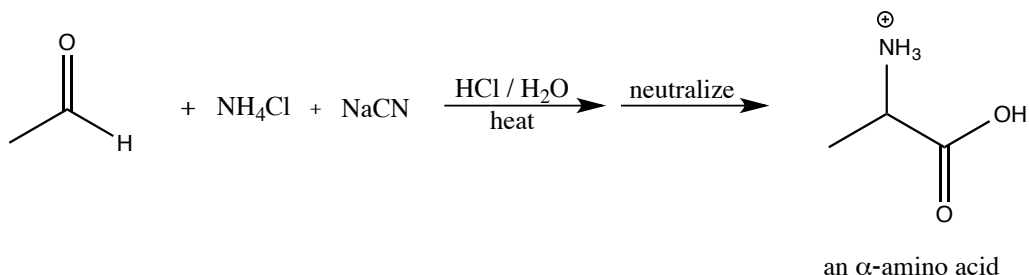


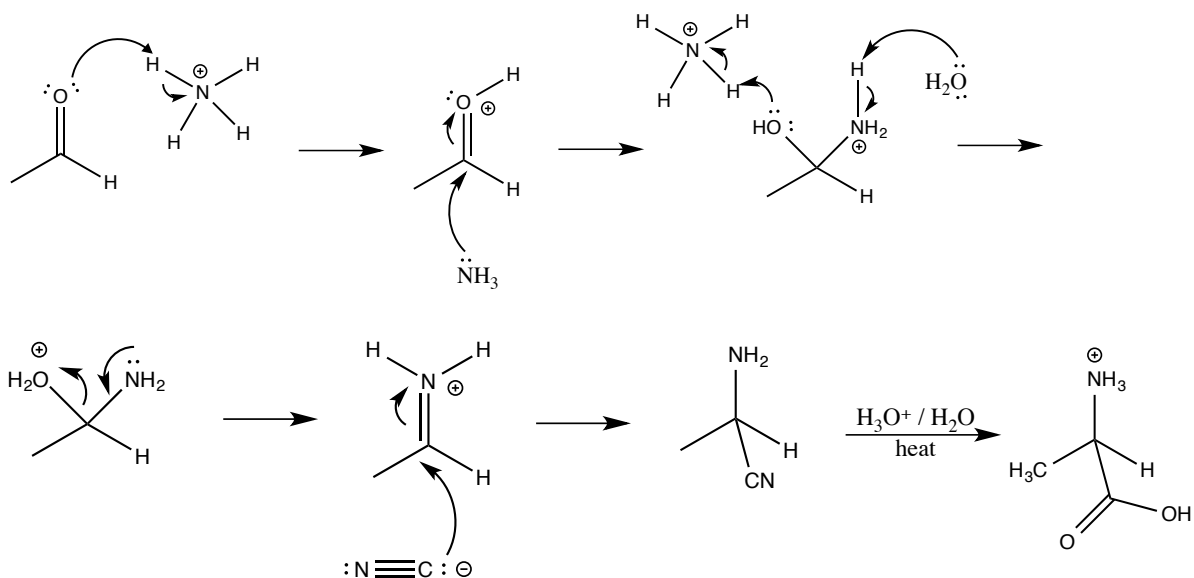
**Chem 345 – Organic Reactions Chapter 27**  
Prepared by José Laboy, MS  
[http: www.chem.wisc.edu/areas/clc](http://www.chem.wisc.edu/areas/clc) (Resource page)

The Strecker Synthesis

Reaction:



Mechanism:



This reaction sequence is important in the synthesis of simple  $\alpha$ -amino acids, like alanine, the one shown above. The  $\alpha$ -amino nitrile is readily hydrolyzed in aqueous acidic media to form the carboxylic acid (recall acid hydrolysis of nitriles). The reaction conditions require a slightly acidic media,  $\text{pH} \approx 5.0$ .