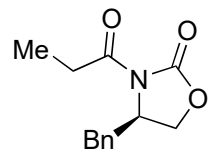
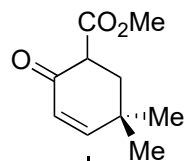
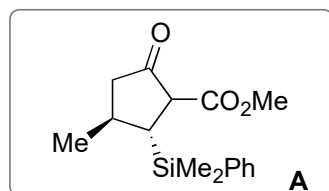


# Total Synthesis of (±)- and (+)-Eupohyrinoid A

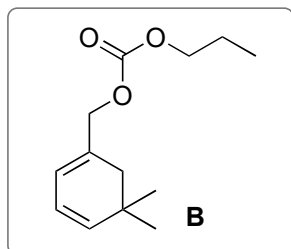
Z.-H. Ye, Q.-Q. Ao, Y.-Ch. Peng, X. Liu, X. Lin, and Ch.-Ch. Li, *J. Am. Chem. Soc.* **2026**, 148, 5940–5945.



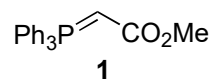
1-7



8-11



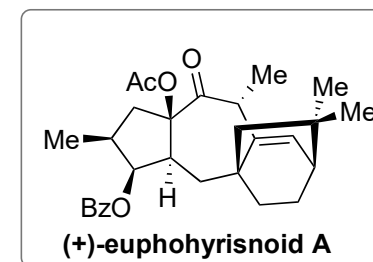
- 1) allyl iodide, NaHMDS
- 2) DIBAL-H
- 3) **1**
- 4) O<sub>3</sub>, PPh<sub>3</sub>
- 5) PMe<sub>3</sub>
- 6) IBX
- 7) PhMe<sub>2</sub>SiLi, CuCN



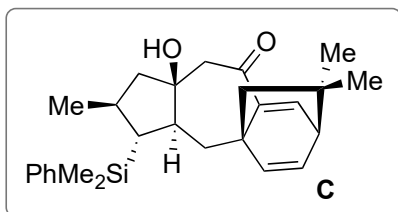
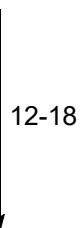
- 8) NaBH<sub>4</sub>, CeCl<sub>3</sub>·7H<sub>2</sub>O
- 9) Ms<sub>2</sub>O, NEt<sub>3</sub>, then DBU
- 10) DIBAL-H
- 11) ClCO<sub>2</sub>(n-Pr), py

- 5) Name of the reaction:  
*Baylis-Hillman reaction*

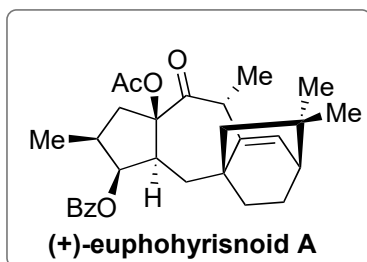
- 8) Name of the reaction:  
*Luche reduction*



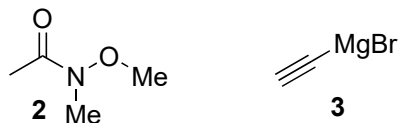
A + B



19-33



- 12) Pd<sub>2</sub>(dba)<sub>3</sub>, NaOAc, PPh<sub>3</sub>
- 13) LiI, H<sub>2</sub>O
- 14) LDA, **2**
- 15) TMSIm, TBAF (cat.)
- 16) DIBAL-H
- 17) **3**, then TBAF
- 18) MnO<sub>2</sub>



- 19) Pd/C, H<sub>2</sub>
- 20) N<sub>2</sub>H<sub>4</sub>·H<sub>2</sub>O, NEt<sub>3</sub>, then I<sub>2</sub>, DIPEA
- 21) TMSIm, TBAF (cat.)
- 22) Pd(dppf)Cl<sub>2</sub>, CO, NEt<sub>3</sub>, MeOH
- 23) LiAlH<sub>4</sub>
- 24) *o*-NO<sub>2</sub>PhSeCN, PBu<sub>3</sub>; H<sub>2</sub>O<sub>2</sub>, py
- 25) TBSOTf, DIPEA
- 26) TBAF
- 27) RhCl(PPh<sub>3</sub>)<sub>3</sub>, H<sub>2</sub>
- 28) Li/NH<sub>3</sub>, THF/EtOH
- 29) TBAF, then MeOH, KF, KHCO<sub>3</sub>, H<sub>2</sub>O<sub>2</sub>
- 30) TBAF
- 31) TMAD, PBu<sub>3</sub>, PhCO<sub>2</sub>H
- 32) DMP, NaHCO<sub>3</sub>
- 33) Ac<sub>2</sub>O, TMSOTf

- 12) Name of the reaction: *Tsuji-Trost reaction*
- 13) Name of the reaction: *Krapcho dealkoxycarbonylation*

18) Hint: reaction was followed by spontaneous cyclization

27) Name of the catalyst: *Wilkinson catalyst*

29) Name of the reaction: *Tamao-Fleming oxidation*

31) Name of the reaction: *Mitsunobu reaction*