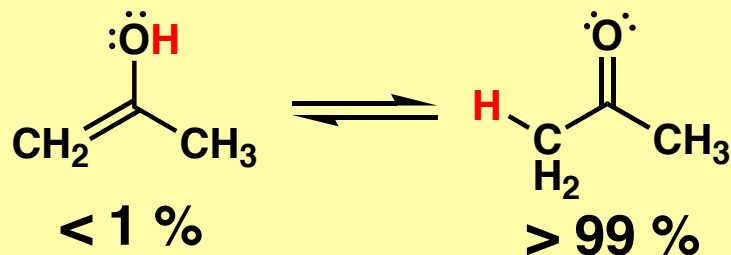


# Summary

• **Tautomers** are isomers in which a double bond and a hydrogen atom change their locations. The most important kinds of tautomers are carbonyl-enol tautomers. Tautomerization is a chemical equilibrium that occurs very rapidly in acidic or basic media; it should not be confused with resonance (resonance is not an equilibrium process).



• An organic acid, HA, is much more acidic when the lone pair of the conjugate base can be stabilized by resonance (e.g., PhOH is more acidic than EtOH). A C-H bond is acidic when the lone pair of the conjugate base (a **carbanion**) can be delocalized into a carbonyl group, and even more so when it can be delocalized into two carbonyl groups.

• Carbonyl compounds are some of the most important organic compounds. To help understand their behavior, remember these  $\text{pK}_a$  values:

