

Paper Reference(s) 4CH1/1C 4SD0/1C  
Pearson Edexcel International GCSE (9–1)

Chemistry  
UNIT: 4CH1  
Science (Double Award) 4CH1/4SD0  
PAPER: 1C

Friday 17 May 2024 – Morning

Time: 2 hours

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.

Surname					
Other names					
Centre Number					
Candidate Number					

## **INSTRUCTIONS**

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

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### **Spare Copies**

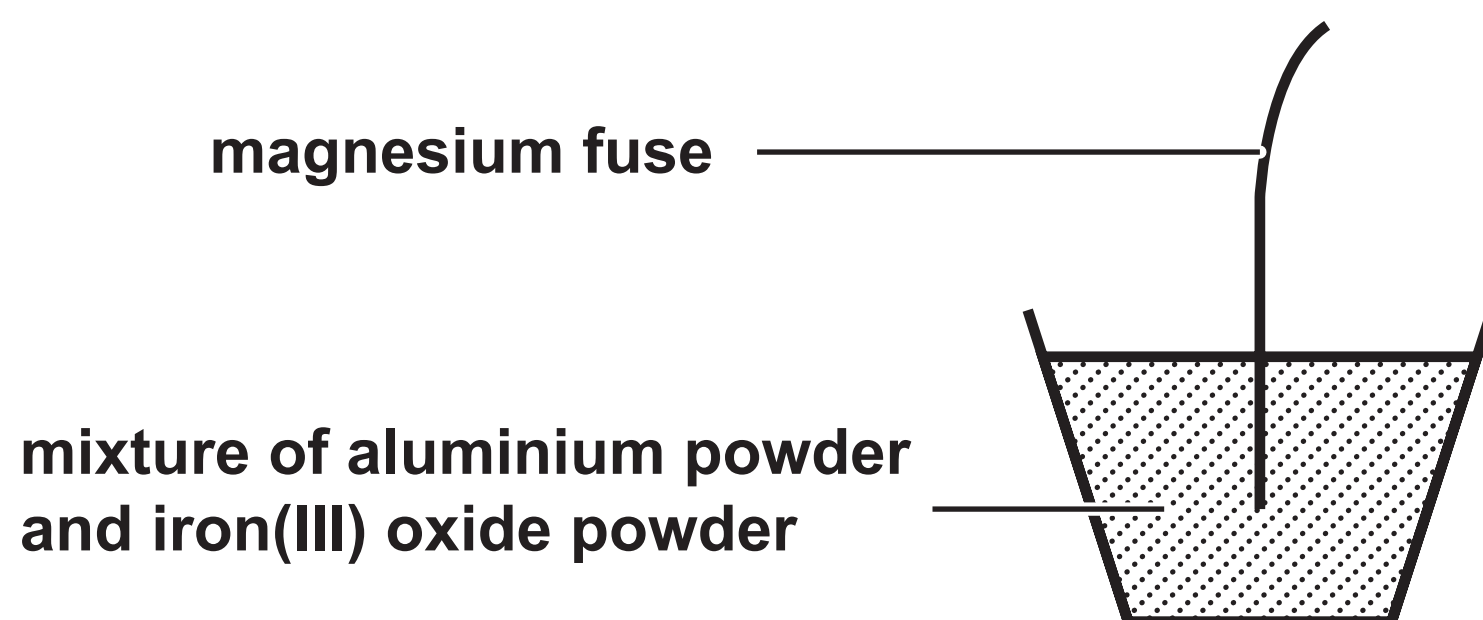
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Question 1(a)

