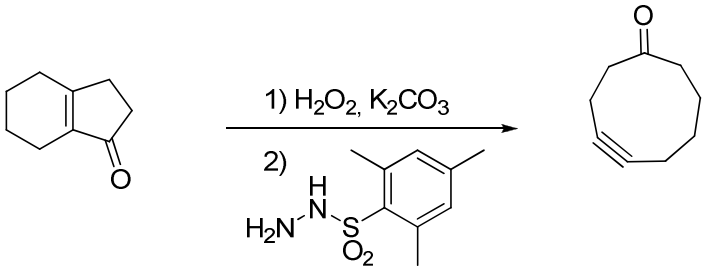
David Pierrot – STeRéO Group –04.11.13

I. Eschenmoser fragmentation

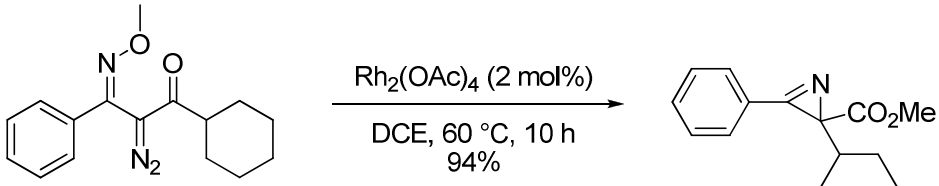
Suggest a reaction mechanism.



C. B. Reese, H. P. Sanders *Synthesis*, **1981**, 4, 276-278

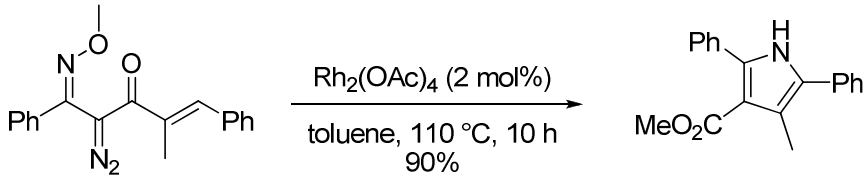
II. Pyrrole synthesis

In 2012 Y. Jiang, C. Chan and Cheol-Min Park describe a highly modulable one-pot synthesis of Pyrroles starting from α-diazo oxime ethers. (*J. Am. Chem. Soc.* **2012**, 134, 4104-4107). They were trying to prepare 2H-azirine by Wolff rearrangement.



A **B**

But when the reaction was carried with the compound **C** in toluene at 110 °C, they observed another reactivity leading to **D.**

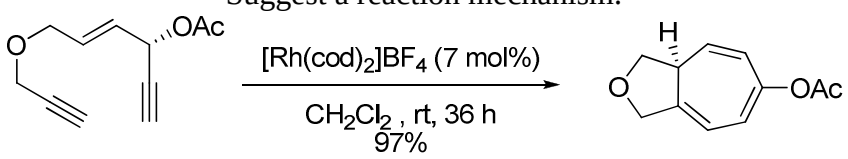


C **D**

Suggest mechanisms for both reactions.

III. Transfer of chirality

Suggest a reaction mechanism.



96% ee 95% ee

X. Shu, C. M. Schienebeck, W. Song, I. A. Guzei, W. Tang, *Angew. Chem. Int. Ed.* **2013**, DOI: 10.1002/anie.201306919