

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

Chemistry  
PAPER 1  
Higher Tier

Friday 17 May 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.

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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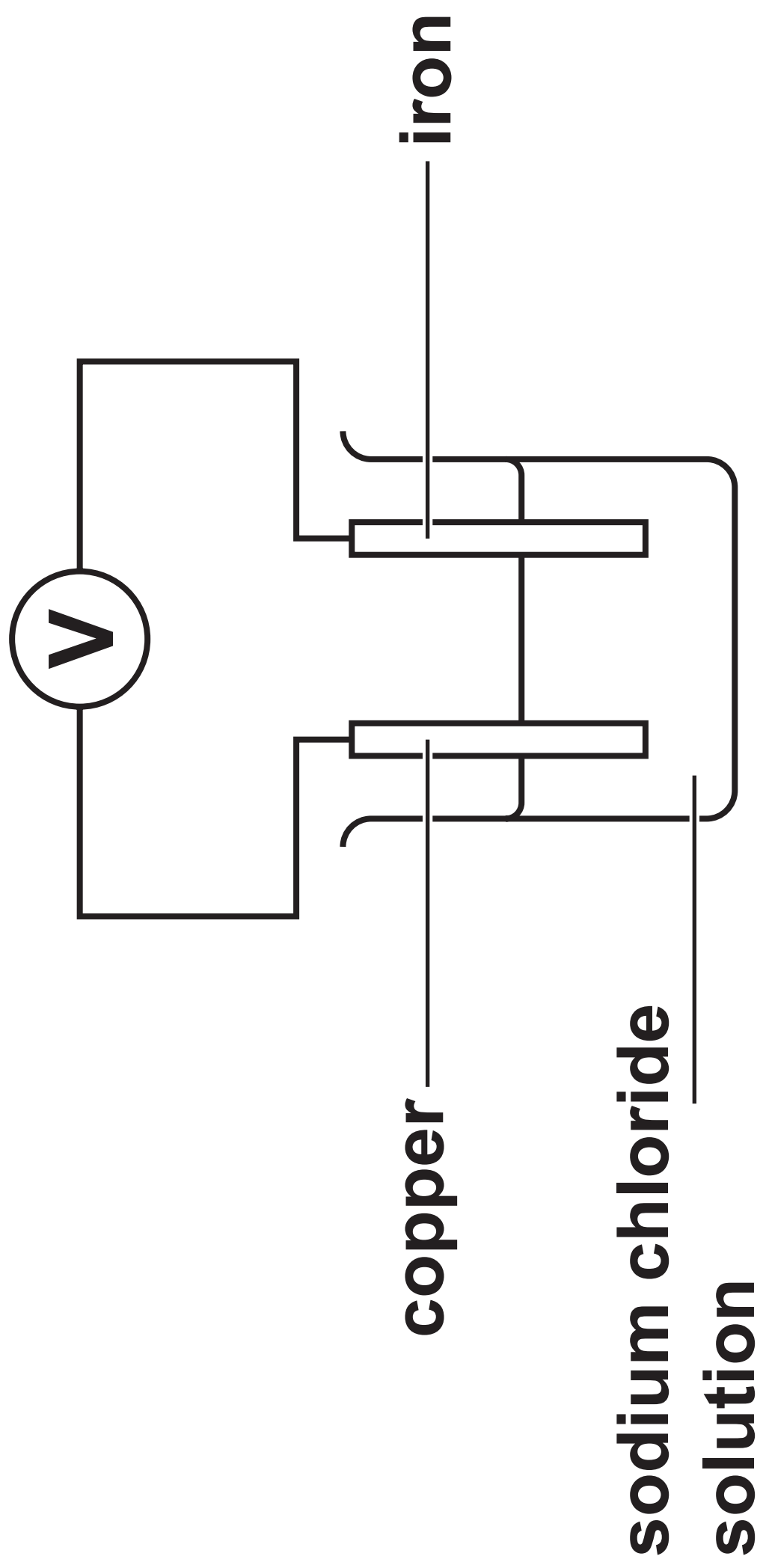
# **CONTENTS continued.**

