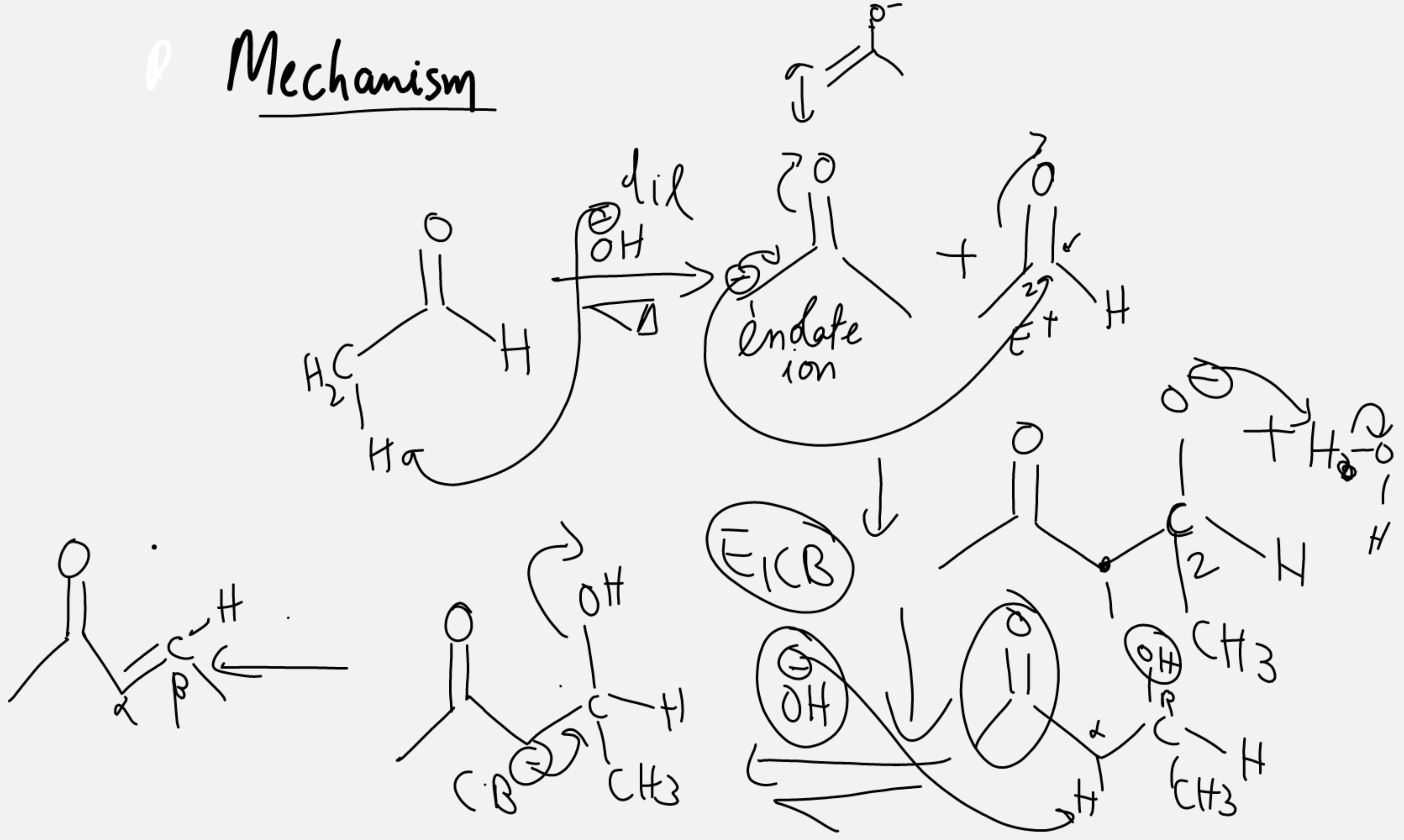
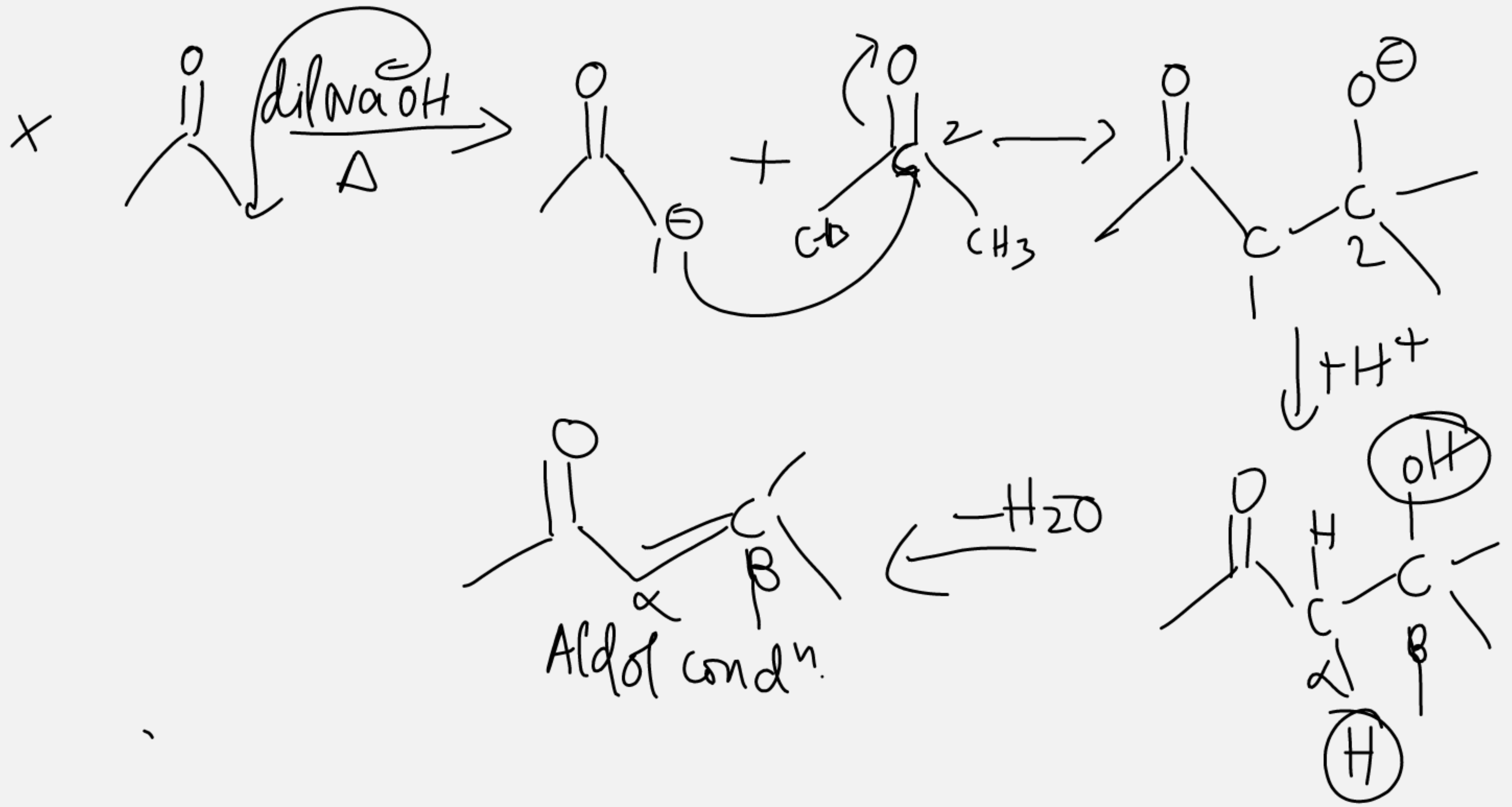
