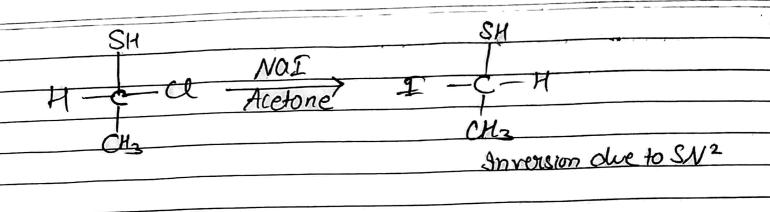
Preparation of Kaloalkanes - 3
Halogen Exchange Method.
1) Finkelstein Reaction. (Mostly for alkyl Todicle)
$R-X \xrightarrow{NaI} R-I+NaX$ Acctone $X=U,BX$
R-Cl +NaT Acetones R-I+Nacl J R-B8 +NaI Acetones R-I+ NaB8 J
R-I + Nacl Acetone, X Why?
** * Solubility NaI > NaBr > Nacl in Acetone
[Covalent character] (Covalent) [Fazon's Rule -larger Jon]
So NaI is most soluble -> I ions are easily
available
Nacl is least soluble -> Cl @ ions are not available
R-Cl + NaBr Acetone, R-Br + NaCl J
R-BT + Nacl Acetons X
Mechanism is SN2 as polar approtic Solvent Acetone is used -> Inversion occurs



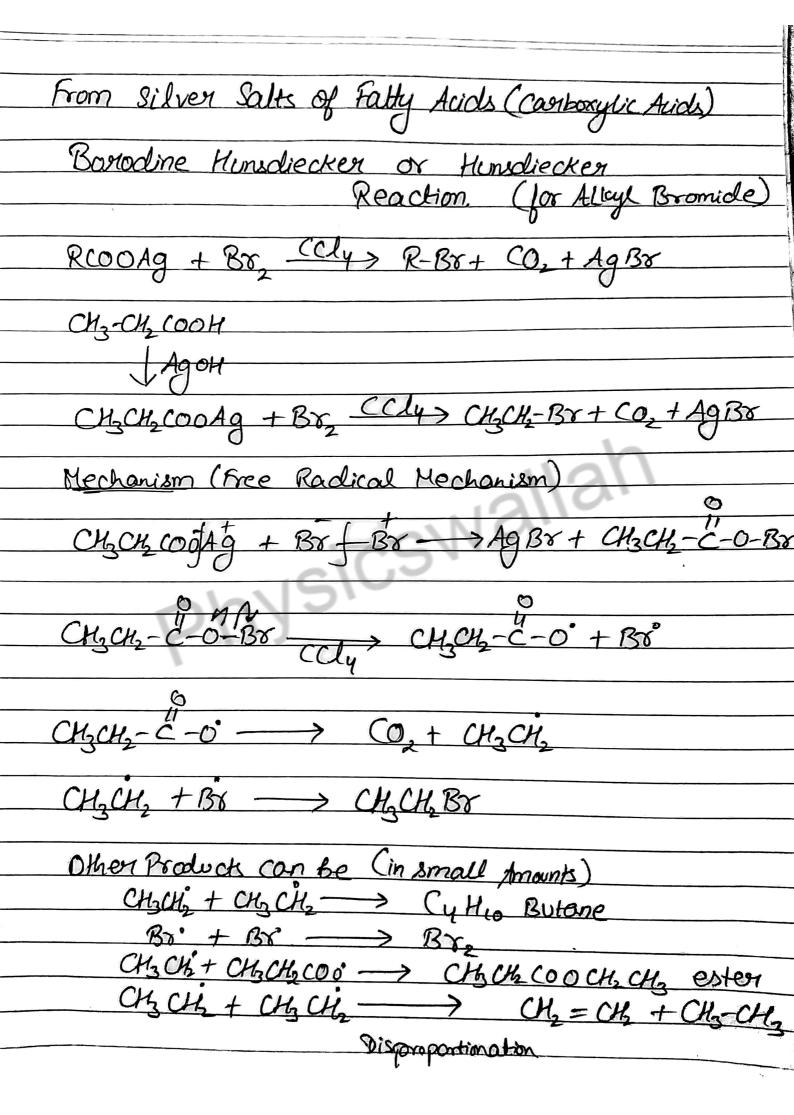
2 Swant's Reaction (for Alkyl Fluoride)

 $\begin{array}{c}
R-Cl & \xrightarrow{AgF} & R-F \\
\hline
SbF_3 & \\
OR & \\
Hg_2F_2
\end{array}$

CH3-Cl + AgF -> CH3-F+ AgClV

CH5Br+ AgF -> CoM5-F+ AgBrl

2 CH3 Cl + H92 F2 -> 2 CH3 F+ H92 Cl2



Note: RCOOAg + I, - D > RCOOR + CO2 + Ag I
RCOOAg + I - B > KLOOK + COZ
0
CH3CH2COOAg + I, -> CH3CH3-C-O-CH3-CH3
CH3CH2COOA9 + I, -> CH3CH3-C-O-CH3-CH3 ethyl propanocite.
Binnbaum-Simonini Reaction.
0 1 1
Bolonied
2 CH3 CH3 COOAg + I2> CH3 CH3 - C-O CH3 CH3 + CO2 + 2Ag2