

# Polymer Processing & Characterisation Workshop

5 June 2025

Anton Paar, 950 Capability Green, Luton LU1 3LU

Anton Paar Ltd is delighted to invite you to join us for this comprehensive workshop on Polymer Processing and Characterisation. Tailored for industrial scientists and academic researchers alike, this workshop will equip you with essential knowledge and practical insights into polymer behaviour – from raw material to final product.

Polymer processing is a cornerstone in industries such as plastics, automotive, packaging, electronics, and biomedicine. This workshop will provide an in-depth look at processing techniques and analytical tools to evaluate and optimise polymers during every stage of their lifecycle.

Prepare to deepen your knowledge and enhance your skills in polymer characterisation and processing!

## Key takeaways:

- ▶ Fundamentals of polymer rheology and viscoelastic behaviour
- ▶ Extrusion and mixing techniques: parameters, troubleshooting and scale-up
- ▶ Spectroscopy techniques (FTIR, Raman) to identify polymer types and additives
- ▶ Moisture and viscosity analysis for quality and performance assessment
- ▶ Microwave digestion for polymer sample preparation
- ▶ Hands-on demonstrations with Anton Paar and Brabender instruments
- ▶ Case studies showcasing applications across various polymer industries

## Topics Covered:

- ▶ Polymer Rheology – rotational, oscillatory and extensional testing
- ▶ Mixing & Extrusion – processing challenges and control
- ▶ FTIR & Raman Spectroscopy – structural identification and monitoring
- ▶ Viscosity & Moisture Analysis – critical quality attributes in formulations
- ▶ Microwave Digestion – advanced sample preparation for elemental analysis



## Workshop Programme - 5<sup>th</sup> June 2025

09:30	Welcome, Registration & Coffee
09:45	Session 1 – Fundamentals of Polymer Rheology
10:30	Session 2 – FTIR & Raman Spectroscopy in Polymer Analysis
11:00	Laboratory practical session
11:45	Break
12:00	Session 3 – Moisture Analysis in Polymers
12:15	Session 4 – Advanced Polymer Digestion for Elemental Analysis
12:30	Laboratory practical session
13:00	Lunch & Networking
13:30	Session 5 – Viscosity Measurement Across Polymer Forms
14:00	Session 6 – Mixing and Extrusion in Polymer Processing
15:00	Break
15:15	Laboratory practical session
16:30	End of workshop - safe travels!

## Who should attend?

This seminar is ideal for scientists, engineers and technologists involved in polymer development, processing, QA/QC or material science research. Whether you work in R&D or production, you'll benefit from learning how modern instrumentation can support your goals.

Places will be limited to ensure a good ratio of delegates to tutors during the workshop.

To reserve your place, please complete the following form and email to:

[info.gb@anton-paar.com](mailto:info.gb@anton-paar.com)

# Meet the Team



## Dr Claire Freeman

Dr Claire Freeman is our Sales Engineer in measurement for the South of UK. Claire's knowledge and interest in Viscosity, Rheology and Texture Analysis as well as her engagement with customers gave her the opportunity to become a Training and Applications Sales Specialist at Ametek Brookfield. Since being with Anton Paar, Claire has continued to apply her viscosity knowledge as well as learn new technologies within the same field.



## Joseph Hodges

Joseph Hodges is the Product Manager for Rheology & Particle Characterisation for UK & Ireland. Joseph has 7 years' experience assisting research & manufacturing institutions, adopting physical characterisation methods on rheometers and developing their material characterisation strategies throughout the UK, US, Europe and South East Asia. In his current role he is responsible for supporting application development and technical enquiries within the UK & Ireland. Joey has a degree in Biomedical Sciences from the University of Southampton.



## Steve Singh

Steve Singh is the Product Manager for ASC. Steve Singh has worked in the field of analytical and synthetic chemistry for over 30 years. He joined Anton Paar in 2004 as the Product Manager for the Chemical Analysis Technology division, now called Analytical and Synthetic Chemistry (ASC). Along with ASC, Steve is also responsible for FTIR and Raman spectroscopy.



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