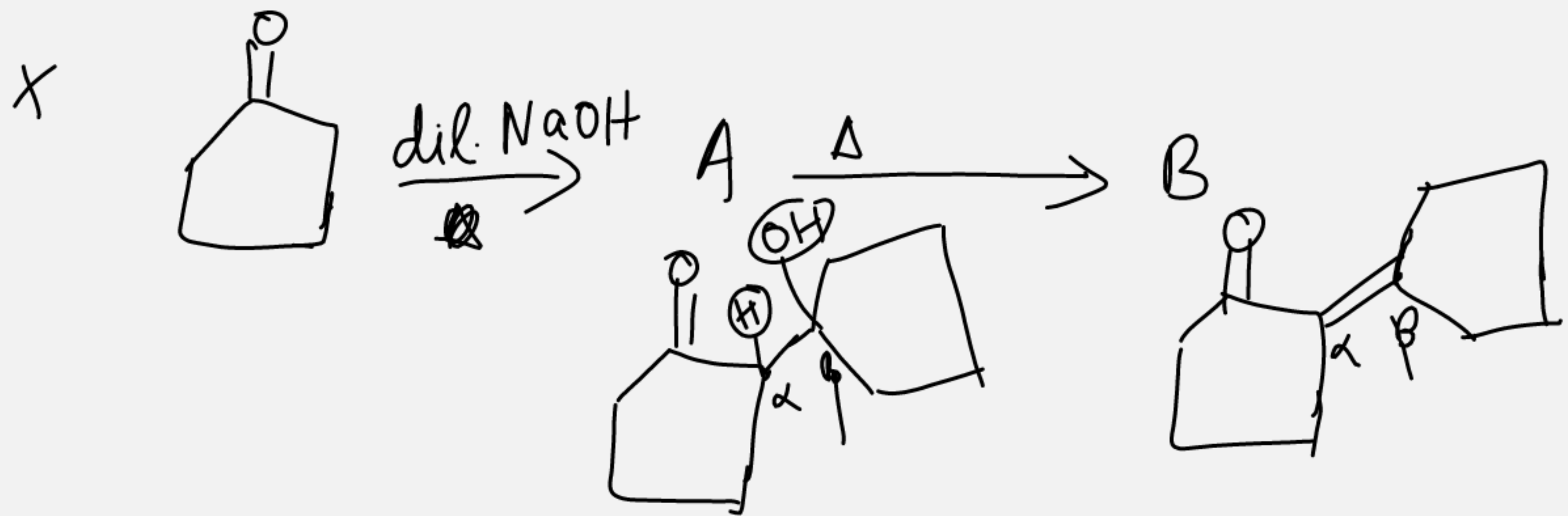


