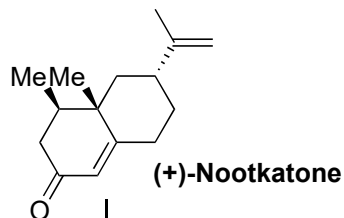
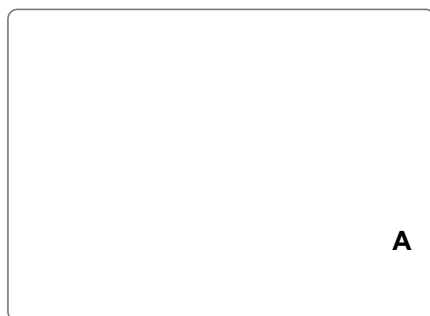


Total Synthesis of (–)-Neocucurbol C Enabled by Pattern Recognition and MHAT Cyclization

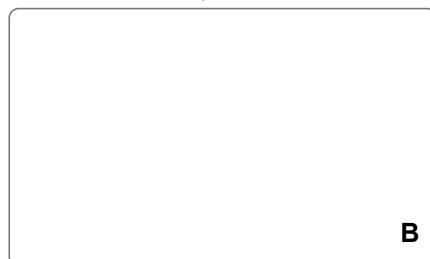
Li-Ping Zhong, Cyrus Gudeman, Jingsong Zhen, Oshani A. Wanasinghe, Jacob Hellmig, Michael J. E. Collins, John Bacsa, Alexander Adibekian, and Mingji Dai
J. Am. Chem. Soc. **2025**, 147, 32, 28589–28594.



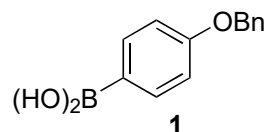
1-10



11-15



- 1) O₃, MeOH, then FeSO₄·7H₂O, PhSH
- 2) TMSCl, Et₃N
- 3) *m*-CPBA, NaHCO₃
- 4) TMSN₃, I₂, pyridine
- 5) **1**, Pd(dppf)Cl₂, K₃PO₄
- 6) NaBH₄, CeCl₃·7H₂O, MeOH
- 7) Ac₂O, Et₃N, DMAP, *then* TBAF
- 8) VO(acac)₂, TBHP (*t*-butyl hydroperoxide)
- 9) DMP, NaHCO₃
- 10) CH₂(NMe₂)₂, Ac₂O,
then NaBH₄, CeCl₃·7H₂O, MeOH



- 11) BBr₃
- 12) PIDA, NaHCO₃, HFIP
- 13) Fe(acac)₃, PhSiH₃
- 14) TMSN₃, I₂, pyridine
- 15) PdCl₂(PhCN)₂, CuI, AsPh₃, SnMe₄, NMP

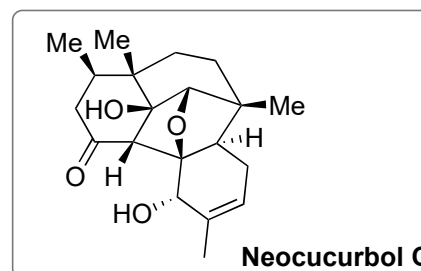
3) Name of the reaction:

5) Name of the reaction:

6) Name of the reaction:

10) Name of the reaction:

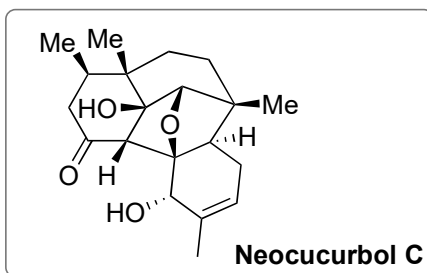
15) Name of the reaction:



B



16-24



16) NaBH_4 , $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$, MeOH

17) *m*-CPBA

18) Cp_2TiCl

19) IBX

20) NaBH_4 , $\text{CeCl}_3 \cdot 7\text{H}_2\text{O}$, MeOH

21) MOMCl, DMAP, Et_3N , *then* K_2CO_3 , MeOH

22) DMP

23) LiBF_4

24) Sml_2