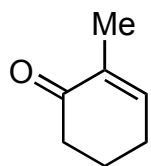


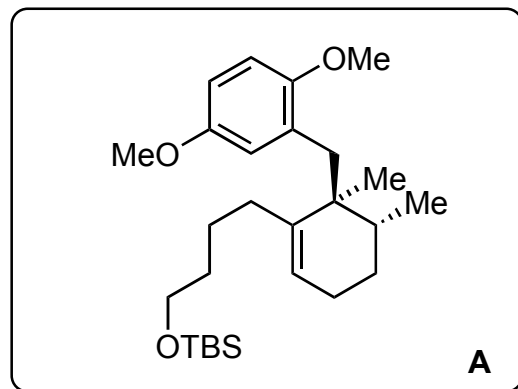
# Enantioselective Total Synthesis and Structural Revision of Dysiherbol A

Baars, J.; Grimm, I.; Blunk, D.; Neudörfl, J.-M; Schmalz, H.-G

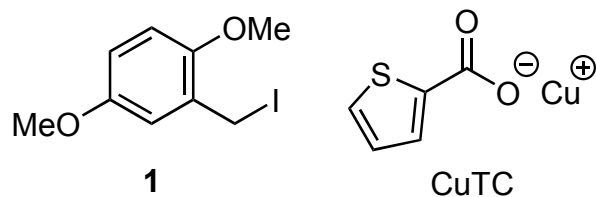
*Angew. Chem. Int. Ed.* **2021**, *60*, 14915–14920.



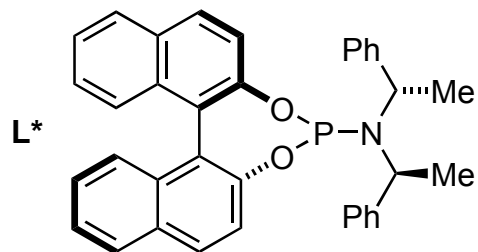
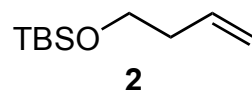
1-3



4-8



- 1)  $\text{AlMe}_3$ , CuTC/ $\text{L}^*$ , MeLi, **1**, TPPA
- 2) LDA, PhNTf<sub>2</sub>
- 3) 9-BBN, **2**, then Pd(dppf)Cl<sub>2</sub>, Cs<sub>2</sub>CO<sub>3</sub>

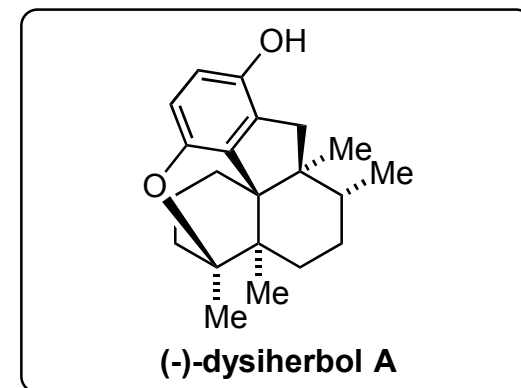


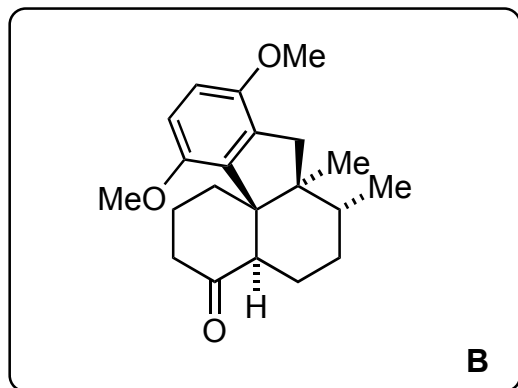
- 4) Bi(OTf)<sub>3</sub>, MeCN/H<sub>2</sub>O
- 5) DMP
- 6) AuCl<sub>3</sub> (5 mol%)
- 7) BH<sub>3</sub>·THF, then H<sub>2</sub>O<sub>2</sub>, NaOH
- 8) DMP

1) *hint: TPPA is a HMPA substitute*

3) Please name the reaction  
Suzuki-Miyaura cross-coupling

6) Please provide a mechanism  
See page 3

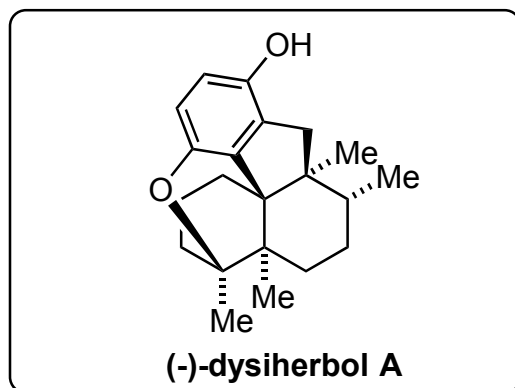




9-12

- 9)  $\text{MeLi}$ ,  $\text{CeCl}_3$
- 10)  $p\text{-TsOH}$ ,  $\Delta$
- 11)  $\text{ZnEt}_2$ ,  $\text{CH}_2\text{I}_2$
- 12)  $\text{BBr}_3/\text{H}_2\text{O}$

11) Please name the reaction  
Simmons-Smith cyclopropanation



Mechanism for step 6:

