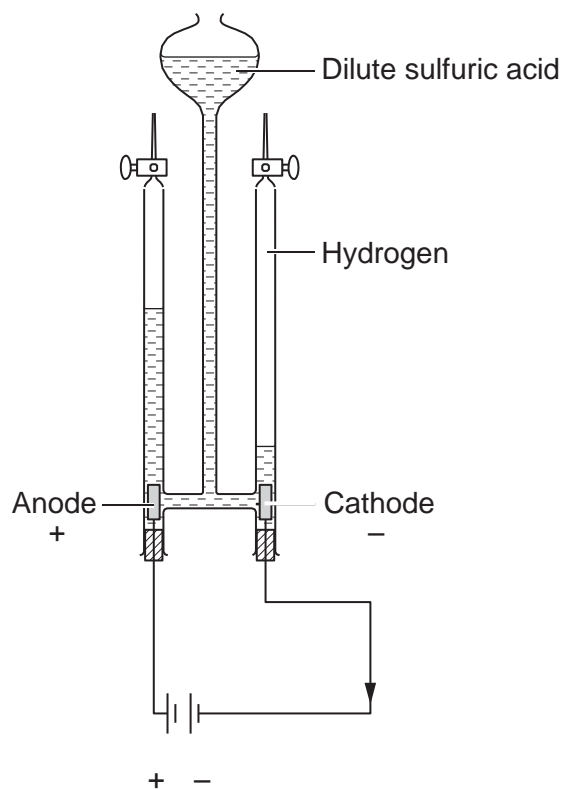


**GCSE Chemistry A (Gateway Science)**

**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.

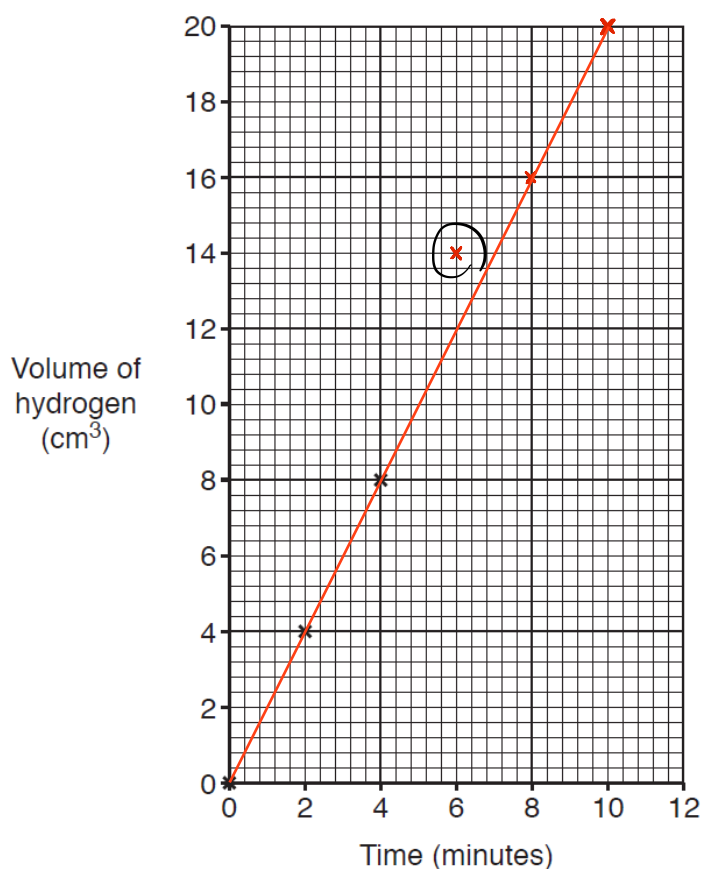
Look at his results.

| Time (minutes) | Volume of hydrogen (cm <sup>3</sup> ) |
|----------------|---------------------------------------|
| 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]

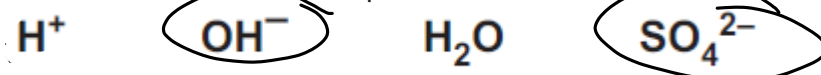


(b) One of the results is **anomalous**.

Circle the anomalous result on the graph.

[1]

(c) Sulfuric acid contains these particles.



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 | $KCl$   | Potassium          | ..... Chlorine ..... |
| Lead iodide        | $PbI_2$ | ..... Lead .....   | Iodine               |

[2]

**Total Marks for Question Set 18: 6**



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