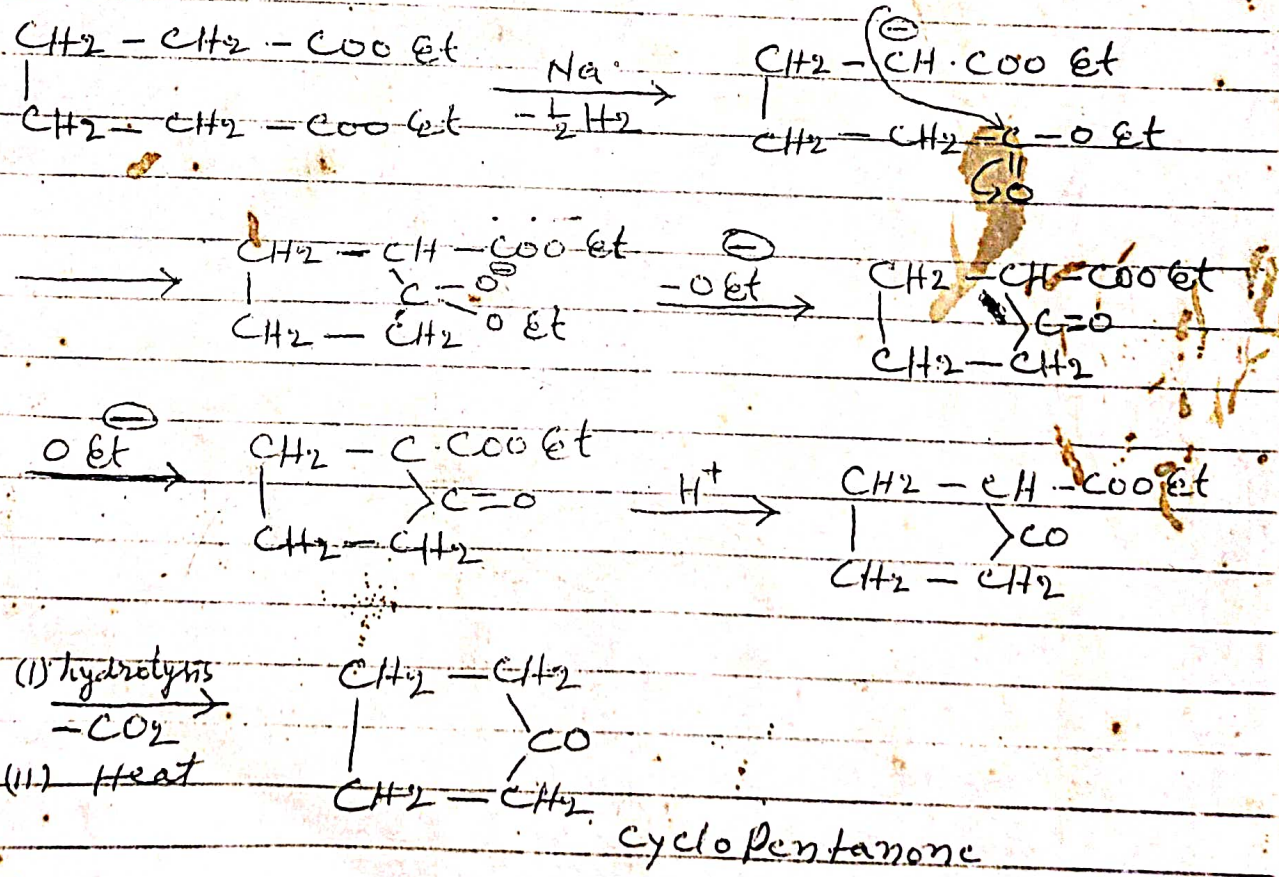


It is an intramolecular claisen Condensation in which cyclic ketones are obtained by treating the ester of adipic, pimelic or suberic acid with sodium or better with sodium ethoxide, where upon five, six or seven membered rings are obtained e.g. Adipic acid or reaction gives cyclopentanone



