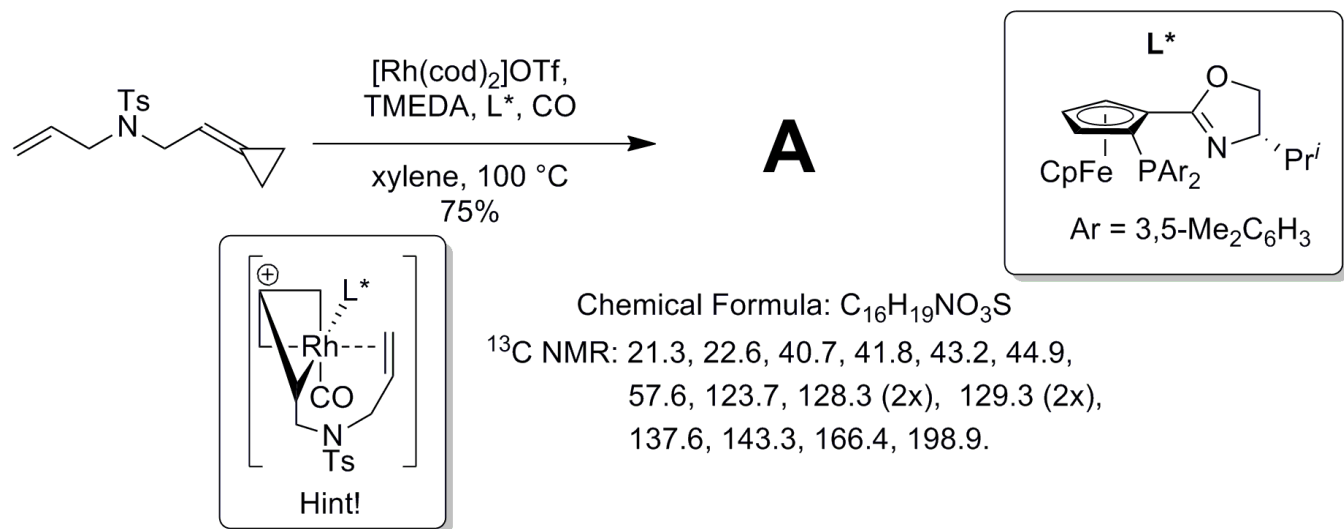


Problems 01

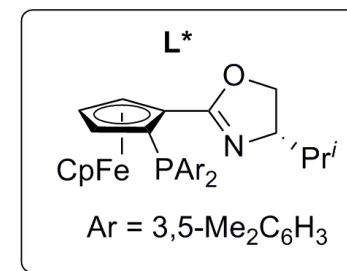
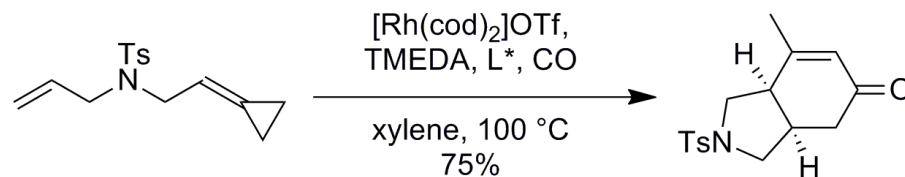
11/06/2013

APS

[3+2+1] Carbocyclization (Angew. Chem. Int. Ed. 2013, 52, 5916-5918)

