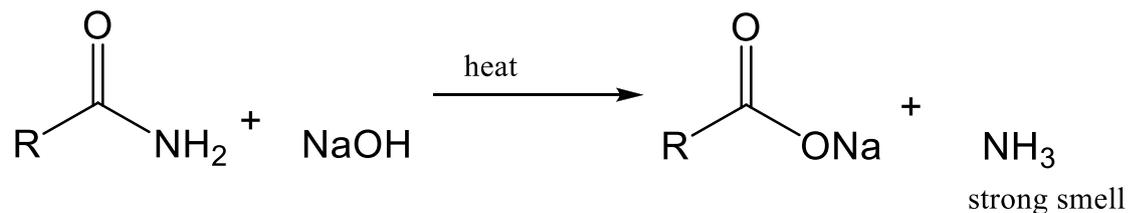


Answer on Question#58183 – Chemistry – Organic chemistry

Question: how to distinguish between amides and carboxylic acids

Answer: The best method to distinguish between amides and carboxylic acids is IR spectroscopy. Carboxylic acids have very broad absorption band $2500 - 3500 \text{ cm}^{-1}$. Amides have not so broad absorption band.

If we must distinguish between primary amides (R-COONH_2) and carboxylic acids we can use reaction between these compounds and NaOH. Amides react with NaOH with emission of ammonia that have strong smell.



Carboxylic acids do not emit ammonia.