

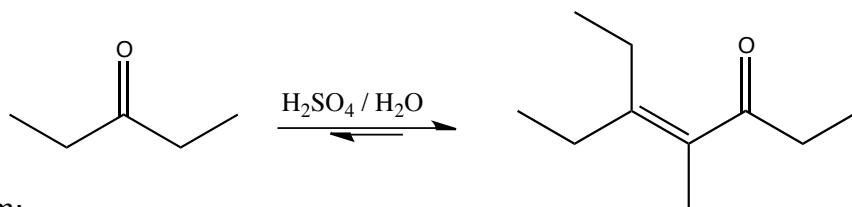
Chem 345 – Organic Reactions Chapter 22

Prepared by José Laboy, MS

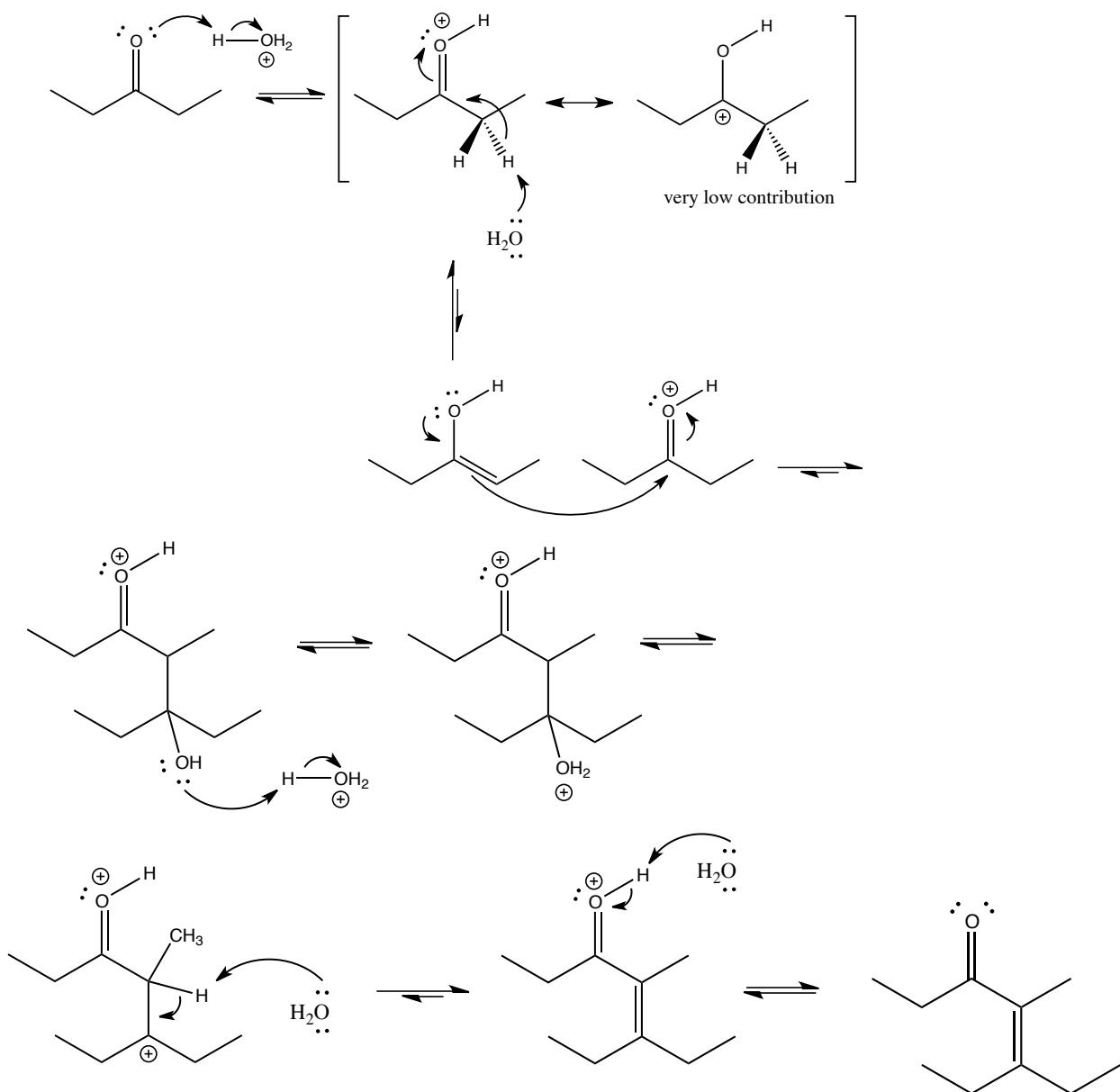
<http://www.chem.wisc.edu/areas/clc> (Resource page)

The Aldol Reaction Under Acidic Conditions

Reaction:

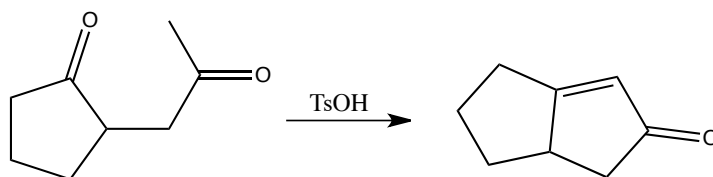


Mechanism:



Under acidic conditions an enol is formed in the aldol reaction, which as a nucleophile attacks another ketone or aldehyde. In the case of an acid catalyzed reaction the aldol addition product cannot be isolated. It easily dehydrates to the α,β -unsaturated carbonyl compound.

If a molecule contains two aldehyde/ketone groups and a 5 or 6-membered ring can be formed then an **intramolecular aldol** reaction can occur. See reaction below and its mechanism.



Mechanism:

