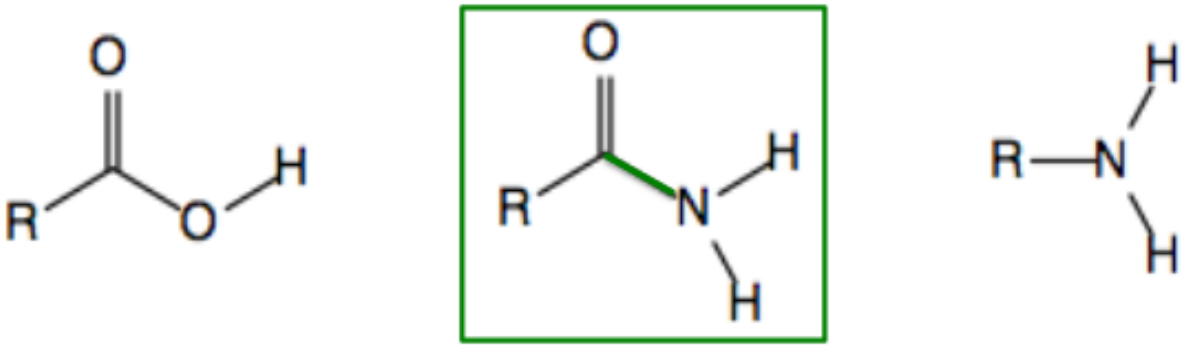
Amides

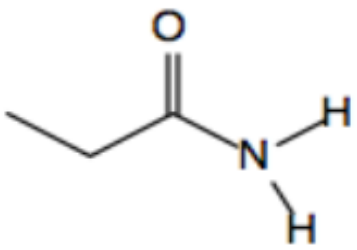
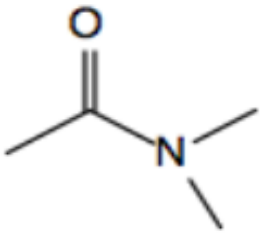
- In **amides**, an amino group ($-NH_2$) replaces the –OH group of carboxylic acids.



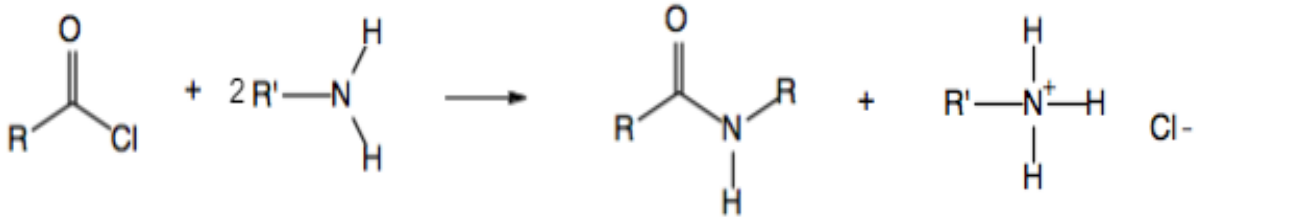
ethanoic acid ethanamide ethanamine

- Amides are (mainly) solids at room temperature and have very high boiling points.
- Simple amides are soluble in water.

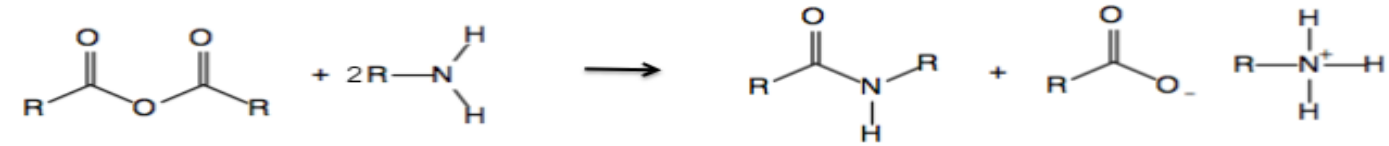
- Name the following compounds.

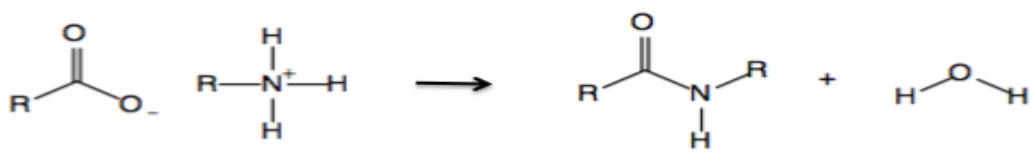



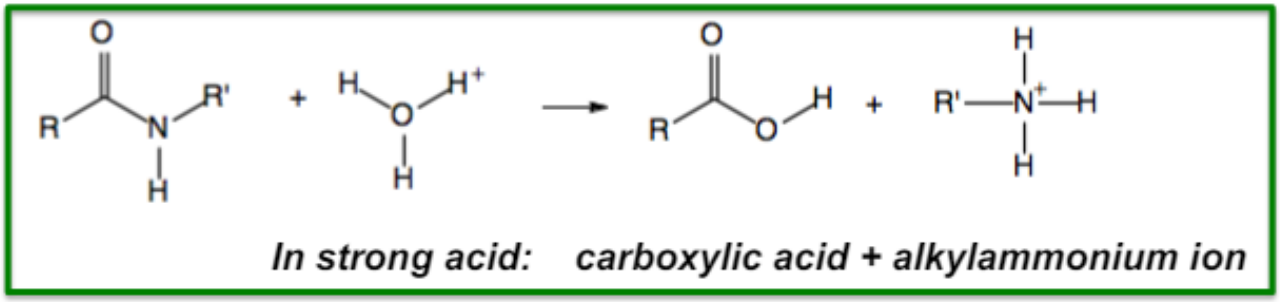
- Primary and secondary amines react with acid chlorides to produce amides.



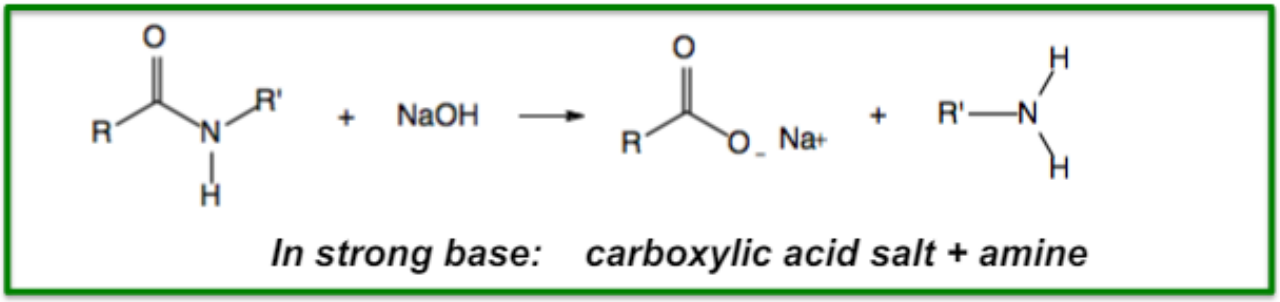
- Primary and secondary amines react with acid anhydrides to produce amides.







In strong acid: carboxylic acid + alkylammonium ion



In strong base: carboxylic acid salt + amine