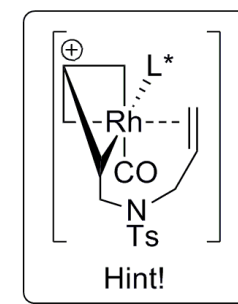
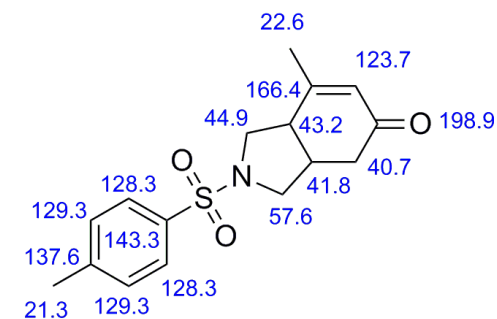
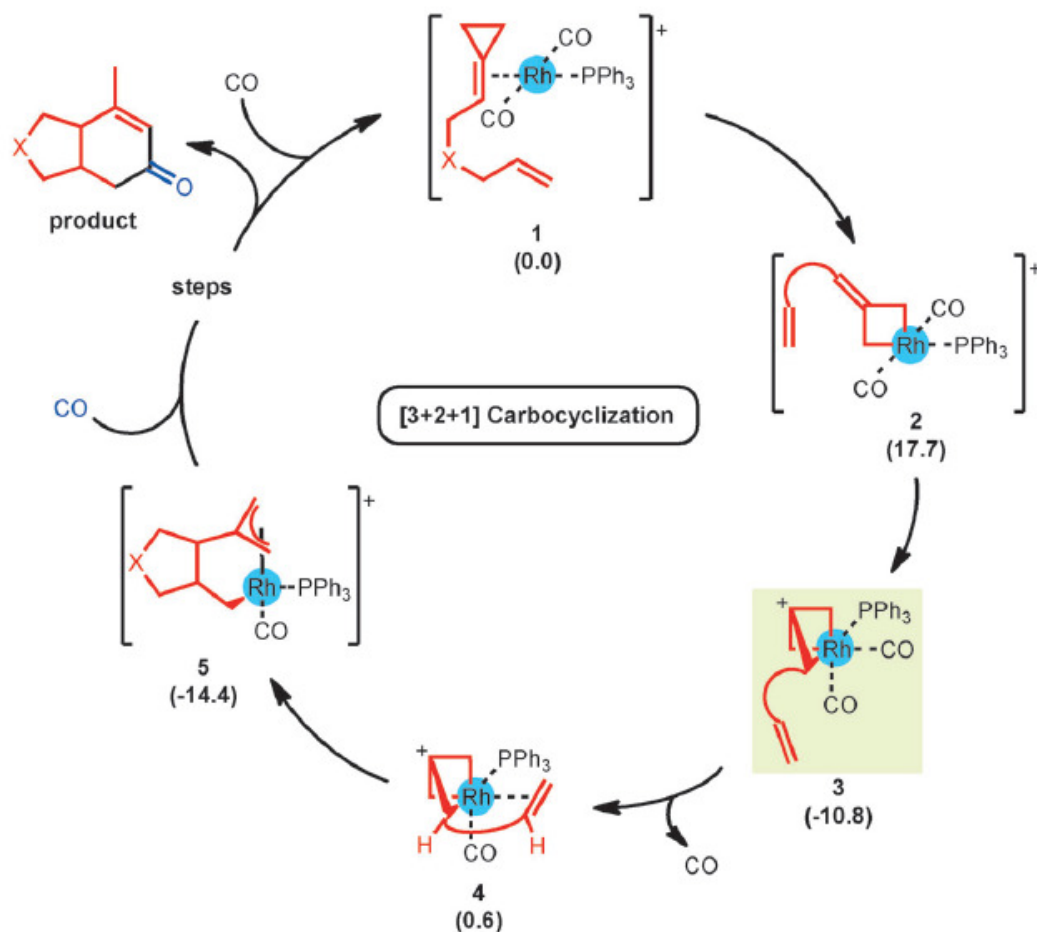


[3+2+1] Carbocyclization (Angew. Chem. Int. Ed. 2013, 52, 5916-5918)

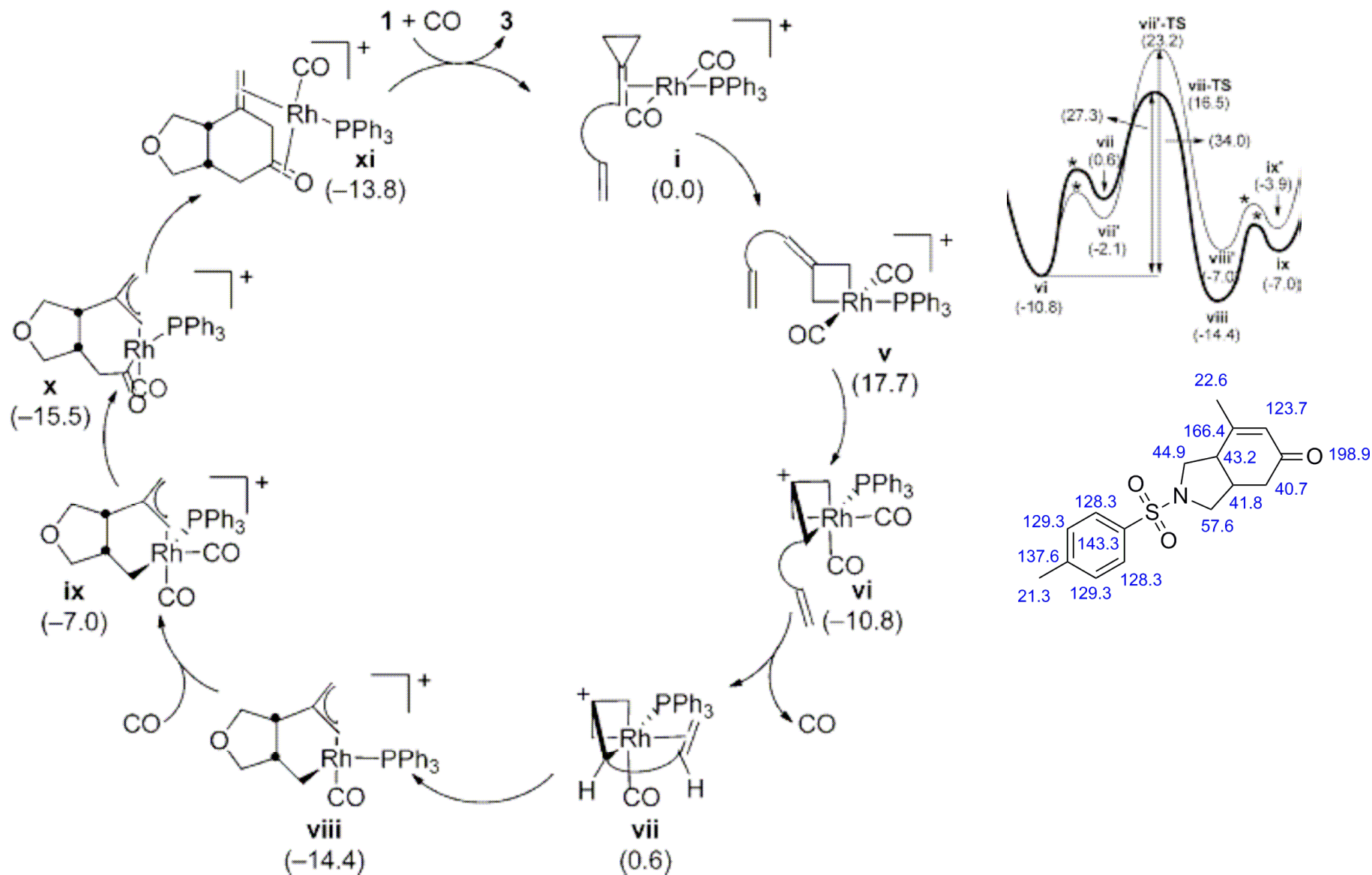


Chemical Formula: C₁₆H₁₉NO₃S

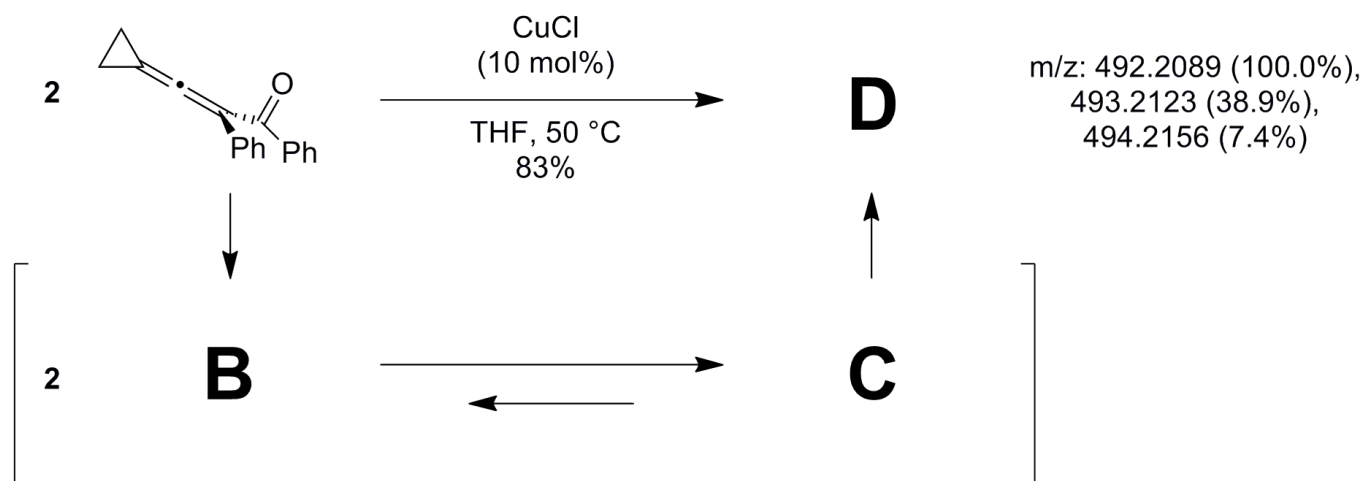
¹³C NMR: 21.3, 22.6, 40.7, 41.8, 43.2, 44.9,
 57.6, 123.7, 128.3 (2x), 129.3 (2x),
 137.6, 143.3, 166.4, 198.9.



