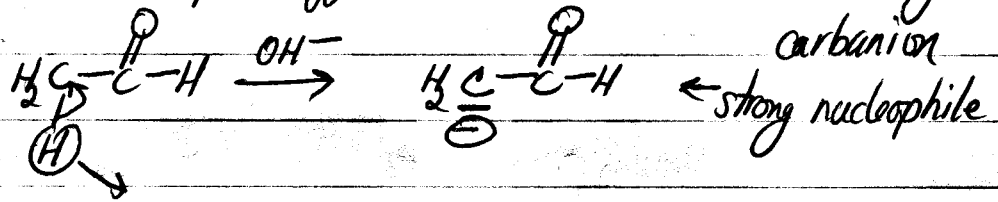


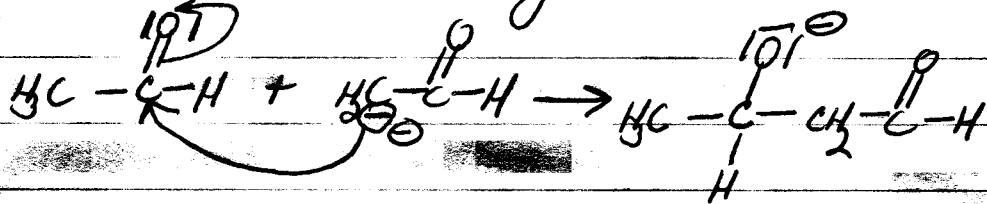
KEY Problem Set #9

Mechanism for 36 -

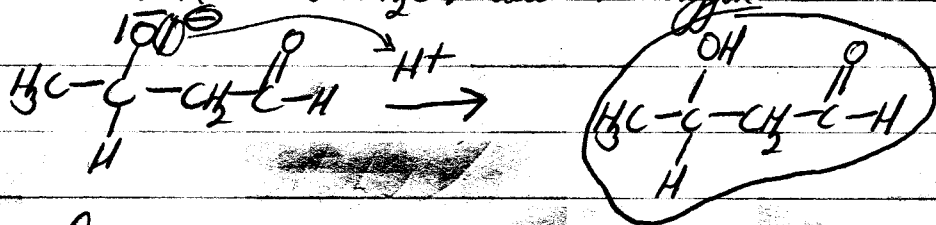
Step 1: Base (OH^-) pulls off a α -H from the ketone or aldehyde.



