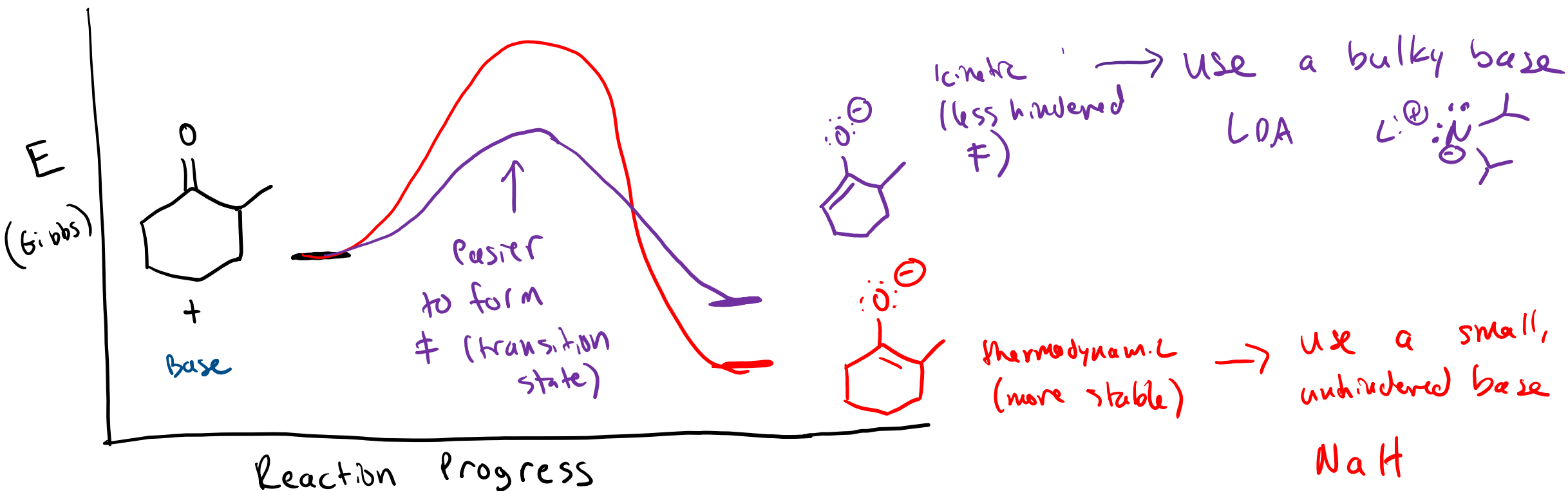
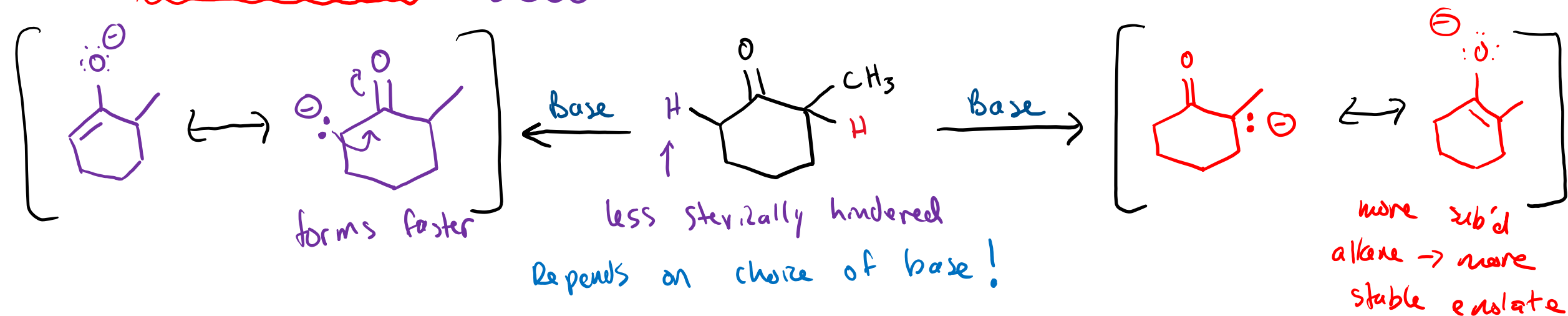