## **Spare Copies**

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FIGURE 1



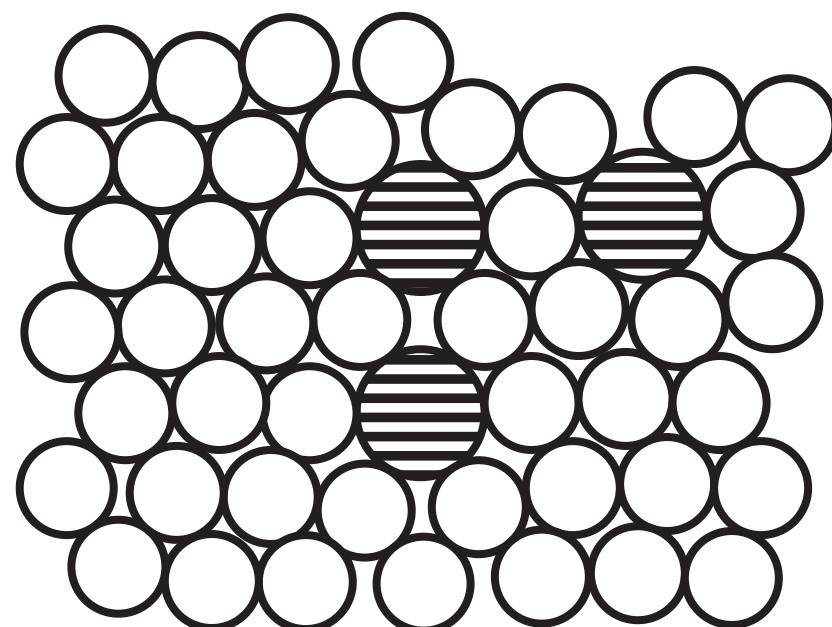
# Question 1(d)