Mechanism







Necessary condition for Aldol

5)

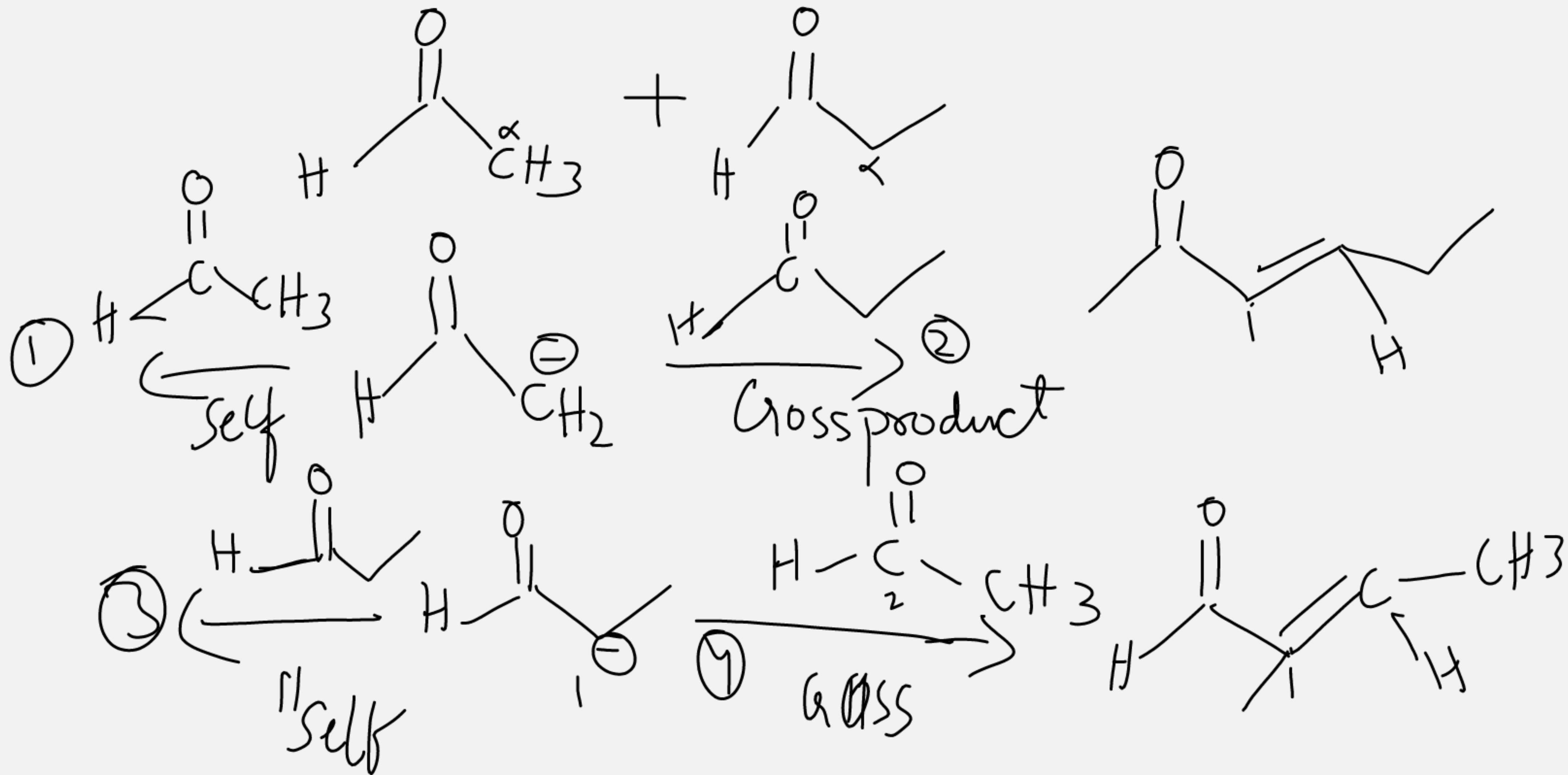
1) At least one α Hydrogen

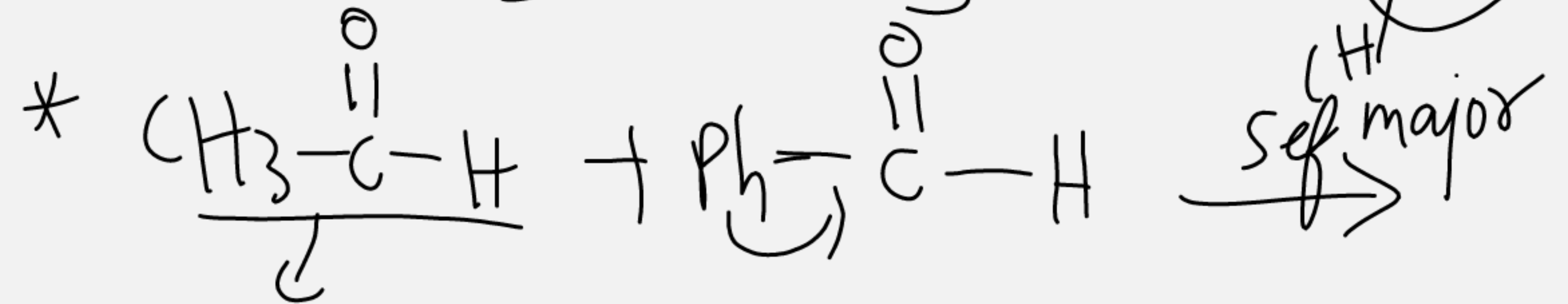
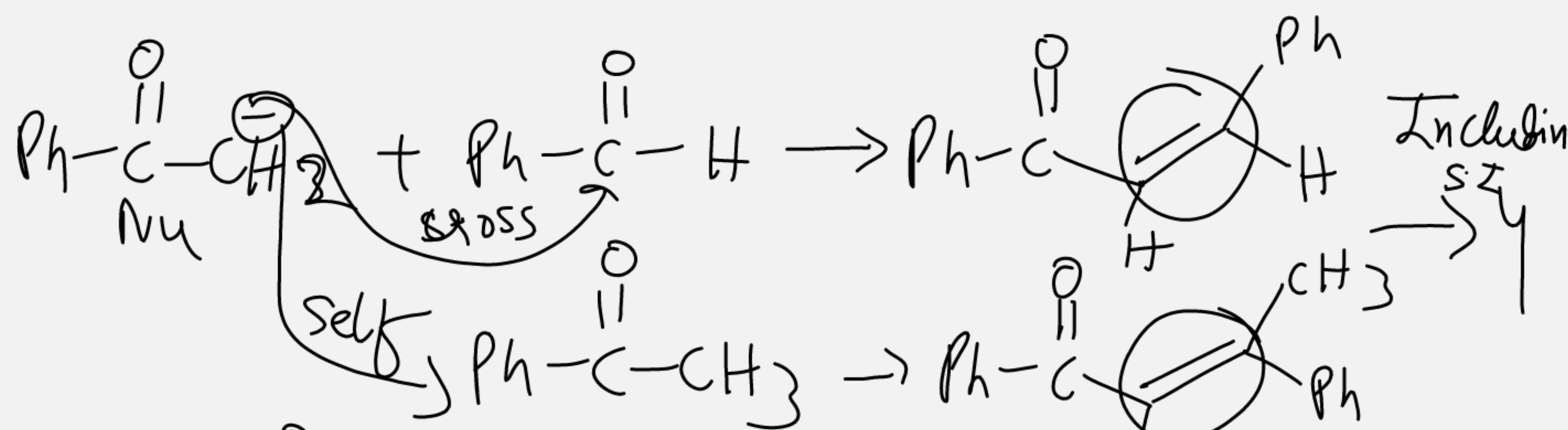
2) dil base NaOH , KOH , Ba(OH)_2 , Ca(OH)_2
 K_2CO_3 , Na_2CO_3

