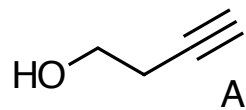


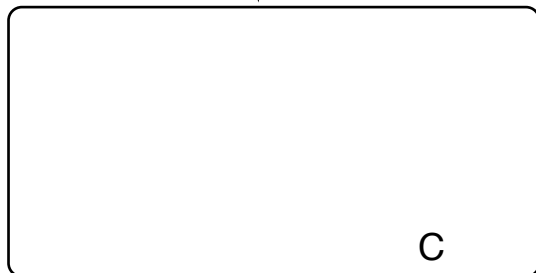
Synthesis Challenge # 42  
**AG Wegner**  
 03.12.2015



1-3

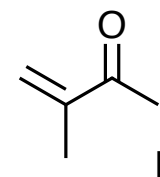
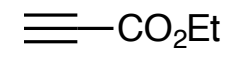


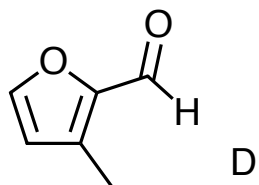
4-6



- 1) Me<sub>3</sub>Al, CP<sub>2</sub>ZrCl<sub>2</sub>, then I<sub>2</sub>
- 2) DMP, NaHCO<sub>3</sub>
- 3) LDA, THF, **I**

- 4) allyl alcohol, RuCp(MeCN)<sub>3</sub>PF<sub>6</sub> (cat.), CSA, THF/Me<sub>2</sub>CO
- 5) **II**
- 6) NaBH<sub>4</sub>

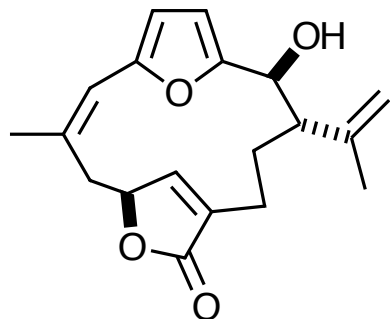




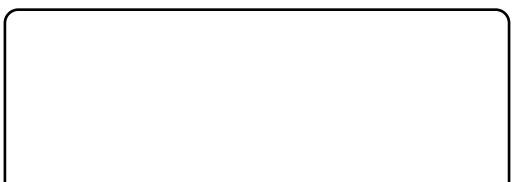
7



8-10



11-14



7) *n*BuLi, MeONHMe, then  
Me<sub>3</sub>SnCl, then, aq. NH<sub>4</sub>Cl

8) **C**, Pd(PPh<sub>3</sub>)<sub>4</sub>, CuI, CsF, DMF  
9) Ph<sub>3</sub>P, NBS  
10) CrCl<sub>2</sub>, NiCl<sub>2</sub>

11) Et<sub>3</sub>SiH, CF<sub>3</sub>CO<sub>2</sub>H  
12) H<sub>2</sub>O<sub>2</sub>, NaOH => **F**  
13) *m*CPBA => **G**  
14a) Sc(OTf)<sub>3</sub>·H<sub>2</sub>O => **H**  
14b) DBU => **I**

Steps 14 a and b both use **H** as starting material.