

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use Total Task 2



General Certificate of Education  
Advanced Level Examination  
June 2012

## Chemistry

## CHM6X/PM2

Unit 6X A2 Externally Marked Practical Assignment

### Task Sheet 2

To be completed before the EMPA Written Test

For submission by 15 May 2012

**For this paper you must have:**

- a ruler
- a calculator.

**Task 2     A study of some catalysts**

Catalysts are used to speed up reactions. In this Task you will investigate a number of catalysed reactions.

**Procedure**

- **Wear eye protection at all times.**
- **Assume that all solutions are toxic and corrosive.**

Read all five tests detailed below. Design a table to record your observations on the Candidate Results Sheet for Task 2.

Carry out the following tests in separate, clean test tubes. Record **all** your observations.

**Test 1**

- Place a 2 cm depth of solution **A** in a test tube. Add one small spatula load of solid catalyst **B** to the test tube.
- Leave the mixture to stand for a few minutes.

**Test 2**

- Place a 2 cm depth of solution **C** and a 2 cm depth of solution **D** in a test tube.
- Add 3 drops of catalyst solution **E** to the test tube.

**Test 3**

- Place a 2 cm depth of solution **F** and a 2 cm depth of solution **G** in a test tube.
- Leave the mixture to stand for a few minutes.

**Test 4**

- Place a 2 cm depth of solution **F** and a 2 cm depth of solution **G** in a test tube. Add 3 drops of catalyst solution **E** to the test tube.
- Leave the mixture to stand for a few minutes.

**Test 5**

- Weigh out approximately 0.5 g of solid **H** and place this in a clean **boiling tube**. Add a 2 cm depth of distilled or deionised water to the boiling tube.
- Using a test tube holder, heat the mixture by placing the boiling tube in a 250 cm<sup>3</sup> beaker containing approximately 150 cm<sup>3</sup> of water that has just been boiled. Leave the boiling tube in the hot water for approximately one minute.
- Add a 2 cm depth of solution **A** to the boiling tube and warm again in the beaker of hot water for approximately one minute.
- Remove the boiling tube from the hot water.
- Use another dropping pipette to add 5 drops of catalyst solution **J** to the boiling tube. Shake the tube to mix the liquids.
- Replace the boiling tube in the beaker of hot water and leave the mixture to stand for approximately one minute.

You are not required to do any further work in this Task.

You will use your observations to answer the questions in **Section A** of the Written Test.

**Turn over for the Candidate Results Sheet for Task 2**

**Turn over ►**

**Candidate Results Sheet for Task 2**

Teacher Group .....

**Results**

Record your observations in a table of your own design in the space below.

*(8 marks)*

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