AQA GCSE Chemistry | 8462

SPECIFICATION POINT 4.2.2.1

The three states of matter

Past-paper questions

Tier	**Higher**
Question groups	**1**
Available paper years	**2009–2009**

Using this booklet

1. Answer the questions in order and show your working.
2. Original question numbers and marks are retained.
3. Print at actual size (100%) for measuring questions.
4. Use the companion answer booklet to check your work.

Name: _____ **Date:** _____

Whole questions are retained for context, so some parts assess other specification points. Current and legacy sources are labelled. Continue on extra paper if needed.

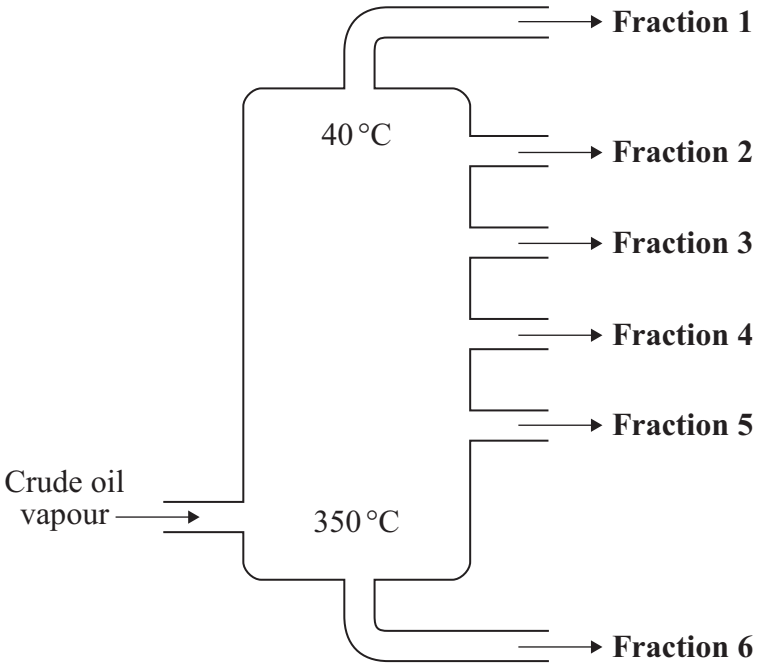
4.2.2.1 The three states of matter

Question 01

March 2009 | CHY1AP | Original Q6 | Legacy

QUESTION SIX

Crude oil vapour can be separated into a number of fractions.



6A Crude oil vapour enters the fractionating column.

What happens as the vapour cools?

1 The fractions separate because they have different densities.

2 The fractions condense at 40 °C.

3 The fractions condense at different temperatures.

4 The fractions condense at 350 °C.

6B **Fraction 6** will contain . . .

1 alkanes with high boiling points.

2 alkanes with a small number of carbon atoms in each molecule.

3 only hydrocarbons that are unsaturated.

4 only hydrocarbons with low boiling points.

4.2.2.1 The three states of matter

Question 01 · continued March 2009 | CHY1AP | Original Q6 | Legacy

6C **Fraction 1** contains the alkanes called methane, ethane, propane and butane.

By what process could pure methane be obtained from this fraction?

1 evaporation

2 electrolysis

3 thermal decomposition

4 fractional distillation

6D Which of these statements is correct for the alkanes?

1 They are a series of compounds with the general formula C_nH_{2n+1}

2 They are saturated compounds.

3 Most are gases at room temperature (20 °C), some are liquids, none are solids.

4 Their molecules have a carbon : hydrogen ratio of 1 : 4