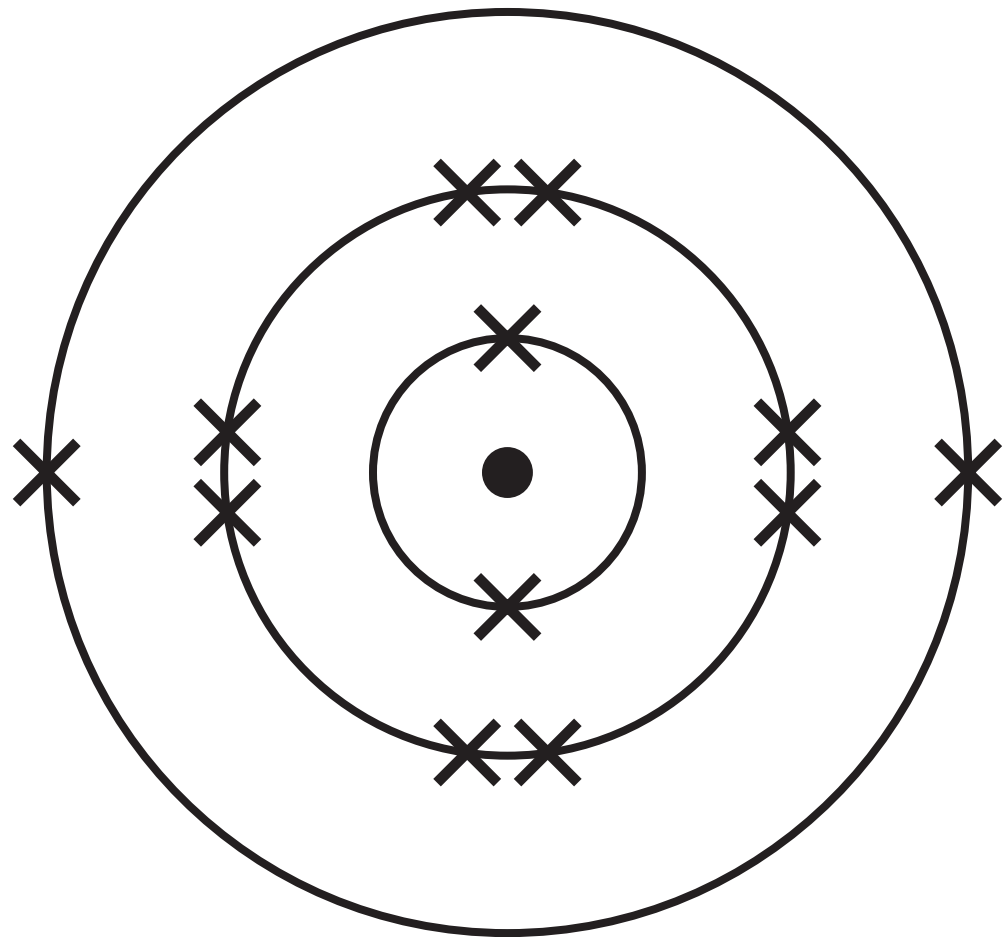
Description	Substance
a good conductor of electricity	
an element that is a liquid at room temperature	
a substance that can be used to form a polymer	
an element that forms a basic oxide	
a substance that has a giant covalent structure	

**Question 2(a)**

<b>Metal</b>	<b>Reaction with water</b>	<b>Reaction with dilute hydrochloric acid</b>
<b>P</b>	no reaction	no reaction
<b>Q</b>	very fast reaction	(not done)
<b>R</b>	no reaction	slow reaction
<b>S</b>	slow reaction	fast reaction

