



# INTERNATIONAL BATTERY PRODUCTION CONFERENCE

5 to 6 November 2025

## Conference Programme

Event location: Steigenberger Parkhotel Braunschweig, Germany

### 04.11.2025

| Time  |              |  |
|-------|--------------|--|
| 18:00 | Registration |  |
| 19:00 | Apero        |  |

**05.11.2025**

| Time  |                                                                                                                            |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | Duration |
|-------|----------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| 08:00 | Registration                                                                                                               |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          |          |
| 09:00 | Welcome speech                                                                                                             |                   |                                                                              |          |                                                                                                                            |                               | Prof. Arno Kwade, Prof. Christoph Herrmann                                                                                              |          | 00:20    |
| 09:20 | Morning adress by BMFTR                                                                                                    |                   |                                                                              |          |                                                                                                                            |                               | Dr. Stefan Jung, Federal Ministry of Research, Technology and Space (BMFTR)                                                             |          | 00:20    |
| 09:40 | Keynote                                                                                                                    |                   |                                                                              |          |                                                                                                                            |                               | tba                                                                                                                                     |          | 00:30    |
| 10:10 | Transit                                                                                                                    |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | 00:15    |
|       | Room Maschinenhalle                                                                                                        |                   |                                                                              |          | Room Nimès 1+2                                                                                                             |                               |                                                                                                                                         |          |          |
|       | Topic                                                                                                                      | Speaker           | Institution                                                                  | Duration | Topic                                                                                                                      | Speaker                       | Institution                                                                                                                             | Duration |          |
| 10:25 | Dry Coating 1: Advanced Processing Strategies                                                                              | Chair: tbd        |                                                                              | 00:45    | Novel Materials                                                                                                            | Chair: tbd                    |                                                                                                                                         | 00:45    | 00:45    |
|       | Advances in continuous extrusion-mixing of dry electrode masses – how to tackle the challenges with LFP-based formulations | Benedict Stien    | Bühler AG                                                                    | 00:15    | Investigations of organic coverage (OC) design on lithium-ion battery and the beyond                                       | Fu Ming Wang                  | National Taiwan University of Science and Technology                                                                                    | 00:15    |          |
|       | Process Interactions in Dry Coating: From Mixing Mode to Line Load Requirements                                            | Alexander Diener  | TU Braunschweig, iPAT                                                        | 00:15    | Toward Scalable Aqueous Processing of High-Loading LNMO Electrode for High Energy Li ion Batteries                         | Frode Fagerli                 | SINTEF AS                                                                                                                               | 00:15    |          |
|       | DRYtraec® Process: Shear-Based Dry Electrode Manufacturing for LIB and Next-Gen. Battery Technologies                      | Benjamin Schumm   | Fraunhofer IWS                                                               | 00:15    | Multifunctional structural battery composites: Production and characterisation of fiber-reinforced cathodes and separators | Daniel Vogt                   | TU Braunschweig, iPAT                                                                                                                   | 00:15    |          |
| 11:10 | Discussion                                                                                                                 |                   |                                                                              |          | Discussion                                                                                                                 |                               |                                                                                                                                         |          | 00:15    |
| 11:25 | Poster session + Coffee break                                                                                              |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | 00:30    |
| 11:55 | European Battery Supply Chain Challenges                                                                                   | Chair: tbd        | Institution                                                                  | 00:45    | Modelling & Investigation of Battery Safety                                                                                | Chair: tbd                    | Institution                                                                                                                             | 00:45    | 00:45    |
