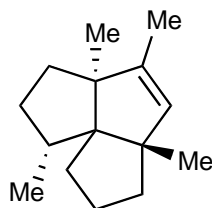
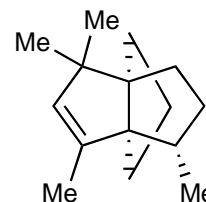


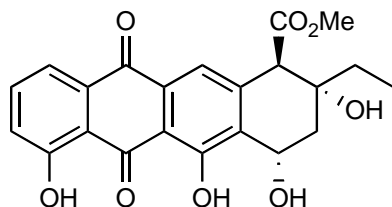
Colchicine: Evans, p.5813



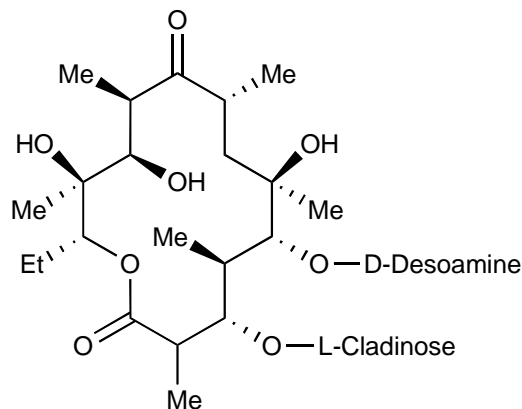
Isocomene: Pirrung, p. 82



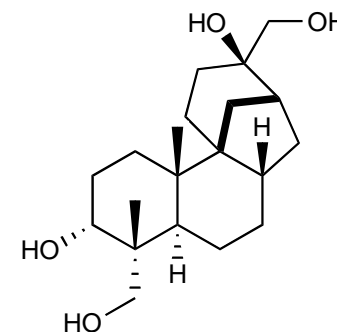
Modhephene:
A. Smith III, p. 194
Paquette, p. 722



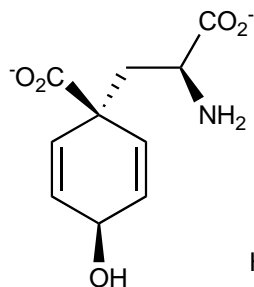
Aklavinone:
Kende, p. 4247
Kishi, p.4248
Confalone, p. 4251



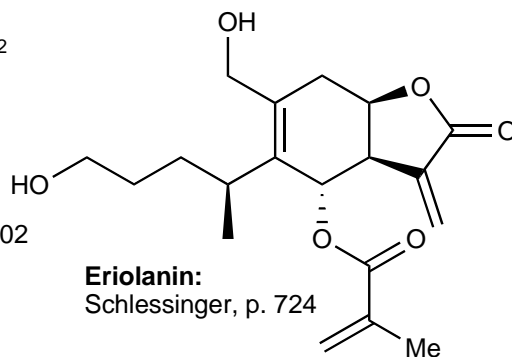
(-)-Erythromycin: R.B. Woodward, et al., p. 3210



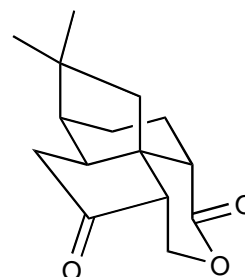
Aphidicolin: Ireland, p. 2446



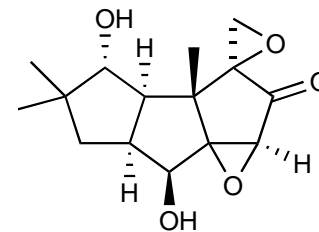
Pretyrosine: SJD, p.1602



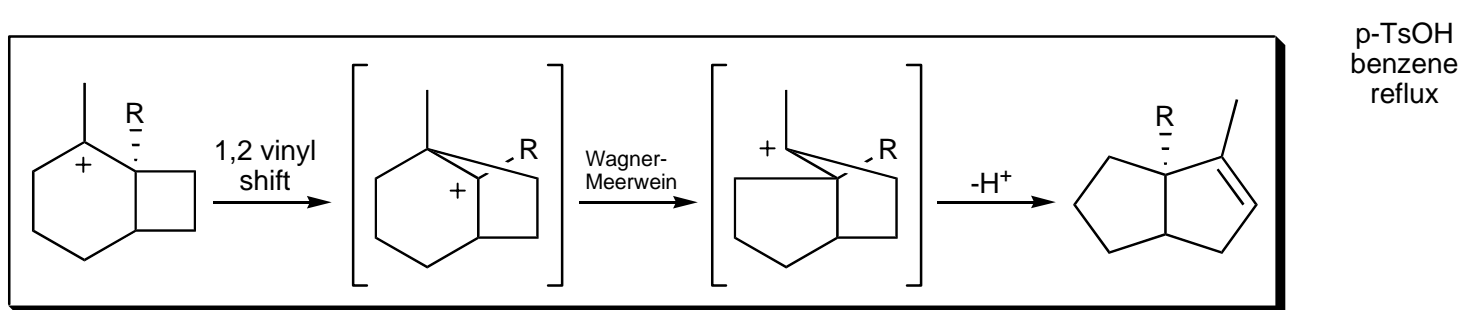
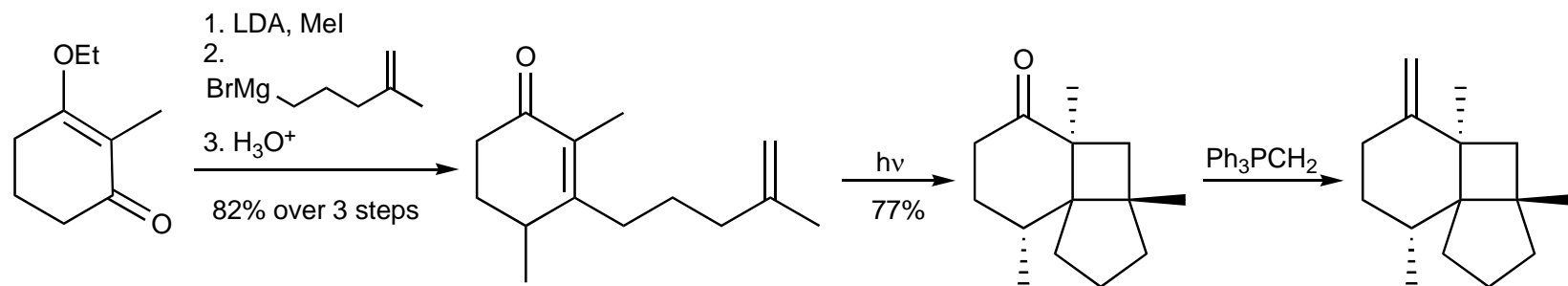
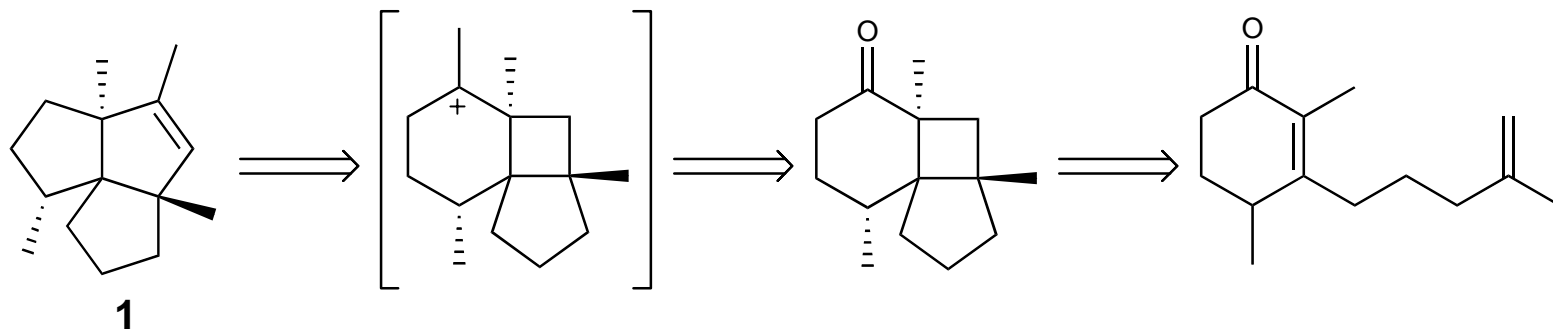
Eriolanin:
Schlessinger, p. 724

