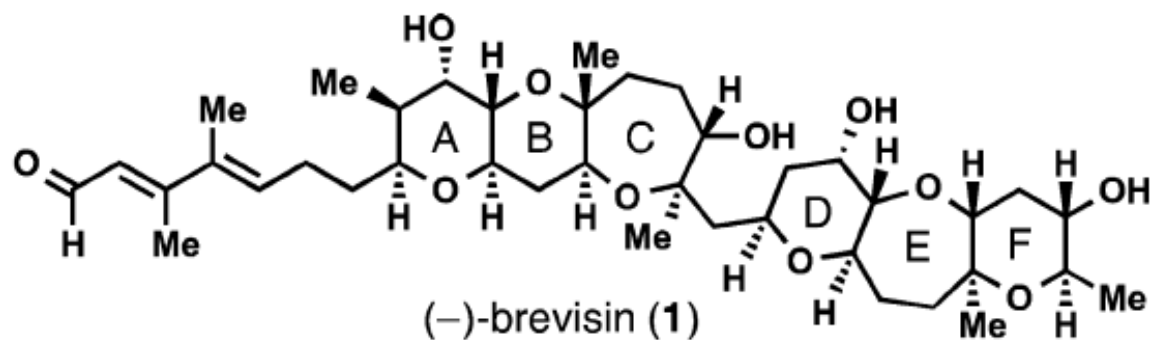


# Rhodium-Catalyzed *Endo*-Selective Epoxide-Opening Cascades: Formal Synthesis of (-)-Brevisin

Kurt Armbrust, Matthew Beaver, and Timothy Jamison  
Massachusetts Institute of Technology

