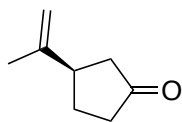


Synthesis Challenge 95

AG Wegner

12.05.2021

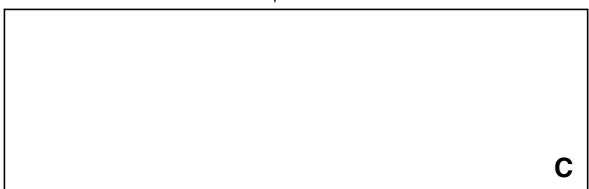


1-3

A



4-6



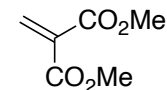
7-9



10-12

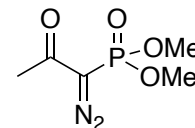


- 1) KHMDS (1.4 equiv), TIPSOTf (1.2 equiv), THF, -78 to 23 °C
- 2) **I** (1.5 equiv), SnCl₄ (0.20 equiv), CH₂Cl₂, -78 to 23 °C
- 3) ethylene glycol (5.0 equiv), CH(OMe)₃ (5.0 equiv), *p*-TsOH·H₂O (0.10 equiv), toluene, 90 °C



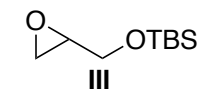
I

- 4) TCCA (1.1 equiv), EtOAc, 78°C, 45 min
- 5) NaH (3.0 equiv), DMF, 0 to 23°C
- 6) LiAlH₄, (2.0 equiv), THF, 0 °C,



II

- 7) NIS (1.1 equiv), CH₂Cl₂, 23 °C, 1 h; then DMP (1.2 equiv), CH₂Cl₂, 23 °C
- 8) **II** (1.5 equiv), K₂CO₃ (2.5 equiv), MeOH, 23 °C
- 9) LiHMDS (1.3 equiv), BF₃·Et₂O (1.3 equiv), **III** (3.0 equiv), THF, -78 to 23°C



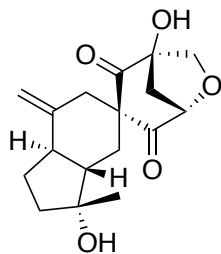
III

- 10) Zn (30 equiv), AcOH (10 equiv), MeOH/Et₂O, 40°C
- 11) H₂ (balloon), Pd/C (0.05 equiv), quinoline (0.35 equiv), EtOAc, 23°C
- 12) DMP (3.5 equiv), CH₂Cl₂, 23°C

↓ 13-15



↓ 16-18



13) SmI_2 (6.6 equiv), THF, 78°C
14) NBS (2.1 equiv), THF, 23°C ,
then add H_2O , THF, 23°C ,
then add MeOH, K_2CO_3 (5.0 equiv), 50°C
15) *n*-BuLi (4.0 equiv), THF, 78°C , 10 min;
then add MeOH (8.0 equiv), TBAF (5.0 equiv),
THF, 23°C , then add MeOH, K_2CO_3 (10 equiv), 50°C

16) DMSO (20 equiv), $(\text{COCl})_2$ (10 equiv),
 Et_3N (30 equiv), CH_2Cl_2 , -78 to 23°C
17) FeCl (0.20 equiv), acetone, 23°C ,
18) MeMgBr (2.1 equiv), $\text{LaCl}_3 \cdot 2\text{LiCl}$ (2.1 equiv),
THF, -78 to 23°C