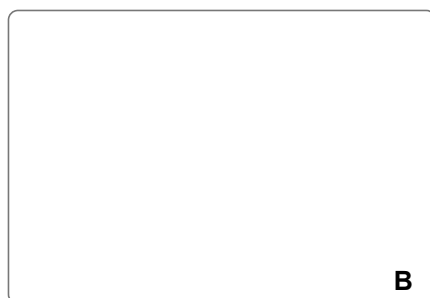
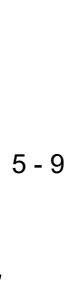
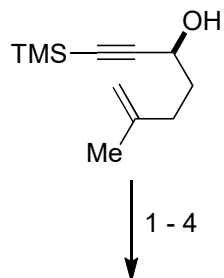
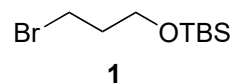


Total Synthesis of (–)-Bipolarolide D

G. A. Chesnokov, J. Friedli, F. J. Carta, K. Gademann, *JACS Au*, **2024**, DOI: <https://doi.org/10.1021/jacsau.4c00680>



- 1) K_2CO_3 , MeOH *then* MeBnCl
- 2) $Co(CO)_8$
- 3) *t*BuLi, CuI, **1** *then* Comins' reagent.
- 4) propargyl alcohol, $Pd(PPh_3)_2Cl_2$, CuI, Et_3N *then* Ac_2O



- 5) $Au(PPh_3)Cl$, $AgNTf_2$ *then* $AcCl$, MeOH
- 6) $SO_3 \cdot Py$, DMSO
- 7) Ohira-Bestmann reagent.
- 8) $HSnBu_3$, AIBN
- 9) CSA

How you would prepare starting material enantioenriched?

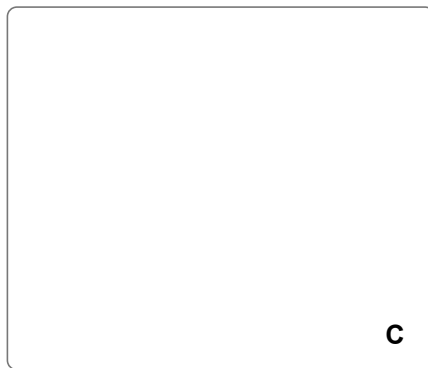
2) Name of the reaction?

3) Structure of the Comins' reagent?

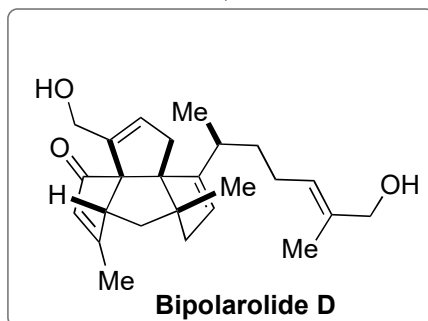
5) Name of the reaction? Mechanism of the reaction

7) Structure of Ohira-Bestmann reagent?

12-15



17-20



- 10) LiHMDS, TMSCl *then* O₂, Pd(OAc)₂
- 11) *m*-CBPA
- 12) MeLi
- 13) LiTMP, Et₂AlCl
- 14) TBSCl *then* Na, NH₃ (l)
- 15) PCC

10) Name of the reaction?

- 16) **2**
- 17) **3**, 9-BBN, **3**, Pd(PPh₃)₄
- 18) SOCl₂
- 19) TBAF

Hint: In step 16 cyclization occurs

17) Name of the reaction?