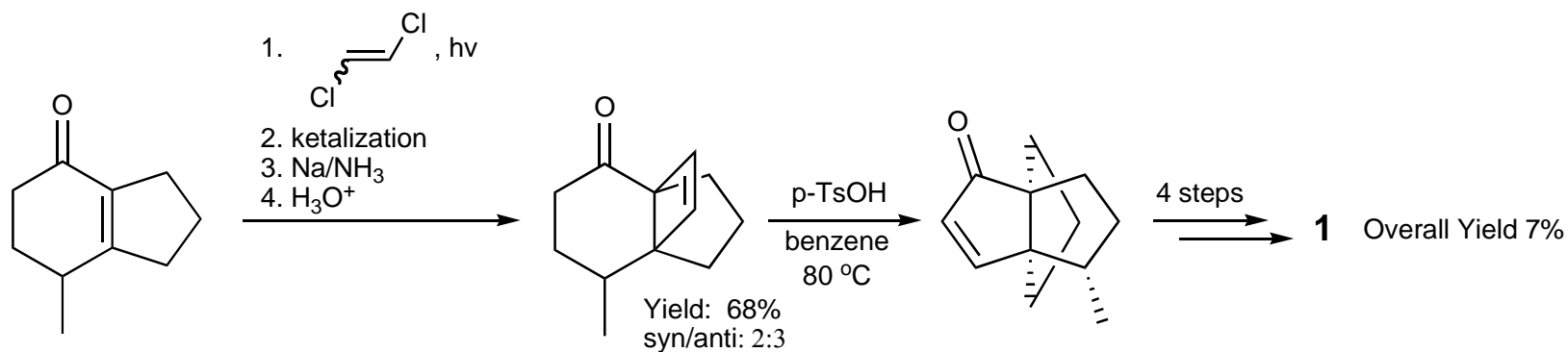
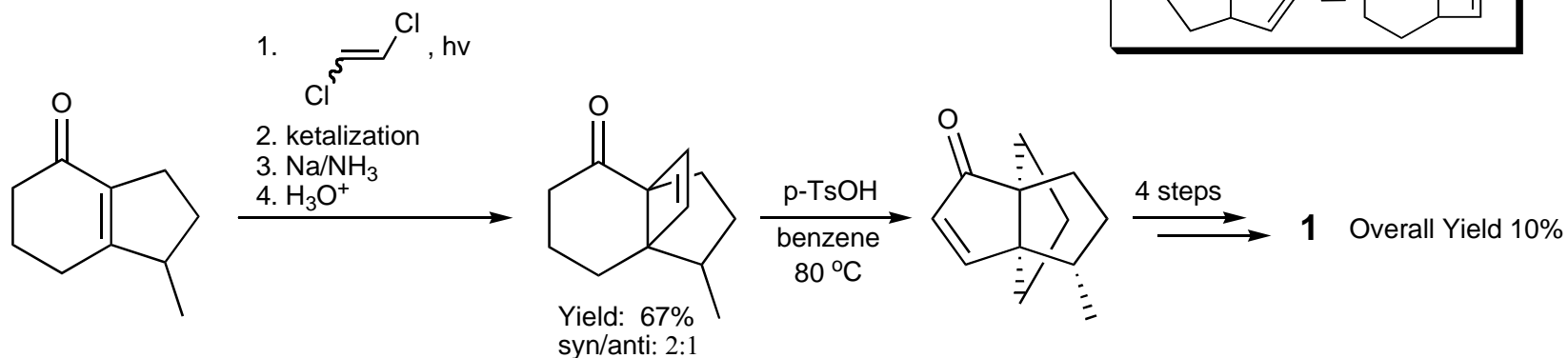
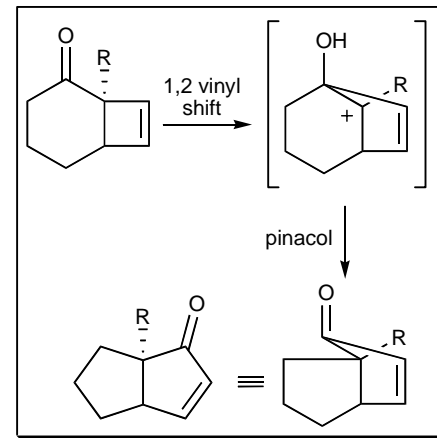
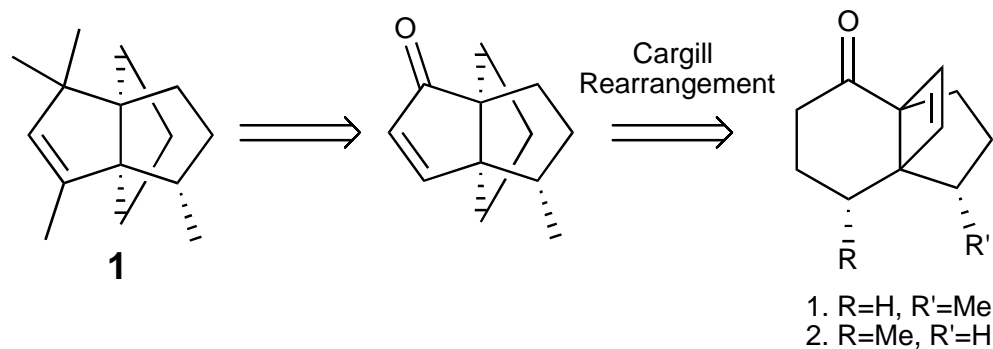


