Cambridge IGCSE
Topical Past Papers

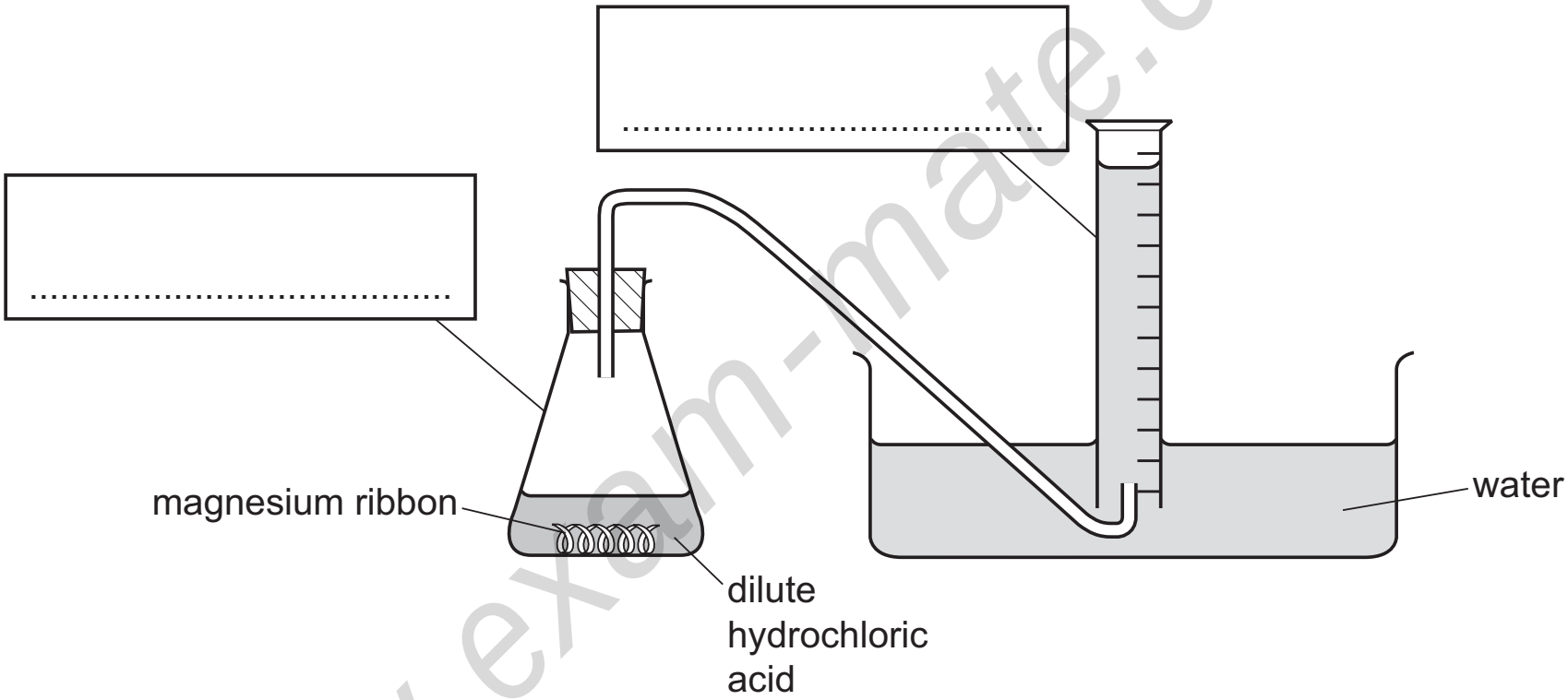
CHEMISTRY

0620 P6

2017 — 2025

1 - (0620/62_Summer_2017_Q1) ANSWER

A student investigated the rate of reaction between an excess of dilute hydrochloric acid and magnesium ribbon. The apparatus is shown.



