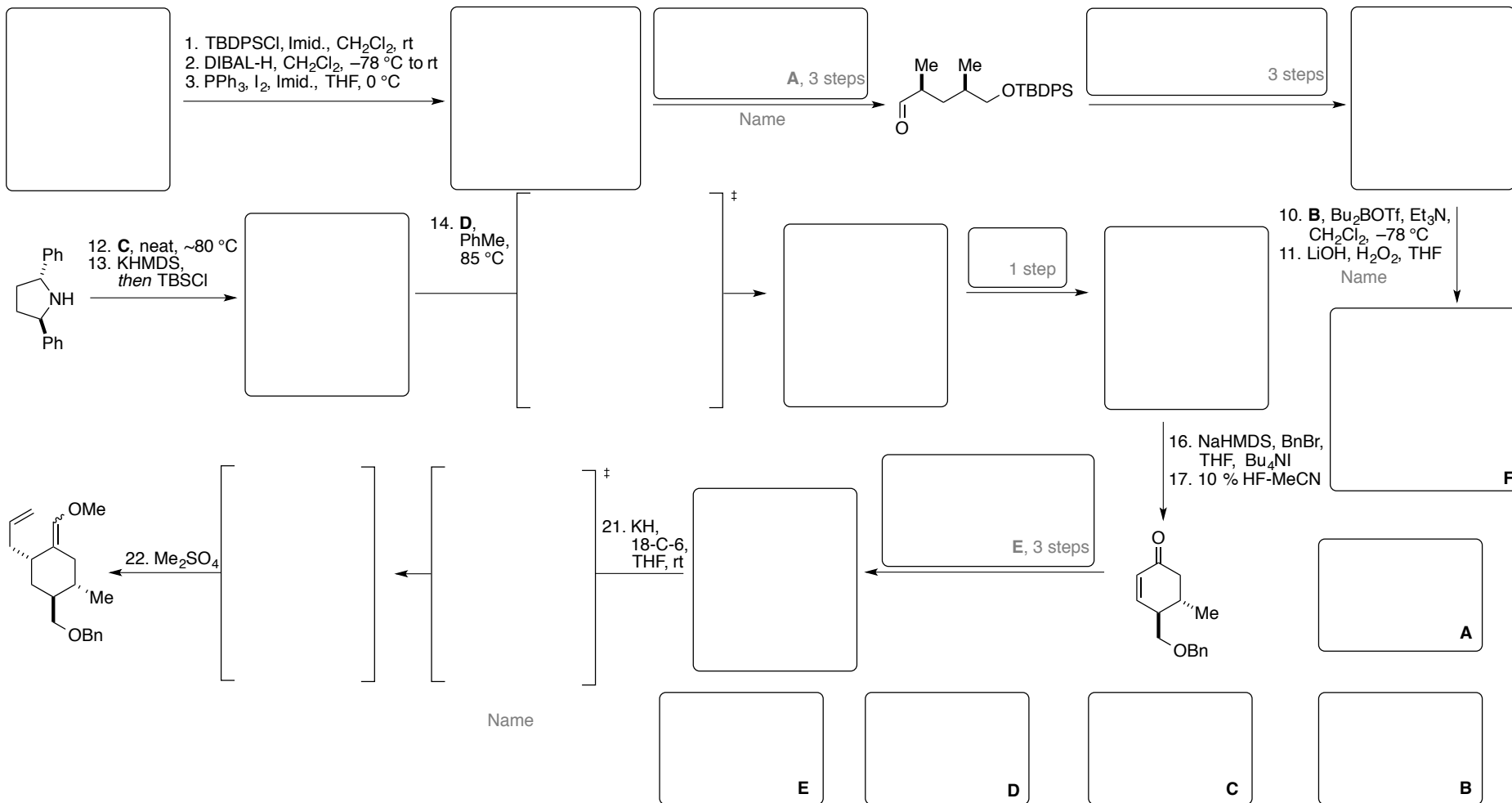
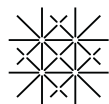