|       | The Tipping Point: Why Europe’s Battery Ambitions Are at Risk—and How to Save Them                                         | Joscha Schnell    | P3 automotive GmbH                                                           | 00:15    | Explainable Deep Learning Enables Accurate Battery Cycle Life Predictions                                                  | Hamidreza Eivazi Kourabbaslou | Clausthal University of Technology                                                                                                      | 00:15    |          |
|       | Team Design & Manufacturing - How DfM can improve the current situation of EU cell production?                             | Luke Hu           | Electroder                                                                   | 00:15    | Metrology and Safety for Batteries at Physikalisch-Technische Bundesanstalt (PTB)                                          | Fabian Plag                   | Physikalisch-Technische Bundesanstalt (PTB)                                                                                             | 00:15    |          |
|       | Cathode Materials Pilot-Plant “Powder-Up!! in Operation First Experiences with Scaling                                     | Peter Axmann      | Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW) | 00:15    | Unlocking Fast Charging Capability: The Impact of Thermal Management on Battery Performance                                | Thomas Nyhues                 | MAHLE & Karlsruhe Institute of Technology (KIT)                                                                                         | 00:15    |          |
| 12:40 | Discussion                                                                                                                 |                   |                                                                              | 00:15    | Discussion                                                                                                                 |                               |                                                                                                                                         | 00:15    | 00:15    |
| 12:55 | Lunch break                                                                                                                |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | 01:05    |
| 14:00 | Keynote                                                                                                                    |                   |                                                                              |          |                                                                                                                            |                               | New Cathode Material Solutions for Lithium Ion and Sodium Ion Batteries – Challenges for Production or Opportunities for Lowering Cost? |          | 00:30    |
| 14:30 | Keynote                                                                                                                    |                   |                                                                              |          |                                                                                                                            |                               | Visualization of Reactions in Sulfide All-Solid-State Lithium Batteries                                                                 |          | 00:30    |
| 15:00 | Break                                                                                                                      |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | 00:15    |
| 15:15 | Manufacturing & Processing of Solid State Electrolytes / Batteries                                                         | Chair: tbd        | Institution                                                                  | 00:45    | Coating and Drying of Battery Electrodes                                                                                   | Chair: tbd                    | Institution                                                                                                                             | 00:45    | 00:45    |
|       | Impact of extrusion parameters on polymer and composite electrolyte membranes via melt-processing                          | Dane Sotta        | University Grenoble Alpes & CEA-Liten                                        | 00:15    | About Humidity Management and Post Drying for different Battery Electrode Materials: Sorption and Kinetics                 | Philipp Barbig                | Karlsruhe Institute of Technology (KIT), TFT                                                                                            | 00:15    |          |
|       | Manufacturing of polymer-based solid state battery electrolytes and electrodes via spray coating                           | Jonas Morgenstern | Fraunhofer ICT                                                               | 00:15    | Slot die designs – comparison fix lips vs. flex lips / T-Bar                                                               | Harald Doell                  | TSE Troller AG                                                                                                                          | 00:15    |          |
|       | Impact of Extrusion and Direct Calendering on Dry Coated Cathodes for Sulfidic All-Solid-State Batteries                   | Michael Wolf      | BMW Group                                                                    | 00:15    | IR-assisted vacuum drying to remove water from Prussian Blue cathodes in sodium-ion batteries.                             | Larisa Von Riewel             | Excelitas Noblelight                                                                                                                    | 00:15    |          |
| 16:00 | Discussion                                                                                                                 |                   |                                                                              |          | Discussion                                                                                                                 |                               |                                                                                                                                         |          | 00:15    |
| 16:15 | Poster session + Coffee break                                                                                              |                   |                                                                              |          |                                                                                                                            |                               |                                                                                                                                         |          | 00:30    |

