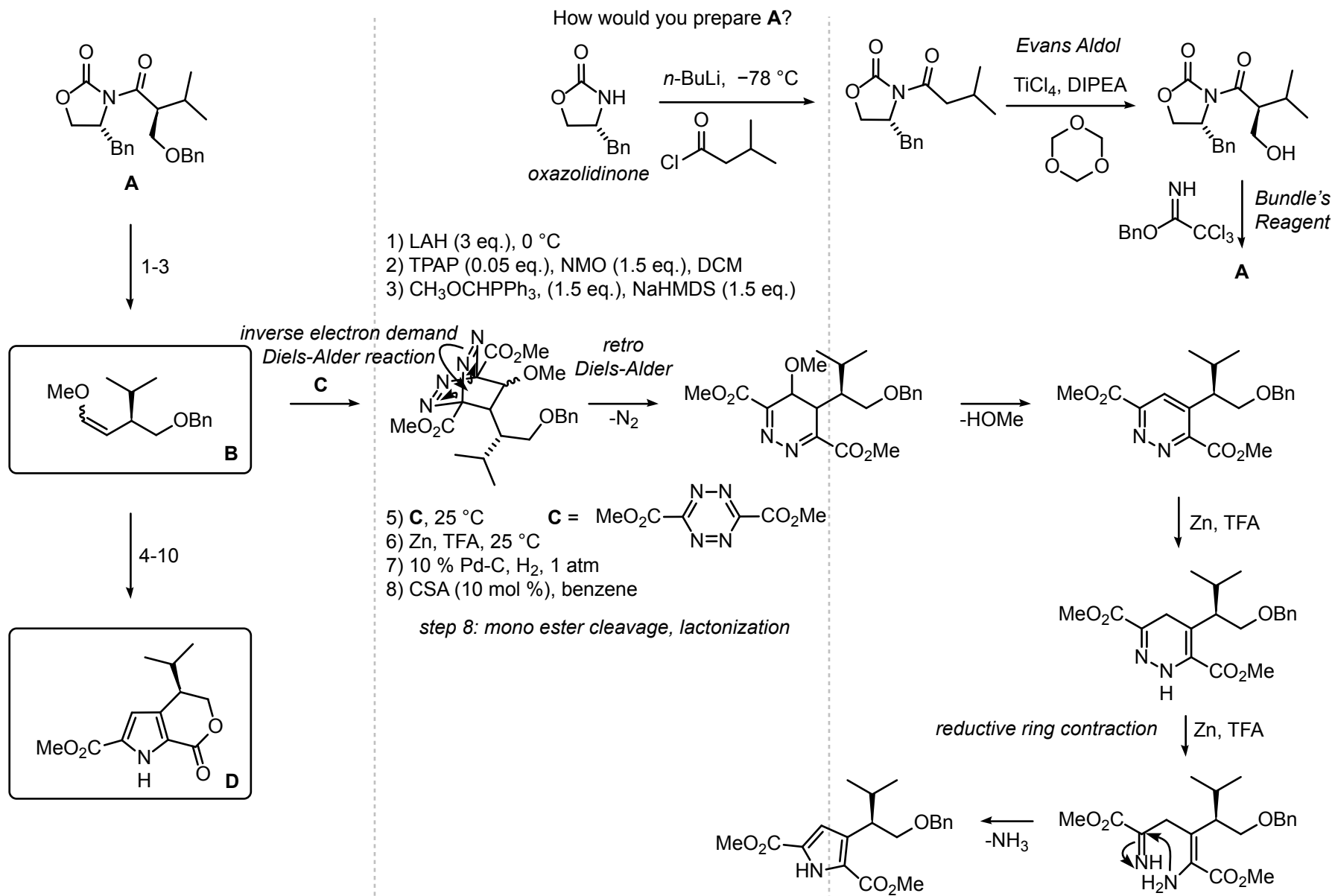
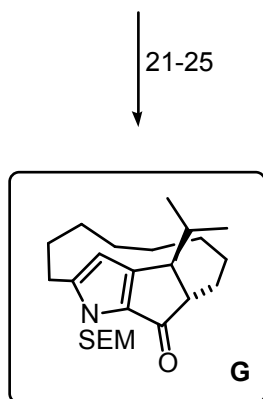
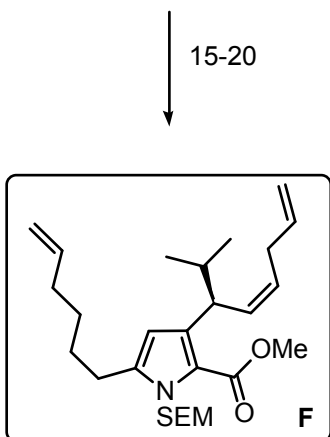
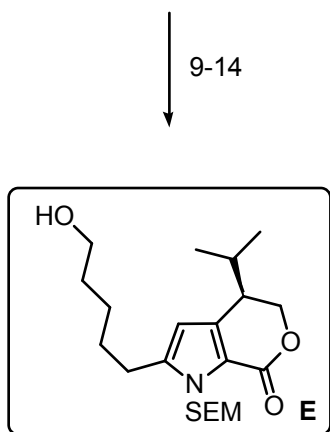


Asymmetric Total Synthesis of *ent*-(–)-Roseophilin: Assignment of Absolute Configuration

Hong, J.; Boger, D. L., *J. Am. Chem. Soc.* **2001**, 123, 8515-8519.

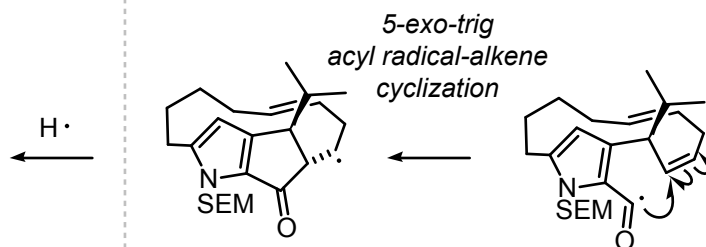




- 9) SEMCl (3 eq.)
- 10) LiI, DMF, 130 °C
- 11) ethyl chloroformate (2.5 eq.), Et₃N,
then NaBH₄ (5 eq.)
- 12) MnO₂ (4 eq.), DCM, 25 °C
- 13) BnO(CH₂)₄PPh₃Br (6 eq.), NaHMDS (6 eq.)
- 14) 10 % Pd-C, H₂, 1 atm

- 15) TPAP (0.1 eq.), NMO (1.5 eq.), DCM
- 16) CH₃PPh₃Br (2.5 eq.), NaHMDS (2.5 eq.)
- 17) aq. LiOH (1M)
- 18) TMSCHN₂
- 19) TPAP (0.1 eq.), NMO (1.5 eq.), DCM
- 20) CH₂CH(CH₂)₂PPh₃Br (2.5 eq.),
NaHMDS (2.5 eq.)

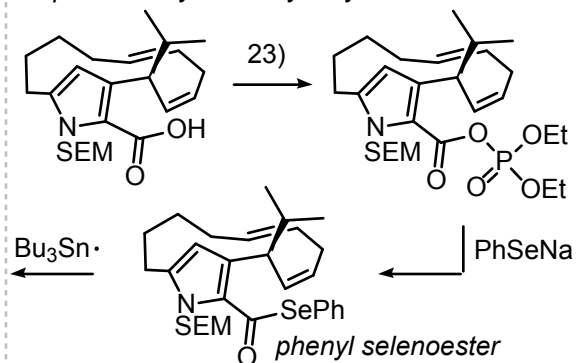
- 21) Grubbs I (10 mol %), DCM, 40 °C
- 22) NaOH, EtOH, H₂O, reflux, 4 days
- 23) (EtO)₂P(O)Cl (7 eq.), PhSeNa (3.5 eq.)
- 24) Bu₃SnH, AIBN
- 25) PtO₂, H₂, 25 °C



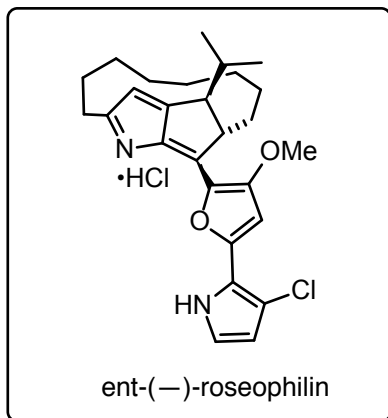
step 10: dealkylative methyl ester hydrolysis
step 11: reduction of mixed anhydride to the alcohol

step 17: lactone hydrolysis
step 17: methyl ester formation

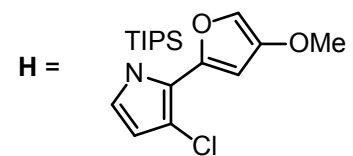
step 21: RCM, 1:1 E:Z
step 22: methyl ester hydrolysis



26, 27
↓



26) **H**, *n*-BuLi, CeCl_3 , $-55\text{ }^\circ\text{C}$, then **G**
27) Bu_4NF , aq. HCl



How would you prepare **H**?

