On-Site Workshop

Dry Coating Forum: Shaping the future of dry battery electrode processing

September 12 – 13, 2023
Fraunhofer IWS | Dresden

Workshop Program*

Tuesday, September 12, 2023

Session 1:	**Binders** | Chair: Stefan Kaskel
13:00 (CET)	Opening | *Stefan Kaskel* | *Fraunhofer IWS, TU Dresden*
13:05	Introduction to Dry Battery Electrode Coating – Technological Approaches, Status and Perspectives *Benjamin Schumm* | *Fraunhofer IWS*
13:30	Fundamentals of PTFE Fibrillation and its Impact on Electrode Structure *Benjamin Gould* | *Chemours Deutschland GmbH*
13:50	ePTFE – Essentials in Handling and Processing *Claus-Peter Keller* | *AGC Chemicals Europe, Ltd.*
14:10	Start From the Beginning: The Study of PTFE Fibrillation via Torque Analysis *Yi-Chen Hsieh* | *Daikin Chemical Europe GmbH*
14:30	Arkema's Binder Developments in Dry Processes *Stéphane Bizet* | *ARKEMA*
14:50	Coffee Break
Session 2:	**Mixing and Substrates** | Chair: Benjamin Schumm
15:30 (CET)	Efficient Mixing, Dispersing and Fibrillation of DBE Composite Structures in Twin-screw Extruders *Christian Hänsel* | *Bühler AG*
15:50	Production of Dosable Structured Anode and Cathode Dry Mixes in a One-pot Process with Eirich Intensive Mixers *Stefan Gerl* | *Maschinenfabrik Gustav Eirich GmbH & Co KG*
16:10	Development of Solids Handling Solutions for Dry Electrode Coating *Hans Schneider* | *Zeppelin Systems GmbH*
16:30	How Can Tailored Conductive Electrode Coatings Optimize the Performance of Dry Coated Batteries? *Tobias Knecht* | *Henkel AG & Co. KGaA Düsseldorf*
16:50	Primed Current Collector to Solve Adhesion Issues *Jean-Christophe Rauch* | *ARMOR BATTERY FILMS*
17:10	Concluding Remarks: *Benjamin Schumm* | *Fraunhofer IWS*
17:15	Lab Tour, Poster Session and Get Together

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Session 3:	**Use Case Scenarios and Applications** | Chair: Stefan Kaskel
09:00 (CET)	Opening | *Stefan Kaskel* | *Fraunhofer IWS, TU Dresden*
09:05	Dry Coating – Is it Really a Benefit to More Cost Efficient and Sustainable Battery Production? *Joscha Schnell* | *P3 automotive GmbH*
09:35	Scaling Up the Future of Battery Production – Dry Coating at Fraunhofer FFB *Volker Lewandowski* | *Fraunhofer-Einrichtung Forschungsfertigung Batteriezelle FFB*
09:55	Dry Battery Electrode – Chances and Challenges from an Automotive Perspective *Stefan Kerscher, Korbinian Huber* | *BMW Group*
10:15	Green Manufacturing Process towards Higher Energy Density Li-ion Batteries *Ungyu Paik* | *Hanyang University*
10:35	Solvent-free Coating Process for Battery Electrodes and their Electrochemical Performance at SVOLT Energy Technology *Sebastien Desilani* | *SVOLT Energy Technology (Europe) GmbH*
10:55	Coffee Break

Session 4:	**Alternative Coating Technologies and Advanced Chemistries** | Chair: Benjamin Schumm
11:30 (CET)	Anode Fabrication for Lithium-ion Batteries via an Electrostatic Spraying *Alberto Uruchurtu* | *Technocentre Renault*
11:50	Dry eExtrusion Process for Roll-to-roll Production of Nickel Rich Cathodes for LIB *Alice Hoffmann* | *Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW)*
12:10	Umicore Cathode for SSB: Dry Process *Anh Ha Dao* | *Umicore*
12:30	Analysis of Binder Effects in Dry and Wet Processed Composite Cathodes for All-solid-state Lithium Batteries *Yan Yao* | *University of Houston*
12:50	Scalable Solid-state Battery Cathode and Separatur Manufacturing using DRYtraec®-process *Arthur Dupuy* | *Fraunhofer IWS*
13:10	Concluding Remarks: *Benjamin Schumm* | *Fraunhofer IWS*
13:15	Lunch

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