

## Investigation into electrolysis of aqueous solutions and electroplating

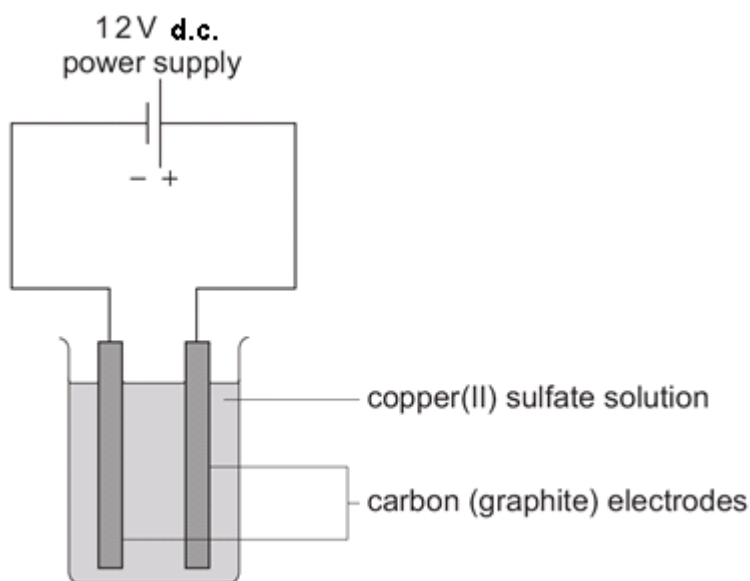
### Introduction

In this experiment you will carry out the electrolysis of copper(II) sulfate solution and link your findings to industrial copper purification and copper plating.

### Apparatus

250 cm<sup>3</sup> beaker  
 2 × graphite electrodes (about 5 mm diameter)  
 clamp stand, boss and clamp  
 12 V d.c. power supply  
 leads and crocodile clips  
 200 cm<sup>3</sup> copper(II) sulfate, about 0.5 mol/dm<sup>3</sup>

### Diagram of Apparatus



### Method

1. Measure 200 cm<sup>3</sup> of copper(II) sulfate into the beaker.
2. Set up the apparatus as in the diagram.
3. Switch on the power supply.
4. After 2 minutes record any observations seen at the electrodes.