MECHANISM :-

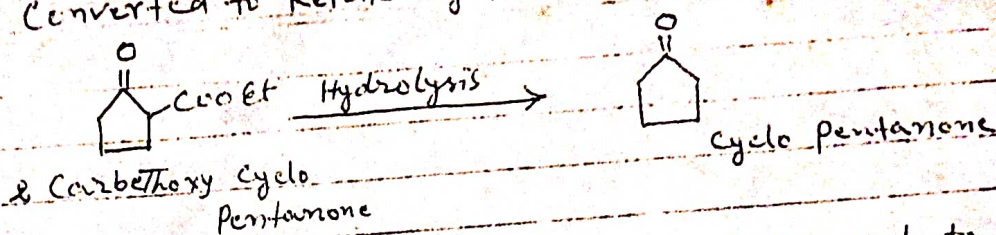
The mechanism of this reaction follows the following path way :-



Application :- Dieckmann reaction provides an important route to the synthesis of cyclopentanone and derivatives.

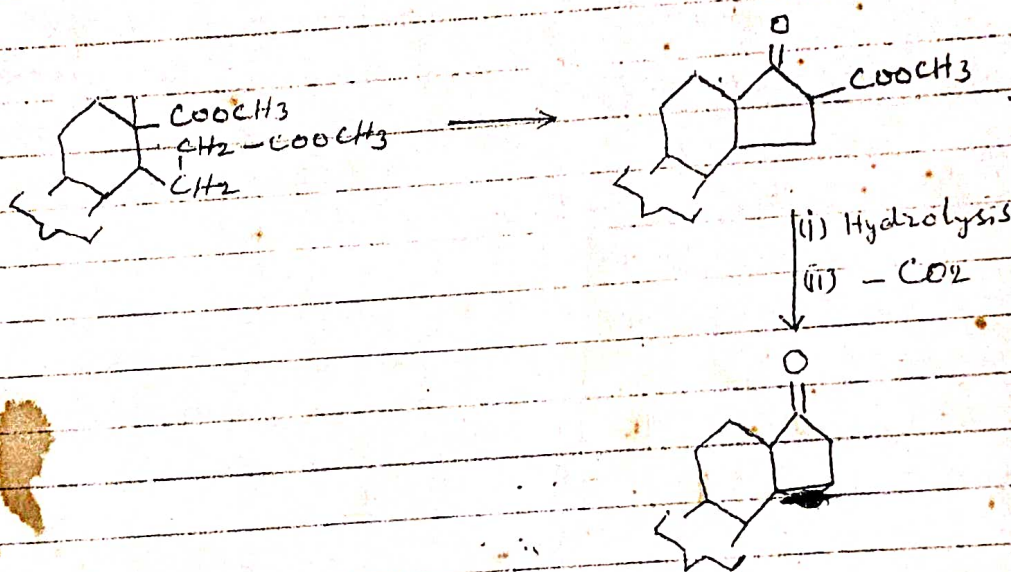
Cyclohexanone which can be converted to cyclic hydrocarbons.

(1) The ester formed in the above reaction is easily converted to ketone by this reaction.

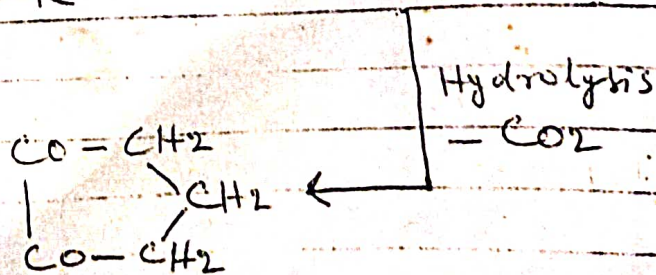
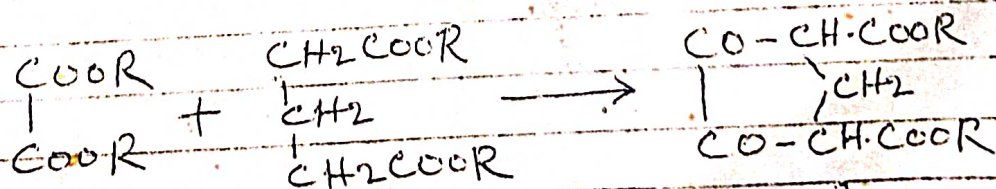


So the reaction has been used to give five or six membered rings in a number of natural products synthesis e.g. Δ -Pinene, oestrogen etc.

The general steps are -



(2) An useful extension of this reaction involves the condensation of oxalic ester with the esters of dibasic acids e.g.



1:2 Cyclopentadione.