## FIGURE 2

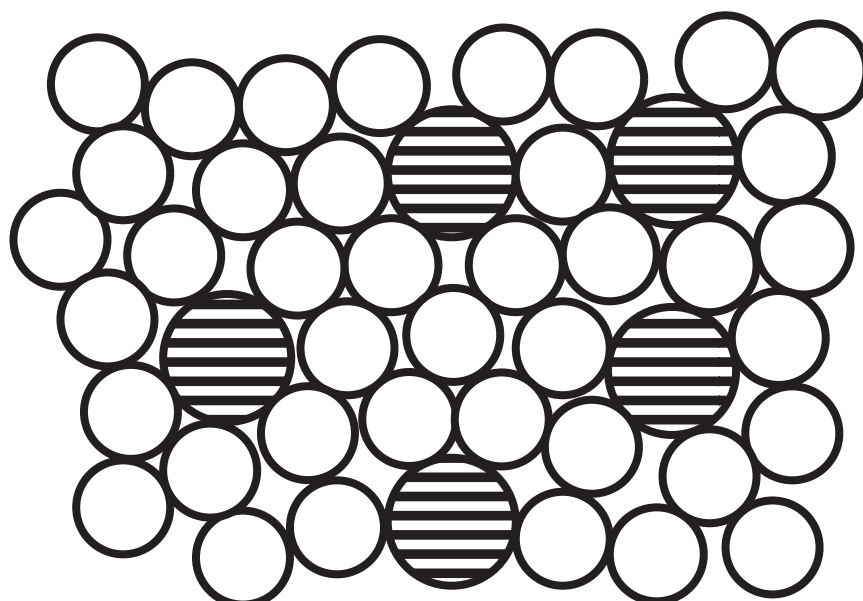
### KEY

- zinc atom  
◐ copper atom

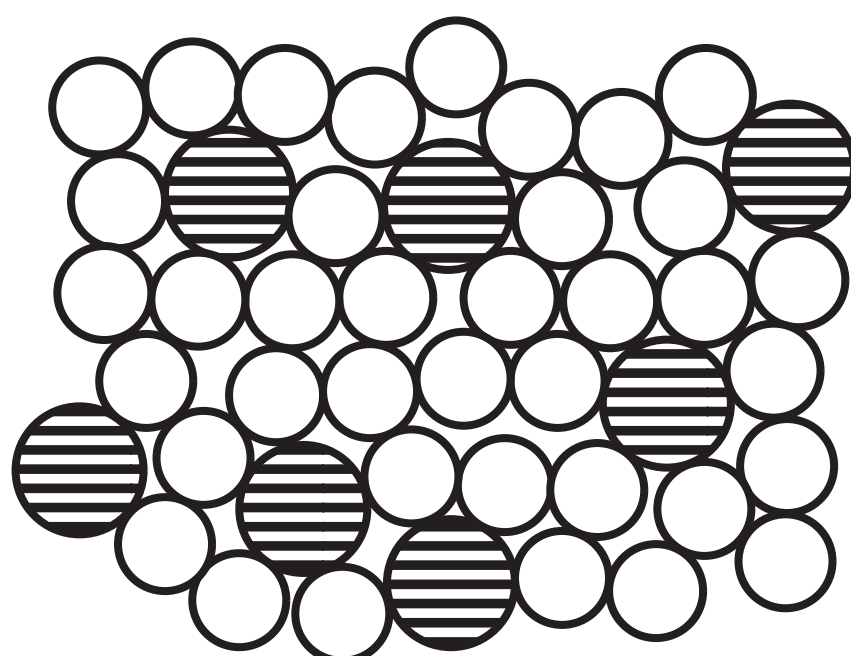
alloy A



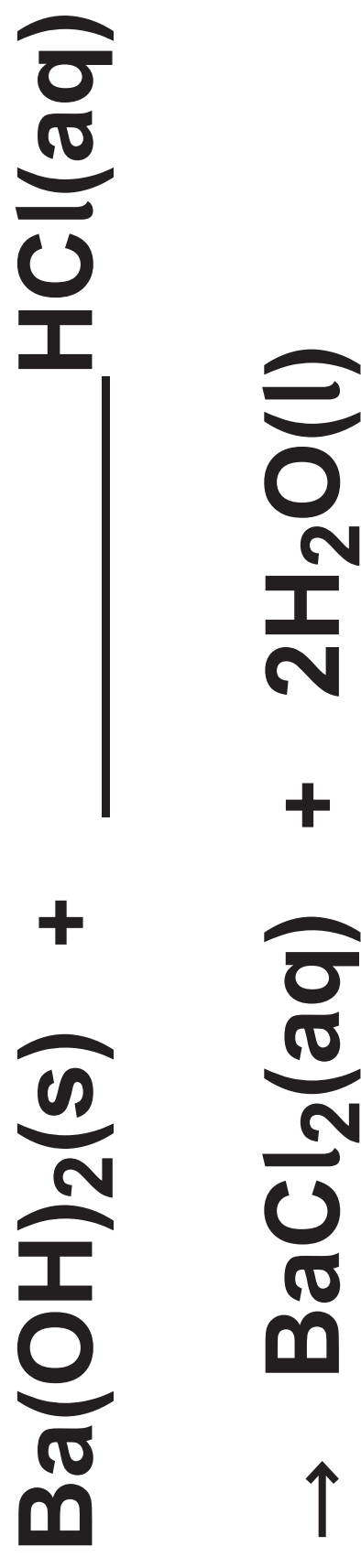
