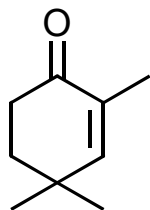


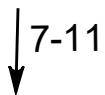
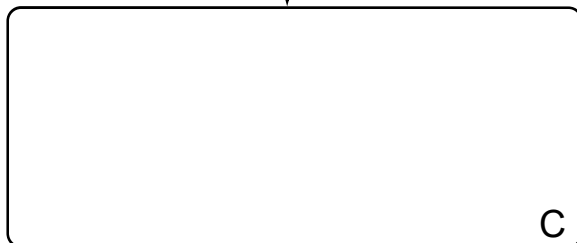
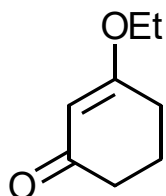
# Synthesis Challenge # 60

AG Wegner

23.02.2017



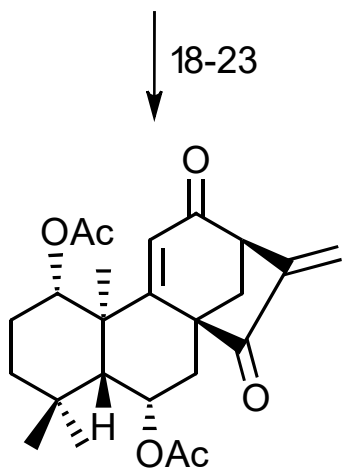
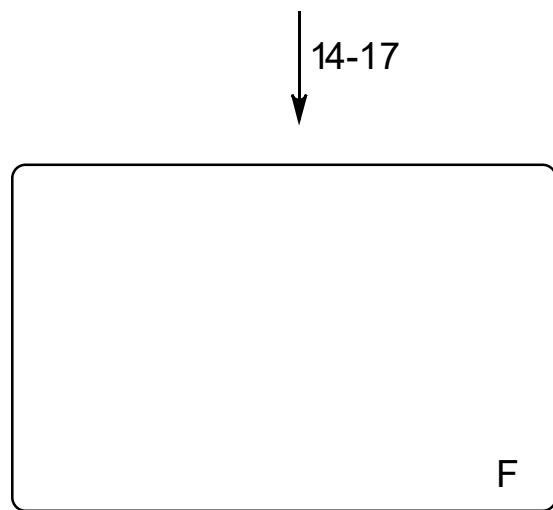
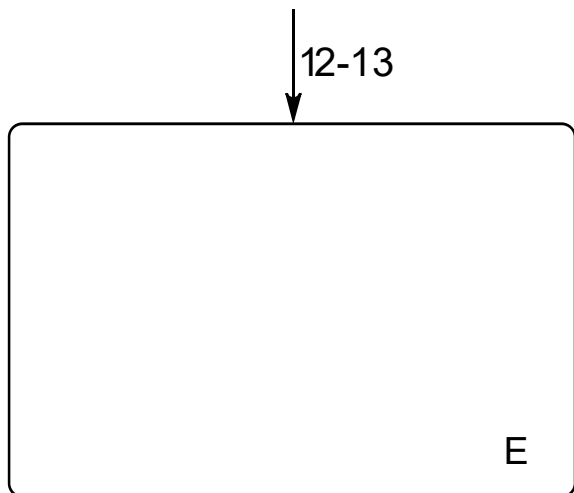
A



1) (*R*)-2-methyl-CBS-oxaazaborolidine  
Boran-THF complex, Toluene -40°C  
2) NaH, THF, ClCON(*i*Pr)<sub>2</sub>

3) LDA, THF, -78°C, then allyl  
chloroformate  
4) ICH<sub>2</sub>CH<sub>2</sub>OTBDPS, Cs<sub>2</sub>CO<sub>3</sub>, CH<sub>3</sub>CN  
5) Pd<sub>2</sub>(dba)<sub>3</sub> (5mol%), (*S*)-*t*Bu-Phox  
(12.5mol%), THF, 40°C  
6) DIBAL-H, toluene, then HCl (5%),  
MeOH

7) TBSOTf, Et<sub>3</sub>N  
8) Pd(OAc)<sub>2</sub>, O<sub>2</sub>, DMSO  
9) (CH<sub>2</sub>OH)<sub>2</sub>, PPTs, benzene, reflux  
10) TBAF, THF  
11) TPAP, NMO



12) **D** + **B**, *s*-BuLi, *rac* TMCDA,  $-78^{\circ}\text{C}$   
 then,  $\text{Ac}_2\text{O}$ , DMAP  
 13)  $\text{BF}_3 \cdot \text{Et}_2\text{O}$ ,  $-20^{\circ}\text{C}$ ,  
 then, aq.  $\text{NaHCO}_3$

TMCDA = *trans*-*N,N,N',N'*-tetramethyl  
 1,2-diamino-cyclohexane

14)  $\text{K}_2\text{CO}_3$ , MeOH  
 15) IBX, DMSO  
 16) DBU, THF  
 17) L-selectride, then, DIBAL-H  
 in toluene,  $-78^{\circ}\text{C}$

18) NaH, AcCl, DMAP  
 19) 2N HCl  
 20) TMSOTf,  $-20^{\circ}\text{C}$   
 21)  $\text{Pd}(\text{OAc})_2$ , MeCN  
 22)  $\text{SeO}_2$ , *t*BuOOH  
 23) IBX, DMSO