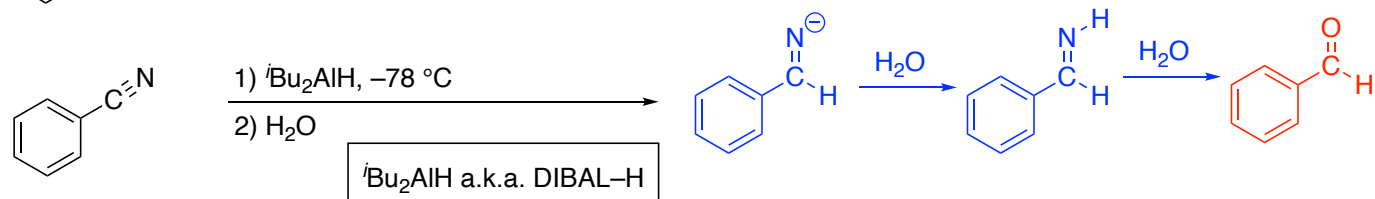
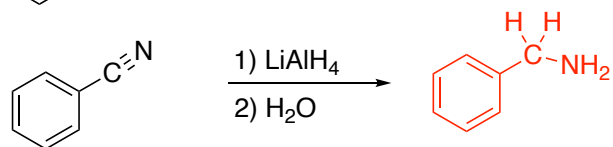
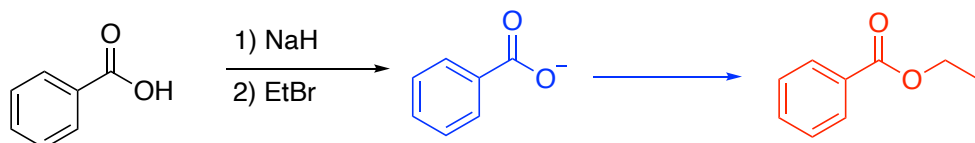
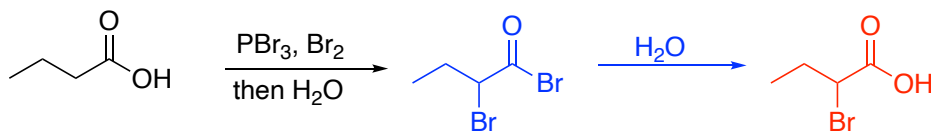
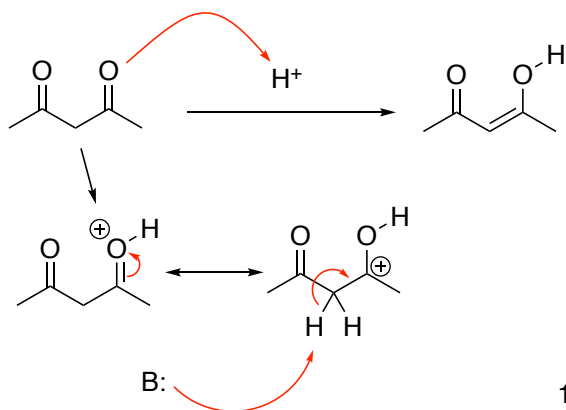
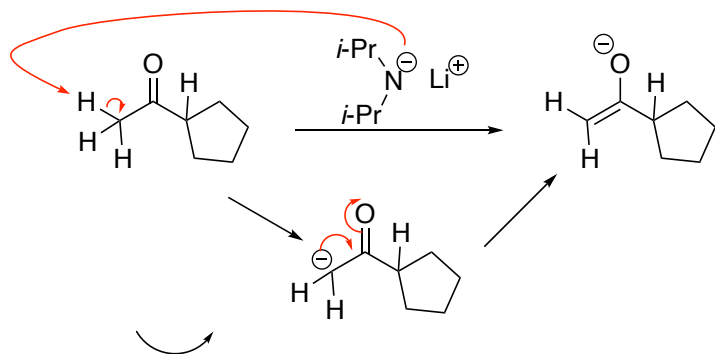


