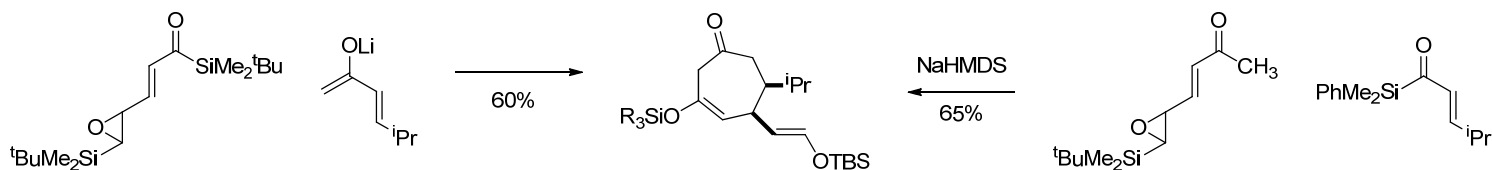


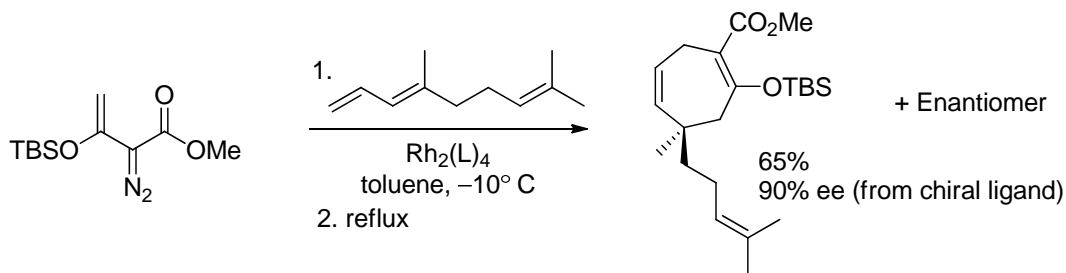
VanNieuwenhze Group Problem Set

2/23/10

1. Provide mechanisms for the following transformations, being sure to account for the stereochemistry.



2. Provide a mechanism for the following transformation and give a transition state which would give the product and its enantiomer.



3. Provide the mechanism for the following cascade cyclization reaction and give a structure for intermediate **A**.