alloy B



alloy C

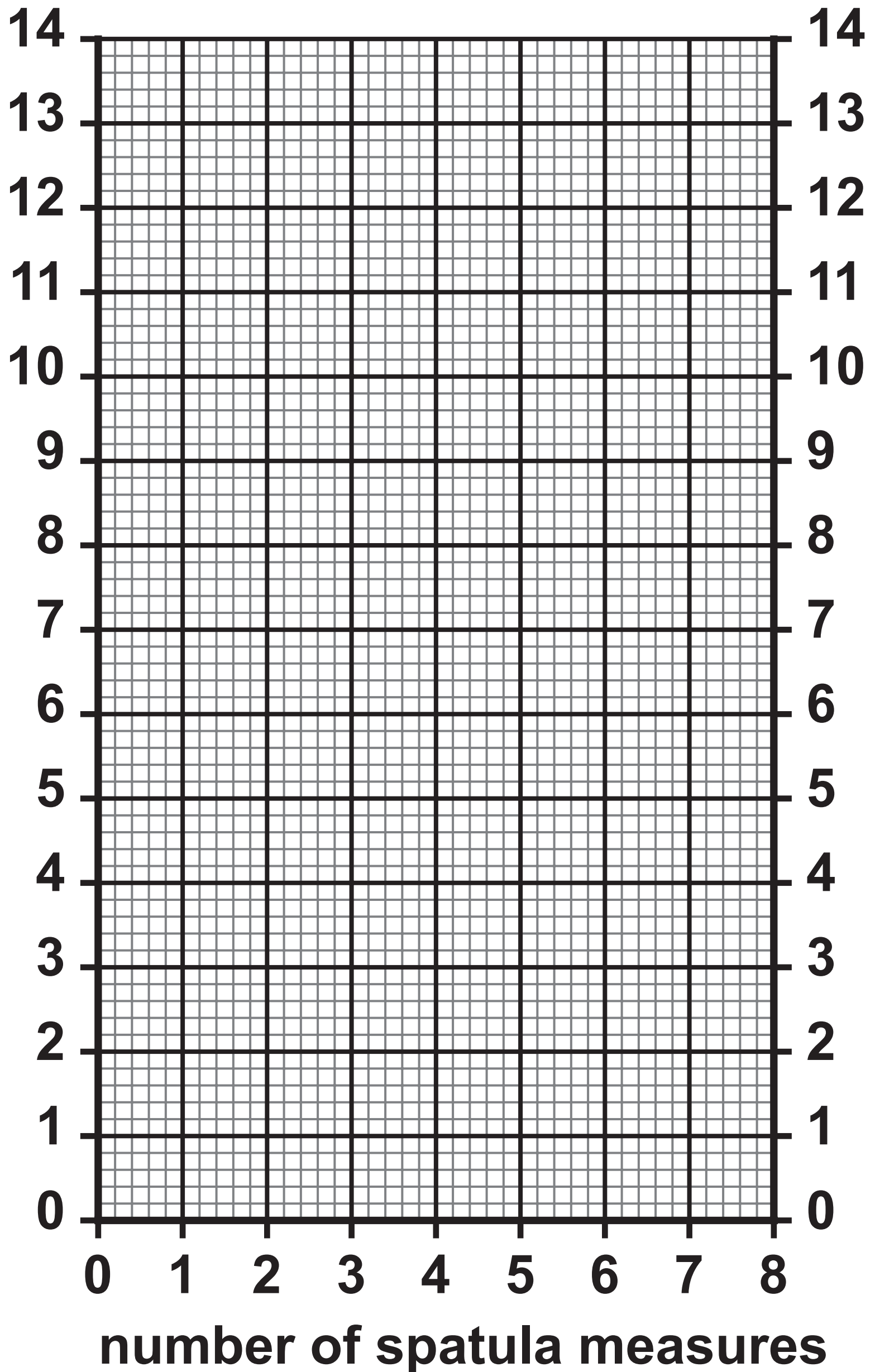


## Question 2(a)(i)



## Question 2(b)(iii)

## pH of mixture



## Question 4(a)