Presented by David Walls

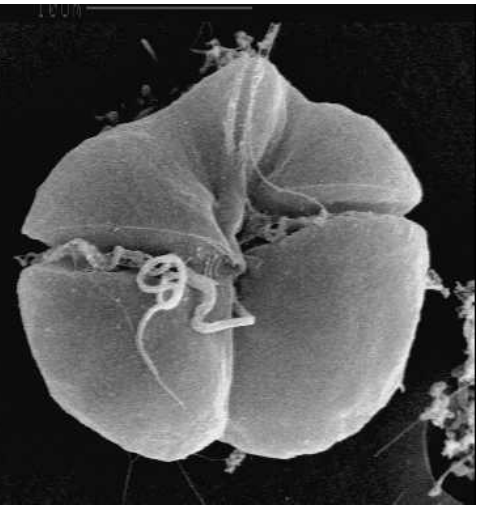


# Significance

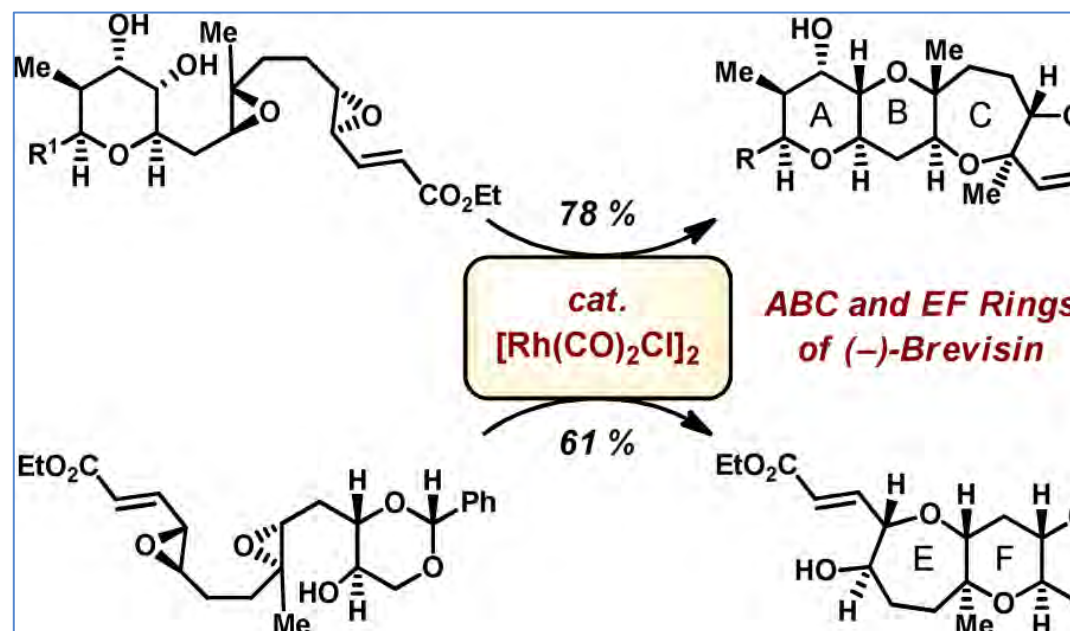
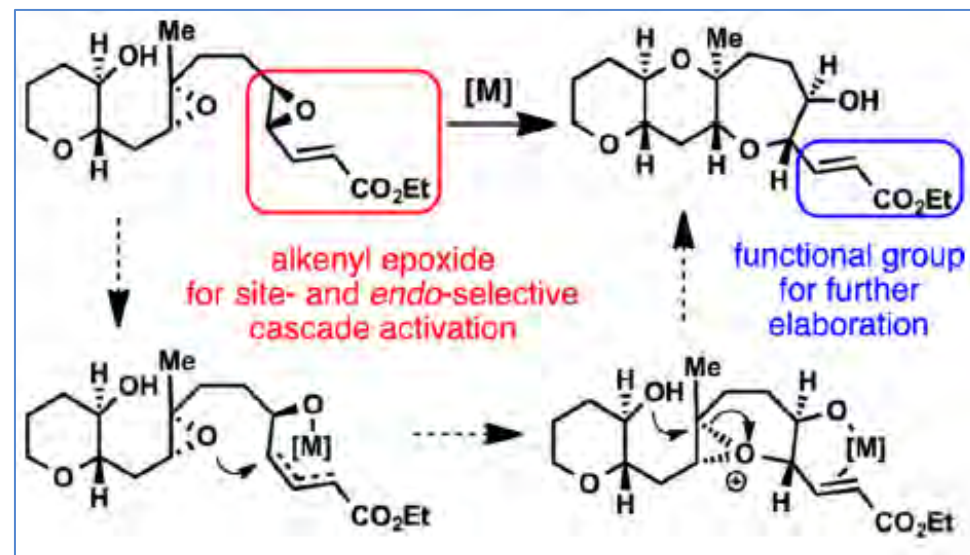
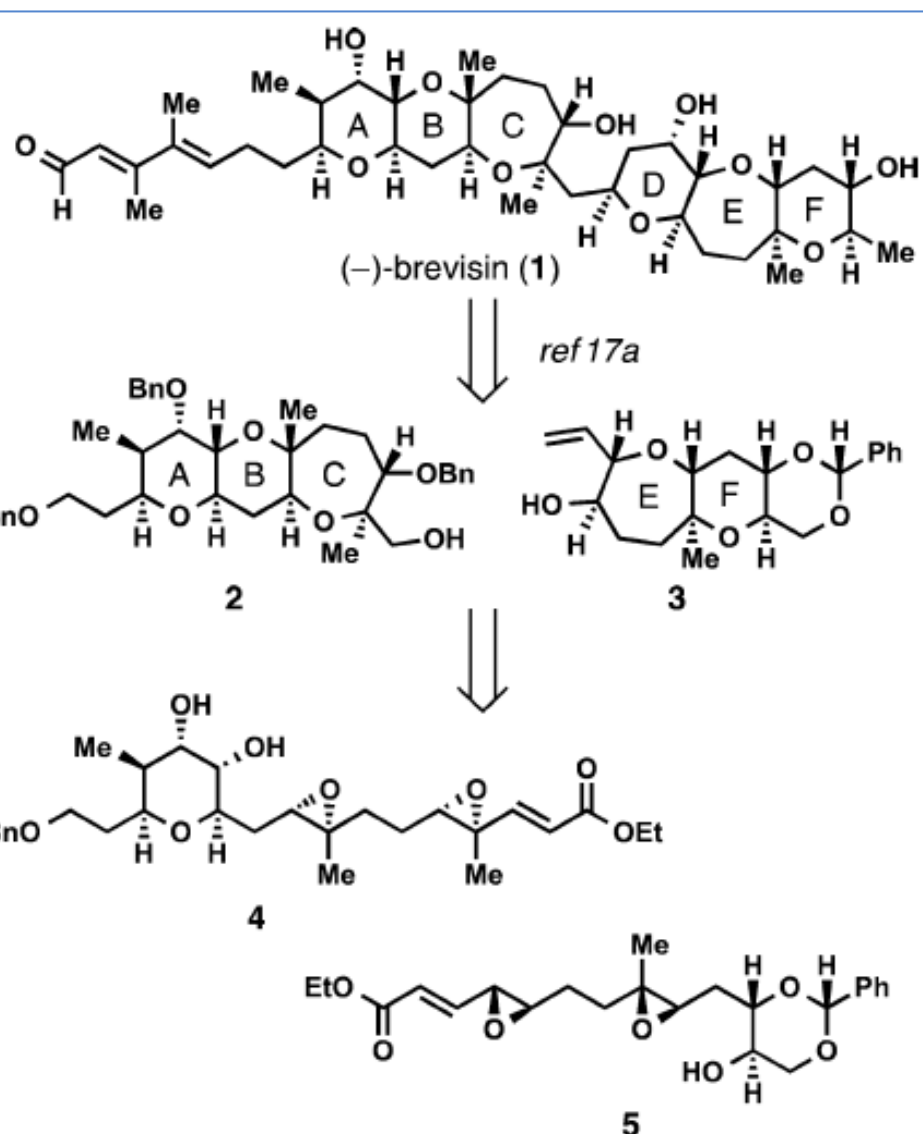
Isolated from *Karenia brevis*, a dinoflagellate

Known to have some effect on ligand binding to sodium channels, but limited quantity has slowed detailed investigation

