

## ANALYTICAL SERVICES @ CHEMISTRY

The Department of Pure and Applied Chemistry offers a range of professional analytical services to commercial and academic customers, offering an efficient, quality service by experienced staff utilising top-of-the-range equipment.

### NMR Service

The University of Strathclyde NMR is a purpose built unit, housing a magnet room, technical support office, data processing laboratory and sample preparation and handling laboratory.

At the heart of the facility are four Bruker NMR spectrometers capable of a wide range of applications working from high-throughput fully automated mode using robotic sample handling and Bruker's Icon NMR to manual interaction mode.

Spectrometers operate under TopSpin 2.1 except where stated in a Windows XP based environment based on HP XW4300 PCs.

#### Types of Data Acquisition Available:

**Avance 3 (400 MHz):** Nuclei -  $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{31}\text{P}$ ,  $^{19}\text{F}/^{19}\text{F}-\{^1\text{H}\}$ ; gradient assisted acquisitions.

**AV400:** Nuclei -  $^1\text{H}$ ,  $^{19}\text{F}$  and heteronuclei in the frequency range for  $^{31}\text{P}$ - $^{109}\text{Ag}$ ; gradient assisted and variable (high & low) temperature acquisitions.

**AV500:** Nuclei -  $^1\text{H}$  and  $^{13}\text{C}$ ; gradient assisted and variable (high & low) temperature acquisitions.

**AV600:** Nuclei -  $^1\text{H}$  and heteronuclei in the frequency range for  $^{31}\text{P}$ - $^{183}\text{W}$ ; gradient assisted acquisitions including triple resonance [ $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{31}\text{P}$ - $^{183}\text{W}$ ] nD.

#### Results

We can post your spectra to you or email them as a Word, Powerpoint or pdf files; or data can be supplied raw.

#### Analysis Time

This will depend on sample concentration and experimental techniques required. Rapid turnaround for standard analyses.

### NMR Service

- Solution phase NMR 400 MHz – 600 MHz
- Organic, Polymer & Biomolecules
- Multinuclear capability
- Advanced 1D & 2D experiments
- Powerful post processing software

#### Contact

Contact us for a quote or an informal discussion of your requirements: call **0141 548 2257** or email: [chemistry.services@strath.ac.uk](mailto:chemistry.services@strath.ac.uk)

