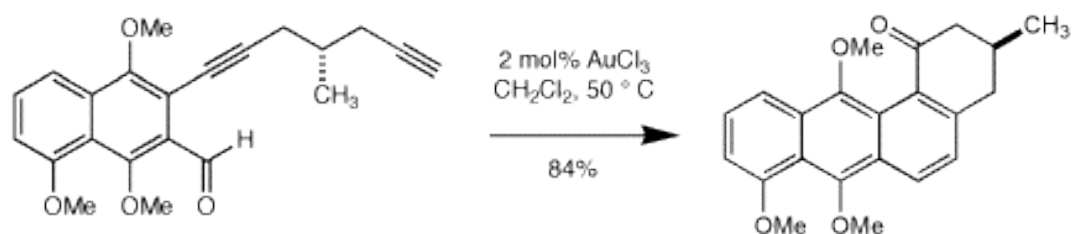


Group Meeting Problems
 February 21, 2007
 (taken from <http://evans.harvard.edu/problems/>)

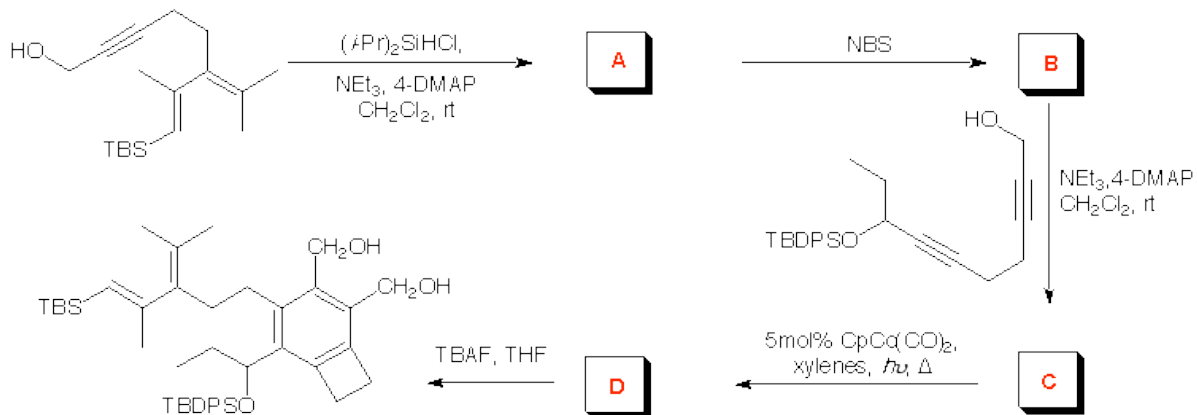
1.

This reaction below was employed by Sato, Asao and Yamamoto in the synthesis of the antibiotics (+)-rubiginone B2 and (+)-ochromycinone (*J. Org. Chem.* **2005** ASAP). Provide a plausible mechanism for this reaction.



2.

Malacria and colleagues have recently developed new synthetic methods in organosilicon chemistry and have applied these methods to solve an interesting problem (*Org. Lett.* **2004**, *9*, 1519).



Using the starting materials and reagents provided, provide structures for all intermediate compounds and the final product.