

High-Performance Liquid Chromatography (HPLC)

- Done under high pressure.
- *Stationary phase* is small particles of solid in a column. Often silica bonded with different hydrocarbons.
- *Liquid Phase* is often polar. – methanol or water. Mixture is injected into stream of solvent and carried through the column as solution.
- Separated due to different parts being attracted by different amounts to the solid – take different times to travel through the column.
- As leaves column UV light passes through it. It's absorbed and UV detector measures how much was absorbed. **Chromatogram** is produced (graph). Shows the **retention times** of components of the mixture.
- **Retention times** – *Time taken for a substance to pass through the column and reach the detector. Used to identify the compound. Depends on: temperature, pressure, nature of solvent.*

Different types of techniques can be combined to identify compounds. This is used in forensics or drugs testing in sports.

Preview from Notesale.co.uk
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