**Question 2(b)**

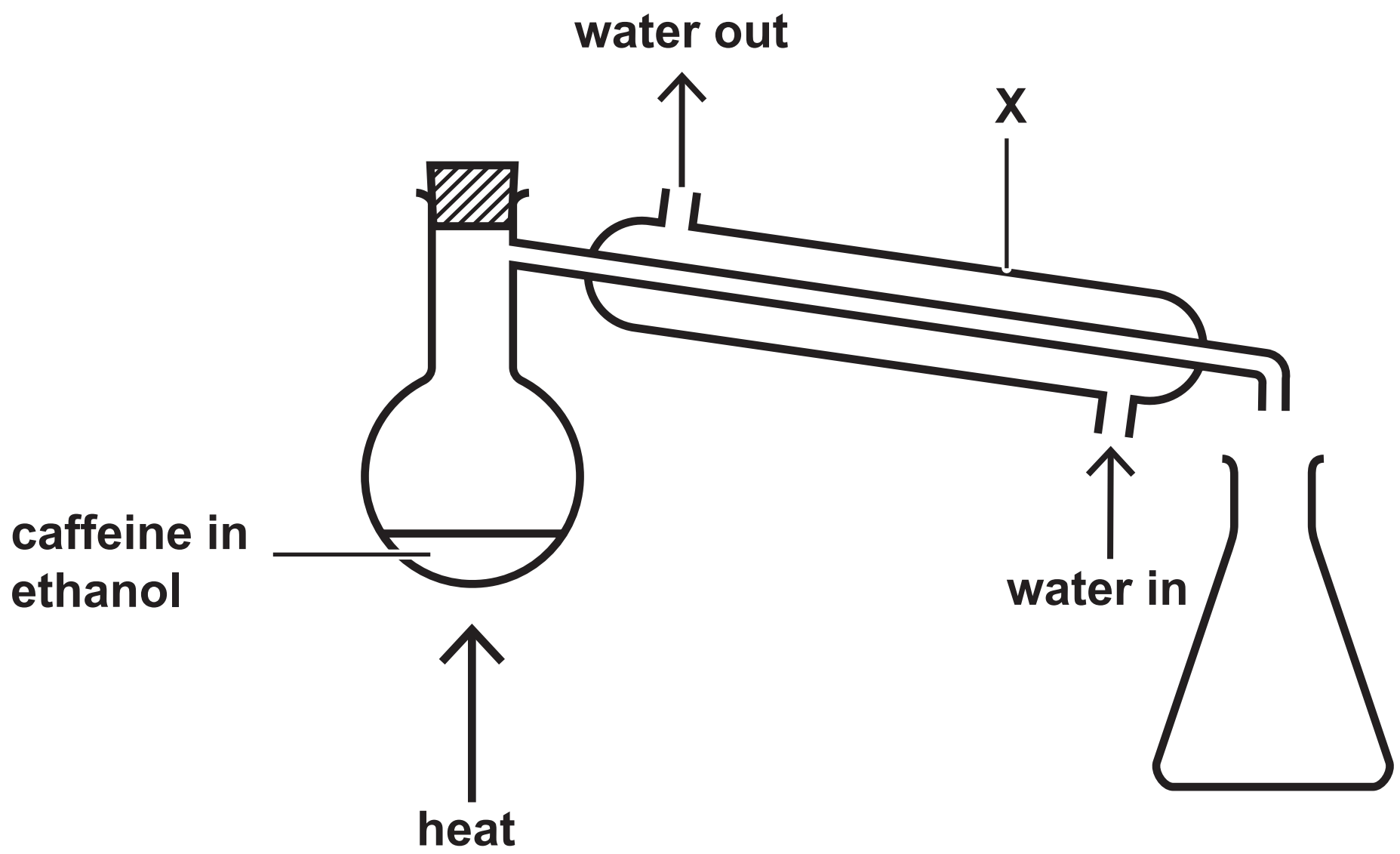
### Question 3



Question 3(c)

Isotope	Number of protons	Number of neutrons	Percentage abundance
1	12	12	79·0
2	12	13	10·0
3	12	14	11·0

