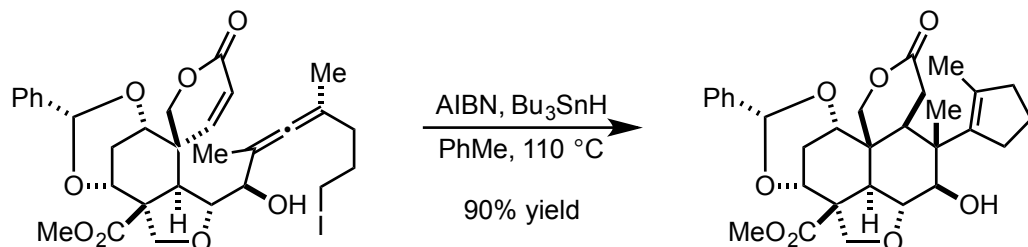


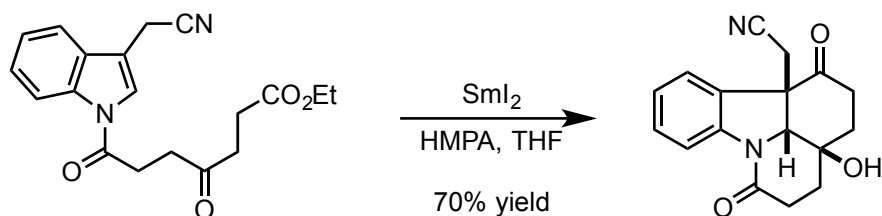
Group Problem

Please propose a reasonable mechanism for the following transformations.

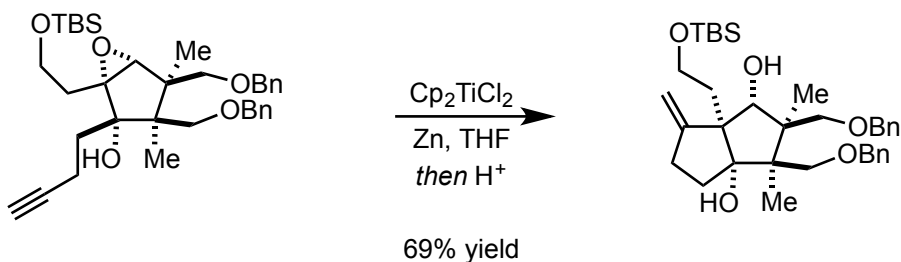
1- (Watanabe, *Angew. Chem. Int. Ed.* **2007**, 46, 1512)



2- (Reissig, *Angew. Chem. Int. Ed.* **2010**, 49, 8021)



3- (Greany, *Angew. Chem. Int. Ed.* **2010**, 49, 9250)



4- (Crimmins, *J. Am. Chem. Soc.* **1998**, 120, 1747)