More Alpha-alkylation:

Malonic Ester Synthesis
Acetoacetic Ester Synthesis

3/27/2022

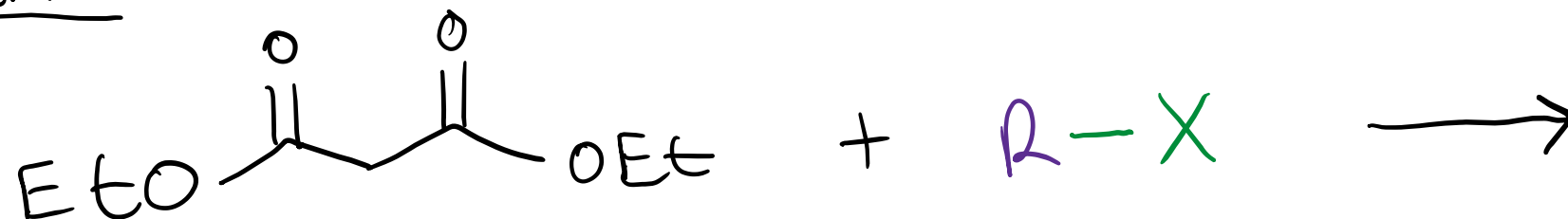
Thermodynamic vs Kinetic Enolate: Choosing the right base



Malonic Ester Synthesis

(20.5)

overall:

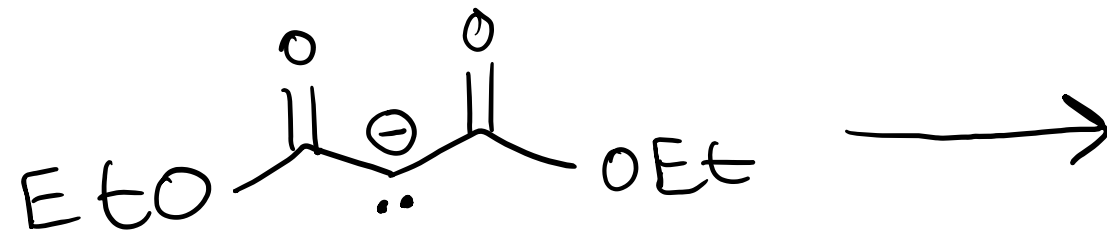


stepwise: 1)



Malonic Ester Synthesis, continued

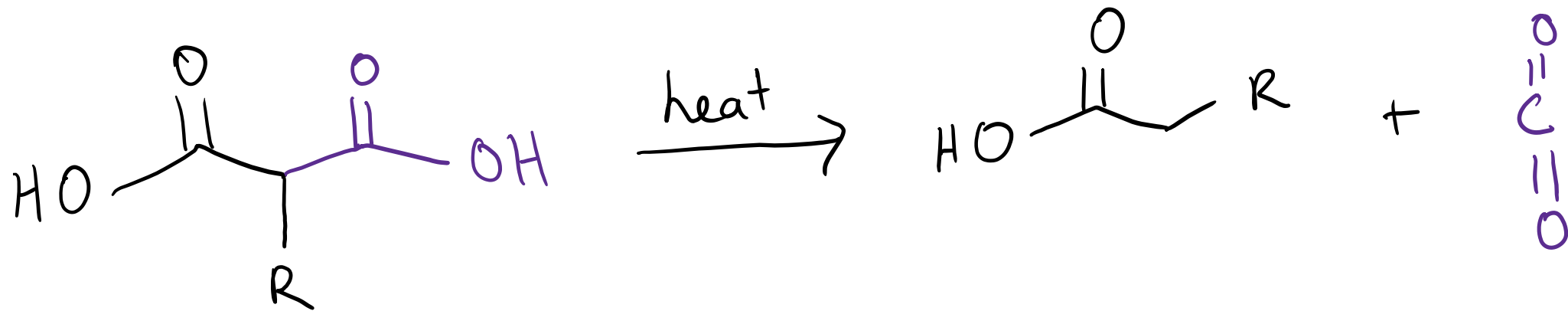
2)



