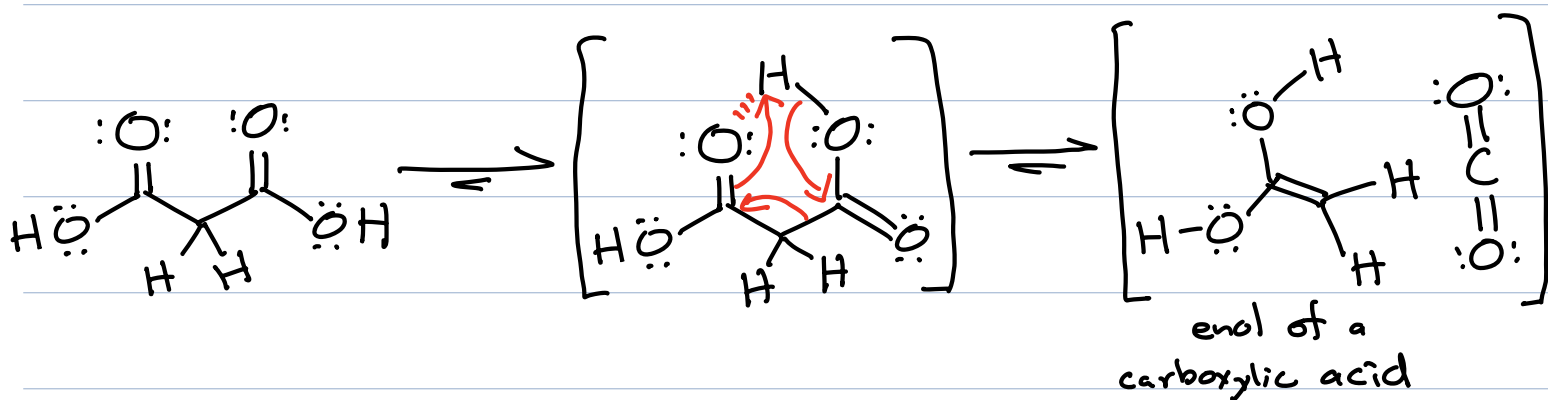




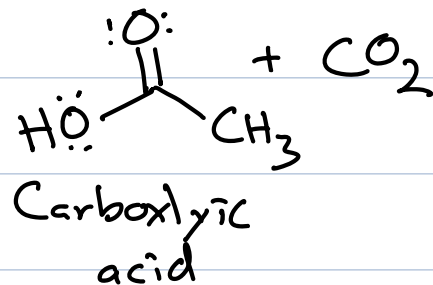
Malonic Ester Synthesis

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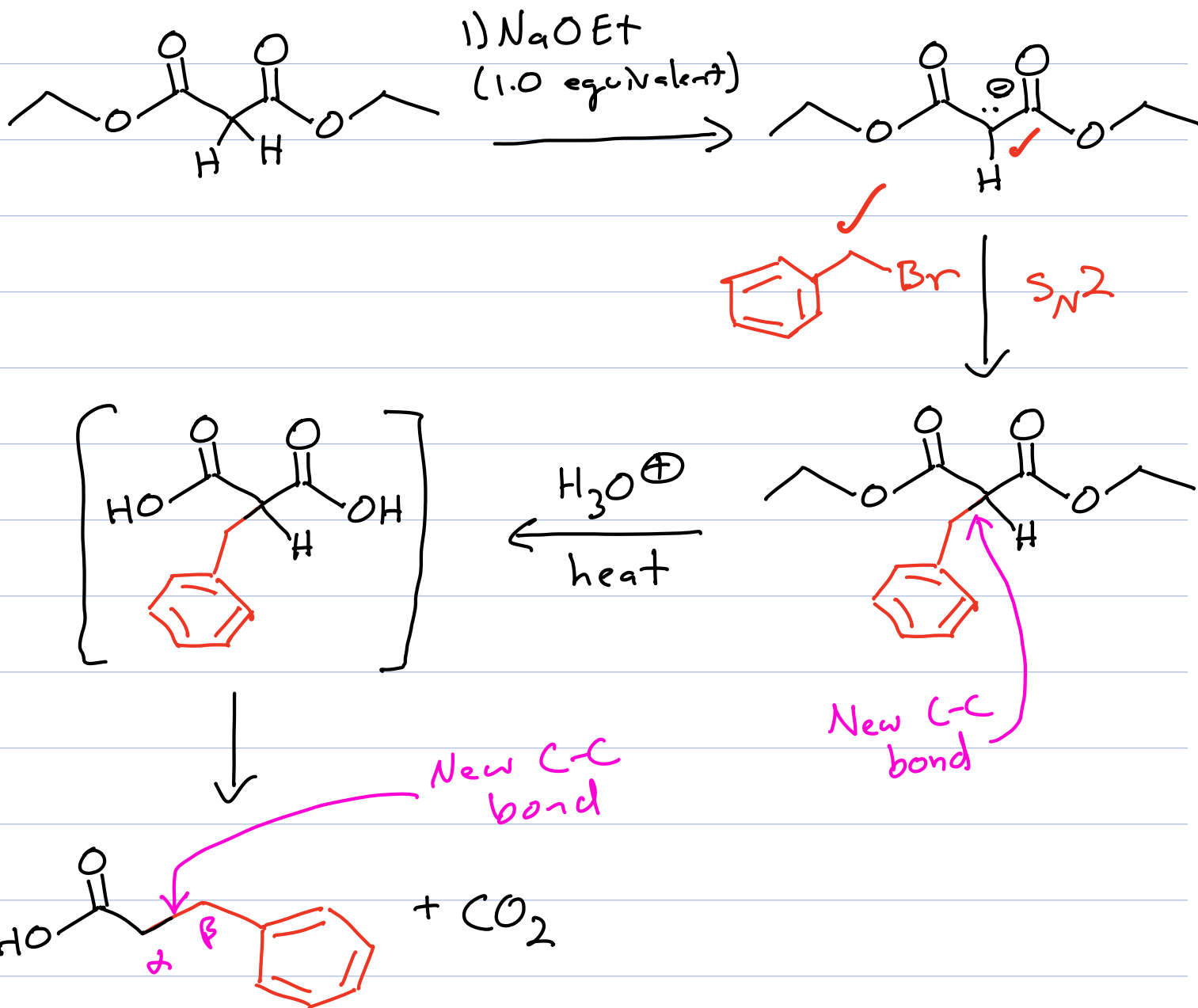
Malonic acid decarboxylates with heat to give a carboxylic acid and CO_2



tautomerization \updownarrow



We start with diethyl malonate



KRE → A carboxylic acid with a new C-C bond between the α and β carbon atoms

CH_3Br
 CH_3I } These are so small they can react with enolates that are already substituted — applies to acetoester and malonic ester syntheses

Any group that is larger cannot react due to steric strain

