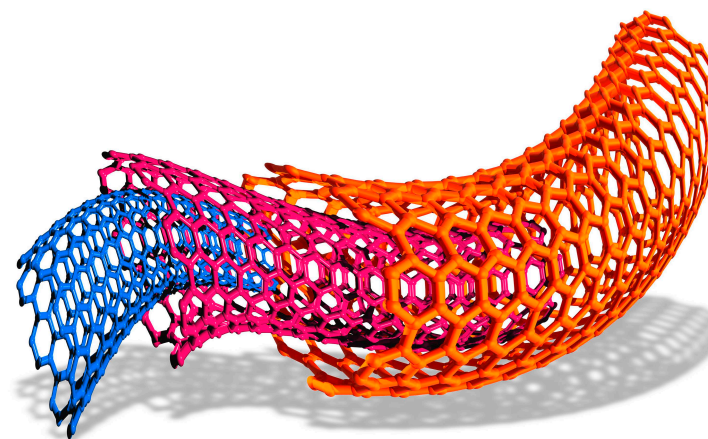


Interactive Example Candidate Responses

Paper 6 (May / June 2016), Question 4

Cambridge IGCSE™
Chemistry 0620



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- 4 Calcium burns in air to form calcium-oxide. The reaction is vigorous and some of the calcium oxide can be lost as smoke. Plan an investigation to determine the maximum mass of oxygen that combines to form calcium oxide when 2g of calcium granules are burnt in air. You are provided with common laboratory apparatus and calcium granules.

Your
Mark

4

Q4

Mark scheme

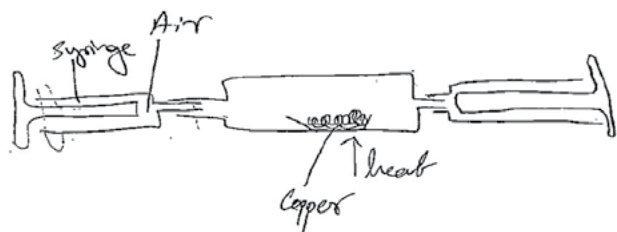
any 6 from:

weigh calcium;
with lid/cover;
heat/burn;
allow air to enter/lift lid;
cool;
reweigh CaO;
reheat to constant mass;
calculate/find the difference;

First weigh out exactly 2g of calcium, then place them in a crucible in a fume cupboard. Start heating it slowly and occasionally open the crucible to allow more oxygen through. When ~~the~~ ^(calcium oxide) all of the calcium has reacted, let the CaO cool for a while. Then reweigh it. To calculate the mass of oxygen formed, subtract the mass of the ^(calcium oxide) CaO from the mass of calcium. [6]

[Total: 6]

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Take 2g of Calcium granules in dish. Connect it to 2 air syringes one of them must be filled with air then ~~be~~ put a flame under the copper and push the air from side to side by the syringes the volume of air will start decreasing till specific volume then you remove all the apparatus take the calcium oxide after the reaction measure the mass then subtract it from 2g it will give you the mass of oxygen reacted with 2g of calcium use gloves and wear eye goggles goggles [6]

[Total: 6]

Select
page

Your
Mark

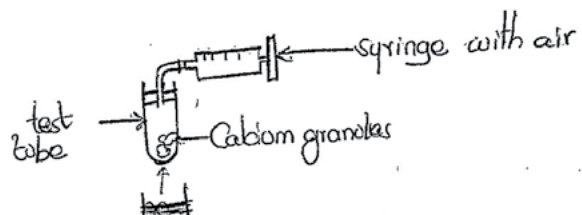
4

Q4 Mark scheme

any 6 from:

weigh calcium;
with lid/cover;
heat/burn;
allow air to enter/lift lid;
cool;
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reheat to constant mass;
calculate/find the difference;

- 4 Calcium burns in air to form calcium oxide. The reaction is vigorous and some of the calcium oxide can be lost as smoke. Plan an investigation to determine the maximum mass of oxygen that combines to form calcium oxide when 2g of calcium granules are burnt in air. You are provided with common laboratory apparatus and calcium granules.



You can take a 50cm³ syringe and fill it in with air which contains oxygen. You take the Calcium granules and place them inside the test tube. You start releasing the air using a tube into the test to make sure there is no air already or no air comes in. You then wait for smoke to be produced and then you check the initial temperature of the air on the cylinder and compare it to the final. The volume you get you sublimate to a solid and then you measure the mass of the solid. [Total: 6]

Select
page

Your
Mark

4

Q4 Mark scheme

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