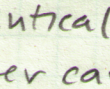
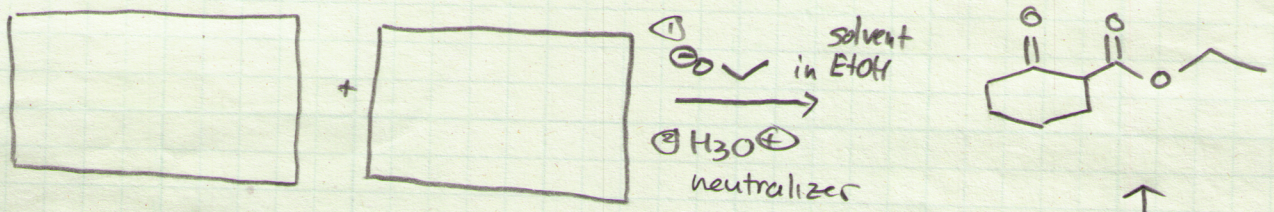
Learning by Doing

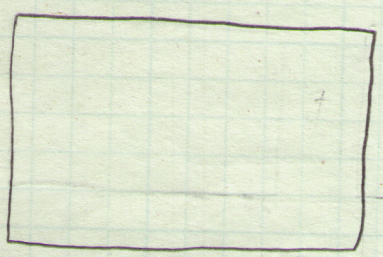
A Dieckman* condensation is mechanistically identical to a mixed Claisen condensation except the ester carbonyl () and enolate carbonyl react intramolecularly to form a ring.

Determine both sets of starting material that can be used to synthesize the mixed Claisen or Dieckman condensation products

Set 1



Set 2



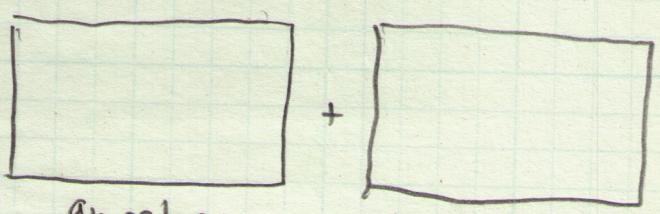
Dieckman*

same reactants as above

Set 1

an ester$_1$

Set 2

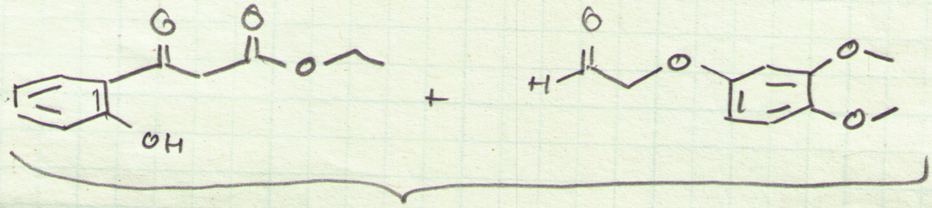


an ester$_2$

as above

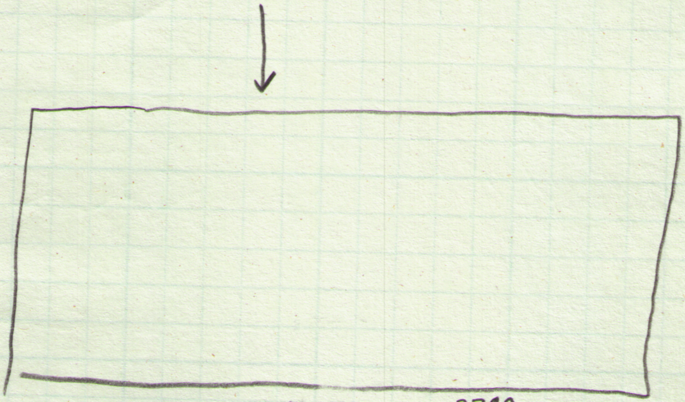
Learning by Doing

This may seem complex because you see combinations of functional groups across the starting material. However, if you apply the simple concepts you have learned about condensation reactions, the process will be significantly less daunting.



