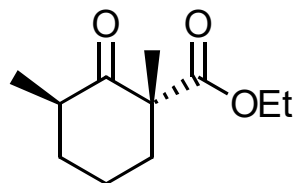


Synthesis Challenge # 65

AG Wegner

22.06.2017



A

↓ 1-4



↓ 5-9



↓ 10-13



- 1) Zn, TiCl₄, CH₂I₂, THF, DCM, 0°C to RT
- 2) LAH, Et₂O, 0°C to RT
- 3) (COCl)₂, DMSO, TEA, DCM, -78°C to RT
- 4) EtO₂P(O)CH₂CO₂Et, NaH, THF, 0°C

- 5) Mg, MeOH, RT
- 6) DIBAL, DCM, -78°C to RT
- 7) CBr₄, PPh₃, DCM, 0°C
- 8) *n*-BuLi, (CH₂O)_n, THF, -78°C to RT
- 9) TsCl, KOH, Et₂O, 0°C to RT

- 10) Mg, 1,2- dibromoethane, Br(CH₂)₃OTBS, CuCN, THF, 0°C
- 11) TBAF, THF, 0°C to RT
- 12) (COCl)₂, DMSO, TEA, DCM, -78°C to RT
- 13) H₂NNHTs, MeOH

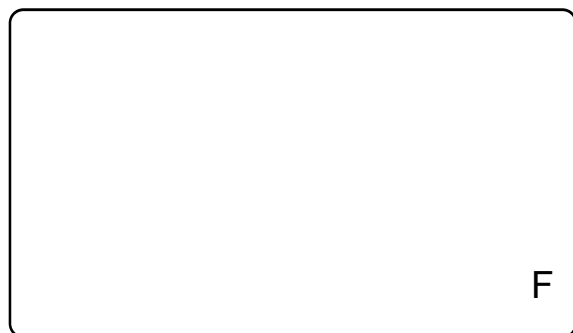
Please provide a synthesis for A.

↓ 14



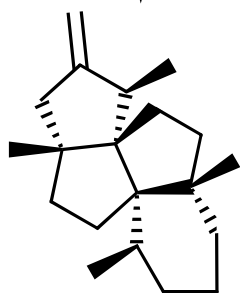
14) NaH, 0°C to reflux, toluene

↓ 15-18



15) OsO₄, NMO, acetone, water, 0°C to RT
16) TsCl, DMAP, DCM, RT
17) DBU, DMF, 115°C
18) PDC, DCM, RT

↓ 19-21



19) CuCN, MeLi, BF₃·Et₂O, THF, -78°C to -55°C
20) LiHMDS, MeI, THF, -78°C to RT
21) Cp₂TiMe₂, toluene, RT to 70°C

Please provide a nice 3D representation of the final product.