

Wednesday, September 23, 2020

AM Session	Plenary & Keynote: Zero Emissions & Battery Propulsion Pathways Session Chairs: Jim McCarthy, PhD Chief Engineer <i>Eaton</i> Hank Sullivan Director <i>Tenneco</i>	PM Session	Advanced Battery Materials Session Chairs: Kent Snyder Leader, Energy Storage Development Group <i>Ford</i>
Time		Time	
8:30 am	Innovation in Commercial Vehicle Powertrains for 2024 – 2030 Emissions Mihai Dorobantu, PhD <i>Eaton</i>	1:30 pm	Data Aided Computational Design of Functional Materials for All-Solid-State Batteries Chen Ling, PhD <i>Toyota</i>
9:15 am	Trends in Powertrain Evolution: Legislation and Architecture Developments Louise Arnold, PhD <i>Johnson Matthey</i>	2:00 pm	Advanced electrode coating technology for Li-ion batteries Binsong Li, PhD <i>Navitas Systems</i>
9:45 am	Updating New Regulations in China Reggie Zhan, PhD	2:30 pm	Investigation Effect of Pulse Charging on Performance of Li-Ion Batteries Jiahao Liu, Meng Xu Xia Wang, PhD <i>Oakland University</i>
10:00 am	Break		
10:30 am	Fundamental and Application Challenges in Emissions Aftertreatment Components Krishna Kamasamudram, PhD <i>Cummins</i>	3:00 pm	Break
11:00 am	Update on Path to 2027 Emissions Chris Sharp, PhD <i>SwRI</i>	3:15 pm	The Solvating Power of Electrolyte Solvents in Li-ion Batteries Chi-Cheung Su, PhD <i>Argonne National Laboratory</i>
11:30 am	EV Battery Enclosure Overview Warren Parsons <i>General Motors</i>	3:45 pm	Materials and Interfacial Engineering for High-performance All-solid-state Batteries Hao Fang, PhD <i>General Motors</i>
12:00 pm	Next Generation Circuit Protection in Electric Vehicles Kevin Calzada <i>Eaton</i>	4:15 pm	Advanced Nickel Rich Layered Oxide Cathode Materials for Lithium Ion Batteries Zhongwei Chen, PhD <i>University of Waterloo</i>
12:30 pm	Challenging Each Other: Advancing Capabilities and Needs for Battery Cells vs Battery Systems Kent Snyder <i>Ford</i>	4:45 pm	Adjournment
1:00 pm	Session Adjourned & Break		

Thursday, September 24, 2020

AM Session	Architectures, Pack & Infrastructure Session Chair: Xingcheng Xiao, PhD Staff Research Scientist <i>General Motors</i>	PM Session	Manufacturing Processes Session Chairs: Mark Boyle, PhD Product Manager, AMADA WELD TECH INC. Teresa Rinker, PhD Senior Researcher, <i>General Motors</i>
Time		Time	
9:00 am	Gen 4 Hybrid and Plug-in Hybrid Architectures at Ford Daniel Kok, PhD <i>Ford</i>	1:15 pm	Automotive Battery Recycling: Driving a New Ecosystem Renata Arsenault <i>Ford</i>
9:30 am	Optimization of Li-Ion Battery Pack Life Cycle for a Class 2a Light Duty Electric Truck Abhijat Mulge, PhD, Xuan Zhou, PhD, Manikya Dwivedi, PhD, Allan Taylor, PhD, Yazid Al-Kraimeen, PhD <i>Kettering University</i> Chen Duan <i>Wayne State University</i>	1:45 pm	Blue Lasers Poised to Enhance Battery and EV Fabrication Jean-Michel Pelaprat, Matt Finuf, Robert Fritz, Mark Zediker <i>NUBURU Inc</i>
10:00 am	Challenges of Lithium Metal Batteries for Automotive Applications Alvaro Masias <i>Ford</i>	2:15 pm	Emerging Manufacturing Technologies and Characterization of Next Generation LIBs Materials Shankar Aryal, PhD <i>Argonne National Laboratory</i>
10:30 am	Project Experiences with Energy Storage: From Potential to Market Kevin Fok <i>LG Chem</i>	2:45 pm	Kilowatt Blue Laser Sources for processing solutions in eMobility Oleg Raykis, Simon W. Britten, Sörn Ocylok, Markus Rütering <i>Laserline GmbH</i>
11:00 am	Break	3:15 pm	Break
11:15 am	An Electro-thermal Coupled Battery Model for a 48V Li-on Battery Pack Using Reduced Order Thermal Model Yufeng Liu, Wei Zhao, PhD, Shawn Zhang <i>A123 Systems LLC</i> Xiao Hu, PhD <i>ANSYS Inc</i>	3:30 pm	Real-time Process Monitoring – the pathway to improved product quality, manufacturing throughput, and traceability Mark L. Boyle, PhD <i>AMADA WELD TECH INC.</i>
11:45 am	In-situ diagnostics of the couple mechanical and chemical degradation of Li metal batteries Xingcheng Xiao, PhD <i>General Motors</i>	4:00 pm	New Laser Welding Technologies for Battery Manufacturing Marc Auger, PhD, Jean-Philippe Lavoie, PhD <i>Coherent</i>
12:15 pm	Enabling Fast Charging Lithium-Ion Batteries through the Rational Design of 3-D Anode Architectures Kuan-Hung Chen, PhD, Min Ji Namkoong, PhD, S. M. Mortuza, PhD, Saeed Kazemiabnavi, PhD, Chenglin Yang, PhD, Jyoti Mazumder, PhD, Katsuyo Thornton, PhD, Jeff Sakamoto, PhD, Neil Dasgupta, PhD <i>University of Michigan</i>	4:30 pm	An Improved Model for Predicting Lithium-plating in a Lithium Ion Battery Zihao Teng, Meng Xu and Xia Wang, PhD <i>Oakland University</i>
12:45 pm	Session Adjourned & Break	5:00 pm	Adjournment