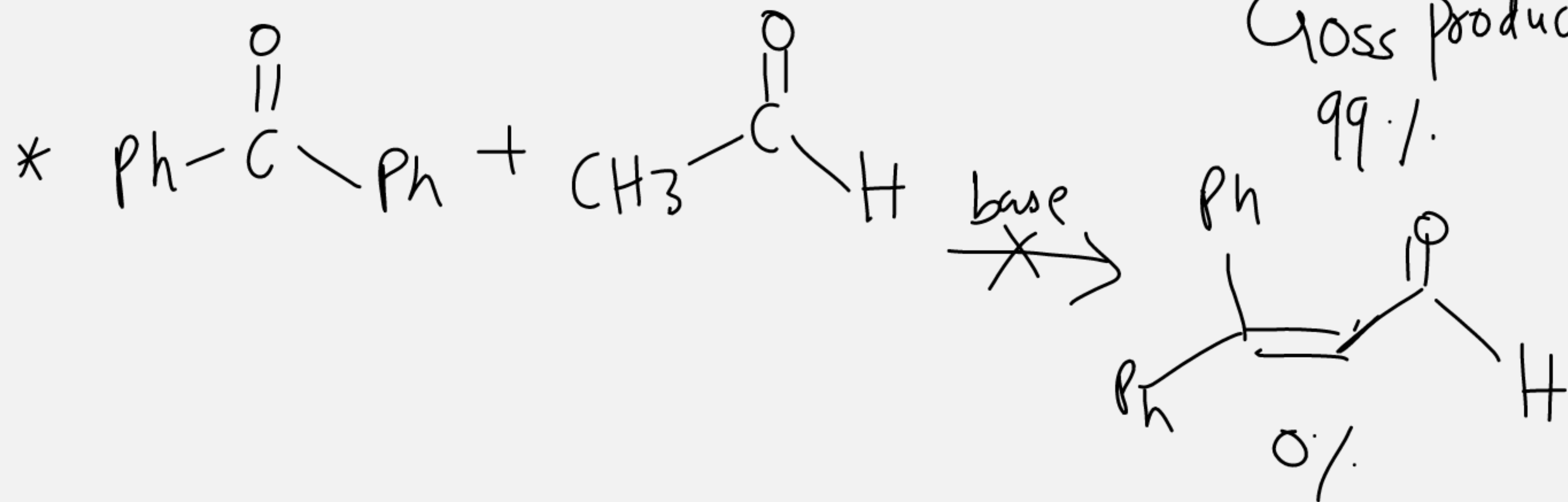
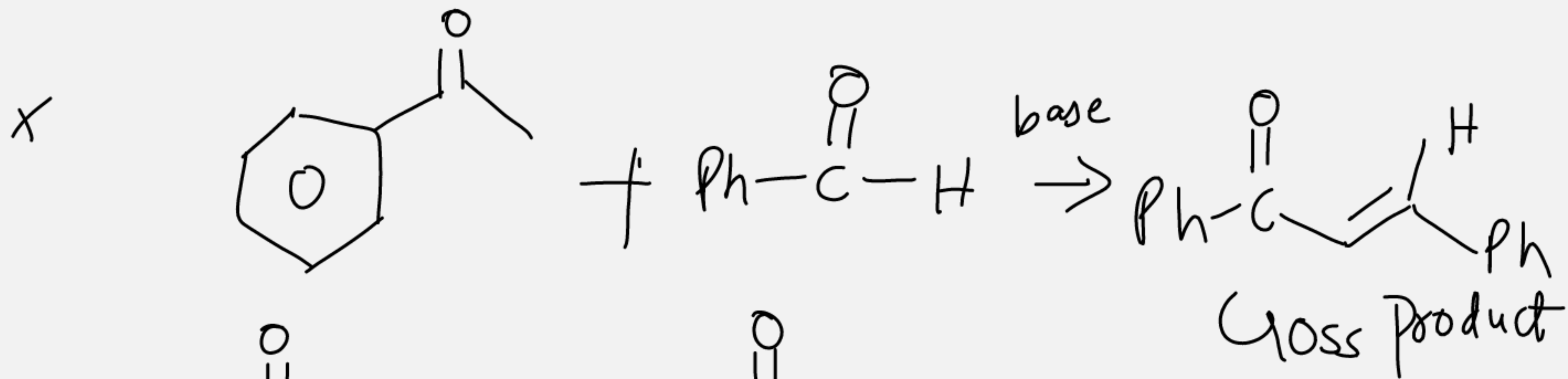
3) Aldehyde aldol is $>$ Ketone (Al. is more E^+)

