

**Paper Reference(s) 1CH0/2H**  
**Pearson Edexcel Level 1/Level 2 GCSE**  
**(9–1)**

**Chemistry**  
**PAPER 2**  
**Higher Tier**

**Tuesday 11 June 2024 – Morning**

**Time: 1 hour 45 minutes**

**Diagram Booklet**

**THIS DIAGRAM BOOKLET MUST BE  
RETURNED WITH THE QUESTION PAPER  
AT THE END OF THE EXAMINATION.**

**In the boxes below, write your name, centre  
number and candidate number.**

<b>Surname</b>					
<b>Other names</b>					
<b>Centre Number</b>					
<b>Candidate Number</b>					

## **INSTRUCTIONS**

**There may be spare copies of some diagrams in case you need them.**

## **CONTENTS**

### **Page**

**4      Question 1(a)**

**5      Question 1(a)(iii)**

**6      Question 2(a)**

**7      Question 2(b)**

**8      Question 3(d)**

**9      Question 4(a)**

**10     Question 4(b)**

**11     Question 6(a)**

**12     Question 6(b)(i)**

**13     Question 7(b)(i)**

**14     Question 7(b)(ii)**

**(continued on the next page)**

**Turn over**

## **CONTENTS continued.**

**15 Question 7(d)**

**16 Question 8(c)**

**17 Question 9(b)**

**18 Question 10(a)**

**19 Question 10(b)**

### **Spare Copies**

**20 Question 2(a)**

**21 Question 4(b)**

**22 Question 7(b)(i)**

**23 Question 7(b)(ii)**

**24 Question 10(b)**

FIGURE 1

concrete	mixing ratio	compressive strength in kPa	example of use
A	1:2:4	17 250	fence posts
B	1:2:3	27 600	paving slabs
C	1:2:2	31 050	flooring

# Question 1(a)(iii)

## FIGURE 2

### KEY

○ oxygen atom

⊗ silicon atom

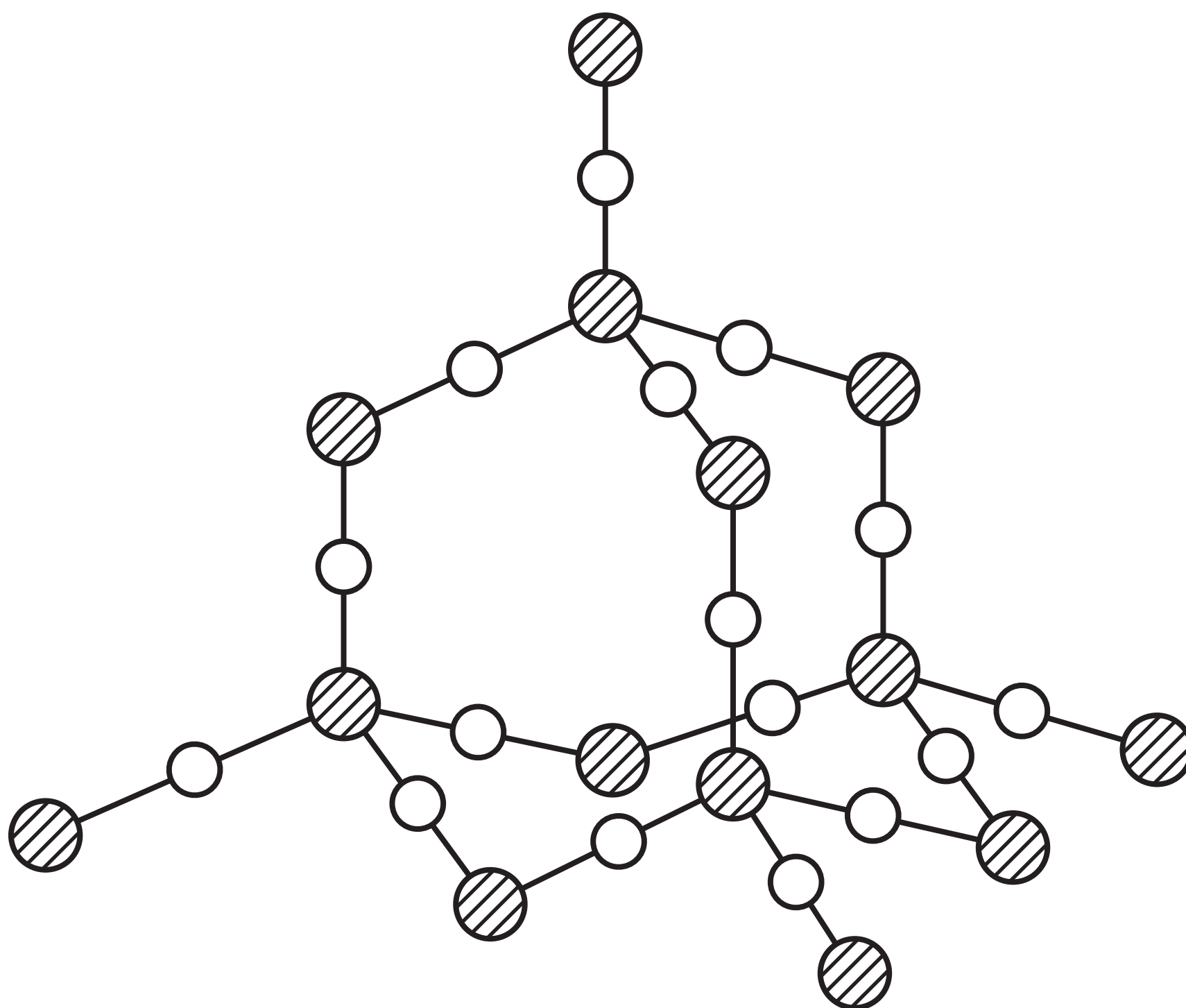
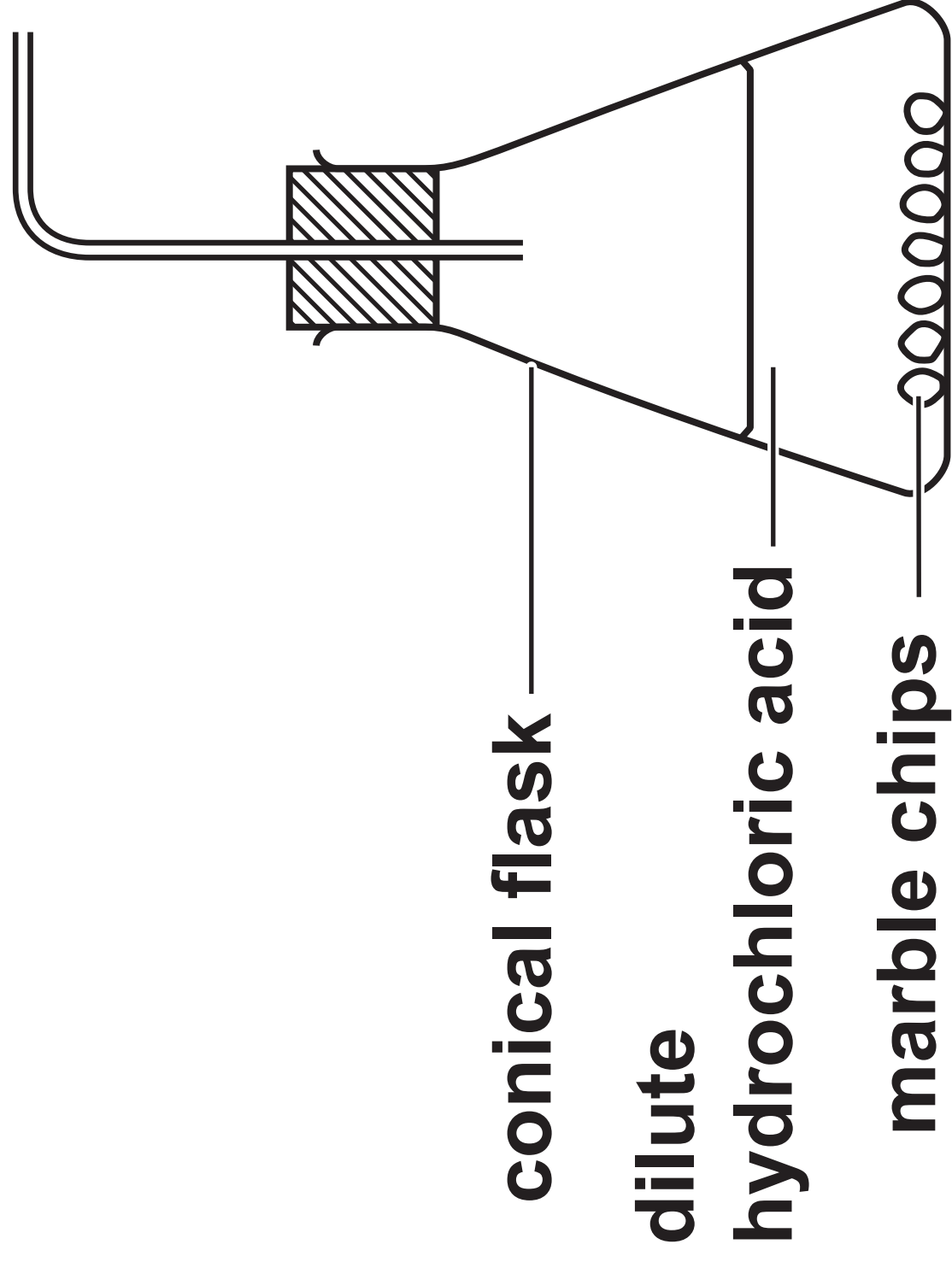