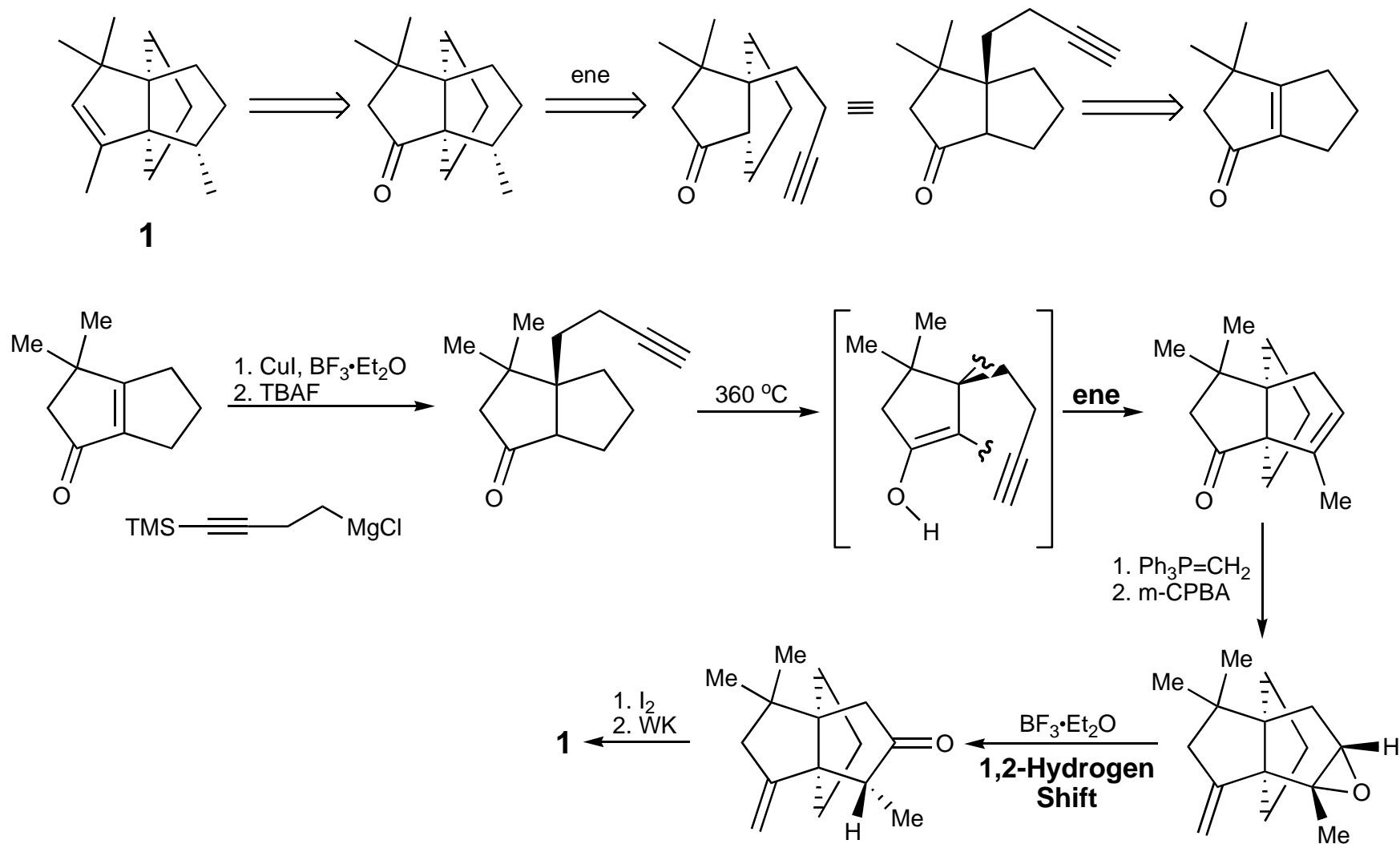
Quadrone:
SJD, p. 4136
Helquist, p. 4647

