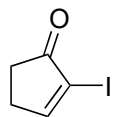
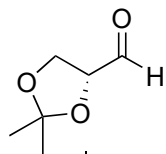
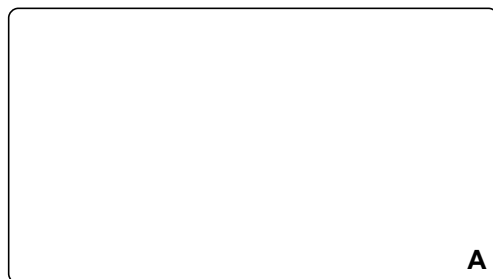


Synthesis of (+)-CP-263,114

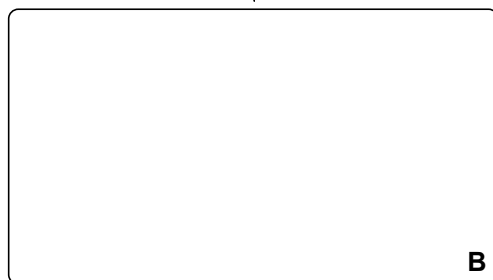
C. Chen, M. E. Layton, S. M. Sheehan, M. D. Shair
J. Am. Chem. Soc. **2000**, *122*, 7424-7425.



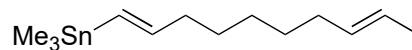
1-4



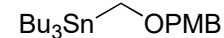
5-12



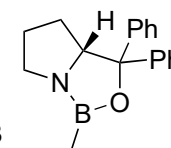
- 1) Pd₂(dba)₃, PPh₃, **1**
- 2) **2**, *n*-BuLi, *then* lithium thiophylcopper cyanide, *then* startingmaterial
- 3) *n*-BuLi, *then* methylcyanoformate
- 4) **3**, catecholborane



1



2

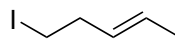


3

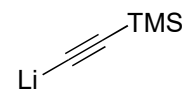
1) Name of the reaction?

4) kinetic resolution

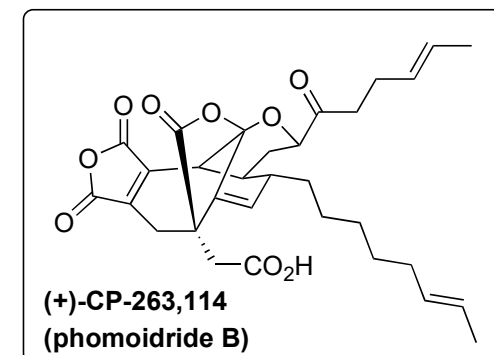
- 5) **4**, Mg, *then* startingmaterial
- 6) PDC
- 7) Ethanediol, CSA
- 8) Tosyl imidazole, NaH
- 9) **5**, BF₃•OEt₂
- 10) MOMCl, *i*Pr₂NEt
- 11) K₂CO₃
- 12) Cp₂Zr(H)Cl, NBS



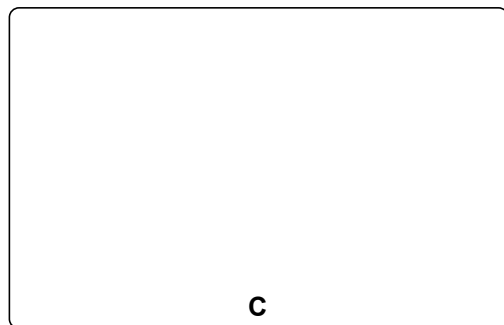
4



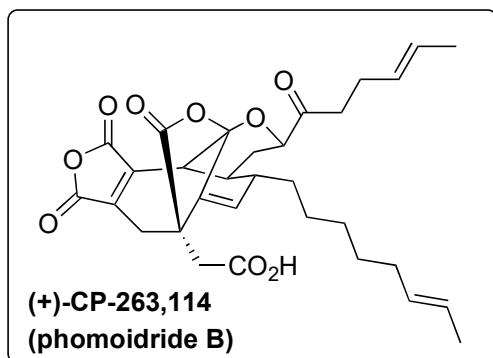
5



13-17



18-21



- 13) *n*-BuLi, then **A**, MgBr₂
- 14) KHMDS, then methylcyanoformate
- 15) BCl₃
- 16) DMP
- 17) NaClO₂, NaH₂PO₄, 2-methyl-2-butene

- 18) MOMCl, NEt₃
- 19) KHMDS, then methylcyanoformate
- 20) TMSOTf, HC(OMe)₃
- 21) MsCl, Et₃N, then CH₂N₂
- 22) *hν*, *t*BuOH
- 23) KNiPr₂, then Tf₂O
- 24) Pd(OAc)₂, P(OMe)₃, CO, Et₃N
- 25) HCO₂H

13) Mechanism?
Hint: 3 transformations

17) Name of the reaction?

20) Mechanism?

22) Name of the reaction?