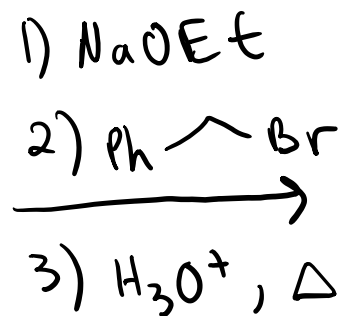
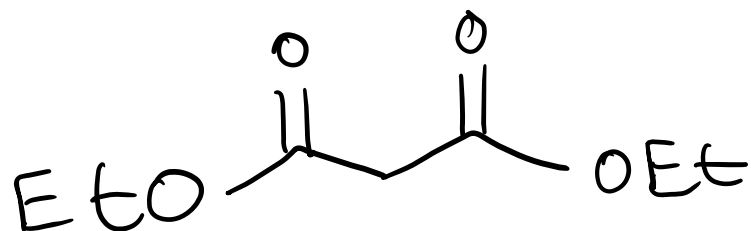
3a)

3b)

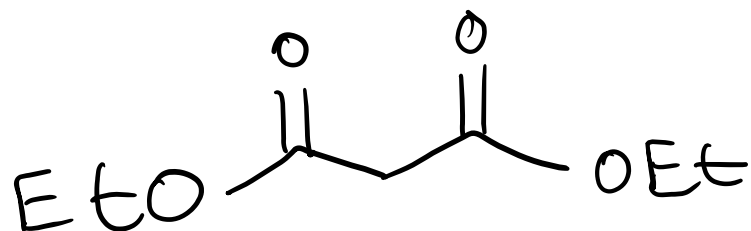
Decarboxylation: Mechanism



Malonic Ester Synthesis: Putting the Steps Together



Malonic Ester Synthesis with Two Alpha-Alkylations



1) NaOEt

2) $\text{H}_3\text{C-I}$

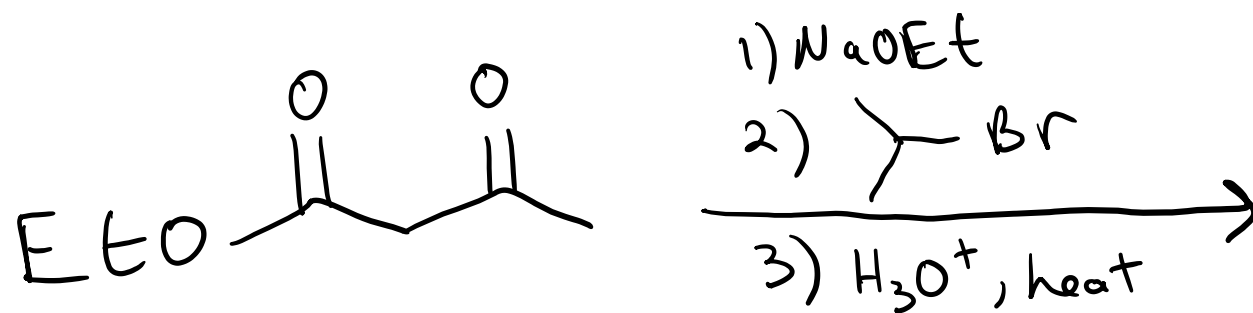


3) NaOEt

4)  I

5) H_3O^+ , heat

Acetoacetic Ester Synthesis



Acetoacetic Ester Synthesis: Examples

