Announcements

Review Sheet 1 due Monday

An Answer key will be provided on Monday

Review Sheet 2 will be available Monday

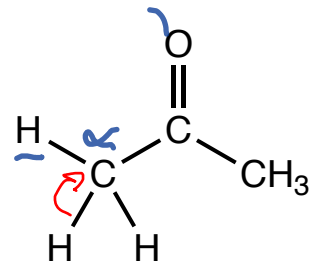
chemists use ketals to protect (hide) carbonyls in ketones + aldehydes

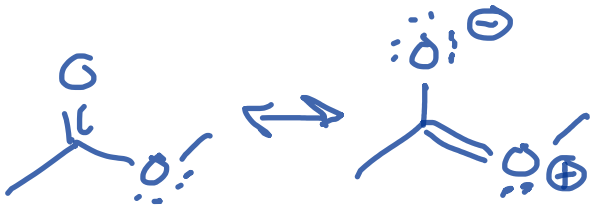
hemiketal often called/referred to as a hemiacetal

Even if the alcohol is removed, these are not stable... The auto dissociation of the hemiketals alcohol provides an H^+ to catalyze the reaction.

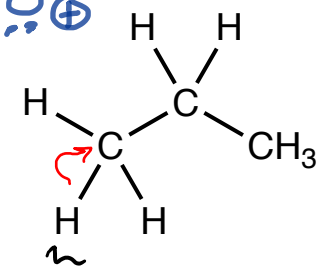
ketal

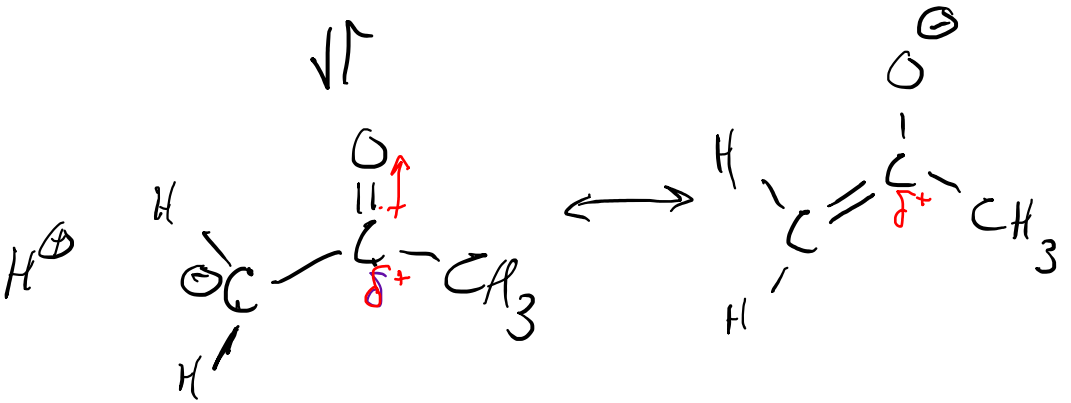
if H_2O is removed ketals + acetals are stable