|       |                                                                                                                                                                                                                           |                   |                                                         |       |                                                                                                                                                         |                       |                        |       |       |
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| 16:45 | Battery Recycling & Repurposing, Material Recovery                                                                                                                                                                        | Chair: tbd        | Institution                                             | 00:45 | Battery Cell Inspection and Monitoring                                                                                                                  | Chair: tbd            | Institution            | 00:45 | 00:45 |
|       | Influence of the drying temperature on the recovery of electrolyte components in battery recycling                                                                                                                        | Jannik Born       | TU Braunschweig, iPAT                                   | 00:15 | Monitoring exposure to airborne particulates along the value chain of Li-ion batteries                                                                  | Kevin Sparwasser      | Stat Peel AG           | 00:15 |       |
|       | Challenges of Using Recycled Ethyl Methyl Carbonate in Lithium-Ion Batteries                                                                                                                                              | Valerie Mohni     | TU Braunschweig, InES                                   | 00:15 | Non-Destructive Characterization of Projection Welding for Battery Cell Interconnection with Scanning Acoustic Microscopy and X-Ray Computer Tomography | Felix Thurn           | Fraunhofer ISE         | 00:15 |       |
|       | Process failure mode - product failure mechanism - effect analysis ((PFM) <sup>2</sup> EA): A novel risk assessment methodology for automated battery disassembly - Integrating process and product safety in repurposing | Stefan Grollitsch | Vehicle Safety Institute, Graz University of Technology | 00:15 | From molecule to module – the Lund University ecosystem for battery safety characterization and fire hazard assessment                                  | Elna Heimdahl Nilsson | LTH, Lund University   | 00:15 |       |
| 17:30 | Discussion                                                                                                                                                                                                                |                   |                                                         |       | Discussion                                                                                                                                              |                       |                        |       | 00:15 |
| 17:45 | Break                                                                                                                                                                                                                     |                   |                                                         |       |                                                                                                                                                         |                       |                        |       | 00:15 |
| 18:00 | Conversion for dinner                                                                                                                                                                                                     |                   |                                                         |       | Industry Session I                                                                                                                                      | Chair: tbd            | Institution            | 00:50 | 00:50 |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | From Battery to Black Mass: Practical Insights to Lab-Scale Milling and Sieving                                                                         | Dr. Lena Weigold      | Retsch                 | 00:10 |       |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | Giga-Odenwald 2.0 – a modularized, standardized, and scalable mixing plant on a gigafactory scale                                                       | Dr. Stefan Gerl       | Eirich                 | 00:10 |       |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | XRF-Based Quality Classification of Lithium-Ion Battery Black Mass                                                                                      | Jana Kalbáčová        | HORIBA Jobin Yvon GmbH | 00:10 |       |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | Continuous Mixing of Electrode Masses by Extrusion - On the Way to Dry Electrodes                                                                       | Julia Conrad          | Coperion               | 00:10 |       |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | Trajectory Mixing for Wet and Dry Electrode Processing – Opportunities and Challenges in Battery Slurry Production                                      | Andreas Leitze        | Tumbler                | 00:10 |       |
|       |                                                                                                                                                                                                                           |                   |                                                         |       | Discussion                                                                                                                                              |                       |                        |       | 00:15 |
| 19:05 | Break                                                                                                                                                                                                                     |                   |                                                         |       |                                                                                                                                                         |                       |                        |       | 00:10 |
| 19:15 | Reception                                                                                                                                                                                                                 |                   |                                                         |       |                                                                                                                                                         |                       |                        |       | 00:30 |
| 19:45 | Gala Dinner                                                                                                                                                                                                               |                   |                                                         |       |                                                                                                                                                         |                       |                        |       |       |