FIGURE 3



## Question 2(b)

**FIGURE 4**

**volume of  
carbon dioxide  
in  $\text{cm}^3$**

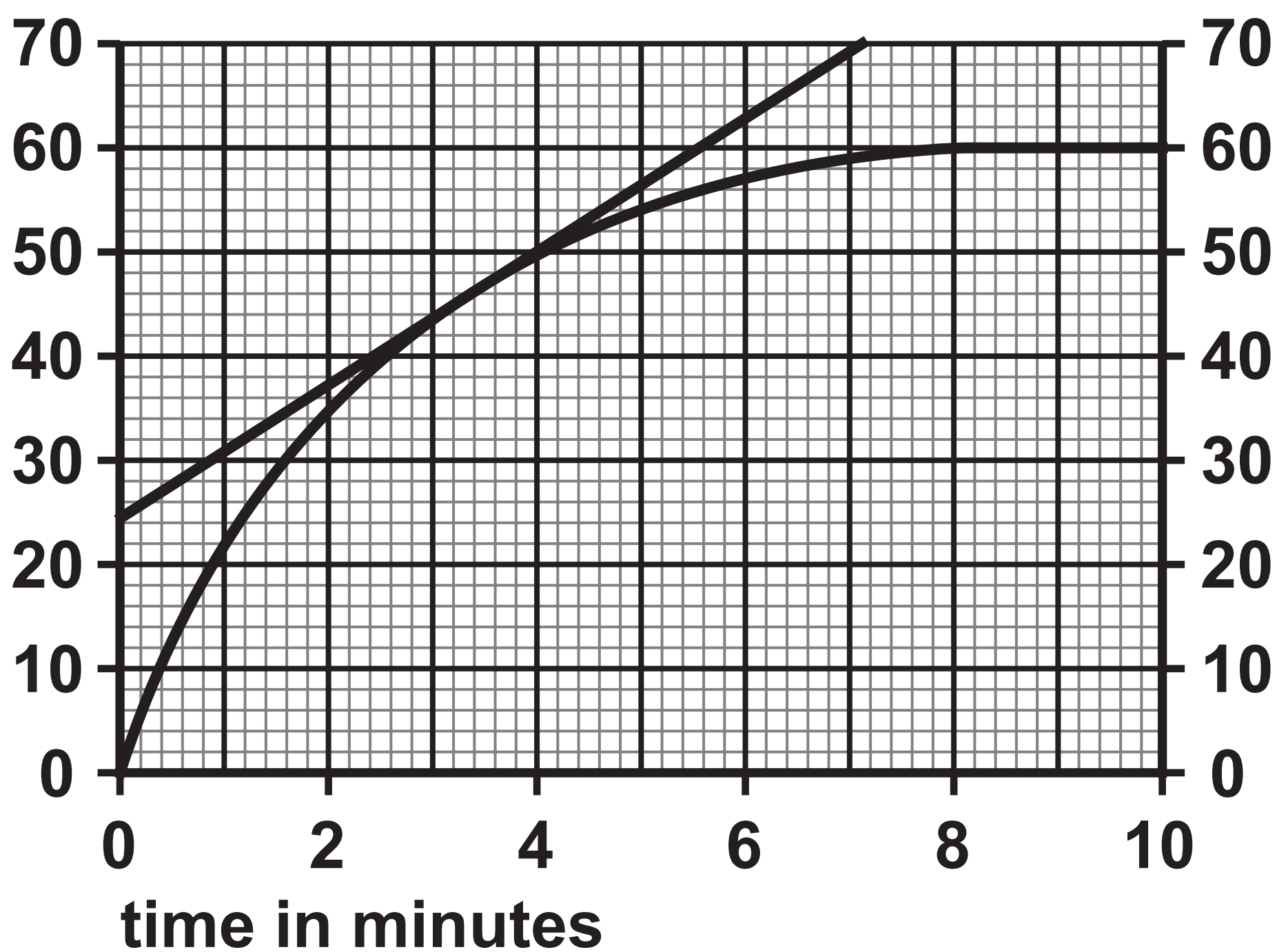
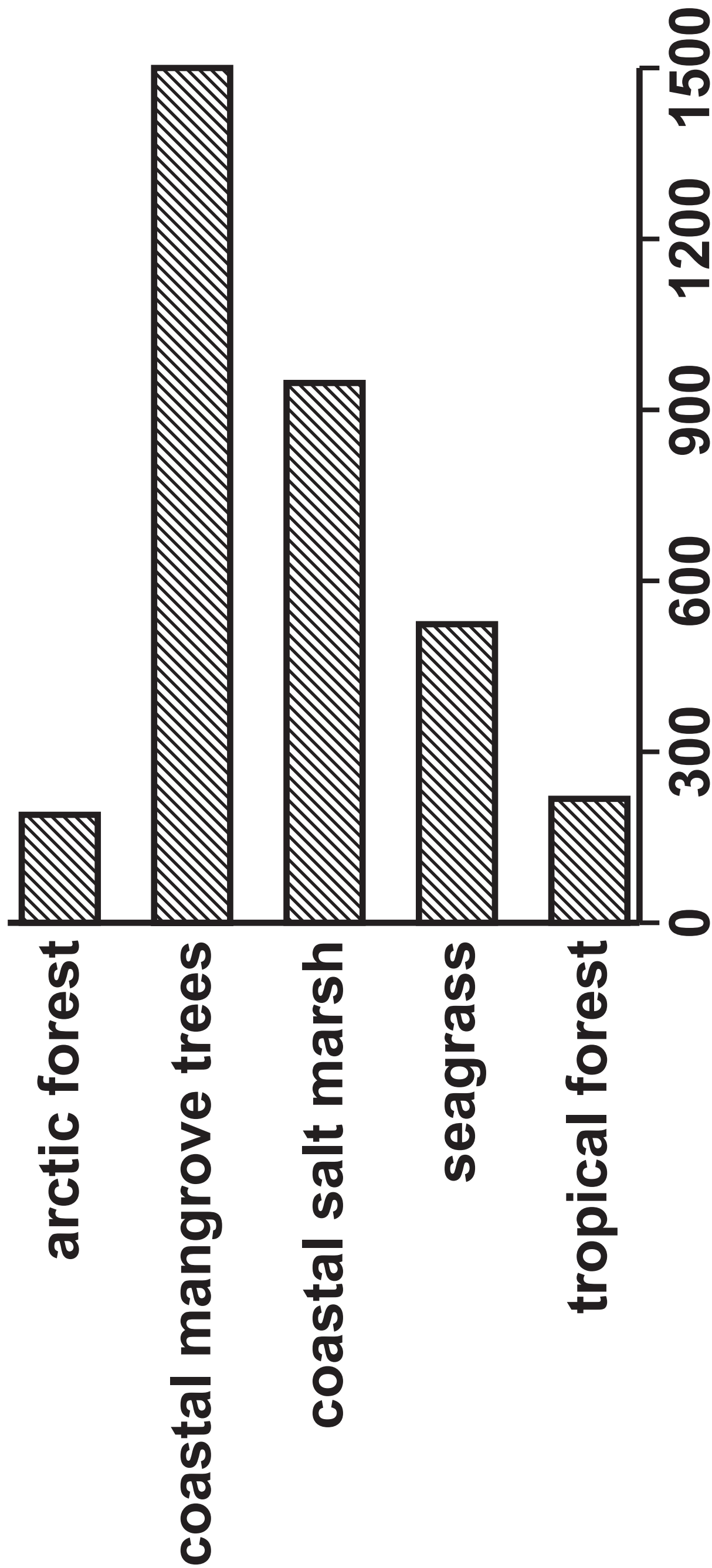


