

# Conference Programme IBPC 2022

Version date 13.09.2022  
 Status Preliminary  
 Event location Steigenberger Parkhotel Braunschweig



INTERNATIONAL BATTERY  
 PRODUCTION CONFERENCE

7 to 9 November 2022

## Day 1 of the conference

07.11.2022

Time	Type						Duration	
08:30	Arrival of attendees						00:30	
09:00	Welcome		Welcome Talk				A. Kwade / C. Herrmann	00:15
09:15	Keynote Towards sustainable battery production systems and supply chains - Prof. Christoph Herrmann & Prof. Thomas Spengler (TU Braunschweig)							
09:50	Keynote						tba	00:35
10:25	Break						00:20	
	Room Maschinenhalle			Room Nimês 1+2				
	Topic	Speaker	Duration	Topic	Speaker	Duration		
10:45	<b>Material formulation</b>	<b>Chair: Zellmer</b>	<b>00:45</b>	<b>Battery production 4.0 I</b>	<b>Chair: Schröder</b>	<b>00:45</b>	00:45	
	Tapped density as a quality control for powder in battery manufacturing	Salvatore Pillitteri	00:15	Industry 4.0 Software Architecture and Data Collection during Cell Production	Bob Zollo	00:15		
	Optimization of battery microstructures and their electrolyte filling process using pore-scale simulations	Benjamin Kellers	00:15	Towards Digital Twin for Sustainable Battery Cell Production: Model-based Digitalization Platform	Gabriela Ventura Silva	00:15		
	Dependence of the Electrochemical Performance of LiNi0.5Mn1.5O4 Cathodes on the Conductive Additive for High-Voltage LIB Applications	Heather Cavers	00:15	Implementation of Traceability into the Battery Production	Alessandro Sommer	00:15		
11:30	Discussion						00:15	
11:45	Lunch break						01:00	
12:45	Keynote On the way to accelerate mobility for all - Dr. Christoph Weber (ACC - Automotive Cells Company)							
13:20	<b>Slurry production</b>	<b>Chair: Kwade</b>	<b>00:45</b>	<b>Battery production 4.0 II</b>	<b>Chair: Herrmann</b>	<b>00:45</b>	00:45	
	Continuous processing of negative electrode pastes for lithium ion batteries	Kristina Borzutzki	00:15	DigiBattPro 4.0 - Development and validation of digitalization artifacts in real-life production scenarios	Florian Maier	00:15		
	From lab scale to production scale - upscaling of the continuous mixing process for LIB electrode slurries	Valentin Dolder	00:15	Flexible production of humidity-sensitive electrodes for future battery cells	Christina Hein	00:15		
	Process development for continuous extrusion coating of battery electrodes and scale up to pilot scale	Jann Seeba	00:15	Automated data management and process parameter determination in R&D cell production	Markus Hagen	00:15		
14:05	Discussion						00:15	
14:20	Postersession with coffee						01:30	

15:50	<b>Microstructural effects during processing</b>	<b>Chair: Kandula</b>	<b>00:45</b>	<b>Battery supply chains and factory designs</b>	<b>Chair: Spengler</b>	<b>00:45</b>	00:45
	Stressing of SBR during dispersion and its microstructural effect on slurry and electrode properties	René Jagau	00:15	The Role of Digitalization in the Battery Supply Chain	Philipp Wunderlich	00:15	
	Structure and rheology of electrode slurries and their importance in battery manufacture	Carl Reynolds	00:15	Resilient production planning in closed-loop supply chains for lithium-ion batteries	Christian Scheller	00:15	
	Bridging battery performance ageing and electrode calendaring parameters through model-based estimation of tortuosity	Clara Ganuza	00:15	A flexible and extensible process model for battery production systems with value chain interface capabilities for LCA analysis	Daniel Perez Clos	00:15	
16:35	Discussion						00:15
16:50	Coffee Break						00:20
17:10	<b>Development of recycling processes</b>	<b>Chair: Yagmurlu</b>	<b>00:45</b>	<b>Electrode, cell and module diagnostics during production</b>	<b>Chair: Schilde</b>	<b>00:45</b>	00:45
	Recovery of lithium from process water of Li-ion battery recycling processes	Aliza Marie Salces	00:15	Inline Characterization of Electrode Properties and Associated Challenges in the Calendaring Process of Lithium-Ion Battery Electrodes	Andreas Mayr	00:15	
	Controlled Lithium enrichment in artificial minerals in LIB derived slags based on thermodynamic tools and concentration by froth flotation - an update to the state of research	Hao Qiu	00:15	Investigation of defect formation in lithium-ion battery anode and cathode manufacturing for improved in-line quality assurance	Arnaud du Baret de Limé	00:15	
	Direct reuse of Al and Cu current collectors from spent lithium-ion batteries	Pengcheng Zhu	00:15	Inline intermediate product characterization and quality control for lithium ion electrode production	Alexander Schoo	00:15	
17:55	Discussion						00:15
18:10	Break						00:15
18:25				<b>Industry session</b>	<b>Chair: Kwade</b>	<b>01:10</b>	01:10
				Gigafactories equipped with Eirich MixSolver® and ContiFeeder® technology - a field report	Stefan Gerl	00:10	
				Potentials for Yield Enhancement By Inline Metrology for Slurries and Coatings	Marcus Klein	00:10	
				Improved optical inline particle inspection	Jochen Sander	00:10	
				Reducing costs of cell cycling during high volume production to monitor the output quality of a Gigafactory	Albert Gröbmeyer	00:10	
				BioLogic – Key Parameters for Advanced Techniques and Analysis in Battery Cycling	Sandra Kienast	00:10	
				tba	tba	00:10	
	tba	tba	00:10				
19:35	End of day 1 - start of evening event - Maschinenhalle						