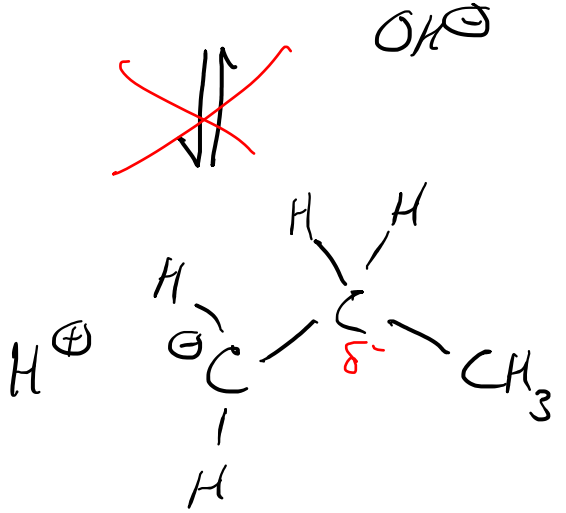




vs







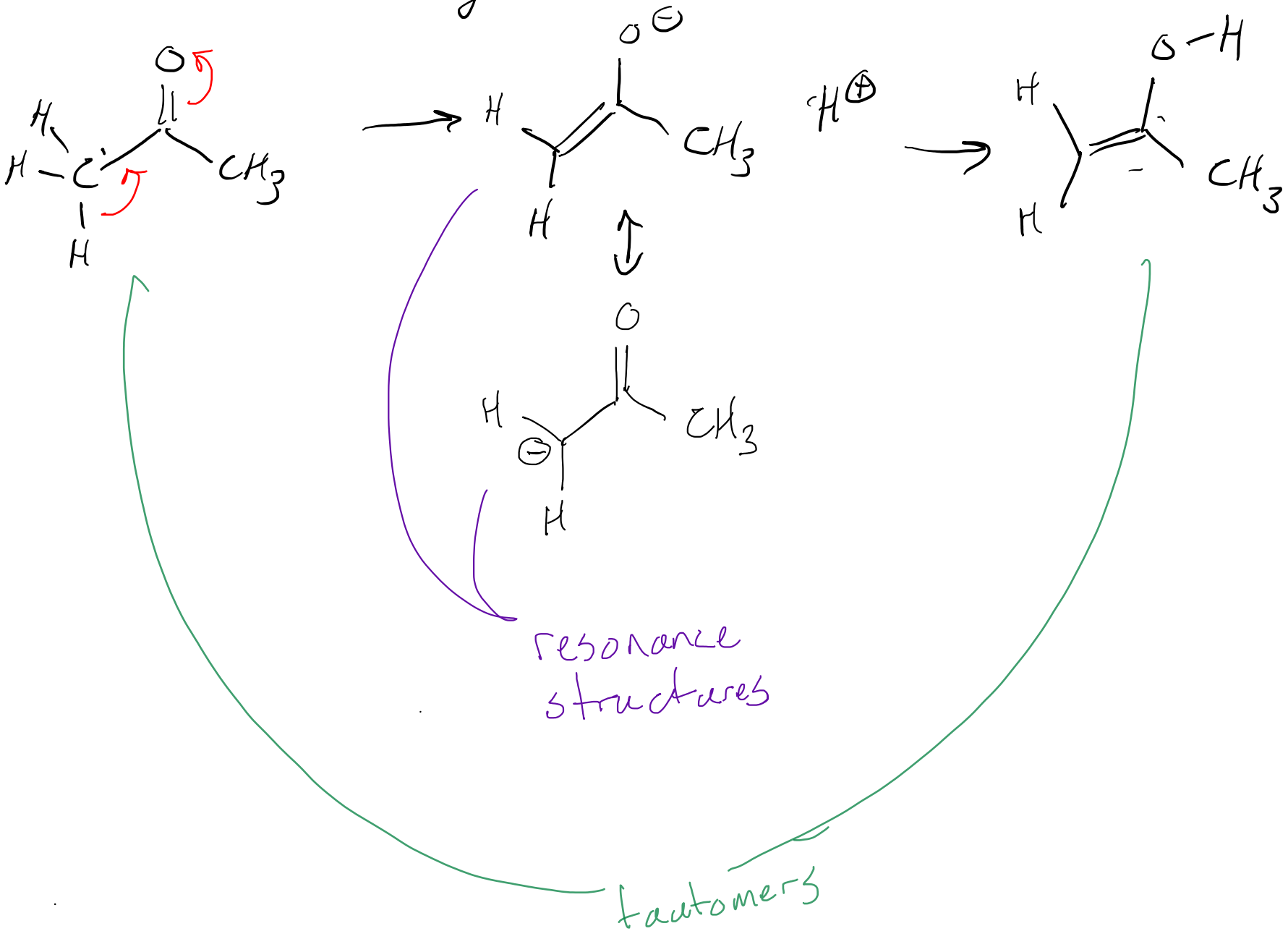
C atom can share the ⊖ inductively to the C atom of the C=O the extend π system puts the ⊖ on the O atom, and O atoms are pretty good at holding up e⁻'s

