Most aldehydes and ketones react with 2°-amines to give products known as **enamines**. It should be noted that, like acetal formation, these are acid-catalyzed reversible reactions in which water is lost. Consequently, enamines are easily converted back to their carbonyl precursors by acid-catalyzed hydrolysis.

**Mechanism**

1) Nucleophilic attack

2) Proton transfer

3) Protonation of OH
4) Removal of water

5) Deprotonation

Reversibility of Enamines

Example
Problems

1) Please draw the products for the following reactions.

\[ \text{products} \]

2) Please give the structure of the reactant needed to produce the following product

\[ \text{reactant} \]

Answers

1)
Contributors

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