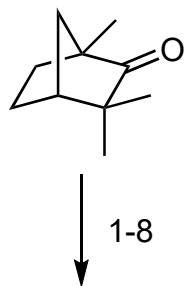


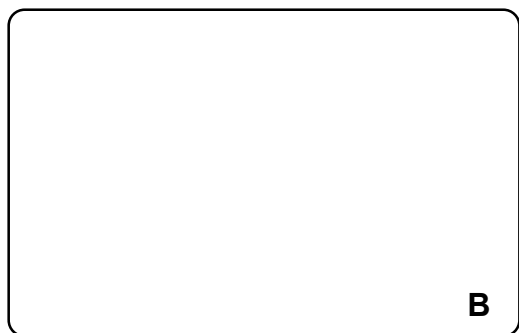
A Concise Synthesis of (-)-Aplyviolene Facilitated by a Strategic Tertiary Radical Conjugate Addition

Schnermann, M. J.; Overman, L. E.

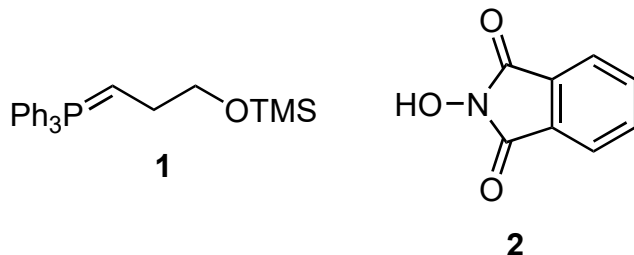
Angew. Chem. Int. Ed. **2012**, *51*, 9576-9580.



9-14



- 1) NH_2OH
- 2) H_2SO_4 , Δ
- 3) DIBALH
- 4) **1**; then HCl
- 5) I_2 , PPh_3
- 6) AgNO_2
- 7) PhNCO , Et_3N , Δ
- 8) Pd/C , Ra-Ni , B(OH)_3 , H_2

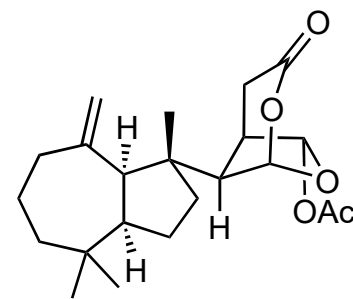


- 9) TsOH , Δ
- 10) Vinyl-MgBr, CuCN, HMPA
- 11) TMSCH_2Li
- 12) O_3 , then PPh_3 , HF
- 13) NaClO_2
- 14) **2**, DCC

2) Fragmentation name?

7) PhNCO is a dehydrating agent
Rxn name?

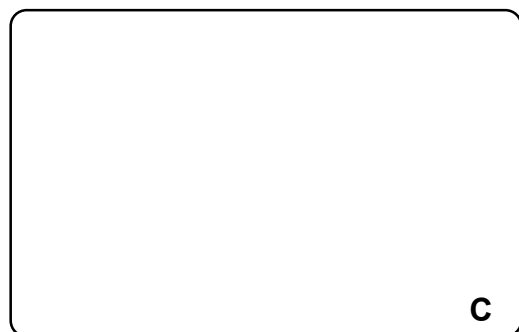
8) Two catalysts do two independent reductions



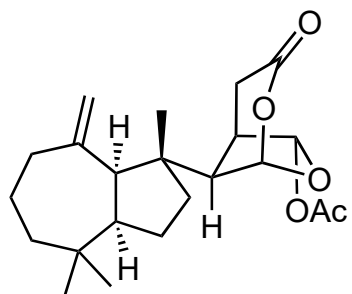
(-)-Aplyviolene

B

15-20

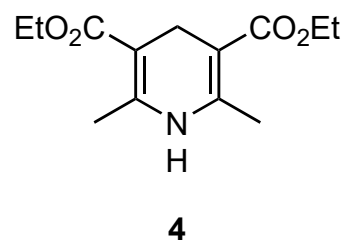
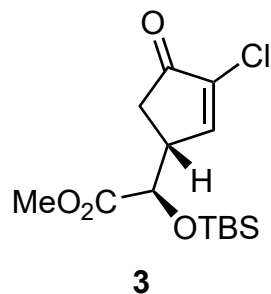


21-25



(-)-Aplyviolene

- 15) **3**, **4**, [Ru(bpy)₃](BF₄)₂, DIPEA, blue LEDs
16) Me₂CuCNLi₂, TBSCl, HMPA
17) TiCl₄, Zn, CH₂Br₂
18) (CO₂H)₂
19) OsO₄, NMO
20) Pb(OAc)₄



- 21) TBAF
22) DAST
23) NaOH
24) SnCl₂
25) *m*-CPBA



- 16) Chloro-ketone to silyl enol ether
17) Ester olefination name?

- 22) Hemiacetal to anomeric fluoride
24) Lactonization