**Sunday, April 7, 2024**

**Revision: 25**

**Date: April 4, 2024**

**12:00 PM** **Exhibition Set-up Starts**

**Monday, April 8, 2024**

**7:00 AM** **Registration & Continental Breakfast Sponsored by SPE Automotive Division**

**8:15 AM** **Welcome Remarks**: Conference Chair, Dr. Sassan Tarahomi, Alterra Holdings

**8:30 AM** **Technical Program Highlights:** Dr. Norm Kakarala / Dr. Suresh Shah

**8:45 AM** **Keynote Presenter: Electrified Corvette E-Ray; Josh Holder, Corvette Vehicle Chief Engineer, GM**

**9:15 AM Sponsors Remarks**

**9:30 AM** **Keynote Speaker: Lithium Ion Battery and Battery Cooling; John Warner, CEO, American Battery Solutions**

**10:00 AM** **BREAK Sponsored by SPE Automotive Division**

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| **Conference Hall - I** | **Conference Hall - II** | **Conference Hall - III** |
| **BATTERY AND THERMAL MANAGEMENT SYSTEM**Dhanendra Nagwanshi, SABICDr. Jeff Helms, Celanese Corp.Maggie Baumann, PPA/Pinfa NA | **MANUFACTURING ENABLING TECHNOLOGIES**David Kosse, Ascend Materials.Steve Vanloozen, Lotte Advanced Materials | **EVOLUTION OF EXTERIORS AND LIGHTING**Tom Pickett, General MotorsVolker Plehn, SABICMark Lapain, Advanced Composites |
| **10:30 AM** | **Polymeric Material Requirements for Batteries Used in Electric Vehicles****Ken Vessey**UL | **A Composite Sandwich Structure Study for EV Battery Cover Application****Fred Chang**SABIC**Sara Simon**Forward Engineering | **Body Exterior Design Trends for Electric Vehicles****Tom Pickett**General Motors |
| **11:00 AM** | **Innovative Raw Materials Addressing Thermal Management and Thermal Runaway****Kerry Smith**Nabaltec AG | **Additive Manufacturing as an Alternative for Small Series****Daniel Baek** Akro Plastics GMBH | **Revolutionizing Automotive Aesthetics: Evolving Functions Enhance Design Freedom****Michael Angelo Osero**SABIC |
| **11:30 AM** | **Trends and Novel Solutions for Efficient EV Glycol Thermal Management****Dr. Brian J. Cardwell**Cooper Standard | **Rapid Prototyping with 3D Printed Injection Molding Inserts****David Constant**BASF | **Integrated Tailgate Storage Compartment****Mary Reiber, Tanner Ivey**GM |

**12:00 PM** **LUNCH: Sponsored by SPE Automotive Division**

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| **Conference Hall - I** | **Conference Hall - II** | **Conference Hall - III** |
| **BATTERY AND THERMAL MANAGEMENT SYSTEM** | **MANUFACTURING ENABLING TECHNOLOGIES** | **EVOLUTION OF EXTERIORS AND LIGHTING** |
| **1:30 PM** | **Thermoplastic Solutions for Battery Module****Nick Compton**GM | **Revolutionizing Battery Enclosures in Electric Vehicles Through Polyurethane Systems and Advanced Manufacturing Technologies****Ricardo Mercado**BASF | **Evolving Rear Access Solutions – Lighter and Cleaner****Daniel Lee, Gillard Laurent**Magna Exteriors |
| **2:00 PM** | **Solutions for Thermal Runaway****Dinesh Minjurulimana**SABIC | **Optimizing EV Structural Designs with Manufacturing Process Simulations****Srikar Vallury**Moldex-3D | **Innovations in Automotive Exterior Lighting****Tom Pickett**GM |
| **2:30 PM** | **Electrification Outside Automotive****Dr. James Edmondson**IDTechX | **PUR Overmolding of Exterior and Interior Parts for Class A Out of Mold Production****Stephen Beadsley**Krauss Maffei | **Uniformly Lit Animated Tail Lamps** **Steve Ganado**Magna Lighting |
| **3:00 PM** |  | **Lightweight Techniques for EV DC-DC Converter****Jung Hwan Lee**LG Chemicals | **Advancement in Translucent TPOs Enabling Innovative Lighting Design****Dr. Jane Lu**LyondellBasell |

**3:30 PM** **BREAK: Sponsored by SPE Automotive Division**

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| **Conference Hall - I** | **Conference Hall - II** | **Conference Hall - III** |
| **BATTERY AND THERMAL MANAGEMENT SYSTEM**Dhanendra Nagwanshi, SABICDr. Jeff Helms, Celanese Corp.Maggie Baumann, PPA/Pinfa NA | **MATERIAL INNOVATIONS**Mike Shoemaker, BorealisRick Luxgrant, StellantisSunit Shah, LyondellBasell | **EVOLUTION OF EXTERIORS AND LIGHTING**Tom Pickett, General MotorsVolker Plehn, SABICMark Lapain, Advanced Composites |
| **4:00 PM** | **Innovative Solutions for Thermal Propagation in EV’s****John Waltz**LG Chem | **Material Trends and Innovation in 2024****Dr. Sassan Tarahomi**Alterra Holdings | **Environmental Stewardship Through Implementation of Thermoset BMC Recycling in Automotive Lighting****Bob Fraizer**Valeo |
| **4:30 PM** | **Novel Polyester Films for EV and AV Technology Solutions****Jan LaRiviere**Mylar Specialty Films | **Halogen Free Flame Retardant Polypropylenes for Electric Vehicle Applications****Mark Evans**Borealis | **Coating Systems for Lighting****Dr. Andreas Haeuseler**Momentive |
| **5:00 PM** | **Thermal Packing for EV’s****Marina Mendoza Fricke**Parker Hannifin | **Flame Retardant Choices for Automotive Compounds in Changing Regulatory Landscape****Jakub Lison**ICL Industries | **Sustainable Polyamide Solutions: Solutions for Global Challenges****Bernd Henkelmann**Radici Group |
| **5:30 PM** | **Innovative Materials for Lightweight EV Battery Enclosure****Keith Kauffmann**Envalior | **Flame Retardant Engineering Compounds for Electric Vehicles****Marc Ollig**Akro Plastics GMBH | **Design Trends and Challenges for Front and Rear Fascia****Paul Henri Matha**DVN |

**6:00 PM – 8:00 PM** **Reception: Sponsored by SPE Automotive Division**

**Tuesday, April 9, 2024**

**7:00 AM Registration & Continental Breakfast Sponsored by SPE Automotive Division**

**8:15 AM** **Welcome Remarks**: Conference Chair, Dr. Sassan Tarahomi, Alterra Holdings

**8:30 AM** **Keynote Speaker: Aligning EV Material Trends with Ford’s Sustainability Roadmap; Dr. Ellen Lee, Technology Lead, Ford Motor Company**

**9:00 AM** **Awards &** **Student Poster Competition:** Dr. Sassan Tarahomi, Alterra Holdings & Chuck Jarret,

The Materials Group

**9:30 AM** **Keynote Speaker: Benchmarking Recent Vehicle Launches; Manojdeep Jasrotia, VP of Sales, Caresoft**

**10:00 AM** **BREAK: Sponsored by SPE Automotive Division**

**10:30 AM Panel Discussion on Thermal Runaway – Detection,**

 **Containment and** **Mitigation**

Participant Panelist:

- Dr. Su Jung Han – GM

- Bhaskara Boddakayala – Ford

- Kenneth R. Vessey – UL

- Brian Engle – Amphenol / NattBatt

- Dr. James Edmondson - IDTechX

- Prof. Amar K. Mohanty - University of Guelph

(Moderated by Dhanendra Nagwanshi, SABIC; Dr. Jeff Helms, Celanese & Maggie Baumann, PPA/Pinfa NA)

**12:00 PM LUNCH: Sponsored by SPE Automotive Division**

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| **BATTERY AND THERMAL MANAGEMENT SYSTEM**Dhanendra Nagwanshi, SABICDr. Jeff Helms, Celanese Corp.Maggie Baumann, PPA/Pinfa NA  | **MATERIAL INNOVATIONS**Mike Shoemaker, BorealisRick Luxgrant, StellantisSunit Shah, LyondellBasell | **EVOLUTION OF INTERIORS**Dr. Rose Ryntz, Ryntz & AssociatesJeff Crist, Ford Motor Co. Jim Keller, Mankiewicz Coatings LLC |
| **1:30 PM** | **Mitigating Battery Cell Failures – Managing Cell Venting Events****Brian Engle**Amphenol | **Long Chain Co-Polyamides in Electric Vehicle Extruded Busbar Applications****Mikel Petty**Lyondellbasell | **Current & Future Direction for Seating Materials, Design, and Construction****Diane Murtonen**Ford Motor Company |
| **2:00 PM** | **Battery Pack Sealing and Protection****Brian Engle**Amphenol | **Bonding Polymeric Materials for Next Generation Automotive****Art Cawley**DuPont | **Smart Integration Technologies Crossing Over Between Headliner Manufacturing, Lighting, and Electronics****Peter Barna**Grupo Antolin |
| **2:30 PM** | **An Overview of NHTSA’s EV R&D Safety Activities****Dr. Tony Thampan** NHTSA | **Polyphenylene Sulfide Compositions with a High Degree of Thermal Shock Resistance****Dr. Prabuddha Bansal**Celanese | **PREPRO – Prepositioning Seam Support for Cut and Sew Covering****Ulrich Weissert**Forvia |
| **3:00 PM** | **Evolving Thermal Management and Fire Protection in EV Batteries****James Edmondson**IDTECHex | **Composites for Occupant and Battery Protection****Chris Korson**BASF | **Peugeot Drives Car Interior Design Revolution with Stratasys****Fadi Abro**Stratasys |

