

ANDREANA GROUP MEETING – 06/29/2018

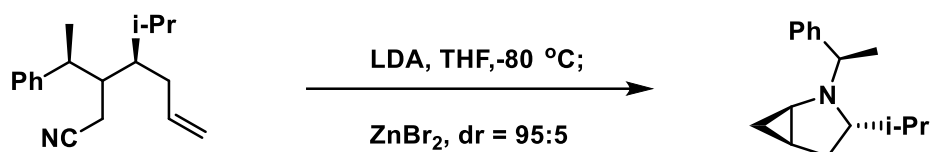
Credit: CCB, HARVARD UNIVERSITY

Problem Sets for Pradheep and Kleski

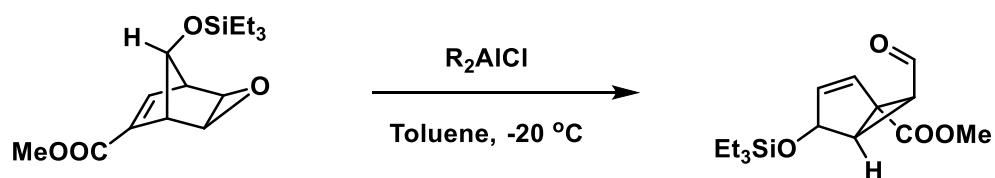
(Choose 1 and 3 or 2 and 4)

Provide mechanisms for all the transformations.

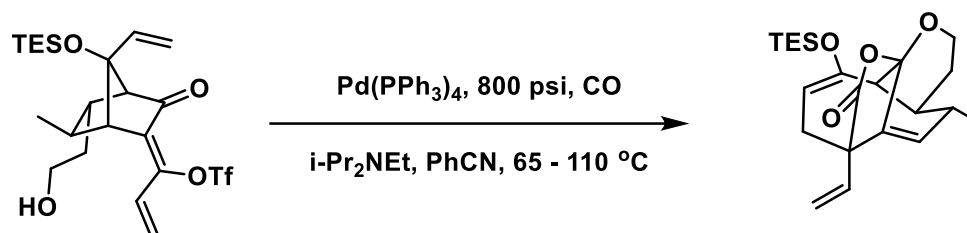
Prob 1) Chem. Eur. J., 16, 12668 (2010)



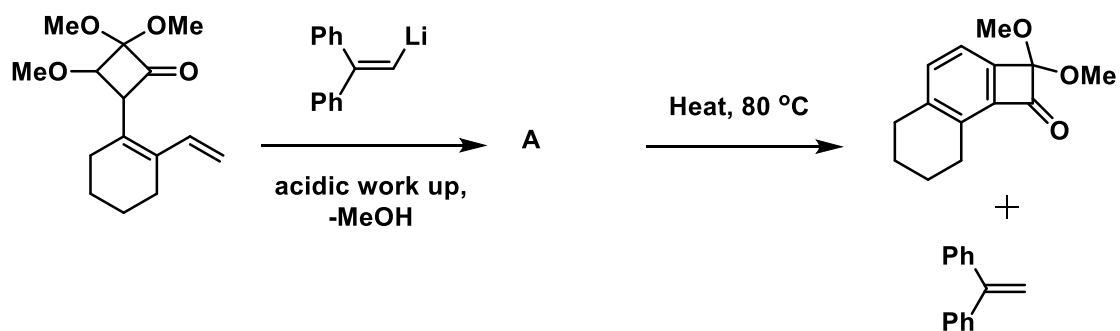
Prob 2) Angew. chem. 2000, 39, 4073



Prob 3) *Org. Lett.* 2000, 2905.