① $^{\ominus}$O⌃ in EtOH solvent

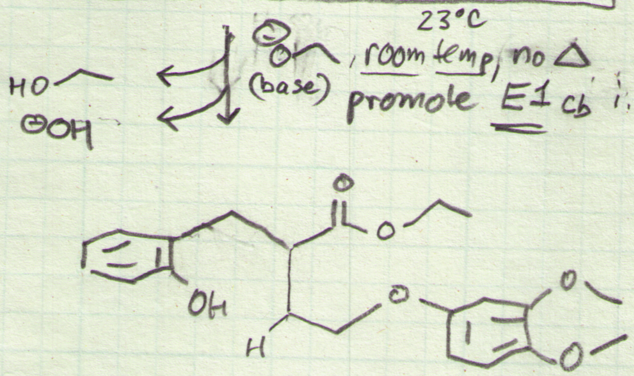
② $H_3O^{\oplus}$ neutralizer



23°C

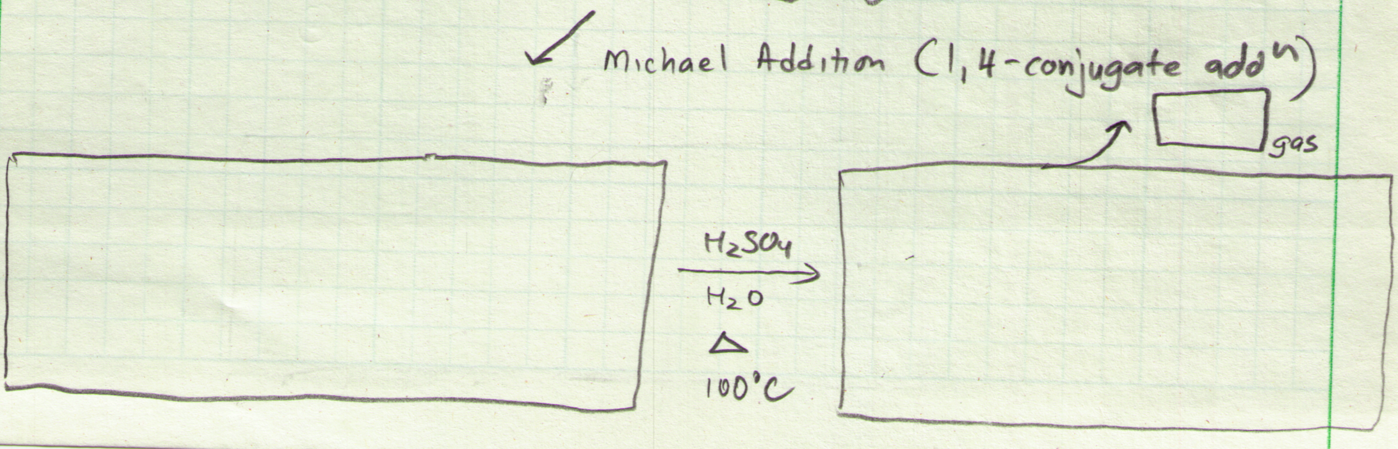
① $^{\ominus}$O⌃ (base), room temp, no Δ

promote E1cb i.e. E1 via a conjugate base (a carbanion)

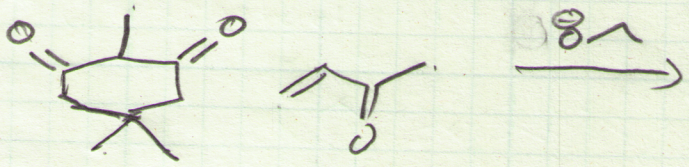


Complete this structure

Michael Addition (1,4-conjugate add^n)



Robinson Annulation between



C_{13}

5 DOUS! degrees of unsaturation