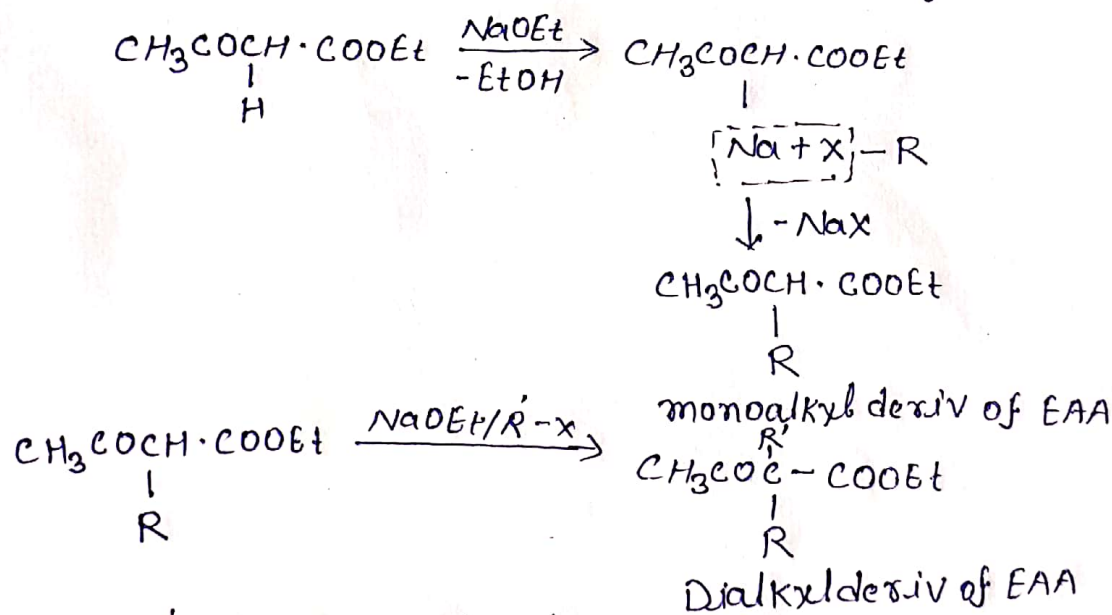
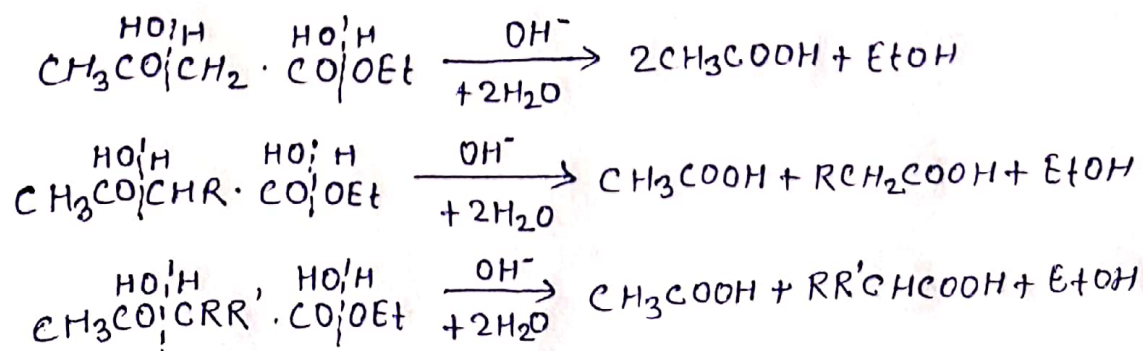


Q Discuss the synthetic uses of ethyl acetoacetate

Ans 1. Synthesis of mono and dialkyl acetoacetic ester: NaOEt is obtained by dissolving Na in ethyl alcohol (EtOH) EAA is firstly treated with Sodium ethoxide (NaOEt) and the Sodium derivative so formed is further treated with alkyl halide (R-X) to get monoalkyl derivative. The monoalkyl derivative is again treated with NaOEt followed by R-X to get dialkyl derivative



2 Synthesis of monocarboxylic acid: EAA and its alkyl derivative give carboxylic acid upon treatment with conc. alcoholic potash, known as acid hydrolysis.



3. Synthesis of dicarboxylic acid: Sodioderivatives of EAA give dicarboxylic acids upon treatment with iodine or halo ester followed by acid hydrolysis