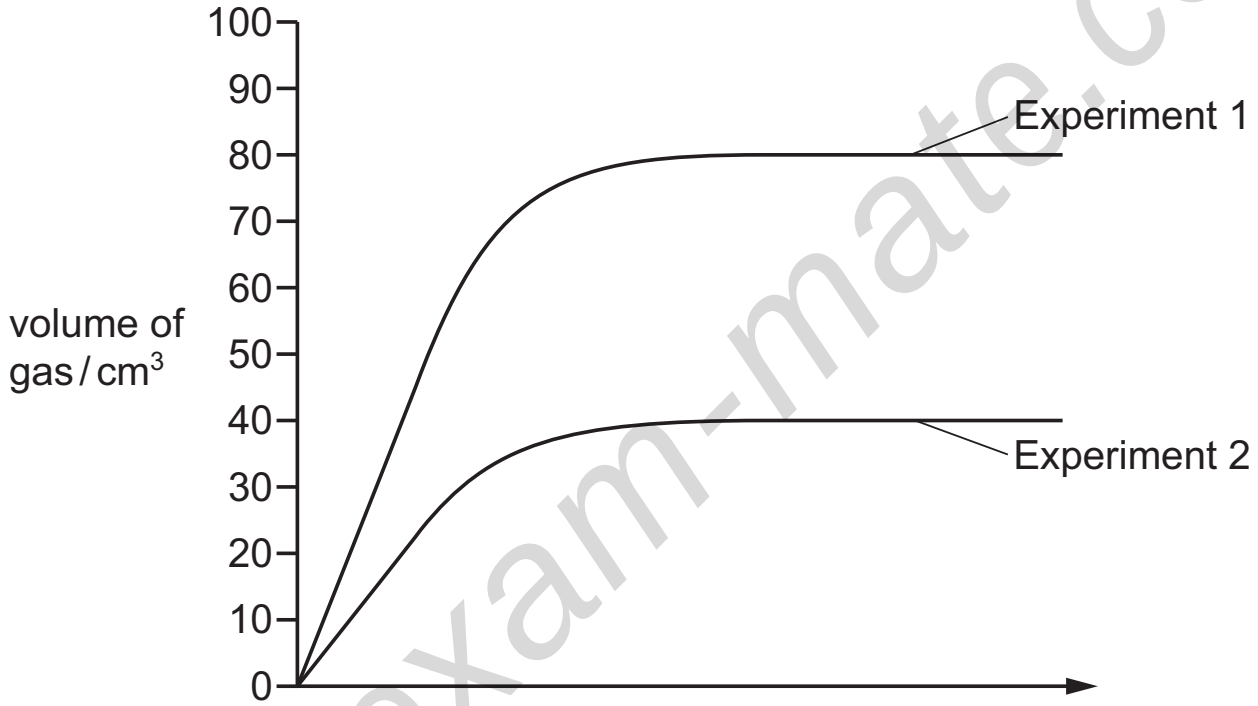
Two experiments were carried out. The temperature was the same in each case.

(a) Complete the boxes to identify the apparatus. [2]

(b) Give **one** observation expected during this reaction.

..... [1]

Graphs were drawn from the results for each experiment as shown.



(c) Label the *x*-axis of the graph. [2]

(d) (i) Give the volumes of gas at which the **two** graphs level out and compare these values.

....

