

# Dry Coating Forum

## Shaping the Future of Dry Battery Electrode Processing

### Program

Tuesday, September 10, 2024

#### Session 1: Materials

- 13:00 (CET) Opening
- 13:05 Lifecycle Assessment of Fluoropolymers  
*Deepak Kapoor | Gujarat Fluorochemicals GmbH*
- 13:25 Daikin's Solution for Dry Battery Electrode (DBE) Technology  
*Yi-Chen Hsieh and Junpei Terada | Daikin Industries, Ltd.*
- 13:40 Structural Changes in PTFE for the Manufacturing of Robust Dry Electrodes  
*Benjamin Gould | The Chemours Company*
- 13:55 Thinking out of the Box – PTFE Fine Powder Designed for Dry Coating Process  
*Claus-Peter Keller | AGC Chemicals Europe*
- 14:10 A Novel Binder System and Multi-roll Equipment for Continuous Dry-process Electrode Fabrication  
*Minwon Suh | CNP Solutions*
- 14:25 Solgain™ Technology – Paving the Way for PVDF Based Dry Process Electrodes  
*Dominique Bascour | Syensqo SA*
- 14:40 Dry Coating of High Performance Cathodes for Lithium-ion Batteries  
*Samuel Burrow | Anaphite Limited*
- 14:55 Discussion (Q&A with all Speakers of the Session)
- 15:10 Coffee Break**

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### Session 2: Recent Research

- 16:05 Development of a Dry Mixing and Roll Mill Process with Selected Binder/Additive for Electrode Manufacturing (TROMBIBATT)  
*Pirmin Koch | Karlsruhe Institute of Technology (KIT)*
- 16:20 Insights into Powder Mixture Characterization for Dry Coating of Battery Electrodes via Calendaring  
*Marcella Horst | Technische Universität Braunschweig*
- 16:35 Non-PTFE Based Dry Coating Process by Fraunhofer ISIT  
*Jannes Ophey | Fraunhofer ISIT*
- 16:50 Analysing the Effects of Powder Flow on Powder Spreading in Dry Battery Production Using DEM  
*Hamza Mohamed | University of Sheffield*
- 17:05 Fluorine-free Binder Based Dry Thick Electrodes for Energy-efficient and Sustainable Lithium-ion Batteries  
*Jinsoo Kim | Korean Institute of Energy Research*
- 17:20 Process Principles and Recent Applications for DRYtraec®-based Electrode Coating  
*Benjamin Schumm | Fraunhofer IWS*
- 17:35 Discussion (Q&A with all Speakers of the Session)
- 17:50 Concluding Remarks
- 18:00 Poster Session and Get Together**

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Wednesday, September 11, 2024

### Session 3: Use Case Scenarios and Equipment

- 09:00 (CET) Opening
- 09:05 Tesla Dry Battery Electrodes: Advancements, Challenges, and Future Prospects  
*Magnus Lindbäck, Kevin Matthews and Matt Tyler | Tesla*
- 09:35 AM Batteries Dry Electrode Manufacturing Technology  
*Hieu Duong | AM Batteries*
- 09:50 Saft overview on Dry Process Activities  
*André De Almeida | SAFT*
- 10:05 Continuous Extrusion-mixing for Industrial-scale Dry Coating of Battery Electrodes  
*Christian Hänsel | Bühler AG and Edouard Quérel | EMPA*
- 10:20 Processing and Scaling of Structured Dry Mixes for Dry Battery Electrodes (DBE) on a Scale from 0.1 l to 500 l  
*Stefan Gerl | Maschinenfabrik Gustav Eirich GmbH & Co KG*
- 10:35 Adaption of Dry Battery Electrodes for automotive applications  
*Florian Schmidt and Stefan Stojcevic | BMW Group*
- 10:50 Discussion (Q&A with all Speakers of the Session)
- 11:05 Coffee Break**

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### Session 4: Equipment and Characterization

- 11:45 (CET) Current Challenges and Potential Solutions for Dry Electrode Manufacturing – when will the Technology Reach the Mass Market?  
*Joscha Schnell | P3 automotive GmbH*
- 12:00 Latest Developments in Optical Surface Inspection for more Precise Dry Coating Inspection in Real Time  
*Jochen Sander | Dr. Schenk Industriemesstechnik GmbH*
- 12:15 Material Feeding and Distribution for Battery Dry Coating Processes  
*Urs Helfenstein | Coperion K-Tron*
- 12:30 Back to the Future – 25 Years of Electrode Extrusion  
*Nicolaus Rehse | COLLIN Lab & Pilot Solutions GmbH*
- 12:45 PTFE for Dry Coating: Powder Fibrillation and Flowability Quantification with Dedicated Methods  
*Filip Francqui | Granutools*
- 13:00 Discussion (Q&A with all Speakers of the Session)
- 13:15 Concluding Remarks
- 13:25 Lunch and Lab Tour**

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