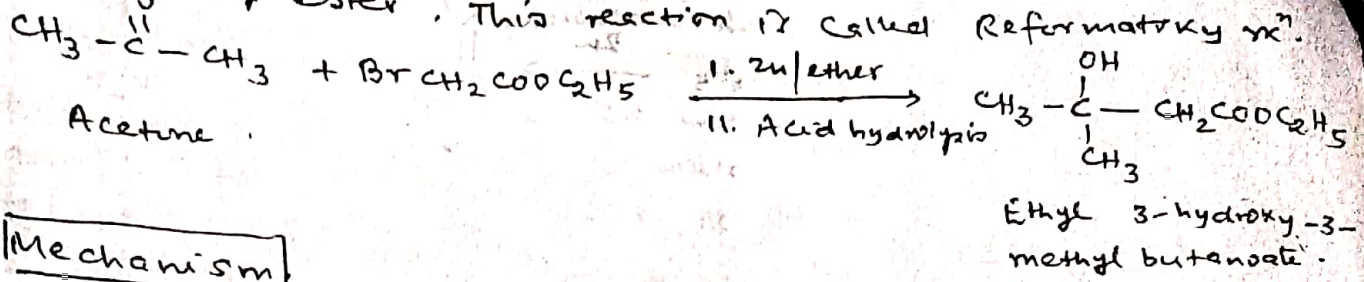


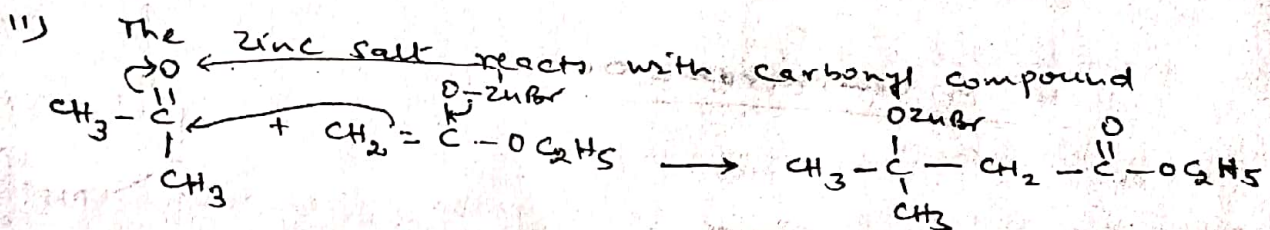
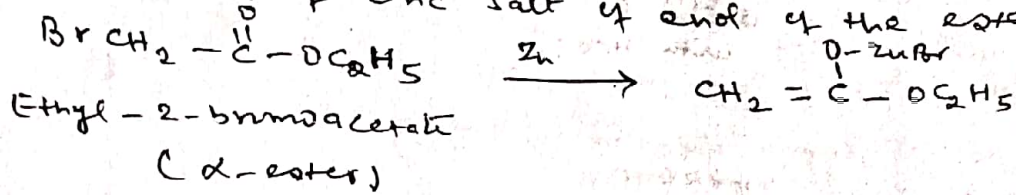
# Reformatsky Reaction

Treatment of an aldehyde or ketone with  $\alpha$ -bromoester in presence of zinc and after acid hydrolysis gives  $\beta$ -hydroxy ester. This reaction is called Reformatsky rxn.

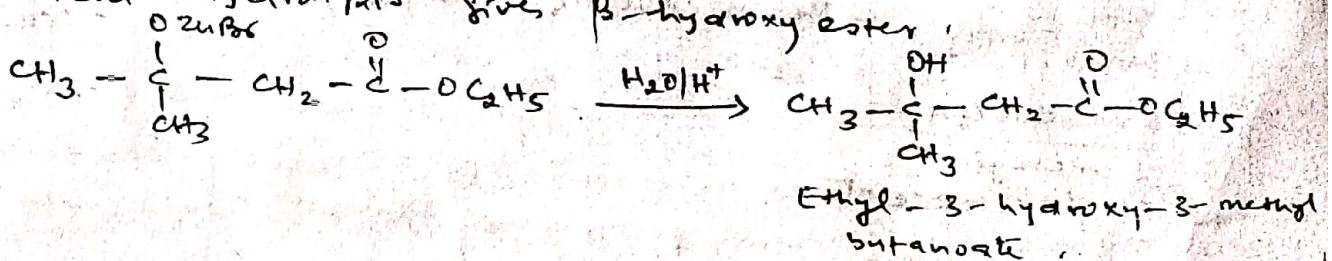


## Mechanism

i) Formation of zinc salt of end of the ester.