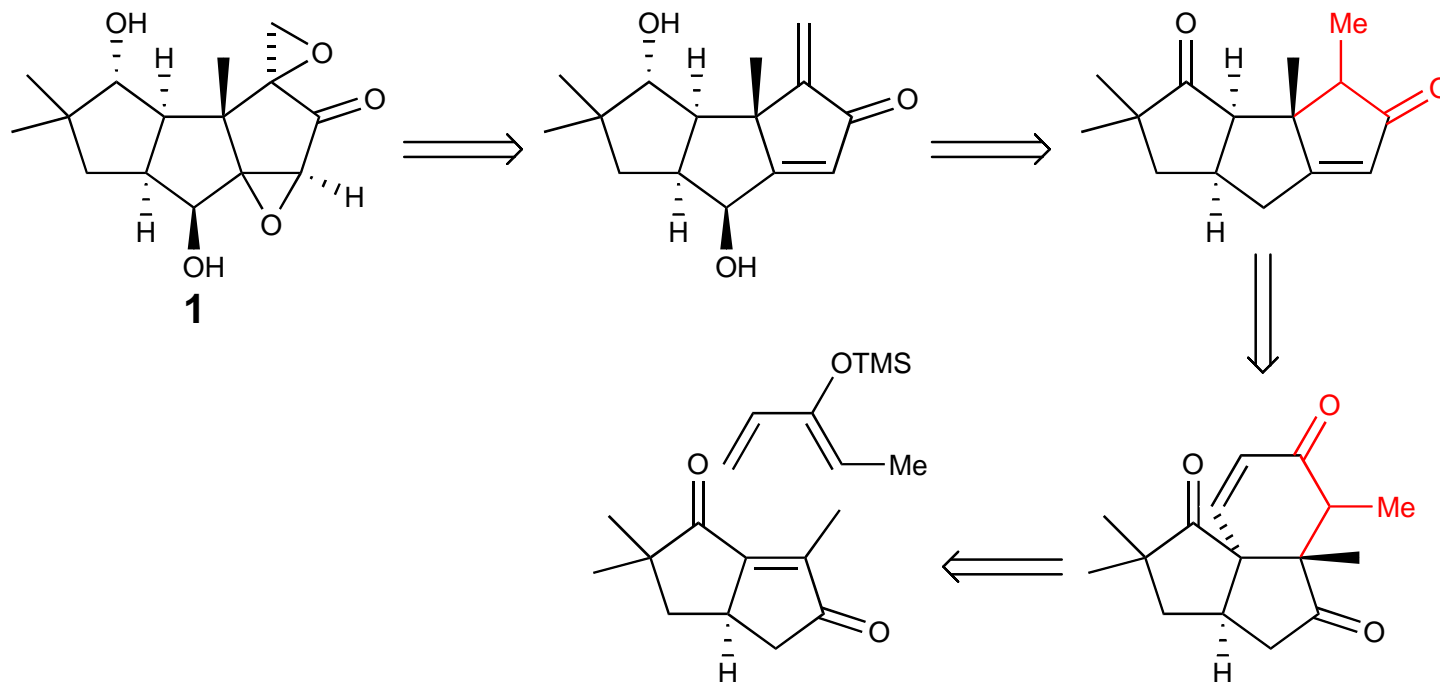


Coriolin:
SJD, p. 3460
Trost, p. 7380





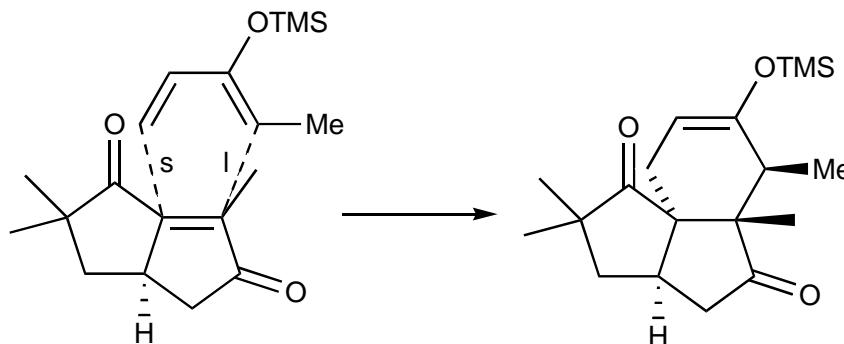




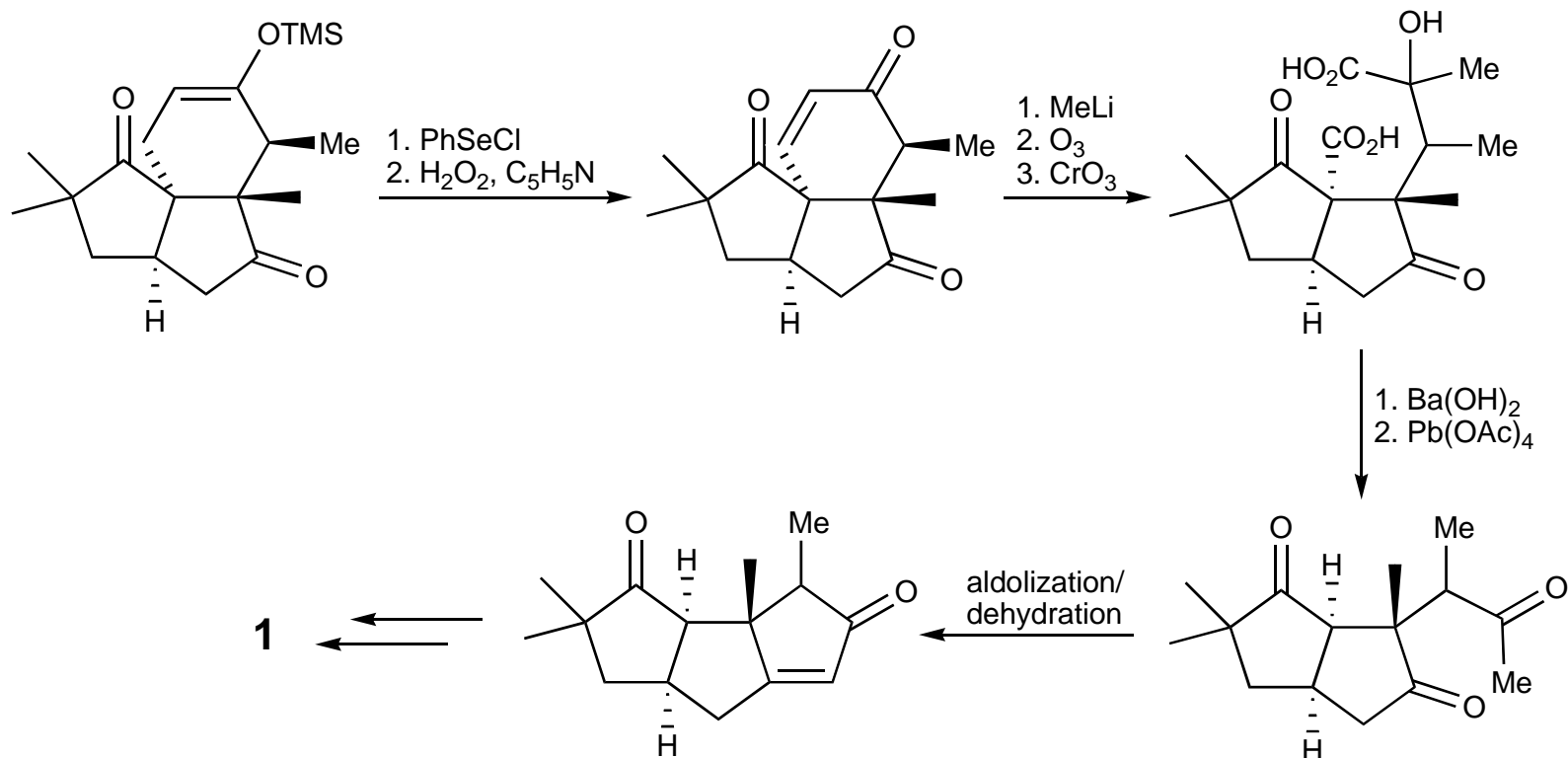
Key Diels-Alder

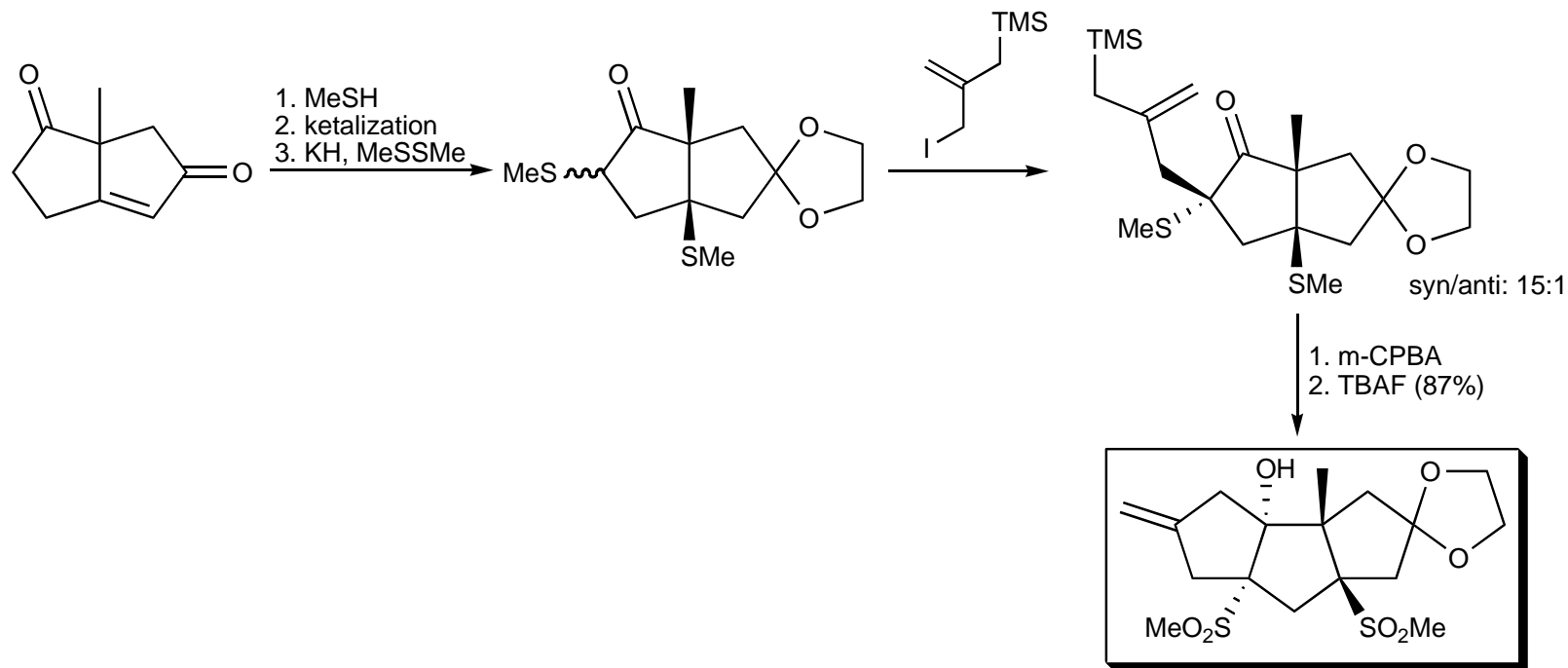
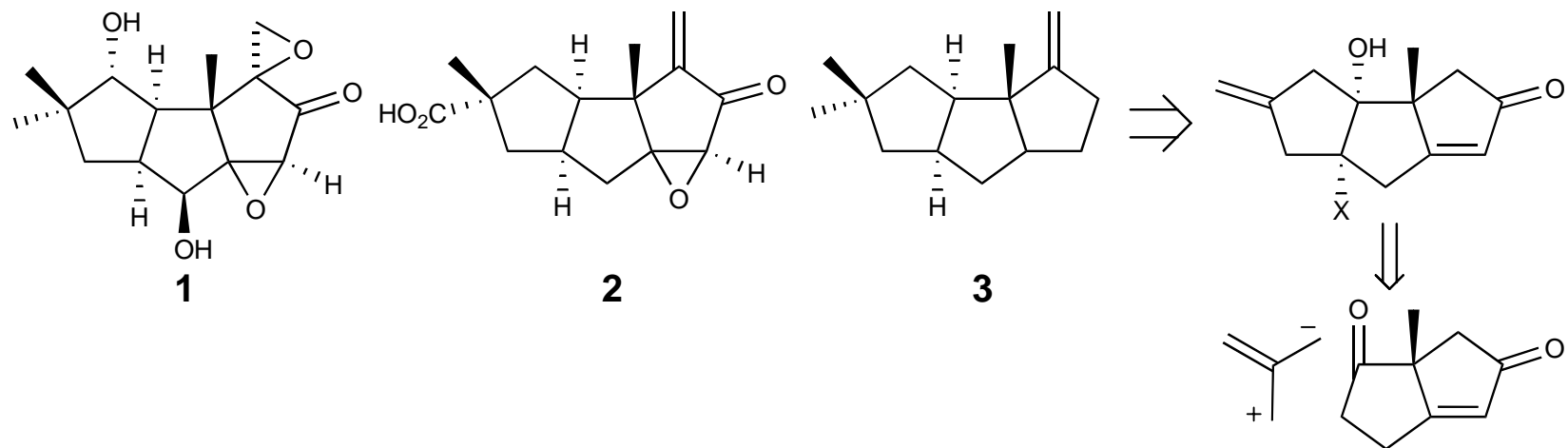
Issues

