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at the address below.

Global Automotive Management Council (GAMC)
5305 Plymouth Road
Ann Arbor, Michigan 48105

Phone: (734) 418-2365
Fax: (734) 418-2356

info@gamcinc.com

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Program Wednesday, June 11, 2014

Registration 8:30am – 9:00 am

Plenary & Keynote: Solutions for Vehicle Emissions <i>Room: Amphitheater101 - 8:30 am to 12:30 pm</i> Session Chair: Hank Sullivan Director - Clean Air New Technology Introduction, <i>Tenneco</i>		Design, Simulation, and Durability <i>Room: Room 105 - 1:30 pm to 6:00 pm</i> Session Co-Chairs: Rajeswari Chandrasekaran, PhD Research Engineer, <i>Ford</i> Sharon Xiao, PhD Professor, <i>MSU</i> Xia Wang, PhD Professor, <i>Oakland University</i> Yi Ding, PhD Engineer, <i>US Army RDECOM-TARDEC</i>	
8:30 am	Hank Sullivan Director - Clean Air New Technology Introduction <i>Tenneco</i>	1:30 pm	Effect of Cooling the Cathode Grid Tab Stack on the Thermal Characteristics of Lithium-Ion Pouch Cells under Various Discharge Rates of Constant Current 85 Stephen Bazinski, Xia Wang, PhD <i>Oakland University</i>
8:45 am	CO2 Capture from Mobile Sources 1 Esam Hamad, PhD Research Science Consultant <i>Saudi Aramco</i>	2:00 pm	Applying LCM to Determine Heat in Large Pouch Cells 96 Stephen Bazinski, Xia Wang, PhD <i>Oakland University</i>
9:10 am	Reducing GHG Emissions from Vehicle Lightweighting and Electrification? The Power of the Grid 9 Gregory Keoleian, PhD Director, Center for Sustainable Systems Professor, Civil and Environmental Engineering <i>University of Michigan</i>	2:30 pm	A Micro-Structure Resolved Model for Silicon Anode in Li-Ion Battery 107 Miao Wang, Xinran Xiao, PhD <i>Michigan State University</i>
9:35 am	DOE Advanced Combustion Engine R&D Program 31 Ken Howden Program Manager & Director of 21 st Century Truck Partnership <i>US Dept. of Energy (US DOE)</i>	3:00 pm	Modeling Multilayer Polymer Battery Separator's Structural Response 118 Ilya Avdeev, PhD, Michael Martinsen, PhD and Alex Francis, PhD <i>University of Wisconsin</i>
10:00 am	Break	3:30 pm	Break
10:25 am	An Overview of the Tier 3 Rule 50 Michael Olechiv Director - Light-duty Vehicles and Small Engines Center <i>U.S. EPA</i>	4:00 pm	Physics-Based Modeling of Rechargeable Li-Ion Batteries for Electric Vehicles 131 Rajeswari Chandrasekaran, PhD <i>Ford</i>
10:50 am	Aging Mechanisms Associated with Heavy Duty Diesel Aftertreatment Systems N/A Wayne Eckerle, PhD Vice President of Corporate Research & Technology Integration & CTC Site Leader <i>Cummins</i>	4:30 pm	Determining Entropic Coefficients of a LFP Pouch Cell at Various Temperatures and Charge/Discharge States 141 Xia Wang, PhD <i>Oakland University</i>
11:15 am	The Drive toward Efficient Lubricants - Innovations in Additive Science, Polymer Chemistry and Testing 59 Tom Curtis Vice President of Engine Additives <i>Lubrizol</i>	5:00 pm	Lithium-Ion Battery life Prediction: Mechanical and Chemical Degradation 154 Rutooj Deshpande, PhD <i>Ford</i>
11:40 am	Trends towards increasing use of Mechatronics in Aftertreatment 75 Tim Jackson Executive VP of Technology, Strategy, & Business Development <i>Tenneco</i>	5:30 pm	Understanding Coupled Mechanical-Chemical Degradation Mechanisms for Improving Lithium-ion Battery Performance and Durability N/A Yang-Tse Cheng, PhD, Juchuan Li, Rutooj Deshpande, Qinglin Zhang, Jiagang Xu, Jie Pan <i>University of Kentucky</i> Xingcheng Xiao, PhD, Mark Verbrugge, PhD <i>General Motors</i>
12:05 pm	Q&A Panel Discussion		
12:30 pm	Session Adjourned & Lunch	6:00 pm	Session Adjourned – Reception

The Program Committee and Board of Directors reserves the right to amend this program without any notice.

Program Thursday, June 12, 2014

Registration 8:30am – 9:00 am

Cell Characteristics		Battery Manufacturing Processes	
Room: Room 105 - 9:00 am to 12:00 pm Session Chair: Xingcheng Xiao, PhD Senior Researcher General Motors		Room: Room 105 – 1:30 pm to 4:30 pm Session Chair: Wayne Cai, PhD Staff Researcher, General Motors	
9:00 am	Lithium Batteries in Air Transportation N/A Janet McLaughlin <i>Federal Aviation Administration</i>	1:30 pm	Quality Considerations in LIB Mass Production 225 Renata Arsenaault <i>Ford</i>
9:30 am	Characterizing and Understanding the Electrolyte and Electrode Interactions in Lithium Ion Batteries 164 Peng Lu, PhD Thomas Chapaton <i>General Motors</i> Chen Li, PhD <i>Zee Aero</i> Stephen Harris, PhD <i>Lawrence Berkeley National Lab</i>	2:00 pm	A Study on Aging of Battery Tab Joints - 238 Tobias Solchenbach, PhD, Peter Plapper, PhD <i>University of Luxemburg</i> Wayne Cai, PhD <i>General Motors</i>
10:00 am	Challenges and Approaches for High Voltage Spinel Lithium-Ion Batteries 174 Jung-Hyun Kim, Li Yang, Xingcheng Xiao, PhD, Vic Liu, Peng Lu, Bob Powell, PhD <i>General Motors</i> Nicholas Pieczonka <i>Optimal CAE Inc.</i>	2:30 pm	Fabrication of Porous Carbon Nano-Fiber-SnSb Electrode for Improved Na Storage in FEC Contained Electrolyte 244 Liwen Ji, PhD and Xingcheng Xiao, PhD <i>General Motors</i>
10:30 am	Break	3:00 pm	Break
11:00 am	Structure and Dynamics of Lithium Garnet Ionic Conductors 186 Lai Wei, PhD <i>Michigan State University</i>	3:30 pm	High-Speed Imaging in Battery Manufacturing '478 Shawn Lee, PhD Tae Kim, PhD, Jack Hu, PhD <i>University of Michigan</i> Wayne Cai, PhD <i>General Motors</i>
11:30 am	Improved Electrolyte and its Application in NMC-Graphite Full Cells 204 Li Yang, PhD <i>General Motors</i>		
12:00 pm	Session Adjourned & Lunch	4:00 pm	Laser processing in battery manufacturing 263 Rahul Patwa <i>Fraunhofer USA</i>
		4:30 pm	Session Adjourned

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