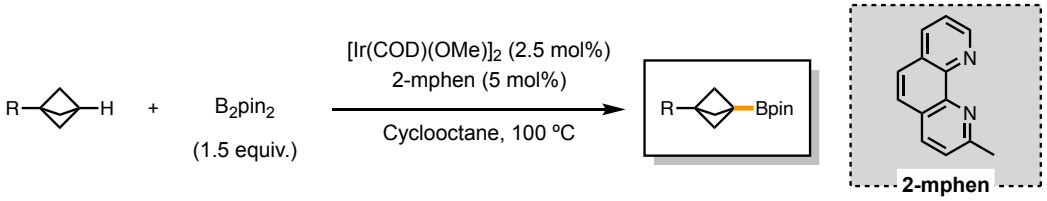
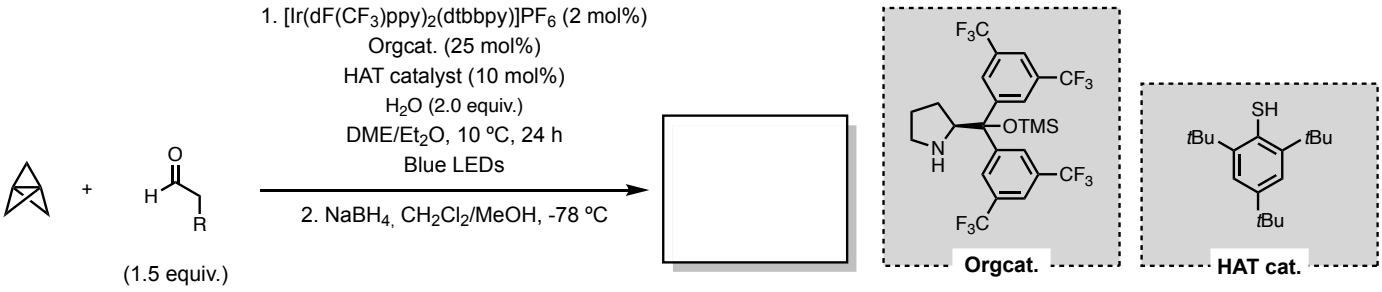
1. Draw the mechanism proposed by the authors and spot the differences with the general established C-H borylation mechanism (*Nat. Chem.* **2023**, *15*, 685-693). [★★]

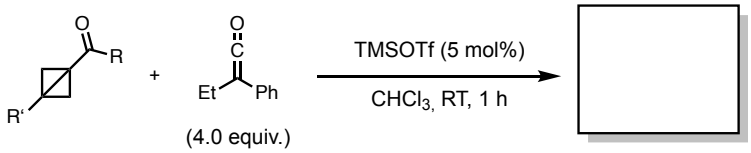


2. Identify the product and propose a plausible mechanism for this transformation reported by Anderson and co-workers (*Nat. Commun.* **2021**, *12*, 1644-1653). [★★]

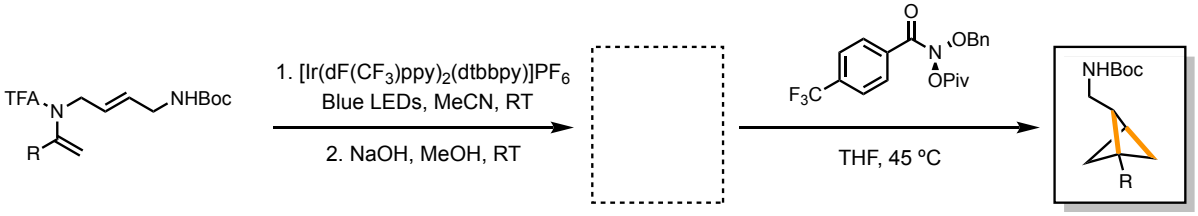


3. Draw the structures of the intermediate and the final product of the following reaction reported by Quin and co-workers. What is the name of this transformation? Propose and explain a plausible mechanism (*Nat. Chem.* **2021**, *13*, 950-955). [★★]

4. Identifying the product of the following transformation and propose a plausible mechanism for this transformation reported by Studer and co-workers. What is the role of TMSOTf? (*ACIE* **2023**, *62*, e20230477). [★★]



5. A collaboration between Sarpong and Janssen reported a two-step route towards the synthesis of bridge-functionalized BCPs. Draw the structure of the product resulted of the first step. Propose and explain a plausible mechanism for the entire route (*J. Am. Chem. Soc.* **2023**, *145*, 10960-10966). [★★★]



6. Identify the product and propose a plausible mechanism for this samarium-catalyzed methodology reported by Procter and co-workers. (*Nat. Chem.* **2023**, *15*, 535-541). [★★★]