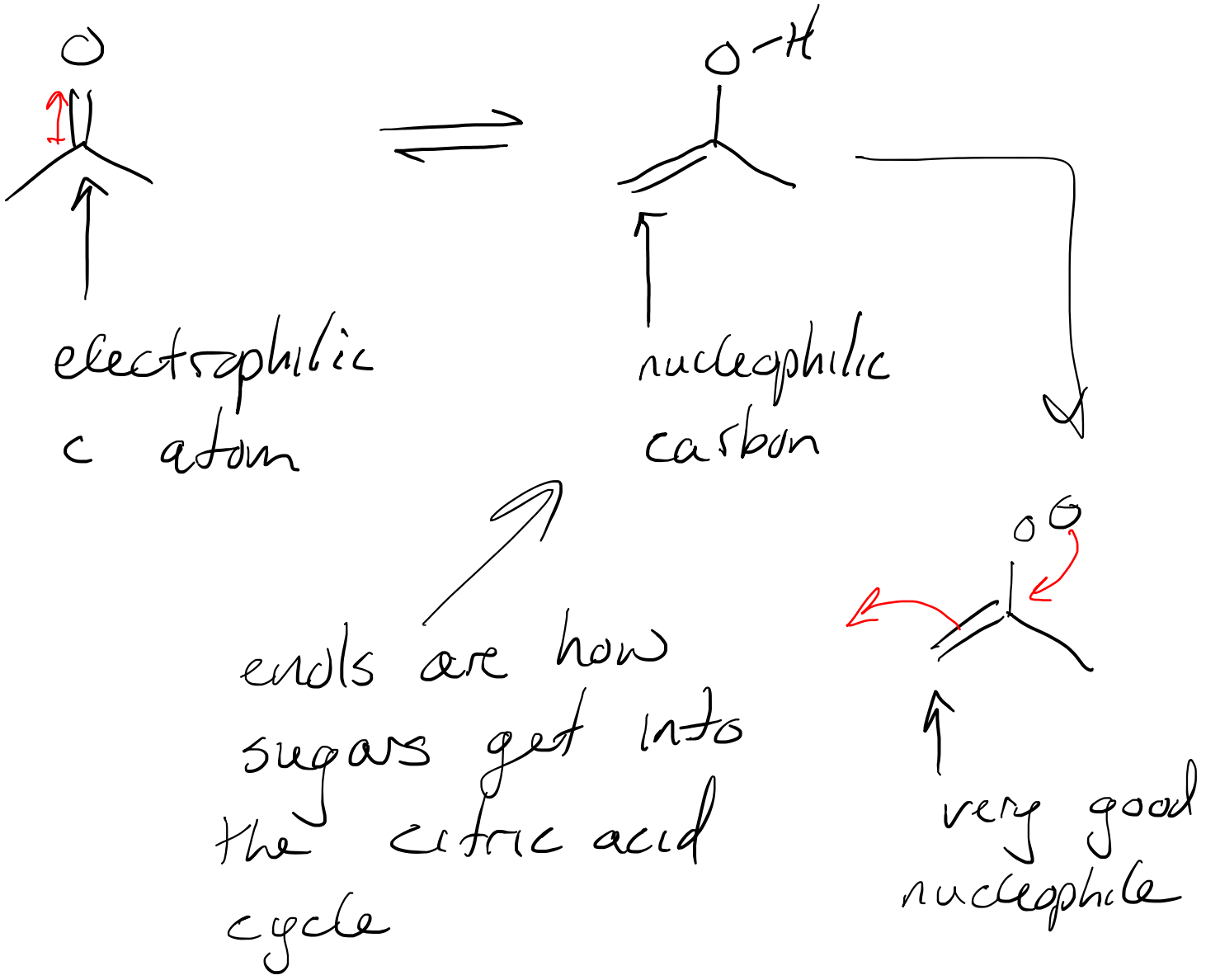
C atom must bear ⊖ on its own...

