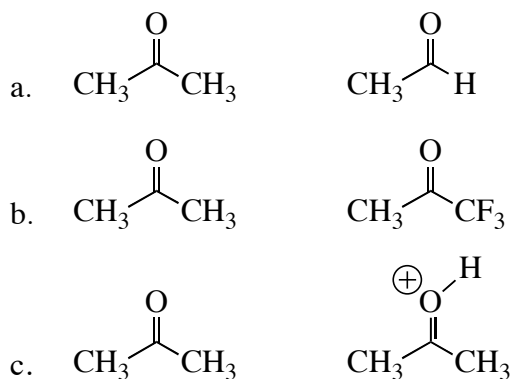
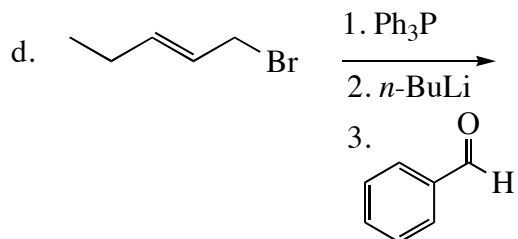
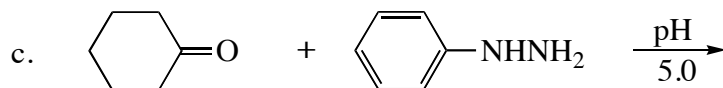
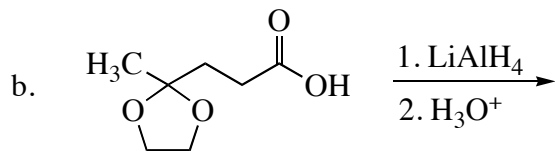
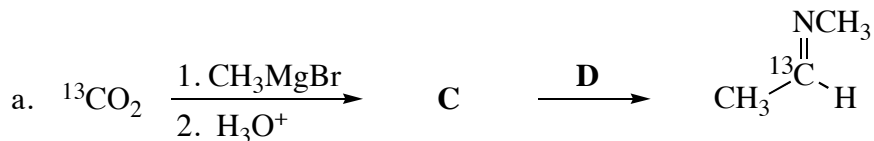


51C Practice Problems 5
Spring 2019

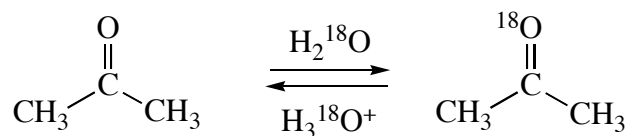
1. Circle the compound in each of the following pairs that is expected to be the most reactive towards nucleophilic attack at the carbonyl:



2. Predict the products and/or reagents in the following reactions. All of these problems have been on previous exams.

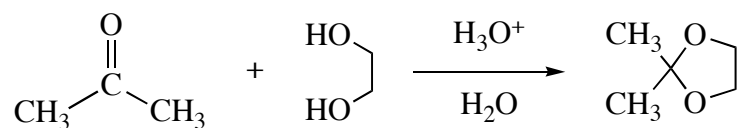


3. The following ketone (acetone) undergoes reversible hydrate formation. When this reversible reaction is done in labeled water with a trace of acid, labeled acetone can be formed. Provide a mechanism for the conversion of acetone into labeled acetone.



4. Give a detailed mechanism for the following reaction, then provide a mechanism for the reverse reaction.

Forward:



Reverse:

