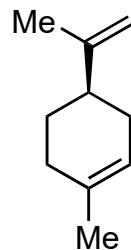


# Asymmetric Total Syntheses of Hypoestin A, Albolic Acid, and Ceroplastol II

Wang, Y.; Xu, K.; Min, L.; Li, C.

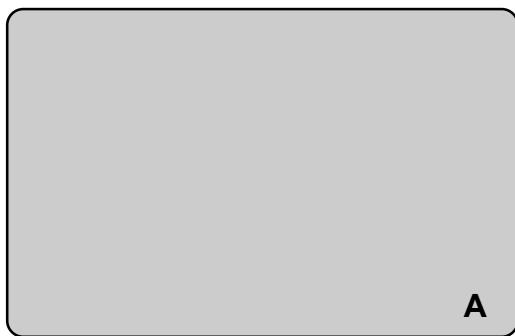
J. Am. Chem. Soc. 2022, 144 (23), 10162–10167



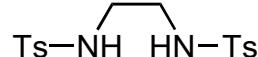
1-5

- 1)  $O_3$ ,  $SMe_2$  *then* piperidine, AcOH
- 2)  $NaBH_4$  *then*  $CBr_4$ ,  $PPh_3$
- 3)  $CuCl$ ,  $MgBr$
- 4) 9-BBN, NaOH,  $H_2O_2$
- 5) DMP

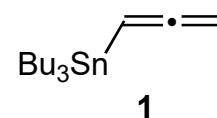
5) Structure of DMP?



A

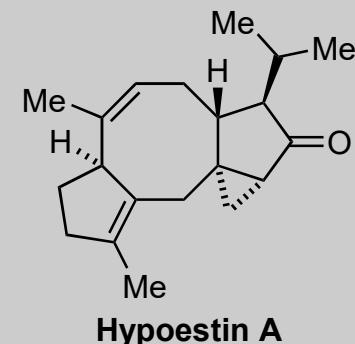


6-10



- 6)  $BBr_3$  *then* 1
- 7) DCM, A
- 8) TBSOTf, 2,6-lutidine
- 9)  $[Rh(CO)_2Cl]_2$ , CO
- 10) Pd/C,  $H_2$

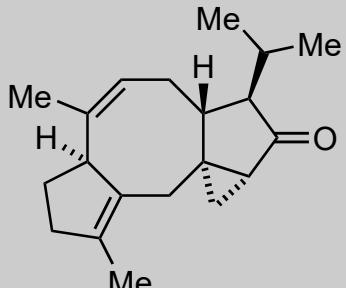
9) Name of the reaction?



Hypoestin A

B

11-16



- 11) LDA, ZnEt<sub>2</sub>, HMPA, 2-iodopropane
- 12) DIBAL
- 13) CH<sub>2</sub>I<sub>2</sub>, ZnEt<sub>2</sub>
- 14) TPAP, NMO
- 15) TBAF
- 16) Burgess reagent

14) Name of the reaction?  
Mechanism?

16) Structure of Burgess reagent?