

AS Chemistry Induction work

This work has been split into two sections. You will need to complete all two sections.

Section 1 – Practical – The molar heat of combustion of ethanol.

This practical would normally be completed on the induction day in the laboratory.

Please watch the video clip (14mins) – see the link below and complete the following tasks:

<https://www.youtube.com/watch?v=GOwoLI8fH20>

1. Write a detailed method on how to carry out the practical 'The molar heat of combustion of ethanol'.
2. Answer the following questions:
 - a. What is the best temperature rise when carrying out heat of combustion experiments?
 - b. Why is there only a small gap between the flame and the bottom of the beaker?
 - c. Why is a pipe clay triangle used and not a gauze?
3. Processing the data.
 - a. Calculate the amount of energy transferred to the water – show your working and include units.
 - b. Calculate the molar mass of ethanol – show your working and include units.
 - c. Calculate the experimental molar heat of combustion – show your working and include units.
4. Questions:
 - a. How does the theoretical value and the experimental (empirical value) compare?
 - b. Where has the extra energy gone? (Give 3 points)

Section 2 – Booklet

Complete the booklet 'AS CHEMISTRY - AQA 7404 - Y12 Chemistry Course Preparation - Basic skills for the AS level Chemist'.