Enhance Battery Performance with Superior Materials Workshop

23rd October 2025

Anton Paar, 950 Capability Green, Luton, LU1 3LU

Battery research and development is among the fastest-growing industries worldwide. The safety, performance and lifespan of a battery are directly influenced by the quality of its materials.

This workshop provides the skills needed to characterise electrodes, separators, slurries, electrolytes and cells to ensure peak performance, safety and longevity.

Master the Science of Optimal Battery Performance

- In-depth Characterisation Techniques: Learn to measure and evaluate crucial physical properties of battery components.
- Hands-on Training: Gain practical experience with various characterisation techniques, including particle size, pore size, rheology, density and surface analysis.
- Expert-led Sessions: Benefit from insights by Anton Paar's experts in Material Characterisation, focusing on new methods for electrode adhesion and mechanical property.

Key Takeaways

- Maximise Battery Performance and Lifespan: Understand the role of Surface Area, Particle size & Porosity in characterising battery material performance.
- Achieve Ideal Slurry Properties: Learn how to produce and maintain high-quality consistent slurries, using rheological characterisation of flow behaviour.
- Guarantee Electrolyte Quality: Discover methods to ensure the safety and quality of your battery electrolytes.
- Mechanically Test Finished Electrodes: Gain the skills needed to perform mechanical testing on final products.
- Unlock the Power of X-ray Diffraction: Utilise X-ray diffraction for battery powder and cell characterisation.

Meet the Team

Anton Paar

Dr Nishil Malde

Dr Nishil Malde is our UK Product Manager for X-Ray, Surface Area & Porosity and Mechanical Surface Characterisation. Nishil has over 25 years of experience in technical instrument sales and application support, including 11 years at Anton Paar. With a PhD in Physics from Imperial College London, Nishil is a recognised expert in materials characterisation. His passion lies in guiding our customers to innovative solutions for their material analysis needs.

Cormac Carry Fennessy

Cormac is an accomplished Application Engineer with over two years of experience at Anton Paar. He has spent the majority of that time developing customer solutions using a range of techniques, including laser diffraction, DLS, rheology and gas adsorption. He has a solid academic foundation from Leicester University, in engineering and applied sciences, which helps him to apply these techniques to the problem of solving application challenges. Cormac is quickly developing a strong understanding of advanced analytical techniques and their applications in battery technology.

Steve Singh

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.

Steve Vincent

Steve Vincent is our UK Sales manager for Anton Paar measurement products including our range of viscometers. A chemist by training, he has worked for more than 30 years with market leading companies in the analytical instrument and software business. He has expertise in density measurement, refractometry, electrochemistry, molecular spectroscopy. He is also our in-house expert for the pharma industry and the data-integrity solutions we offer to address the regulatory requirements the industry faces.

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.

Timetable

9.30	Welcome, Registration & Coffee on arrival
9.45	Session 1 – Characterising Your Anode Materials: Best Method
10.15	Session 2 – The Importance of Particle Size to Battery Performance
10.45	Practical in the Lab
11.30	Short Break
11.45	Session 3 - Characterising Your Finished Electrodes: Best Methods.
12.15	Practical in the Lab
13.00	Lunch Break & Networking
13.30	Session 4 – How to Speed Up Your Material Prep and Track Material Changes
14.00	Session 5 – Battery Quality Control – Including Practical in the Lab
15.00	Short break
15.15	Session 6 – Complete Rheological Characterisation of Battery Materials
16.00	Practical session in the lab
16.45	Finish and safe travels

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Book Your Space

Spaces are limited to ensure an optimal delegate-to-tutor ratio for hands-on learning. To reserve your place, please scan the QR code below or click here to register. Alternatively, please email info.gb@anton-paar.com.

Anton Paar UK Ltd
950 Capability Green, Luton LU1 3LU
0333 015 0080 · info.gb@anton-paar.com · www.anton-paar.com