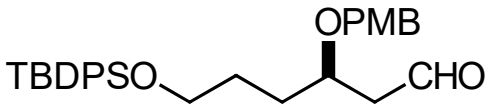
Synthesis Challenge #81

AG Wegner

11.07.2019



A

1-3

B

4-8

C

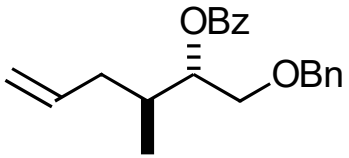
9-12

D

1) tetra(vinyl)tin, MeLi, THF, −78ºC
2) DMP
3) **I**, Hoveyda-Grubbs-II

4) (*R*)-2-Me-CBS, BH_3*THF, THF, −40ºC
5) (+)-DIPT, $Ti(OiPr)_4$, *t*BuOOH, 4Å MS, CH_2Cl_2, −40ºC
6) TBSCl, imidazole
7) DDQ
8) PPTS

9) MsO_2, py, 60ºC
10) K_2CO_3, MeOH, 60ºC; LiDBB
11) SO_3●py, Et_3N, DMSO
12) Ohira-Bestmann, K_2CO_3, MeOH

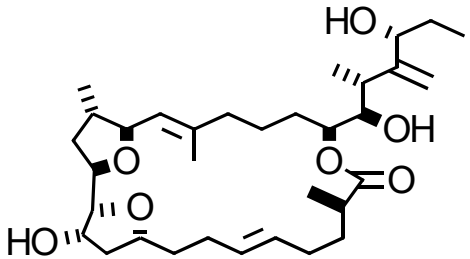


I

13-18

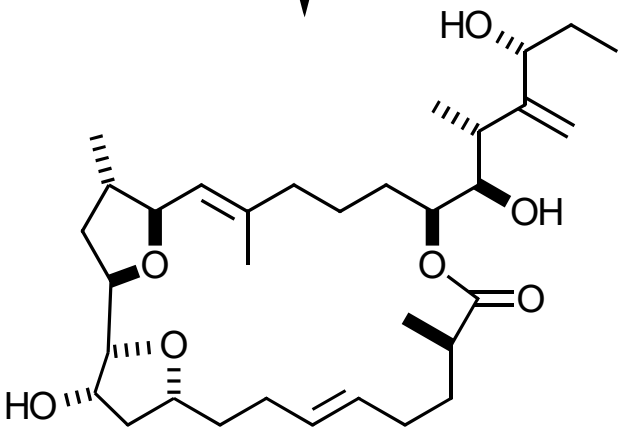
E

19-21



F

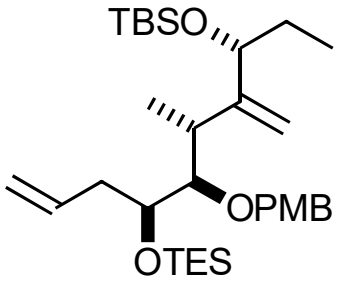
22-23



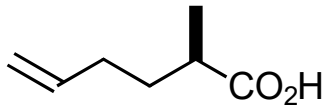
13) *n*BuLi, MeI
14) $Bu_3Sn(Bu)Cu(CN)Li_2$, MeOH, THF, −78ºC
15) I_2, CH_2Cl_2, −20ºC
16) TBAF, AcOH
17) SO_3*py, Et_3N, DMSO
18) $Ph_3P^+CH_3Br^-$, NaHMSDS

19) **II**, 9-BBN-H, THF, then E, aq. $CsCO_3$, $[PdCl_2(dppf)*CH_2Cl_2]$, Ph_3As, DMF
20) PPTS
21) **III**, $2,4,6\text{-}Cl_3C_6H_2COCl$, Et_3N, THF, then DMAP, toluene

22) Grubbs-II, toluene
23) HF*py, THF



II



III