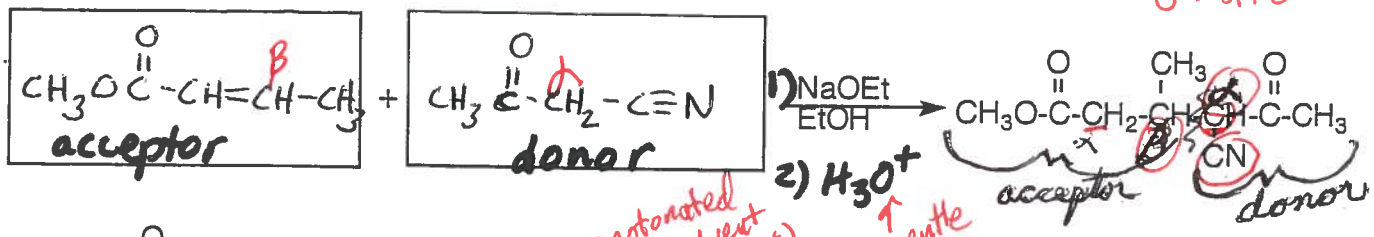
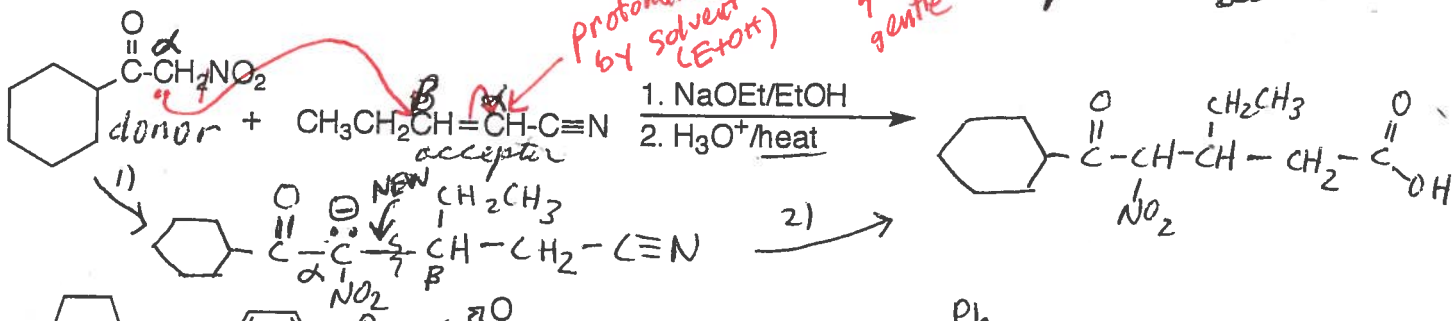
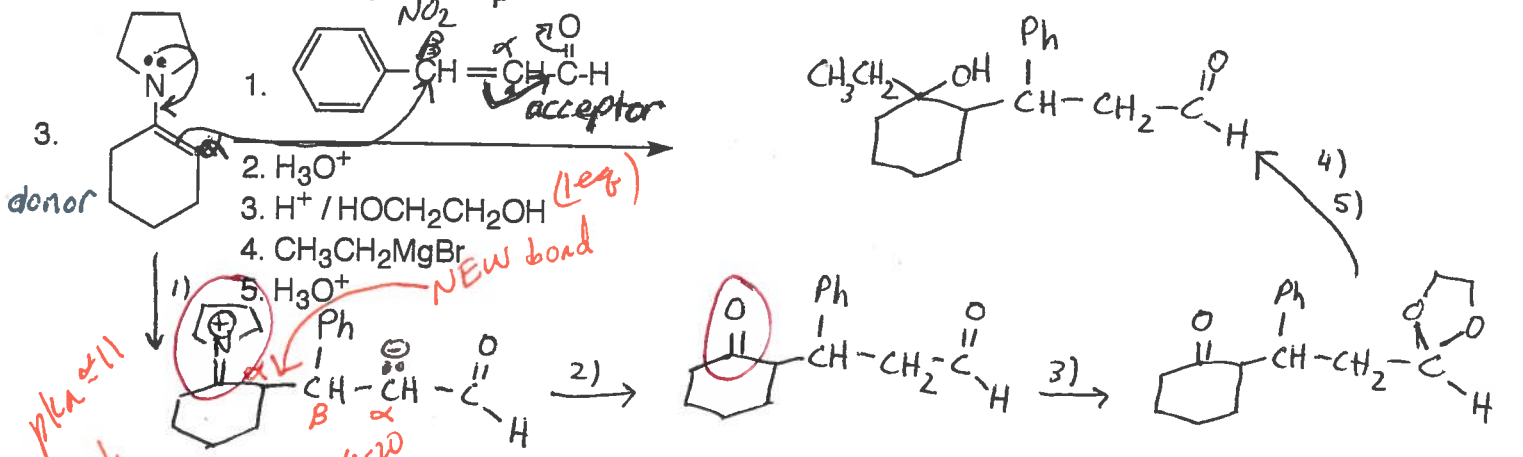
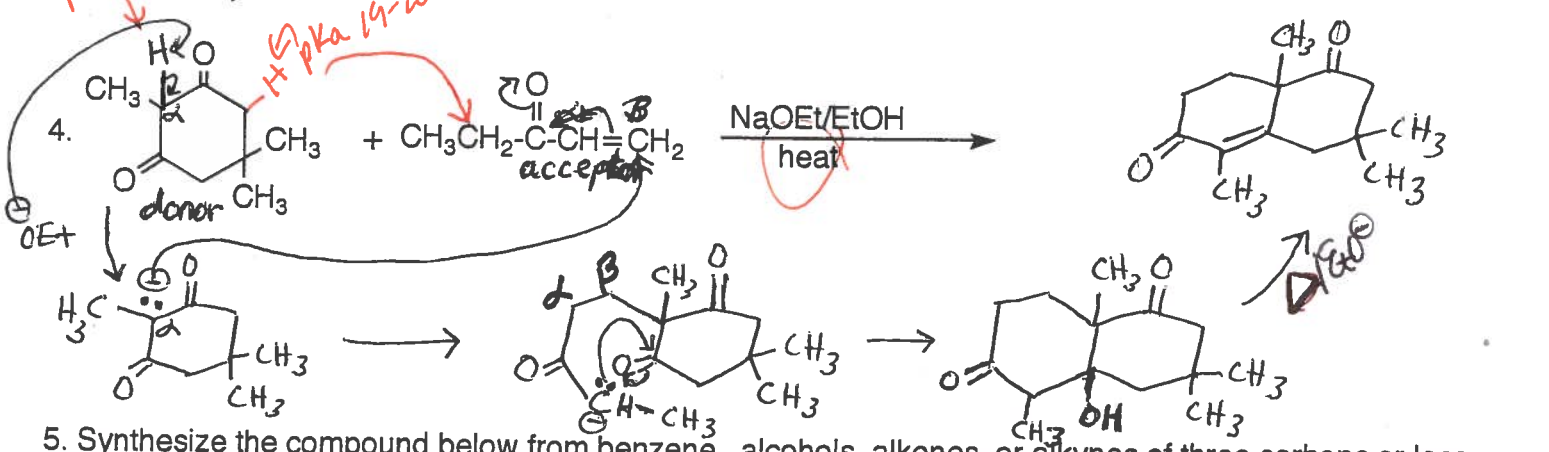
MAD ORG. CHEM "MIN." # 30

