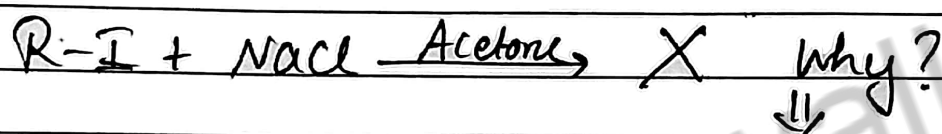
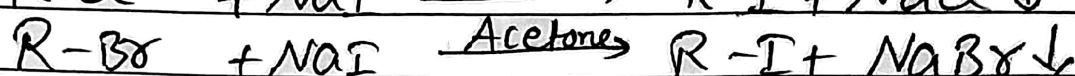
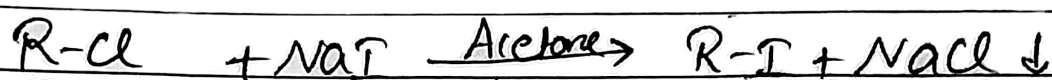
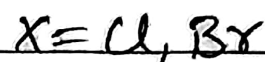
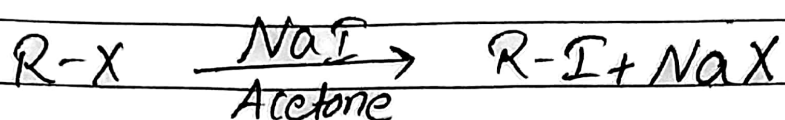


Preparation of Haloalkanes - 3

Halogen Exchange Method.

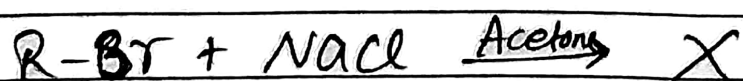
① Finkelstein Reaction. (Mostly for alkyl Iodide)



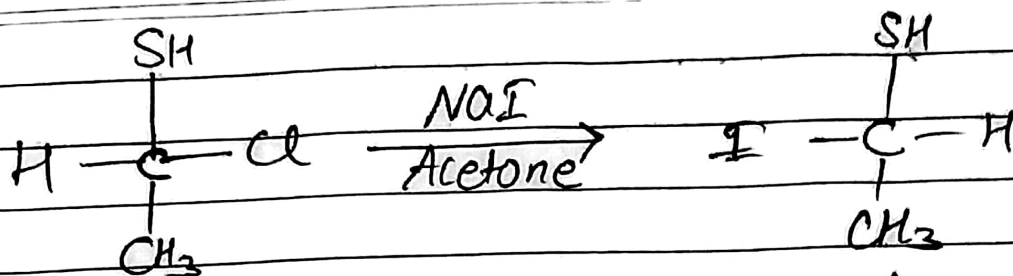
*** Solubility $NaI > NaBr > NaCl$ in Acetone
[Covalent character] (Covalent)
[Fajan's Rule - larger ion]