FIGURE 5

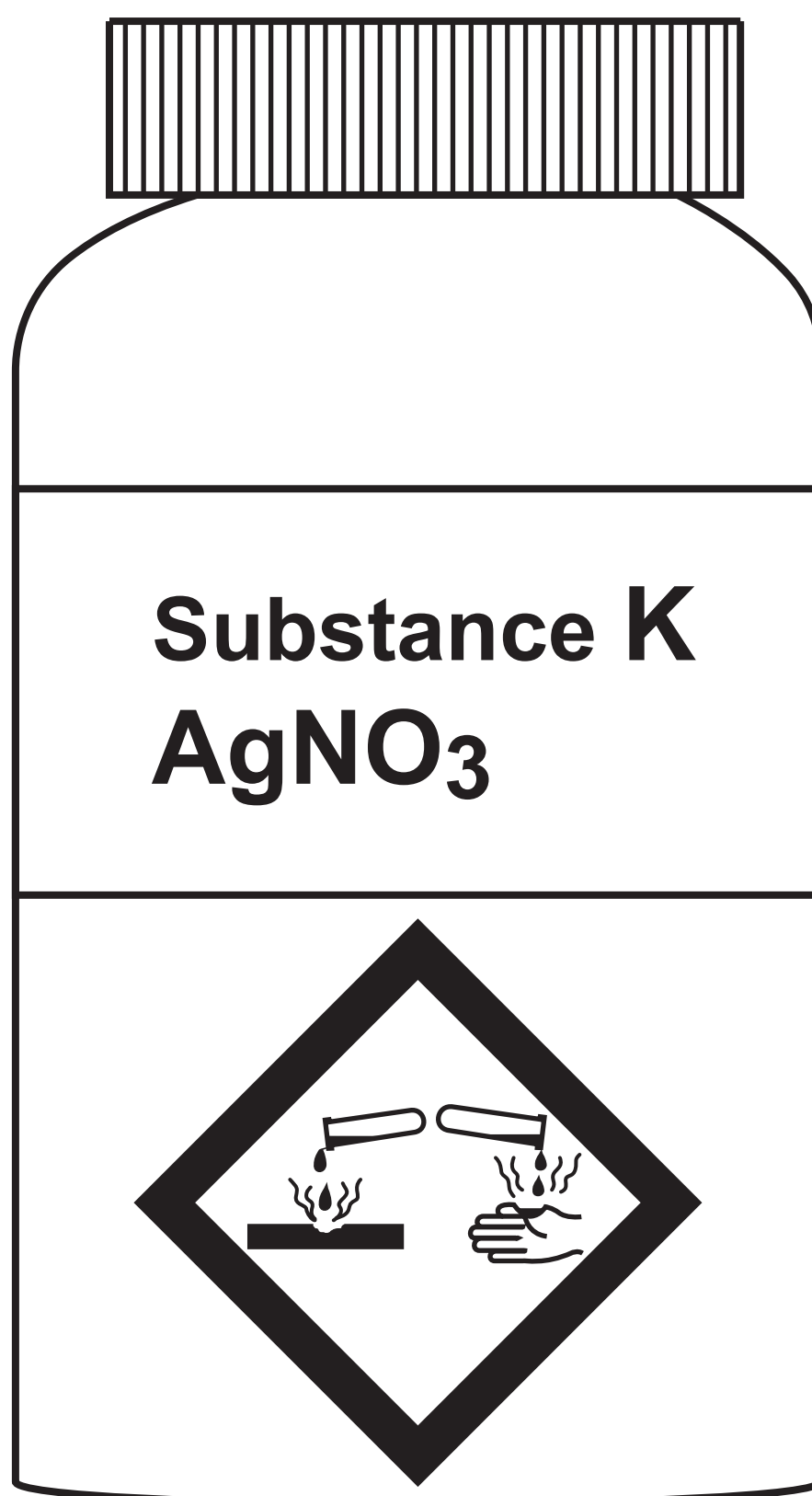


relative amount of carbon stored per unit area



## Question 4(a)

**FIGURE 6**



## Question 4(b)



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\_\_\_\_\_ +

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\_\_\_\_\_ +

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Question 6(a)