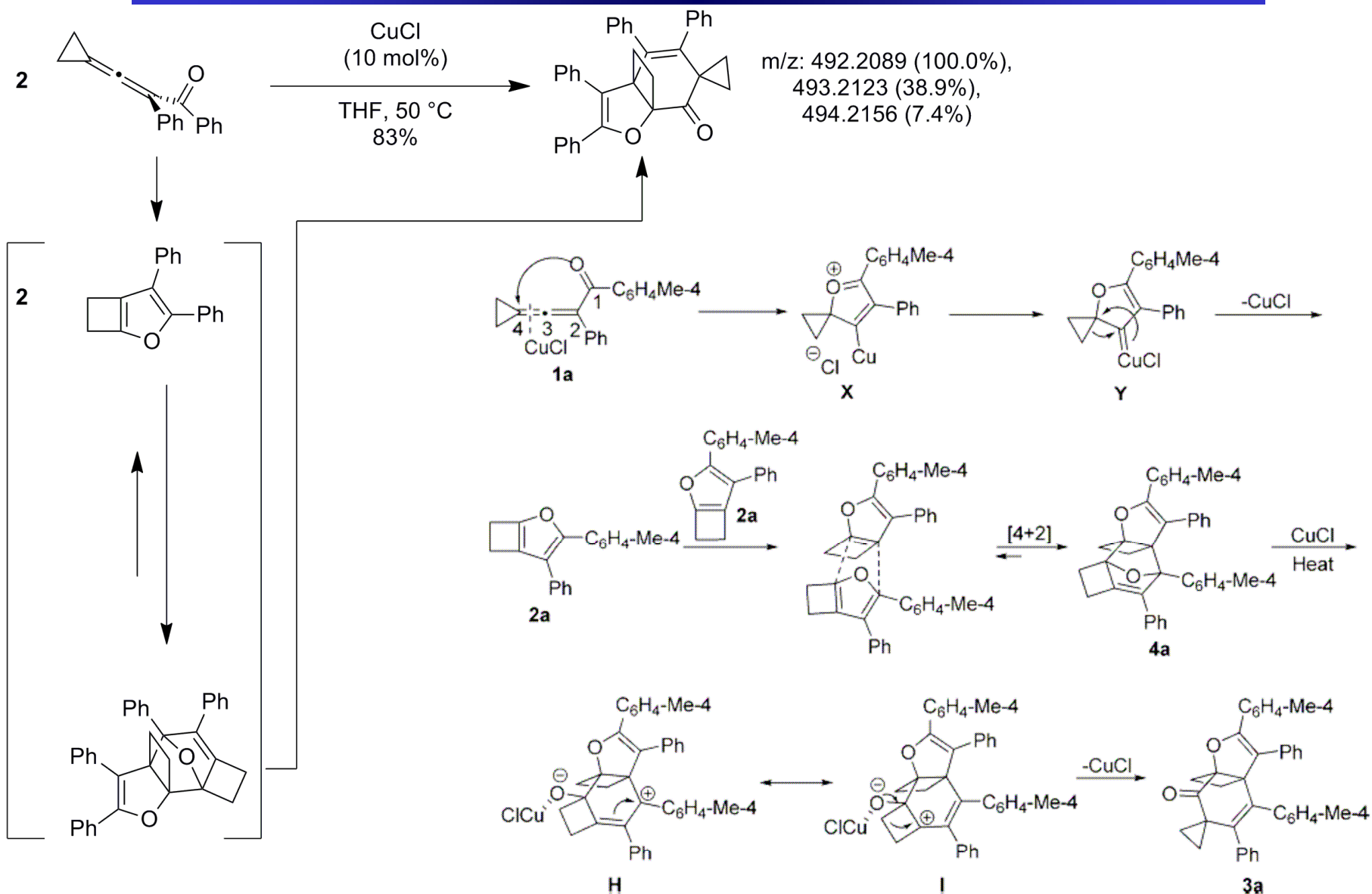
[3+2+1] Carbocyclization (J. Am. Chem. Soc. 2012, 124, 20569-20572)



