

Malonic Ester Synthesis

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Malonic acid decarboxylates with heat to give a carboxylic acid and CO2

enoi os a carboxylic acid

tautomerization /

We start with diethy I malonate

KRE A carboxylic acid
with a new C-C
bond between the
d and B carbon
atoms

CHzBr) These are so small they
? can react with enolates
CH3I) that are already
substituted - applies
to acetoester and
Any group majoric ester syntheses that is larger
cannot react
due to steric
strain
1) NaOE+ 00
1.0 equivalent
2) Br H
SNZ 3) NaOEt 1.0 equivalent
Jy) CH3Br
HO (CH3 5) H30® (CH3)
Racemic