## Question 4(b)

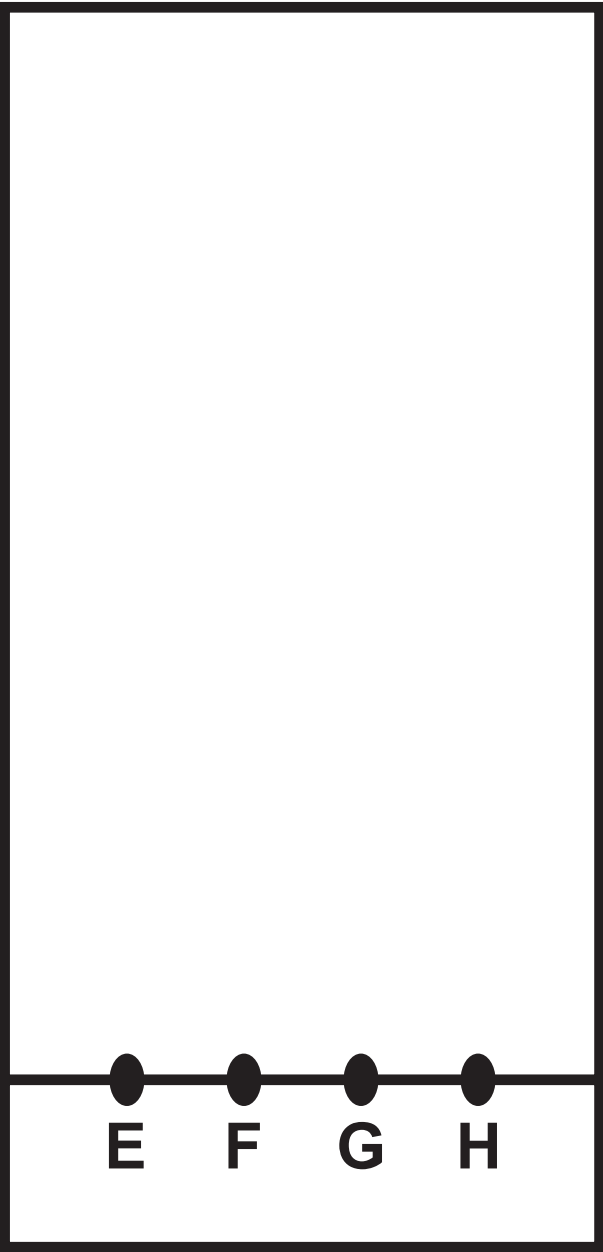




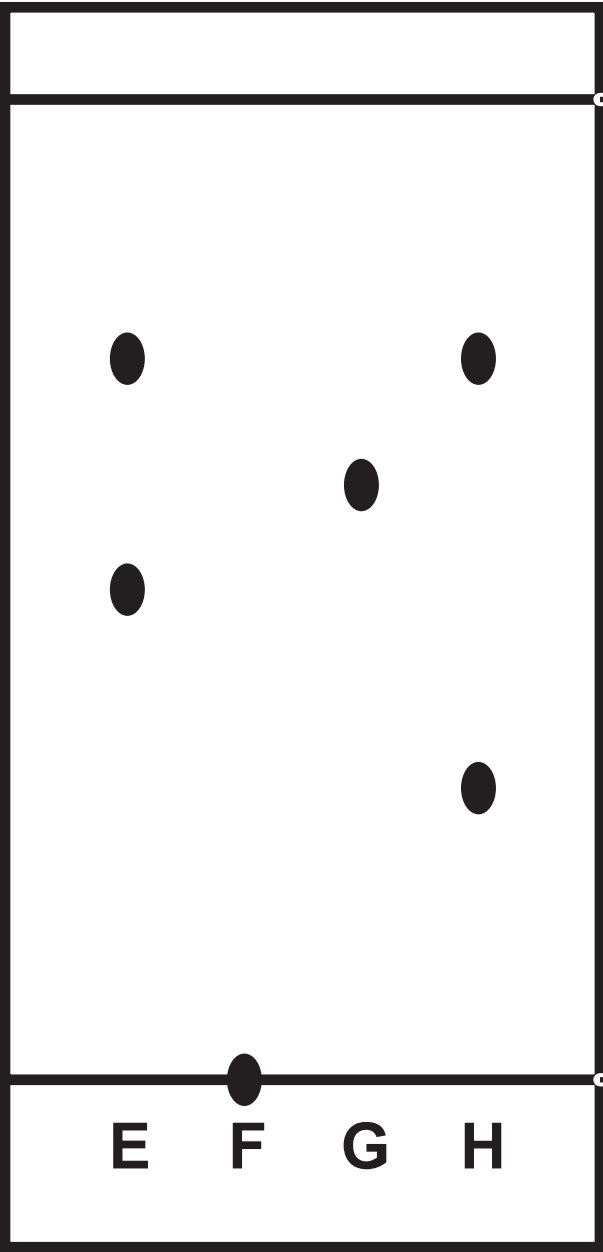
Question 4(c)

Name	Formula	Melting point in °C
caffeine	$\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$	235
calcium bromide	$\text{CaBr}_2$	730

Question 5



before



after

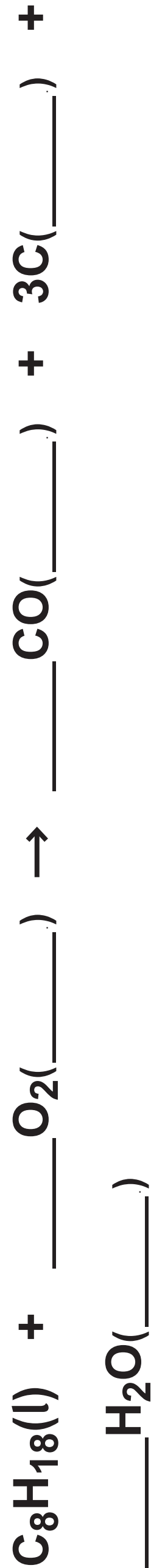
Question 7(b)