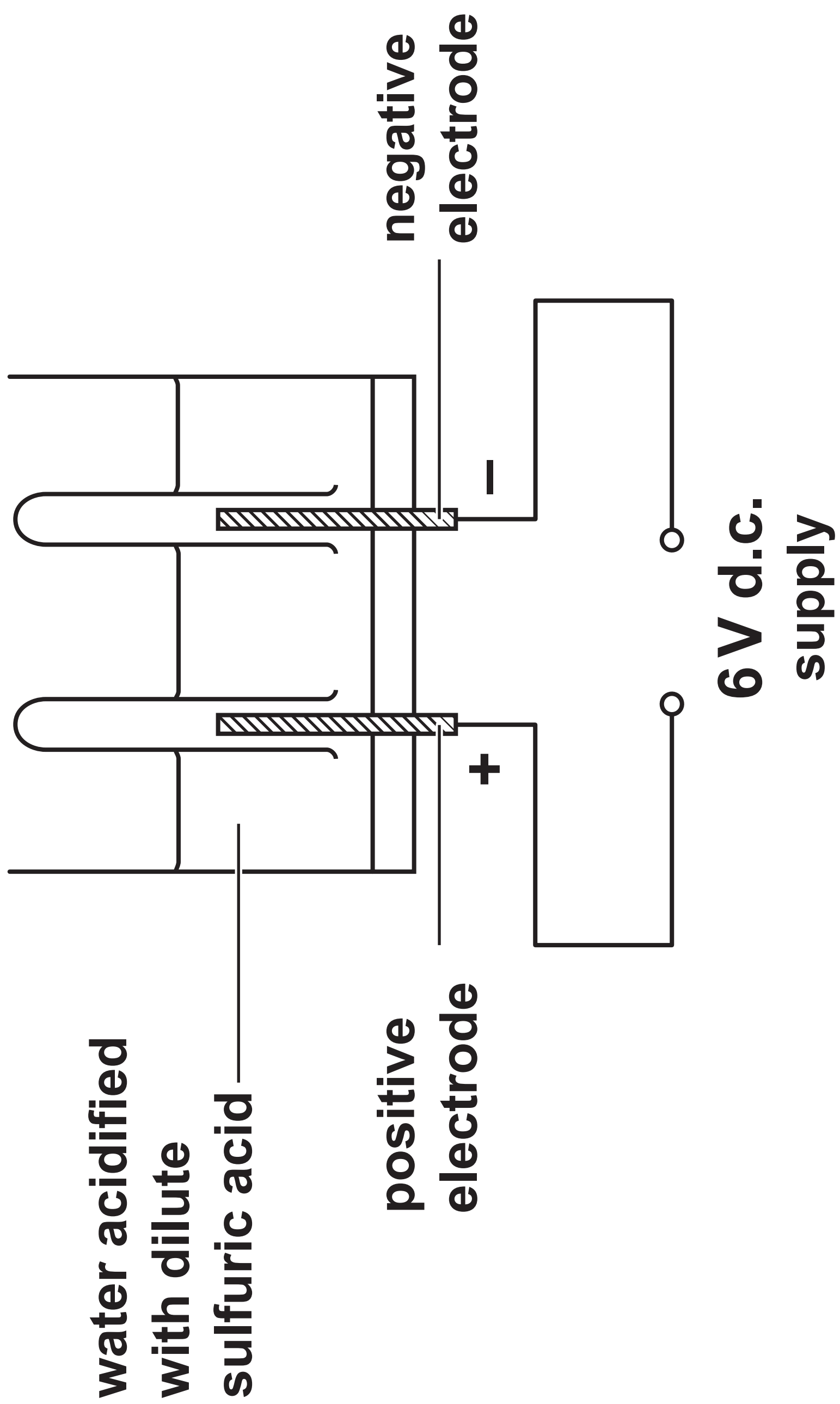
8

FIGURE 4

	mass in tonnes
mass of titanium oxide	100-00
mass of titanium produced	45-26
theoretical mass of titanium formed	60-00