FIGURE 7

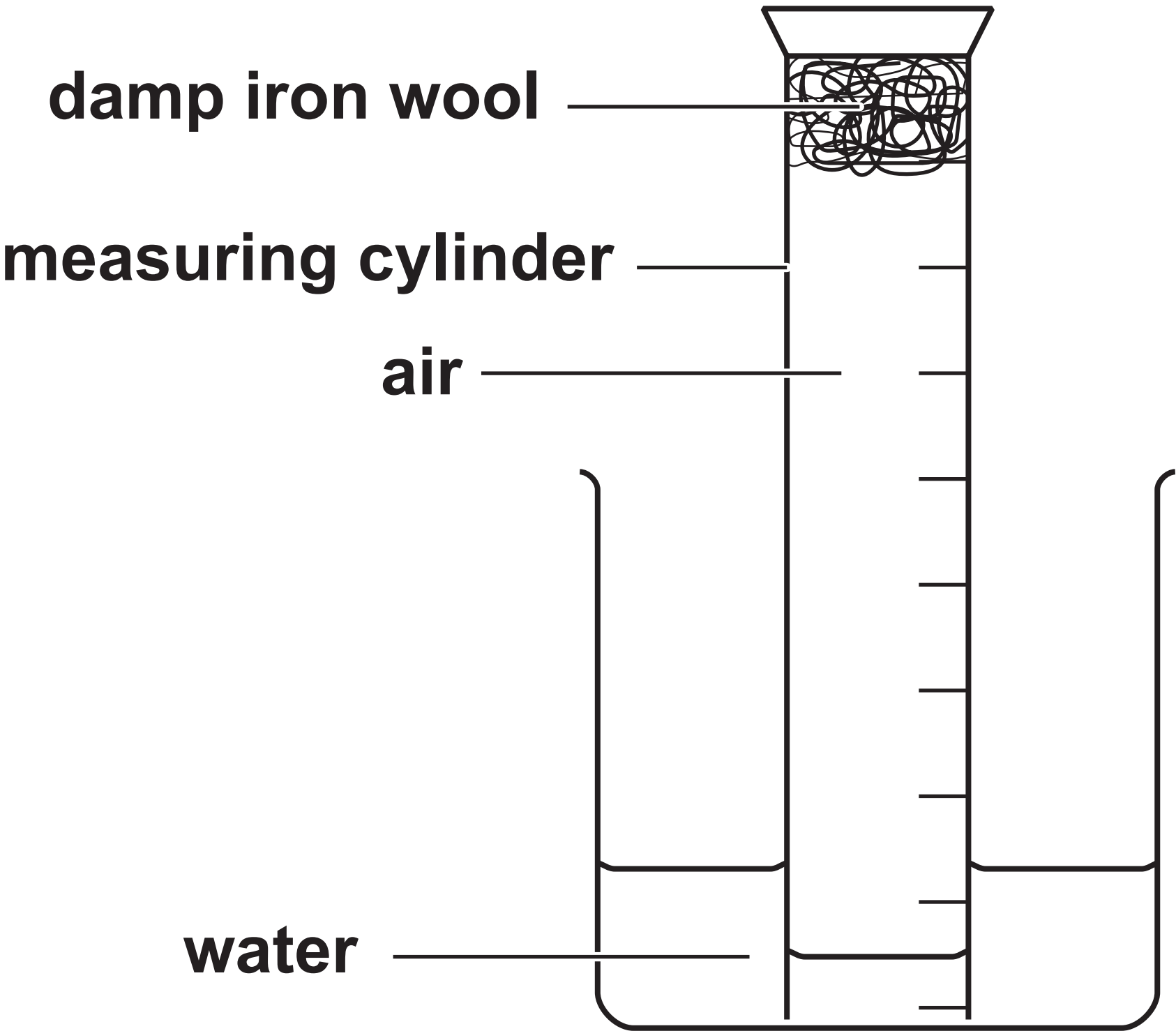
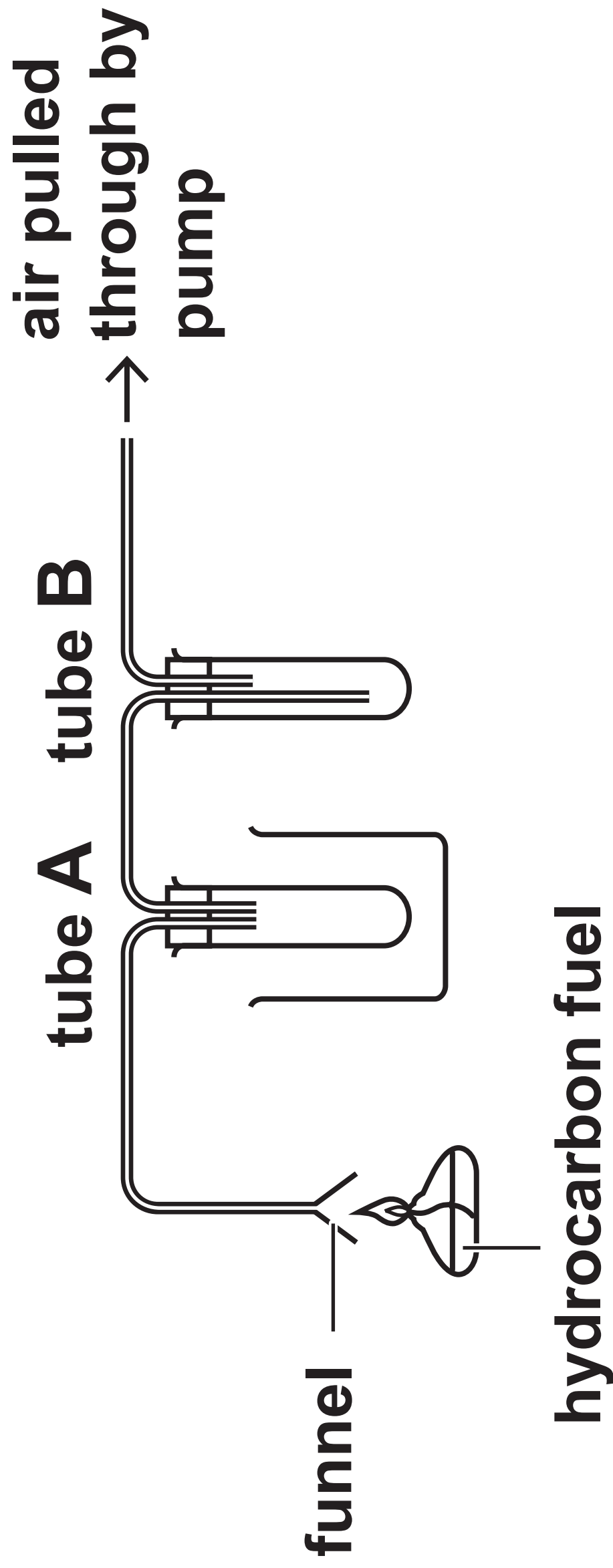


