

RECENT PROJECTS

- Development of quality control methodologies for an environmentally friendly fragrance company.
- Comparative evaluation of new products developed by a log cabin manufacturing company.
- Evaluation of new materials, small-scale compounding and thermal analysis for a leading global producer of polyester film.

“As a one-man business, I was initially nervous of approaching a university for advice. However, through Interface, I was put in touch with the Chemistry Clinic at Strathclyde. The people there had just the expertise my business needed. More importantly, the team understood the needs and priorities of small businesses.”

Misha Dutton



CONTACT US

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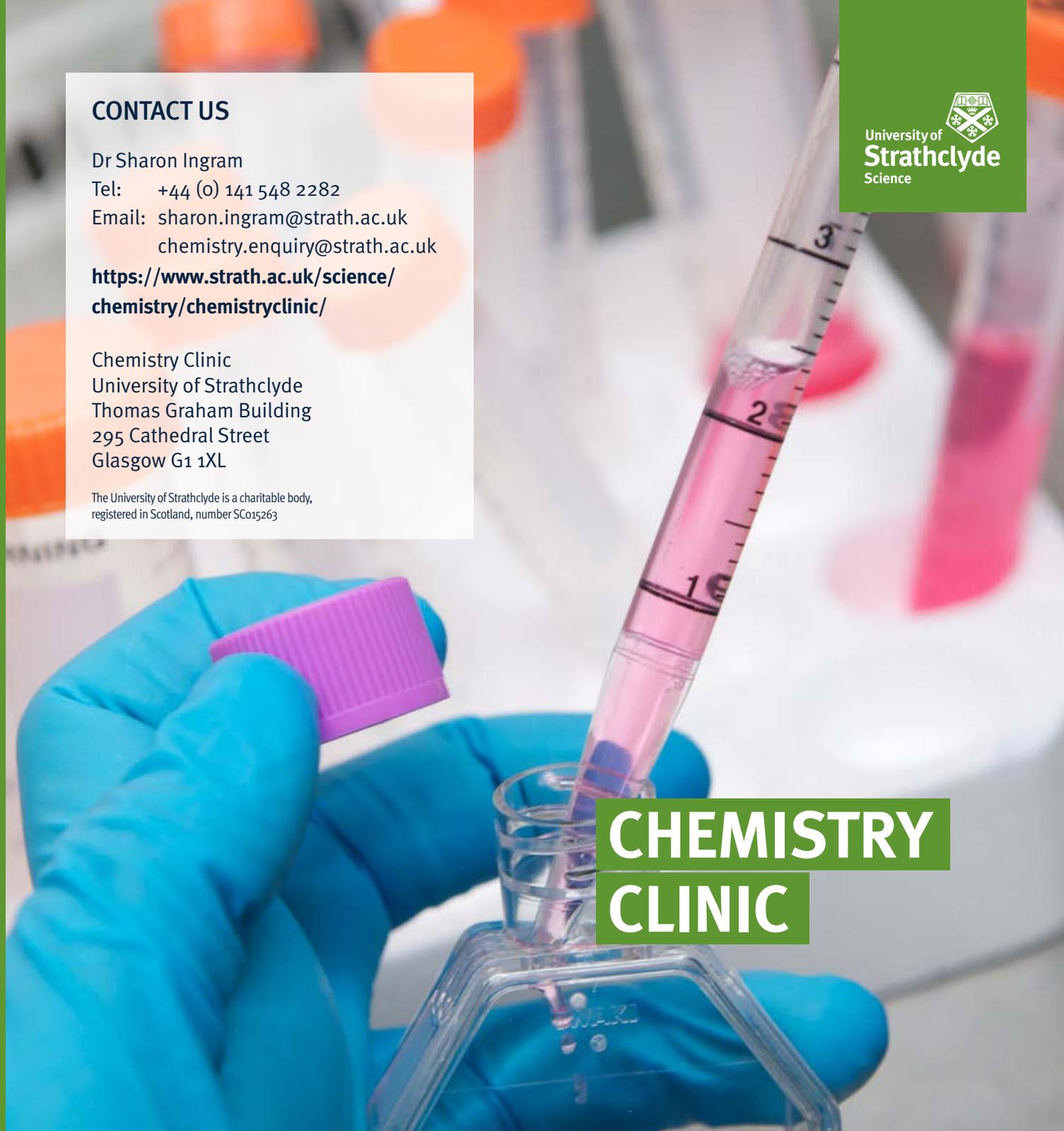
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**CHEMISTRY
CLINIC**

