

Wednesday, June 8, 2022

AM Session	Plenary & Keynote: Pathways to Vehicle Efficiency & Zero Emissions Propulsions Session Chairs: Jim McCarthy, PhD Senior Chief Engineer, Eaton Michael Geller Deputy Director, MECA	PM Session	Storage & Battery Thermal Management Session Chairs: Peng Zhao, PhD, Associate Professor University of Tennessee Kevin Fok, Director, Operations LG Energy Solutions
Time	Room Amphitheater 101	Time	Room 103
9:00 am	Welcome & Introductions Michael Geller, PhD Deputy Director	1:30 pm	Developing a Reference Model BESS for Fast Charging Stations Viorel Moga Leclanché North America
9:15 am	Challenges in Battery Manufacturing for an all-EV Future Jeff Abell, PhD Director and Chief Scientist of Manufacturing Systems Research General Motors		
9:45 am	Pathway to Heavy Duty Zero Emissions Jim McCarthy, PhD Senior Chief Engineer Mihai Dorobantu, PhD Director, Eaton	2:00 pm	Energy Storage Research in Kentucky Chad Alkire, Aron Patrick Louisville Gas & Electric/Kentucky Utilities
10:15 am	Challenges in emission aftertreatment components Krishna Kamasamudram, PhD Cummins	2:30 pm	A reaction-conduction theory for battery thermal runaway initiation and propagation Peng Zhao, PhD University of Tennessee Knoxville Space Institute
10:45 am	Break	3:00 pm	Break
11:15 am	Efficiency-biased design of H2-Engines for use in commercial LD and HD applications to meet ultimate market needs under upcoming carbon-neutral legislative requirements Thomas Körfer, Executive Vice President Yousef Jeihouni, PhD, Senior Project Manager FEV	3:30 pm	Stopping Thermal Runaway Propagation with Aerogel-Based Cell-to-cell Barriers John Williams, Preston Thompson Aspen Aerogels
11:45 am	The Future of Diesel Alexander Freitag Vice President of Engineering, Powertrain Solutions Bosch	4:00 pm	Coupled Simulations of Battery Pack Thermal Runaway Propagation Tristan Burton, PhD, Kislaya Srivastava Convergent Science
12:15 pm	Session Adjourned & Lunch	4:30 pm	Thermal Runaway Risk of Li-ion Batteries Used in Electric Vehicles: Testing and Analysis” Hsin Wang, PhD, Lianshan Lin, PhD Oak Ridge National Laboratory Loraine Torres-Castro, PhD, Valerio De Angelis, PhD, Yuliya Preger, PhD, Joshua Lamb, PhD Sandia National Laboratories
		5:00 pm	Comparison of three types of battery terminal voltage estimations models (ECM, LSTM, and ESPM) for Chrysler Pacifica Hybrid at different ambient temperatures. Soumya Gudiyella, PhD Stellantis
		5:30 pm	Adjournment

Thursday, June 9, 2022

AM Session	BEV Material Optimization Session Chair: Xingcheng Xiao, PhD Staff Research Scientist General Motors	PM Session	Process Optimization & Hardware Session Chairs: Mark Boyle, PhD Product Manager, AMADA WELD TECH INC. Teresa Rinker, PhD Senior Researcher, General Motors
Time	Room 103	Time	Room 103
9:00 am	Development of LLZO-fiber composites for solid electrolyte applications Yuepeng Zhang, PhD Argonne National Laboratory	1:30 pm	Pulsed-Arc Welding of Battery Tabs Tim Frech, Kate Namola, Jolene Tran EWI
9:30 am	Design and Synthesis of Electrode Materials for Next-Generation Lithium-Ion Batteries Da Deng, PhD Wayne State University	2:00 pm	Process Monitoring: The road to AI for welding processes Mark Boyle, PhD AMADA WELD TECH
10:00 am	Interfacial coating in thiophosphate based ASSLBs Yubin Zhang, PhD General Motors R&D Center	2:30 pm	Break
10:30 am	Break	3:00 pm	Development of a Battery Management System with Active Balance by Using Phase Shift Control Yudong Hu, PhD, Xuan Zhou, PhD, Allan Taylor, PhD Kettering University
	Artificial Intelligence for Post Li-ion Batteries: From Research to Engineering Chen Ling, PhD Toyota		
11:30 am	Understanding the Electrodes Electrolyte Interphase of Lithium Sulfur Batteries YiFan Zhao, PhD General Motors R&D Center	3:30 pm	Automotive Battery Recycling – A Critical Supply Chain Link Renata Arsenault Ford
12:00 pm	Printed Electrodes for Fast Charging Applications Qingliu Wu, PhD Western Michigan	4:00 pm	48V Systems for NOX and CO2 Reduction in Commercial Vehicles Ben Karrer Eaton
12:30 pm	Session Adjourned & Break	4:30 pm	Adjournment

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