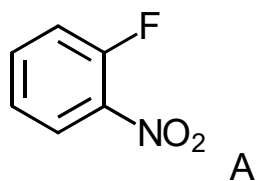


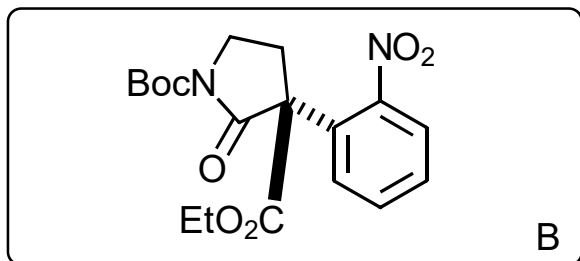
# Synthesis Challenge # 62

AG Wegner

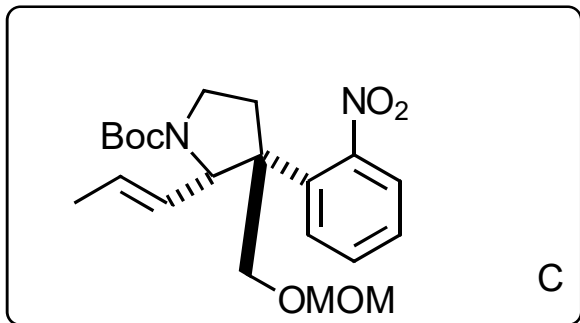
23.03.2017



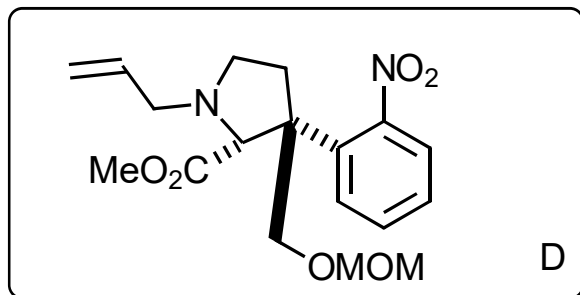
1-4



5-9



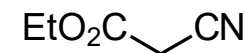
10-14



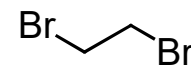
- 1) I, NaH, THF, 0°C to reflux
- 2) II, K<sub>2</sub>CO<sub>3</sub>, DMF, 90°C
- 3) H<sub>2</sub>SO<sub>4</sub> (conc.), then H<sub>2</sub>O, 0°C
- 4) NaHMDS, THF, -78°C, then Boc<sub>2</sub>O, DMAP, THF, 23°C

- 5) LiEt<sub>3</sub>BH, 0.1 eq. BF<sub>3</sub>•OEt<sub>2</sub>, THF, -78°C
- 6) *p*TsOH, MeOH, then Bu<sub>3</sub>Sn(allyl), BF<sub>3</sub>•OEt<sub>2</sub>
- 7) Hoveyda-Grubbs cat. 2nd generation, MeOH, reflux
- 8) DIBALH
- 9) MOMCl, DIPEA

- 10) O<sub>3</sub>, -78°C, then tiouria, 23°C
- 11) Pinnick Oxidation
- 12) CH<sub>2</sub>N<sub>2</sub>
- 13) TFA, CH<sub>2</sub>Cl<sub>2</sub>, 0°C
- 14) K<sub>2</sub>CO<sub>3</sub>, MeCN, allylBr, 23°C

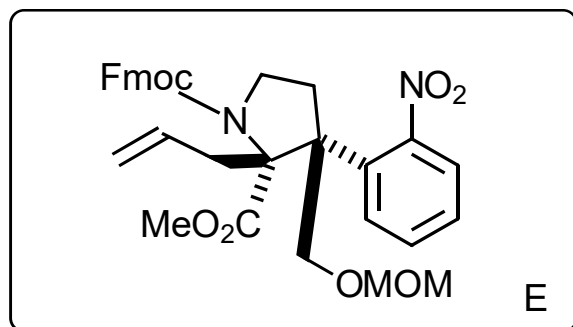


I

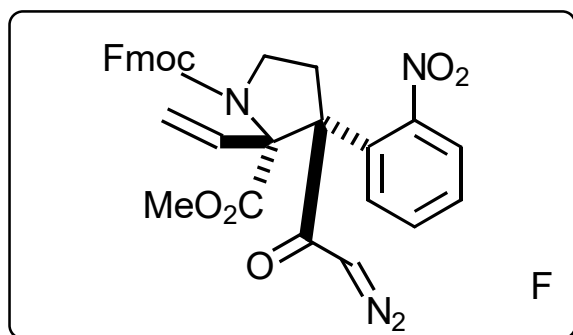


II

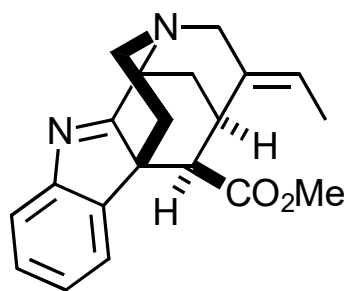
15-17



18-27

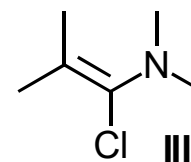


28-32



- 15) AgOTf, proton sponge, allyl iodide, CH<sub>2</sub>Cl<sub>2</sub>, 0°C, then, KOtBu, THF, 0°C
- 16) [Pd(PPh<sub>3</sub>)<sub>4</sub>], DMBA, CH<sub>2</sub>Cl<sub>2</sub>, reflux
- 17) FmocCl, NaHCO<sub>3</sub>

- 18) O<sub>3</sub>, -78°C, CH<sub>2</sub>Cl<sub>2</sub>/MeOH, then thiouria, 23°C
- 19) NaBH<sub>4</sub>
- 20) Tf<sub>2</sub>O, 2,6-DTBP, CH<sub>2</sub>Cl<sub>2</sub>, 0°C
- 21) (PhSe)<sub>2</sub>, NaBH<sub>4</sub>, EtOH
- 22) NaIO<sub>4</sub>, THF/H<sub>2</sub>O, then NaHCO<sub>3</sub>, PhMe, 110°C
- 23) PHS<sub>3</sub>, BF<sub>3</sub>•OEt<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>, 0°C
- 24) DMP, NaHCO<sub>3</sub>, CH<sub>2</sub>Cl<sub>2</sub>, 23°C
- 25) Pinnick Oxidation
- 26) **III**, CH<sub>2</sub>Cl<sub>2</sub>, 0°C
- 27) CH<sub>2</sub>N<sub>2</sub>, CaO, Et<sub>2</sub>O, 23°C, 2d



- 28) DBU, 23°C, CH<sub>2</sub>Cl<sub>2</sub>, then, TFA, CH<sub>2</sub>Cl<sub>2</sub>, -30 to 23°C
- 29) **IV**, AgOTf, CH<sub>2</sub>Cl<sub>2</sub>, proton sponge
- 30) SnCl<sub>2</sub>•2 H<sub>2</sub>O, DMF 23°C
- 31) PBr<sub>3</sub>, THF, 0°C
- 32) [Ni(COD)<sub>2</sub>], NEt<sub>3</sub>, MeCN, 23°C, then Et<sub>3</sub>SiH