FIGURE 8



## Question 7(b)(i)

13

AND

**Question 7(b)(ii)****FIGURE 9****heat energy****progress of reaction**

## Question 7(d)

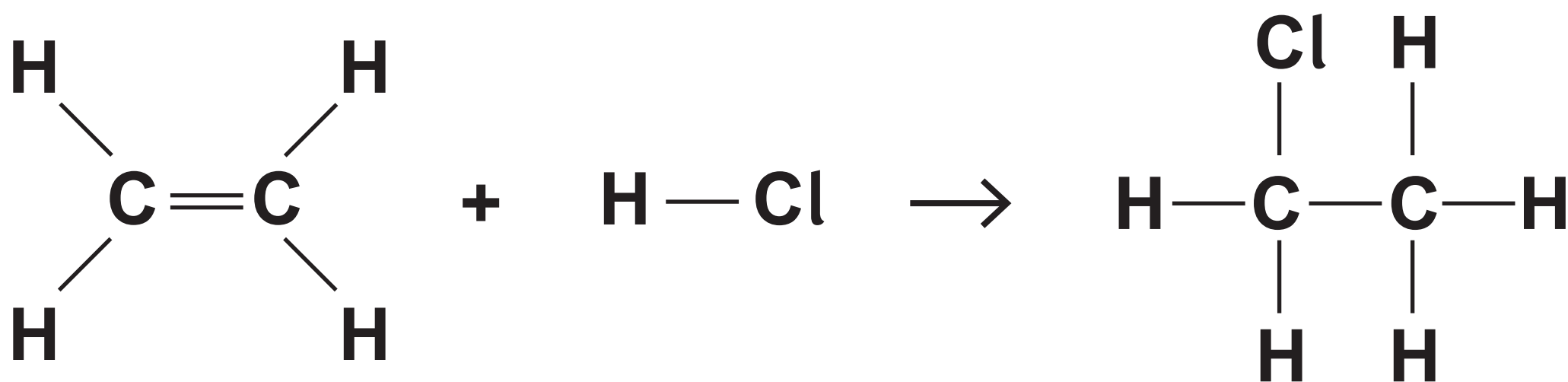


FIGURE 10

bond	bond energy in $\text{kJ mol}^{-1}$
<b>C—H</b>	<b>412</b>
<b>C=C</b>	<b>612</b>
<b>C—C</b>	<b>348</b>
<b>H—Cl</b>	<b>431</b>
<b>C—Cl</b>	<b>338</b>

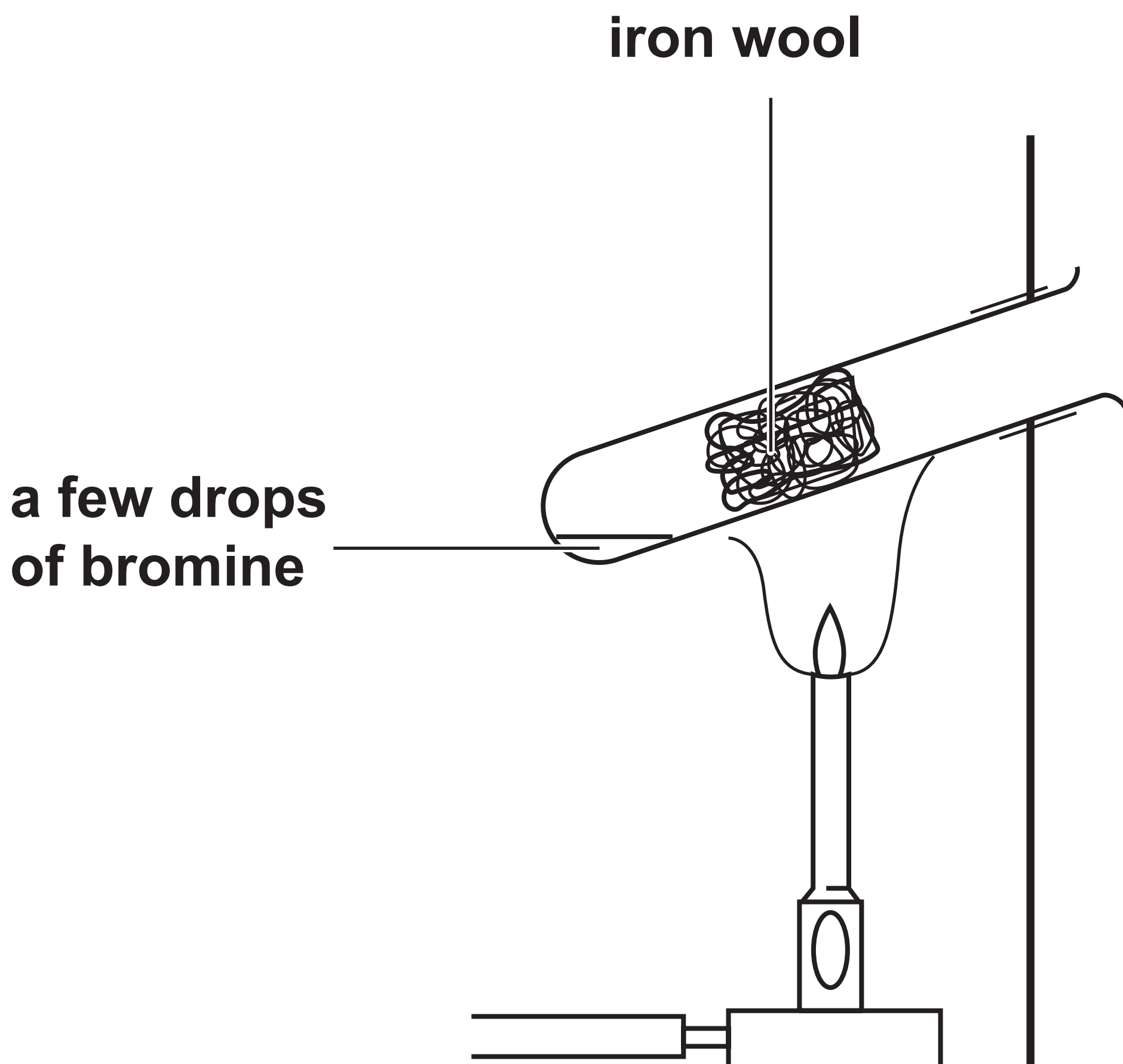
FIGURE 11

test	result
add solid R to water and shake	the white solid dissolves to form a colourless solution
add universal indicator to the solution of R	indicator turned blue
flame test with solid R	lilac flame produced
appearance of solution of S	colourless
add universal indicator to solution of S	indicator turns orange
add a small piece of magnesium to solution of S	bubbles of gas released and magnesium disappears
add spatula measure of solid R to solution of S	bubbles of gas released that turn limewater cloudy solid R disappears