Keto-Enol Tautomerization

position of an $H^{\oplus}$ and a π bond change

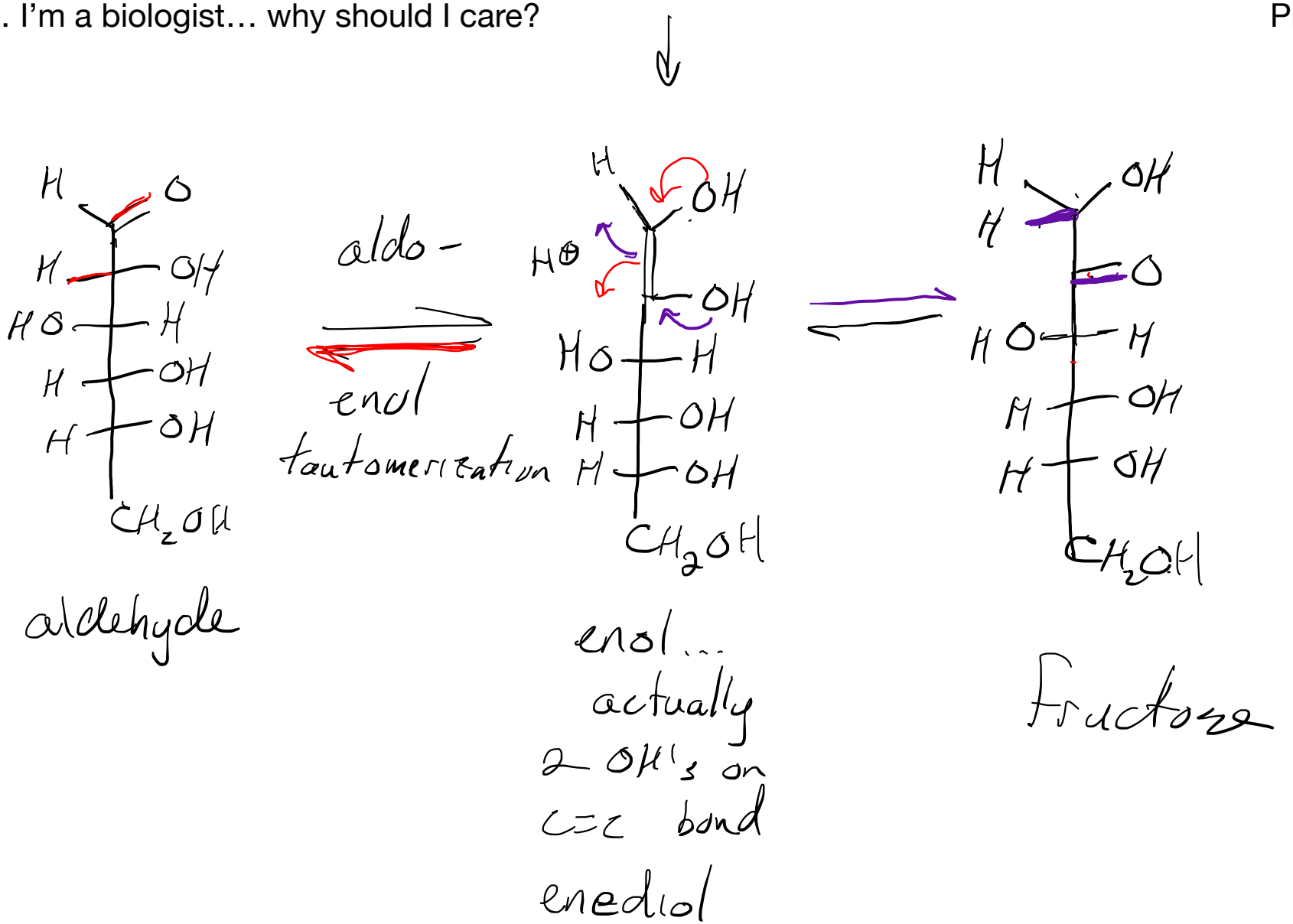
Section 17.2 & 3




electrophilic
c atom
nucleophilic
carbon
enols are how
sugars get into
the citric acid
cycle
very good
nucleophile

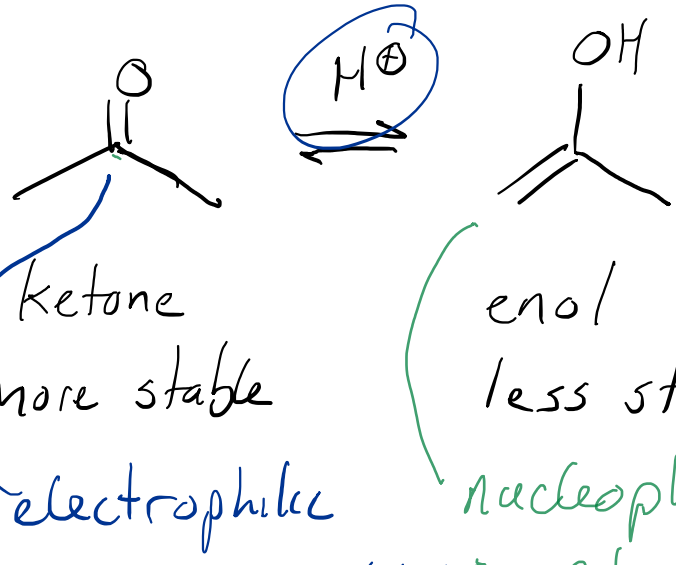
Again… I'm a biologist… why should I care?