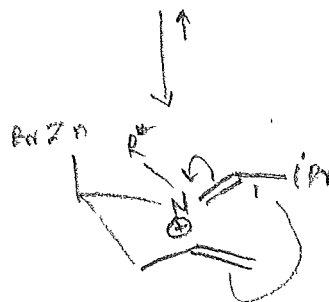
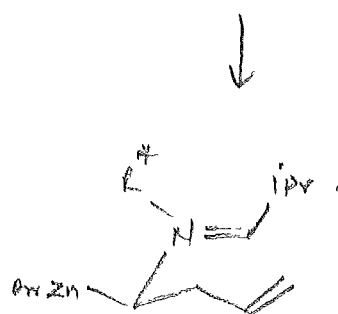
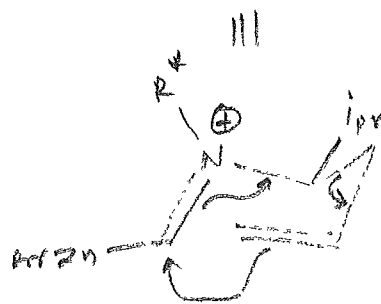
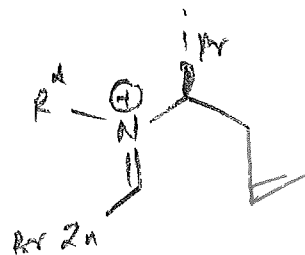
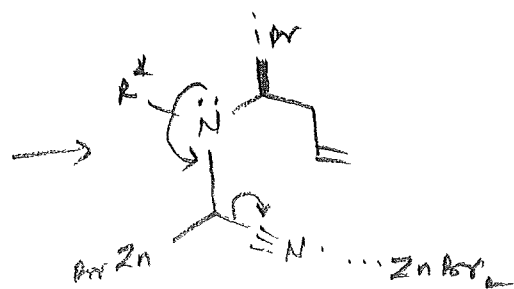
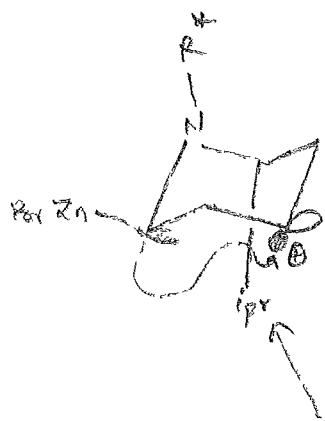
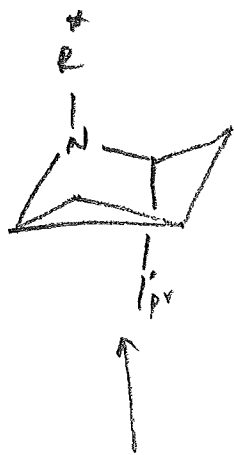
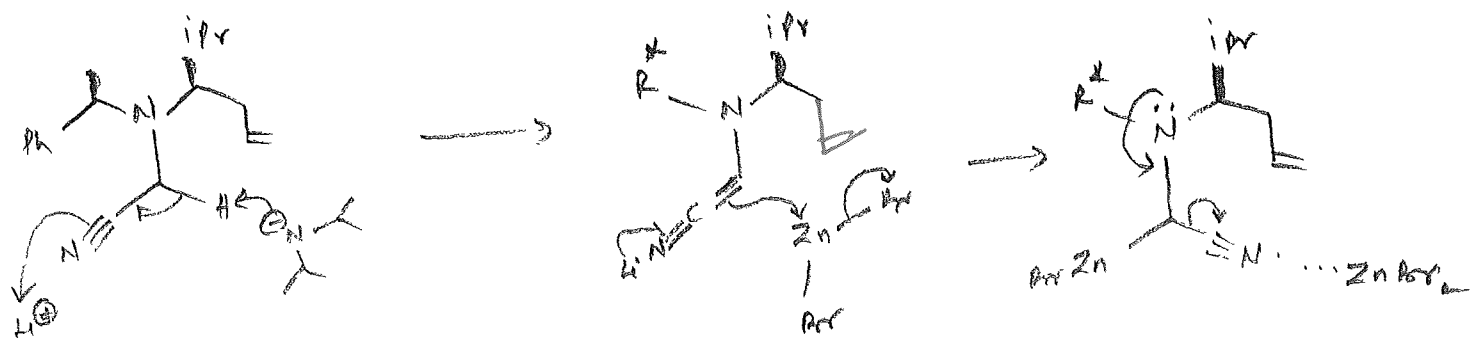
Prob 4) *J. Org. Chem.* 1999, 64, 2170



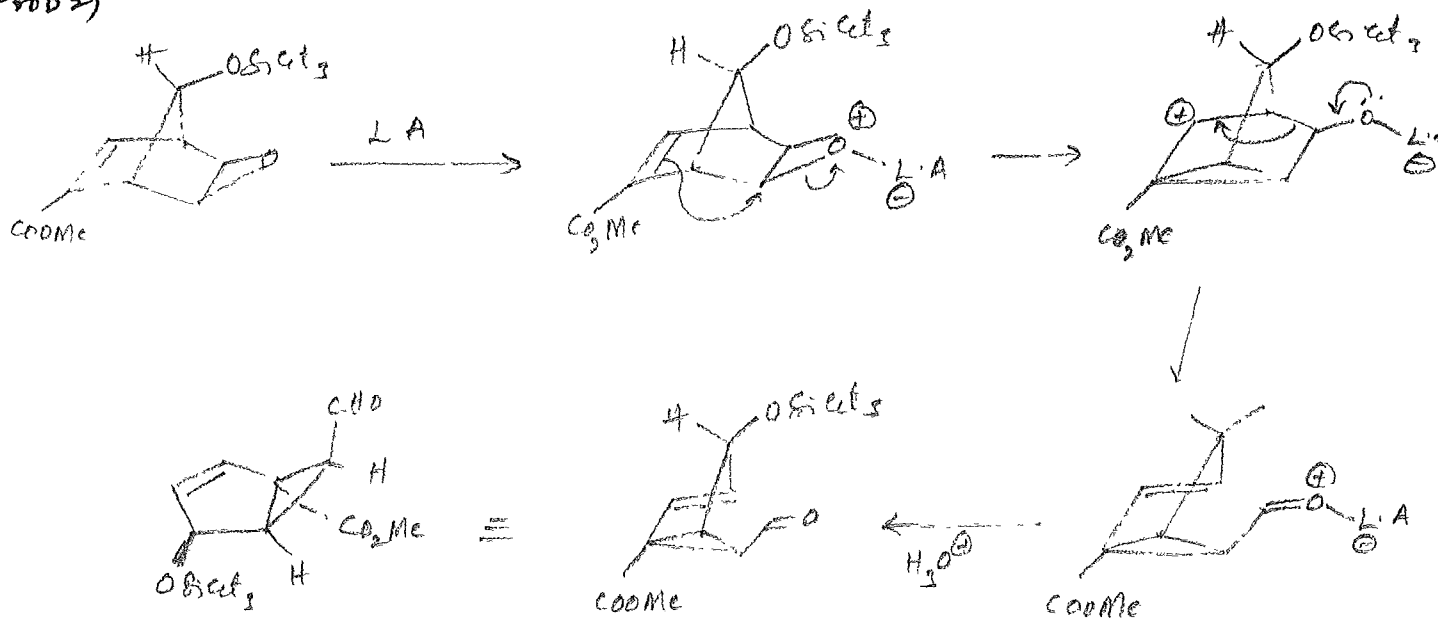
Hint: Cpd A shows strong IR frequency for carbonyl functional group

