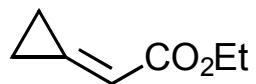


Synthesis Challenge # 50

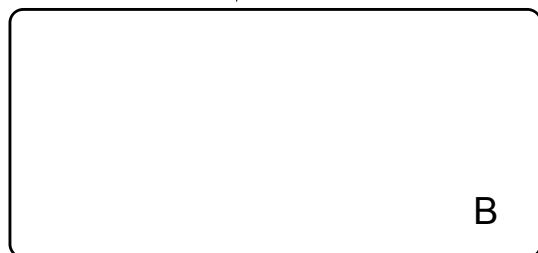
AG Wegner

16.06.2016



A

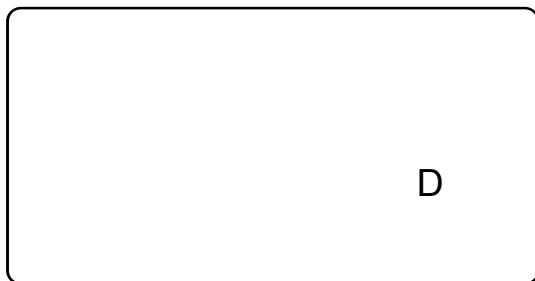
↓ 1-2



↓ 3-6



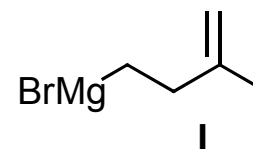
↓ 7-10



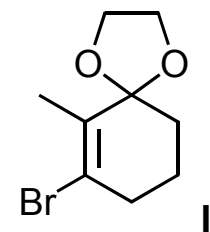
1) CuCl, TMSCl, I, THF, -15 °C, then LiOH, THF/H₂O, 25 °C
2) (COCl)₂, CH₂Cl₂, reflux, then NEt₃, toluene, reflux

3) L- selectride, THF, -78 °C, then NaBO₃·4 H₂O, 0 °C
4) (1*S*,4*R*)- camphanoyl chloride, DMAP, CH₂Cl₂, 0 °C
5) K₂CO₃, MeOH, 25 °C
6) IBX, EtOAc, reflux

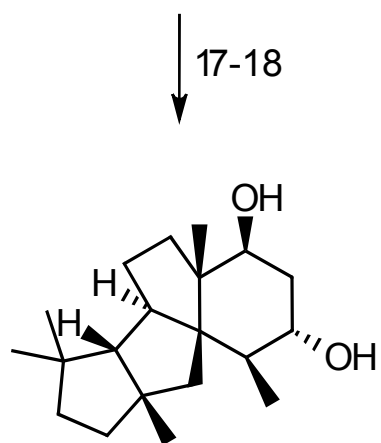
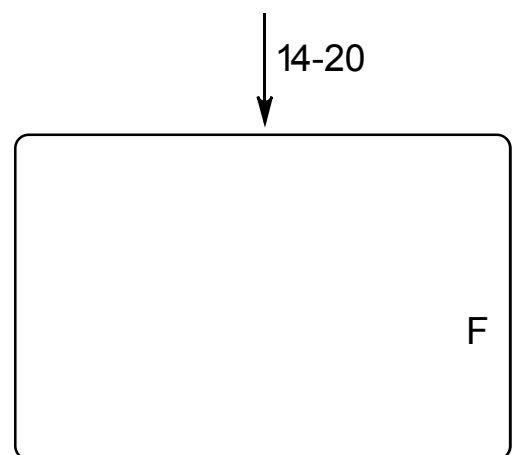
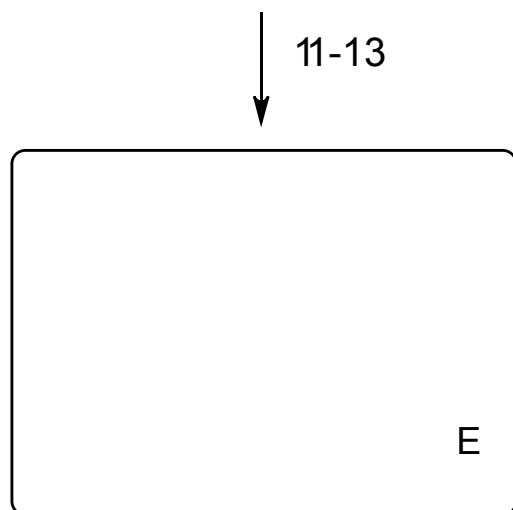
7) LDA, PhSSPh, DMPU, THF
8) tBuLi, II, THF, -78 °C, then 1 M HCl/H₂O, 0 °C
9) TMSOTf, *i*Pr₂NEt, CH₂Cl₂, 0 °C
10) BF₃·OEt₂, CH₂Cl₂



I



II



11) ethylene glycol, PTS, benzene, reflux
 12) allylmagnesium bromide, THF,
 13) O₃, CH₂Cl₂, -78 °C, then PPh₃, 0 °C, then 2 M HCl/H₂O, THF, 70 °C

14) MsCl, NEt₃, CH₂Cl₂, 0 °C
 15) LiBr, Li₂CO₃, DMF, 150 °C
 16) Raney Ni, EtOH, 0 °C
 17) py, SOCl₂, CH₂Cl₂, 0 °C
 18) PtO₂, H₂ (1 atm), HOAc, EtOAc, 25 °C, then DMP, NaHCO₃, CH₂Cl₂
 19) CH(OMe)₃, PTS, MeOH, reflux
 20) Pd(OH)₂/C, tBuO₂H, Cs₂CO₃,

21) LDA, MeI, HMPA, THF, -78 °C - 25 °C
 22) LiAlH₄, THF, 0 °C, then 1 M HCl/H₂O, 0 °C
 23) Triton B, tBuO₂H, THF, 25 °C
 24) PhSe-SePh, NaBH₄, HOAc, EtOH, 0 °C
 25) L-selectride, THF, -78 °C

E was obtained as a mixture of diastereomers. Suggest methods for separation.