N

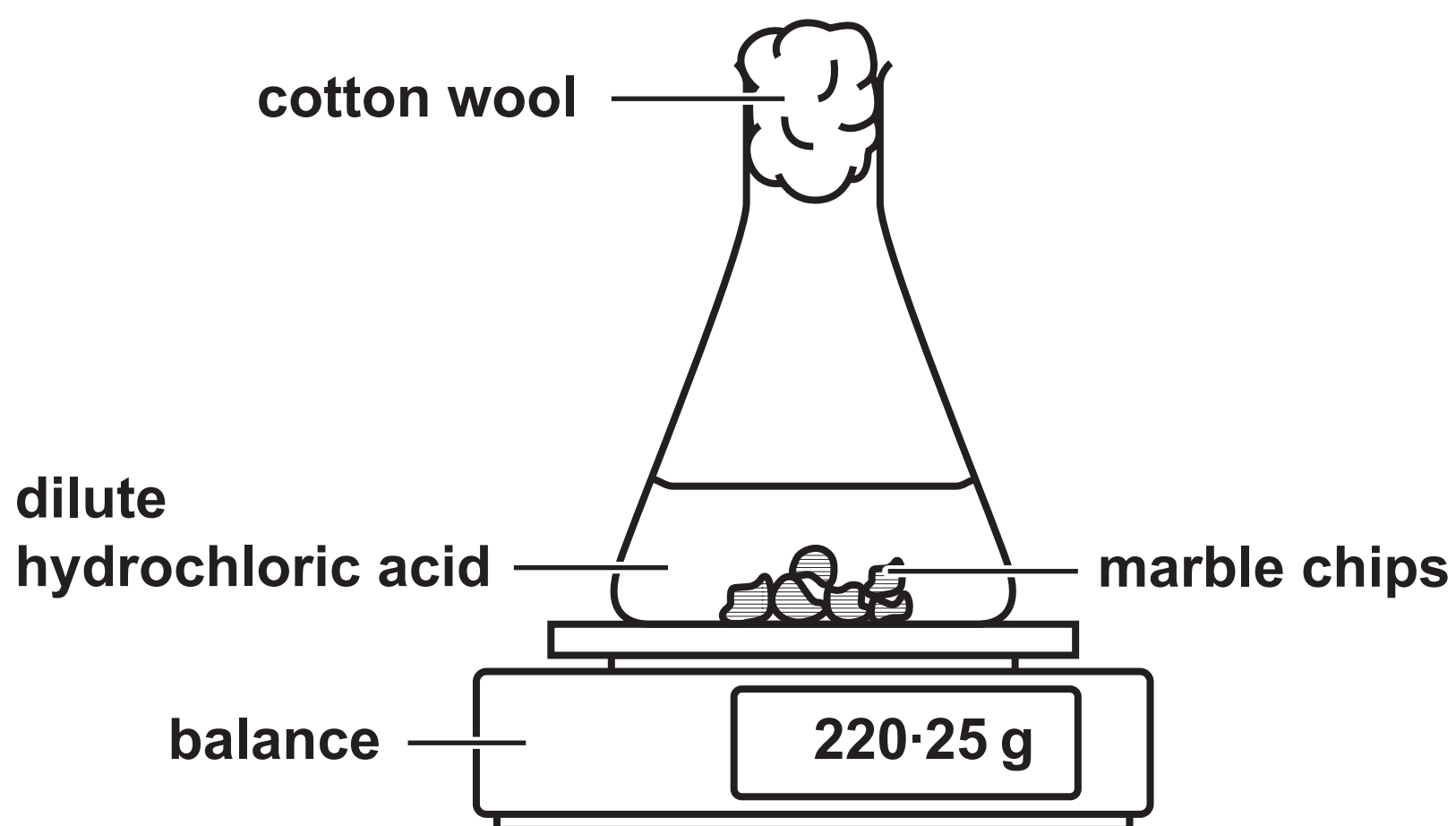
N

**Question 8(a)(ii)****alkene isomer 1****alkene isomer 2**

Question 8(e)(i)