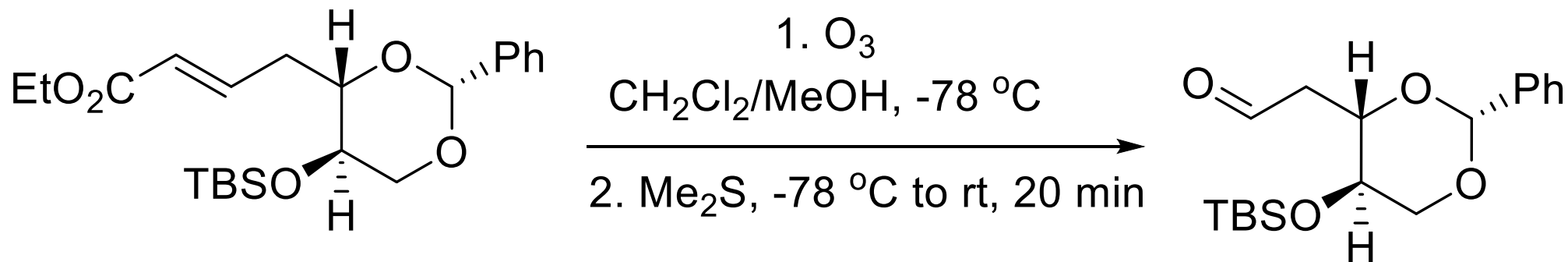
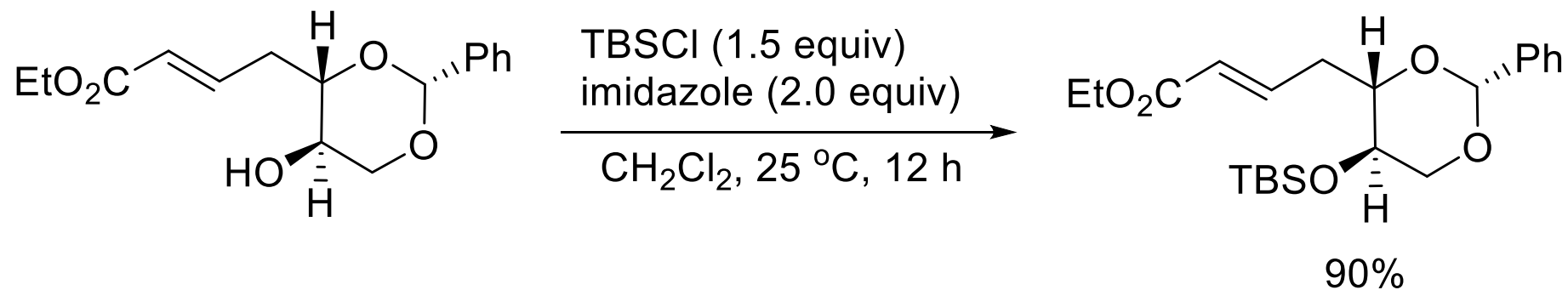
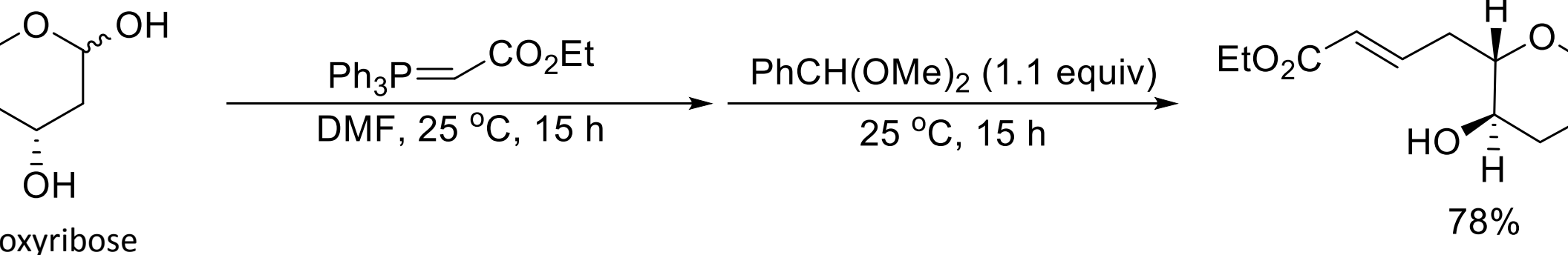
Synthesized previously, but now using an all-endo epoxide opening cascade mechanism

