

MONDAY, APRIL 17, 2023

All times EST USA

7:00 AM	REGISTRATION & CONTINENTAL BREAKFAST: SPONSORED BY SPE		
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 SPEAKER: Jamie Brewer , GM Executive Chief Engineer Electric SUVs, GM's EV/AV Strategy and Innovation		
9:15 AM	PLATINUM SPONSOR REMARKS: SABIC & CELANESE		
9:30 AM	KEYNOTE SPEAKER: Dean Stevenson , Rivian Senior Director of Interiors, Systematizing Sustainability		
10:00 AM	BREAK: SPONSORED BY SPE		
	CONFERENCE HALL - I	CONFERENCE HALL - II	CONFERENCE HALL - III
	BATTERY AND THERMAL MANAGEMENT SYSTEMS Dhanendra Nagwanshi, SABIC Dr. Jeff Helms, Celanese Corp. Maggie Baumann, PPA/Pinfa NA	MANUFACTURING ENABLING TECHNOLOGIES David Kosse, Ascend Performance Materials Steve Vanloozen, Lotte Advanced Materials	SUSTAINABILITY AND CARBON NEUTRALITY Dr. Rohit Srivastava, Amazon Drew Geda, Hyundai-Kia America
10:30 AM	Fire Protection Materials for EVs: Technology, Trends, and Markets Dr. James Edmondson, IDTechEx	Innovative Hybrid Molding in Color Dan Rozelman Kraus Maffei	Carbon Footprints: The Next Driver in Evolving the Plastics Supply Chain Joseph Chang, ICIS Chemicals
11:00 AM	Battery Enclosure Materials Screening Tests Torch and Grit (TaG) and Battery Enclosure Material Screening (BEMS) Ken Vessey, UL Solutions	Cooling Systems Daniel Baek Akro Compounds	Polyamide Composites with Basalt Fibers Dr. Sandeep Tamrakar Ford Motor Company
11:30 AM	HR-Resistant PK for The Physics of Cell Venting Failures: Beyond UL2596 and the Need for Venting Management Brian Engle, Amphenol	Recyclability of Polypropylene and Welding of FRTP for Challenging BEV Applications Adam Halsband, Forward Engineering	LG Chem Chemical Recycling Process of Polycarbonate BK Jeon, LG Chem
12:00 PM	LUNCH: SPONSORED BY SABIC		
	BATTERY AND THERMAL MANAGEMENT SYSTEMS	MANUFACTURING ENABLING TECHNOLOGIES	SUSTAINABILITY AND CARBON NEUTRALITY
1:30 PM	Advanced Insulation for High Voltage Electric Motor Winding Dr. Monoj Ghosh, Eaton Corporation	Compounding with AI Saeed Arabi Alterra Plastics	Reclaimed Carbon Fiber Based Sustainable Solutions for Lightweight Electric Vehicle Structures Somasekhhar Bobba, SABIC
2:00 PM	Role of Thermoplastics in Accelerating EV Battery Pack Development Dave Sullivan SABIC	Optimized Compounds and Blowing Agents for Technical Applications Thilo Stier Akro Compounds	Basalt Fiber Reinforced Polyamide-6 Composites with Hemp Hurd Biochar Filler for Automotive Applications Mohammad Mezbah UI Hoque Washington State University
2:30 PM	Fire Safety and the Role of FR Additives Maggie Baumann Performance Polymers and Additives / Pinfa North America	Toolless Fabrication of TPU with Additive Manufacturing Rebecca Fecteau, BASF Steve Richardson, Forecast3D	Composite Laminates Thermoformed from Wood-Based Prepregs for Interior Automotive Applications Avishek Chanda, Washington State University
3:00 PM	The Growing Role of FR Additives In EVs and AVs Dr. Subra Narayan, Clariant	Advanced Composites Manufacturing Solutions for the AV and EV Industry Anand Bora, MOLDEX3D	PCR and Bio Based TPO/TPE for Electric Vehicles Dr. Arash Kiani, Alterra Holdings
3:30 PM	BREAK: SPONSORED BY SPE		
	BATTERY AND THERMAL MANAGEMENT SYSTEMS	ADVANCED DRIVER ASSISTANCE SYSTEM (ADAS)	EVOLUTION OF EXTERIORS AND LIGHTING
4:00 PM	Large, Safe, Lightweight, and Multifunctional Thermoplastic Enclosures for EV Battery Packs Fred Chang SABIC	Dr. Rodrigo Orozco , Celanese JP Wiese , SABIC	Tom Pickett , General Motors Volker Plehn , SABIC Mark Lapain , Advanced Composites
4:30 PM	SABIC Specialties' Solutions for Automotive Radar Sensors Dr. Jeff Xu, SABIC	Material, Process and Design effects on Warp in Camera Brackets Brandon Bouchard, Celanese	Material Solutions and Innovations for Exterior Panels Volker Plehn, Jeff Eshenauer, SABIC
5:00 PM	High Energy Density Battery Pack Concept Pat Granowicz Celanese	Optimizing Radar Performance of Exterior Trim Carlos Pereira SABIC	Smart Rear & Front Panels by Purposefully Combined Plastic Processing Michael Fischer, Engel
	Polyamide Technologies Addressing Thermal Runaway Challenges in EV's Kai Becker Ascend Materials	Innovative Protective Coatings for Automotive Exterior Parts, Headlamps and Sensor Covers Dr. Andreas Haeuseler, Adam Keeling Momentive	
5:30-7:30 PM	RECEPTION: CHEESE & WINE SPONSORED BY CELANESE		

