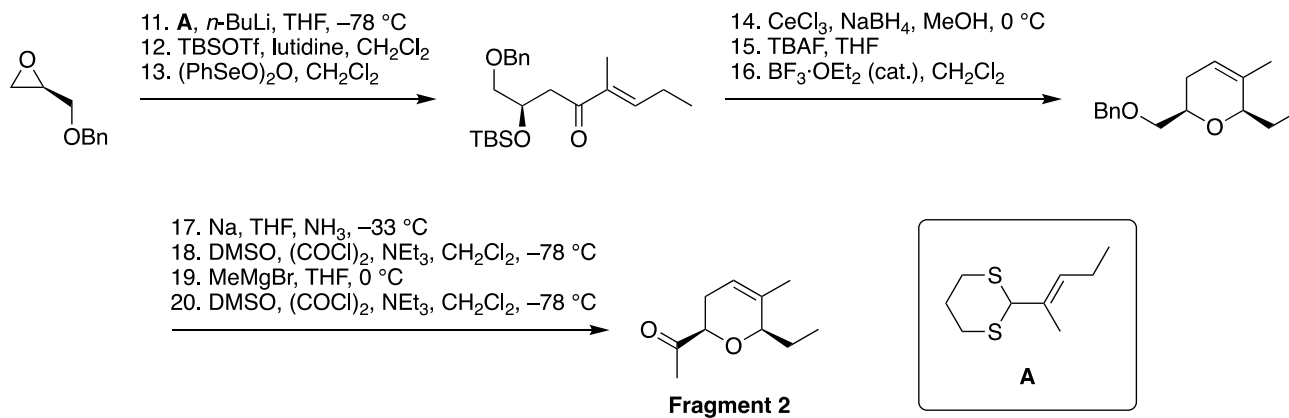
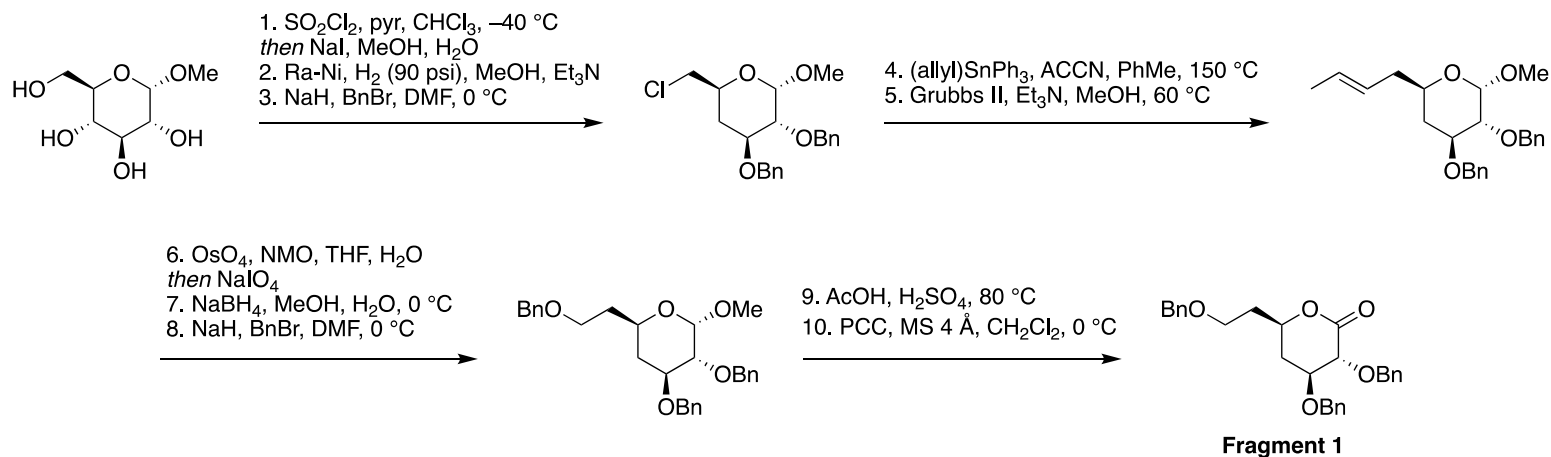
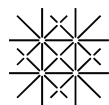
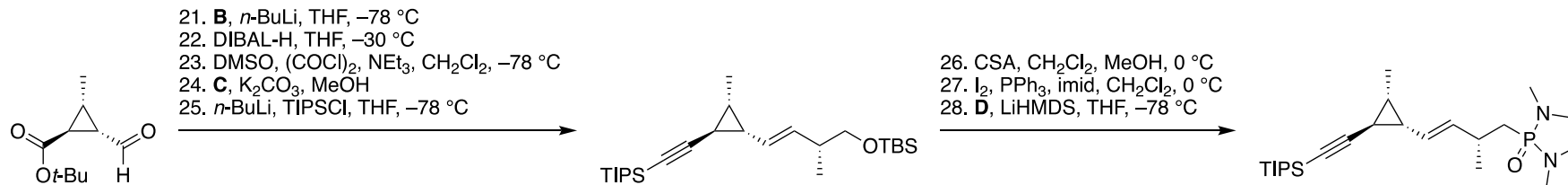


# E112: Synthesis of (+)-Ambruticin S<sup>[1]</sup>

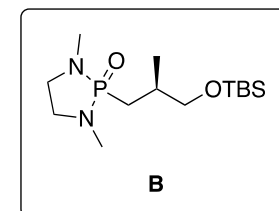
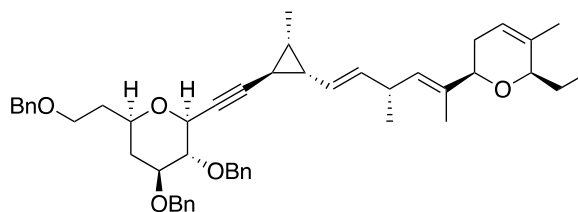


[1] S. Hanessian, T. Focken, X. Mi, R. Oza, B. Chen, D. Ritson, R. Beaudegnies, *J. Org. Chem.* **2010**, *75*, 5601–5618.

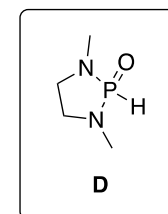
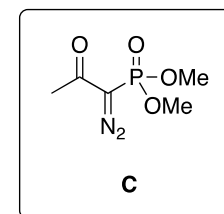
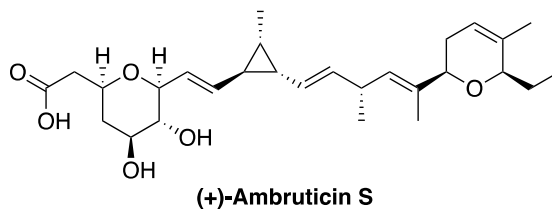




29. **Fragment 2**, *n*-BuLi, THF, -78 °C  
 30. TBAF, THF  
 31. **Fragment 1**, *n*-BuLi, THF, -78 °C  
 32. BF<sub>3</sub>·OEt<sub>2</sub>, Et<sub>3</sub>SiH, CH<sub>3</sub>CN, CH<sub>2</sub>Cl<sub>2</sub>, -40 °C



33. LiDBB, THF, -78 °C  
 34. Red-Al, Et<sub>2</sub>O, 0 °C  
 35. Pt, O<sub>2</sub>, H<sub>2</sub>O, *i*-PrOH, acetone, 50 °C



(+)-Ambruticin S is a natural antifungal polyketide and was first isolated in 1977. To date, five total syntheses are known.