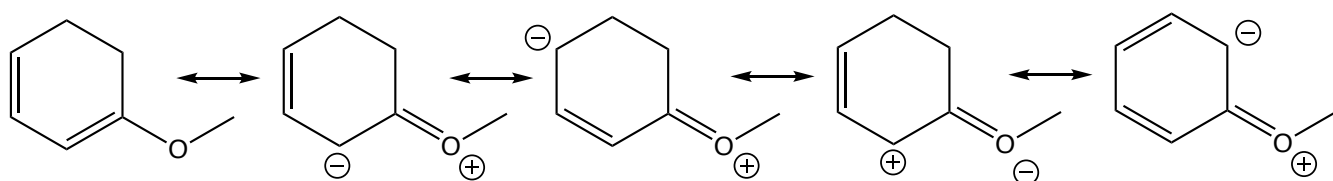
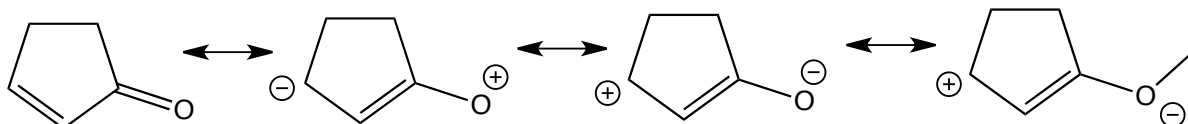
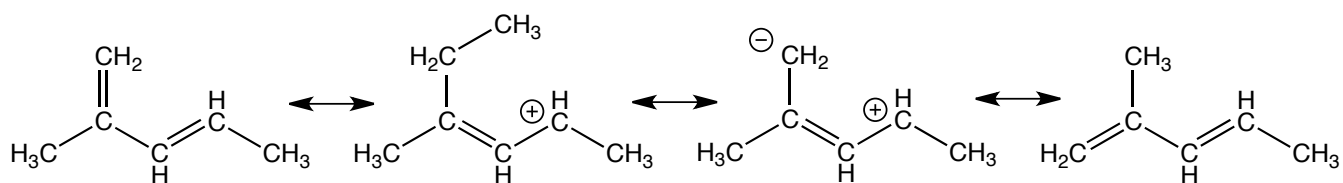
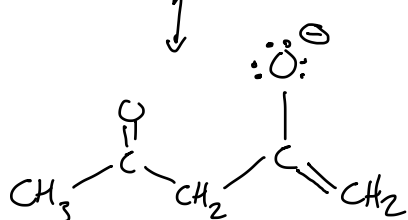
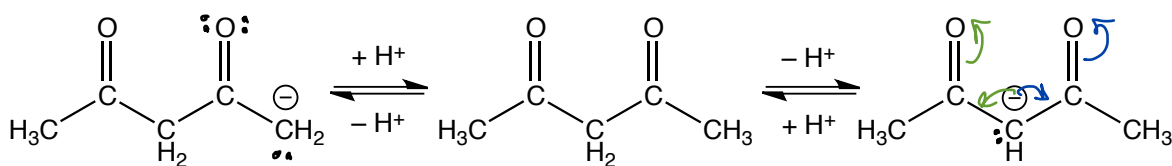


3. (10 pts.) For each of the molecules on the left, possible resonance contributors are drawn to the right. Some are valid, some are considered insignificant contributors, and some are simply incorrect. Label each contributor as valid, insignificant, or incorrect.



4. (12 pts.) Hydrogen atoms bonded to carbons that are adjacent to carbonyls, the so-called α -H, can be abstracted by reasonably strong bases. Explain why the α -H atoms on the CH_2 can be more easily abstracted by a base than the α -H atoms on the CH_3 in the following molecule.



\ominus charge
spread out over
2 O atoms +
1 C atom

neg only spread out
over 1 O + 1 C

crazy hard... not going to happen

