

Reimer Tiemann reaction

by

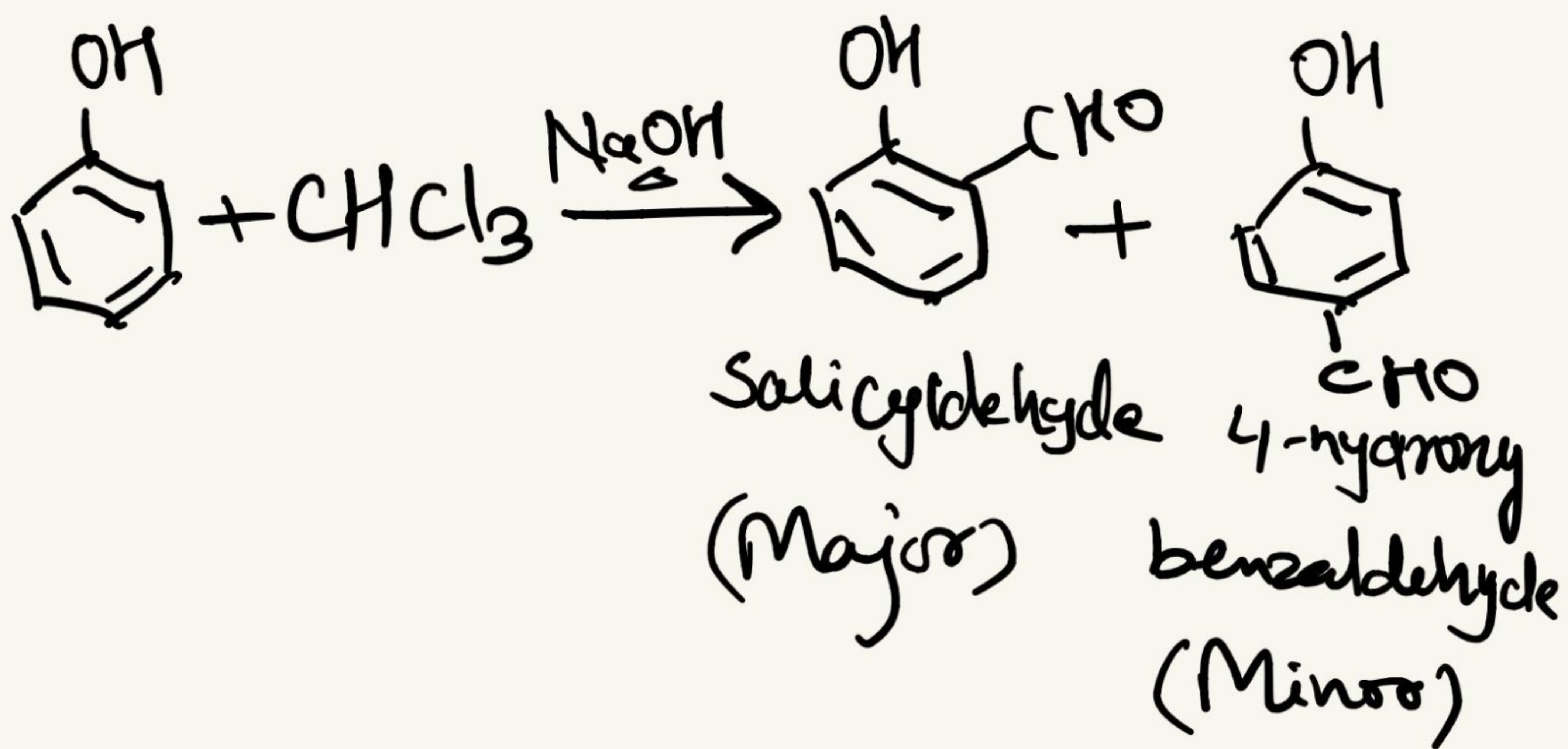
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SEM IV