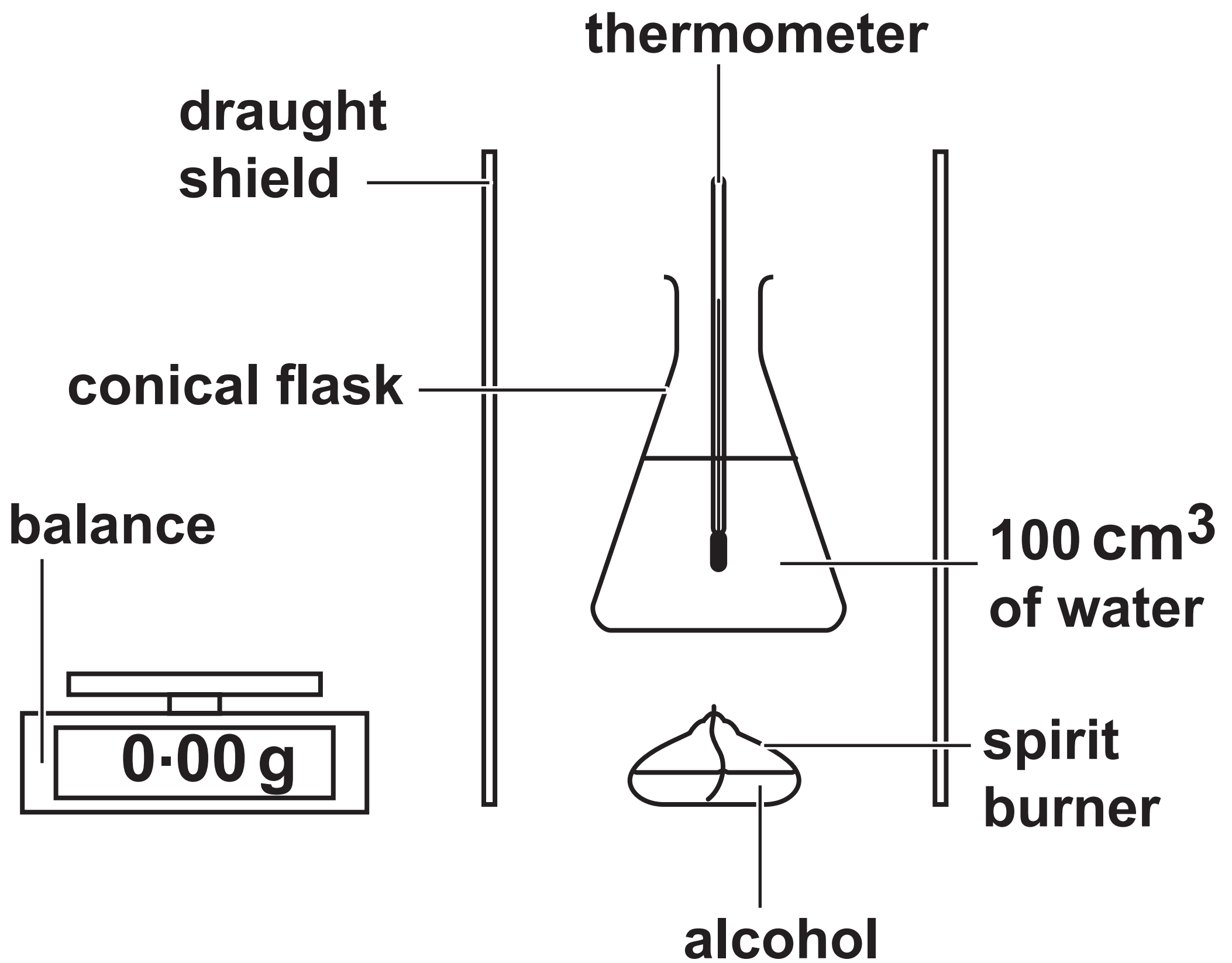
## Question 9(b)

