Measuring and Characterising Batteries

13th May 2026

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

Join us for this battery materials workshop, designed to equip industrial scientists and academic researchers with the essential knowledge and hands-on skills to analyse battery materials. Battery R&D is one of the fastest-growing industries worldwide, where safety, performance and lifespan depend on material quality. This workshop provides the tools to characterise electrodes, separators, slurries, electrolytes and cells to ensure peak performance, safety and longevity.

You will explore battery material development through practical insights and hands-on experience using the latest Anton Paar instruments, combining theory with lab sessions.

Key takeaways:

- Measure key physical properties of battery components, including dry electrodes.
- Gain hands-on experience with particle size, pore size, rheology, density and surface analysis.
- Learn from Anton Paar specialists, including methods for electrode adhesion and mechanical properties.
- Maximise performance and lifespan through surface area, particle size and porosity analysis.
- Achieve consistent slurry properties using rheological flow characterisation.
- Ensure electrolyte quality and safety.
- Perform mechanical testing on finished electrodes.
- Use X-ray diffraction for powder and cell characterisation.
- Networking opportunities.

You will gain a clear understanding of battery material characterisation and the benefits of combining multiple techniques.

Who should attend:

This workshop is designed for academics, scientists, engineers and technologists looking to start or deepen their understanding of battery material characterisation and optimisation, and to explore the latest advancements in the field.

Meet the Speakers

Anton Paar

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.

Joseph Hodges

Joseph Hodges is the Product Manager for Rheology & Particle Characterisation for UK & Ireland. Joseph has a degree in Biomedical Sciences from the University of Southampton and 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 Southeast Asia. In his current role he is responsible for supporting application development and technical enquiries within the UK & Ireland.

Cormac Carry Fennessy

Cormac Carry Fennessy is an accomplished Application Engineer with over two years of experience at Anton Paar. He has spent much 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.

Timetable

09.30	Welcome, Registration & Coffee on arrival.
09.45	Session 1 – Impact of Surface Area (BET) & Porosity of Dry Battery Electrodes
10.30	Session 2 - Particle Size and Shape: Understanding impact of Size and Shape information of electrode particles
11.00	Laboratory practical session
12.00	Short break
12.15	Session 3 - Powder XRD: Understand material structure changes with chemistry
13.00	Lunch Break & Networking
13.30	Session 4 – Mechanical properties & stability of finished electrodes
14.00	Session 5 - Solid Density: How a choosing the correct method affects density interpretation
14.30	Short break
14.45	Session 6 - Powder rheology: Handling, flow behaviour and practical understanding
15.30	Laboratory practical session (including DSC)
16.30	Wrap-up / Q&A / Discussion & Finish

Book Your Place

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

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