



Preliminary Conference Programme

Event location: Steigenberger Parkhotel Braunschweig, Germany

Day 1 of the conference

07.11.2023

Time									Duration
08:00	Arrival of attendees								01:00
09:00	Welcome				Welcome Talk				00:15
09:15	Keynote "Towards a Technologically Sovereign European Battery Value Chain - The R&D Approach of Germany's BMBF"								00:35
09:50	Break								00:10
	Room Maschinenhalle				Room Nimés 1+2				
	Topic	Speaker	Institution	Duration	Topic	Speaker	Institution	Duration	
10:00	Continuous Slurry Mixing	Chair: Kwade	Institution	00:45	Material Development and Production	Chair: Garnweitner	Institution	00:45	
	Continuous Processing of Negative LIB Electrodes using an Innovative Compounding System	Kristina Borzutzki	Fraunhofer FFB	00:15	Graphite Production Technologies for Batteries – State of the Art Review	Bahman Yari	Hatch	00:15	
	Investigations of a continuous dispersion process for paste formulation in the production of lithium-ion batteries and analysis of a cleaning procedure	Kevin Racza	KIT	00:15	Mechanofusion for lithium-ion battery cathode manufacturing	Guo Jung Lian	University of Sheffield	00:15	
	Continuous slurry mixing process in large-scale electrode production.	Adrian Spillmann	Bühler AG	00:15	Synthesis of layered oxide cathode active materials from secondary resources	Martin Menzler	Fraunhofer IST	00:15	
10:45	Discussion								00:15
11:00	Break								00:15
11:15	3D-printing and structuring of electrodes	Chair: Kandula	Institution	00:45	Machine Learning in Battery Cell Production	Chair: Dröder	Institution	00:45	
	Targeted Structuring of High-Energy Lithium-Ion Electrodes – An Innovative Method Without Loss of Material	Michael Bredekamp	TU Braunschweig	00:15	Framework and demonstrator for AI-based quality assessment in battery cell production: an implementation in KlproBatt	Xukuan Xu	Technische Hochschule Aschaffenburg	00:15	
	Laser-structured electrodes for high energy and high power lithium-ion batteries	Pengcheng Zhu	University of Birmingham	00:15	Improving Yield Through AI/ML Driven Automated Rootcause Analysis in EV manufacturing	Kalle Ylä-Jarkko	Elisa IndustriQ	00:15	
	3D-printed hydroborate based all-solid-state sodium ion batteries	Jan Thomas	Fraunhofer IFAM	00:15	Large area evaluation of jelly roll alignment using machine learning methods	Andreas Kopp	Hochschule Aalen	00:15	
12:00	Discussion								00:15
12:15	Lunch break								01:00
13:15	Postersession								01:30
14:45	Keynote								tbd
15:20	Keynote "Ultra fast charge and discharge in seconds with Supercapacitors and Superbatteries"								00:35
15:55	Break								00:15
16:10	Traceability and Ontologies in Battery Cell Production	Chair: Garnweitner	Institution	00:45	Material Production and Characterization	Chair: Zellmer	Institution	00:45	
	Traceability in battery production: Enabling deep insights into the correlation between process and	Hai Yen Tran	ZSW	00:15	Effect of the PEO molecular weight on the composite cathode performances	Maica Morant	CIC energi güne	00:15	
	Battery Value Chain Ontology (BVCO) – Towards an Ontology for Lithium-Ion-Batteries in a Circular Economy	Lukas Gold	Fraunhofer ISC	00:15	Advantages of Particle Size and Shape Analysis for Battery Manufacturing Performance through the use of Dynamic Imaging Technology	Colin Dalton	JM Canty	00:15	
	Image-based Traceability in Electrode Production	Johannes Lindenblatt	TU München	00:15	Design to cost Ni, Mn and Co-based battery materials for EVs mass adoption in Europe	Guillaume Lefèvre	Umicore	00:15	
16:55	Discussion								00:15
17:10	Break								00:15
17:25	Innovations in dry and wet electrode production	Chair: Kwade	Institution	01:00	Recycling I (Disassembly and environmental impact)	Chair: Yagmurlu	Institution	01:00	
	Exploring the IR Drying Process in in Li-Ion Battery Electrodes; an experimental and computational chemistry approach	Larisa von Riewel	Hereaus	00:15	Process Development and Characterization for Automated Disassembly of End-of-Life lithiumion Batteries Achieving Efficient Recycling	Shubiao Wu	TU Braunschweig	00:15	
	Multilayer slot coating – Opportunities for Battery Electrodes	Harald Doell	TSE Troller AG	00:15	Closing The Loop For Lithium-Ion Batteries In Europe? Opportunities And Challenges	Nils Steinbrecher	TES-AMM	00:15	
	Improvement of dry electrode manufacturing with powder characterization	Salvatore Pillitteri	Granutools	00:15	tba	Kelvin Chan	ARTC	00:15	
	Investigation of Electrochemical Performance and Morphology of Multilayer Electrodes with Graded Porosity	Fatjon Maxharraj	Fraunhofer IKTS	00:15	Challenges and Strategies for Sustainable Recycling of Lithium-Iron-Phosphate-Batteries (LFP)	Nils Wiecek	Stiftung GRS Batterien	00:15	
18:25	Discussion								00:15
18:40	ProZell (title tbd)								00:20
19:00	Apero								

Day 2 of the conference

08.11.2023

10:15	(Urban) Factories, Upscaling and Supply Chain	Chair: tbd	Institution	01:00				01:00
	Comparison of battery supply chains regarding their environmental and socio-economic impacts	Jan-Linus Popien	TU Braunschweig	00:15				
	Closing the Gap between Lab Scale Development and Industrial Technology: Cathode Materials Pilot-Plant "Powder-Up!"	Peter Axmann	ZSW	00:15				
	Procedure for considering the required flexibility in production operations during factory planning using the example of the Fraunhofer Research Institution for Battery Cell Production FFB	Natalja Rube	Fraunhofer FFB	00:15				
	A scalable assessment framework for estimating battery resource potentials in urban environments	Katja Knecht	TU Braunschweig	00:15	Break			00:15:00
11:15	Discussion				SEMINAR	Arno Kwade	00:45	00:15
11:30	Recycling II (Materials)	Chair: Zetzener	Institution	01:00	11:15-12:00			01:00
	From end-of-life batteries to high quality graphite - developing a recycling process focused on anodic	Fernanda Padilha Noro	TU Braunschweig	00:15	Introduction, material overview & electrode production			
	Transforming Waste into Opportunity: Sustainable Black Mass Recycling and Beyond	Hady Seyeda	HC Starck	00:15				
	Comprehensive model-based environmental impact evaluation of recycling process chains	Abdur-Rahman Ali	TU Braunschweig	00:15	SEMINAR	Do Minh Nguyen	00:45	
	Electrochemical performance of active materials from spent LIBs regenerated with a direct recycling approach	Marilena Mancini	ZSW	00:15	12:00-12:45			
					Automated Cell Assembly			
12:30	Discussion							00:15
12:45	Poster Prizes				SEMINAR	Gabriela Ventura Silva	00:45:00	00:15
13:00	Stehlunch				12:45-13:30			
					Digitalization			