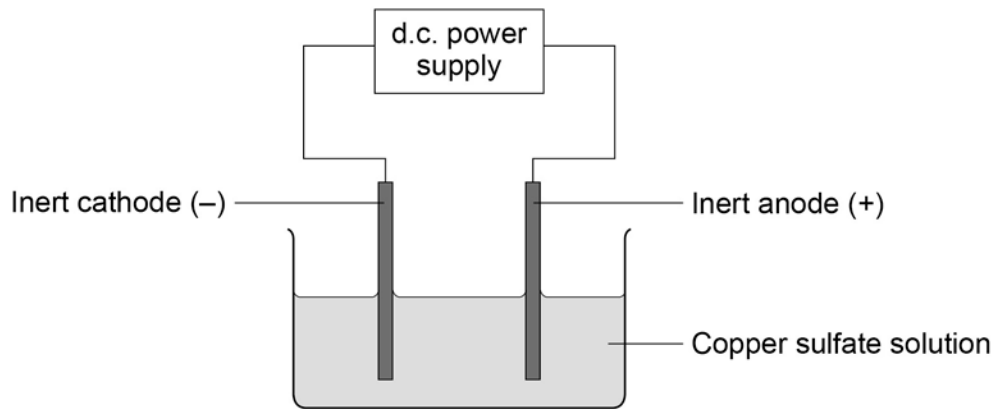


0 6

Figure 9 shows an apparatus to produce elements from a solution of an ionic compound.

Figure 9**0 6**. **1**

What is the name of the process in **Figure 9**?

[1 mark]

Tick **one** box.

Combustion

Crystallisation

Distillation

Electrolysis

Table 2 shows the products formed from three experiments using different compounds and the apparatus shown in **Figure 9**.

Table 2

Compound	State	Product at cathode	Product at anode
Copper chloride	Molten	Copper	Chlorine
Copper chloride	Aqueous solution	Copper	Chlorine
Potassium bromide	Molten	Potassium	Bromine

0 6 . **2** Use **Table 2** to name the products formed at each electrode if using an aqueous solution of potassium bromide.

[2 marks]

At cathode _____ At anode _____

0 6 . **3** Explain why copper is formed at the cathode during the electrolysis of its salts.

[2 marks]

Question 6

Question	Answers	Extra information	Mark	AO / Spec. Ref.
06.1	electrolysis		1	AO1/1 5.4.3.1
06.2	Cathode – hydrogen Anode – bromine		1	AO3/1b AO2/1 5.4.3.4
			1	
06.3	copper ions are positive so the copper ions are attracted to the negative cathode	allow so the copper ions gain electrons from the cathode to form copper atoms	1	AO2/1 5.4.3.4
			1	
Total			5	