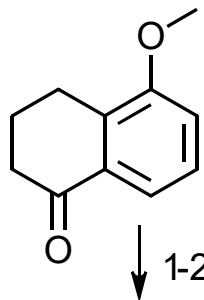


# Synthesis Challenge #82

AG Wegner

24.10.2019



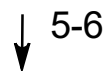
A



B



C

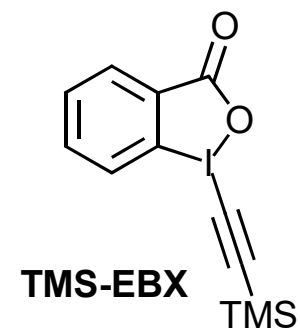


D

- 1) LHMDS, 4-pentenoyl chloride, THF  
2) TBAF, TMS-EBX, THF

- 3) Grubbs-II Cat, CH<sub>2</sub>Cl<sub>2</sub>; -78°C, BBr<sub>3</sub>;  
AlCl<sub>3</sub>/LiAlH<sub>4</sub>  
4) PhI(OAc)<sub>2</sub>, rt, MeOH; BHT,  
mesitylene, 160°C

- 5) Crabtree's cat, H<sub>2</sub>, CH<sub>2</sub>Cl<sub>2</sub>;  
TPAP, NMO  
6) KHMDS, PhNTf<sub>2</sub>, THF

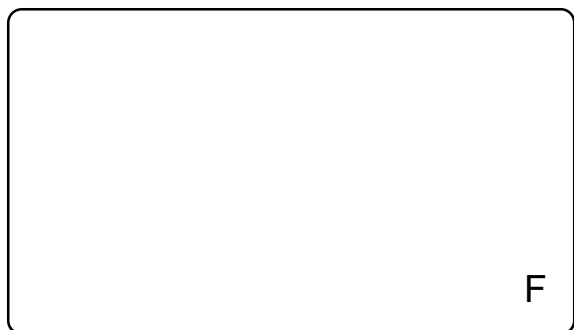


↓ 7-8



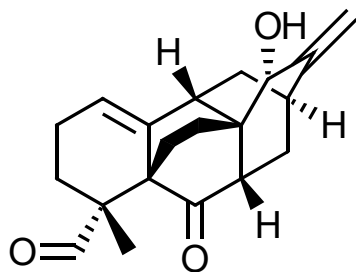
7)  $\text{Pd}(\text{PPh}_3)_4$ , CO,  $n\text{Bu}_3\text{SnH}$ , THF;  
DIBAL  
8) TFAA, DMSO,  $\text{CH}_2\text{Cl}_2$ ,  $\text{Et}_3\text{N}$

↓ 9-10

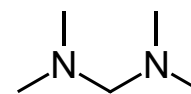


9) Crabtree's catalys,  $\text{H}_2$ ,  $\text{CH}_2\text{Cl}_2$ ;  
Dess-Martin  
10)  $t\text{BuOK}$ ,  $t\text{BuOH}$ , MeI

↓ 11-13



11)  $\text{SmI}_2$ , THF, MeOH  
12) TMMN,  $\text{Ac}_2\text{O}$ , DMF  
13)  $\text{NaBH}(\text{OMe})_3$ , THF, MeOH



**TMMN**