Name: Key

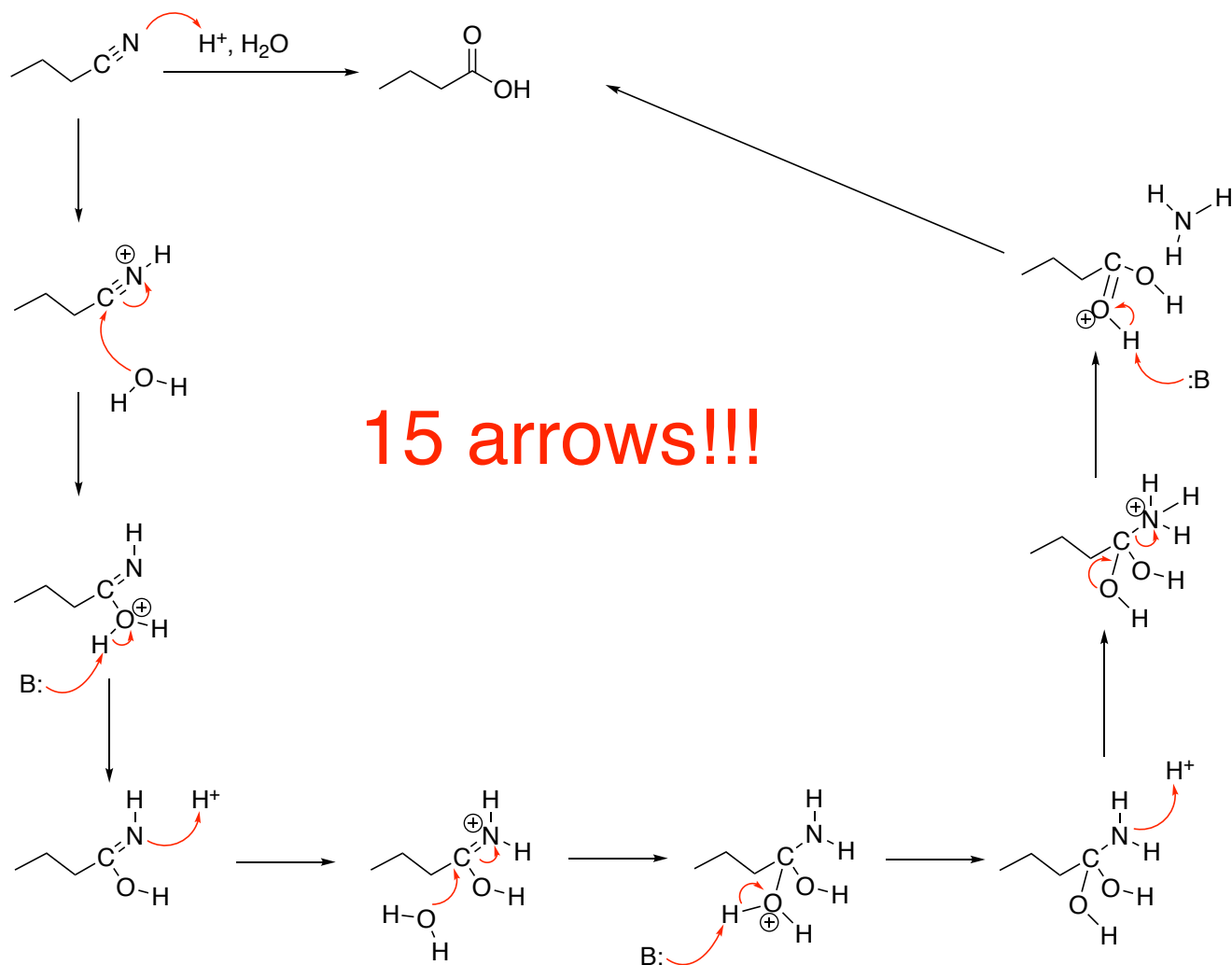
1. (12 pts) Give the major products of the following reactions.



2. (10 pts) Draw the mechanisms including resonance structures (that show distribution of charge) for the following 2 reactions for making enolates and enols.



3. (13 pts) Provide a detailed arrow pushing mechanism to account for the following transformation. Resonance structures maybe helpful but they are not necessary. You should draw 2 (or 1) arrows then draw the result of those arrows. More than 2 arrows is a problem.



4. (10 pts) For the compounds below, draw in or circle the most acidic proton and give the pKa.