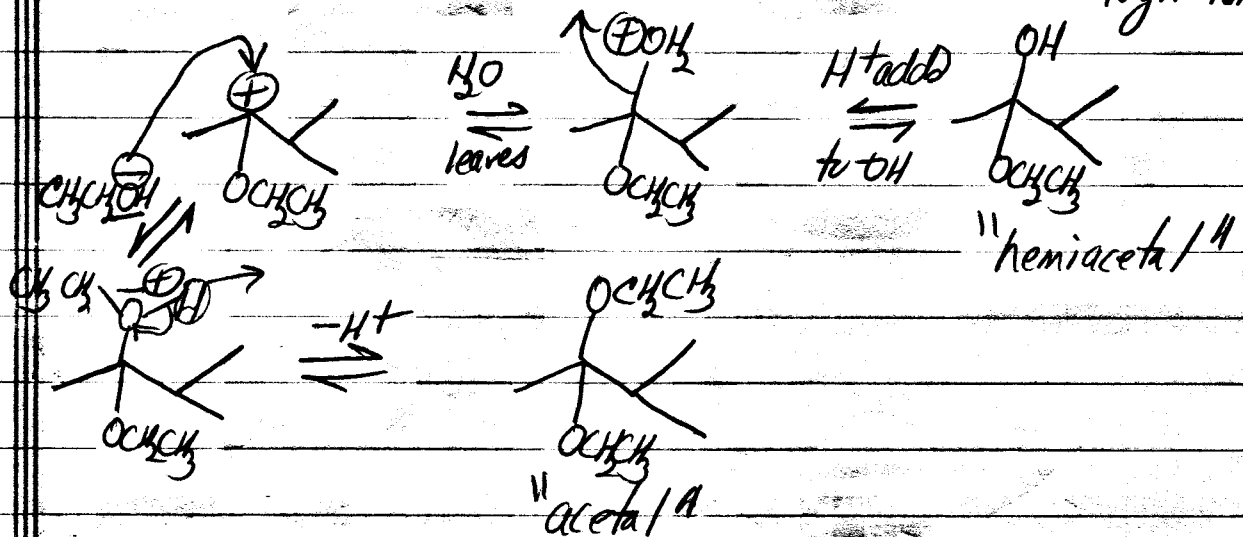
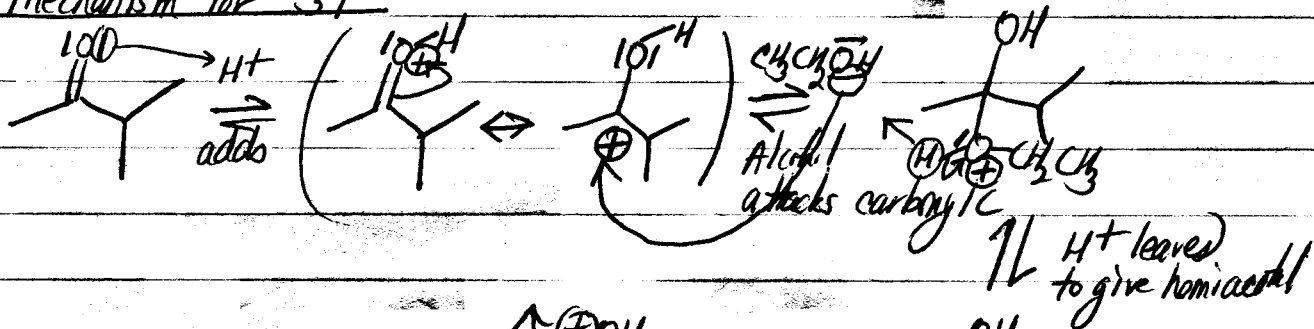
Step 2: Carbanion attacks carbonyl C in second molecule.



Step 3: H^+ from solvent (H_2O) adds to oxygen.