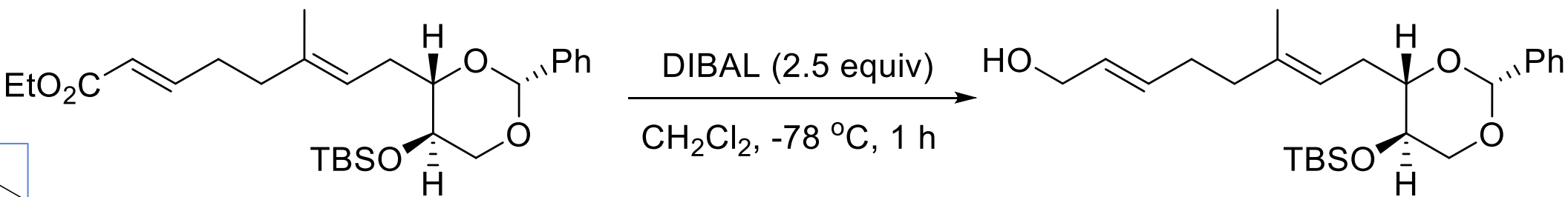
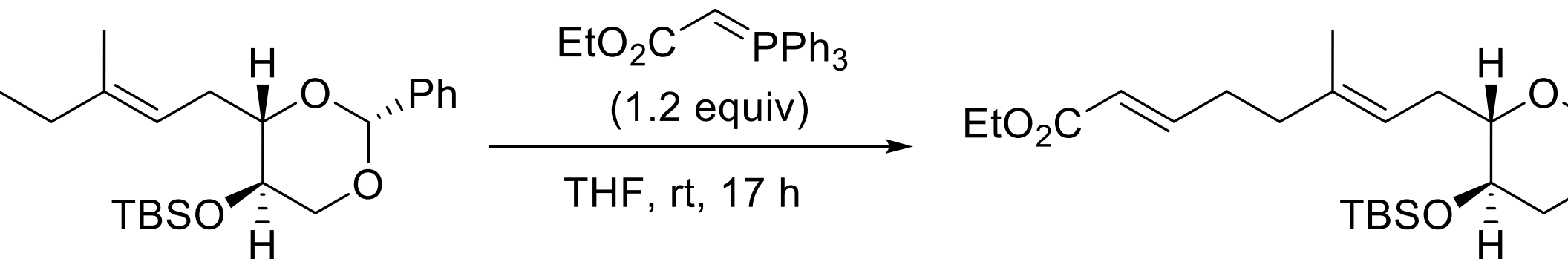
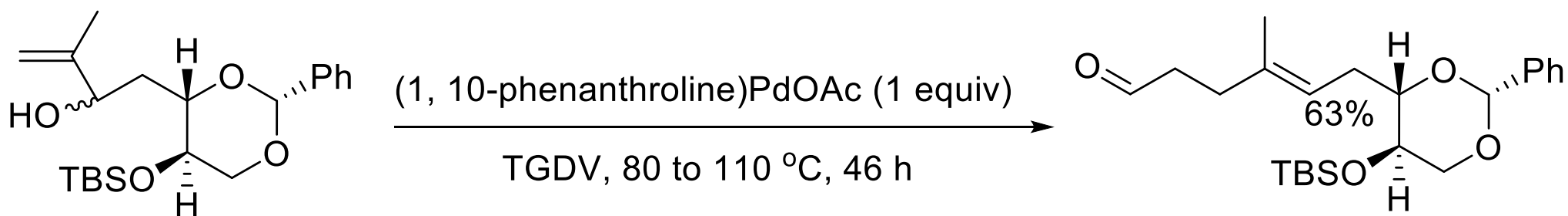
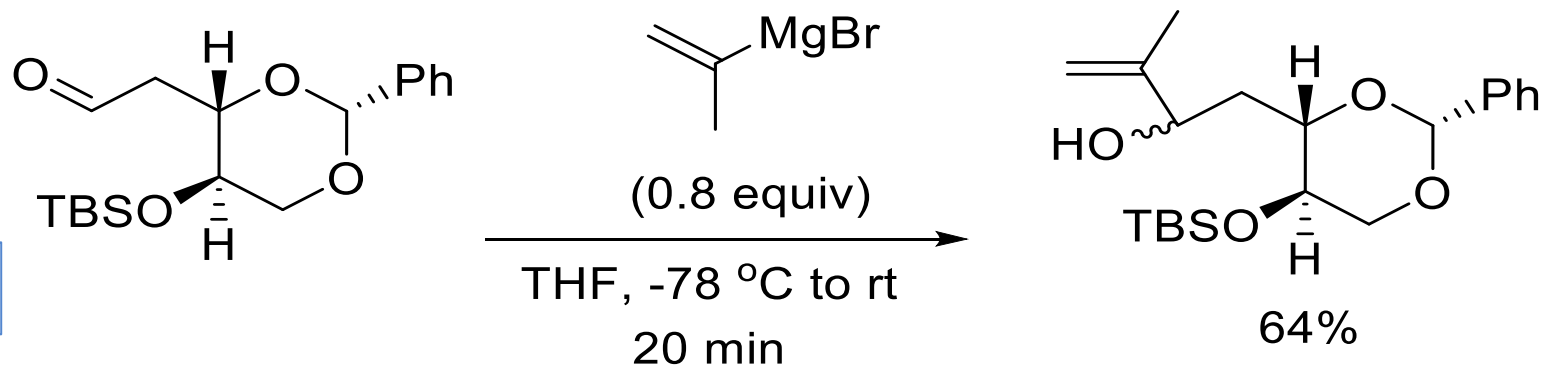
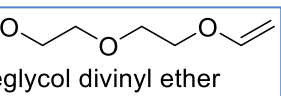


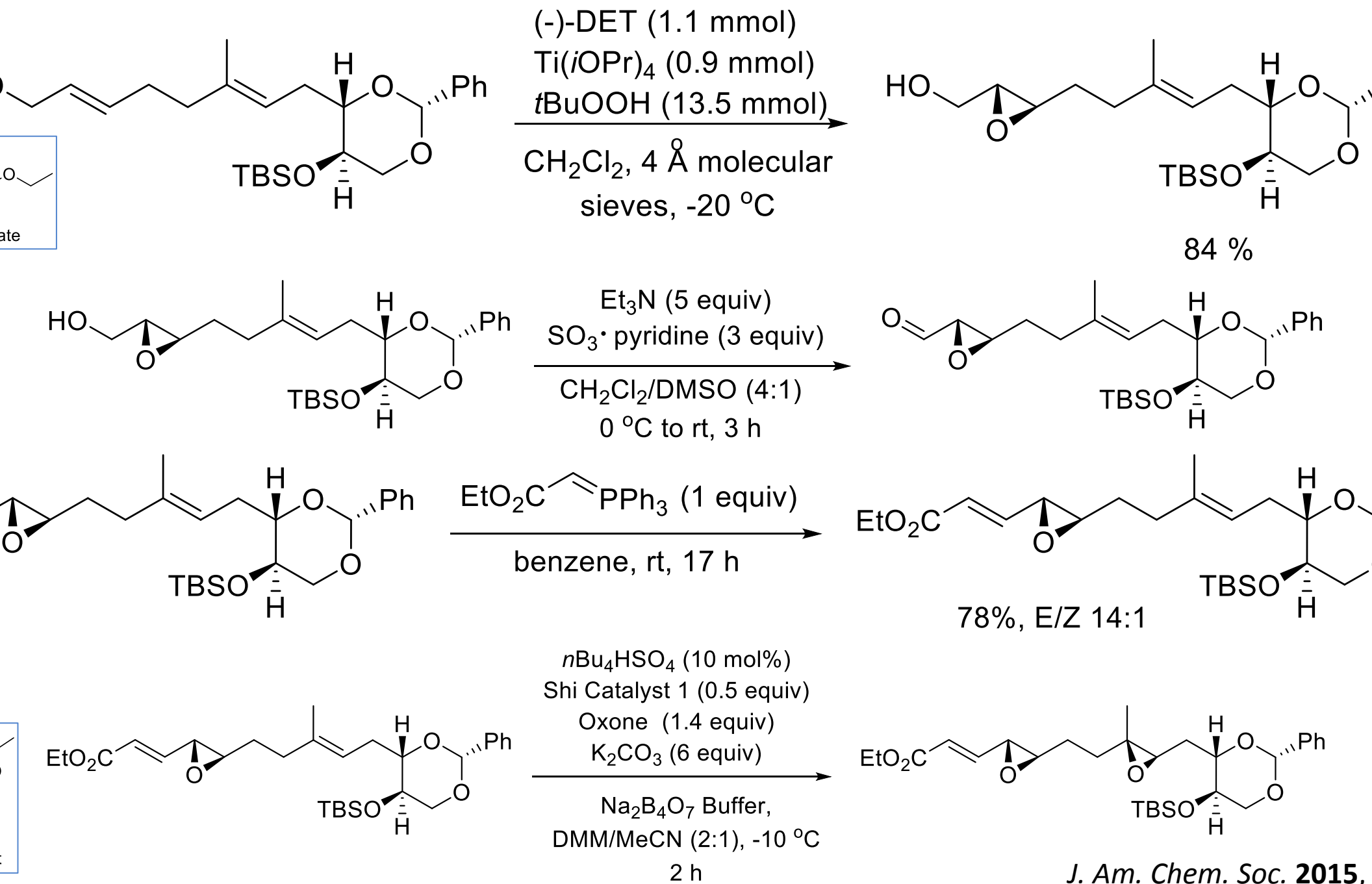
# Plan and Retrosynthesis

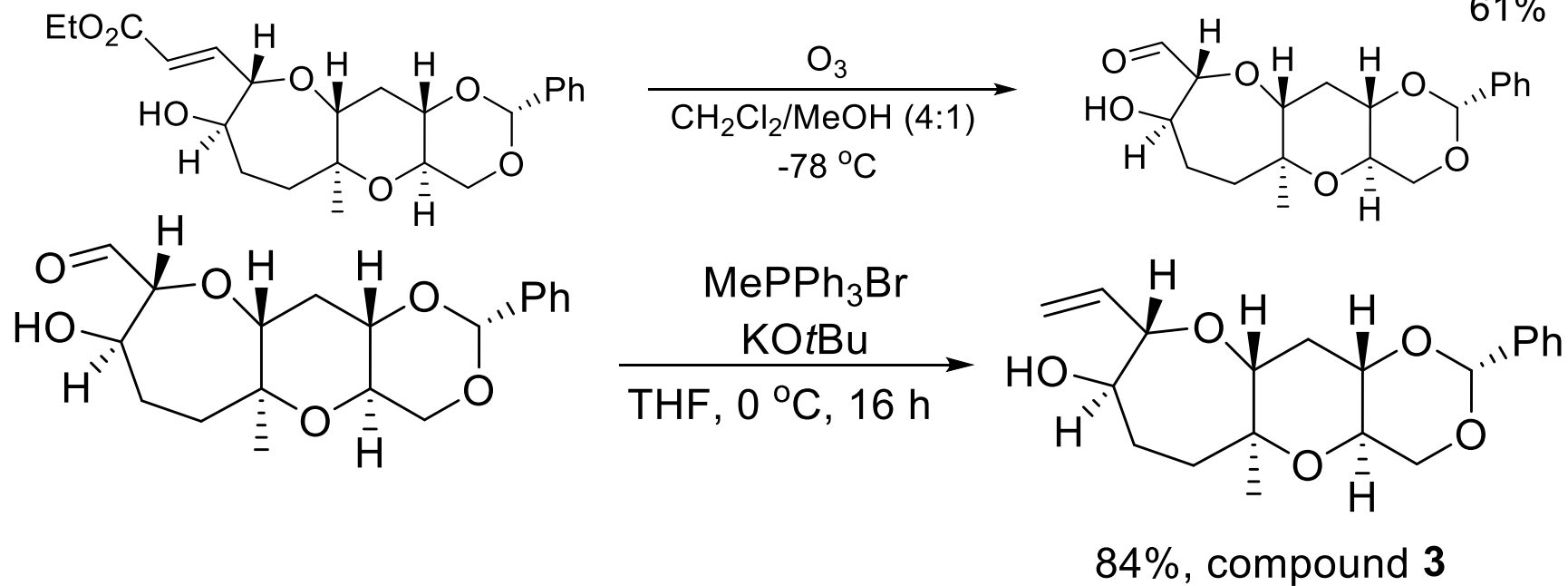
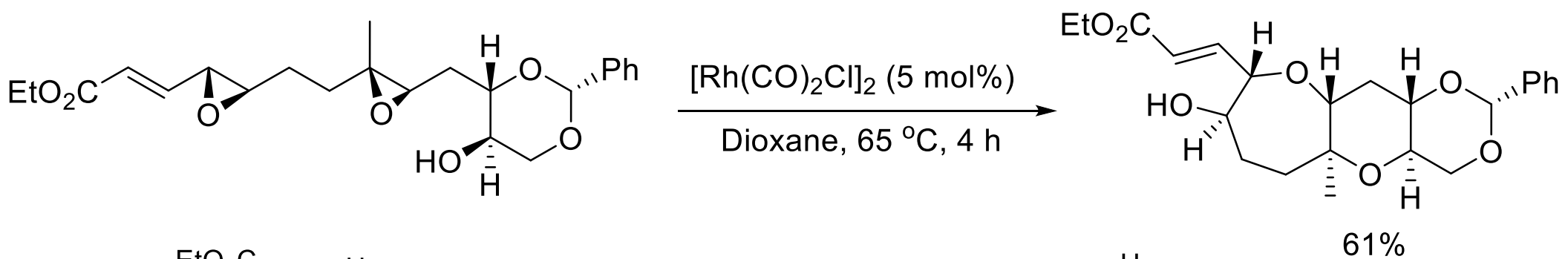
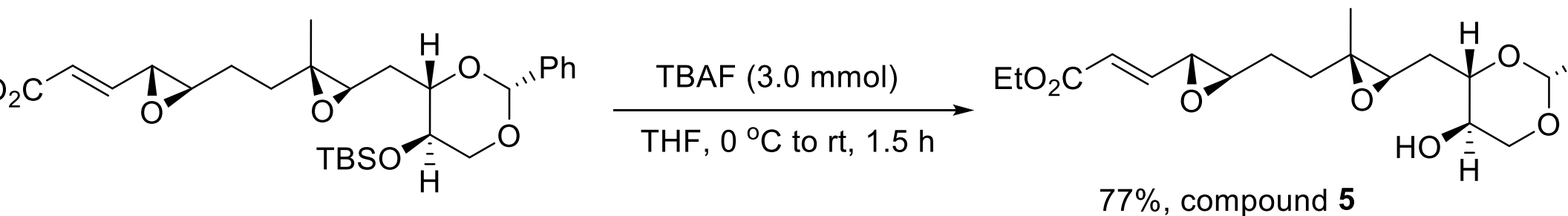