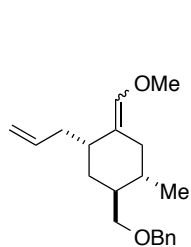
# E31: Synthesis of (-)-Okilactomycin<sup>[1,2]</sup>



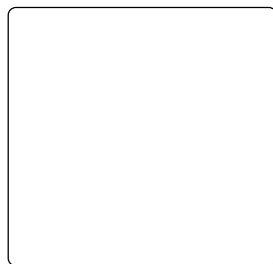
[1] A. B. Smith, K. Basu, T. Bosanac, *J. Am. Chem. Soc.* **2007**, *129*, 14872.

[2] A. B. Smith, T. Bosanac, K. Basu, *J. Am. Chem. Soc.* **2009**, *131*, 2348.

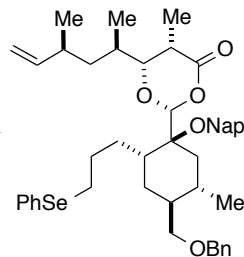




23. mCPBA, MeOH, 0 °C  
 24. NaH, DMF, rt, NapBr  
 25. Cp<sub>2</sub>Zr(H)Cl, CH<sub>2</sub>Cl<sub>2</sub>; then NBS  
 26. PhSeH, Cs<sub>2</sub>CO<sub>3</sub>, MeCN, rt

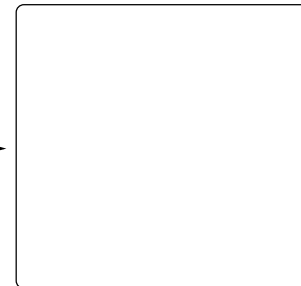


27. F, iPrOTMS, TMSOTf, CH<sub>2</sub>Cl<sub>2</sub>, 0 °C



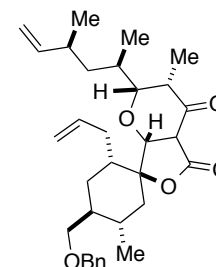
28. Cp<sub>2</sub>TiMe<sub>2</sub>, THF, 60 °C  
 29. Me<sub>2</sub>AlCl, CH<sub>2</sub>Cl<sub>2</sub>, rt

2 Names



30. Davis oxaziridine, CH<sub>2</sub>Cl<sub>2</sub>, pyridine, 60 °C  
 31. DDQ, CH<sub>2</sub>Cl<sub>2</sub>/MeOH, rt

2 steps

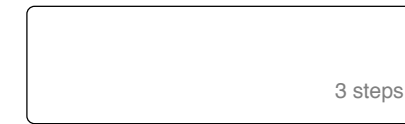
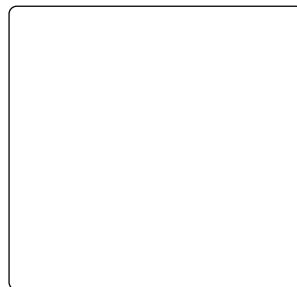


Name



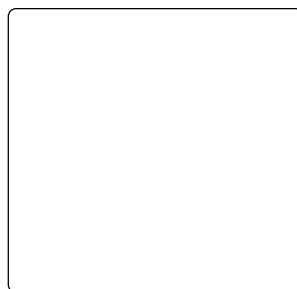
4 steps

3 steps



Name

41. Me<sub>3</sub>NO, DMSO, rt  
 42. NaIO<sub>4</sub>, THF/H<sub>2</sub>O  
 43. NaClO<sub>2</sub>, NaH<sub>2</sub>PO<sub>4</sub>, 2-methyl-2-butene, THF, tBuOH, H<sub>2</sub>O, rt



(-)-Okilactomycin

[1] A. B. Smith, K. Basu, T. Bosanac, *J. Am. Chem. Soc.* **2007**, *129*, 14872.

[2] A. B. Smith, T. Bosanac, K. Basu, *J. Am. Chem. Soc.* **2009**, *131*, 2348.