δ-dicarbonyl

1. 

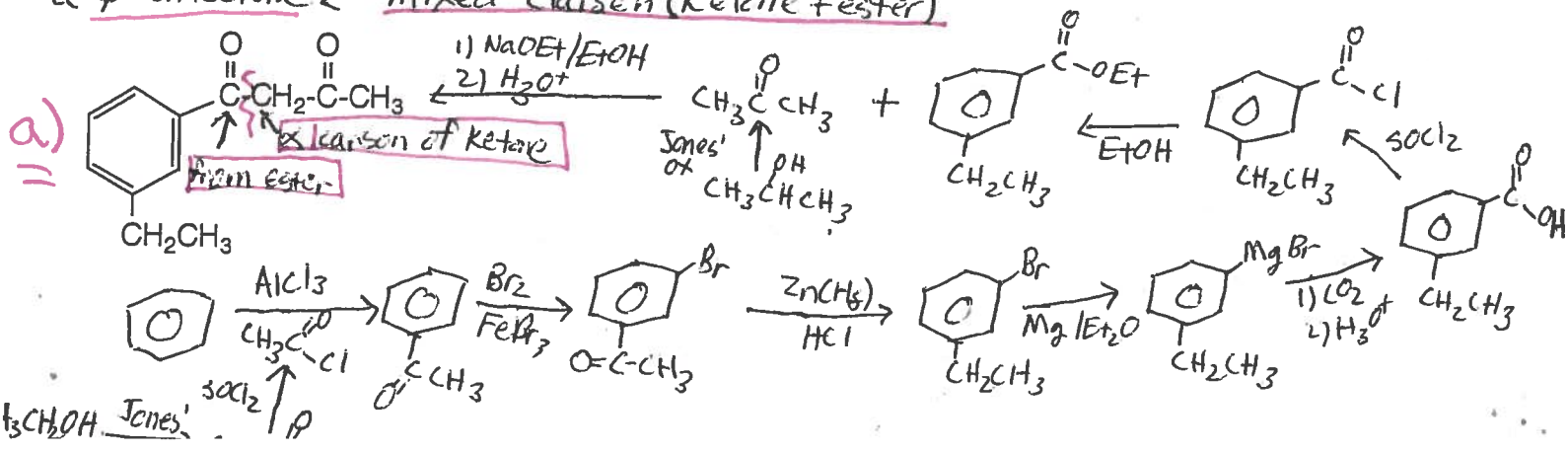
2. 

