

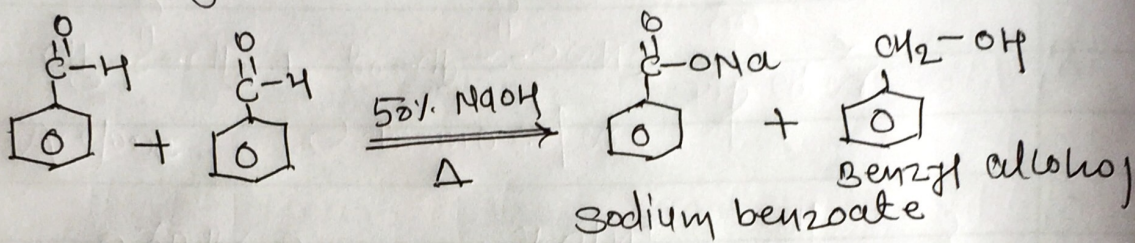
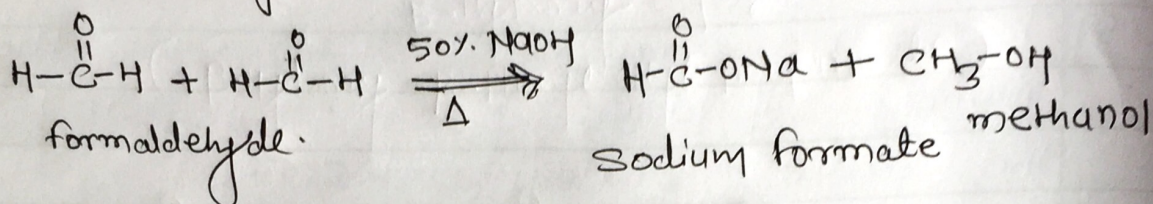
Reaction of aldehyde and ketones.

① Cannizzaro reaction

Aliphatic or aromatic aldehyde do not containing

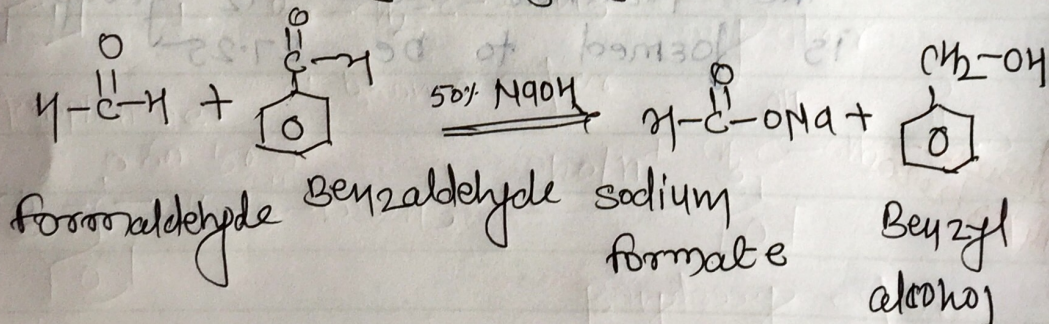
α -hydrogen,
disproportionation reaction

Half aldehyde oxidised and half reduced.



Cross-Cannizzaro reaction

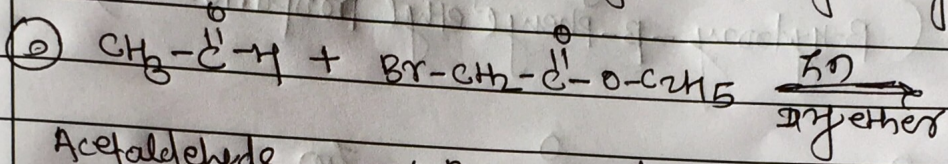
This reaction is in which two different aldehyde do not containing α -hydrogen.



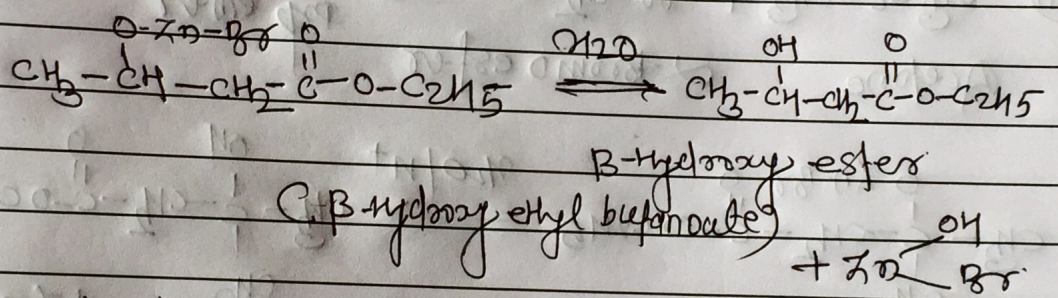
formaldehyde is oxidised to sodium formate
 benzaldehyde is reduced to benzyl alcohol.