Prob ① :-

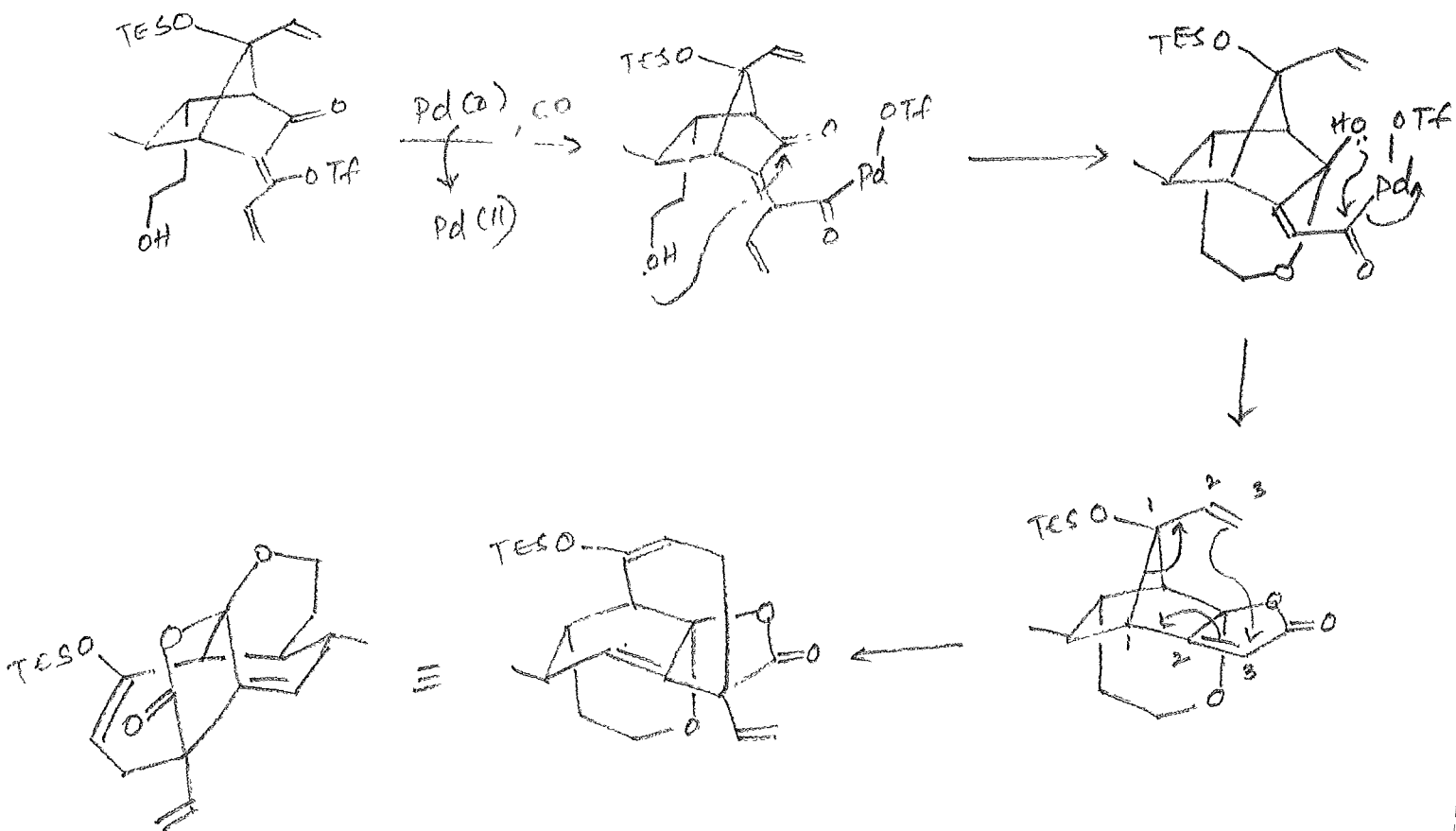
Problem Set Solutions



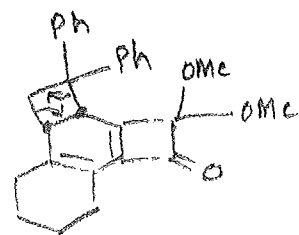
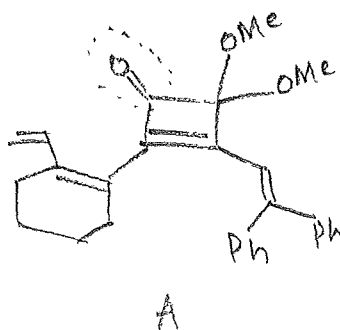
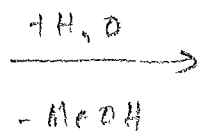
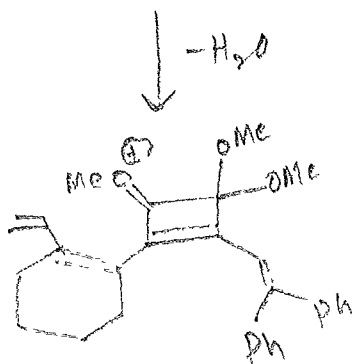
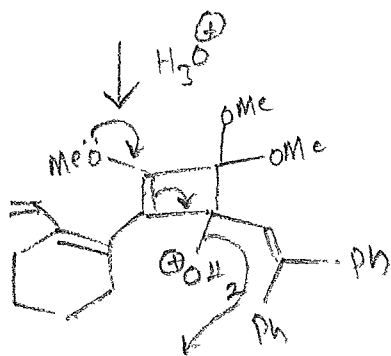
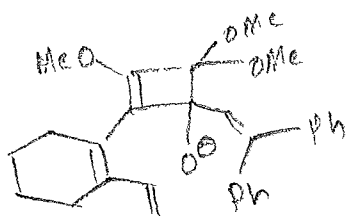
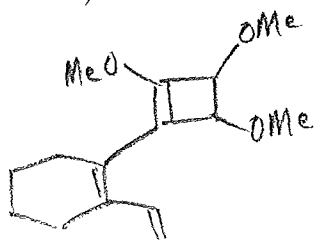
Prob 2)



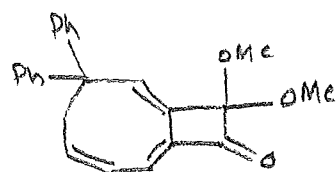
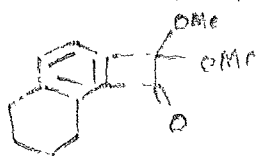
Prob 3)



Prob 4)



retro 2+2



↑ 8e⁻ electrocyclic ring closure diastereoselective

Δ 8e⁻ electrocyclic ring closure conrotatory

