

4/20/12

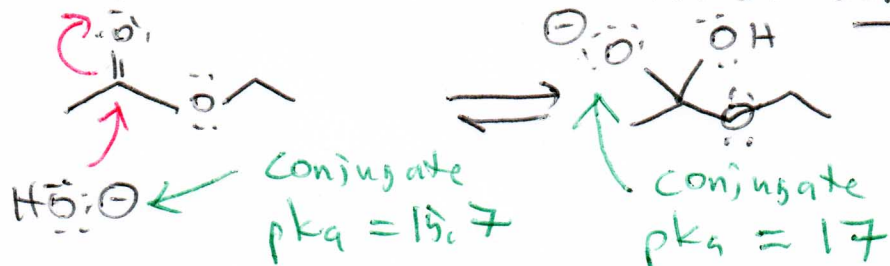
Do not worry about  $\alpha$ -H for the Quiz

- Relative reactivity of carboxylic acid derivatives
- Cationic vs anionic mechanisms  $\rightarrow$  reversibility

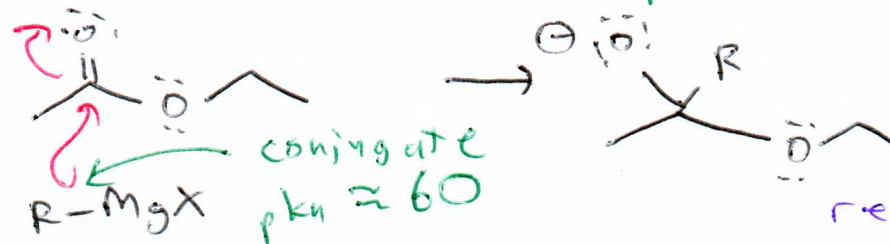
Why are cationic mechanisms normally fully reversible?

- Often (such as in esterification) the products + reactants are similar in energy and, more importantly, the intermediates are similar in energy (one protonated oxygen is not vastly different from another protonated oxygen).

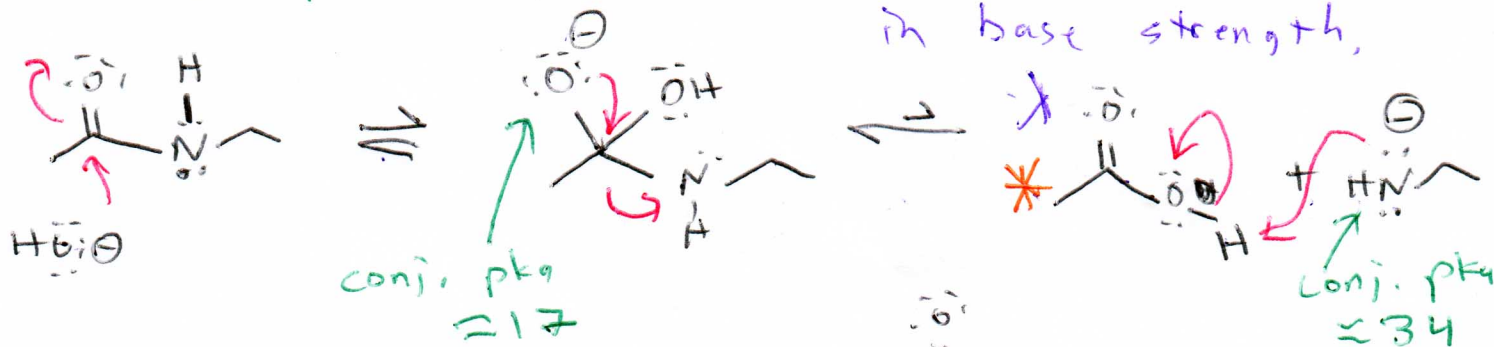
Why are anionic mechanisms sometimes reversible?



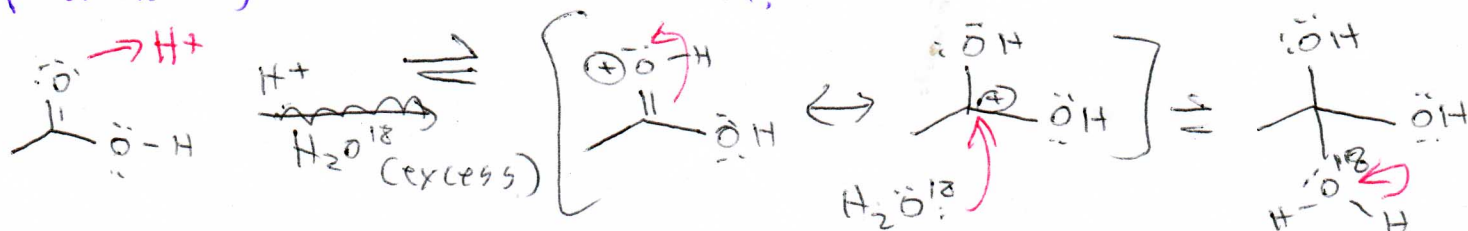
This step is reversible since the two structures are similar in base strength