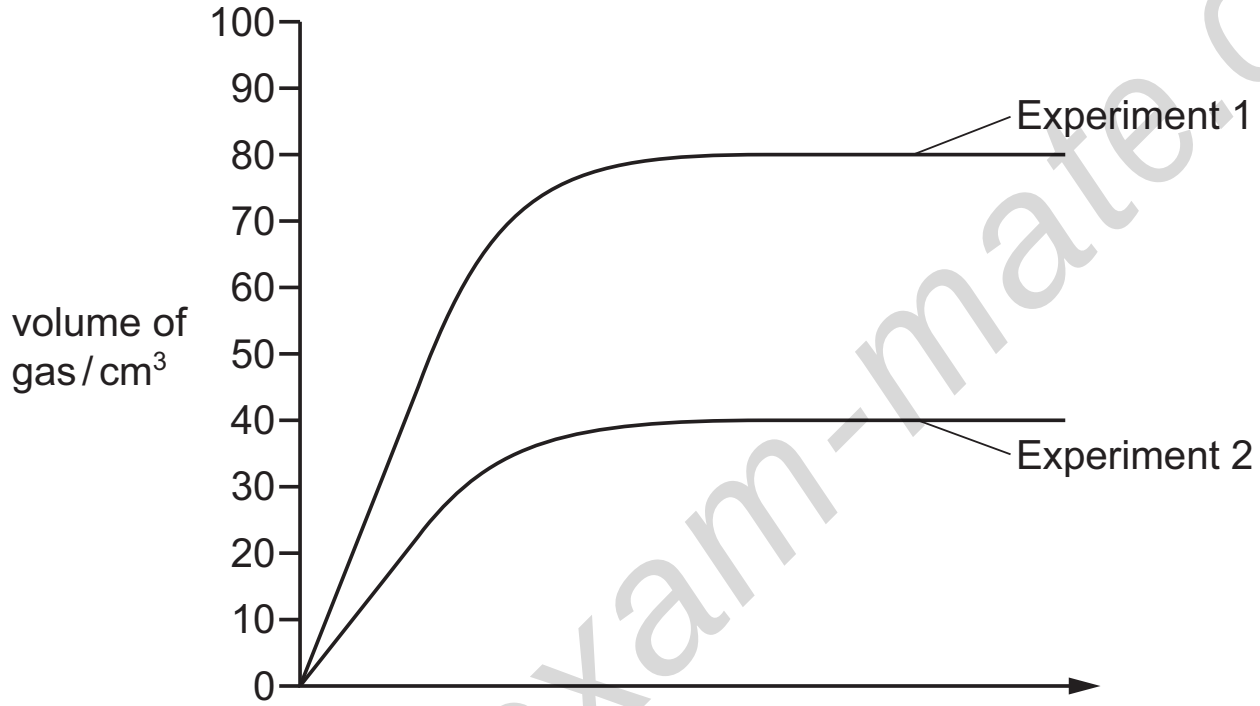
..... [2]

(ii) Suggest why the graphs level out at different volumes.

..... [1]

(iii) The graph has been drawn again.

Draw the curve expected if Experiment 1 were repeated using the same mass of magnesium powder instead of magnesium ribbon.



[2]

[Total: 10]

2 - (0620/63_Winter_2025_Q1) ANSWER

A student uses the apparatus in Fig. 1.1 to show that water is formed as one of the products when a fuel is burned. The gases produced when the fuel is burned are passed through the apparatus using a suction pump.

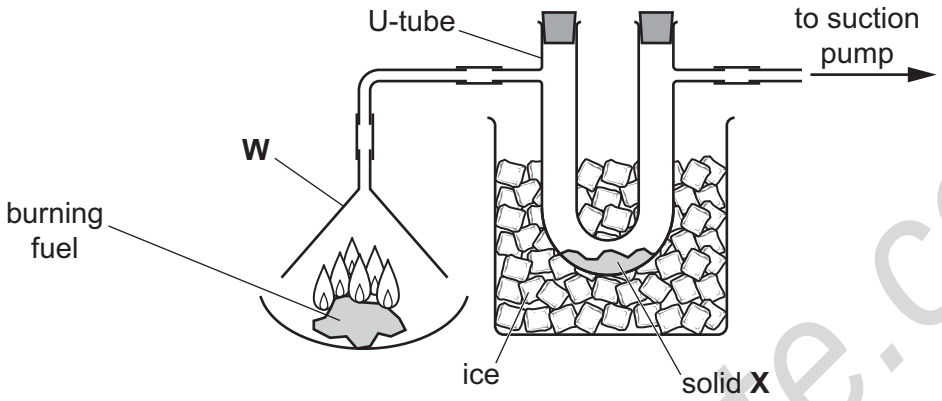


Fig. 1.1

(a) Identify the item of apparatus labelled **W** in Fig. 1.1.