FIGURE 5



# Question 7(a)(ii)

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diagram A

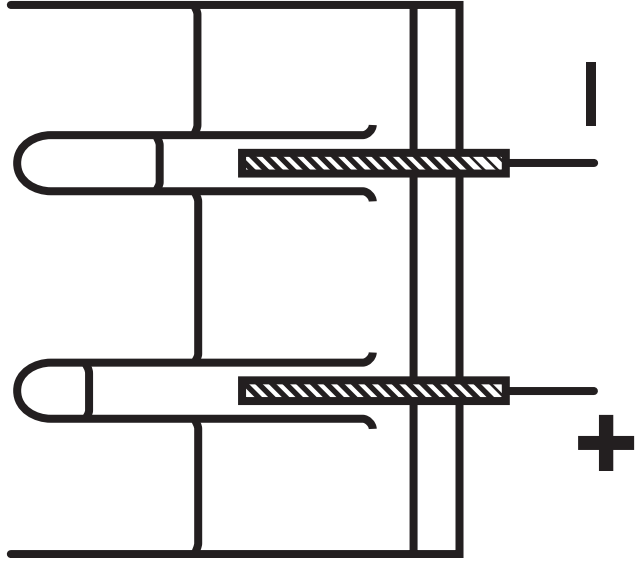


diagram B

