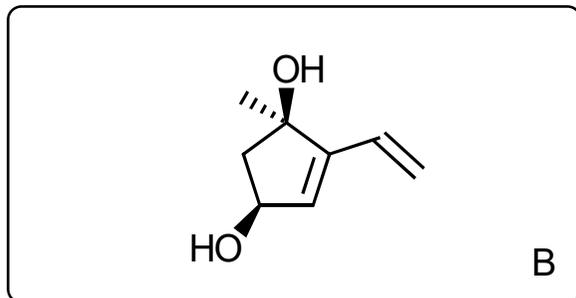
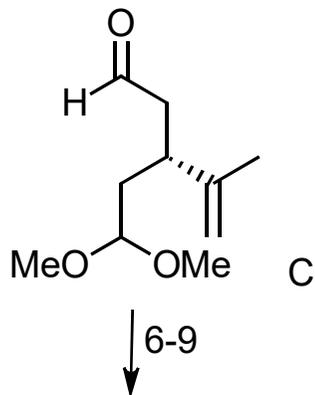


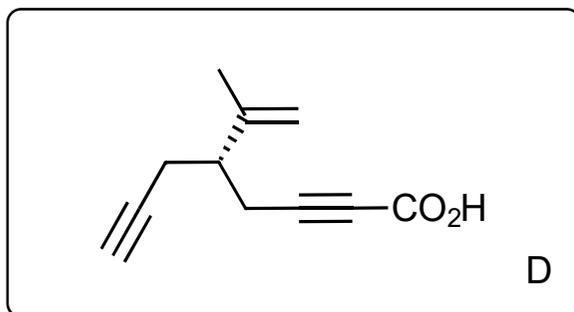
A



B



C



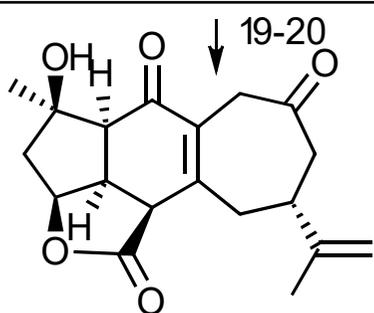
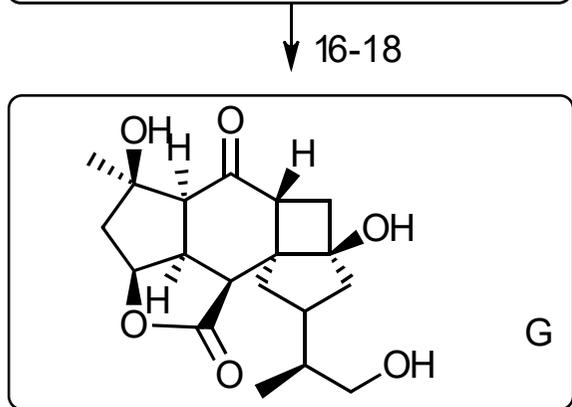
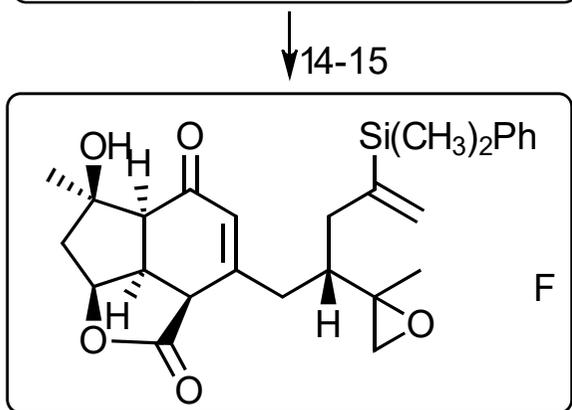
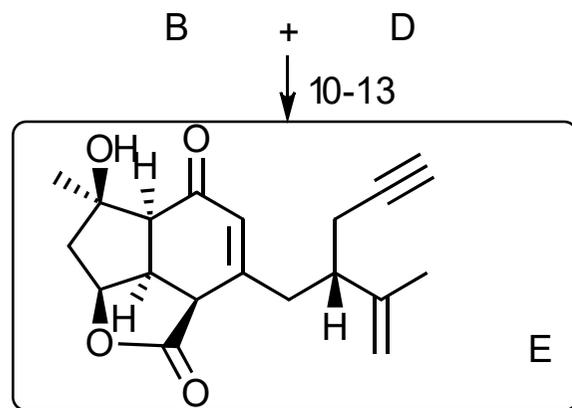
D

- 1) VinylMgBr, Cu\*Br, TMSCl, HMPA/THF
- 2) LiTMP, TESCl, THF -78°C
- 3) DDQ, HMDS, PhMe, 23°C
- 4) NaBH<sub>4</sub>, CeCl<sub>3</sub>\*7H<sub>2</sub>O, MeOH, -78°C
- 5) TBAF, THF, 60°C

- 6) Br<sub>2</sub>CHPPh<sub>3</sub>Br, *t*BuOK, THF
- 7) *n*-BuLi, THF, -78°C, then TMSCl, then HCl, H<sub>2</sub>O/THF/dioxane
- 8) CBr<sub>4</sub>, PPh<sub>3</sub>, CH<sub>2</sub>Cl<sub>2</sub>, 0°C
- 9) *n*-BuLi, THF, -78°C, then CO<sub>2</sub>, -78°C, then TBAF

Please, provide a synthesis of C

from (R)-Carvone,  
*Org. Lett.* **2012**, 14, 2834



- 10) DIC, DMAP, CH<sub>2</sub>Cl<sub>2</sub>, 0°C  
 11) 140°C, xylenes  
 12) VO(acac)<sub>2</sub>, TBHP, CH<sub>2</sub>Cl<sub>2</sub>/PhH  
 13) Cp<sub>2</sub>TiCl<sub>2</sub>, Mn<sup>0</sup>, collidine\*HCl, 1,4-cyclohexadiene, THF, 23°C  
 13b) IBX, MeCN
- 14) *m*-CPBA, CH<sub>2</sub>Cl<sub>2</sub>, 0 to 23°C  
 15) Ph(CH<sub>3</sub>)<sub>2</sub>SiH, [RuCp\*(MeCN)<sub>3</sub>]PF<sub>6</sub>
- 16) *hν* (350 nm), PhH, 23°C  
 17) TiCp<sub>2</sub>Cl<sub>2</sub>, Mn<sup>0</sup>, collidine\*HCl, 1,4-CHD, THF, 23°C  
 18) Hg(OAc)<sub>2</sub>, AcOOH/AcOH, 23°C
- 19) *o*-NO<sub>2</sub>PhSeCN, *n*-Bu<sub>3</sub>P, THF, 23°C, then H<sub>2</sub>O<sub>2</sub>, 0 to 23°C  
 20) CuI, NIS, PhMe, 90°C