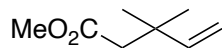


Synthesis Challenge 88

AG Wegner

16.07.2020



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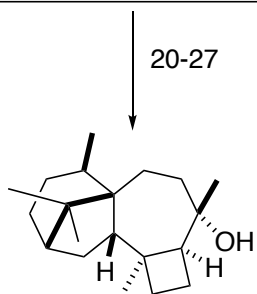
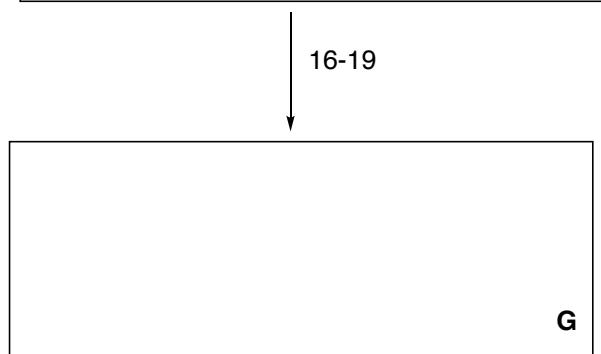
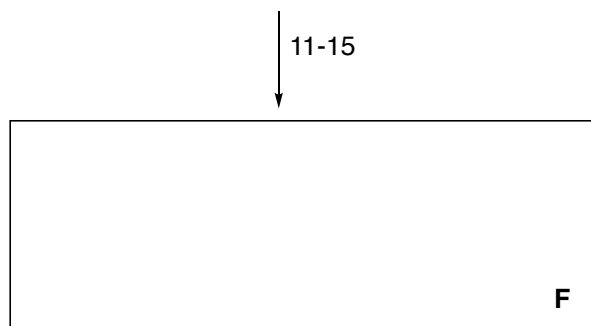
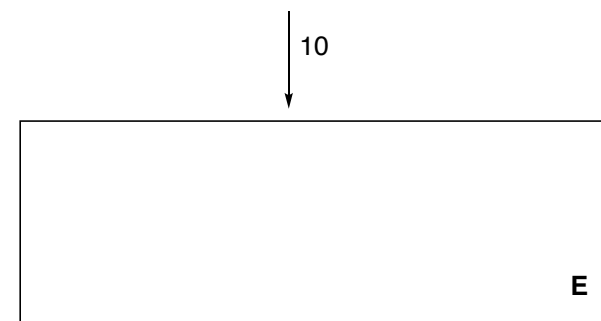


- 1) LDA, 1-bromobut-2-yne THF, -40 °C
- 2) Pd(OAc)₂ (20 mol%), BBEDA (20 mol%), PhH, 65 °C
- 3) MeNHOMe·HCl, MeMgBr, THF
- 4) Ethylene glycol, (EtO)₃CH, PPTS (10 mol%)

BBEDA=bis-benzylidene ethylenediamine

- 5) BH₃·THF, THF, 0 °C, then NaOH, H₂O₂,
- 6) Piv-Cl, pyridine, CH₂Cl₂, -78 °C, then MeOH, DMP, NaHCO₃, CH₂Cl₂

- 7) Cp₂Ti(C₃H₅)₂, NaHCO₃, PhMe, 55 °C, then LiAlH₄, PhMe, 0 °C
- 8) NMO, TPAP (5 mol%), 4 Å MS, CH₂Cl₂
- 9) K₂CO₃, MeOH, then Ohira-Bestmann reagent



10) $\text{Ph}_3\text{PAuNTf}_2$ (3 mol%), CH_2Cl_2 , -10°C to 0°C

11) hexylborane, THF, -10°C ,
then NaOH, H_2O_2

12) TPAP (5 mol%), NMO, 4 Å MS, CH_2Cl_2

13) Et_2AlCN , PhMe, 0°C to 10°C

14) NaHMDS, THF, -78°C

then Comins' reagent, THF, -78°C to 0°C

15) $\text{Pd}(\text{PPh}_3)_4$ (5 mol%), ZnMe_2 , THF, 0°C

16) PPTS, H_2O -acetone (1:9), 40°C

17) TBSOTf, 2,6-lutidine, CH_2Cl_2 , 0°C

18) DIBAL-H, CH_2Cl_2 , 0°C to r.t.

then aq. NaOH, silica gel, 0°C to r.t.,

19) CuI, MeLi, $\text{BF}_3 \cdot \text{OEt}_2$, Et_2O , -78°C to 10°C

20) $\text{RuCl}_3 \cdot x \text{H}_2\text{O}$ (20 mol%), NaIO_4 , DCE- H_2O

21) LHMDS, THF, -78°C to 0°C

22) $\text{Ph}_3\text{PCH}_3\text{Br}$, KO \dagger Bu, THF, 0°C to r.t.

24) DIBAL-H, CH_2Cl_2 , 0°C

25) KHMDS, CS_2 , THF, -78°C to r.t.,

then MeI

26) AIBN (38 mol%), Bu_3SnH , PhH, 80°C

27) $\text{Co}(\text{acac})_2$ (18 mol%), O_2 (1 atm), PhSiH_3 , THF