So NaI is most soluble $\rightarrow I^-$ ions are easily available

$NaCl$ is least soluble $\rightarrow Cl^-$ ions are not available

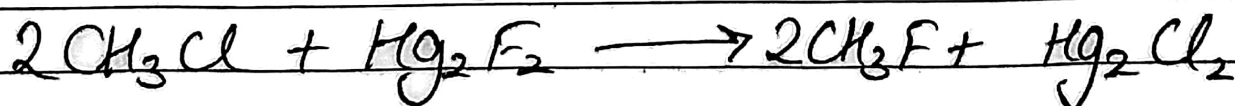
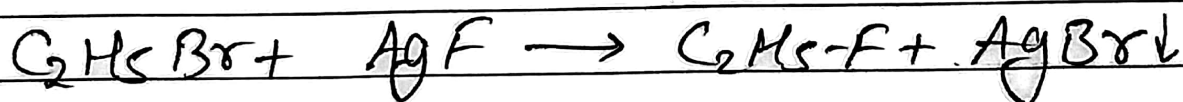
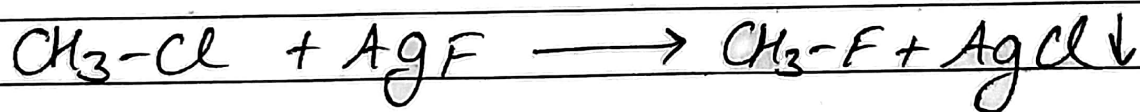
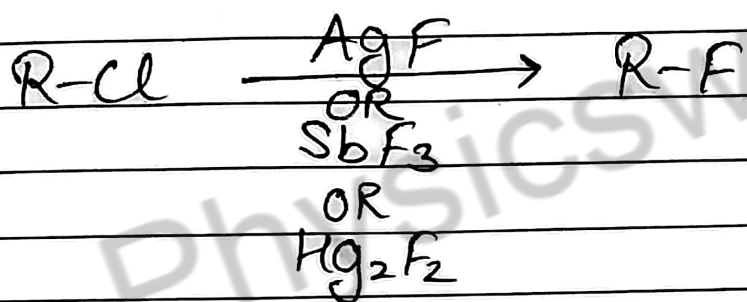


Mechanism is SN^2 as polar aprotic Solvent Acetone is used \Rightarrow Inversion occurs



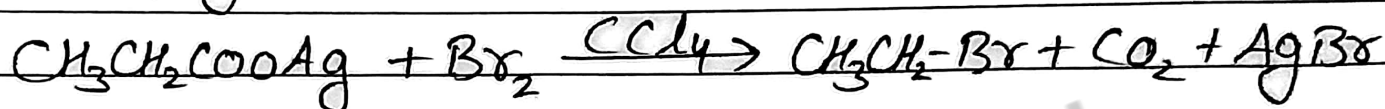
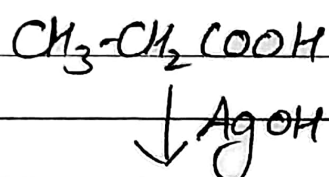
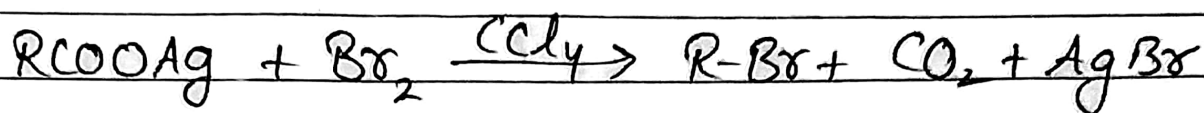
Inversion due to $\text{S}_\text{N}2$

② Swart's Reaction (for Alkyl Fluoride)

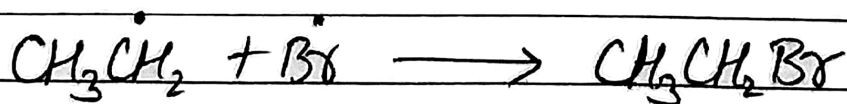
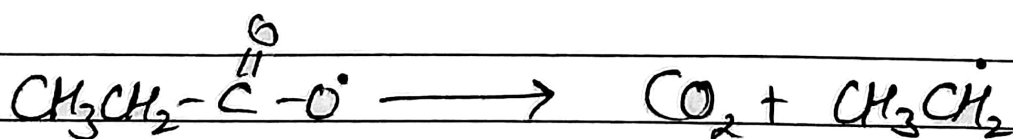
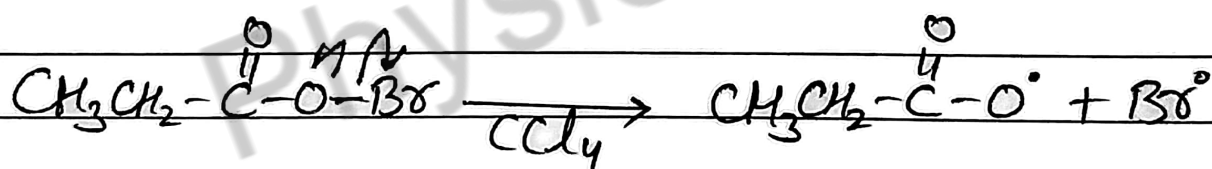