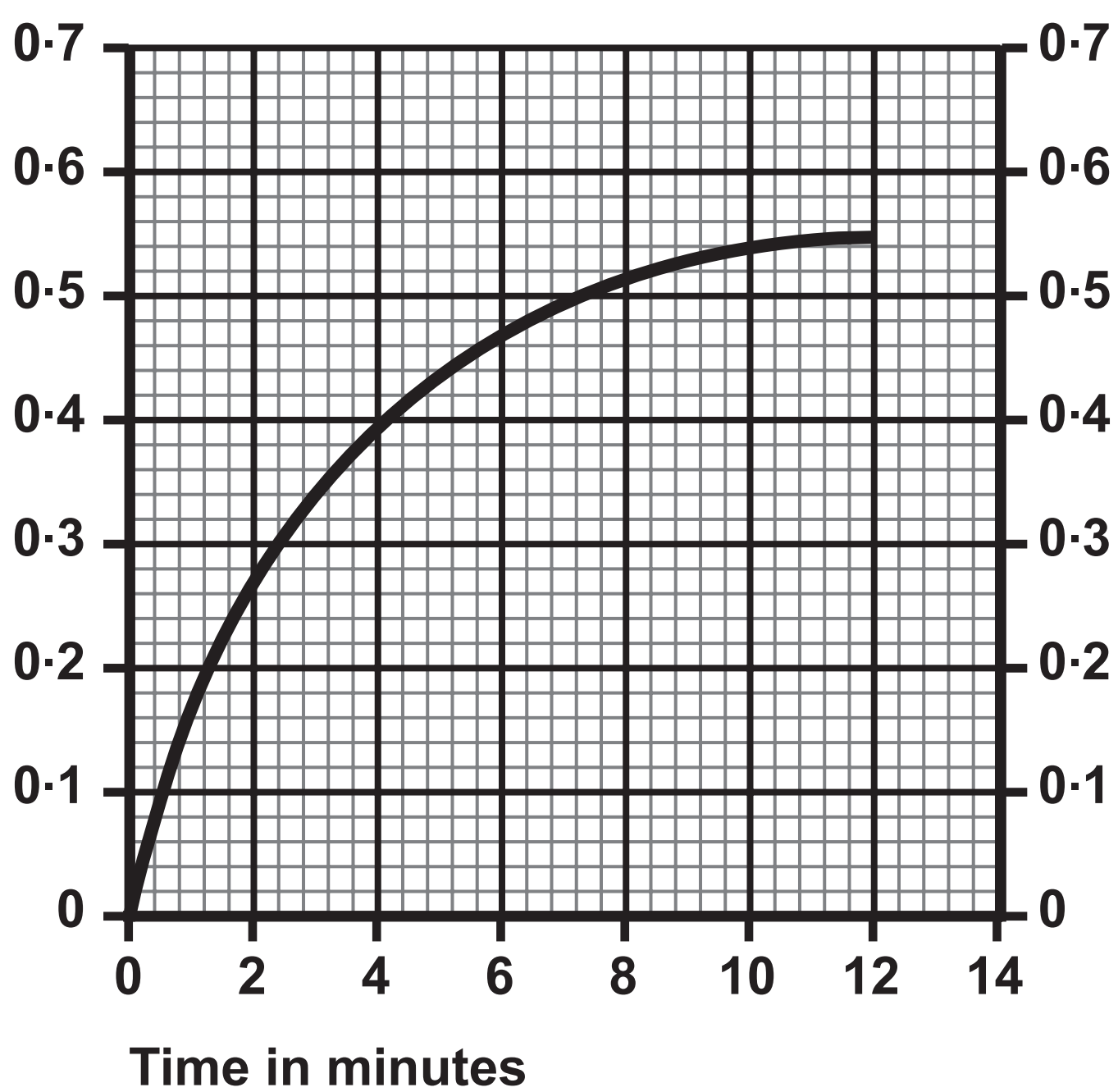


## Question 9(a)



## Question 9(b)

Loss in mass in g



Question 10(a)

16





Question 10(b)

starting temperature of the acid in °C	
highest temperature reached in °C	
temperature rise in °C	16.4

## Question 1(a)

Description	Substance
a good conductor of electricity	
an element that is a liquid at room temperature	
a substance that can be used to form a polymer	
an element that forms a basic oxide	
a substance that has a giant covalent structure	

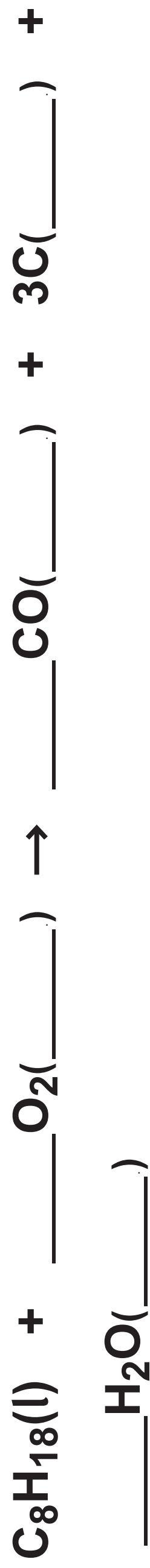
Question 7(b)

