



THE UNIVERSITY OF
TOLEDO
1872

CHEM 8410_6410_4410 – Organic Synthesis

CHEM 8410_6410_4410 Spring 2016 – Mid-Term Exam 2 03-24-16

Time: 10:00am – 10:50am

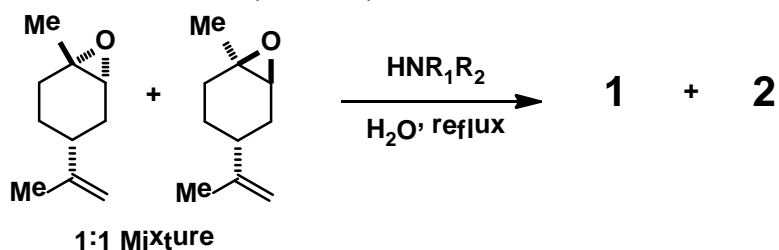
Student Name: _____

Student Number: _____

Instructor: Prof. Andreana
Room #: BO 2059



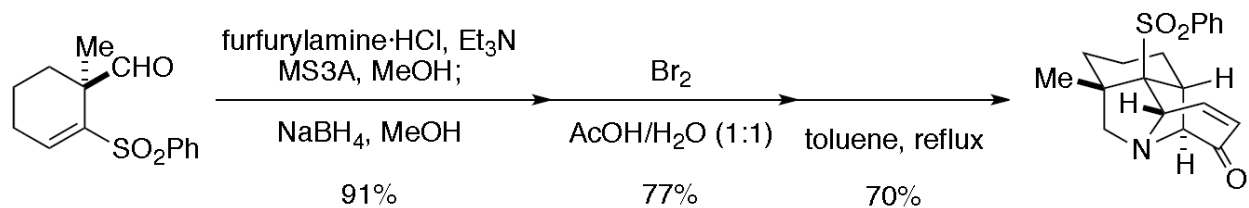
2. **Problem:** Based on what you learned about the Furst-Plattner Rule, determine the structures of **1** and **2**. To determine the structures you will need to show your insights (mechanism) for my understanding of how/where the nucleophile attacks. You MUST be able to draw chair conformers. (15 PTS)



Answer:



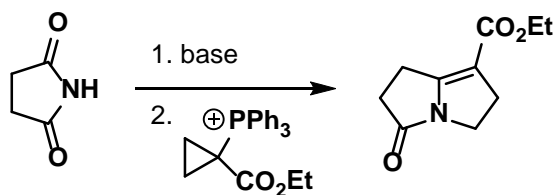
3. **Problem:** Using the curved arrow formalism, provide a reasonable mechanism for the following reaction. **(15 Points).**



Answer:



4. **Problem:** Provide the mechanism of this reaction that contains a cyclopropane reagent. (15 Points).



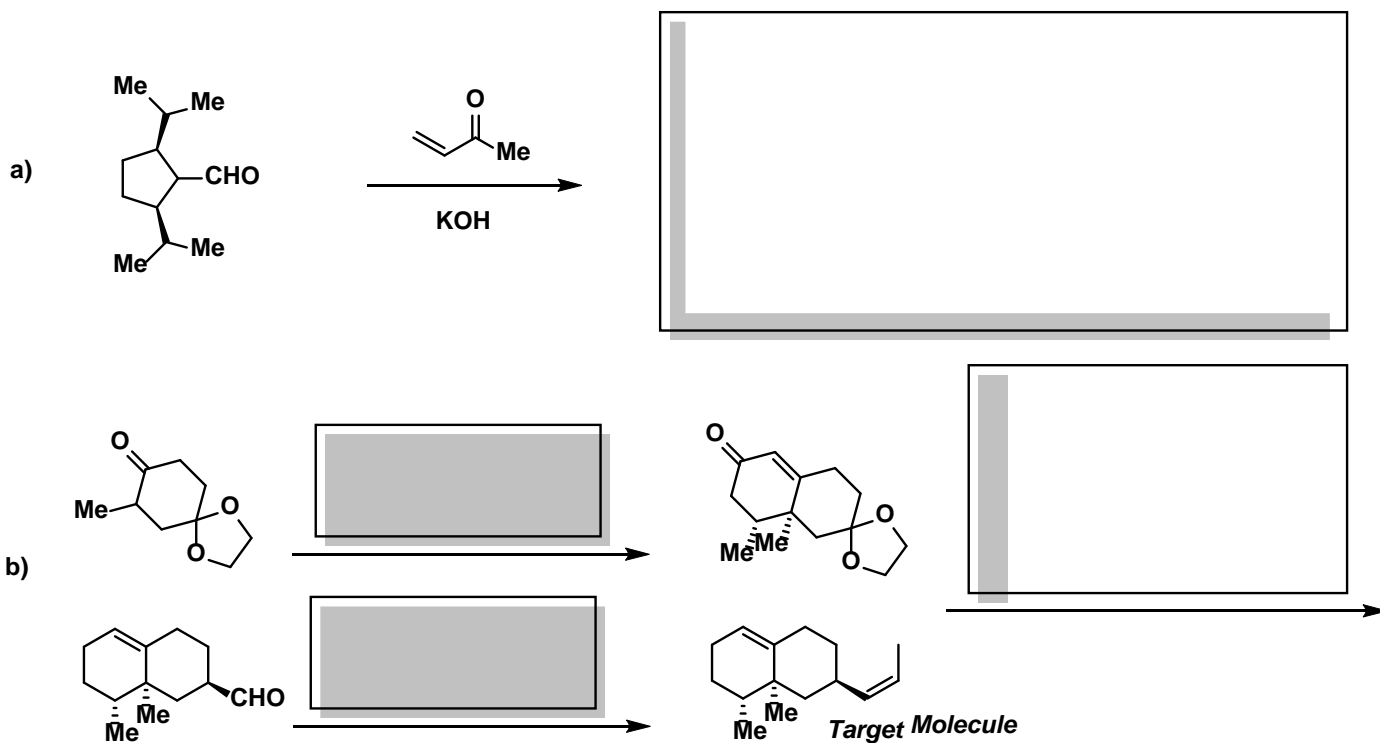
Answer:



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5. **Problem:** Fill in the blanks. There may be more than one reagent necessary to carry out some of the indicated transformations. (15 PTS)



Answer:



6. **Problem:** Please provide the mechanism for the following chemical transformation. (15 PTS).