**Day 2 of the conference**

**08.11.2022**

Time	Type	Topic			Duration			
08:30	Keynote	tba - Federal Ministry of Education and Research (BMBF)						00:35
09:05	Keynote	tba - Frank Blome (Blome PowerCo SE)						00:35
09:40	Break							00:20
		Room Maschinenhalle			Room Nimès 1+2			
		Topic	Speaker	Duration	Topic	Speaker	Duration	
10:00	<b>Circular economy and sustainability</b>	<b>Chair: Herrmann</b>		<b>00:45</b>	<b>Production of solid state batteries</b>	<b>Chair: Michalowski</b>	<b>00:45</b>	00:45
	Sodium-Ion Batteries - Advancing in sustainability?	Jens Peters		00:15	Upscaling of solvent-free synthesis of sulfide-based solid electrolytes and demonstration of a continuous production process	Michael Grube	00:15	
	Carbon Footprint of Production Equipment – Implications for Cell and Equipment Suppliers	Joscha Schnell		00:15	Tailoring solid electrolyte and composite electrodes for large scale production of solid-state batteries	Fatima Nadia Ajjan	00:15	
	LCA of Recent Innovations in the Battery Cell Production using a Modular Material and Energy Flow Model	Nicolas von Drachenfels		00:15	Characterization of production-relevant properties of all-solid-state battery materials	Do Minh Nguyen	00:15	
10:45	Discussion							00:15
11:00	Postersession							01:30
12:30	Lunch break							01:00
13:30	<b>Electrode processing</b>	<b>Chair: Zellmer</b>		<b>00:45</b>	<b>Boundary areas in next-generation batteries</b>	<b>Chair: Michalowski</b>	<b>00:45</b>	00:45
	Enabling High Loadings for Aqueous NMC811 Cathodes via Multi-Layer Coating	Lukas Neidhart		00:15	Ion Transport Investigations on Hierarchically Structured Cathodes with Nano Porous Particles for Sodium-Ion Batteries	Luca Schneider	00:15	
	Dry battery electrode production by IWS DRYtraec® technology	Benjamin Schumm		00:15	Rational optimization of cathode/electrolyte bilayer assemblies for all-solid-state batteries	Artur Tron	00:15	
	A time-resolved investigation of the vacuum post-drying for lithium-ion-battery electrodes	Thilo Heckmann		00:15	Influence of the cathode mixing parameters on the coulombic efficiency loss of LFP solid-state polymer electrolyte batteries	Maria Carmen Morant-Miñana	00:15	
14:15	Discussion							00:15
14:30	Keynote	tba						00:35
15:05	<b>Electrode drying</b>	<b>Chair: Dilger</b>		<b>00:45</b>	<b>Formation and aging</b>	<b>Chair: Essmann</b>	<b>00:45</b>	00:45
	BearLITE - processing - now proven, enables new battery manufacturing	Kai K. O. Bär		00:15	Investigation of thickness changes of multilayer lithium-ion battery cells during cycling	Niklas Penningh	00:15	
	Scaling effects of fast laser drying processes in battery production	Samuel Fink		00:15	Fast Charging Capability during the Formation of Coin and Pouch Cells	Robin Drees	00:15	
	Application of the conductive drying process for the electrode production of lithium-ion batteries	Tobias Krüger		00:15	Detailed Model-based Lithium-Ion Cell Diagnosis after Fast Formation	Daniel Witt	00:15	
15:50	Discussion							00:15
16:05	(Virtual) Tour BLB - Room Maschinenhalle or blb							00:25
16:30	The End							