N

N

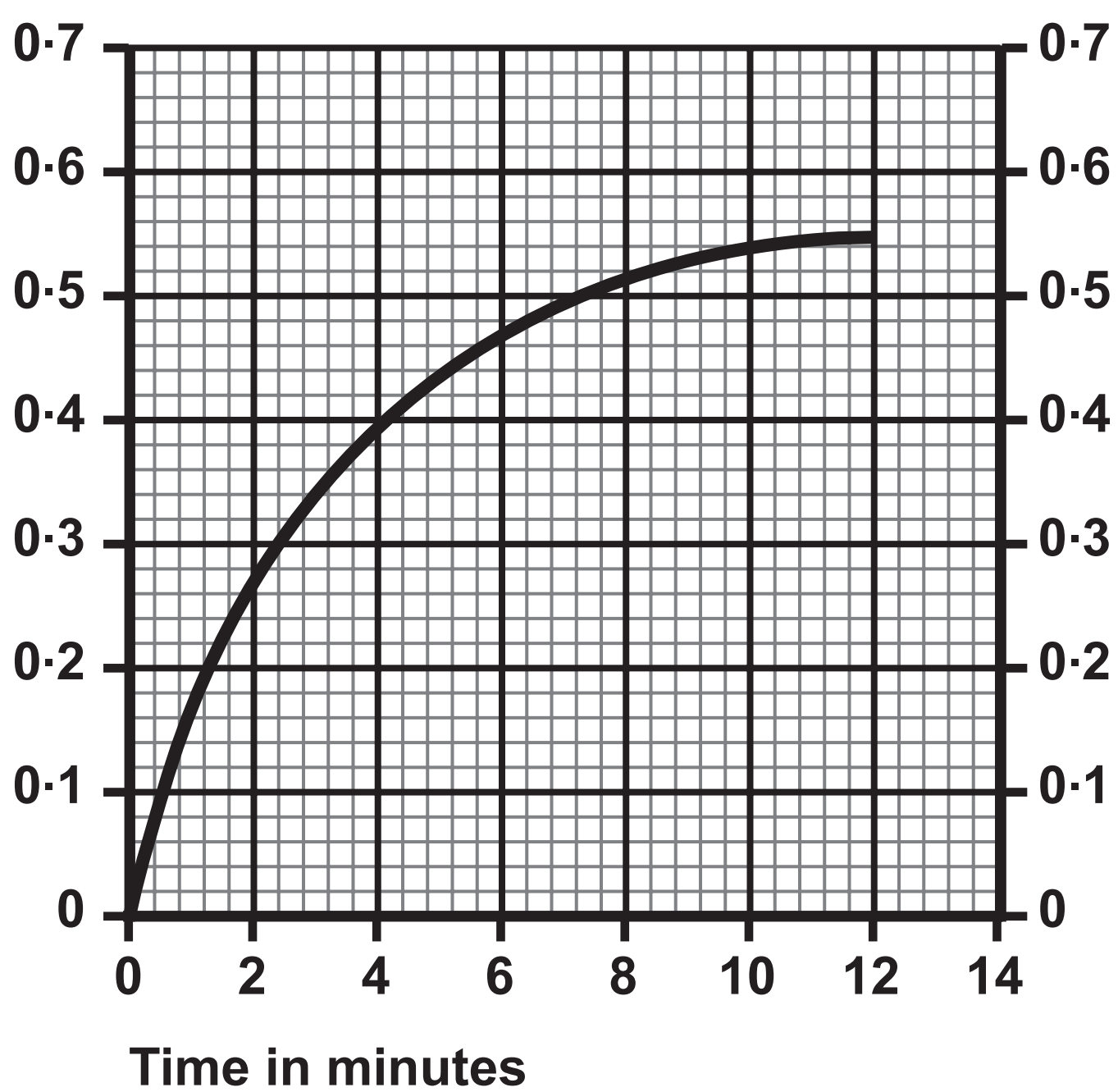
**Question 8(a)(ii)****alkene isomer 1****alkene isomer 2**

## Question 8(e)(i)



## Question 9(b)

Loss in mass in g



Question 10(a)

23



Question 10(b)

starting temperature of the acid in °C	
highest temperature reached in °C	
temperature rise in °C	16.4