1. Question | 5070 Oct-Nov 2023 P4 V2 Q1

1 A student investigates the electrolysis of concentrated aqueous sodium chloride.

Fig. 1.1 shows the apparatus the student uses.

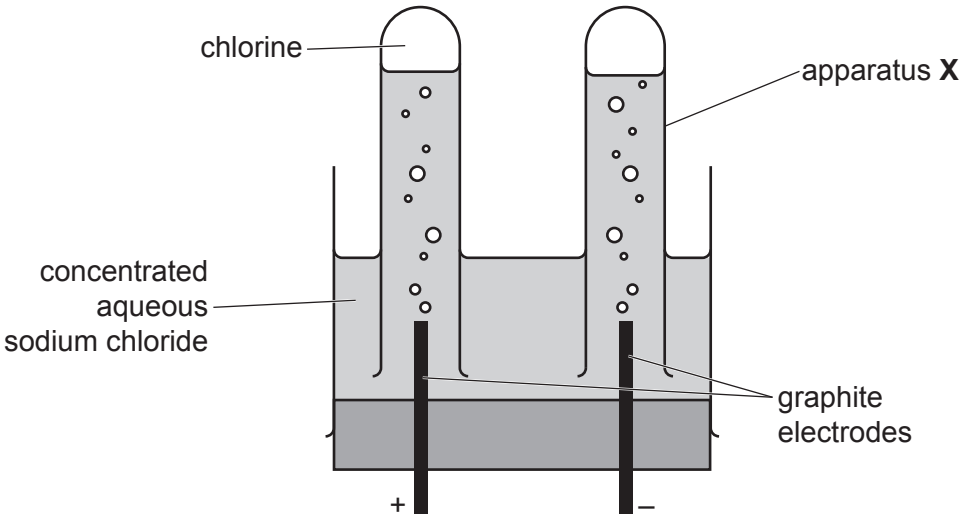

Fig. 1.1

(a) Name apparatus **X**.

..... [1]

(b) Give a reason why iron electrodes are **not** used during this electrolysis.

..... [1]

(c) Chlorine gas is produced at the anode during this electrolysis.

Describe and explain **one** safety precaution the student takes during this electrolysis.

safety precaution .....

explanation .....

[2]

(d) A different gas is produced at the cathode during this electrolysis.

Name the gas produced.

Describe a test and its result to confirm the identity of the gas.

name of gas .....

description of test and result .....

.....

[2]

[Total: 6]

2. Question part 1/2 | 5070 Oct-Nov 2024 P4 V1 Q1

1 A teacher investigates the electrolysis of molten lead(II) bromide.

Lead(II) bromide is a solid at room temperature.

Fig. 1.1 shows the apparatus the teacher uses.

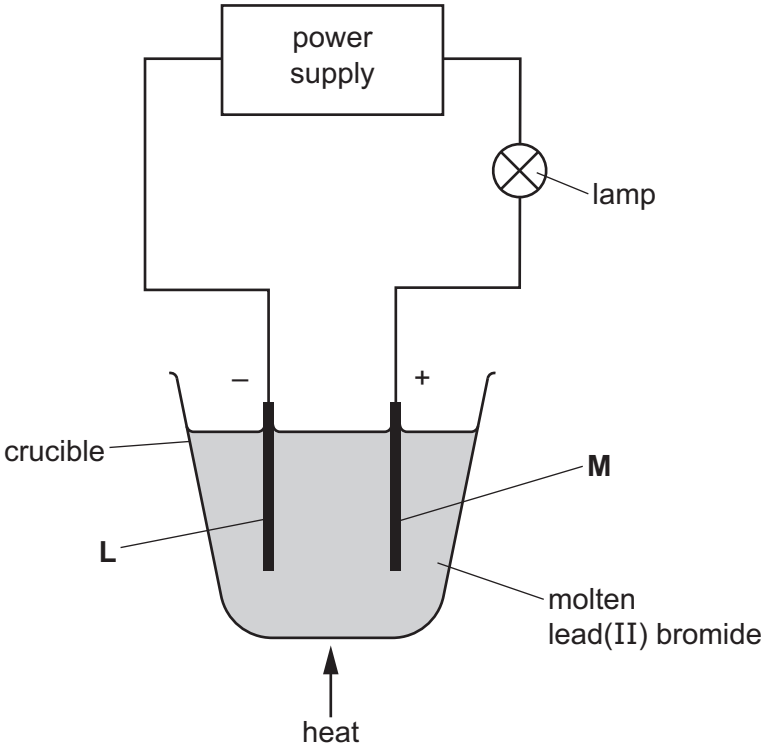

Fig. 1.1

(a) Name the pieces of apparatus labelled **L** and **M**.

Suggest the material from which **L** and **M** are made.

name .....

material .....

[2]

(b) Describe the appearance of the products at **L** and at **M**.

appearance of product at **L** .....

appearance of product at **M** .....

[2]

2. Question part 2/2 | 5070 Oct-Nov 2024 P4 V1 Q1

(c) The teacher stops heating and allows the lead(II) bromide to cool.

Explain why the lamp goes out.

.....

.....

..... [2]

[Total: 6]