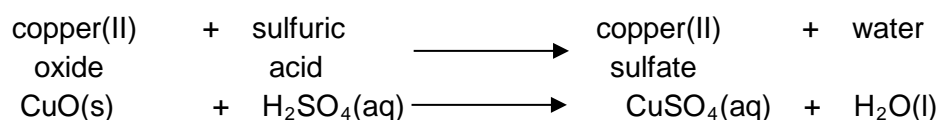
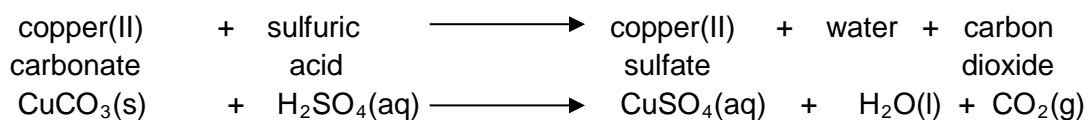


Preparation of crystals of a soluble salt from an insoluble base or carbonate

Introduction

In this experiment you will make crystals of copper sulfate. This can be done using either copper(II) carbonate or copper(II) oxide.



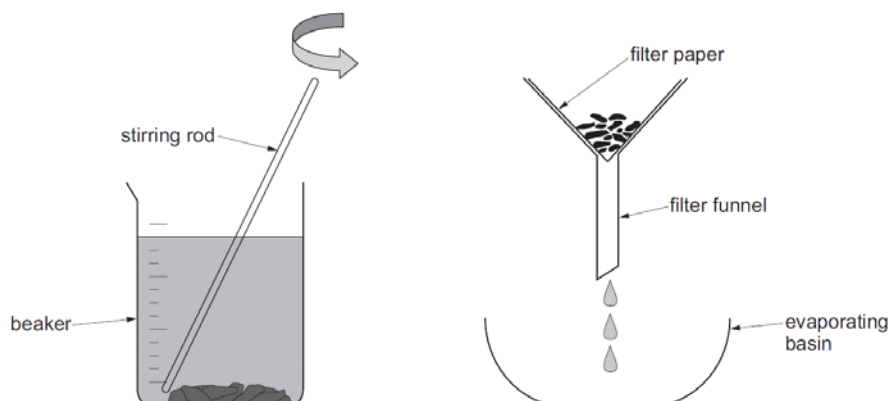
Apparatus

100 cm³ beaker
 stirring rod
 filter funnel and paper
 evaporating basin
 50 cm³ measuring cylinder
 0.5 mol/dm³ H₂SO₄
 copper(II) oxide or copper(II) carbonate
 spatula
 indicator paper

Access to:

electronic balance ± 0.1 g

Diagram of Apparatus



Method

1. Measure 50 cm³ of sulfuric acid and pour into the beaker.
2. Measure approximately 4g copper(II) oxide **or** 5g copper(II) carbonate. (This does not need to be precise as the solid will be in excess.)
3. Add the solid to the acid and stir thoroughly.
4. To ensure all the acid has reacted, touch the glass rod onto a piece of indicator paper. If it is acidic continue stirring.
5. If the solution is neutral, pour the mixture into the filtration apparatus above the evaporating basin.
6. Allow to evaporate for several days until dry.