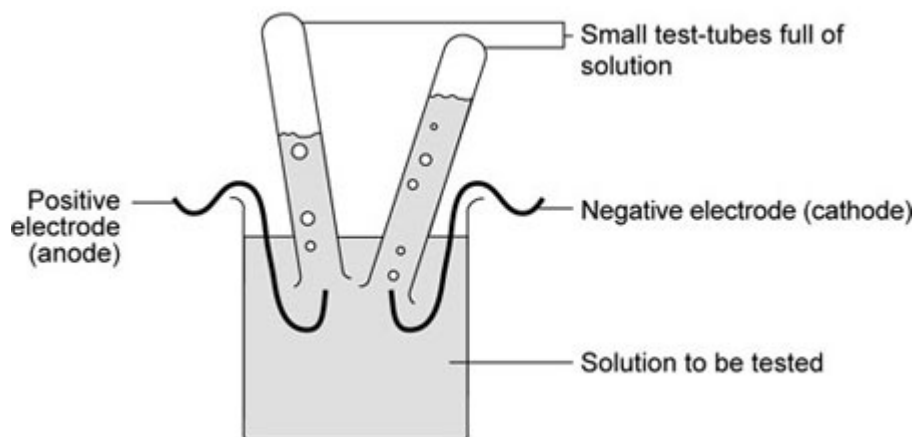


Student worksheet: The electrolysis of solutions

Introduction

When electricity passes through molten compounds, like sodium chloride, the ions move towards the electrode of opposite charge. Sodium chloride gives sodium metal and chlorine gas. This experiment illustrates what happens when the system is made more complicated because water is present. Electricity is passed through various solutions and the products are identified.



What to record

Solution	Product at the anode	Product at the cathode

What to do

1. Set up the apparatus as shown.
2. Switch on and observe what happens.
3. Try to identify the gases produced (if any).

Safety

Wear eye protection

The gases produced may be flammable, oxidising, and toxic. Take care not to inhale them. Do not let the current flow for very long..

Questions



1. What type of element is formed at the negative electrode?
2. What type of element is formed at the positive electrode?
3. Your table of results should show some products, which could not come from the compound itself that was electrolysed. Where could these other products have come from?
4. Write a general rule for the products formed at
 - (a) the cathode
 - (b) the anode.

Credits

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