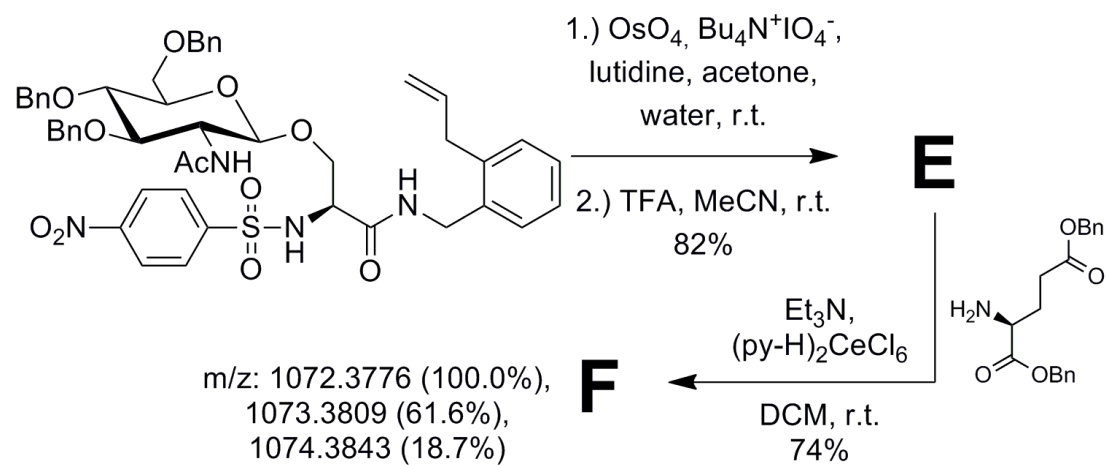
Cu(I)-Catalyzed Domino Reaction (J. Org. Chem. 2013, 78, 2687-2692)



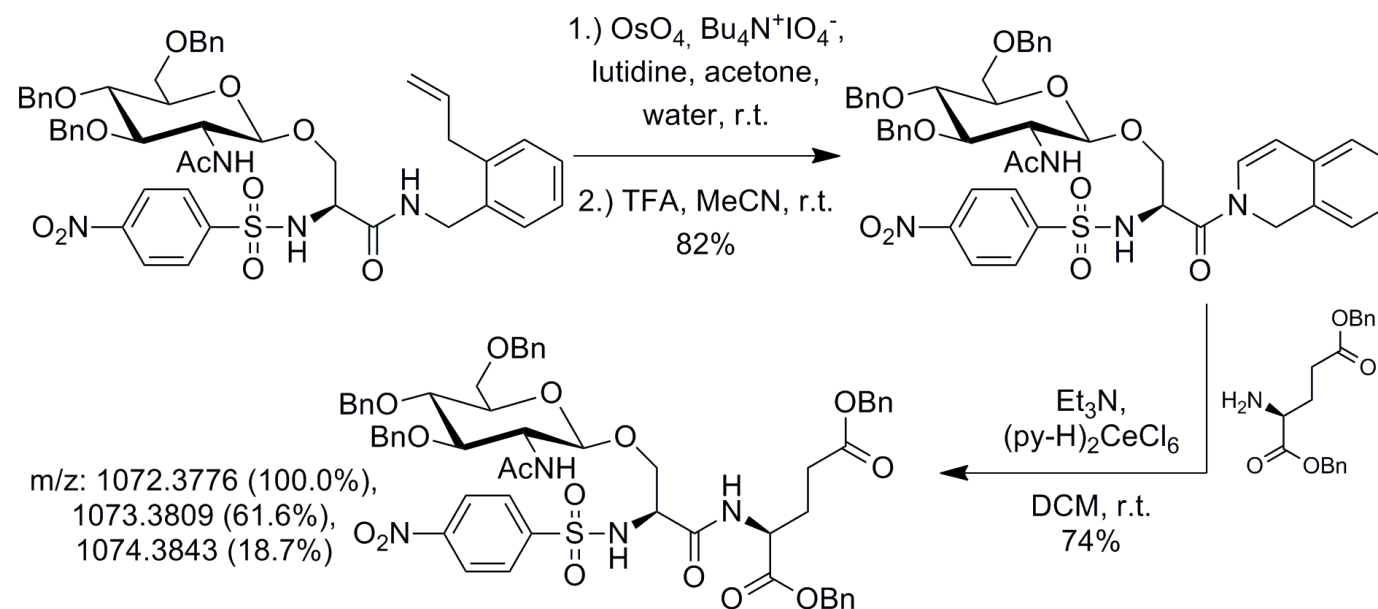
Cu(I)-Catalyzed Domino Reaction (J. Org. Chem. 2013, 78, 2687-2692)



