

Do not worry about α -H for the quiz.

- Relative reactivity of carboxylic acid derivatives

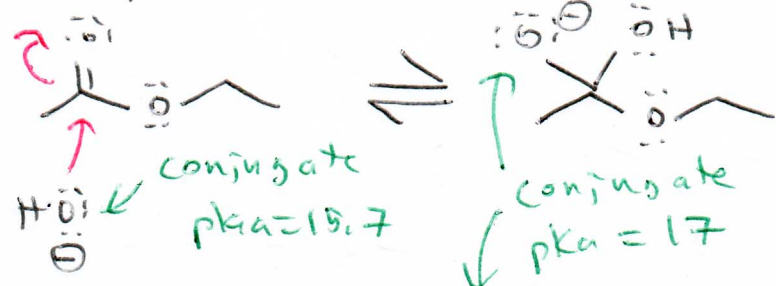
- Cationic vs anionic mechanisms \rightarrow reversibility

* Why are cationic mechanisms normally fully reversible?

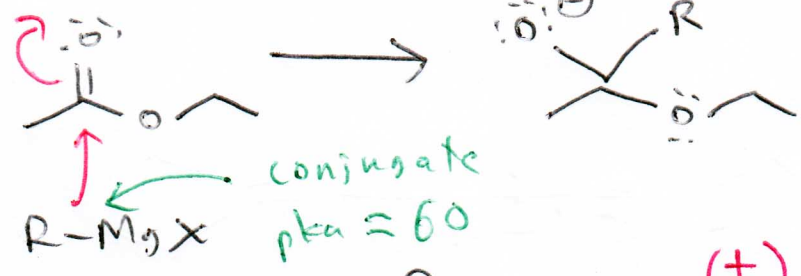
- (example: esterification) often the products + reactants are very similar in energy, and, more importantly, the intermediates are very similar in energy (one protonated oxygen is not vastly different from another protonated oxygen).

* Why are anionic mechanisms

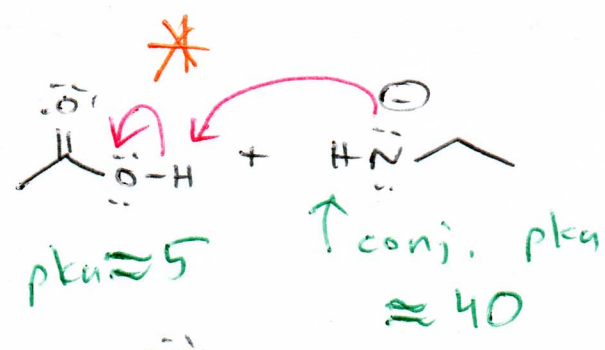
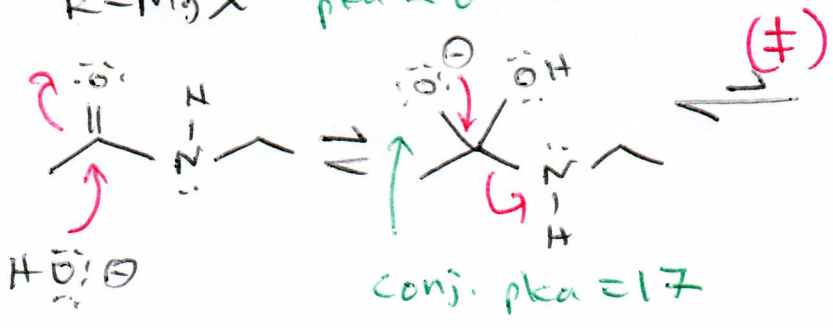
sometimes reversible?



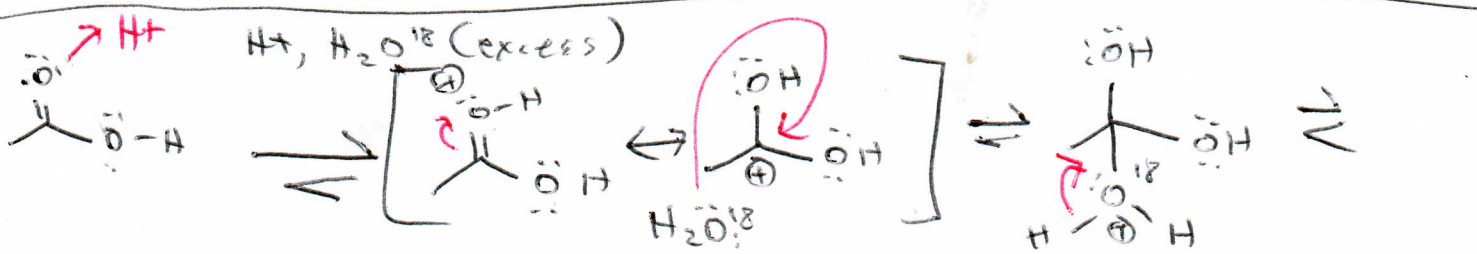
This step is reversible since the two structures are similar in base strength.

