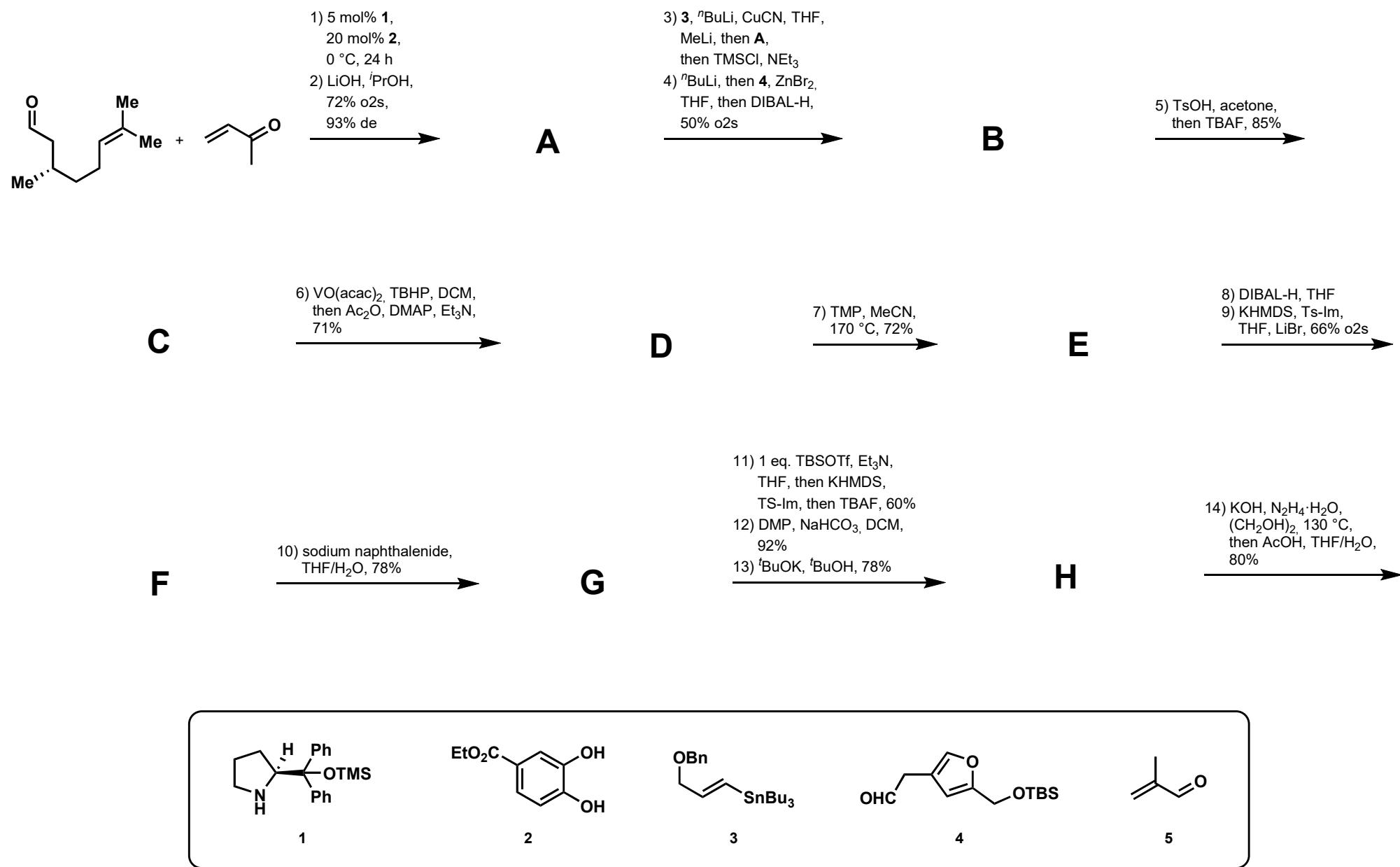


# Asymmetric Total Synthesis of Cerorubenic Acid-III

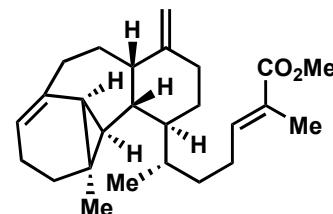
27.02.19



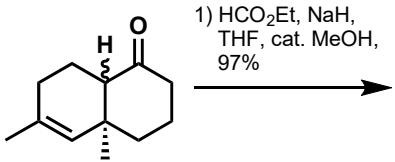
I  
15) Ac<sub>2</sub>O, DMAP, Et<sub>3</sub>N  
DCM, then DMP  
16) KHMDS, THF 80% o<sub>2</sub>s

J

17) NaBH<sub>4</sub>, NiCl<sub>2</sub>, MeOH  
18) CH<sub>3</sub>PPh<sub>3</sub>Br, <sup>7</sup>BuLi, THF  
19) 5, Grubbs II, DCM,  
then Ag<sub>2</sub>O, EtOH/H<sub>2</sub>O,  
27% o<sub>3</sub>s  
20) TMSCHN<sub>2</sub>, MeOH,  
hexane, 95%



cerorubenic acid-III methyl ester



1) HCO<sub>2</sub>Et, NaH,  
THF, cat. MeOH,  
97%

K

2) TsOH,  
PhMe,  
85 °C,  
59%

L

3) PhOCSCl,  
DMAP, DCM  
4) (Me<sub>3</sub>Si)<sub>3</sub>SiH,  
AIBN, PhH,  
84% o<sub>2</sub>s

M

5) LDA,  
MoOPD,  
THF, 51%  
6) H<sub>2</sub>, Pd/C,  
MeOH, 71%