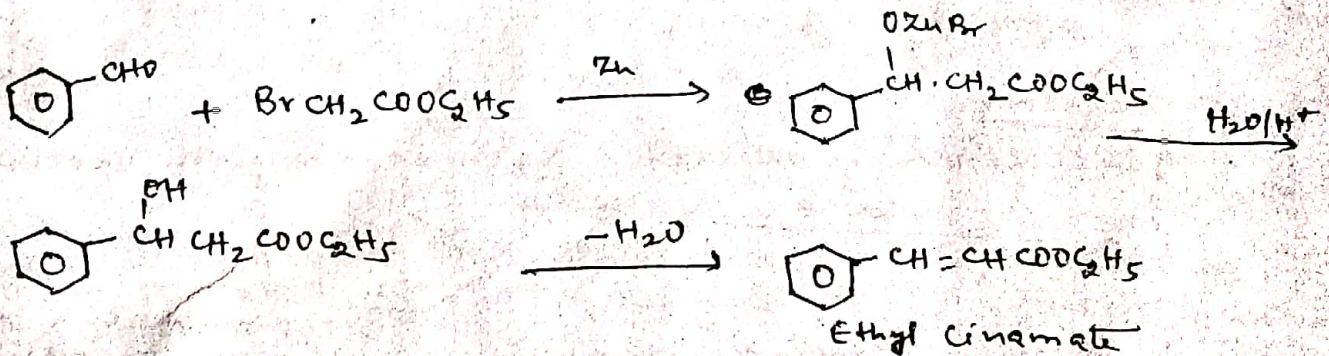


iii) Acid-hydrolysis gives  $\beta$ -hydroxy ester.

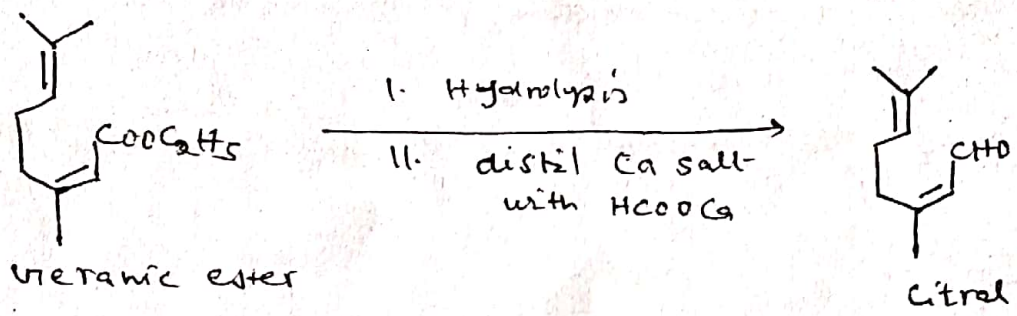
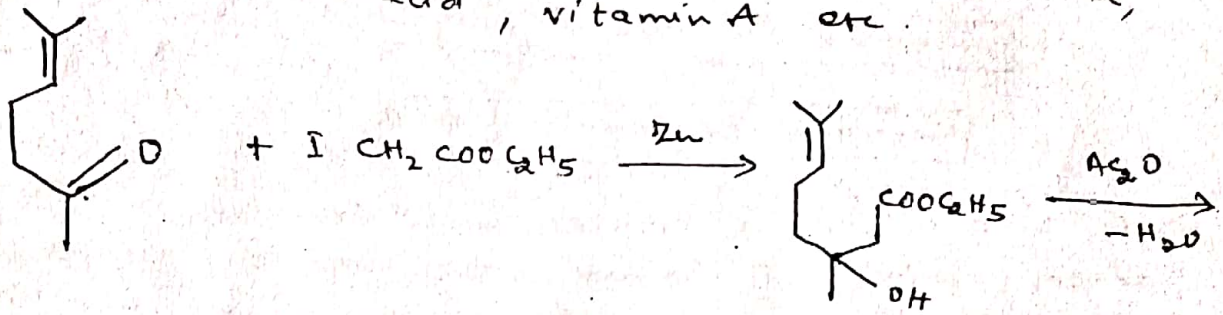


## Synthetic application.

① Reformatsky reaction is used for synthesis of  $\beta$ -hydroxy esters,  $\beta$ -hydroxy acids, unsaturated esters and saturated carboxylic acids



(ii) Reformatsky reaction is very useful for synthesis of various natural products such as citral, camphoric acid, vitamin A etc.



Synthesis of Camphoric acid

