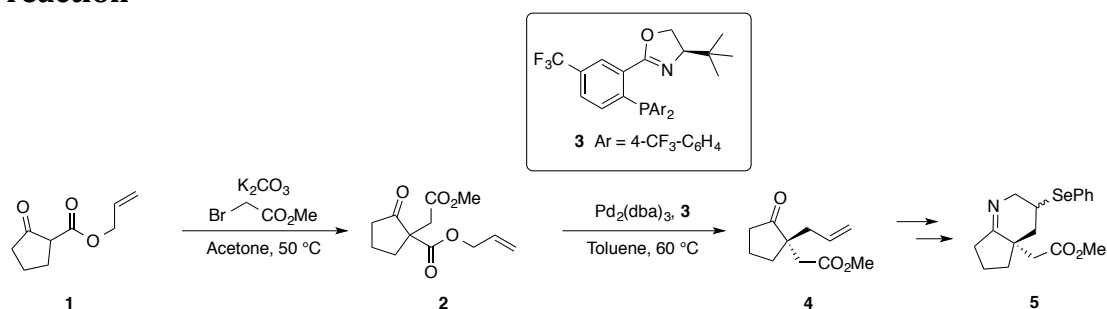


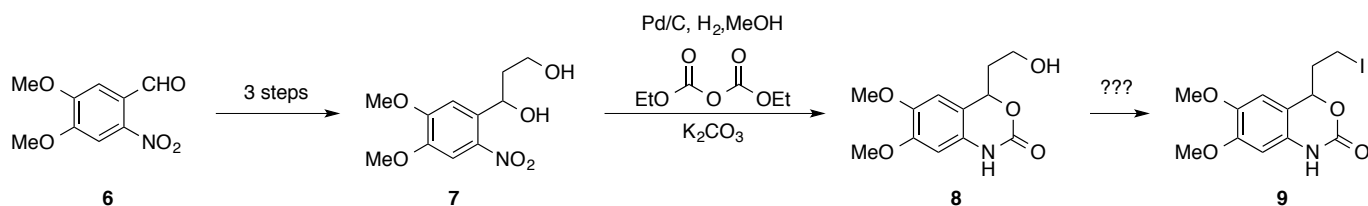
## Synthesis of (-)-Isoschizogamine

1. Propose a mechanism to obtain 4 from 2 and give the name of this reaction

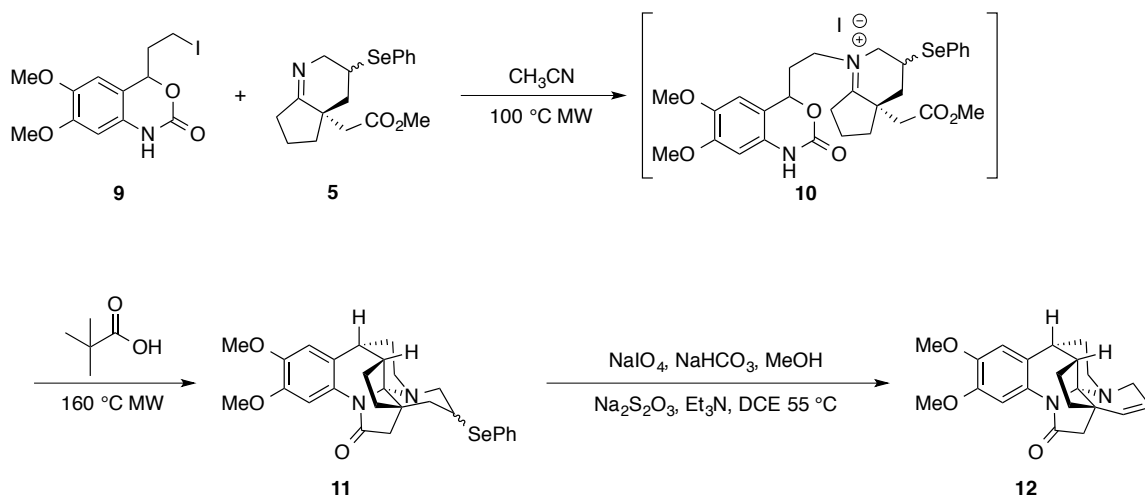


2. Propose a pathway to obtain 7 from 6 in 3 steps

3. Give the name, the conditions and the mechanism of the reaction used to go from 8 to 9



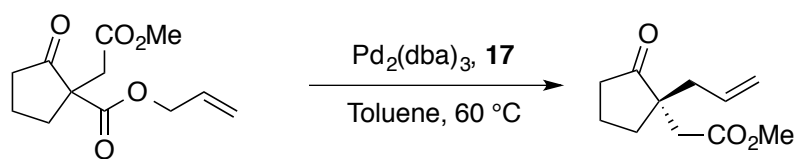
4. Propose a mechanism to go from 10 to 11



