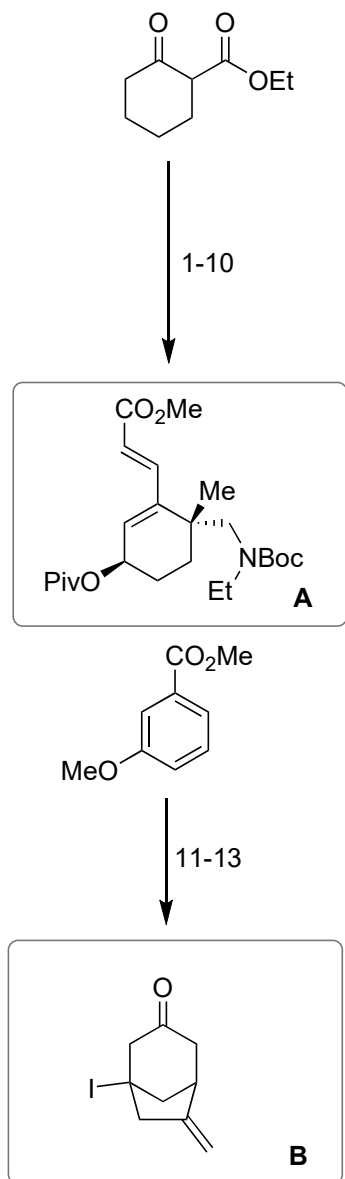
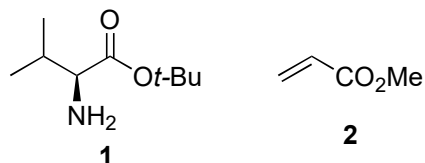


Enantioselective Total Syntheses of (+)-Aconicarmichinium C and (+)-Pendulumine I: Strategic Use of a Bridgehead Enone via a Kinetic-Resolution-Enabled Intermolecular Diels–Alder Reaction

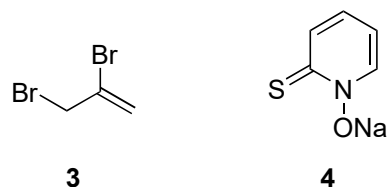
Wenhao Zhang, Qilin Xue, Dawei Ma, and Xiangbo Zhao, *J. Am. Chem. Soc.* **2026**, XXXX, XXX, XXX-XXX .



- 1) **1**, $\text{BF}_3 \cdot \text{OEt}_2$
- 2) LDA, MeI, *then* HMPA, *then* 3N HCl
- 3) KHMDS, PhNTf_2
- 4) FeCl_3 , TBHP
- 5) (*R*)-CBS, $\text{BH}_3 \cdot \text{THF}$
- 6) DIBAL-H
- 7) $\text{EtNH}_2 \cdot \text{HCl}$, Et_3N , 4 Å MS, *then* NaBH_4
- 8) Boc_2O
- 9) DIAD, PPh_3 , PivOH
- 10) $\text{Pd}(\text{OAc})_2$, Et_3N , **2**



- 11) Li/NH_3 , *then* **3**, *then* 2N HCl
- 12) $n\text{-Bu}_3\text{SnH}$, AIBN, *then* LiOH , H_2O
- 13) $(\text{COCl})_2$, DMF, $\text{CF}_3\text{CH}_2\text{I}$ (solv), *then* **4**, *hv*, DMAP

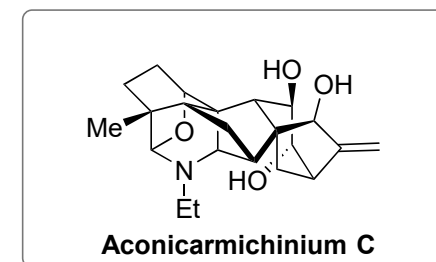


5) Name of the reaction:
Corey-Bakshi-Shibata reduction

9) Name of the reaction:
Mitsunobu reaction

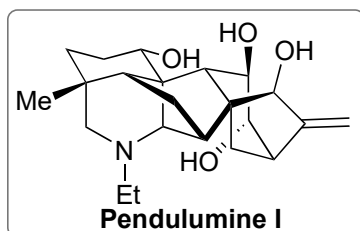
10) Name of the reaction:
Heck coupling

13) Name of the reaction:
Barton-type iododecarboxylation

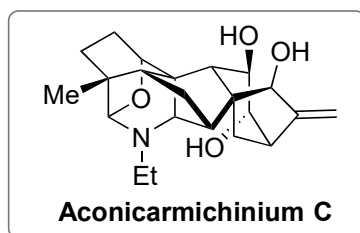


A + B

14-25



26



- 14) K_3PO_4 , 4Å MS, 90 °C
- 15) Mg/MeOH
- 16) DIBAL-H
- 17) $(COCl)_2$, DMSO, *then* Et_3N
- 18) Rexyn-300, Na_2SO_4 , *o*-xylene, 200 °C
- 19) $NaBH(OMe)_3$
- 20) LDA, MoOPH
- 21) $NaBH(OAc)_3$
- 22) AcCl, NaH, DMAP
- 23) SeO_2
- 24) DMP
- 25) $NaBH(OMe)_3$, $LiAlH_4$

- 26) Ag_2O , 50% EtOH

17) Name of the reaction:
Swern oxidation

18) Name of the reaction:
Mannich cyclization

23) Name of the reaction:
Riley oxidation