Reformatsky reaction

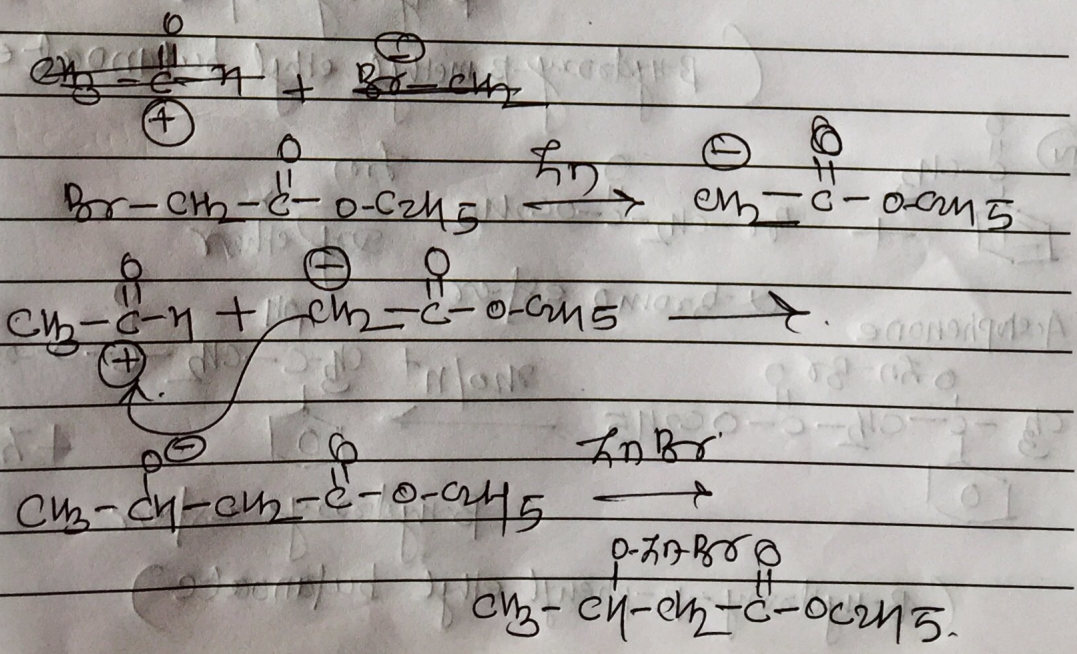
Aliphatic or aromatic aldehyde and ketone react with α -bromoester and zinc metal in presence of dry ether give β -hydroxy ester.

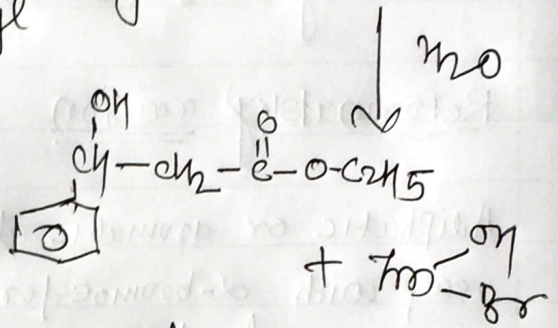
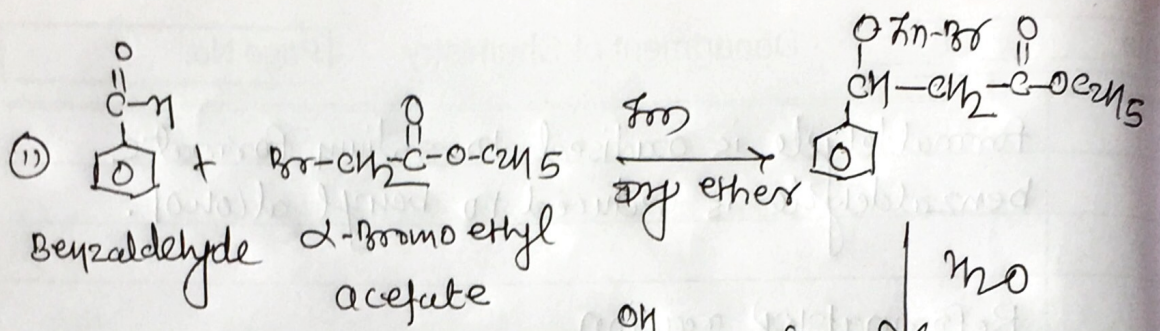


Acetaldehyde α -bromo ethyl acetate

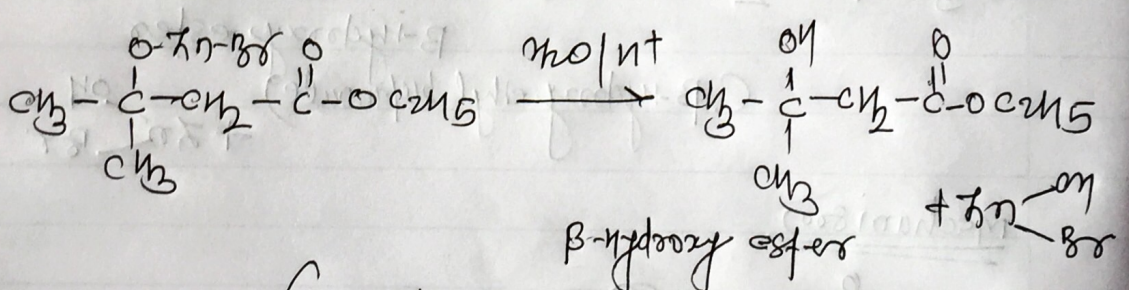
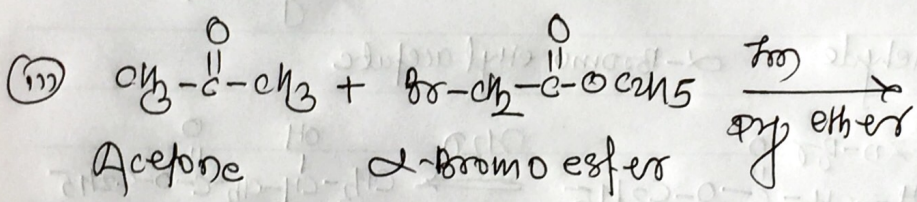


Mechanism

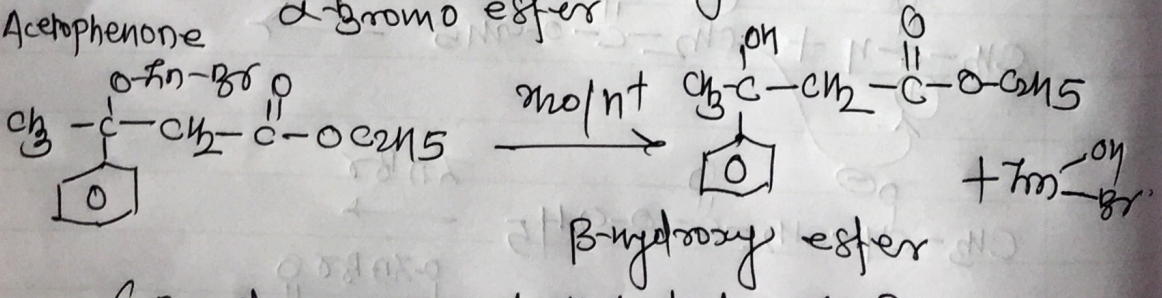
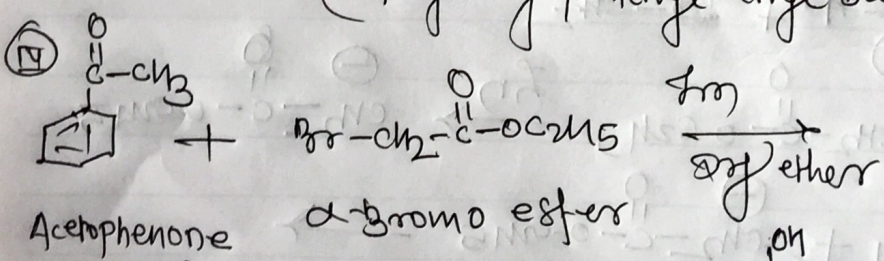




β -hydroxy ester
 (β -hydroxy- β -phenyl ethyl propanoate)



(β -hydroxy- β -methyl ethyl butanoate)



(β -hydroxy- β -phenyl ethyl butanoate)