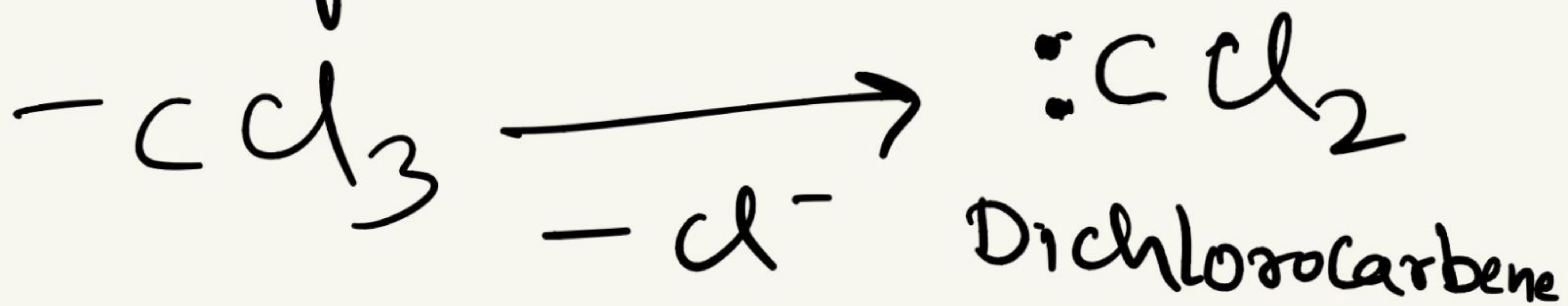
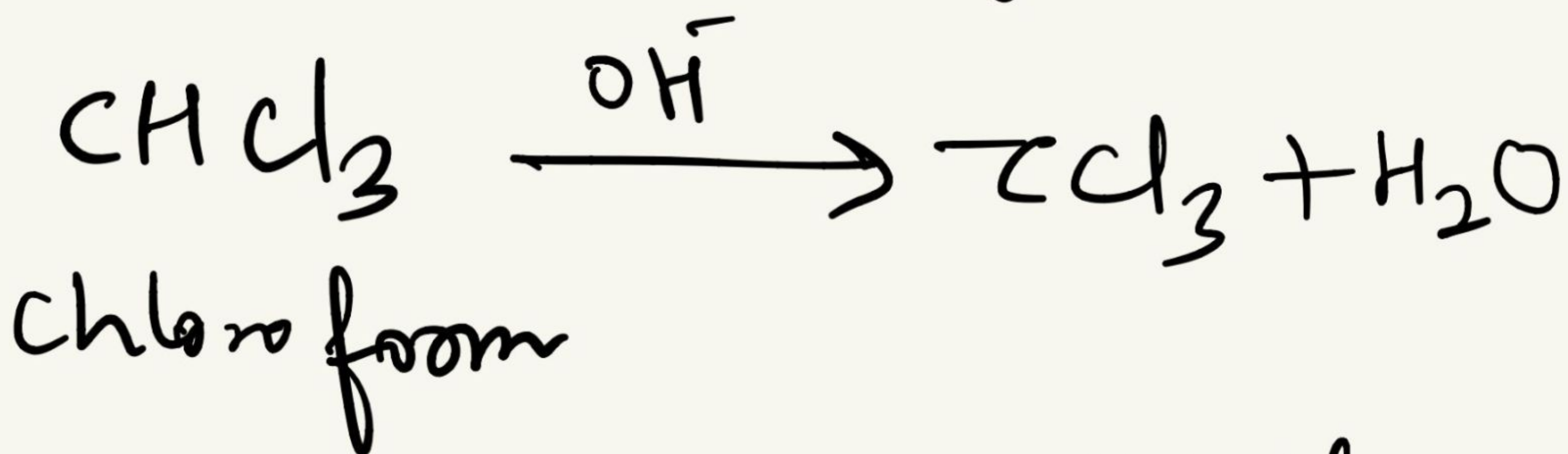
MJC-6 (T)



When phenol reacts with chloroform and sodium hydroxide solution gives hydroxy aldehyde is known as Reimer Tiemann reaction.



Mechanism: It involves the electrophilic substitution S_N2 and the electrophile in this reaction is dichlorocarbene ($:CCl_2$) which is produced by the α -elimination S_N2 between chloroform & NaOH.



The attack of phenoxide ion on dichlorocarbene gives benzylidene dichloride which on hydrolysis and acidification gives corresponding hydroxyl aldehyde.