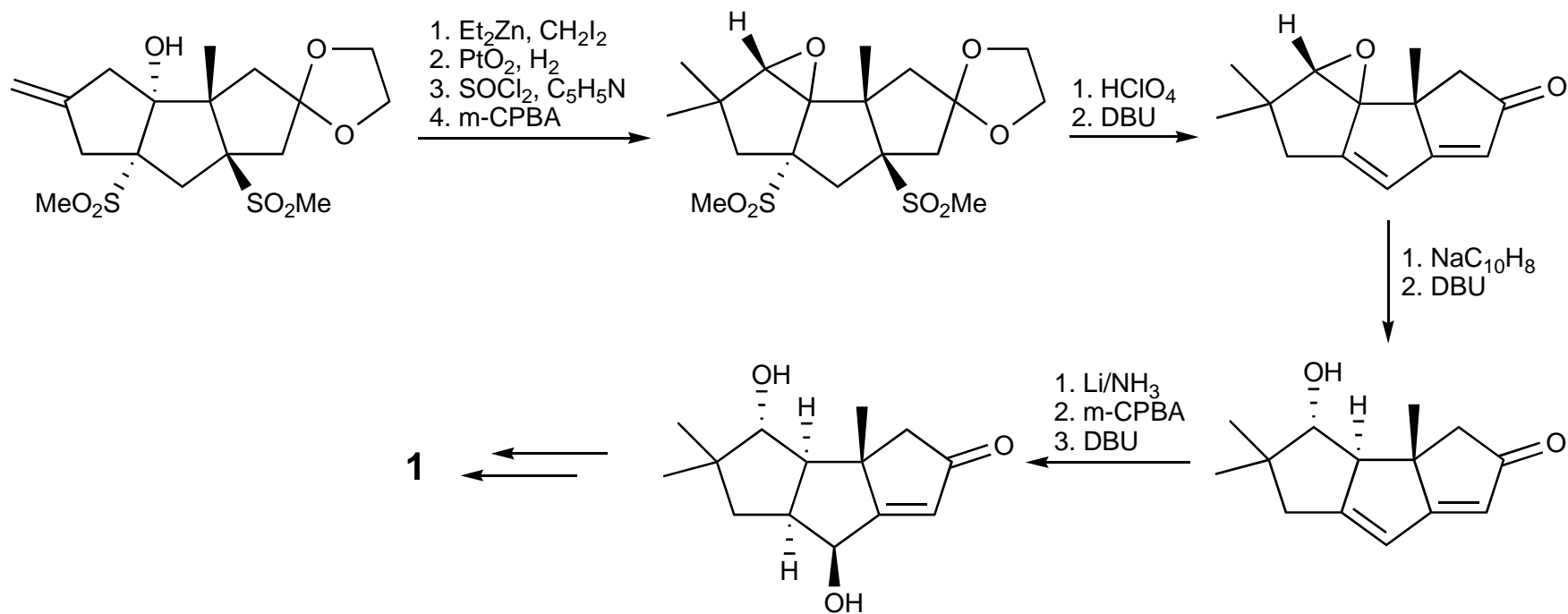
- regioselectivity
 1. which carbonyl directs endo
 2. Me vs. OTMS
- facial selectivity

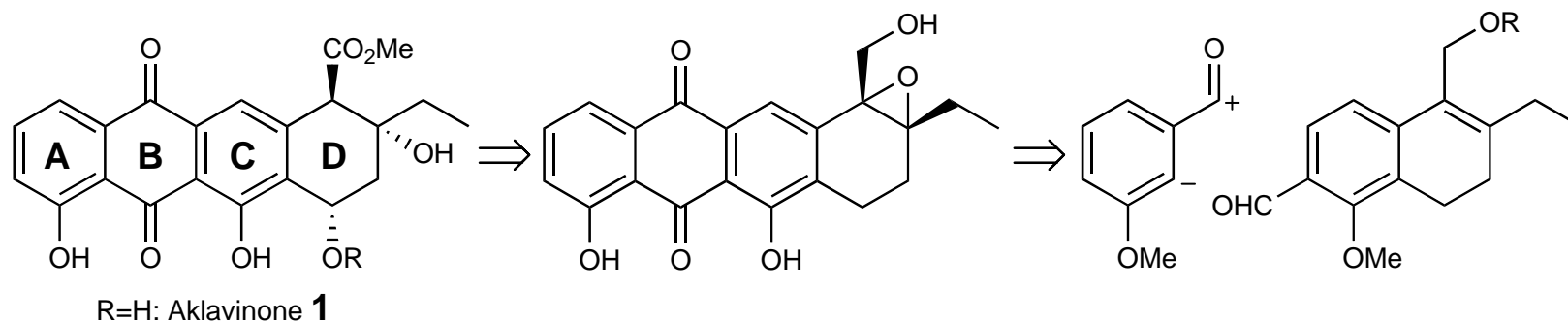


- regioselectivity
 1. relief of strain at ring junction
 2. Me sterics beat OTMS electronics
- 5,5 more stable cis fused

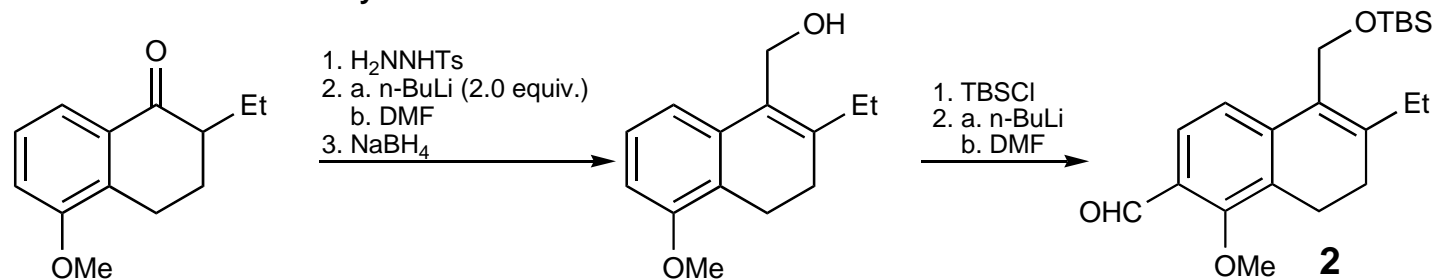




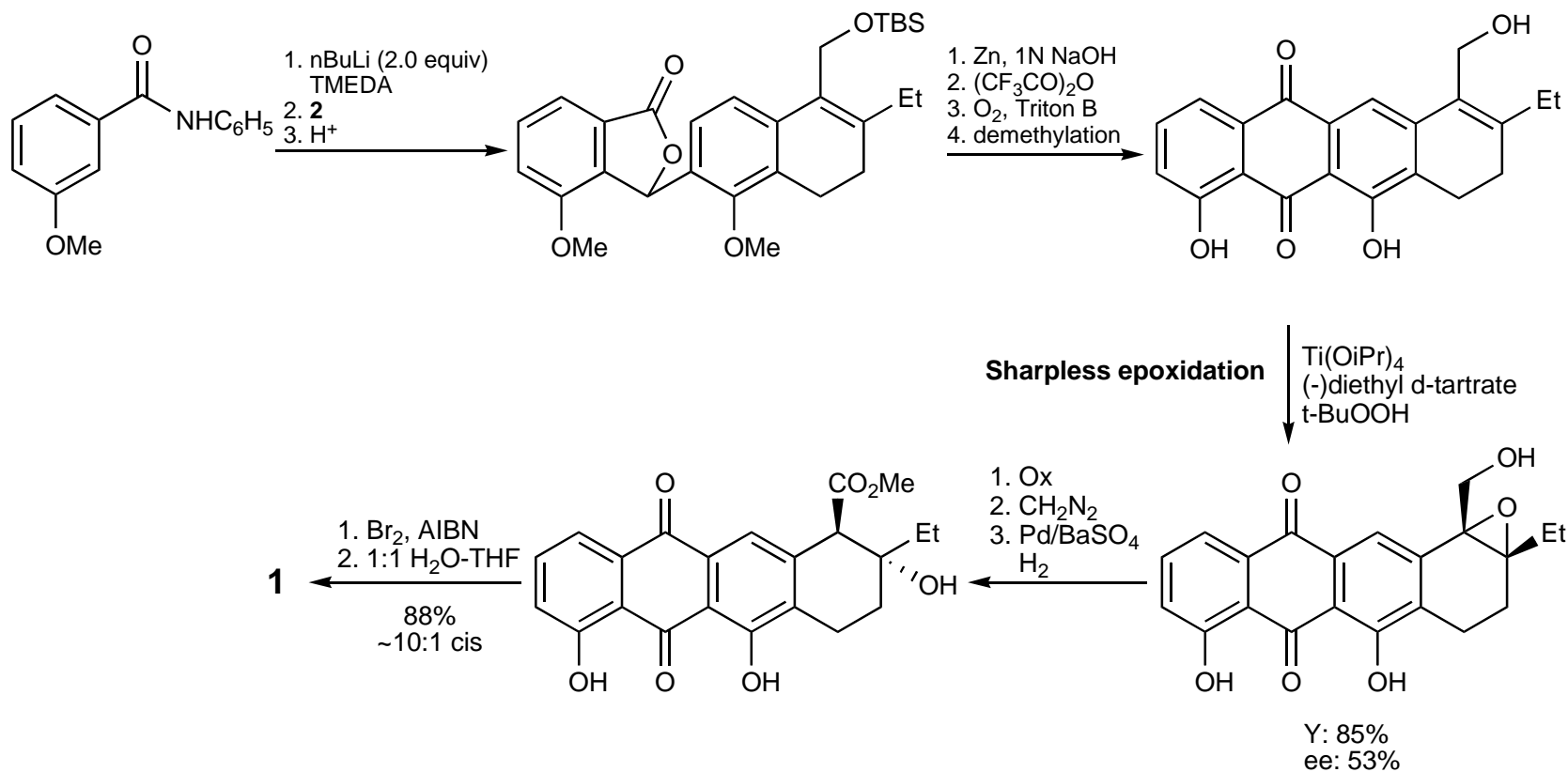


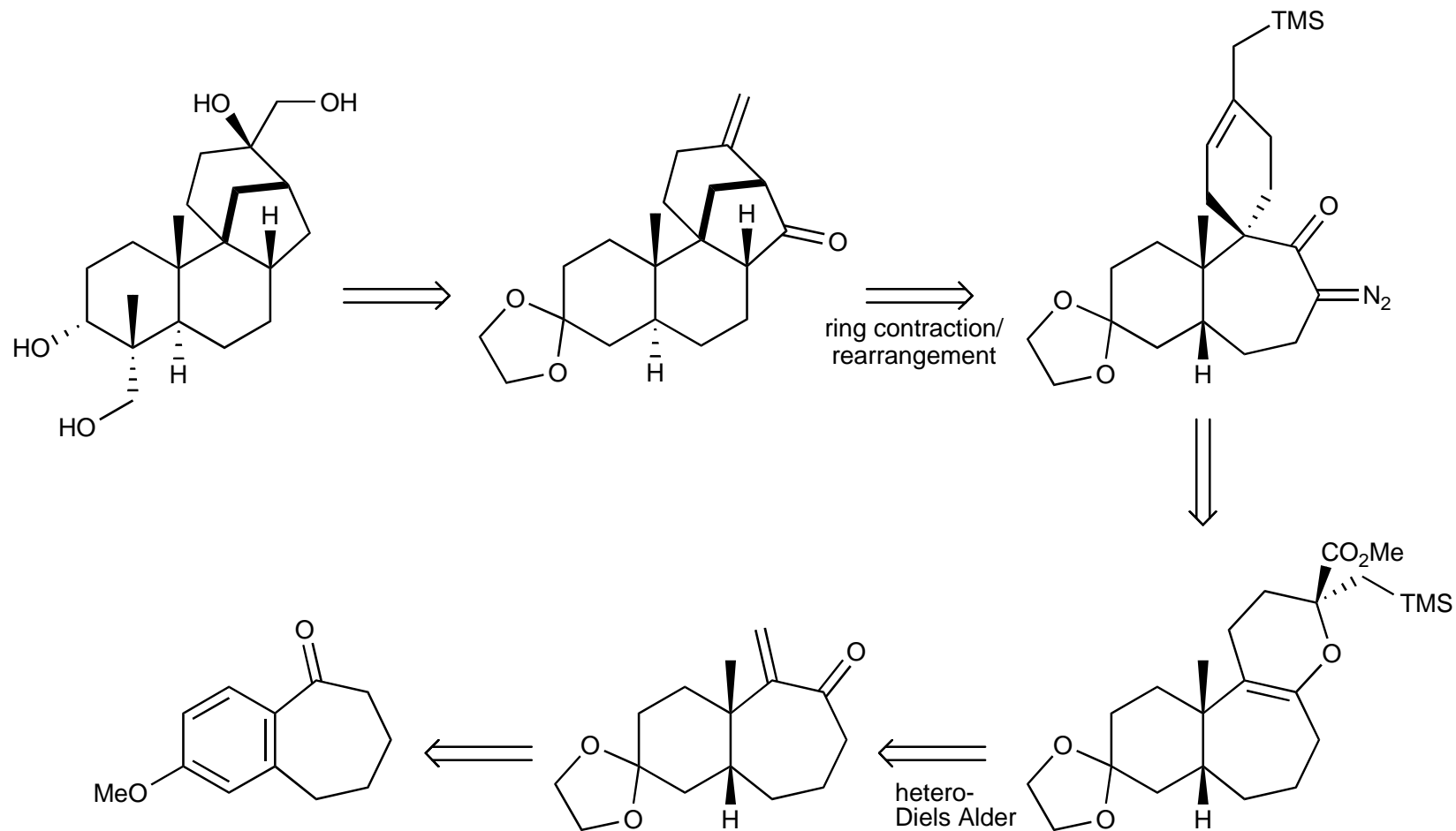


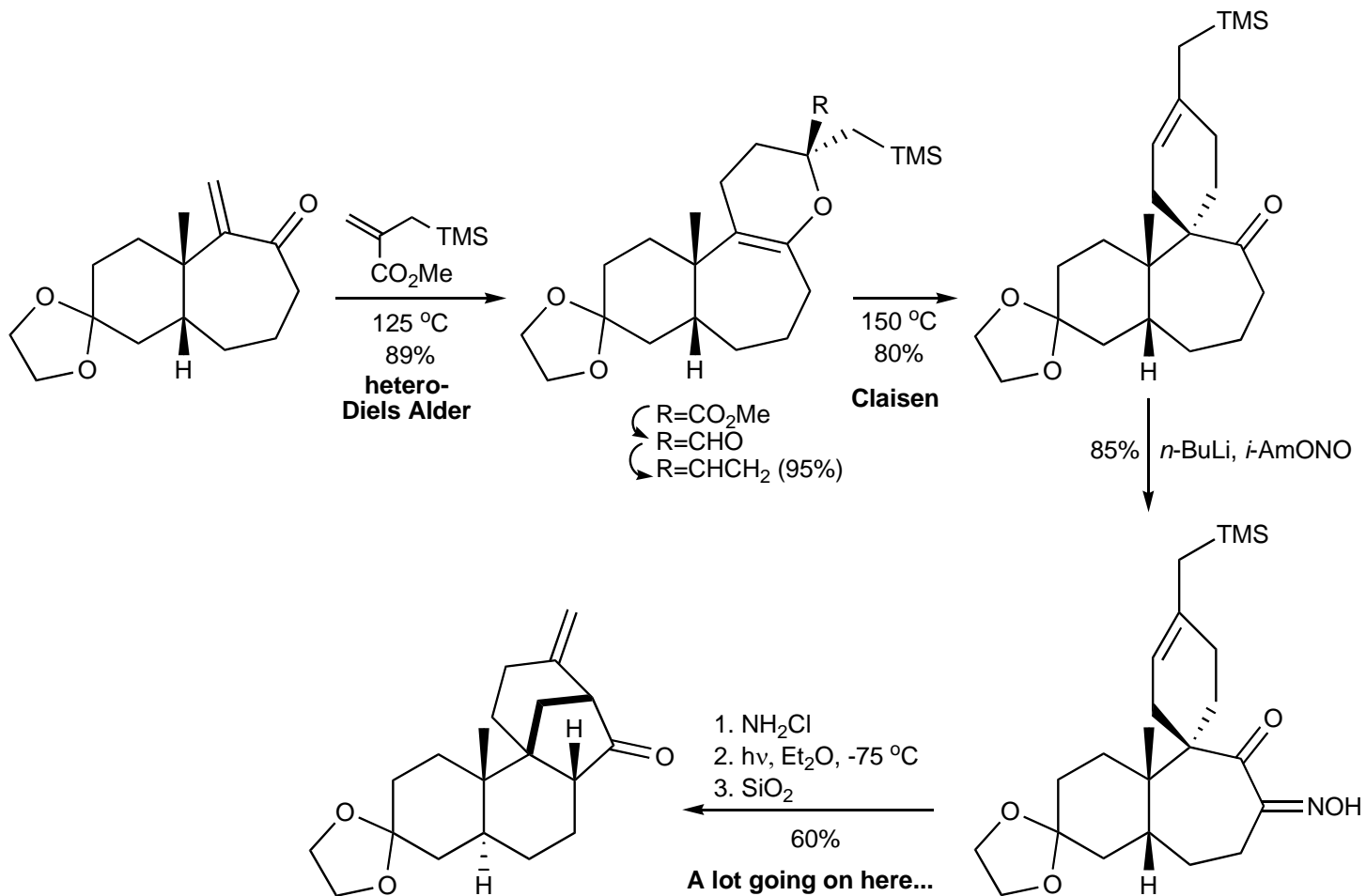
