

Carboxylic Acids and Esters

The key areas of study in this topic are:

- Properties of carboxylic acids
- Tests for carbonyl compounds

By the end of this topic I should be able to:

	Start	End
Explain the water solubility of carboxylic acids in terms of hydrogen bonding		
Describe the reactions in aqueous conditions of carboxylic acids with metals and bases (including carbonates, metal oxides and alkalis)		
Describe the esterification of: <ul style="list-style-type: none"> • carboxylic acids with alcohols in the presence of an acid catalyst (e.g. concentrated H_2SO_4) • acid anhydrides with alcohols 		
Describe the hydrolysis of esters: <ul style="list-style-type: none"> • in hot aqueous acid to form carboxylic acids and alcohols • in hot aqueous alkali to form carboxylate salts and alcohols 		
Describe the formation of acyl chlorides from carboxylic acids using SOCl_2		
Describe the use of acyl chlorides in synthesis in formation of esters, carboxylic acids and primary and secondary amides.		

In all topic areas you should be able to demonstrate and apply your knowledge and understanding.