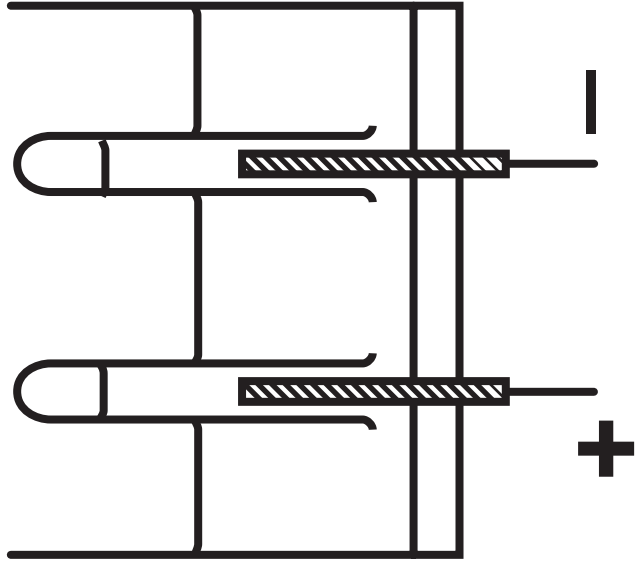


diagram C

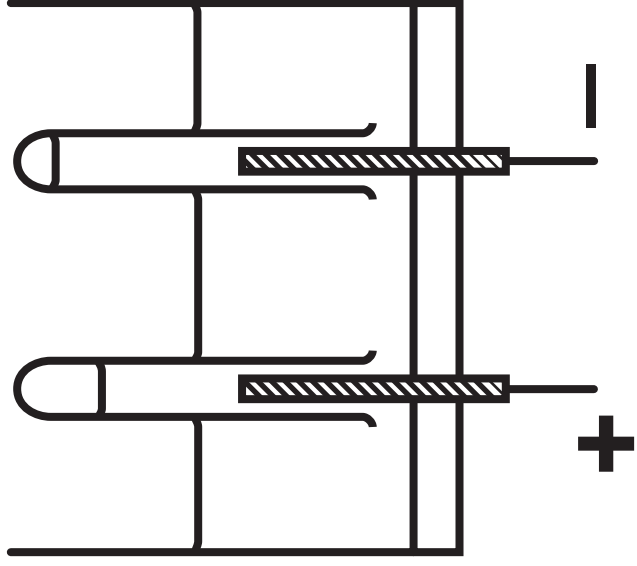


diagram D

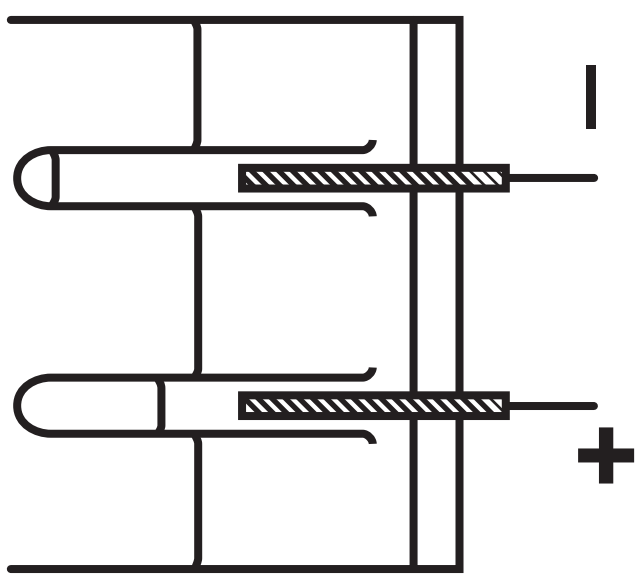
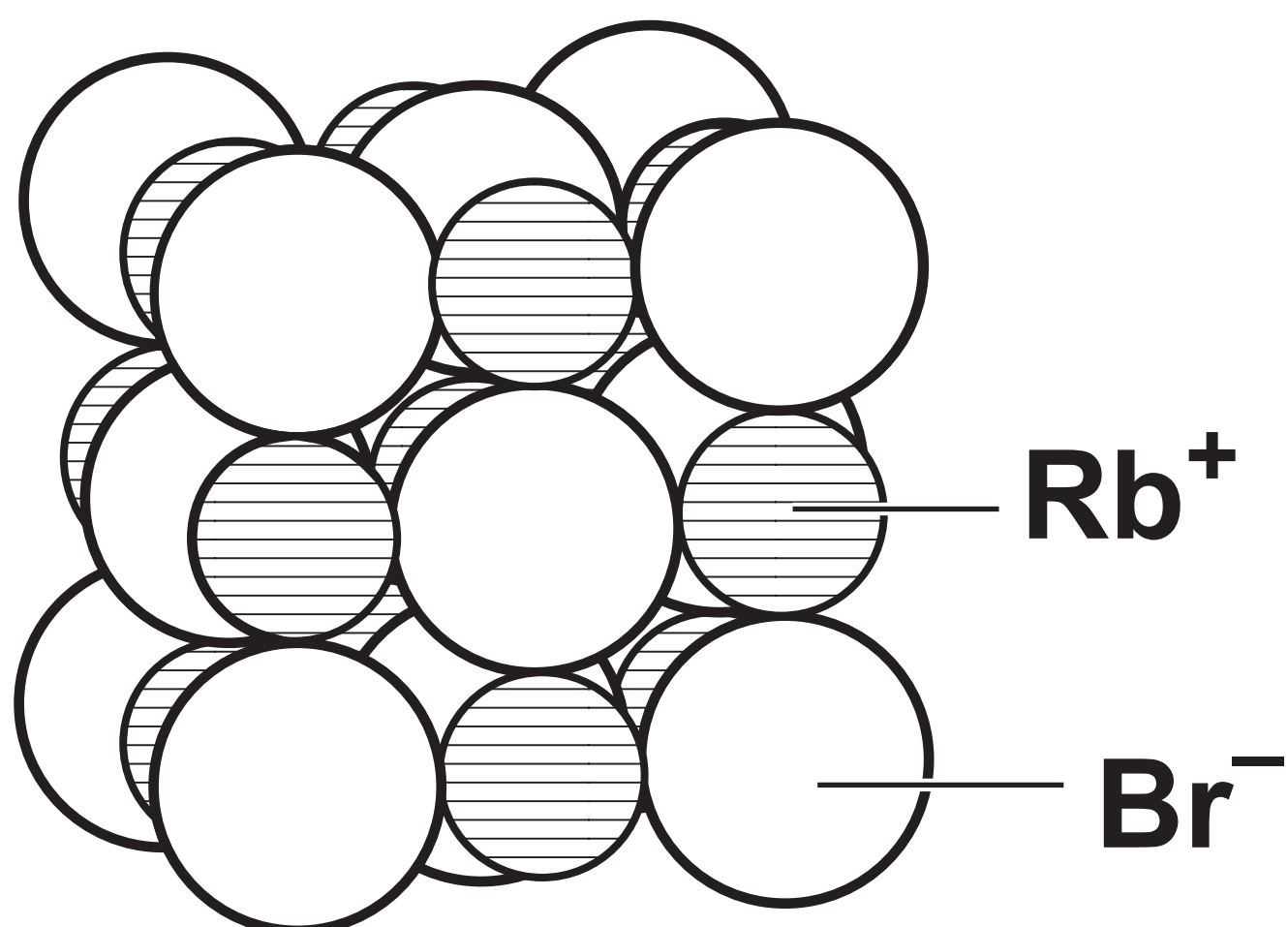


