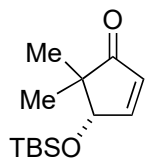


Total Synthesis of Mollanol A

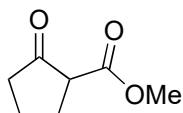
Yuran Wang, Rong Zhao and Ming Yang.
J. Am. Chem. Soc. **2022**, 33, 15033–15037



1 - 5



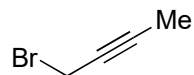
A



6 - 15



- 1) DMAP, I₂
- 2) VinylMgBr
- 3) MOMBr, NaI, DIPEA
- 4) O₃, *then* NaBH₄
- 5) Me₆Sn₂, Pd(PPh₃)₄



1

- 6) NaH, *n*-BuLi, **1**
- 7) InCl₃
- 8) BzO₂*t*-Bu, CuBr
- 9) NaBH₄
- 10) MOMBr, DIPEA
- 11) 4.00 equiv. TMSCH₂Li, *then* MeOH
- 12) TESOTf
- 13) KHMDS, Comin's reagent *then* HCl
- 14) PDC

4) Draw mechanism, name of intermediates?

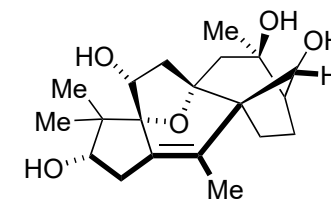
7) Name of reaction ?

8) **Hint:** The reaction starts with the generation of an oxygen-centered radical. Explain mechanism.

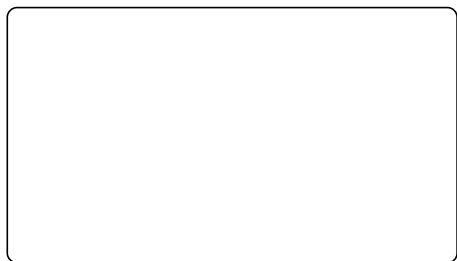
11) **Hint:** Two reactions are happening. One of them involves the cleavage of the BzO protecting group.

13) **Hint:** MOM stays

15) Structure of Comin's reagent?



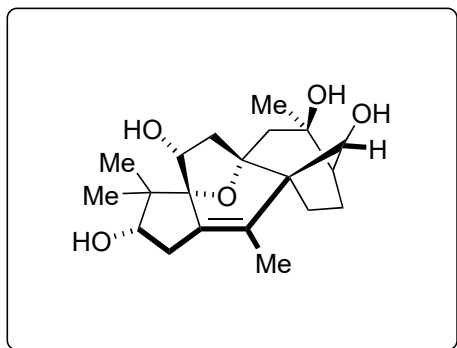
Mollanol A



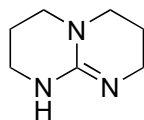
B



15 - 20



Mollanol A



TBD

- 15) **A**, Pd(PPh₃)₄, CuCl
- 16) DMP
- 17) TBD, *then* PPTS
- 18) MeLi, *then* TBAF
- 19) Li/NH₃ (l)
- 20) HCl

16) **Hint:** Two transformations.