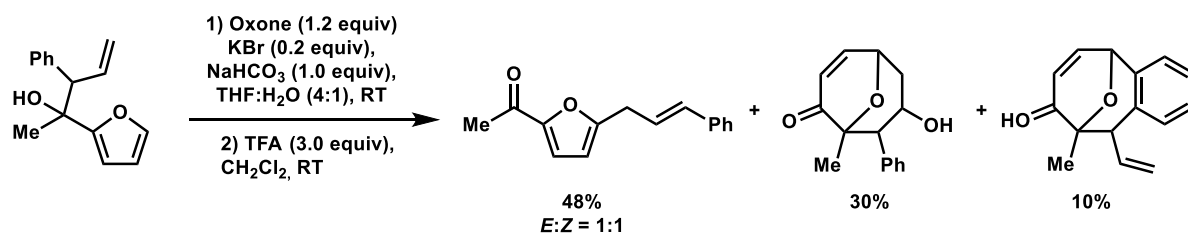
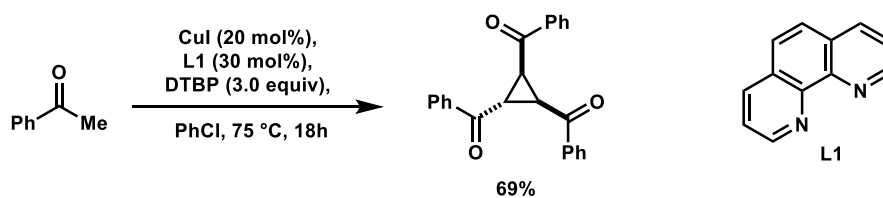


1) Please provide a mechanism for the following reactions



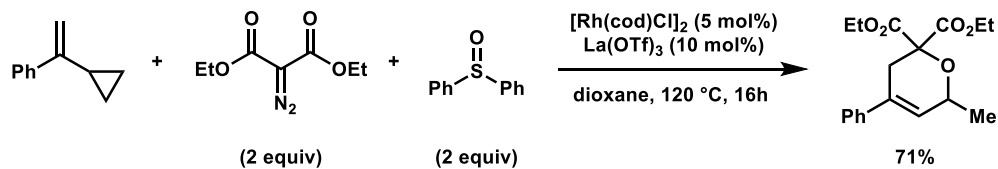
Yao, H.; Tong, R et. al. *Angew. Chem. Int. Ed.* **2022**, *61*, e202205919 (5 pages)

2) Please provide a mechanism for the following reactions



Antonchick, P et. al. *Angew. Chem. Int. Ed.* **2016**, *55*, 5290-5293

3) Please provide a mechanism for the following reactions



Wang, X.-C. et. al. *Org. Lett.* **2020**, *22*, 5627-5632

4) Please provide missing compounds and reagents and propose a mechanism in the formation of B and the brominated intermediate.

