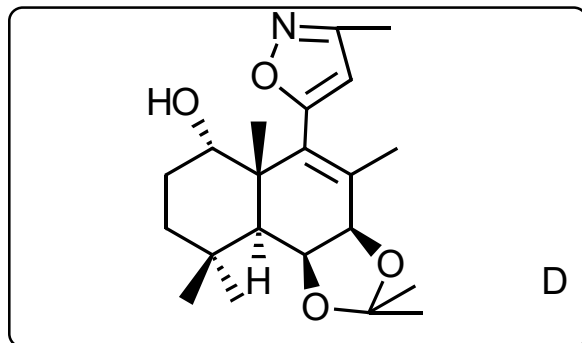
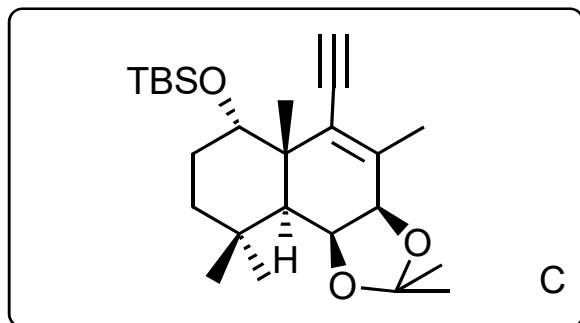
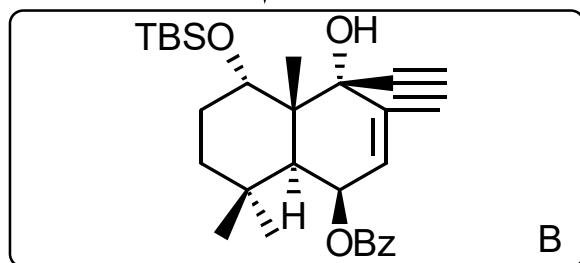
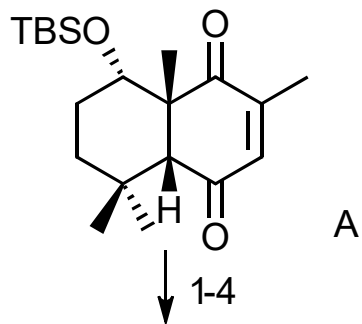


Synthesis Challenge # 66

A Concise Synthesis of Forskolin

O. Hylse, L. Maier, R. Kučera, T. Perečko,
A. Svobodová, L. Kubala, K. Paruch, J. Švenda,
Angew. Chem. Int. Ed. **2017**, DOI: 10.1002/anie.201706809

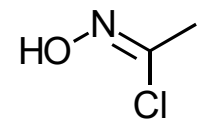


- 1) acetylene, *n*-BuLi
- 2) $\text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$
- 3) DIBAL-H
- 4) Bz_2O , DMAP

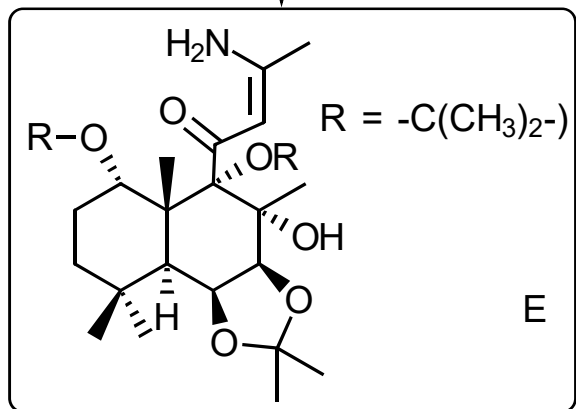
- 5) PCC, NaOAc
- 6) DIBAL-H
- 7) 2-methoxypropene, PPTS

- 8) **I**, Et_3N
- 9) AuCl_3
- 10) TBAF

Please provide a synthesis for A.

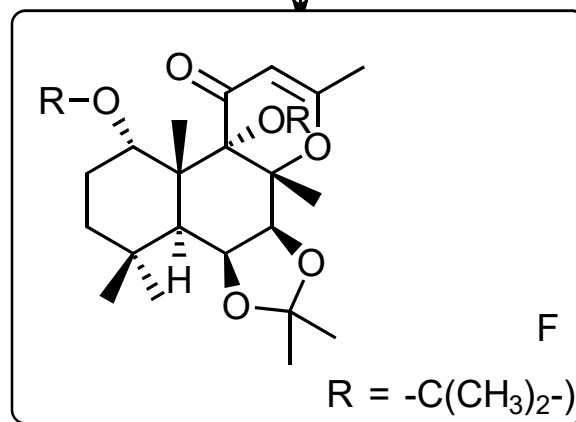


11-13



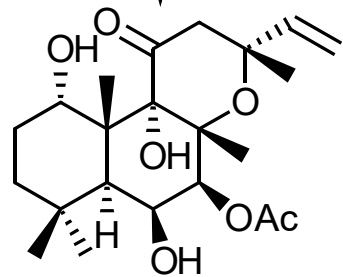
- 11) K₂[OsO₂(OH)₄], NMO, citric acid
- 12) II, TSOH
- 13) Raney-Ni, H₂

14

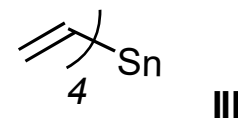
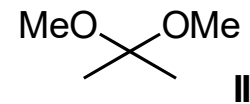


- 14) HCl (dioxane)

15-17



- 15) III, *n*-BuLi, CuCN, BF₃·Et₂O
- 16) TsOH, H₂O,
- 17) Ac₂O, pyridine



Please provide a nice 3D representation of the final product.