## Day 2 of the conference

06.11.2025

| Time  |                                                                                                                                             |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | Duration |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------|----------|----------|
| 08:30 | Keynote                                                                                                                                     | Optimizing Cathode Composites for Solid-State Batteries                     |                                                                        |          |                                                                                                                                         | Prof. Dr. Jürgen Janek, Center for Materials Research, Justus Liebig University Giessen |                                                  |          | 00:30    |
| 09:00 | Keynote                                                                                                                                     | Experiences and challenges in scaling new technologies into mass production |                                                                        |          |                                                                                                                                         | Dr.-Ing. Jochen Eser & Nils Barenthin, VARTA Microbattery GmbH                          |                                                  |          | 00:30    |
| 09:30 | Poster session + Coffee break                                                                                                               |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:30    |
|       | Room Maschinenhalle                                                                                                                         |                                                                             |                                                                        |          | Room Nimés 1+2                                                                                                                          |                                                                                         |                                                  |          |          |
|       | Topic                                                                                                                                       | Speaker                                                                     | Institution                                                            | Duration | Topic                                                                                                                                   | Speaker                                                                                 | Institution                                      | Duration |          |
| 10:00 | Dry Coating 2: Novel Binder Systems                                                                                                         | Chair: tbd                                                                  |                                                                        | 00:45    | Modelling Battery Production & Processing                                                                                               | Chair: tbd                                                                              |                                                  | 00:45    | 00:45    |
|       | Investigating the mechanical and electrochemical performance of polymer binder composites for fibrillated free-standing dry electrode films | Alex Loneragan                                                              | The University of Sheffield                                            | 00:15    | Model-Based Assessment of Energy and Material Efficiency for Sustainable Battery Cell Production                                        | Gabriela Ventura Silva                                                                  | TU Braunschweig, IWF                             | 00:15    |          |
|       | Toward PFAS-Free Lithium-Ion Batteries: Fluorine-Free Binders and Scalable Dry Coating Technologies                                         | Minwon Suh                                                                  | CNP Solutions                                                          | 00:15    | Model-based prediction of SEI growth and formation metrics for a knowledge-based process design                                         | Felix Schomburg                                                                         | Bavarian Center for Battery Technology (BayBatt) | 00:15    |          |
|       | Dry Electrode Processing for Sodium-Ion Batteries: Transition from PFAS-Based to PFAS-Free Binders                                          | Oliver Fitz                                                                 | Fraunhofer ISE                                                         | 00:15    | Scaling of Cathode Paste Dispersion Processes in Small Scale Applications Using Stress-Based Principles                                 | Tim Grenda                                                                              | TU Braunschweig, IPAT                            | 00:15    |          |
| 10:45 | Discussion                                                                                                                                  |                                                                             |                                                                        |          | Discussion                                                                                                                              |                                                                                         |                                                  |          | 00:15    |
| 11:00 | Break                                                                                                                                       |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:15    |
| 11:15 | Advanced Production of Conventional and Novel Batteries                                                                                     | Chair: tbd                                                                  | Institution                                                            | 00:45    | Dry Coating 3: Characterization & Innovative Approaches                                                                                 | Chair: tbd                                                                              | Institution                                      | 00:45    | 00:45    |
|       | Particle-based magnetic additives as information providers in lithium-ion cells                                                             | Jakob Endres                                                                | Fraunhofer ISC                                                         | 00:15    | Multi-Technique Characterization of PTFE-Containing Dry Electrode Mixtures for Lithium-Ion Battery Applications                         | Tamara Ebner                                                                            | Anton Paar GmbH                                  | 00:15    |          |
|       | Dry electrode processing of electrodes and recent advancements in multi-layer pouch cell development of sodium ion batteries                | Tom Boenke                                                                  | Fraunhofer IWS                                                         | 00:15    | Investigation of PTFE fibrillation in continuous twin-screw dry processing of graphite anodes                                           | Annika Völp                                                                             | Thermo Fisher Scientific                         | 00:15    |          |
|       | Advancing Sulfur–Carbon Composite Production: Industrial and Lab-Scale Infiltration Techniques for Metal–Sulfur Batteries                   | Marina Schwan                                                               | German Aerospace Center (DLR)                                          | 00:15    | Effect of Dry Surfactant-Modified Carbon Additives on the Electrical Conductivity and Powder Flow Behavior of Dry Battery Electrode Mix | Rajasekar Krishnamoorthy                                                                | The University of Sheffield                      | 00:15    |          |
| 12:00 | Discussion                                                                                                                                  |                                                                             |                                                                        |          | Discussion                                                                                                                              |                                                                                         |                                                  |          | 00:15    |
