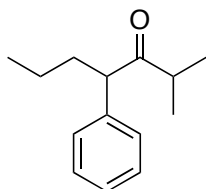
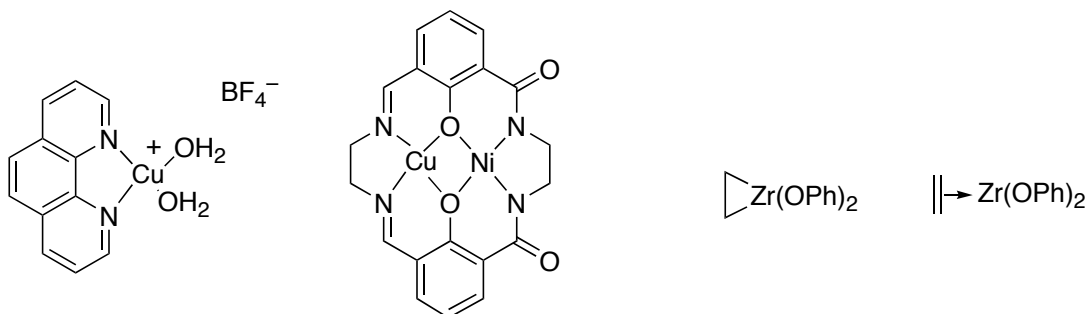


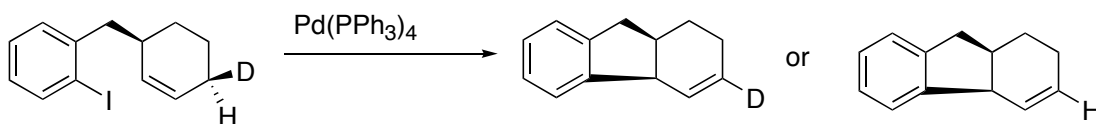
1. Propose a synthesis from bromobenzene and any materials with 4 carbons or less



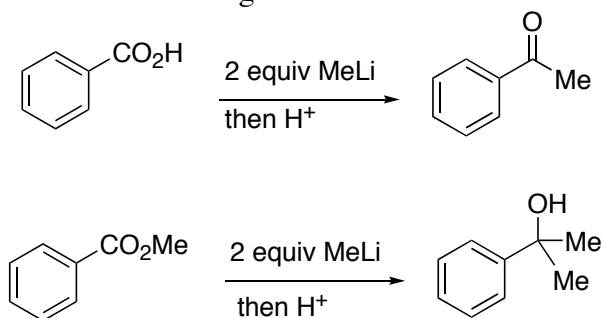
2. Indicate the formal oxidation state of the metals in each complex



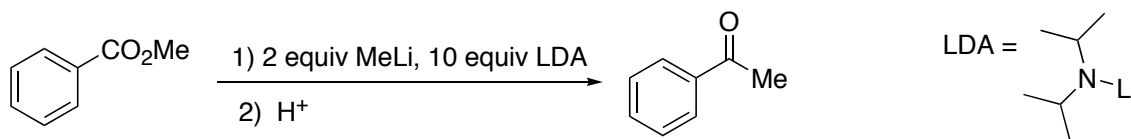
3. Predict the product. Explain with a detailed mechanism



4. Rationalize the following observation



5. Esters can be directly converted into ketones, however, in the presence of excess LDA. Rationalize this observation



- 6) Complete the online tutorial for conducting a cited reference search using the Web of Science database. Using any one of the references for this week, conduct a cited reference search. Write down the 3 most recent references that cite the work.