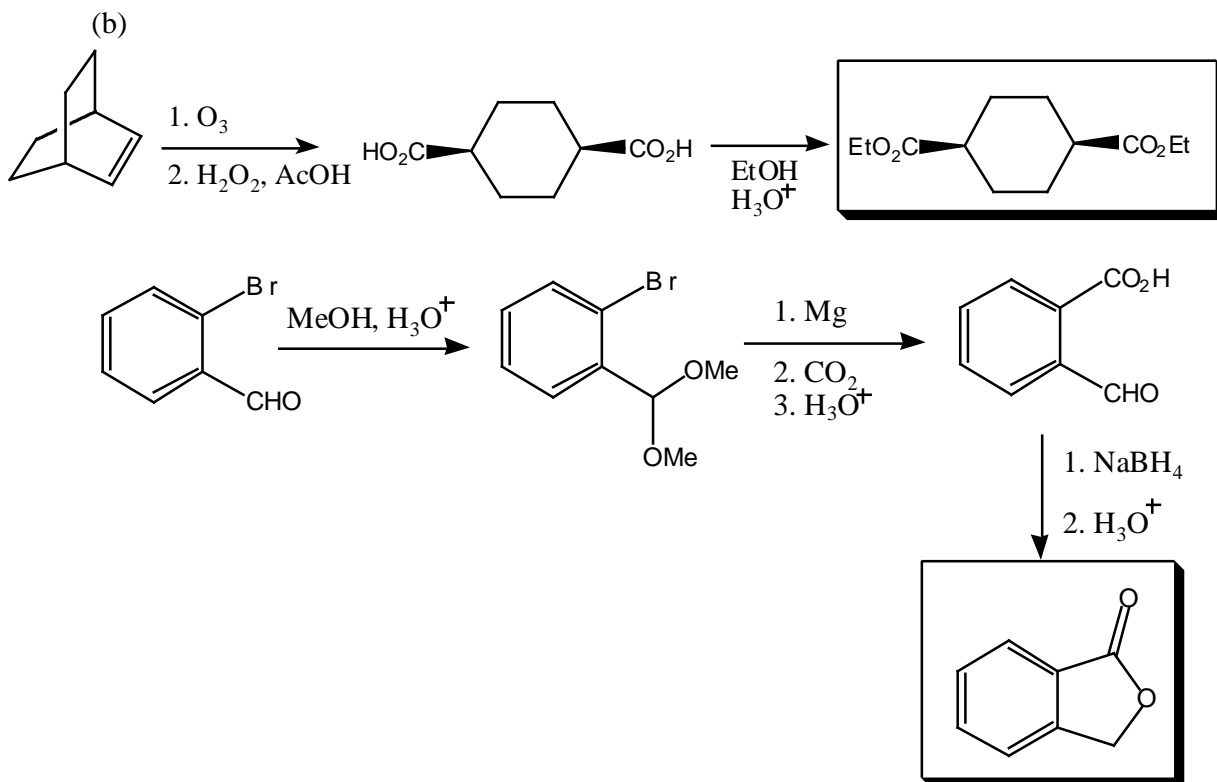
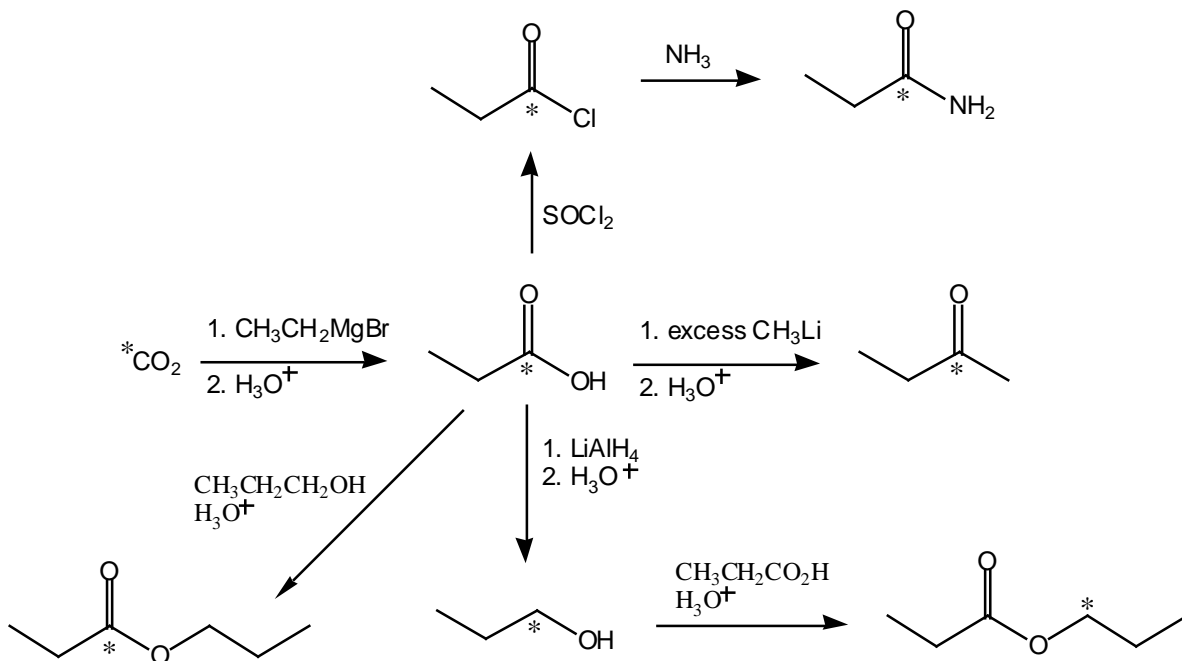
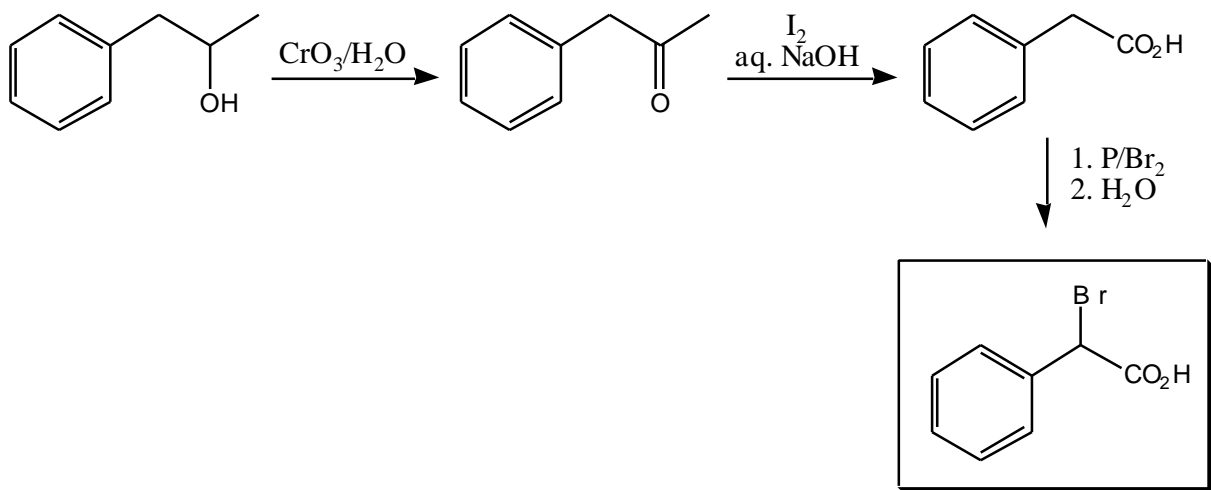


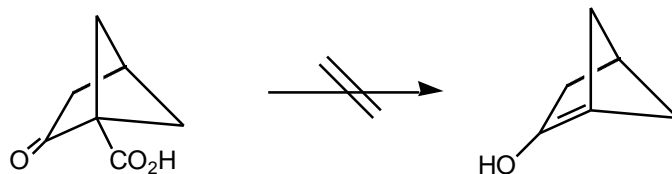
Answers to Problem Set #9
CH242-2002S

(1) (a) Some ideas are given below. However, you might have alternative, and correct, answers.





(2) As decarboxylations of α -keto carboxylic acids proceed to give enol intermediates, the following compound would be most difficult to decarboxylate as the intermediate would be destabilized by the bridgehead double bond.



(3) The first step is an attack on the carbonyl by the Grignard reagent. Loss of an excellent leaving group then generates a ketone that is also attacked by the Grignard. You can then see that the product, which is a lactone (cyclic ester), can come from an intramolecular Fischer esterification.