2023 ADVANCE

TUESDAY, APRIL 18, 2023

All times EST USA

7:00 AM

REGISTRATION & CONTINENTAL BREAKFAST: SPONSORED BY SPE

8:15 AM

WELCOME REMARKS: Conference Chair: **Dr. Sassan Tarahomi**, Alterra Holdings

8:30 AM

STUDENT POSTER COMPETITION: **Chuck Jarret**, The Materials Group

8:45 AM

KEYNOTE SPEAKER: **Jeff Makarewicz**, Group Vice President Technical Resources Toyota North America R&D, *Key Challenges, and Innovative Ideas to Navigate the Road to Future Mobility*

9:15 AM

PLATINUM SPONSOR REMARKS: **LOTTE & ENTEC**

9:30 AM

KEYNOTE SPEAKER: **Alan Amici**, President and CEO of Automotive Research (CAR), *Assessment of Inflation Reduction (IRA) Act Impacts on North American Electric Vehicle Supply Chain*

10:00 AM

BREAK: SPONSORED BY SPE

10:30 AM

PANEL DISCUSSION: *Thermal Runaway – Scenario and Solutions*

MODERATORS: **Dhanendra Nagwanshi**, SABIC; **Dr. Jeff Helms**, Celanese; **Maggie Baumann**, PPA/Pinfa NA

PANELISTS: **Ken Vessey**, UL Solutions; **Adam Halsband**, Forward Engineering; **Dave Sullivan**, SABIC; **Brian Engle**, Amphenol; **Michael Blake**, Freudenberg-NOK; **Eric Rask**, ITW Automotive; **Dr. James Edmondson**, IDTechEx

12:00 PM

LUNCH: SPONSORED BY ENTEC

CONFERENCE HALL - I

EVOLUTION OF INTERIORS

Dr. Rose Ryntz, Ryntz & Associates
Jeff Crist, Ford Motor Co.
Jim Keller, Mankiewicz Coatings LLC

Dual Cast Process for Designing Circular and Monomaterial for Automotive Interiors

Dr. Murali Reddy
Cpk Interior Systems

Translucent Foam: Physical Properties and Level of Light Transmittance

Kiego Shimura
Sekisui Voltek

Advances in Automotive Interiors

Dr. Pravin Sitaram
The Haartz Corporation

Needs, Challenges and Film-Based Solutions for Functional Decoparts

Paul Rye
Kurz

CONFERENCE HALL - II

MATERIAL INNOVATIONS

Mike Shoemaker, Borealis
Paula Kruger, Ascend Performance Materials
Sunit Shah, LyondellBasell

Advanced Polymers for Electric and Autonomous Vehicles Applications

Dr. Sassan Tarahomi
Alterra Holdings

Novel Formulating Strategies for Flame Retardant Automotive Compounds

Jakub Lison
ICL Industrial Products

Enabling Thermal Management with Innovations in Thermally Conductive Plastics

Dr. Prabuddha Bansal
Celanese

High Performance Polymers for Busbars in Power Electronics and e-Motors of Electric Vehicles

Dr. Victoria E. Lee
Solvay

CONFERENCE HALL - III

EVOLUTION OF EXTERIORS AND LIGHTING

Tom Pickett, General Motors
Volker Plehn, SABIC
Mark Lapain, Advanced Composites

The Development of Integrated Multifunction EV Grille

George Liu
Minth

Innovative Designs and Environmental Solutions to Meet Customer Demands

Brian Guinn, Bob Frazier
Valeo

Material Solutions that Enable Cost and Weight Savings in Automotive Exterior Lighting

Dan Fuller
Celanese

Managing Heat Using Thermally Conductive Polycarbonates to Achieve Weight, Space and Cost

Jim Lorenzo
Covestro

1:30 PM

2:00 PM

2:30 PM

3:00 PM

3:25 PM

BREAK: SPONSORED BY SPE

EVOLUTION OF INTERIORS

Throwing Your Shoes at Your Car Seat

Aaron Delong
HP

Mineral-Based Solutions for EAV Plastics and Sustainability

Dr. Saied Kochesfahani
IMERYS Performance Minerals

Automotive Acoustic Materials: Design for Sustainability

Jian Pan
Auria Solutions

Electrification Driven Challenges for Automotive Plastics

Bernd Henkelmann
Radici Group

MATERIAL INNOVATIONS

Next-Gen Automotive Materials to Increase Safety and Reliability in the Electrical Powertrain

