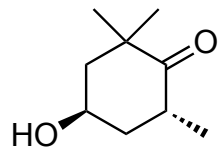
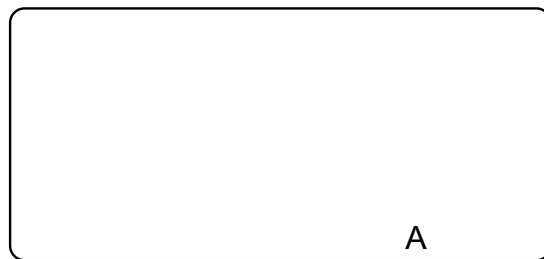


Synthesis Challenge AG Wegner  
JLU Giessen  
15.10.2013



↓ 1,2,3



↓ 4,5



- 1) TESCI
- 2) LDA, Tf<sub>2</sub>NPh
- 3) Pd(PPh<sub>3</sub>)<sub>4</sub>, CO, Et<sub>3</sub>N, MeOH

please provide a detailed mechanism for step 3)

- 4) DIBALH
- 5) (-)-D-DET, Ti(O*i*Pr)<sub>4</sub>, TBHP

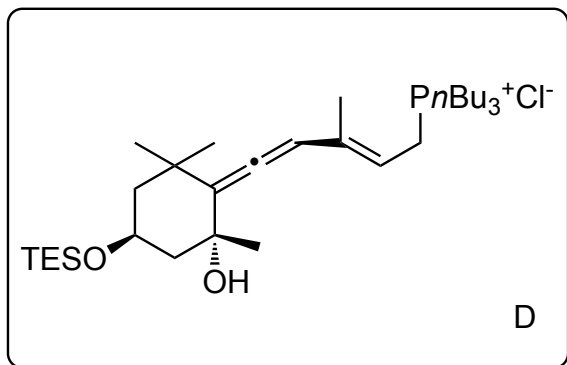
please provide a detailed mechanism for step 5)

6,7



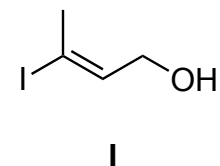
- 6) DMP
- 7) LDA, TMSCHN<sub>2</sub>

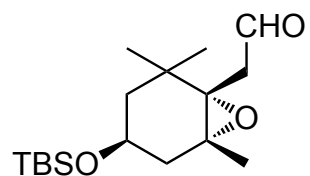
8-11



- 8) Pd(PPh<sub>3</sub>)<sub>4</sub>, CuI, *i*Pr<sub>2</sub>NH, I
- 9) DIBALH
- 10) MsCl, LiCl
- 11) *n*Bu<sub>3</sub>P

What is DMP? How does it work? Please provide a mechanism.





12-14



15,16



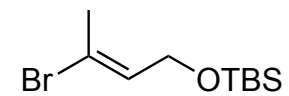
17-20



12) *t*BuLi, **II**  
 13) Ac<sub>2</sub>O  
 14) TBAF

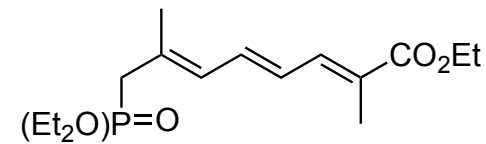
15) MnO<sub>2</sub>  
 16) TESCI

17) **III**, *n*BuLi, DMPU  
 18) LAH  
 19) MnO<sub>2</sub>  
 20) TBAF, AcOH

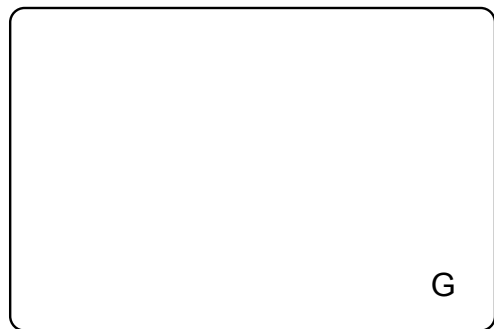


**II**

What is the name of the reaction in Step 16)?



**III**



21-24



- 21) **D**, NaOMe
- 22) IBX
- 23) SiO<sub>2</sub>
- 24) PPTS