From Silver Salts of Fatty Acids (Carboxylic Acids)

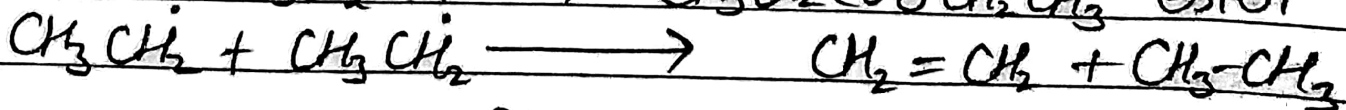
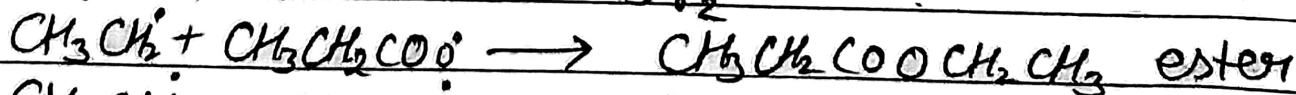
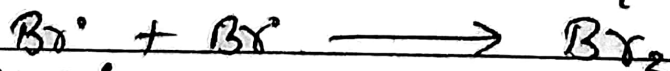
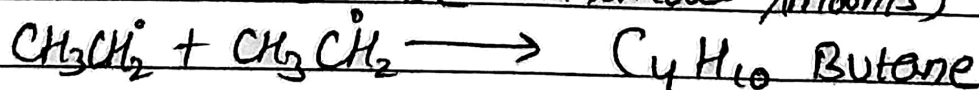
Barodine Hunsdiecker or Hunsdiecker Reaction. (for Alkyl Bromide)



Mechanism (Free Radical Mechanism)

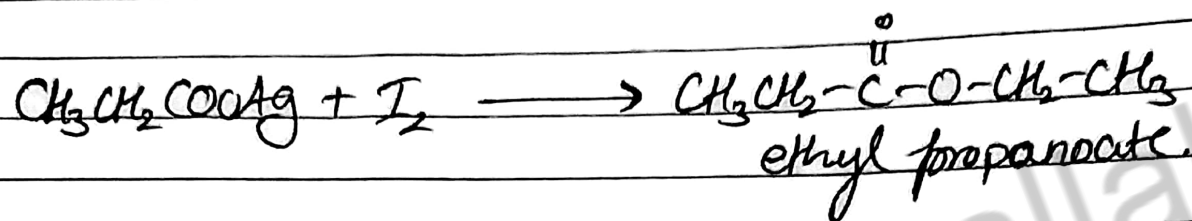
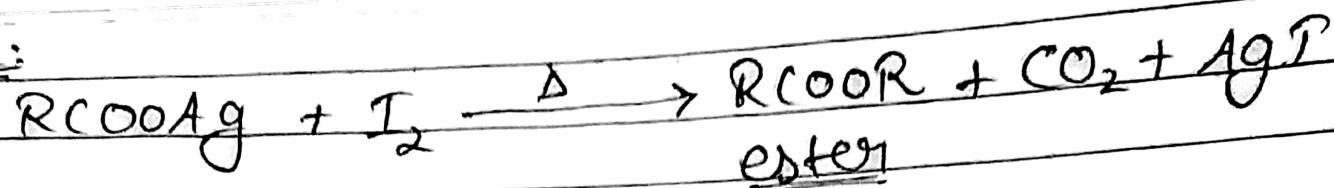


Other Products can be (in small amounts)



Disproportionation

Note:



Birnbaum-Simonini Reaction.

Balanced
↓

