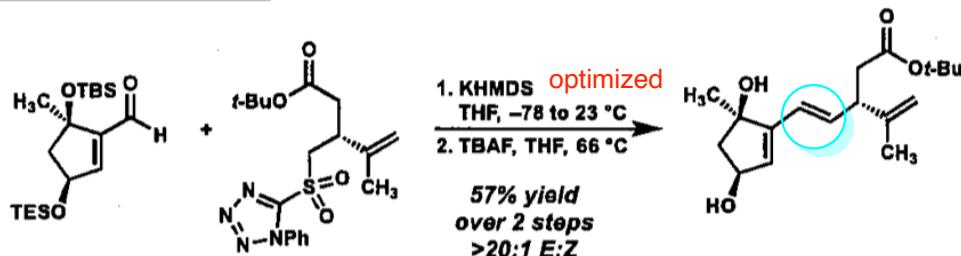
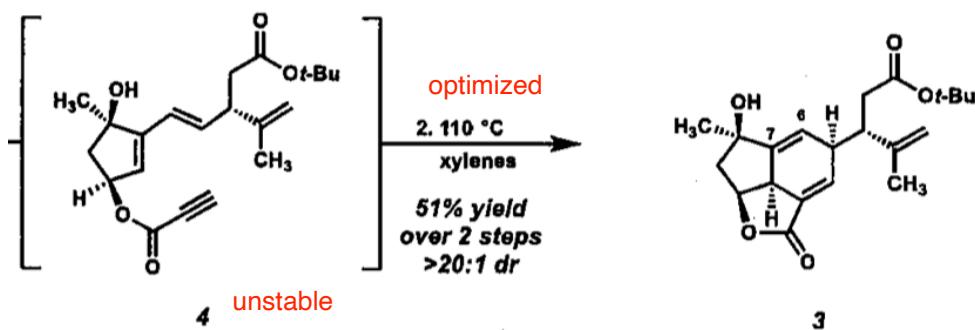


Asymmetric Total Synthesis of Havellockate: Nicholas J. Hafeman, Melinda Chan, Tyler J. Fulton, Eric J. Alexy, Steven A. Loskot, Scott. C. Virgil, and Brian M. Stoltz* [Cite this:](#) J. Am. Chem. Soc. 2022, 144, 44, 20232–20236

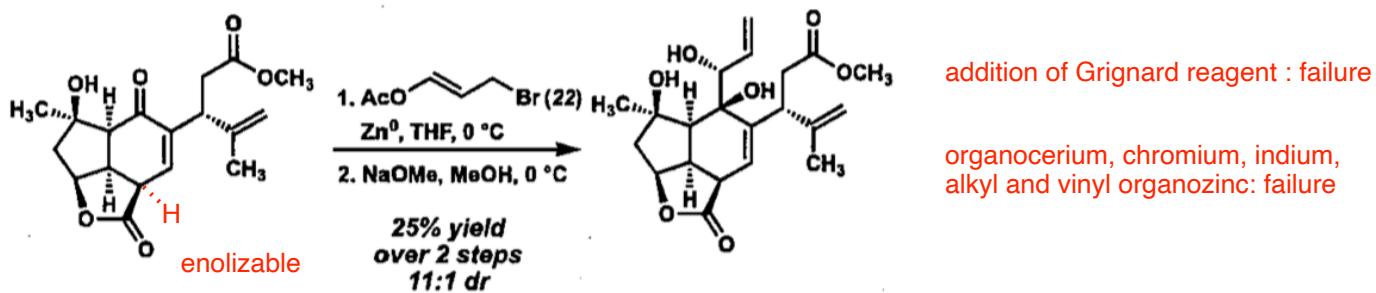
Julia-Kocienski olefination



Diels-Alder reaction



Zn-Mediated allylation



addition of Grignard reagent : failure

organocerium, chromium, indium, alkyl and vinyl organozinc: failure

Conversion of terminal olefin to carboxylic acid