..... [1]

(b) When the fuel is burned, the steam produced passes into the U-tube.

Suggest why the U-tube is surrounded by ice.

..... [1]

(c) Water causes solid **X** in the U-tube to change colour.

Name solid **X** and state the colour change seen.

solid **X** .....

colour change from ..... to .....

[2]

.

The student tries to use the apparatus in Fig. 1.2 to pass the gases produced through acidified aqueous potassium manganate(VII).

There is an error in the apparatus in Fig. 1.2 so that the gases produced will **not** pass through the acidified aqueous potassium manganate(VII).

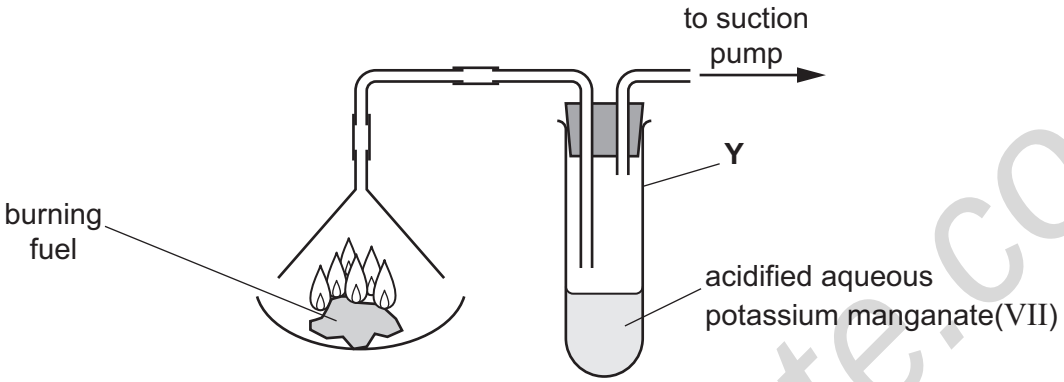


Fig. 1.2

(d) Identify the item of apparatus labelled **Y** in Fig. 1.2.

..... [1]

[1]

(f) The error in the apparatus in Fig. 1.2 is corrected.
The student observes that the acidified aqueous potassium manganate(VII) changes colour from purple to colourless.

Suggest why this colour change occurs.

.....

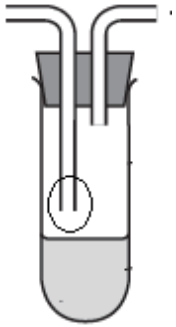
..... [1]

[Total: 7]

1 - (0620/62_Summer_2017_Q1) QUESTION

(a)	measuring cylinder	**1**
	conical flask	**1**
(b)	bubbles / fizz / effervescence	**1**
(c)	time (taken)	**1**
	s / seconds / secs	**1**
(d)(i)	80 and 40 (cm^3)	**1**
	Experiment 1 at twice / double the volume of Experiment 2	**1**
(d)(ii)	two times as much / mass / amount / length magnesium used (in Experiment 1)	**1**
(d)(iii)	curve drawn is steeper than Experiment1	**1**
	curve drawn finishes at the same level as Experiment 1	**1**

2 - (0620/63_Winter_2025_Q1) QUESTION

(a)	funnel	**1**
(b)	to cool / to condense (AND) the water/steam/(water) vapour	**1**
(c)	**M1** anhydrous cobalt(II) chloride / anhydrous copper(II) sulfate **M2** blue to pink if cobalt(II) chloride **OR** white to blue if copper(II) sulfate	**1**
(d)	boiling tube	**1**
(e)	circle must include the bottom of the left-hand tube but **not** the right-hand tube. It can overlap the surface of the liquid. 	**1**
(f)	sulfur dioxide (made when the fuel is burned)	**1**