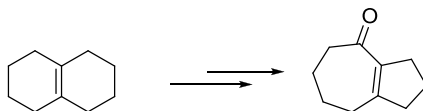


Problems - Set 9: Carbonyl compounds (Parts III - IV)

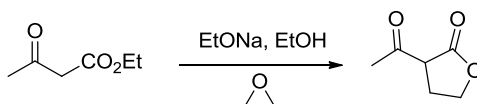
Problem 1

Propose a pathway leading to the product, more than one step is necessary (hint: the double bond must be broken by ozonolysis first).



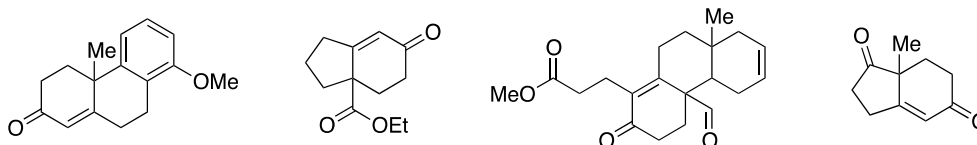
Problem 2

Give the mechanism.



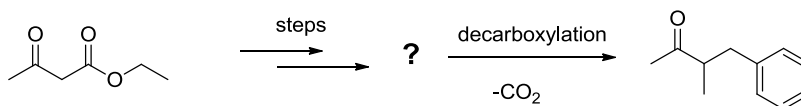
Problem 3

Propose a synthetic pathway to form these compounds using Robinson annulation (Michael addition followed by aldol condensation).



Problem 4

Propose a pathway leading to the product, more than one step is necessary.



Notes: β -ketocarboxylic acid can be easily decarboxylated by heating to generate ketone

