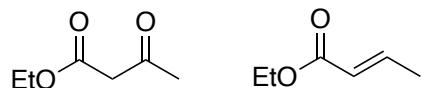


## Synthesis Challenge 97

AG Wegner

01.07.2021



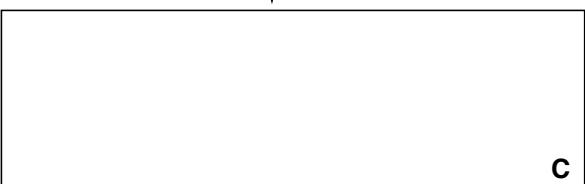
↓  
1-3

**A**



↓  
4-8

**B**



↓  
9-11

**C**



↓  
12-13

**D**

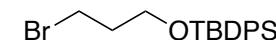


1) Na, EtOH, reflux  
2) CSA, toluene, iPrOH, reflux  
3)  $\text{Cs}_2\text{CO}_3$ , NaI, I,  $\text{CH}_3\text{CN}$

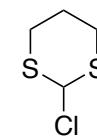
4) LiAlH<sub>4</sub>,  $\text{Et}_2\text{O}$ ,  $\text{Et}_2\text{O}$ , then 2 M HCl  
5) NaBH<sub>4</sub>,  $\text{C}_2\text{Cl}_3 \cdot 7\text{H}_2\text{O}$ , MeOH, 0°C  
6) TBSCl, imidazole,  $\text{CH}_2\text{Cl}_2$ , 0°C  
7) DMP,  $\text{NaHCO}_3$ ,  $\text{CH}_2\text{Cl}_2$ , rt  
8) 2M HCl, THF

9)  $\text{Cu}(\text{OTf})_2$ ,  $\text{MgSO}_4$ , *i*PrOH/ $\text{CH}_2\text{Cl}_2$   
10) TBAF, THF, rt  
11) TEMPO, PIDA,  $\text{CH}_2\text{Cl}_2$

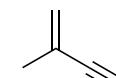
12) **II**, *n*BuLi, THF, -78°C  
13) DMP,  $\text{NaHCO}_3$ ,  $\text{CH}_2\text{Cl}_2$



**I**

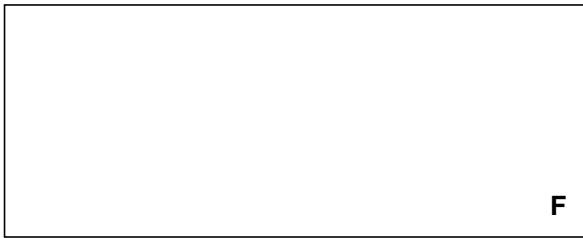


**II**



**III**

↓  
14



↓  
15-17



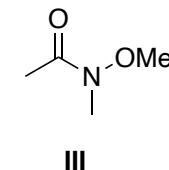
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18-20



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21-23

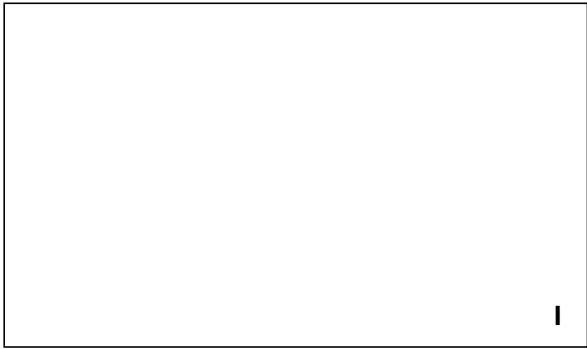
14)  $\text{Co}_2\text{CO}_8$ , toluene, 60°C

15) III, LDA, THF, -78°C  
16) TMSOTf,  $\text{CH}_2\text{Cl}_2$ , 2,6-lutidine, 0°C  
17) LiAlH<sub>4</sub>, THF, 0°C



18) TBSOTf, 2,6-lutidine,  $\text{CH}_2\text{Cl}_2$ , 0°C  
19)  $\text{CH}_2\text{CHMgBr}$ , THF, 0°C  
20) DMP,  $\text{NaHCO}_3$ ,  $\text{CH}_2\text{Cl}_2$

21) Grubbs II, toluene, reflux  
22) TBAF, THF, 0°C  
23) MsCl,  $\text{Et}_3\text{N}$ , DMAP,  $\text{CH}_2\text{Cl}_2$ , rt



↓  
24-26

- 24) BuSnH, AIBN, toluene, reflux  
25) TsOH, 50°C, Me<sub>2</sub>CO/H<sub>2</sub>O  
26) Ag<sub>2</sub>CO<sub>3</sub>/Celite, toluene, reflux

