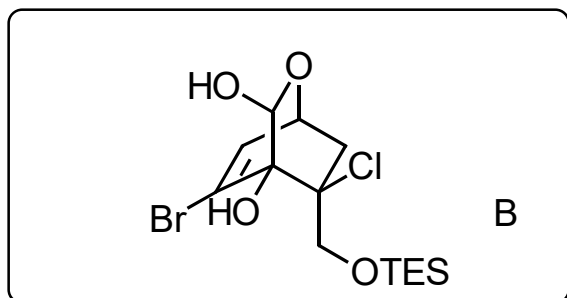
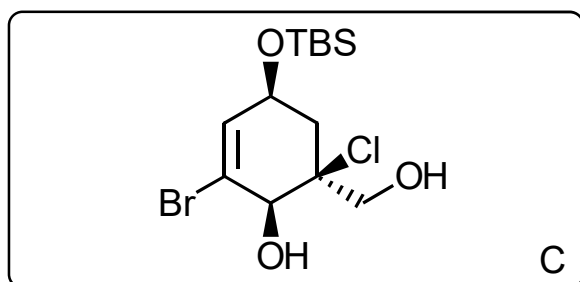


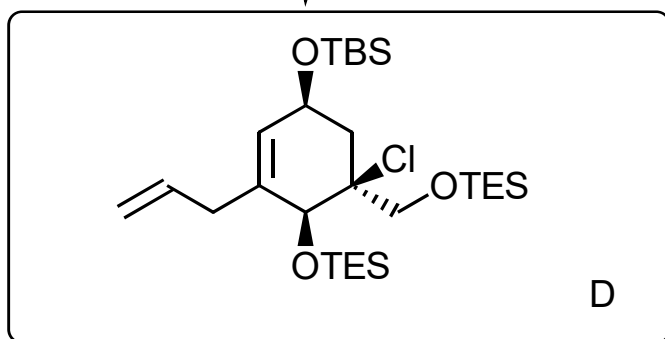
↓ 1-3



↓ 4-6



↓ 7-8

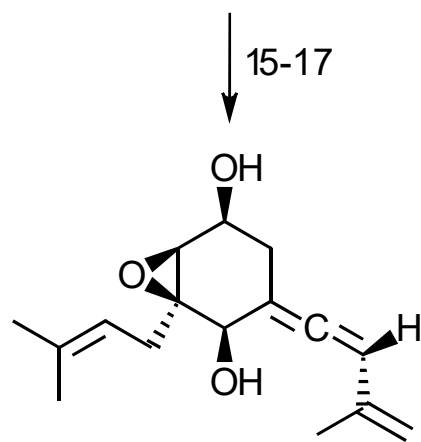
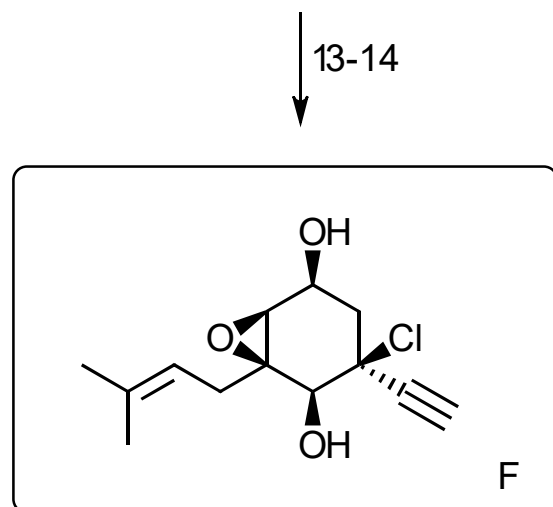
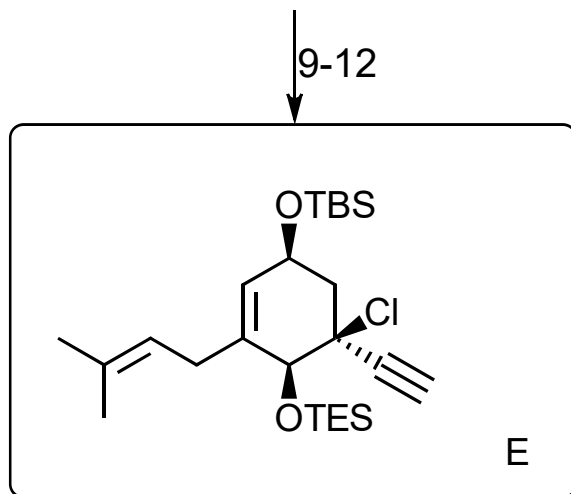


- 1) LiBH_4
- 2) TESCl, imidazole
- 3) DIBAL, THF, 0°C

- 4) $\text{Pb}(\text{OAc})_4$, NaHCO_3
- 5) TBSOTf, 2,6-lutidine
- 6) $\text{HF}\cdot\text{Py}$, then, $\text{NaBH}(\text{OAc})_3$

- 7) TESCl, imidazole
- 8) $\text{allylSn}(n\text{-Bu})_3$, $\text{Pd}(\text{PPh}_3)_4$, NMP

Please provide a synthesis of A.



- 9) I, Grubbs 2nd cat.
 10) TBAF, AcOH
 11) DMP
 12) Seyferth-Gilbert reagent

- 13) TBAF
 14) VO(OEt)₃, TBHP

- 15) TESOTf, 2,6-lutidine
 16) II, CuCN, CH₂Cl₂, -40°C
 17) TBAF

