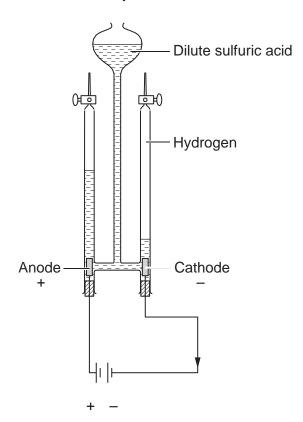


GCSE Chemistry A (Gateway Science)

J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 18

1 A student electrolyses dilute sulfuric acid.



Hydrogen gas is made at the cathode.

The student measures the volume of hydrogen made at the cathode every 2 minutes for 10 minutes.

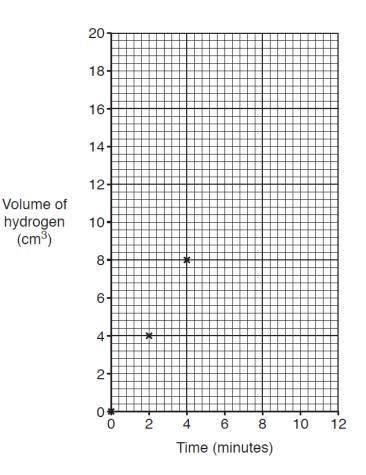
Look at his results.

Time (minutes)	Volume of hydrogen (cm ³)	
0	0.0	
2	4.0	
4	8.0	
6	14.0	
8	16.0	
10	20.0	

(a) Plot the results on the grid. The first 3 points have been done for you.

Draw a line of best fit.

[2]



(b) One of the results is anomalous.

Circle the anomalous result on the graph.

[1]

(c) Sulfuric acid contains these particles.

H⁺

 OH^-

 $H_{2}O$

SO₄²⁻

Which particles are attracted to the anode?

[1]

(d) The student also investigates the electrolysis of some molten (liquid) salts.

Complete the table.

Molten salt	Formula	Product at cathode	Product at anode
Potassium chloride	KC1	Potassium	
Lead iodide	PbI ₂		lodine

[2]



OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

University of Cambridge