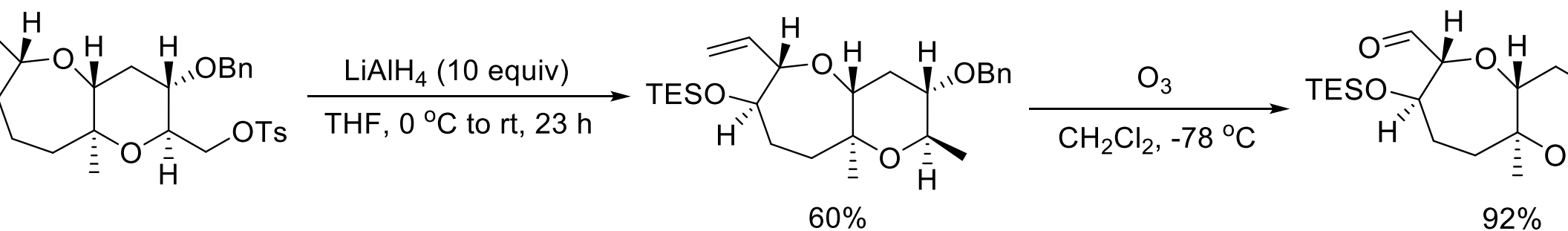
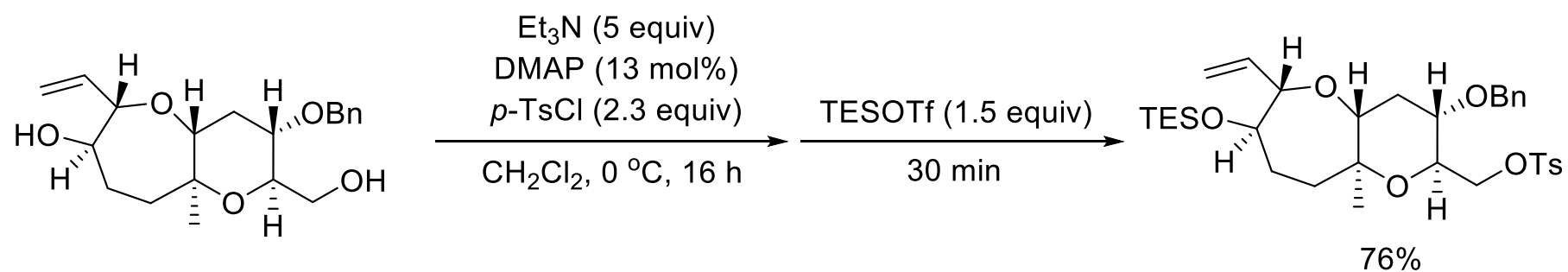
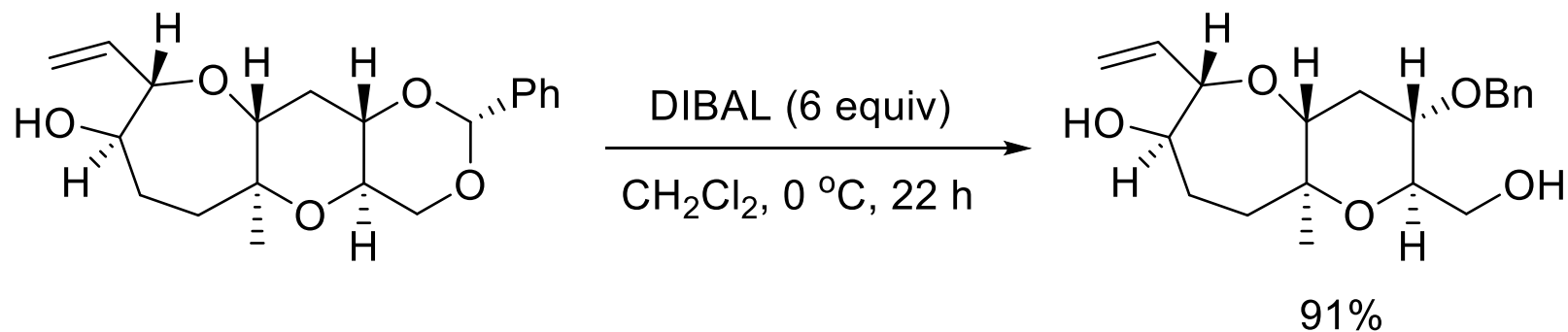
# Synthesis of Compound 3:









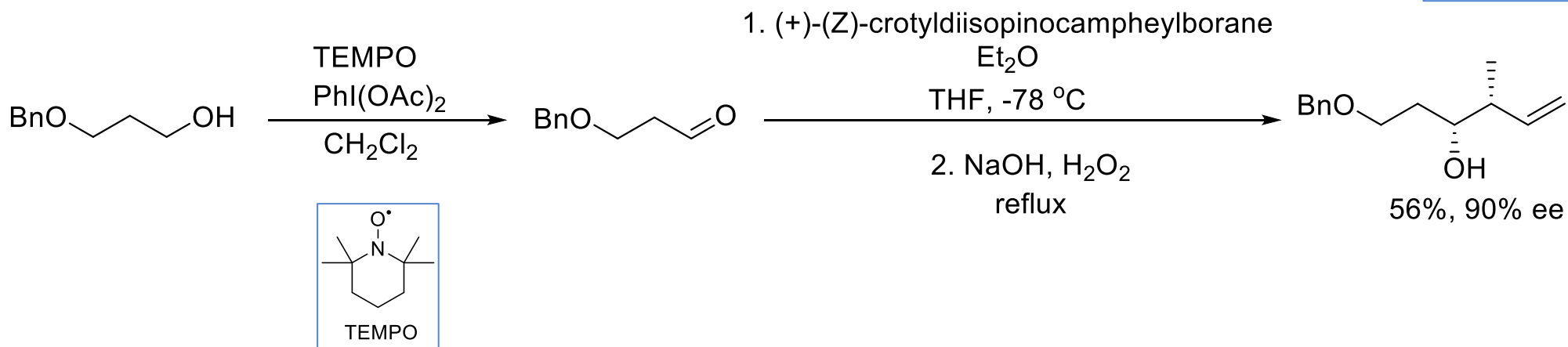
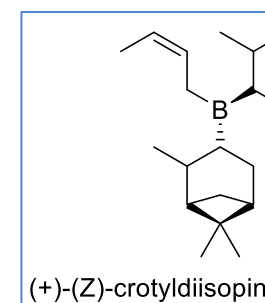
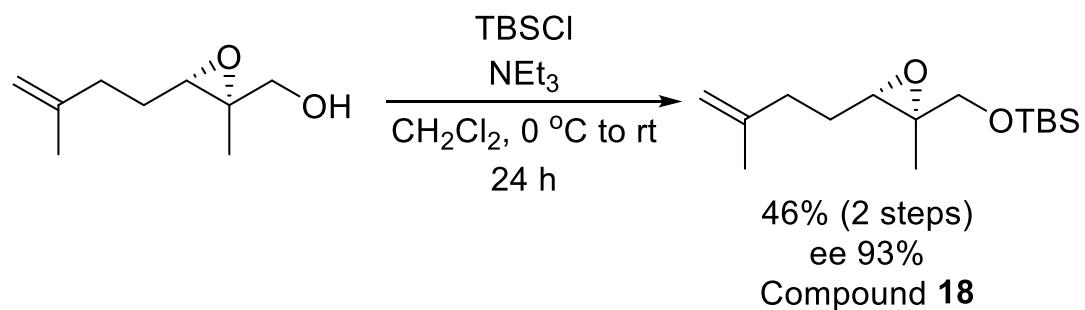
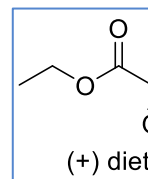
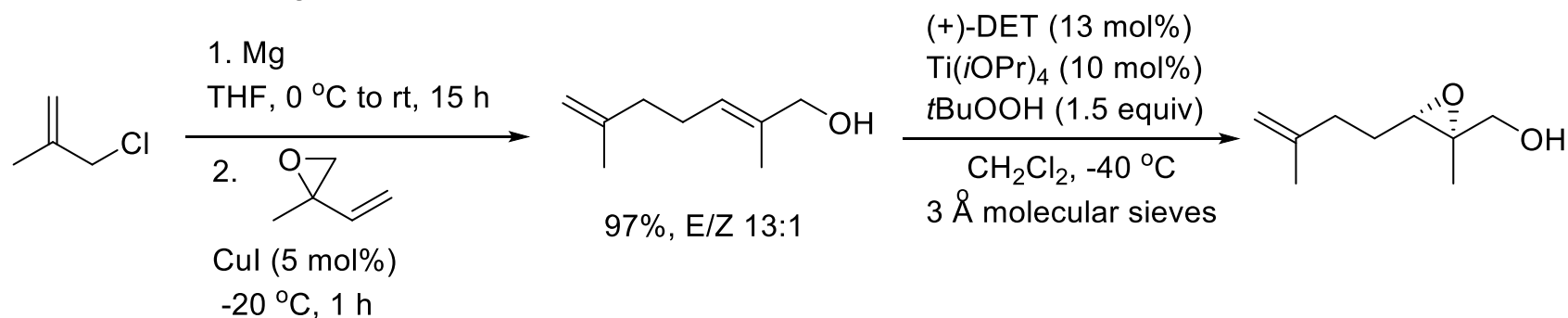


