

GCSE Chemistry A (Gateway Science)

J248/01 Chemistry A C1-C3 and C7 (Foundation Tier)

Question Set 6

1* A student is separating a mixture of three solid substances, **A**, **B** and **C**.

Look at the table. It gives information about these substances.

| Substance | Colour | Melting point (°C) | Is it magnetic? | Is it soluble in water? |
|-----------|--------|--------------------|-----------------|-------------------------|
| A | grey | 1535 | yes | no |
| B | white | 801 | no | yes |
| C | yellow | 1427 | no | no |

Suggest how the student can separate the mixture to get pure, dry samples of substances **A**, **B** and **C**.

Explain why your methods work.

- Use a magnet to separate substance A from B and C (only A would stick to the magnet) [6]
- To get substance C from the mixture of B & C, add the mixture into the water allowing substance B to dissolve (but C did not)
- Filter insoluble substance C from the solution the solid C will be left after filtering
- Rinse and dry the solid C
- Evaporate the solution of B to obtain solid crystals of B

Total Marks for Question Set 6: 6

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