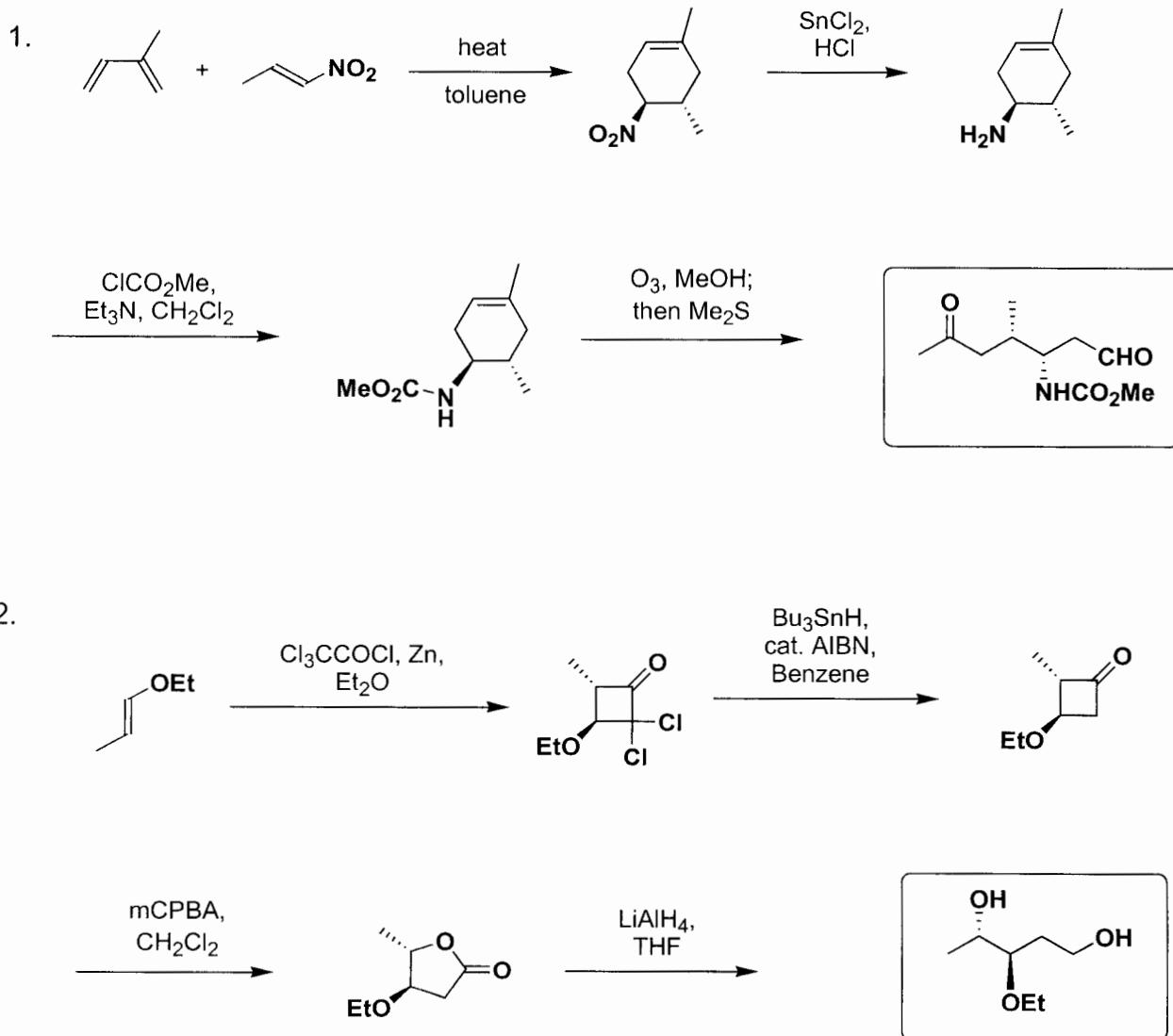


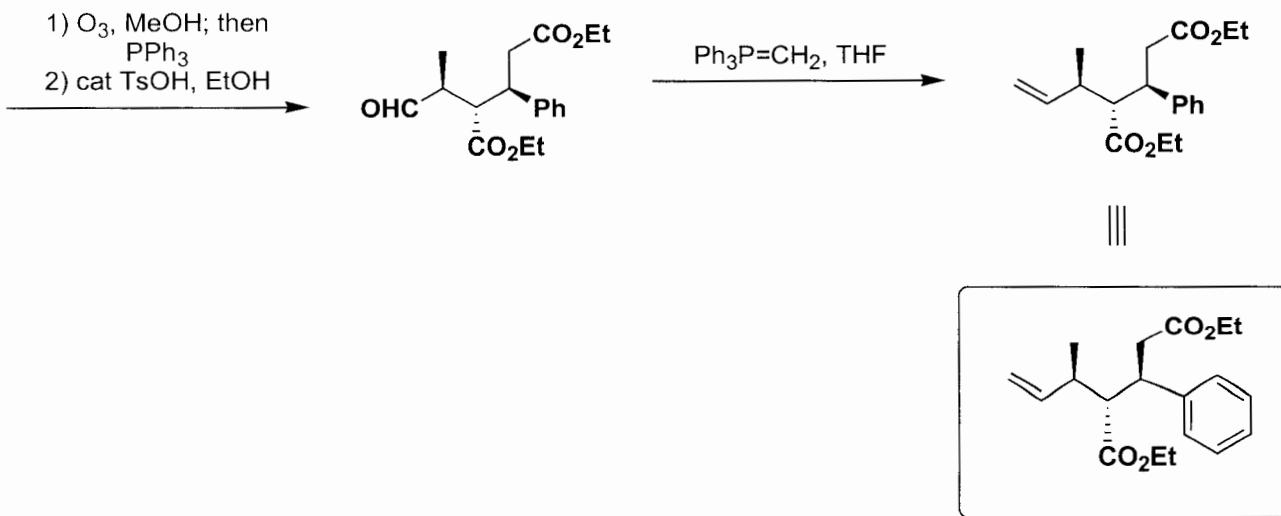
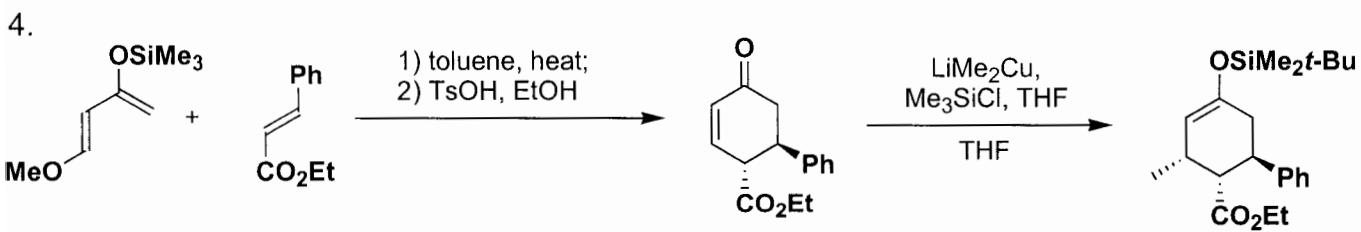
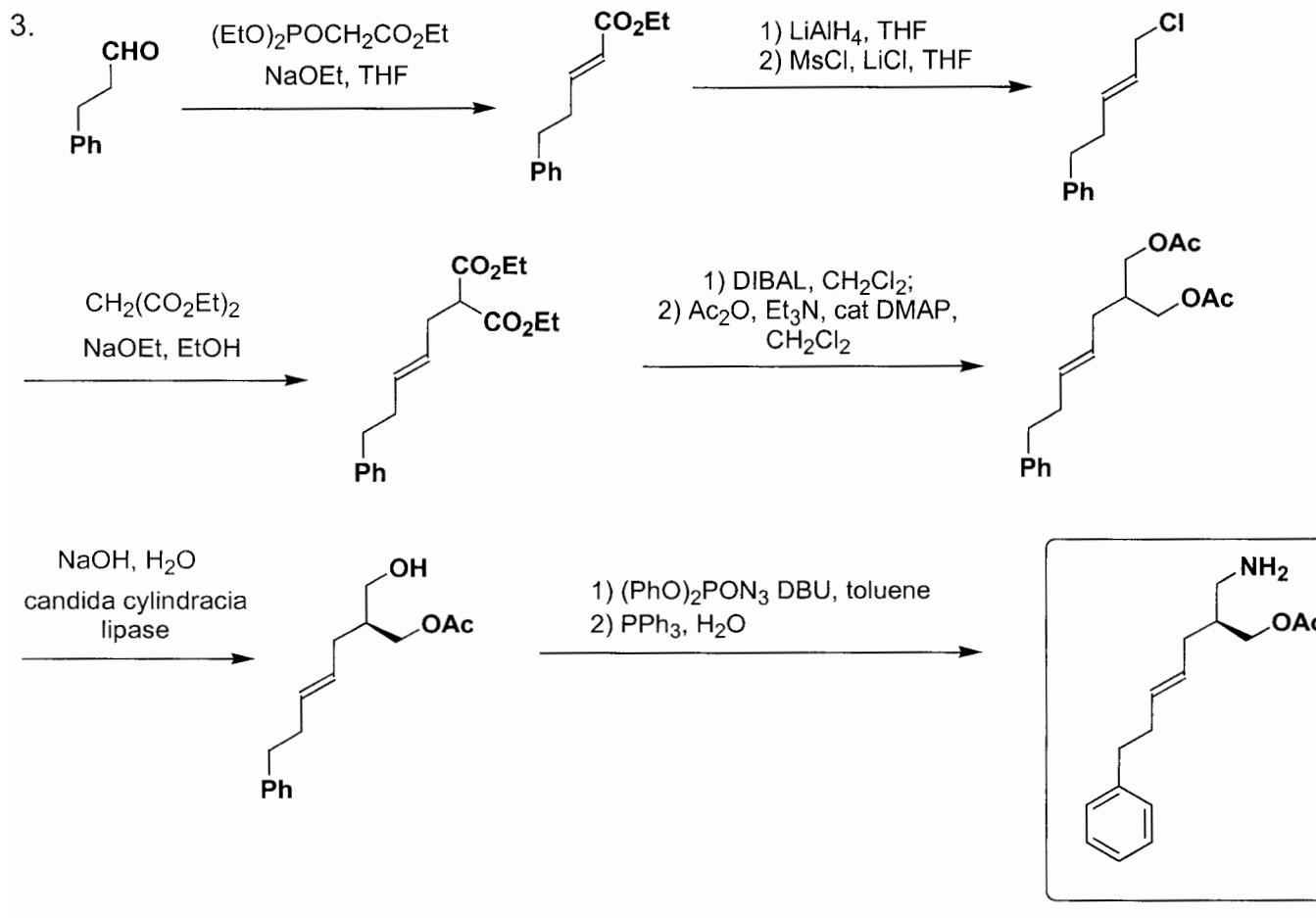
**Massachusetts Institute of Technology**  
**Organic Chemistry 5.512**

March 15, 2005  
 Wesley Austin

Problem Set 2 Solutions

Strategies for Synthesis of Acyclic Molecules Based on  
 Desymmetrization, Chirality Transfer, the "Chiron Approach",  
 and Ring Template Strategies





- II. The creation of a mixture of products favoring one enantiomer over another from a racemic mixture in the absence of chiral reactants is impossible. In the case of the "asymmetric synthesis" of santonin from 2-methyl-2-formylcyclohexanone, the optical rotation is likely due to the presence of impurities in the sample.

Cornforth J. W., R. H. Cornforth, and M. J. S. Dewar. "Reported Asymmetric Synthesis of Antonin." *Nature* 153(1944): 317.