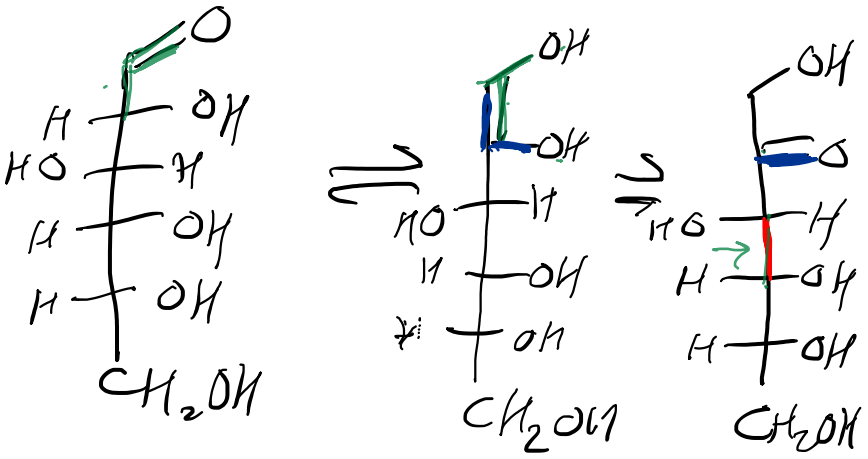
Preview

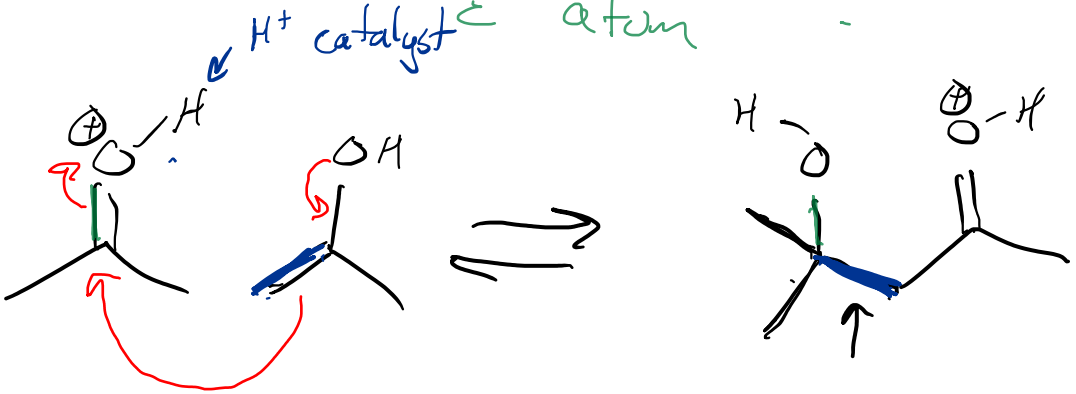


Again… I'm a biologist… why should I care?

Preview (Sections 17.4 & 10)

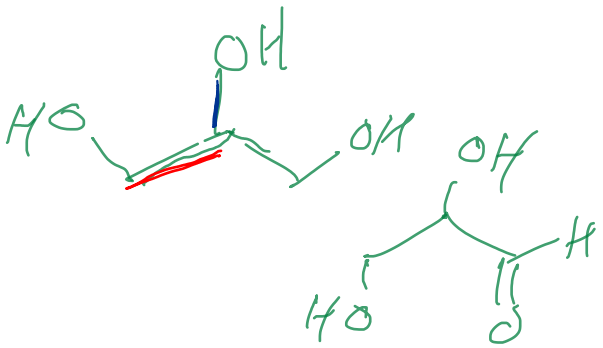






reverse aldol addition

aldol addition



C=C bonds… e⁻ rich or e⁻ poor… nucleophilic or electrophilic