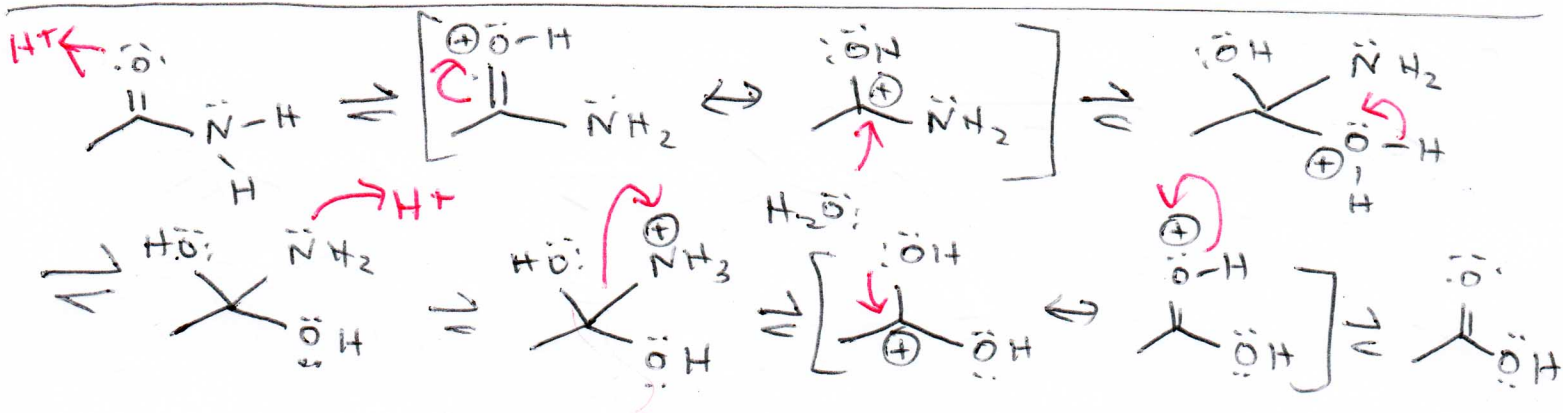
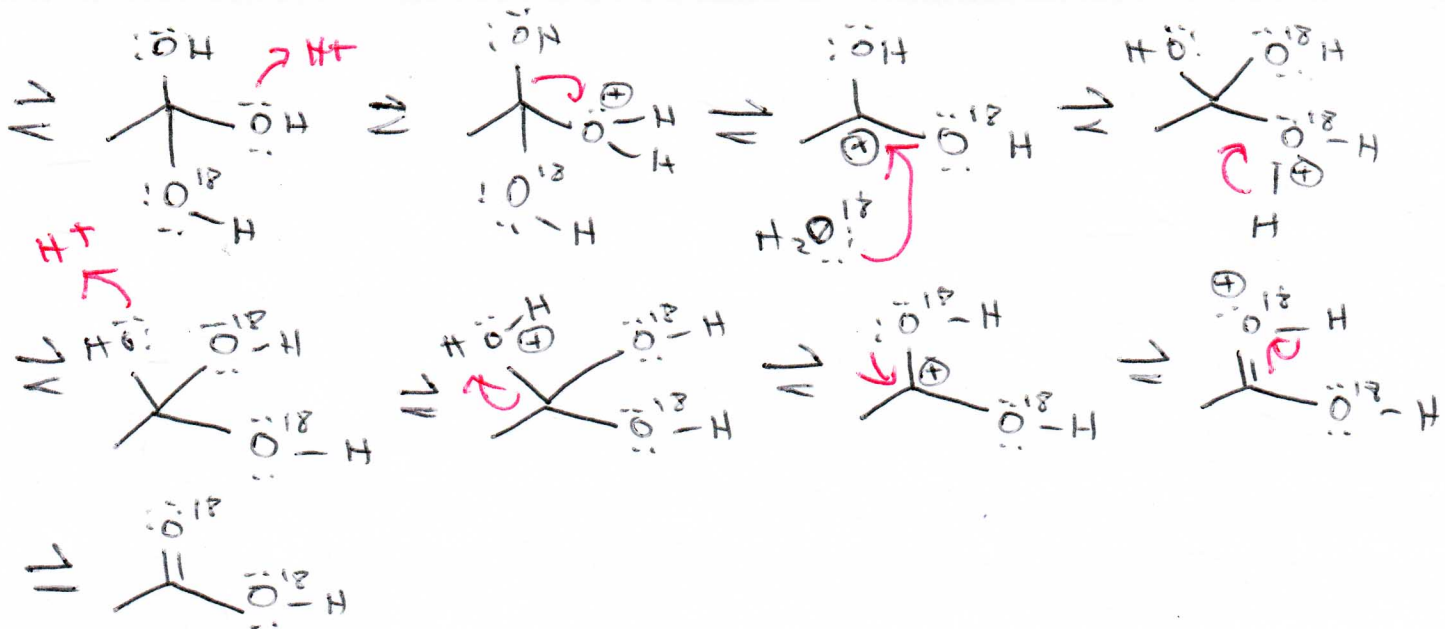


This step is not reversible since the reagents differ vastly in base strength,

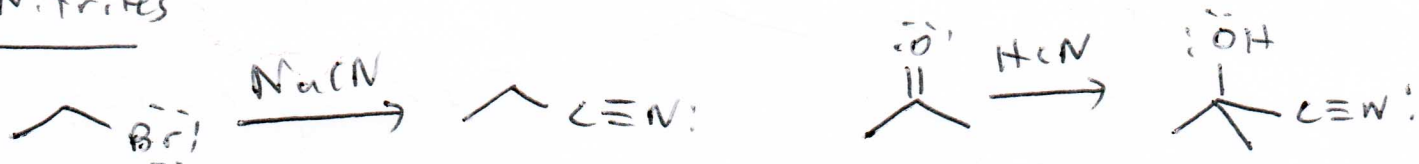


\* Because both an acid + base are formed @ the same time, before the rxn can reverse, they neutralize each other, preventing a reverse rxn.





Nitriles



Cyanohydrin