Construction of AB Aldehyde

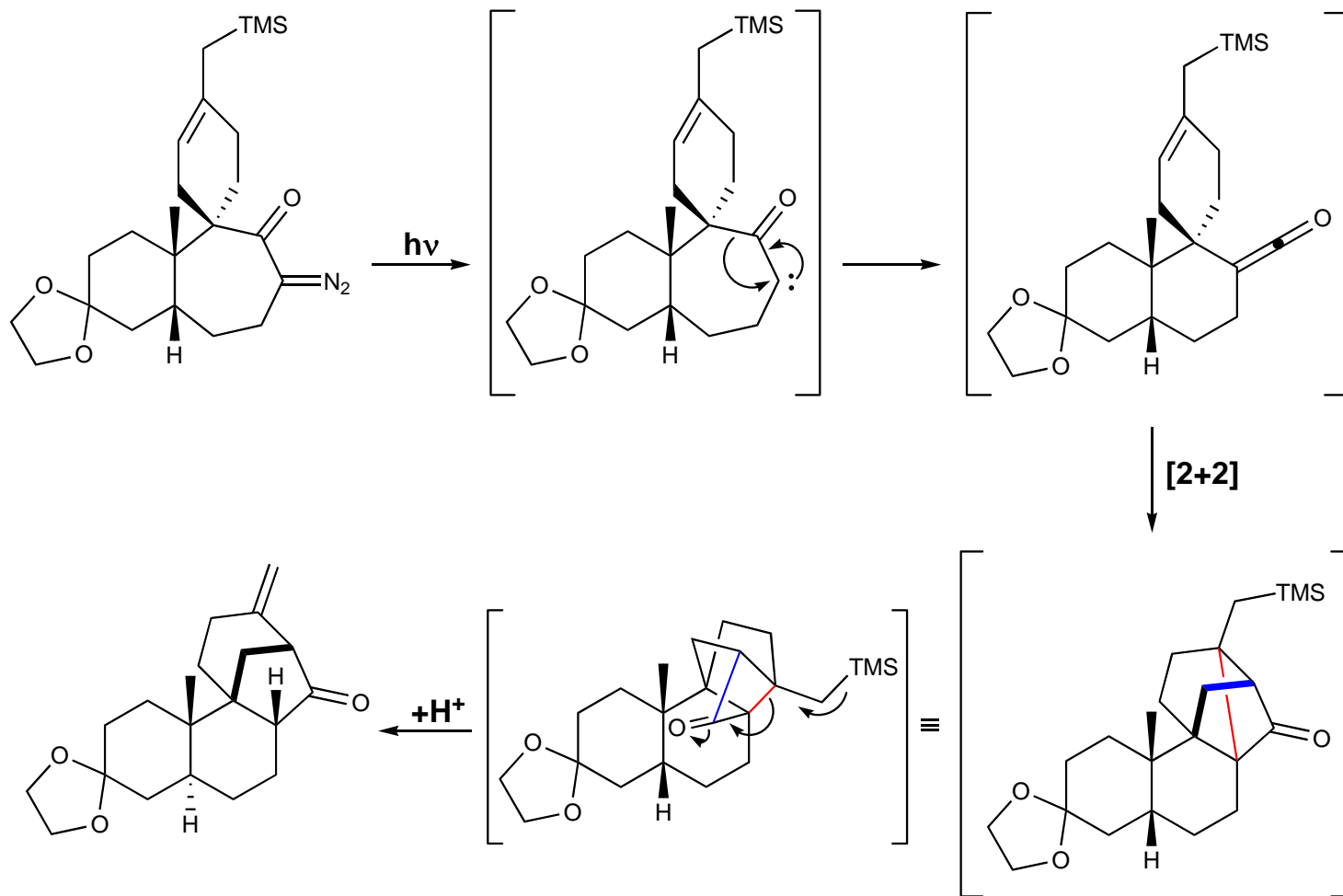


Connection of D ring to the AB unit

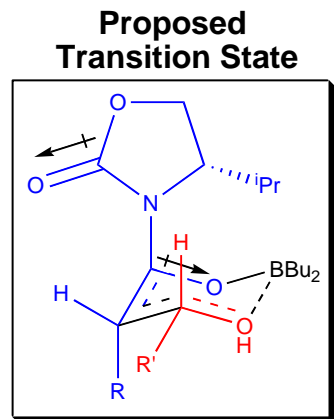
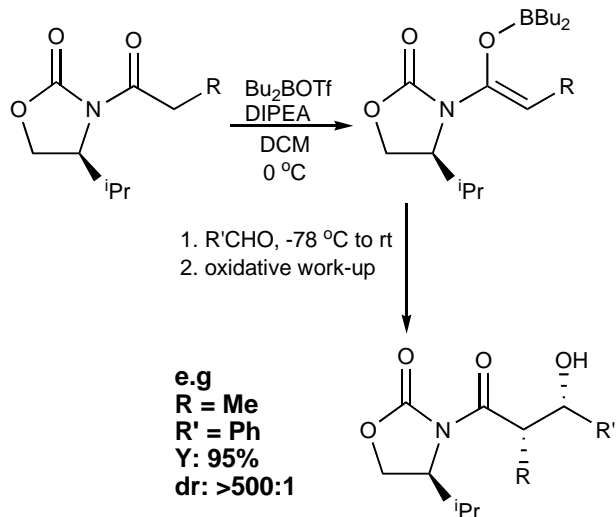