ABOUT US

The Chemistry Clinic is a resource designed for small and medium-sized business (SMEs) and larger companies that provides accessible support and expert guidance for projects and ventures.

Based in our Pure & Applied Chemistry Department, the student-led Chemistry Clinic has access to an impressive collection of instruments and equipment to further develop your project's current materials and processes.

If you are in a preliminary design stage, scientific advice from one of our experts is available through the Chemistry Clinic to guide progress and development.

ACCESS OUR SERVICES

All project enquiries are welcome to an initial FREE consultation to discuss the needs of the individual, business or company. A non-obligation quote for services is provided.

Additional consultations for long-term collaborations may be advised to formalise a contract to protect your intellectual property and confidentiality. A time line and costs that match deliverables is discussed throughout.

Our talented Masters students conduct any lab work following consultation and open communication is maintained throughout this period.

COMMERCIAL SAMPLE ANALYSIS

As part of one of the best equipped science faculties in the UK, our labs and high quality equipment can analyse a wide variety of sample types. These services are reliable and competitively priced with rapid turnaround times on most techniques.

OVERVIEW OF POPULAR TECHNIQUES

FTIR (Fourier transform infrared spectroscopy)

– Fingerprints and identifies solid, liquid and gaseous materials through their interaction with infrared light.

NMR (Nuclear Magnetic Resonance) - Vast in its diversity and is capable of analysing a range of materials.

Mass Spectrometry - Provides analysis of unknown materials and novel synthesised compounds, large and small molecules covering a mass range of 2-150,000 Da depending on the instrument employed.

Gas Chromatography - Ideal for separating and identifying components in volatile and semi-volatile organic compounds in complex mixtures in the gas phase.

HPLC (High Performance Liquid Chromatography)

- Separates and identifies a variety of organic compounds, from small molecules to peptides and proteins.

Environmental Testing – Ability to test samples under range of extreme environmental conditions - thermal, photochemical, oxidative and hydrolytic.

Elemental Analysis - Ideal for determining sample composition with capabilities to analyse virtually all the elements of the periodic table, equipped to handle hazardous, air-sensitive, and/or pyrophoric materials.

Through top-of-the-range equipment and techniques including:

CHNS (Carbon Hydrogen Nitrogen Sulfur)

Results are obtained as a percentage by mass through combustion analysis.

Halogen Analysis

The analysis of fluorine, chlorine, bromine and iodine is carried out using the well documented Schöniger combustion sample preparation technique.

ICP-MS (Inductively Coupled Plasma Mass Spectrometry)

This is a very flexible and highly sensitive technique, capable of achieving detection limits as low as parts per trillion for many elements.

Thermal Analysis – a range of thermal analysis techniques which can be used to assess heat capacity, glass transition temperatures (T_g), moisture effects and material degradation amongst others.

Differential Scanning Calorimetry (DSC)

DSC can characterise the thermal properties of a material such as T_g, crystallisation, melting and oxidation. A tool used widely to assess and develop polymeric, and other, materials.

Thermal Gravimetric Analysis (TGA)

Useful for monitoring oxidation, desorption and vaporisation during the heating of a material, highlighting the temperatures at which processes occur and evaluating thermal stability.

Evolved Gas Analysis

A specialised technique that studies and identifies the evolved gases from a material during heating. Valuable for understanding degradation pathways and for the development of thermally stable materials.