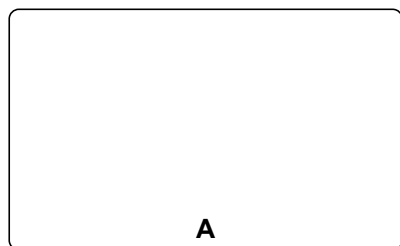
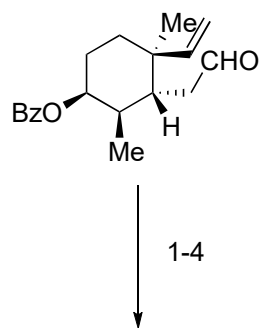
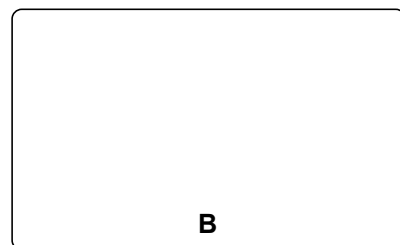


Total Synthesis of (-)-Rhodomollanol A

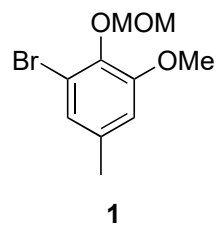
J. Gao, P. Rao, K. Xu, S. Wang, Y. Wu, C. He, H. Ding, *J. Am. Chem. Soc.* **2020**, *142*, 4592.



↓ 5-12



- 1) **1**, *n*-BuLi
- 2) DHP, *p*-TsOH
- 3) PIFA, Na₂CO₃, Na₃PO₄, then TFA
- 4) (TMSOCH₂)₂, TMSOTf



- 5) NaH, CS₂, MeI
- 6) AIBN, *n*-Bu₃SnH
- 7) DIBAL-H
- 8) VO(acac)₂, TBHP
- 9) (PhSeO)₂O, pyridine
- 10) NaBH₄, CeCl₃
- 11) LiHMDS, TMSCl
- 12) hν (254 nm), AcOH

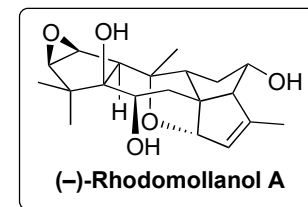
3) Mechanism?

4) Mechanism?

Hint: 3 Reactions in step 4

5) + 6) Name of the reaction?

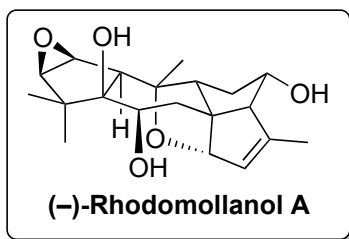
12) Mechanism?



13-18



19-24



- 13) MeSOCH_2Na , MeI
- 14) OsO_4 , pyridine
- 15) 2,2-Dimethoxypropane, PPTS
- 16) LiHMDS, NIS, *then m*-CPBA
- 17) TsNHNH_2 , PPTS
- 18) NaBH_3CN , *then* NEt_3

- 19) Cp_2TiCl_2 , Zn
- 20) NaH, CS_2 , MeI
- 21) $150\text{ }^\circ\text{C}$
- 22) *p*-TsOH
- 23) $\text{VO}(\text{acac})_2$
- 24) NaBH_4

14) Name of the reaction?

21) Name of the reaction?