**3:30 PM** **BREAK: Sponsored by TBD SPE Automotive Division**

**3:45 PM** **Exhibit Hall -** **Student Poster Competition Awards:** Dr. Sassan Tarahomi, Alterra Holdings &

Chuck Jarret, The Materials Group

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| **Conference Hall - I** | **Conference Hall - II** | **Conference Hall - III** |
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| **4:00 PM** | **Long Chain Polyamides for Thermal Management and High Voltage Applications in BEV’s****Dr. Christian Kochanek**Evonik | **Maximizing Potential: FR Plastics in EV Battery Systems****Hadwan Hadwan**BASF | **UltraBlack - Anti-Glare Coatings for ADAS and HUD Applications****Paul Hahler**Mankiewicz Coatings, LLC |
| **4:30 PM** | **Unique Flame Retardant PP Development and Commercialization****Dr. Deen Chundury**Plastics Compounding LLC | **Expanding TPO Performance Using Novel Polyolefin Elastomers****Mark Jablonka**Dow | **Elevate Every Surface: RAYN Technology – Where Elegance Meets Expression****Dustin Will**RAYN Technology  |
| **5:00 PM** | **Custom Tailored High Performance Polyamide Materials for Enhanced Battery Cooling Applications****Doug Thornhill**EMS-GRIVORY | **Thermoplastics Solutions for Electric Vehicles****Dr. Fred Chang**SABIC**Sara Simon**Forward | **Brominated Flame Retardants for Electric Vehicles – Safe, Sustainable, Versatile****Dr. Rajeev Mathur**Albemarle  |
| **5:30 PM** |  | **Post Industrial Recycled Polyamide Reinforced with Basalt Fiber for Semi-Structural Applications****Dr. Ellen Lee,** Ford**Matthew Delaney,** TMG | **Flame Retarded Polyolefin Compound for Thermal Runaway Events in Electric Vehicles****Christopher Rudzinskas** Lyondellbasell |

**6:00 PM- 8:00 PM** **Reception: Sponsored by SPE Automotive Division**

**Wednesday, April 10, 2024**

**7:00 AM Registration & Continental Breakfast Sponsored by SPE Automotive Division**

**8:15 AM Conference Remarks:** Conference Chair, Dr. Sassan Tarahomi, Alterra Holdings

**8:30 AM** **Keynote Speaker:** **Alternative Chemistries Delivering Significant Positive Impact on “Domestic Battery Solutions.” No Materials Tourism!; Tom Pilette, CEO, Zeta Energy**

**9:00 AM** **Keynote Speaker:** **Forecast on Electrification Outlook; Kevin Riddell, LMC GlobalData**

**9:30 AM BREAK Sponsored by SPE Automotive Division**

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| **Conference Hall - I** | **Conference Hall - II** | **Conference Hall – III** |
| **ADVANCED DRIVER ASSISTANCE SYSTEM (ADAS)**Dr. Rodrigo Orozco, CelaneseJP Wiese, Polyplastics | **NOISE AND VIBRATION**Dr. Xian Jiang, Dow Joel Pierce, Borealis | **SUSTAINABILITY AND CARBON NEUTRALITY**Dr. Alper Kiziltas, Amazon Dr. Prasad Soman, Amazon Drew Geda, Hyundai-Kia America Manoj Patnala, Rivian Automotive |
| **10:00 AM** | **Automotive Market ADAS and AV Trends and Emerging Requirements for Radar****Dr. James Edmondson**IDTechEx | **Overview of Capabilities to Evaluate Sound and Vibration Performance with Focus on High Resilient and Viscoelastic Polyurethane Foams****Josh Hand**Dow | **Sustainable Products, Challenges and Opportunities****Dr. Arash Kiani**Alterra Holdings |
| **10:30 AM** | **Radar Transparency of Exterior Trim – Considerations on The Effect of Mechanical Recycle Content****Carlos Pereira, Sebastian Flak**SABIC | **Sustainable Solutions for EV Motor Mount Bushings****Jeff Smith**Celanese | **Ford Mach E One-Piece Frunk in PCR TPO****Mahesh Bhattacharyya,** Ford Motor Company**Ben McComb,**Advanced Composites |
| **11:00 AM** | **High Performance Transparent Polyamides for IR LED’s and Cameras in ADAS****Greg Beach** EMS-GRIVORY | ***Overcome NVH challenges with innovative polyamide solutions for powertrain components******Jason Park***Ascend Performance Materials | **Highly Filled Short Banana Fiber – Polypropylene Composites: Fiber Concentration and Interfacial Adhesion Effects on Damping and Mechanical Performance****Dr. Caitlyn Clarkson**Manufacturing Science Division, Oak Ridge National Laboratory (Knoxville, TN) |
| **11:30 AM** | **Beyond Burst Testing: Speeding Up Manufacturing for ADAS & ECUs with New Materials****JP Wiese**PolyPlastics | **Changes of Plastics Used in BEV’s Compared to ICE’s & Why****Dr. Ashok Adur**Everest International Consulting (LLC) | **Sustainable Products****Benny Zhao**Kingfa |
| **12:00 PM** | **Laser Weldability and RF Absorber Material Solutions for Automotive Radar Sensors****Dr. Jeff Xu**SABIC |  | **Sustainable Material Solutions with Bio-Based PA56****Dr. Julian Heinisch**LG Chem |

**12:30 PM Conference Ends**