4) In aldol one carbonyl act as a E^+ & other Nu

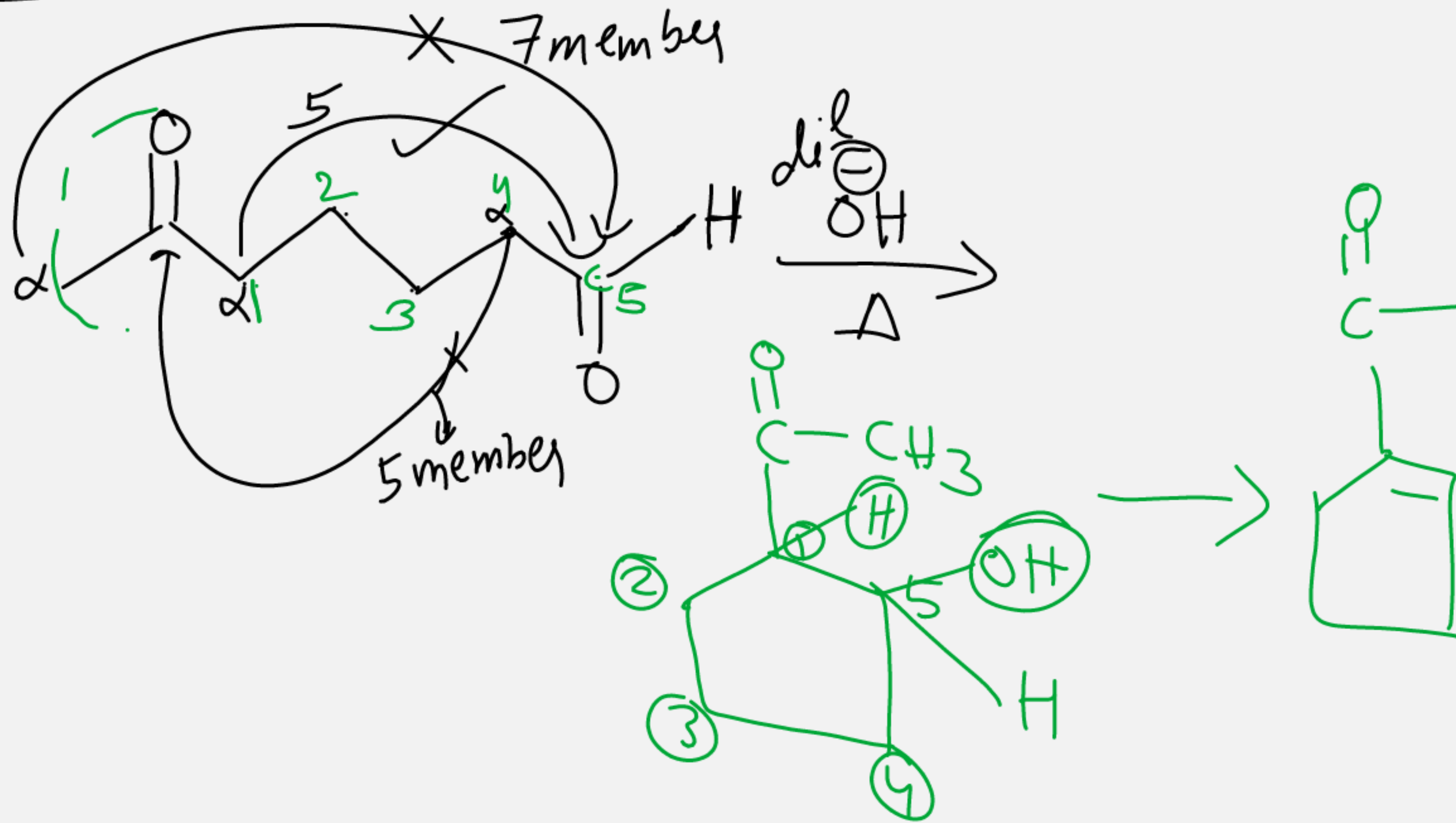
Cross Aldol



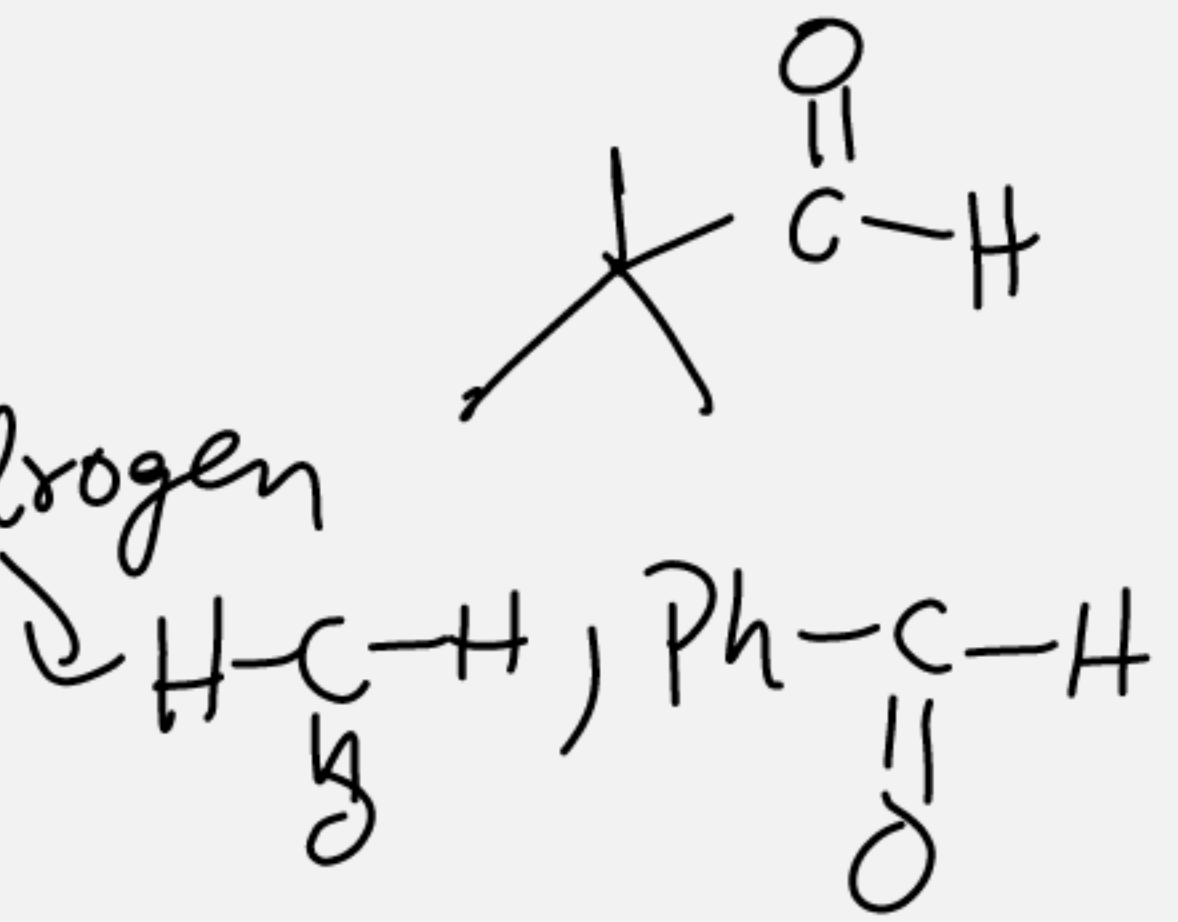


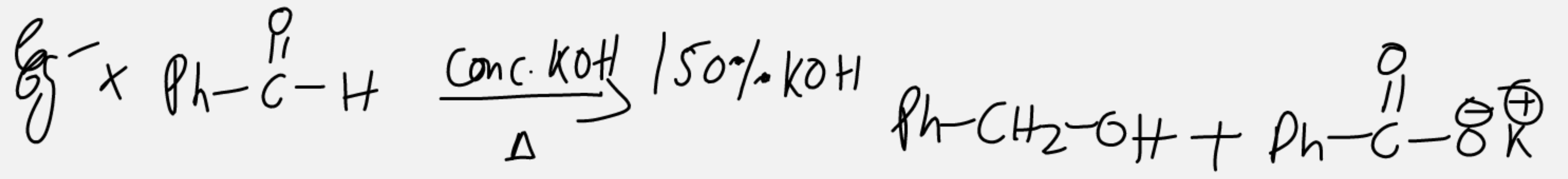


* Intramolecular Aldol

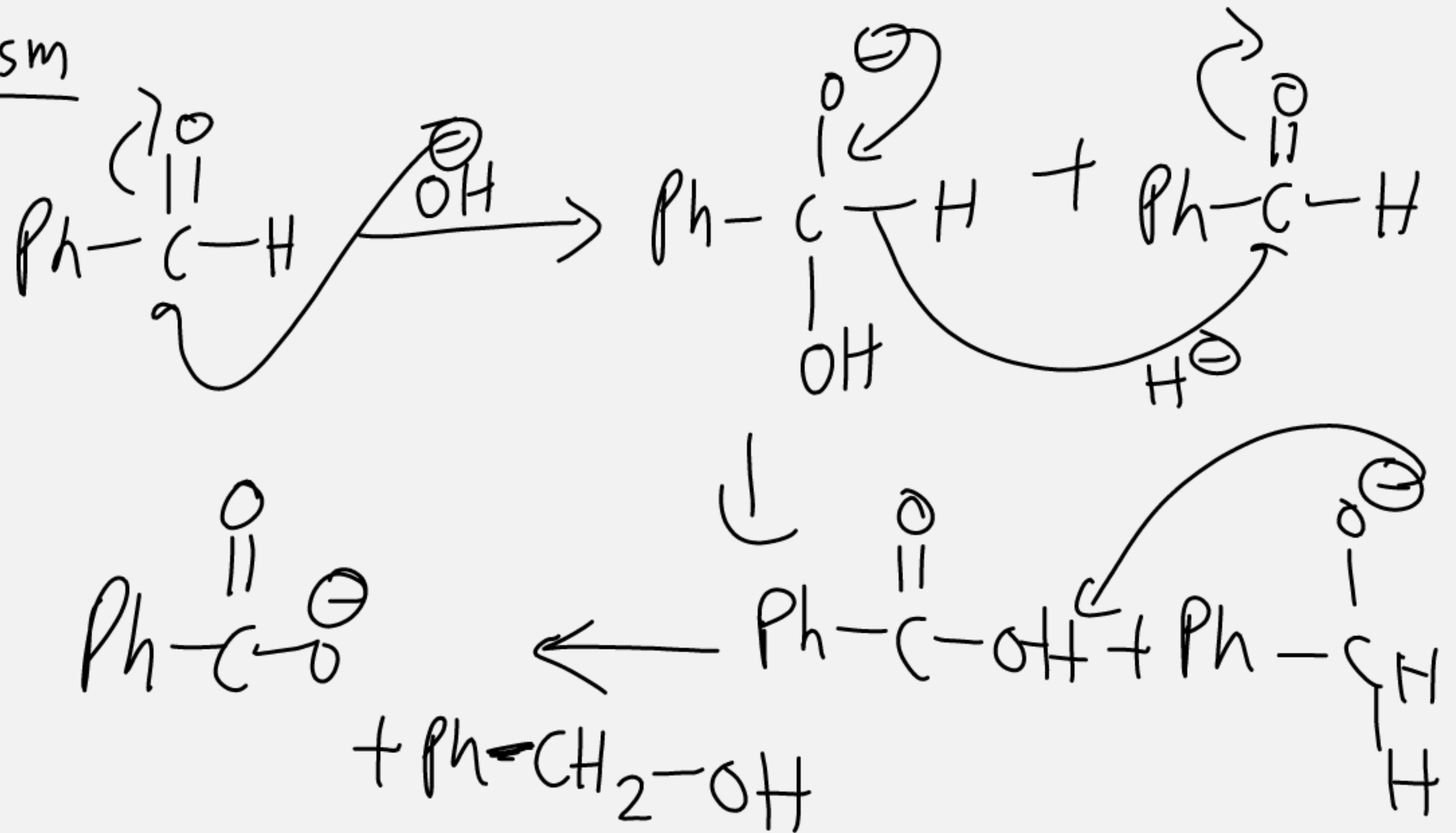


