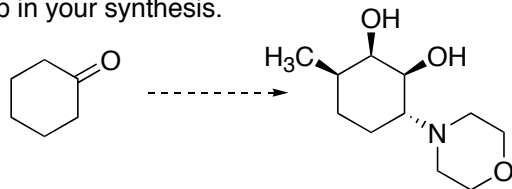
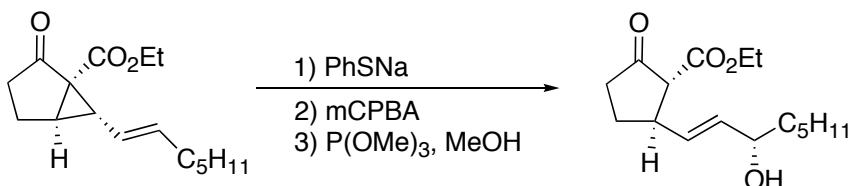


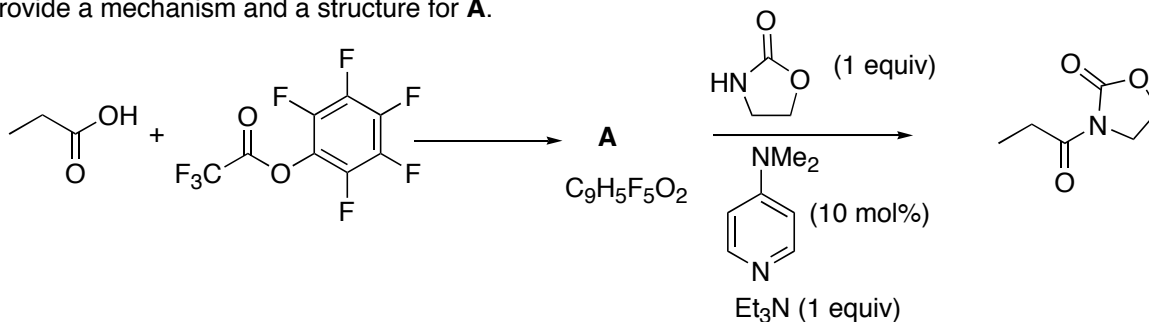
1. Provide a synthesis from cyclohexanone and any other reagents. Provide a literature precedent for each step in your synthesis.



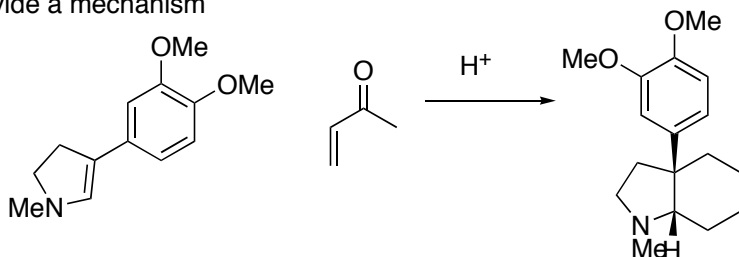
2. Provide a mechanism. Explain the diastereospecificity of the reaction.



3. Provide a mechanism and a structure for **A**.



4. Provide a mechanism



5. Complete the tutorial database handout #5. List three different sets of conditions for selectively cleaving a methyl ester in the presence of an Fmoc group.