GCSE Required Practicals

Chemistry

How to write a method...just think of CIDER!

Control variables

Independent variable

Dependent variable

Equipment

Repeats

Chemistry Practical 3 | Electrolysis

Investigate what happens when aqueous solutions are electrolysed using inert electrodes.
This should be an investigation involving developing a hypothesis

1. Pour copper (II) sulphate solution into the beaker to about 50 cm3.
2. Add the lid and insert carbon rods through the holes. The rods must not touch each other.
3. Attach crocodile leads to the rods. Connect the rods to the dc (red and black) terminals of a low voltage power supply.
4. Select 4 V on the power supply and switch on.
5. Look at both electrodes. Is there bubbling at neither, one or both electrodes?
6. Use tweezers to hold a piece of blue litmus paper in the solution next to the positive electrode (the one connected to the red terminal). You will need to lift the lid temporarily to do this.
7. Write your observations in the first blank row of the table below. What is this element?
8. After no more than five minutes, switch off the power supply.
9. Examine the negative electrode (the one connected to the black terminal). Is there evidence of a metal coating on it? What could it be?
10. Record your results in the table.
11. Clean the equipment carefully.
12. Repeat steps **1–6** using solutions of:

iron(II) sulfate
zinc(II) sulfate
potassium chloride

Can you find the cider?

1. Control
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3. Dependent
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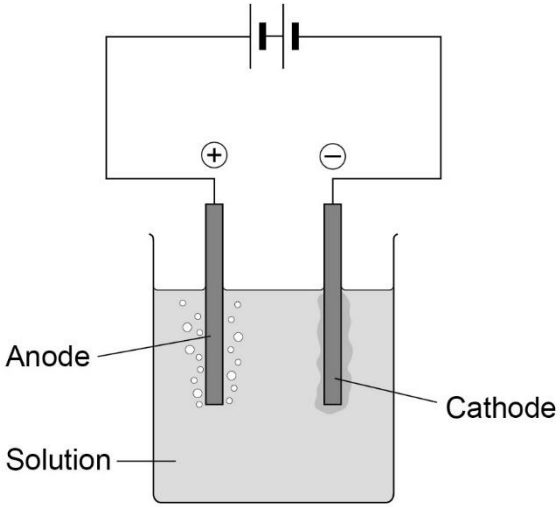
Extras



Solution	Positive electrode (anode)		Negative electrode (cathode)	
	Observations	Element formed	Observations	Element formed
Copper (II) Sulphate				
iron(II) sulfate				
zinc(II) sulfate				
potassium chloride				

Additional information

Gas produced at the positive electrode which does **not** bleach blue litmus paper, is oxygen. The amounts produced are usually too small to identify by testing.

If a gas is produced at the negative electrode, it is hydrogen. The amounts produced are usually too small to identify by testing.