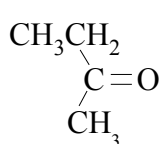


Chemguide – questions

ALDEHYDES AND KETONES: THE TRIIODOMETHANE (IODOFORM) REACTION

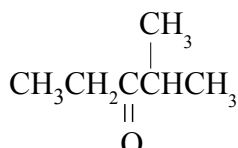
- How would you carry out the triiodomethane reaction on a sample of an aldehyde or ketone? (Either method given on the Chemguide page is acceptable.)
 - What would happen if you had a positive result?
 - What exactly does a positive result show about the aldehyde or ketone?
 - List all the aldehydes which give the triiodomethane reaction.
 - Which of the following ketones will give the triiodomethane reaction?



A



B



C



D

- Please don't waste time doing this question unless you are sure that you need to be able to write these equations!
 - The formation of a triiodomethane precipitate from a ketone such as propanone happens in two stages. In the first stage, iodine in the presence of hydroxide ions replaces the hydrogens in one of the CH_3 groups. Write the ionic equation for this reaction.
 - In the second stage, there is a further reaction involving a hydroxide ion in which the iodine-containing group is broken off to form triiodomethane. Write the ionic equation for this reaction.
 - Combine the equations you have written in (a) and (b) to give the overall equation for the reaction.