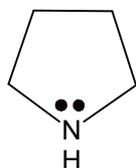


Question:

Why pyrrole is stronger acid than pyrrolidine

Answer:

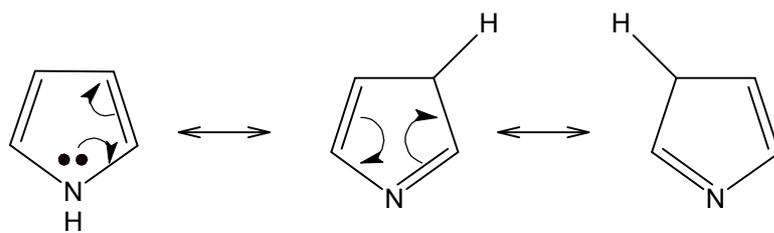
The structure of pyrrolidine is the following:



pyrrolidine

Lone pair of electrons is situated on nitrogen atom and pyrrolidine can accept protons i.e. pyrrolidine has basic properties.

In pyrrole lone pair localized on nitrogen enters resonance:



1H-pyrrole

3H-pyrrole

3H-pyrrole

Pyrrole is stronger acid due to the fact that the lone pair is delocalized in the heterocyclic ring and nitrogen atom is more likely to donate proton.