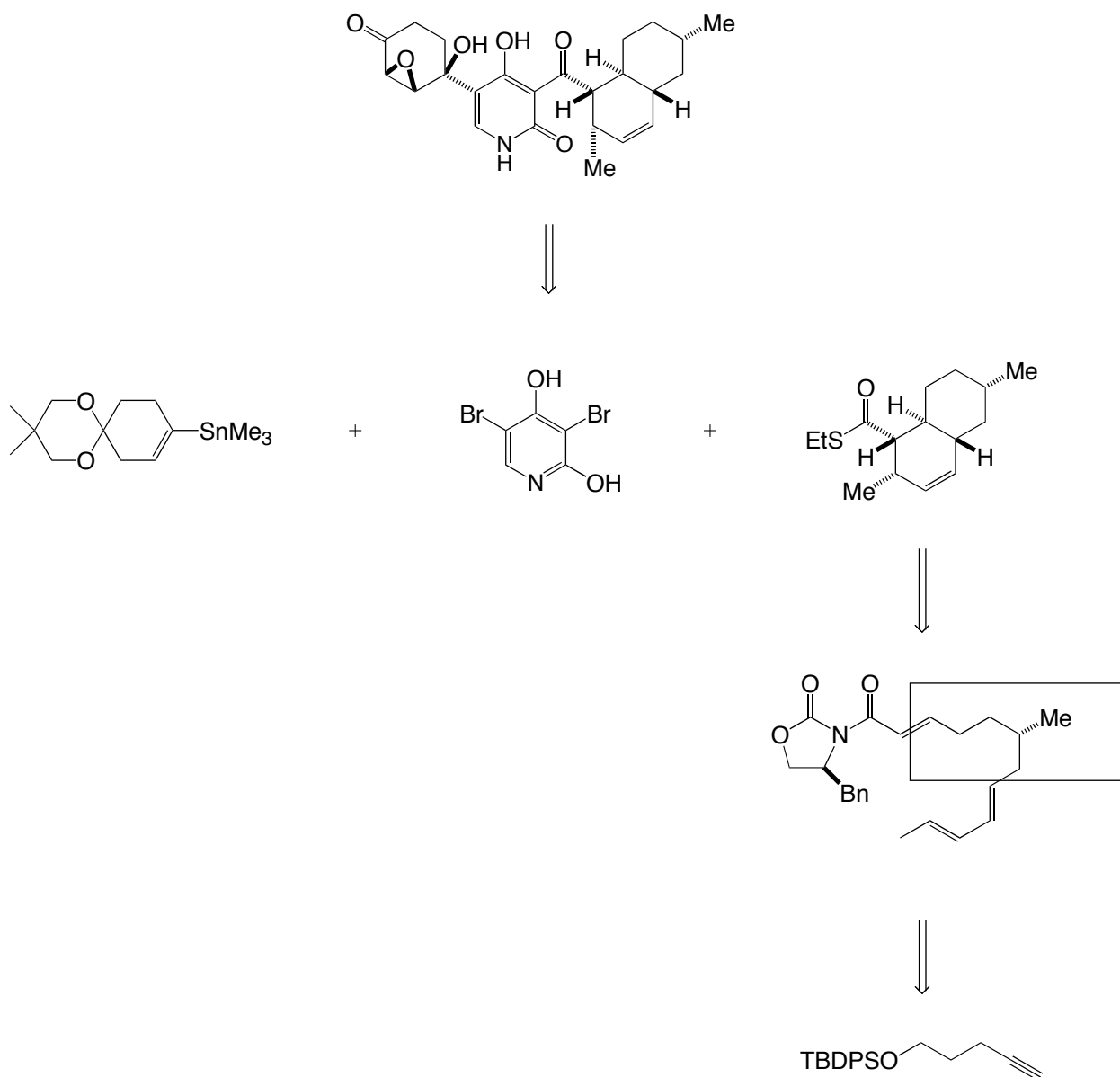
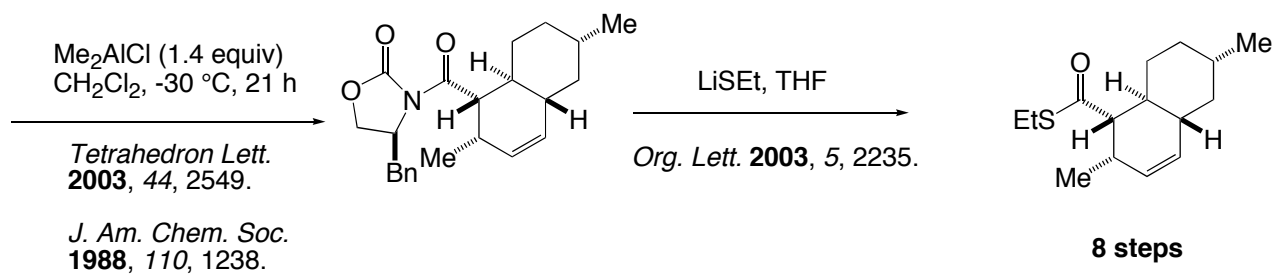
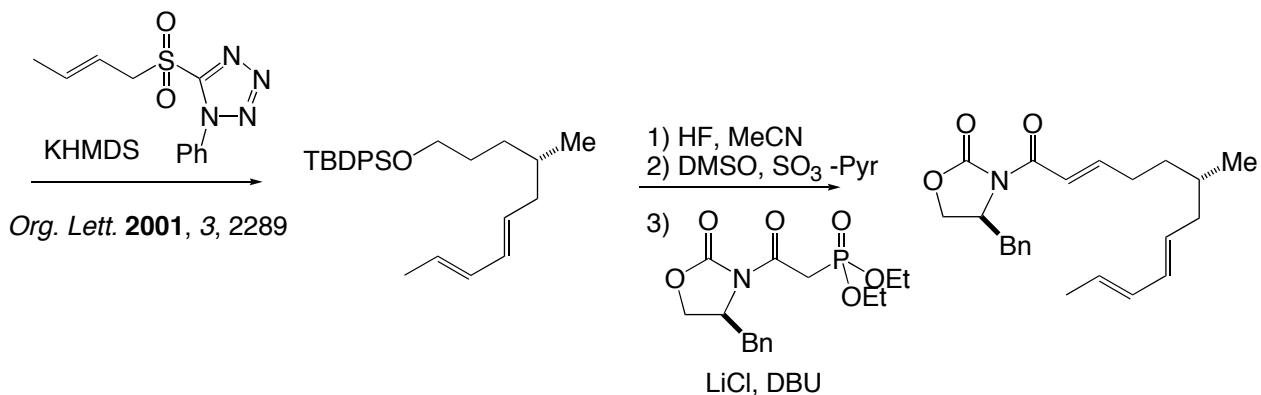
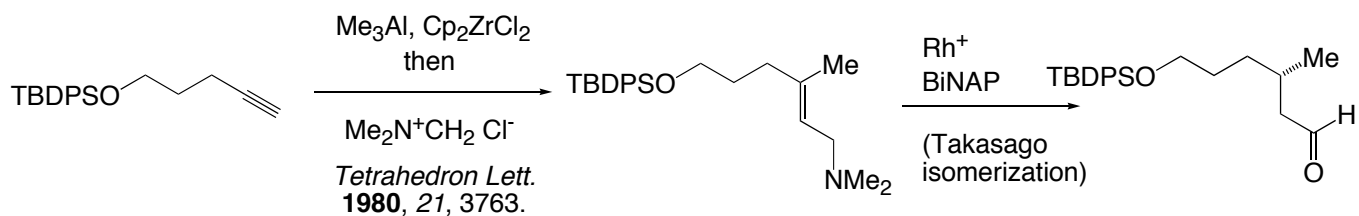
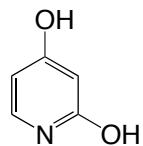


