

## Electrolysis of Copper Sulphate Solution

“Electrolysis” of a solution means the chemical reaction caused by passing an electric current through it.

Copper sulphate is a \_\_\_\_\_ solid which is \_\_\_\_\_ in water.

The chemical formula for copper sulphate is \_\_\_\_\_

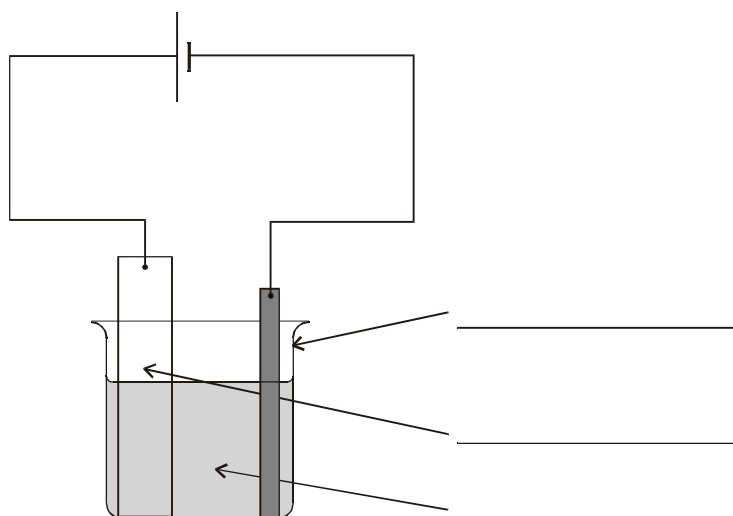
This tells us that it contains the following elements

i) \_\_\_\_\_

ii) \_\_\_\_\_

iii) \_\_\_\_\_

N.B. Pure water is an \_\_\_\_\_



Connect the battery *as shown in the diagram*.

Observations

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After a few minutes, *reverse* the battery connections.

Observations

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Conclusions

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## Questions

1. Name the three particles of which all atoms are made.
2. What is the difference between atoms of different elements ?
3. a) What is an ion ?  
b) Write down the symbols for the ions found in copper sulphate solution.
4. Name the particles which move through a piece of metal when an electric current is flowing through it.
5. Copper sulphate solution conducts electricity well but pure water is an insulator. Explain why there is this difference between water and copper sulphate solution.
6. Explain one practical use of the process of electrolysis of a solution containing a metal.