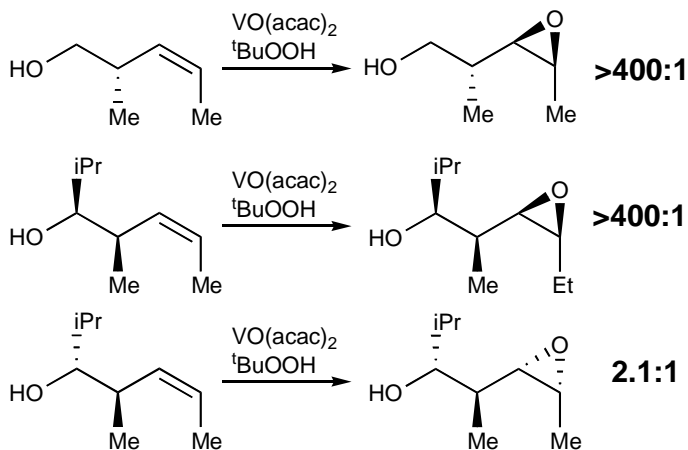




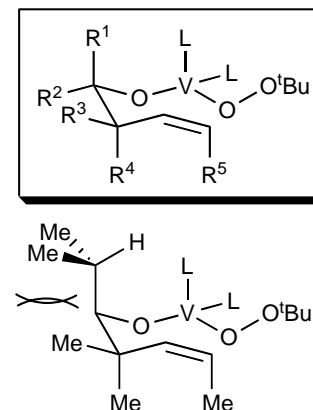
Evans Asymmetric Aldol: p. 2127, p. 2876, p. 3099



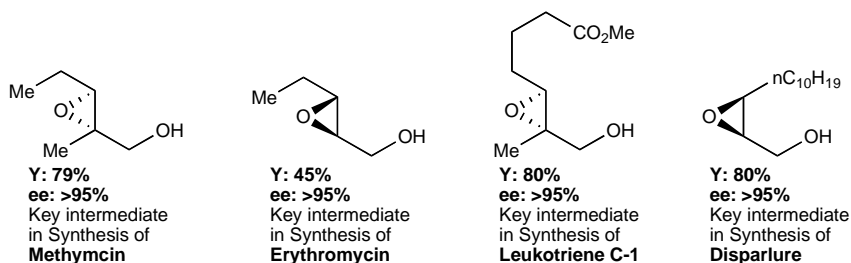
Stereoselective Vanadium Epoxidations: p. 2127, p. 2876, p. 3099



Proposed Vanadate Ester Transition State



Sharpless Asymmetric Epoxidation: p. 462



Kinetic Resolution via Sharpless Epoxidation: p. 6237

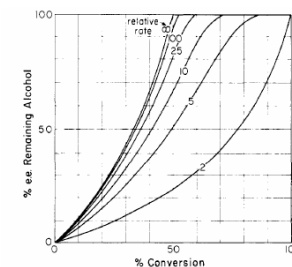
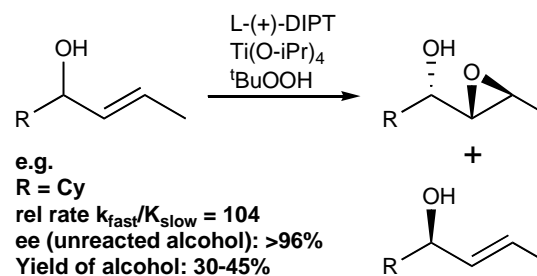
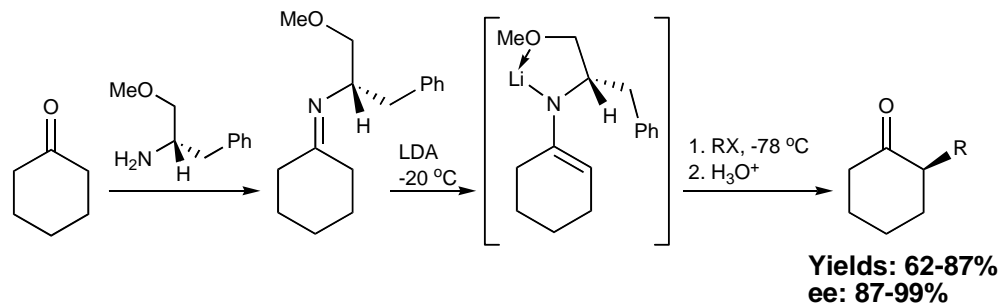
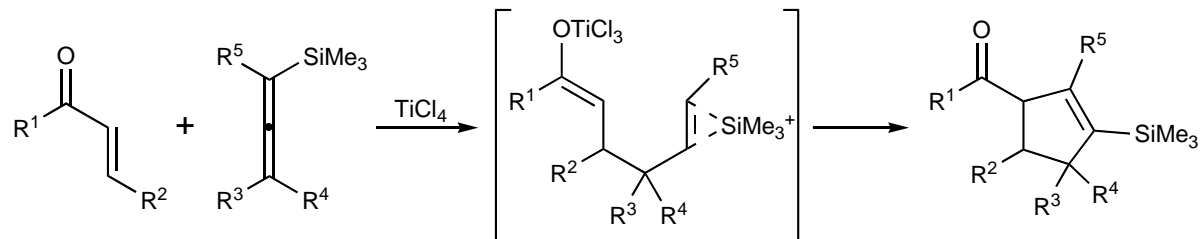


Figure 1. Dependence of enantiomeric excess on relative rate.

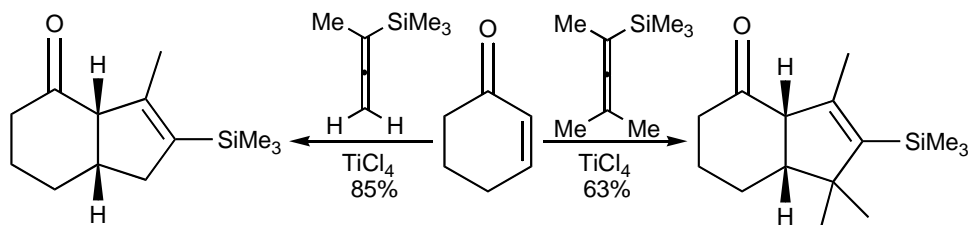
Meyers' Asymmetric Lithioenamine Alkylation: p. 3081



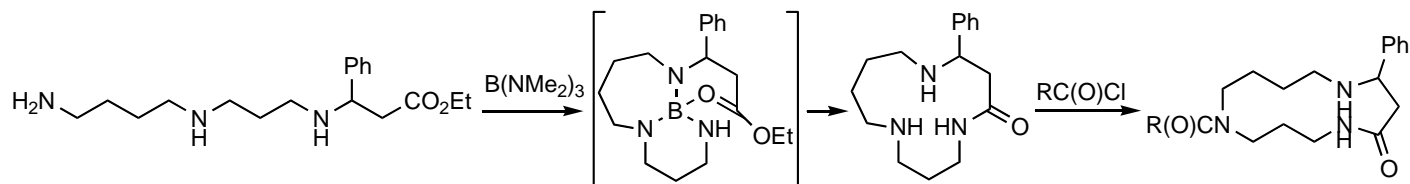
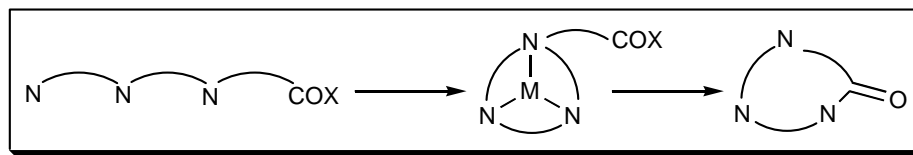
Danheiser Cyclopentene Annulation: p. 1604



e.g.



Boron Templated Macrolactamization (H. Yamamoto): p. 6133



R: PhCH=CH(E): Celacinnine
 PhCH=CH(Z): Celalocinnine
 Furan: Celafurine
 Ph: Celabenzine