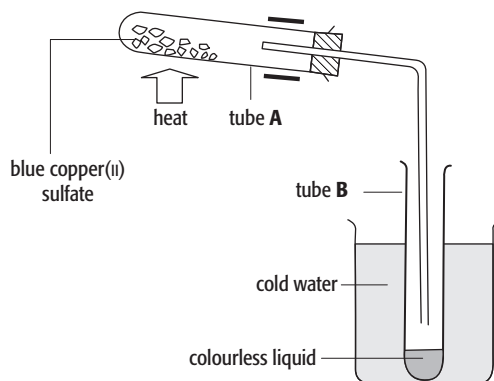


Worksheet 7.8

Heating copper(II) sulfate crystals

Copper(II) sulfate crystals are a distinctive blue colour. However, that blue colour is lost on heating. The diagram shows an experiment to investigate the effect of heat on copper(II) sulfate crystals.



1 a Why is cold water used in the beaker?

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b How could you identify the colourless liquid in tube B as water?

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2 When 2.5 g of blue copper(II) sulfate crystals were heated, 1.6 g of a white solid were left in tube A.

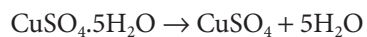
a Calculate the mass of water driven off in the experiment.

.....

b Calculate the percentage of water by mass driven off.

.....

3 This equation represents the change taking place on heating blue copper(II) sulfate crystals.



a What type of change is taking place?

.....

b What is the adjective often used to describe the white powder remaining after heating? Write an equation to represent what happens when water is added back to the white copper(II) sulfate powder.

.....

.....

c These two equations can be combined into one to show the changes in both directions. What symbol should be used instead of the arrow in the equation above to show that the change is reversible?

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