Keith Kauffmann
Envalor

Next Generation Polyurethane for Internal Battery Structure

Chris Korson
BASF

Bonding to Dielectric Materials in Battery Pack Assembly

Dr. Thomas Clark
DuPont Adhesives

Conductive Molding Compounds in Fuel Cells and Battery Applications

Mike Kiesel
LyondellBasell

NOISE AND VIBRATION

Andrea Frey, General Motors
Dr. Xian Jiang, Dow

Automotive Acoustic Materials: Design for Acoustics & Applications in Electric Vehicles

Jian Pan, Auria Solutions

Absorption and Reflective Properties of a Crosslinked Foam

Keigo Shimura
Sekisui Voltek

Anti-vibration Polyamide Solutions to Overcome a Multitude of NVH Challenges

Jason Park
Ascend Performance Materials

Design for Sustainable Solutions for Carbon Neutrality

Karen Guzman
Covestro

4:00 PM

4:30 PM

5:00 PM

5:30 PM

6:00-8:00 PM RECEPTION: CHEESE & WINE SPONSORED BY LOTTE CHEMICAL

2023 AGENDA

WEDNESDAY, APRIL 19, 2023

All times EST USA

7:00 AM

REGISTRATION & CONTINENTAL BREAKFAST: SPONSORED BY SPE

8:15 AM

WELCOME REMARKS: Conference Chair: **Dr. Sassan Tarahomi**, Alterra Holdings

8:30 AM

KEYNOTE SPEAKER: **Dr. Kevin Swift**, Senior Economist, ICIS Global Chemicals, *Long-Term Scenarios for Automotive Plastics*

9:00 AM

RECOGNITION OF STUDENT PARTICIPATION & AWARDS: **Dr. Sassan Tarahomi**, Alterra Holdings / **Chuck Jarret**, The Materials Group

9:30 AM

BREAK: SPONSORED BY SPE

CONFERENCE HALL - I

BATTERY AND THERMAL MANAGEMENT SYSTEMS

Dhanendra Nagwanshi, SABIC
Dr. Jeff Helms, Celanese Corp.
Maggie Baumann, PPA/Pinfa NA

Trends and Disruptions for Battery Electric Vehicle (BEV) Thermal Management Systems

Eric Rask
ITW Automotive

Temperature Management Using Thermally Conductive Electrically Insulative (TCEI) Plastic Materials

Ray Szparagowski / Sai Sundararaman
Freudenberg - NOK Sealing Technologies

Thermally Conductive Thermoplastic Solutions for EV Battery Pack

Somasekhar Bobba
SABIC Specialties

Zytel® eCool Multilayer Coolant Tube Technology

Nate Dumm
Celanese

Santoprene® TPV in EV Cooling Hose Applications

Paul Zwick
Celanese

CONFERENCE HALL - II

SUSTAINABILITY AND CARBON NEUTRALITY

Dr. Rohit Srivastava, Amazon
Drew Geda, Hyundai-Kia America

Evaluation of Post-Consumer Recycled Polycarbonate for Electric Micromobility Vehicles

Dr. Rashed Islam,
Lyft

High Performance Polyamides for Demanding Battery and Thermal Management Systems

Doug Thornhill
EMS-GRIVORY

Developments in CirculenRecover TPO Compounds with Recycled Feedstocks for Bumper and Exterior Trim Applications of Electric Vehicles

Tomik Mouradian
LyondellBasell

Possibilities for Reducing the Carbon Footprint

Thilo Stier
Akro Compounds

Advancement in Sensing and Visualization Semiconductor Solutions that Enhance Safety, Comfort and Sustainability

Michael Godwin
Osram

CONFERENCE HALL - III

NOISE AND VIBRATION

Andrea Frey, General Motors
Dr. Xian Jiang, Dow

Sustainable Composites for Lighter and Flame-Retardant Electric Vehicle Parts: Challenges on Thermal Management and Enclosures for EV Batteries

Prof. Amar K. Mohanty
Univ. of Guelph, Canada

Development of a Multi-Layer Acoustic Package Model for Automotive Acoustics

Manoj Thota
Dow

Frank made of Ultra-Silent: Greater Driving Range for Electric Cars

Michael Collinsworth
Autoneum North America, Inc.

How Composite e-Motor Mounts Affect EV NVH Performance

Ricardo Mercado
BASF

2nd Generation NVH Zytel™ Hushes the Crowd with Muscle

Gabriel Knee
Celanese

CONFERENCE ENDS

Revision: 9
Date: April 6, 2023

AGENDA 2023

10:00 AM

10:30 AM

11:00 AM

11:30 AM

12:00 PM

12:30 PM