

OCR (B) Chemistry A-Level

CD6 - Modern Analytical Techniques

Flashcards

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What is gas-liquid chromatography?



What is gas-liquid chromatography?

A type of chromatography used to separate and analyse compounds that are in the liquid or gaseous phase.



What are some uses of gas chromatography?



What are some uses of gas chromatography?

Uses include:

- Testing how pure a substance is.
- Separating all the different components in a mixture.



How is gas-liquid chromatography carried out?



How is gas-liquid chromatography carried out?

- The mixture is injected into the column (lined with a high boiling point liquid on a porous support) where it vaporises and is carried through the column by an inert carrier gas.
- Compounds move through the column at different rates due to solubility and volatility.
- Compounds pass through a detector at the end of the column. This produces a gas chromatogram.
- Each peak = different compound.



What is retention time?



What is retention time?

The time taken from the injection of the mixture to the detection of a compound.



What does the retention time of a compound allow you to do?



What does the retention time of a compound allow you to do?

Compare the time to known values to help identify the compound.



What technique is usually used for further analysis?



What technique is usually used for further analysis?

- Mass spectrometry.
- This will allow you to calculate the molecular mass of the separated products.