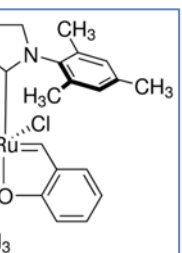
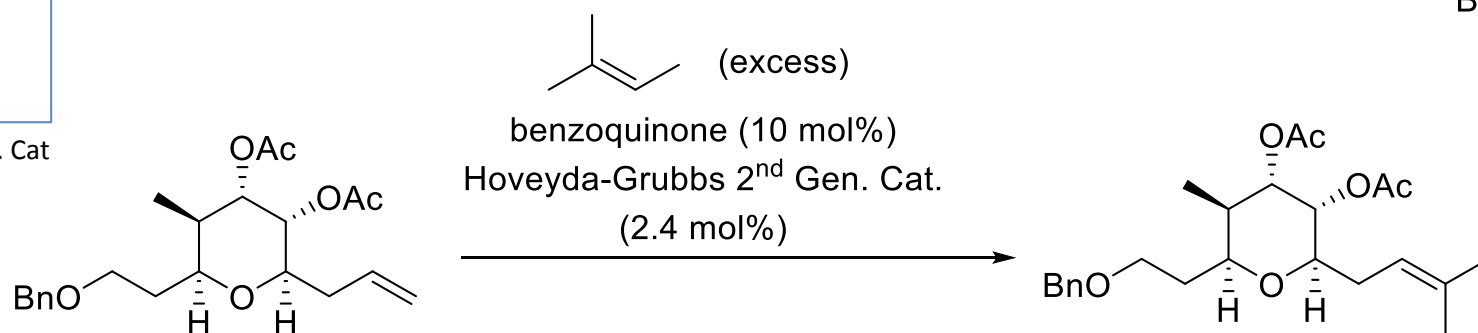
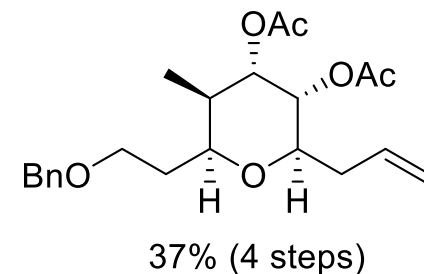
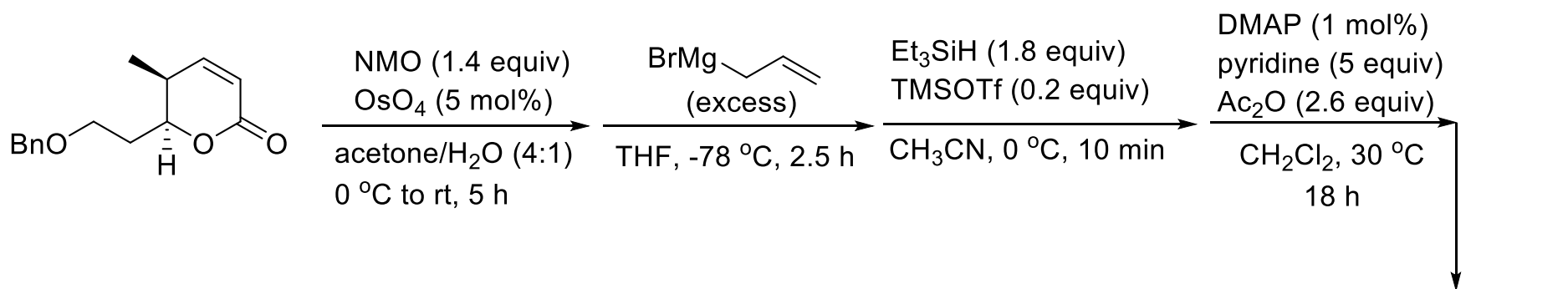
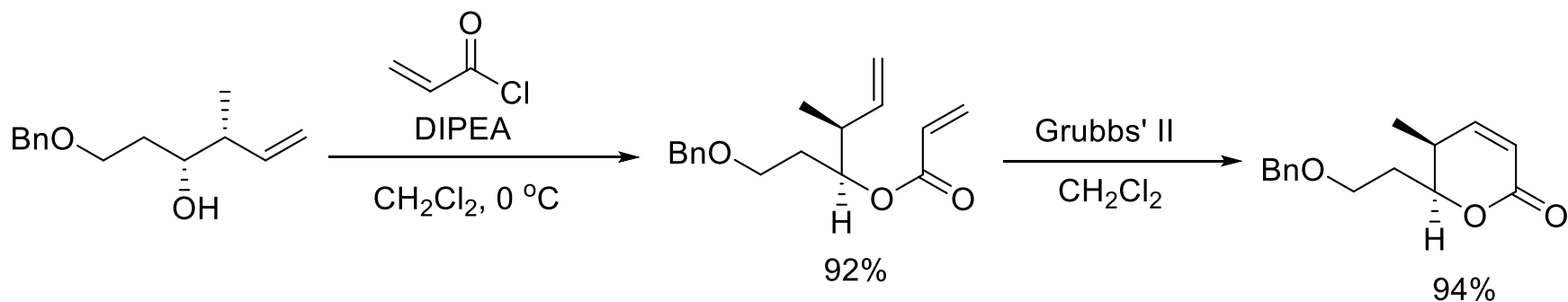
Compound 3

*J. Am. Chem. Soc.* **2015**,



# Formation of compound 2





os 2nd Gen. Cat