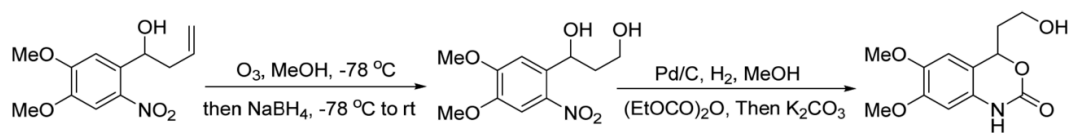
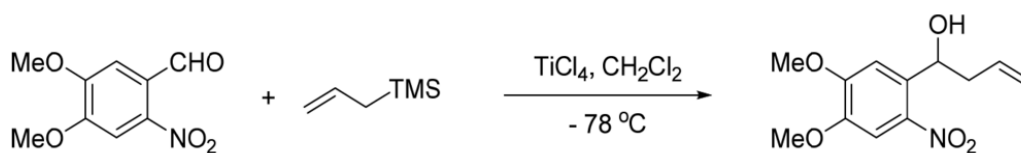
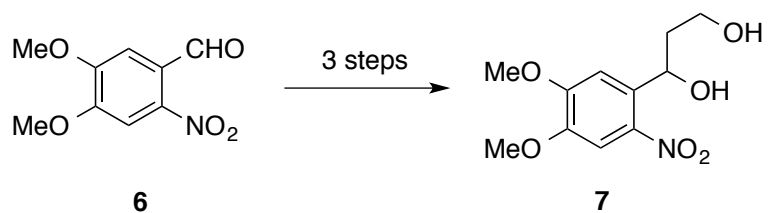
Ref: Xu, Z.; Bao, X.; Wang, Q.; Zhu, J. *Angew. Chem. Int. Ed. Engl.* **2015**, ASAP

## Solution

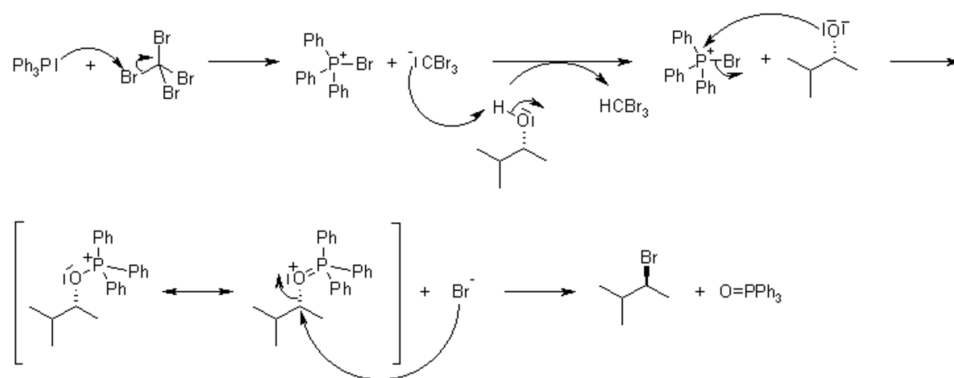
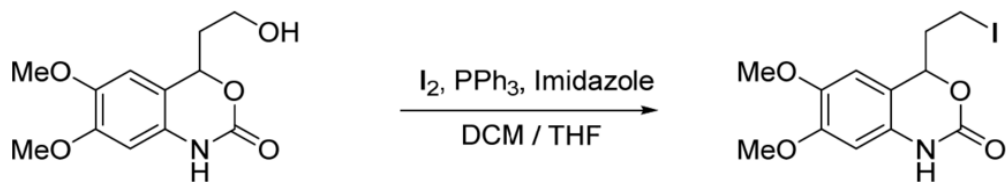
Tsuji-Trost allylation



Formation of pi-allyl complex with the Pd and decarboxylation  
Then the enolate act as the nucleophile



## Appel reaction



$I_2$  instead of  $CBr_4$  Imidazole acting as a base to deprotonate the hydroxyl group