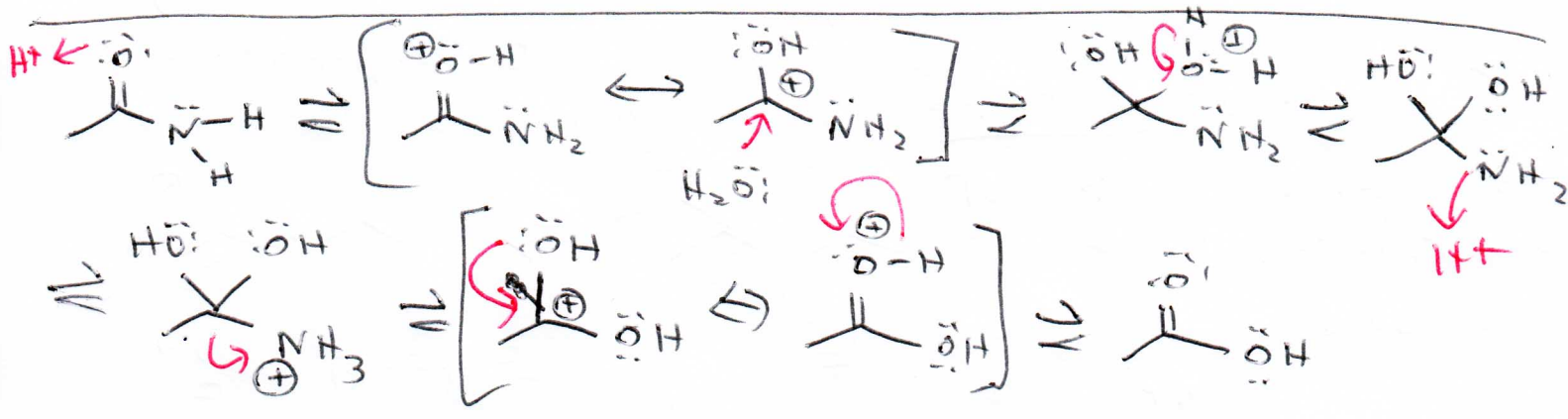
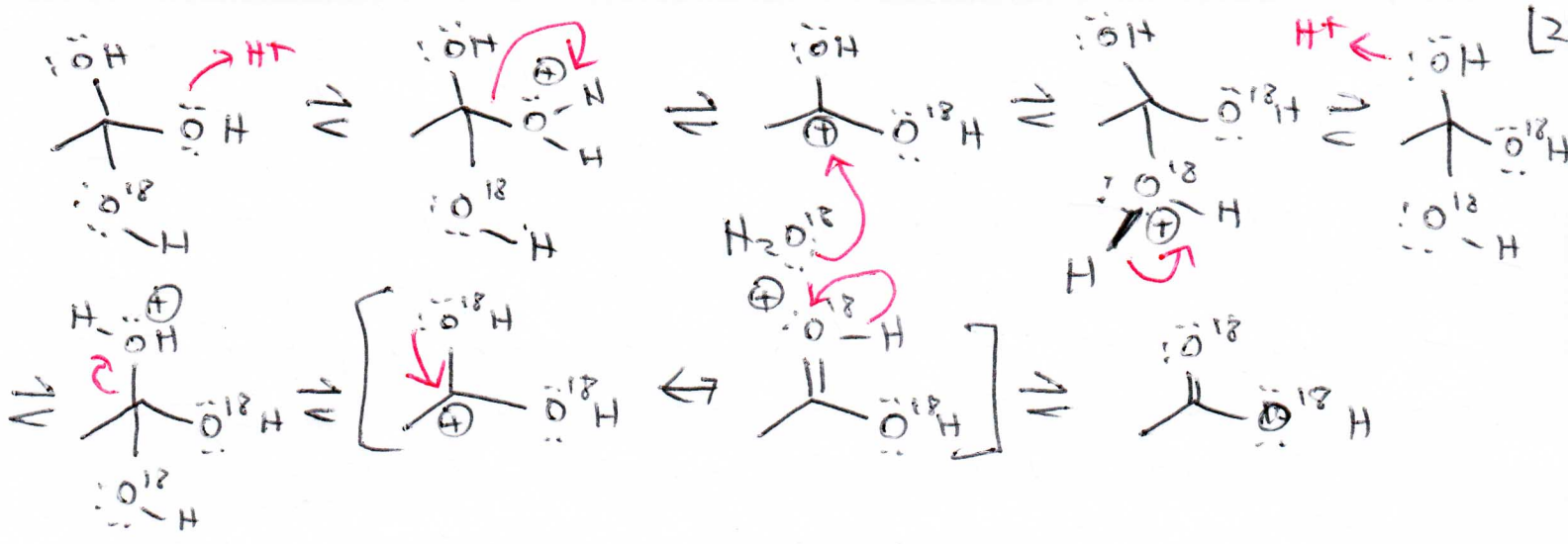


This step is not reversible since the reagents differ greatly in base strength.

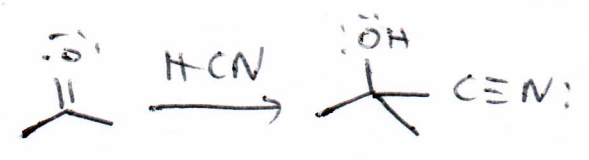
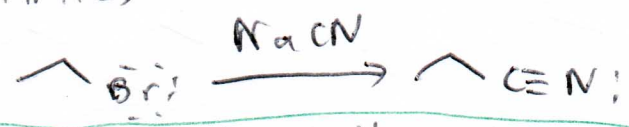


* Because both an acid + a base \rightarrow are formed @ the same time, before (\neq) the rxn can reverse, they neutralize each other, preventing the reverse rxn.





Nitriles



Cyanohydrin