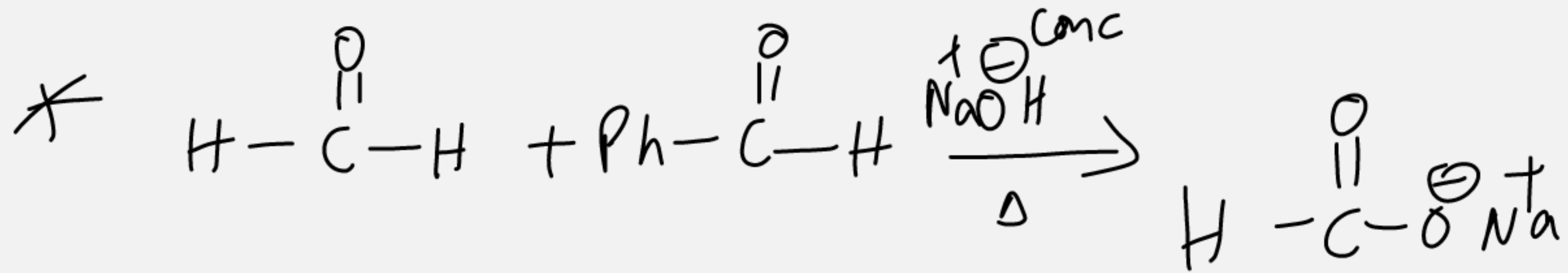
Condition for Cannizzaro

- * Aldehyde having no α Hydrogen

- * Conc. NaOH
- * Redox Rxn \rightarrow Disproportionation Rxn
- * Alcohol & salt of Acid are products.
- * Cross product also obtained in this rxn
if two diff. aldehydes are taken.
- * Rate = $k [\text{Aldehyde}]^2 [\text{OH}^-]$ 3rd order
With high conc. of $[\text{OH}^-]$ order is 4

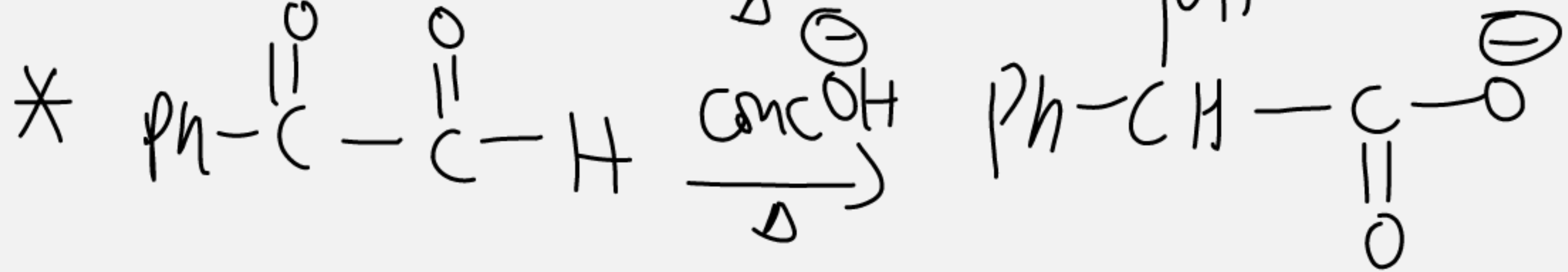
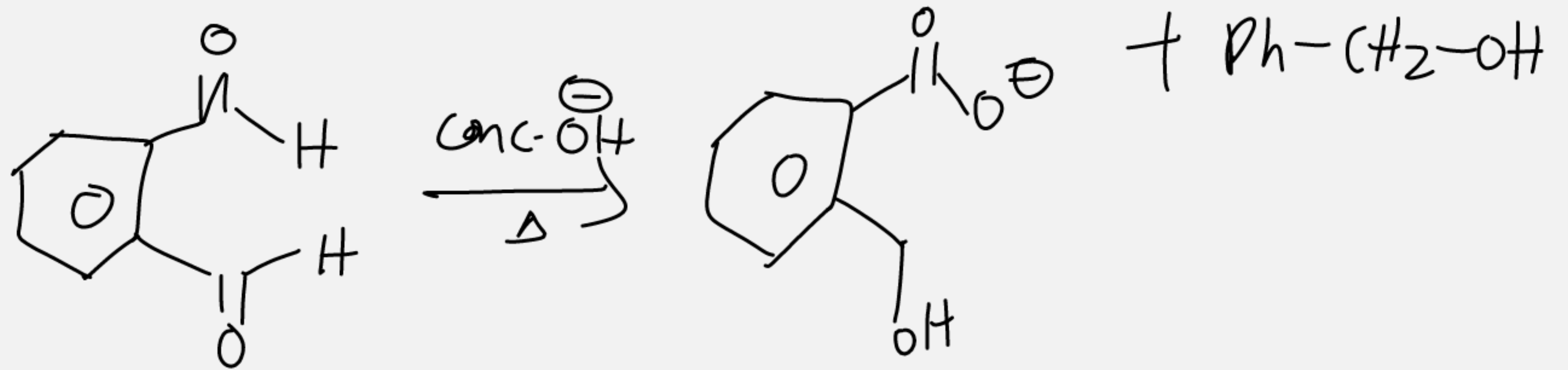


