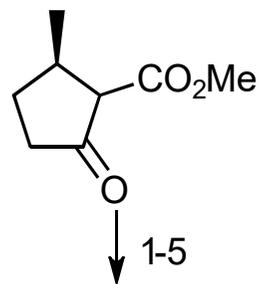


Synthesis Challenge #71

AG Wegner

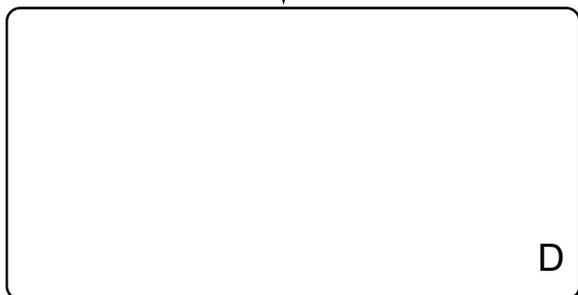
22.02.2018



6-10



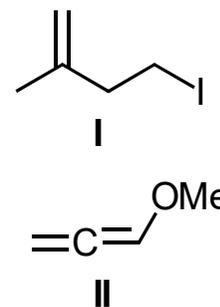
11-14



- 1) I, Cs₂CO₃, HMPA, 1,4-dioxane
- 2) II, *n*-BuLi, THF -78°C
- 3) TMSOTf, Et₃N, CH₂Cl₂, then 1M HCl
- 4) Grubbs-II-Catalyst, PhMe, 90°C
- 5) Pd/C, H₂, 730 psi, MeOH, rt

- 6) 10% HCl, THF
- 7) SmI₂, THF -78°C
- 8) LDA, methylallyl bromide, THF, -78°C
- 9) Mg, HgCl₂ (cat.), 3-bromopropyne
- 10) PdCl₂(PPh₃)₂, CuI, Et₃N, 2-bromopropene

- 11) Co₂(CO)₈, PhMe, 70°C
- 12) DBU, HMPA, rt, then Et₃O⁺BF₄⁻ DIPEA, CH₂Cl₂, rt
- 13) DIBAL-H, CH₂Cl₂, 0°C
- 14) TPAP, NMO, CH₂Cl₂, rt



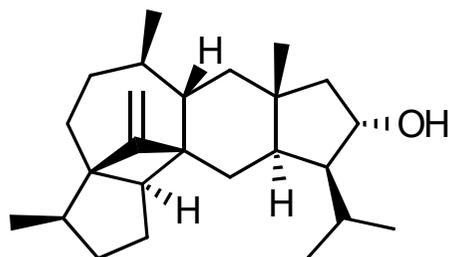
↓ 15-17



↓ 18-22



↓ 23-25



15) SmI_2 , MeOH, HMPA, THF -78°C
16) Crabtree's Catalyst, H_2 , CH_2Cl_2 , rt
17) TPAP, NMO, CH_2Cl_2 , rt

18) NaHMDS, THF, -78°C , then Davis oxaziridine
19) NaBH_4 , $\text{CeCl}_3 \cdot 7 \text{H}_2\text{O}$
20) Crabtree's Catalyst, H_2 , 500 psi CH_2Cl_2 , rt
21) $(\text{Im})_2\text{C}=\text{S}$, PhMe, 110°C
22) $\text{P}(\text{OMe})_3$, 110°C

23) MeLi, THF, 50°C
24) Py, SOCl_2 , CH_2Cl_2
25) $\text{BH}_3 \cdot \text{Me}_2\text{S}$, THF, RT, then H_2O_2 , NaOH, 0°C