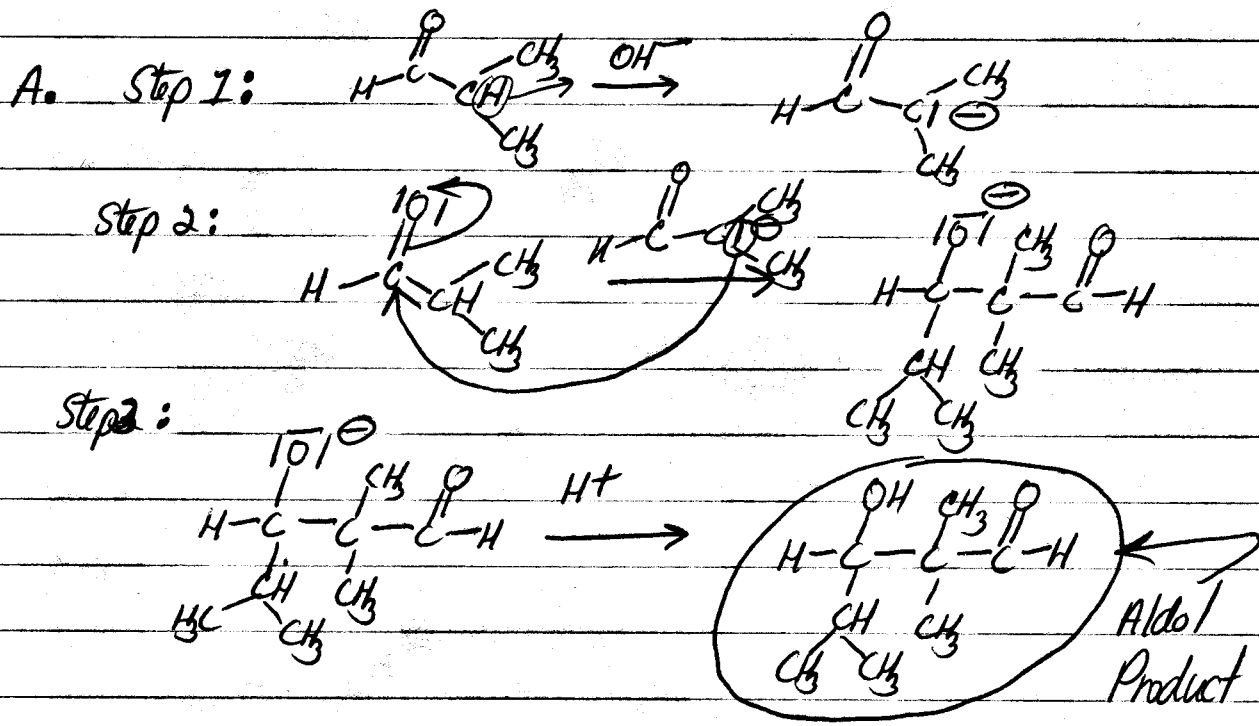


Mechanism for 37

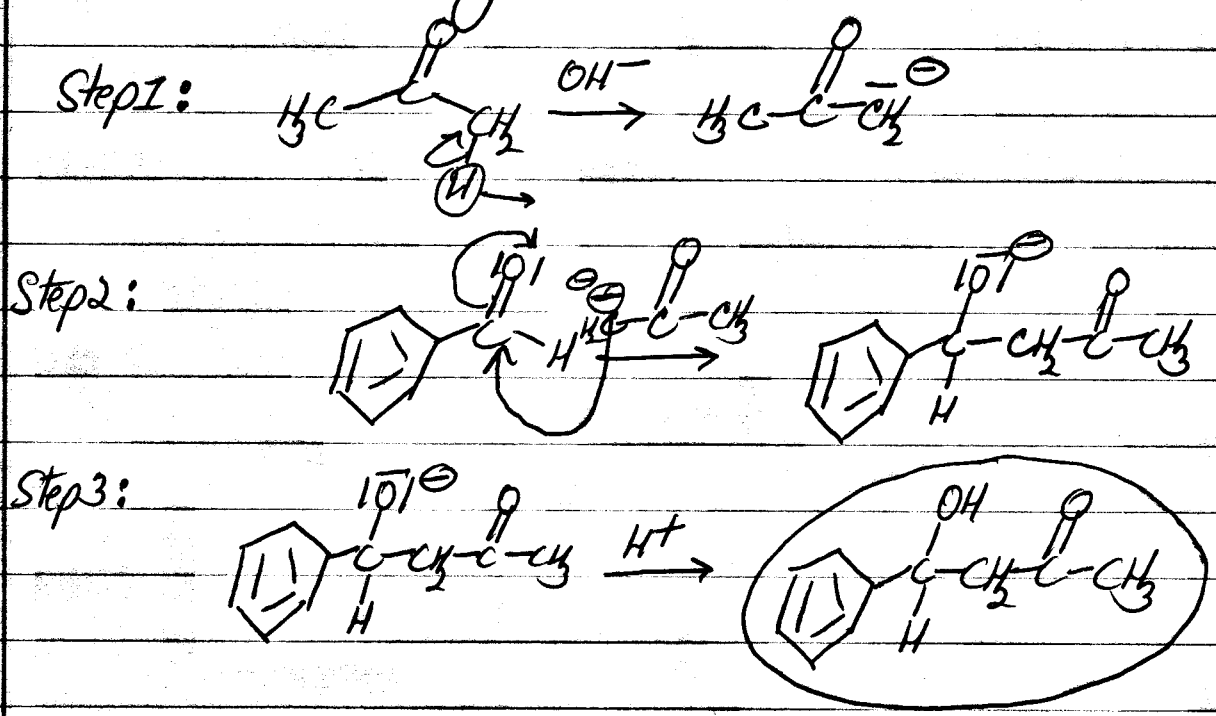


KEY Problem Set #9

5.



B. mixed aldol → only the first substance has α-H's that can be removed by base.



Mixed aldol product
 (NOTE: could also obtain product due to aldol condensation of 2 dimethyl ketones)