

## Chromatography

The chromatography laboratory within the School has a wide range of analytical instrumentation, a list of which can be seen below.

Two chromatographic techniques in particular are used extensively: gas chromatography and high-pressure liquid chromatography (HPLC). Both of these techniques are methods of separating reaction mixtures into their individual components allowing for further analysis using mass spectrometry, nuclear magnetic resonance and other techniques. Samples analysed by gas chromatography are generally volatile so separation can be achieved by using a variable temperature gradient in a gas chromatograph. Samples analysed by HPLC are not usually volatile so cannot be separated by a temperature program therefore separation is done using a high-pressure solvent system. HPLC is a particularly useful technique in that not only can a mixture be separated into its components (analytical HPLC) but also isolation of purified compounds (preparative HPLC) is possible.

### Instrumentation

- Gas Chromatography  
(Three Carlo Erba GC8000 series gas chromatographs)
- Analytical HPLC  
(Four Dionex Summit HPLC systems, one with an autosampler  
One Dionex DX-500 IC and HPLC system)
- Semi preparative HPLC  
(One Dionex HPLC system)
- Preparative HPLC  
(One Dionex Summit HPLC system)

All of these services are offered.

To discuss how we may be able to assist you please contact Dr N Spencer on 0121-414-4419/4421 or email him at [n.spencer@bham.ac.uk](mailto:n.spencer@bham.ac.uk)  
(<mailto:n.spencer@bham.ac.uk>)

You can request information and receive quotations through our [online form \(http://www.chem.bham.ac.uk/industry/contact.shtml\)](http://www.chem.bham.ac.uk/industry/contact.shtml).

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