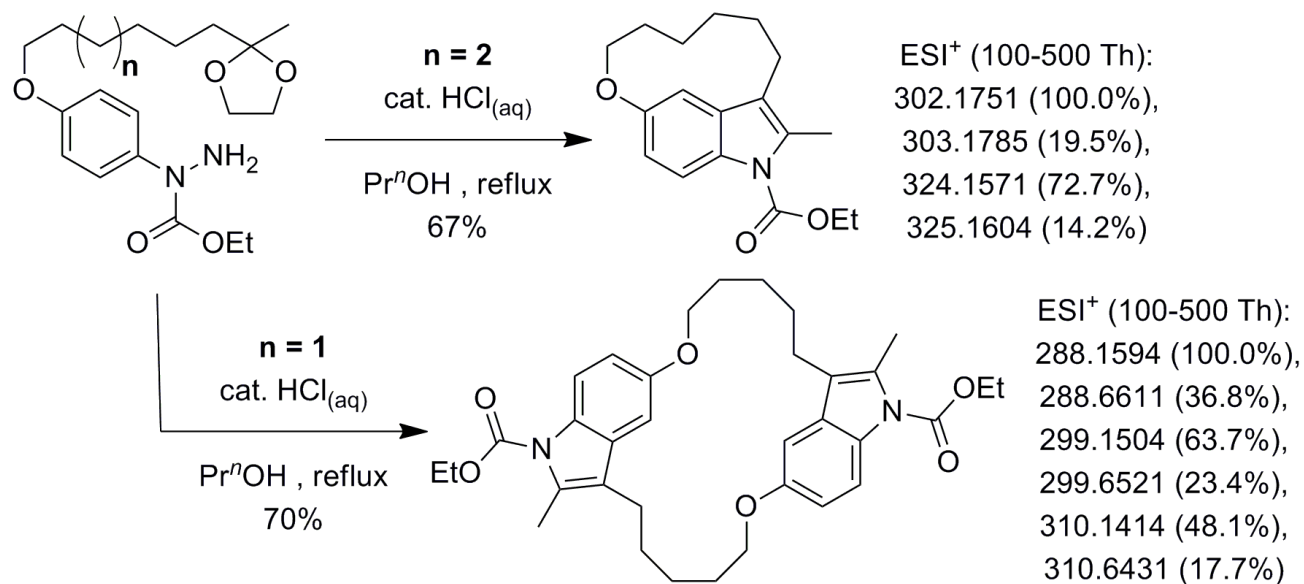
Allylbenzyl protecting group (J. Am. Chem. Soc. 2008, 130, 15228-15229)



Allylbenzyl protecting group (J. Am. Chem. Soc. 2008, 130, 15228-15229)



Intramolecular Indole Synthesis (Angew. Chem. Int. Ed. **2012**, 51, 2496-2499)



Acknowledgements

**Thank you very much
for your attention!**