Chem 345 – Organic Reactions Chapter 23

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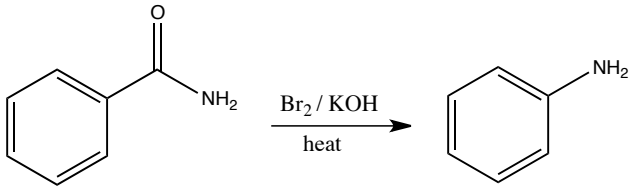
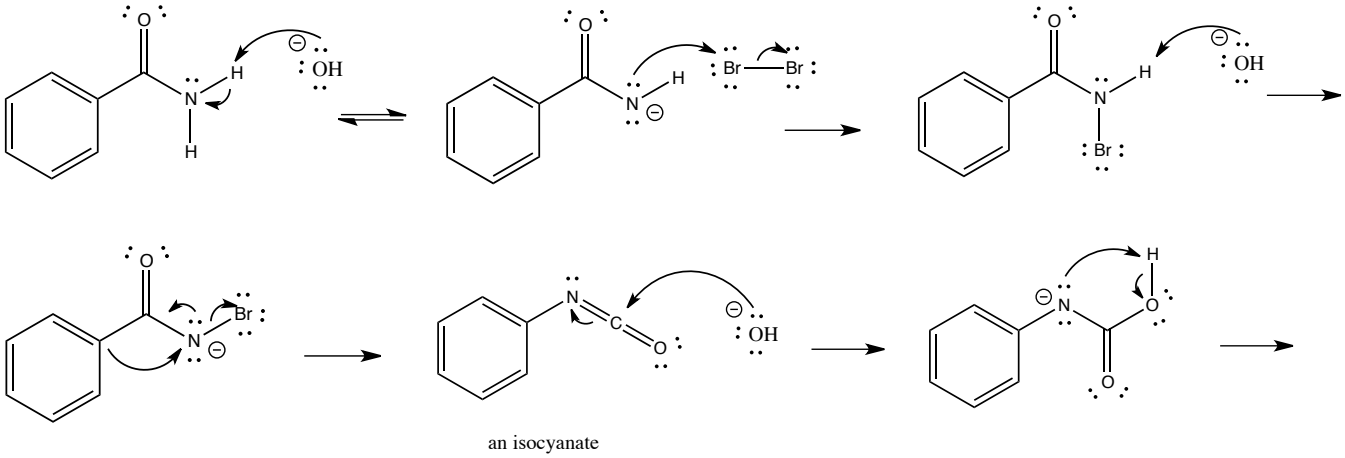
http: www.chem.wisc.edu/areas/clc (Resource page)

The Hofmann Rearrangement

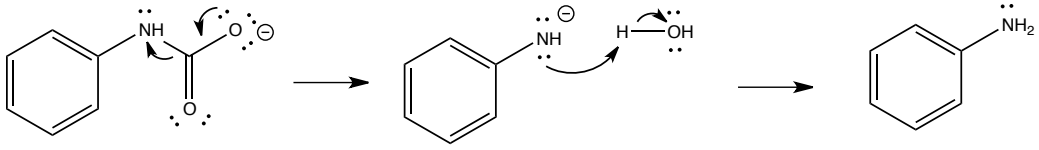
Reaction:



Mechanism:



an isocyanate



a carbamate

This reaction is very similar to the Curtius rearrangement. In this case the reaction conditions are aqueous and basic and the intermediate isocyanate formed produces a carbamate and therefore cannot be isolated. Under the conditions of the reaction the carbamate readily decomposes releasing CO_2 and the amine.