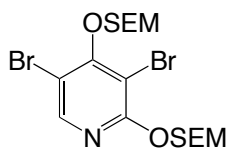
Tamara and Tom



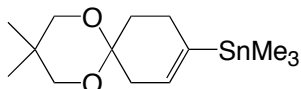
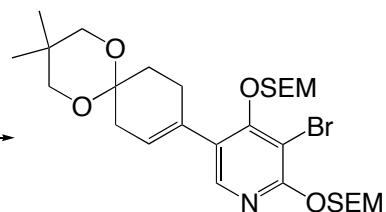




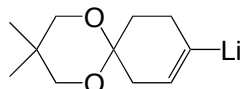
1) Br<sub>2</sub>, 47% HBr  
 2) SEM-Cl, DIEA  
 DCE  
*Org. Lett.* **2002**, *4*, 2125



A or  
 B + ZnCl<sub>2</sub>  
 Pd(PPh<sub>3</sub>)<sub>4</sub>

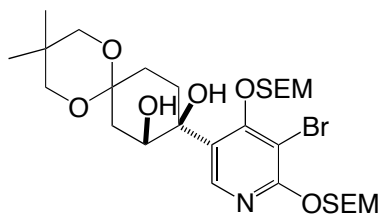


A (*J. Org. Chem.* **1986**, *51*, 277)



B (*Tetrahedron* **1985**, *41*, 5813)

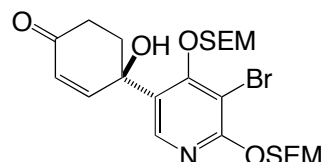
AD mix  
 acetone, water



AcOH, Δ  
 (HCA **1963**, *46*, 591)  
 or

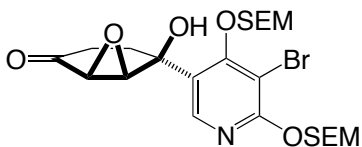
PPTS, THF, H<sub>2</sub>O  
 then SOCl<sub>2</sub>,  
 Pyridine

(*J. Med. Chem.* **1981**, *24*, 1525)

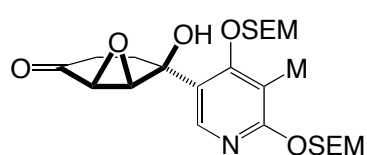


*t*-BuOOH  
 DBU

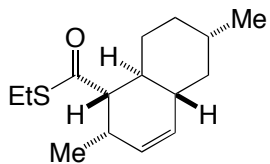
*J. Am. Chem. Soc.*  
**2001**, *123*, 2097.



(R<sub>3</sub>Sn)<sub>2</sub>, LiCl,  
 or  
 (RO)<sub>2</sub>BB(OR)<sub>2</sub>  
 Pd(PPh<sub>3</sub>)<sub>4</sub>



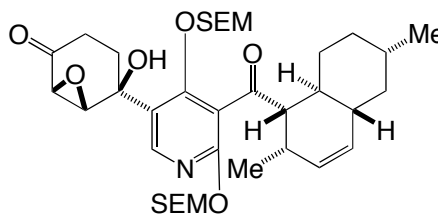
M = SnR<sub>3</sub> or B(OR)<sub>2</sub>



Pd<sub>2</sub>(dba)<sub>3</sub>, TFP  
 CuTC, THF

M = Sn, *Organic Lett.* **2003**, *5*, 3033.

M = B, *J. Am. Chem. Soc.* **2000**, *122*, 11260.



TBAF, DMF