**FIGURE 12**



## Question 10(a)

FIGURE 13



## Question 10(b)

FIGURE 14

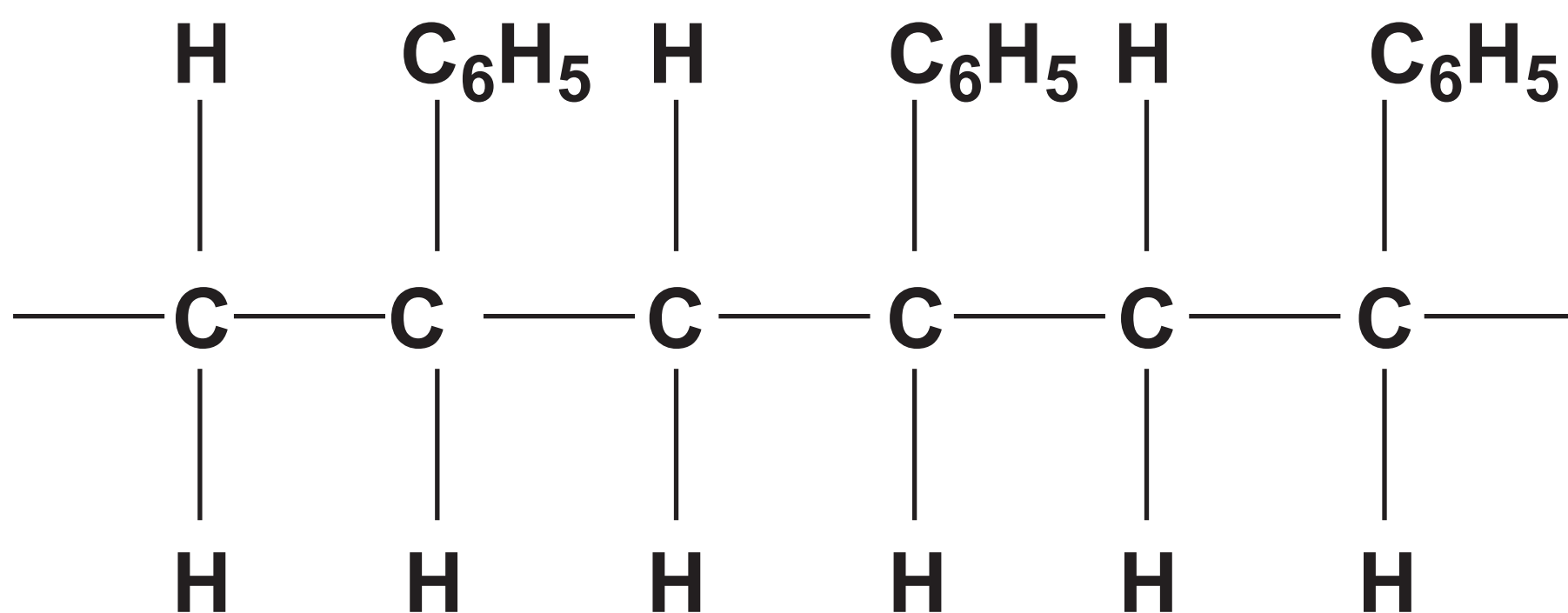
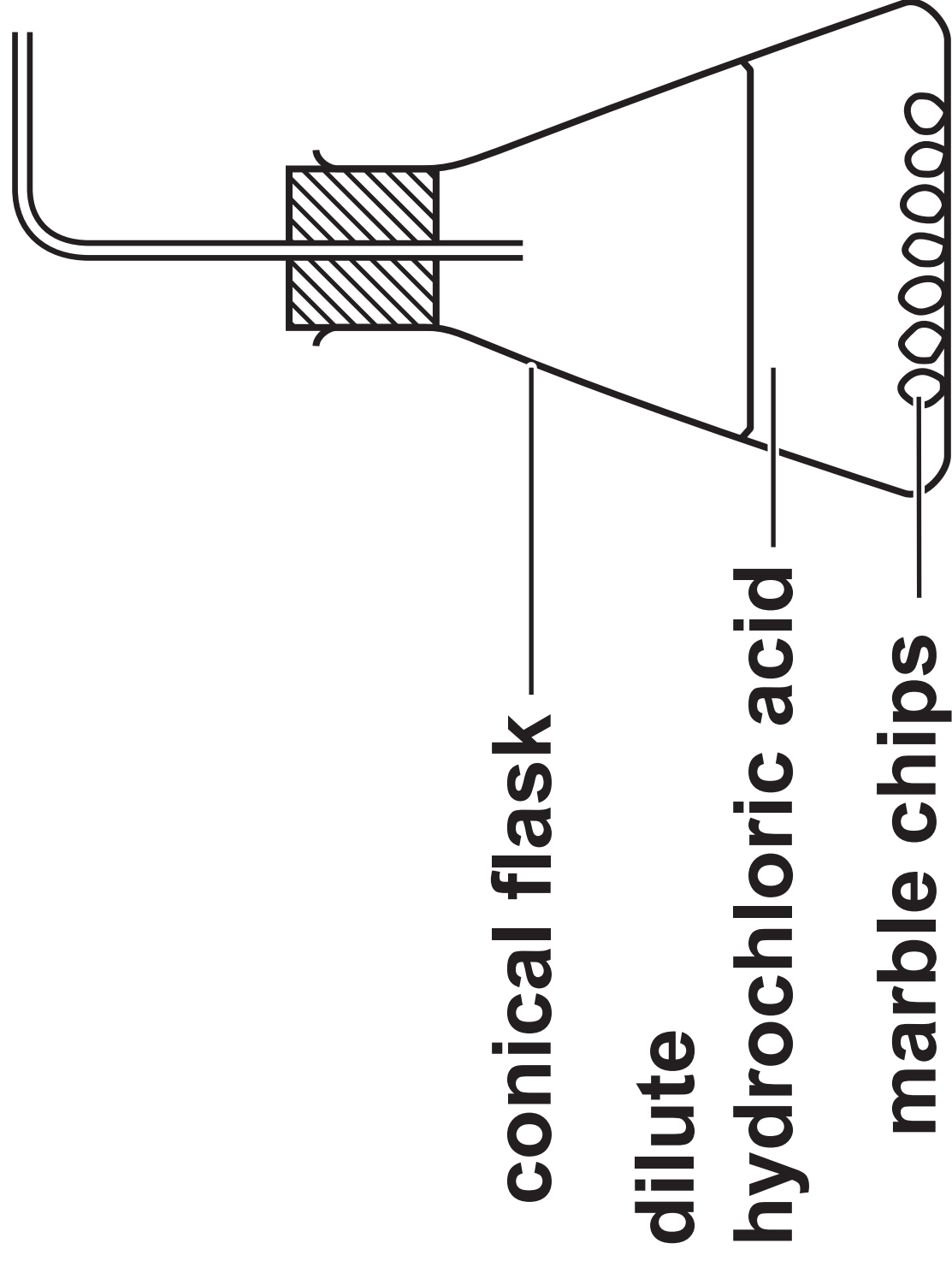


FIGURE 3



## Question 4(b)



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\_\_\_\_\_ +

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\_\_\_\_\_ +

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## Question 7(b)(i)

22

AND

**Question 7(b)(ii)****FIGURE 9****heat energy****progress of reaction**

## Question 10(b)

FIGURE 14