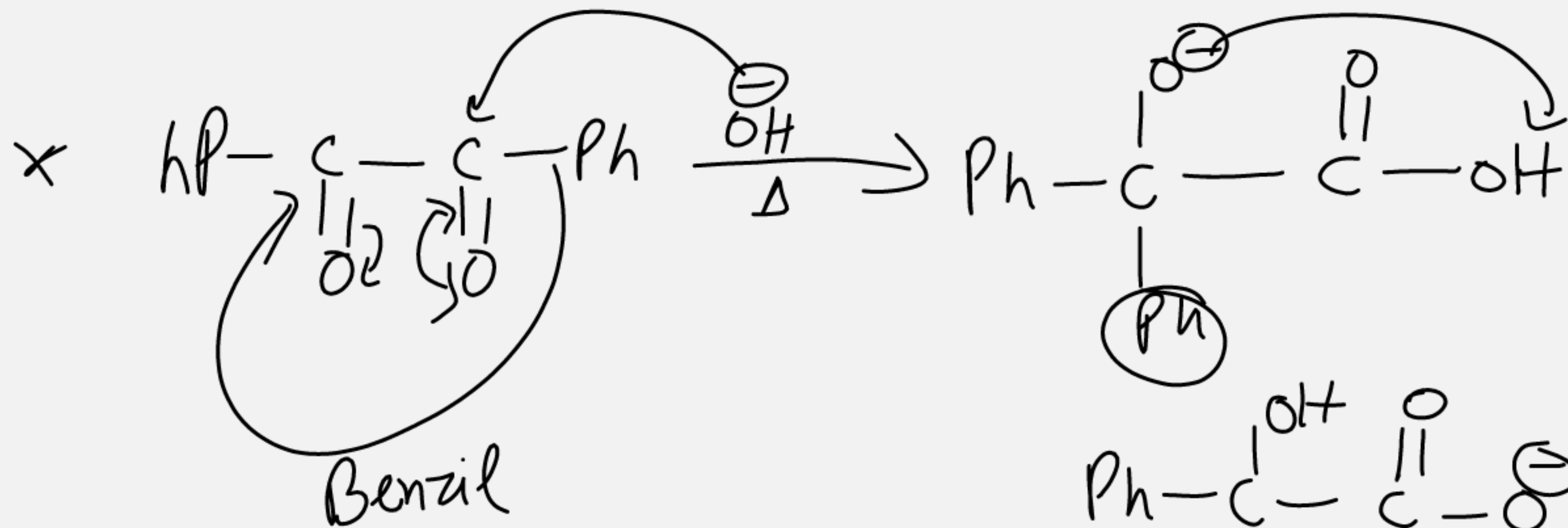
Mechanism



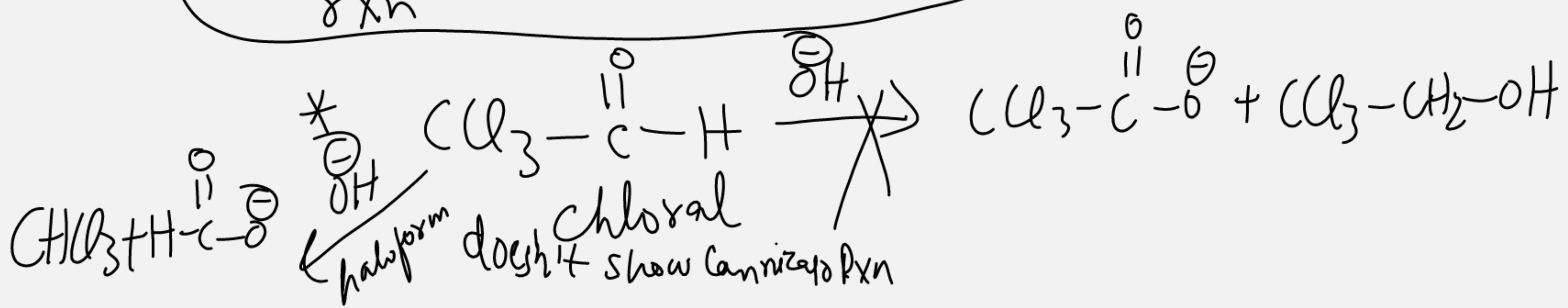


Intramolecular Cannizzaro

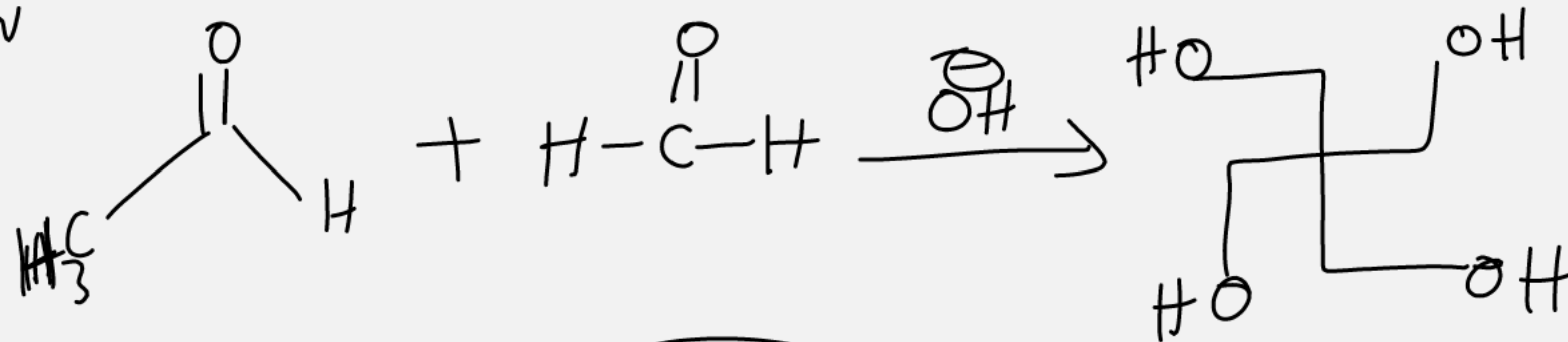




Benzil-Benzilic acid rearrangement rxn



H.w



Q. How many aldol rxn take place during the formation of this product.