FIGURE 6

	mass of cathode in g	appearance of copper sulfate solution
before electrolysis	5.32	pale blue solution
after electrolysis	5.87	pale blue solution

## Question 8(b)

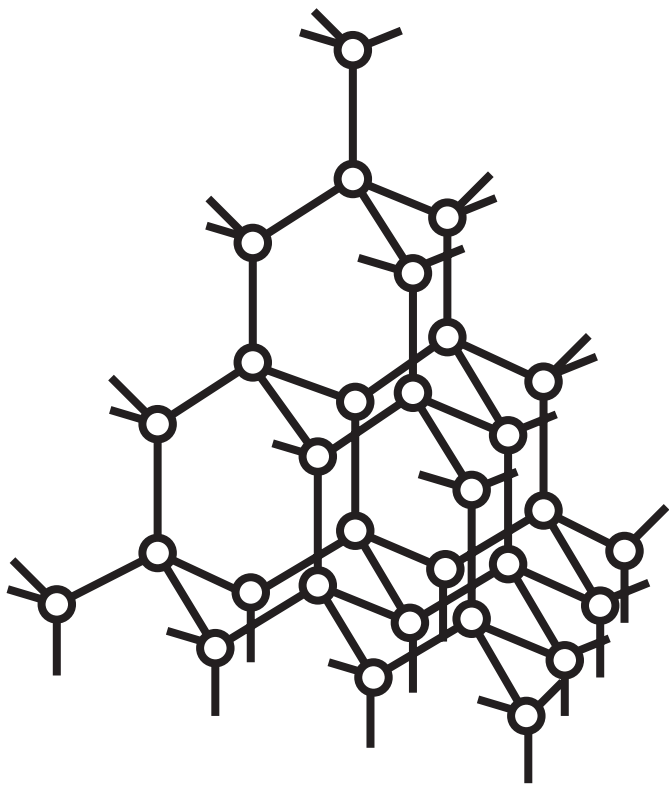
FIGURE 7



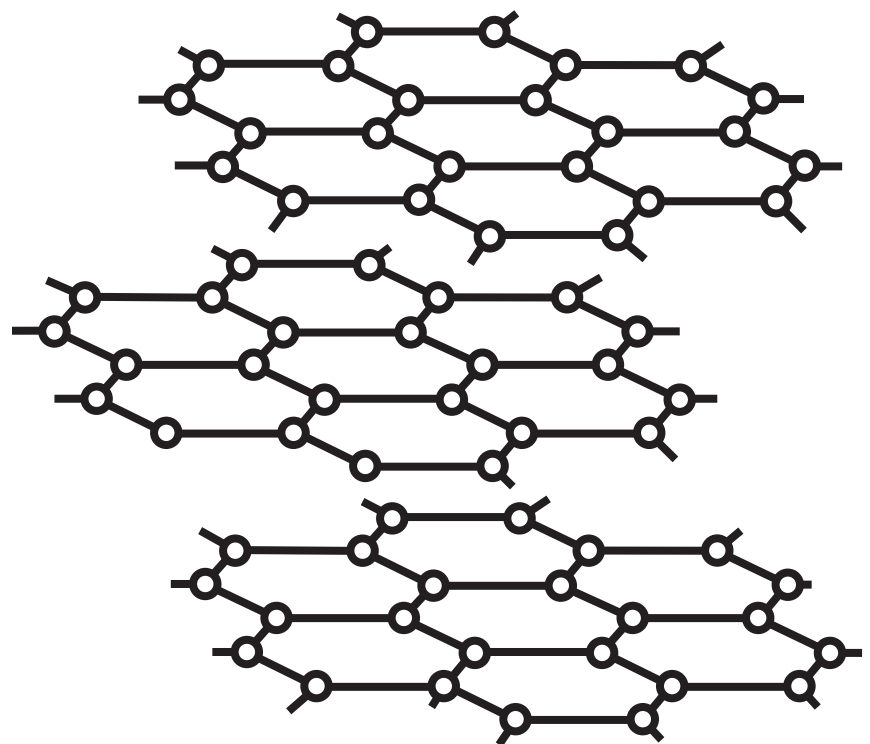
## Question 8(c)

**FIGURE 8**

**diamond**



**graphite**



**Question 9(a)****FIGURE 9**

<b>metal</b>	<b>observations with dilute hydrochloric acid</b>
<b>D</b>	<b>Bubbles formed quickly. After three minutes all the metal had reacted.</b>
<b>E</b>	<b>Bubbles formed very quickly. No metal remaining after three minutes.</b>
<b>F</b>	<b>A few bubbles were seen to form. The metal looked unchanged after three minutes.</b>
<b>G</b>	

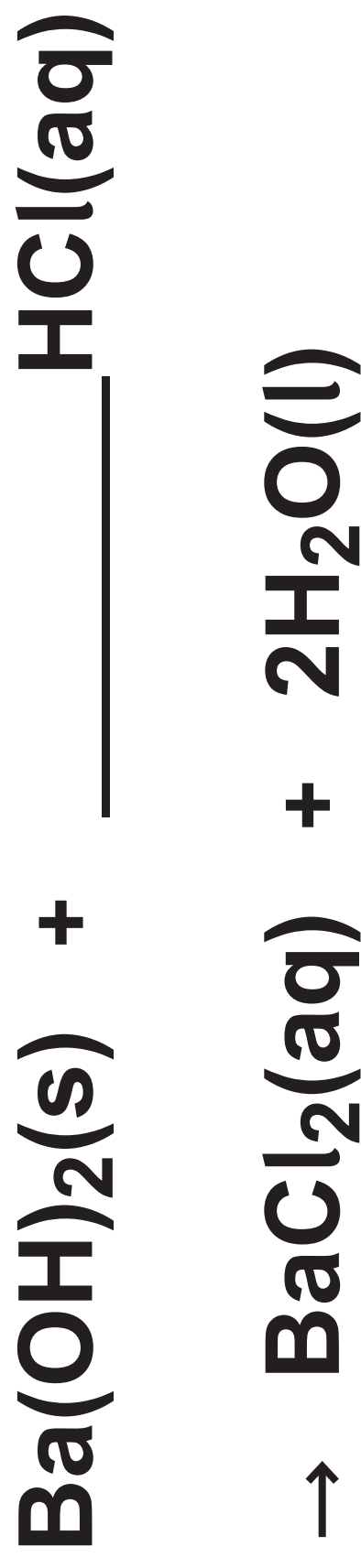
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Question 9(a) continued

FIGURE 10

E	D	G	F
most reactive			least reactive

## Question 2(a)(i)





Question 2(b)(iii)

pH of mixture

