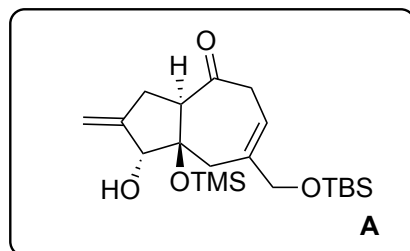
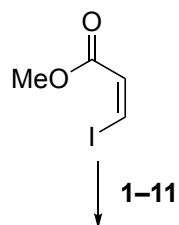


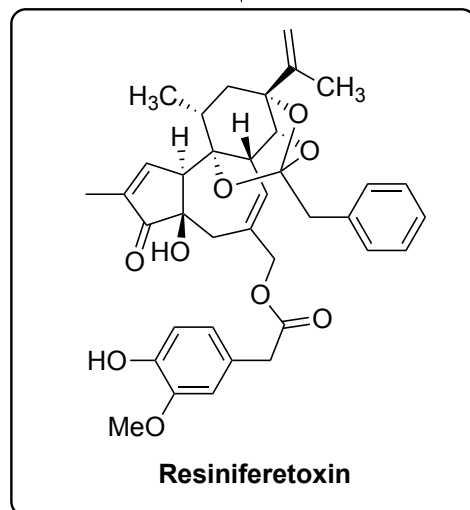
Total Synthesis of Resiniferatoxin

Vasil H. Vasilev, Lukas Spessert, Kuan Yu, and Thomas J. Maimone, *J. Am. Chem. Soc.* 2022, 144, 16332–16337 .

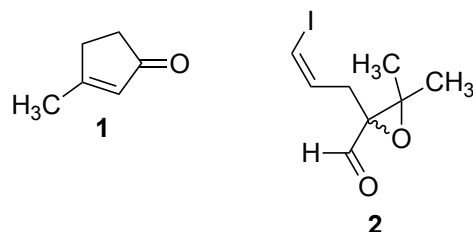


A + 2

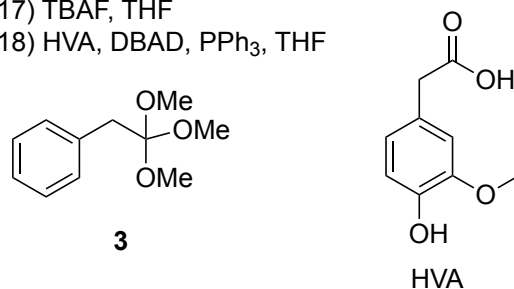
12-18



- 1) DIBAL, DCM
- 2) LHMDs, **1**
- 3) TMSCl, Et₃N
- 4) DBU, DCM
- 5) allylMgBr, *then* HCl, Et₃N
- 6) Pd(PPh₃)₄, MeCN
- 7) TMSCl, imid. *then* SiO₂
- 8) DMP, NaHCO₃
- 9) *m*-CPBA
- 10) CuCl, B₂pin₂, NaOt-Bu, THF/H₂O, *then* NaBO₃
- 11) DATMP, PhMe, *then* TBSCl, imid.

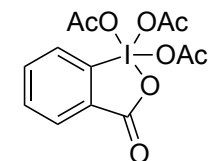


- 12) LHMDs, THF, *then* AcOH
- 13) Sml₂, THF/H₂O
- 14) LiAlH₄, THF
- 15) CSA, PhH, **3**, SiO₂
- 16) DMP, NaHCO₃
- 17) TBAF, THF
- 18) HVA, DBAD, PPh₃, THF



3. Hint: Two isomers will occur

8. Structure of DMP



Dess - Martin - periodane

15. Structure of CSA