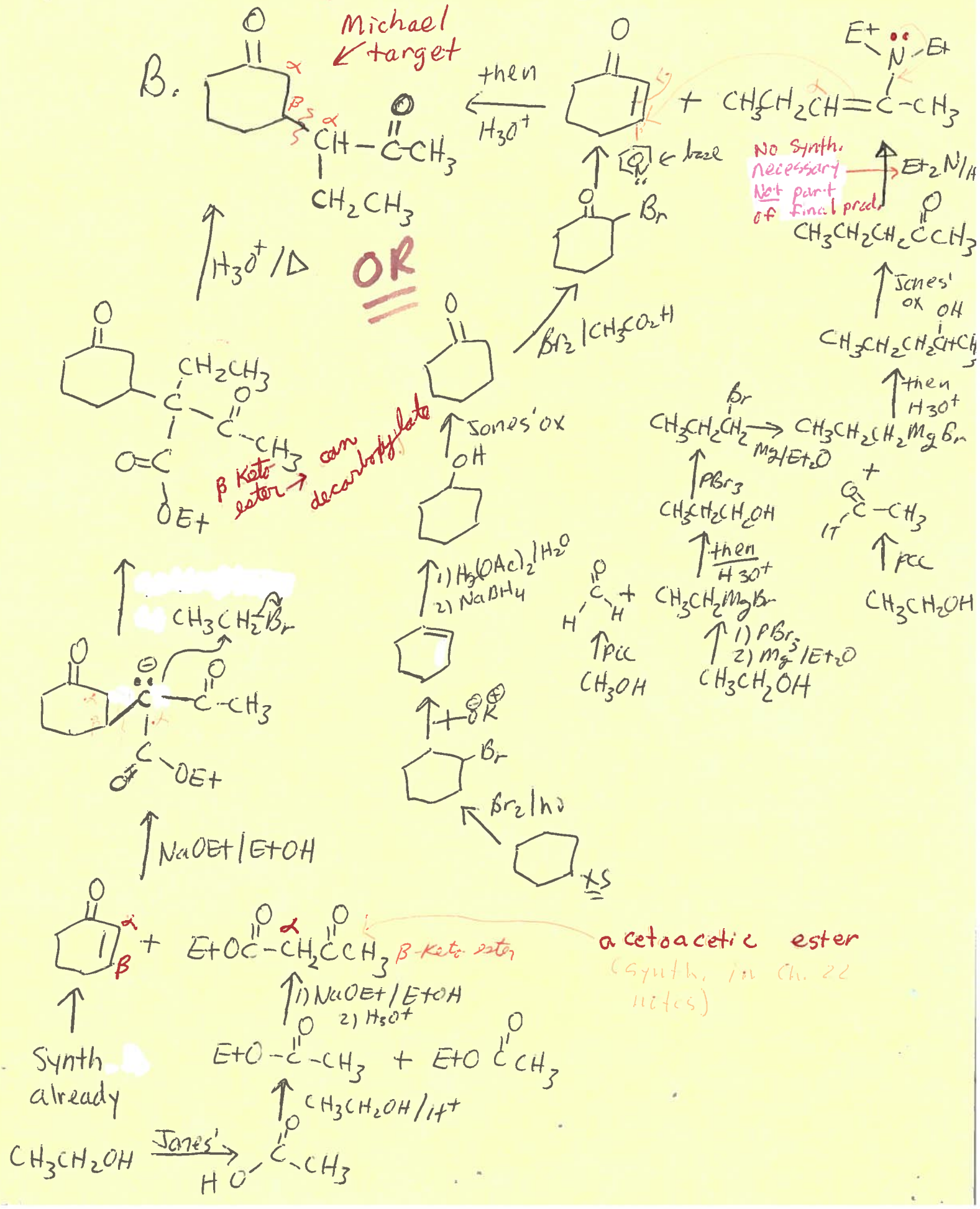
3. 

4. 

5. Synthesize the compound below from benzene, alcohols, alkenes, or alkynes of three carbons or less any inorganic reagents, any oxidizing or reducing agents, and any peracids.

a β-diketone ← mixed Claisen (ketone + ester)

a) 


B.
Michael target
then
H_3O^+
H_3O^+/Δ
OR
base
No Synth. necessary
Not part of final prod.
Et_2N/H
Jones' ox
Br_2/CH_3CO_2H
then H_3O^+
β Keto ester → can decarboxylate
Jones' ox
CH_3CH_2Br
1) $Hg(OAc)_2/H_2O$
2) $NaBH_4$
PBr_3
Mg/Et_2O
then H_3O^+
PCC
CH_3OH
CH_3CH_2OH
$Br_2/h\nu$
xs
$NaOEt/EtOH$
acetoacetic ester
(Synth. in Ch. 22 notes)
β-Keto ester
1) NaOEt/EtOH
2) H_3O^+
Synth already
CH_3CH_2OH/H^+
Jones'