| 12:15 | Lunch break                                                                                                                                 |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 01:00    |
| 13:15 | Panel Discussion Circular Battery Production                                                                                                |                                                                             |                                                                        |          | tba                                                                                                                                     |                                                                                         |                                                  |          | 00:45    |
| 14:00 | Industry Session II                                                                                                                         | Chair: tbd                                                                  | Institution                                                            | 00:45    | Enabling Battery Circularity                                                                                                            | Chair: tbd                                                                              | Institution                                      | 00:45    | 00:45    |
|       | Smart Mixing for Battery Slurries: NETZSCH Planetary System with Real-Time Absolute Viscosity Analysis                                      | Dr. Maximilian Münzner-Schmiedel, Felix Möhlen                              | Netzsch                                                                | 00:15    | Fast and Safe Electrical Characterization for Second-Life Battery Modules Across Diverse Testing Conditions                             | Simeon Kremzow-Tennie                                                                   | Keysight Technologies Deutschland GmbH           | 00:15    |          |
|       | Introducing the Center of Excellence Battery: Cell – and Battery Development for the Volkswagen-Group                                       | Dr. Dominik Koll                                                            | VW                                                                     | 00:10    | Solving the environmental challenges of cathode active materials for Li-ion batteries – the CALISMAT process                            | Shun Takano                                                                             | Proterial Ltd., Japan                            | 00:15    |          |
|       | Measurement automation in battery research and production                                                                                   | Julian Diener                                                               | BioLogic                                                               | 00:10    | Enabling circular battery manufacturing through digital technologies                                                                    | Sebastian Thiede                                                                        | University of Twente                             | 00:15    |          |
|       |                                                                                                                                             |                                                                             | tbd                                                                    | 00:10    |                                                                                                                                         |                                                                                         |                                                  |          |          |
| 14:45 | Discussion                                                                                                                                  |                                                                             |                                                                        |          | 00:15                                                                                                                                   |                                                                                         |                                                  |          | 00:15    |
| 15:00 | Poster session + Coffee break                                                                                                               |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:30    |
| 15:30 | Poster prizes                                                                                                                               |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:20    |
| 15:50 | Break, Transition                                                                                                                           |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:05    |
| 15:55 | Next-gen Battery Production                                                                                                                 | Chair: tbd                                                                  | Institution                                                            | 00:45    | Advanced Electrode & Cell Production                                                                                                    | Chair: tbd                                                                              | Institution                                      | 00:45    | 00:45    |
|       | Upscaling sulfide-based solid-state batteries                                                                                               | Sahin Cangaz                                                                | Fraunhofer IWS                                                         | 00:15    | Polyvinylene carbonate in anodes as strategy to form a stable SEI in Lithium-Ion-Batteries                                              | Nina Philipp                                                                            | TU Braunschweig, IPAT                            | 00:15    |          |
|       | Mechanofusion-derived cathode composite microstructures for solid-state batteries: A scalable mixed conducting matrix coating approach      | Finn Frankenberg                                                            | TU Braunschweig, IPAT                                                  | 00:15    | Continuous processing and characterization of Si anode and aqueous LFP cathode slurries via twin-screw extrusion                        | Kevin Raczka                                                                            | Karlsruhe Institute of Technology (KIT)          | 00:15    |          |
|       | Solvent-Free Processed Polymer Electrolyte for Li-Metal Batteries                                                                           | Laida Otaegui                                                               | Centre for Cooperative Research on Alternative Energies CIC energiGUNE | 00:15    | Materials and Interfaces Design for Next-Generation Solid-state Na Batteries                                                            | Yang Zhao                                                                               | University of Western Ontario, Canada            | 00:15    |          |
| 16:40 | Discussion                                                                                                                                  |                                                                             |                                                                        |          |                                                                                                                                         |                                                                                         |                                                  |          | 00:15    |

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|-------|----------------------------------------------------------------|--|-------|
| 16:55 | Goodbye speech                                                 |  | 00:15 |
| 18:00 | Exhibition of EU-Projects with Aperó (IBPC-guests are welcome) |  |       |

**Seminar Day - to be separately booked - not included in the standard conference fee**

**07.11.2025**

| Time  |                                                |                          | Duration |
|-------|------------------------------------------------|--------------------------|----------|
| 08:30 | Seminar participants: Arrival and registration |                          | 00:30    |
| 09:00 | Seminar<br>Introductory course                 | Seminar<br>Expert course | 03:00    |
| 12:00 | End of Seminar                                 |                          | 00:00    |