TUESDAY NOVEMBER 2

ALL TIMES USA EDT

AGENDA 2021

EXHIBITS OPEN TUESDAY 7:00 AM – 7:00 PM

7:00–8:00	REGISTRATION / BREAKFAST *Sponsored by* MAGNA / EXHIBITS OPEN		
8:00–8:30	**OPENING REMARKS AND AWARD PRESENTATIONS Including Best Paper and Scholarship Awards** (Opal/Garnet/Onyx): Leonardo Simon, Khaled Shahwan, Xiaosong Huang, *2021 SPE ACCE Chairs*		
8:30–9:00	**KEYNOTE ADDRESS** (Opal/Garnet/Onyx): **Dan Dowdall**, *Business Development Manager – Transportation Composites, INEOS Composites*, **Advancements for Cost-Effective Resin Systems and Composite Applications**		
9:00–10:00	EXHIBITS OPEN / COFFEE BREAK *Sponsored by* MICHELMAN		
	OPAL/GARNET/ONYX ADVANCES IN THERMOSET COMPOSITES	**EMERALD/AMETHYST ADDITIVE MANUFACTURING / 3D PRINTING** *Sponsored by* 3M Science. Applied to Life.™	**PEARL MODELING OF COMPOSITES**
10:00–10:30	Pushing Structural Sheet Molding Compound Forward by Next-gen Production Line 'CUBE' David Buecheler, *Schmidt-Heinzmann*	Open Platform Advantages in 3D Printing and Finding the Right Materials for Large Components Haleyanne Freedman, *M. Holland Co.*	Effect of Platelet Length and Stochastic Morphology on Flexural Behavior of Prepreg Molded Composite Siavash Sattar, *Old Dominion University*
10:30–11:00	Composite Compression Limiter for Injection Molded Parts with Improved Pullout Strength Kipp Grumm, *BASF*	Integrated Systems for Cost-efficient Manufacturing of Multi-Material/ Functional Constructs Saeed Farahani, *Clemson University*	HP-RTM and LCM Applications for Automotive Industry Gleb Meirson, *University of Western Ontario/Fraunhofer Center*
11:00–11:30	Assembly and Reuse of Aromatic ThermoSetting coPolyester (ATSP) Composites Jacob Meyer, *ATSP Innovations*	Process Induced Micro-Void Formation within the Microstructure of Large Scale Polymer Composite Deposition Beads Doug Smith, *Baylor University*	CAE Modeling Static/Fatigue Performance of Short Glass Fiber Reinforced PP Coupon & Components Congyue (James) Wang, *Stelantis*
11:30–12:00	Physical Properties and Process Improvements in Epoxy Composites Kazuhiro Yoshida, *Kaneka*	Silicone Whipping Additive Manufacturing (SWAM): Technology and Application in Automotive Manufacturing Leonardo Simon, *University of Waterloo*	ICME Solution to Predict Lifetime of Short Fiber Reinforced Thermoplastic Parts Dustin Souza, *Hexagon*
12:00–1:00	NETWORKING LUNCHEON *Sponsored by* sampe North America		
	ADVANCES IN THERMOSET COMPOSITES	**CARBON COMPOSITES AND REINFORCEMENTS**	**MODELING OF COMPOSITES**
1:00–1:30	Machine Learning Approach for Prediction of Fiber Orientation Distribution in Molded Composites Oleksandr Kravchenko, *Old Dominion University*	Energy Absorption of CFRP Channels under Quasi-Static and Dynamic Axial Crush Loading Benjamin Harvey, *University of Waterloo*	Physics-Based Simulation Workflow for Stamp Forming of Thermoplastic Parts Rebecca Cutting, *Purdue*
1:30–2:00	HP-RTM and LCM Technologies for High Build Rate Automotive Applications Stephen Greydanus, *Hexion Inc.*	Composite Battery Housing Based on (CF-) SMC/Prepreg technology Timo Huber, *ACTC*	A Sequential Simulation Approach for Predicting Molding and Process-Induced Deformations for GMT Dominik Dorr, *University of Western Ontario*
2:00–2:30	Advancements in Accelerated Weathering Tests and Materials for Mold-in-Color Sheet Molding Compounds Joe Amlung, *INEOS Composites*	Carbon Fibers from Hybrid Poplar-derived Lignin Sagar V. Kanhere, *Clemson University*	Non-isothermal Crystallization Kinetic Model: Theory, Development and Application, Srikanth Pilla, *Clemson Unversity*
2:30–3:30	EXHIBITS OPEN / COFFEE BREAK *Sponsored by* MICHELMAN / JUDGING OF STUDENT POSTERS		
	ADVANCES IN THERMOSET COMPOSITES	**CARBON COMPOSITES AND REINFORCEMENTS**	
3:30–4:00	Evaluating Phenolic Composite in Benchtop Thermal Runaway Testing Ian Swentek, *Hexion*	A Numerical Approach to Design Polymeric Composite Gear Pairs for Stiffness and Strength, Sandeep Nagaraju, *G*	
4:00–4:30	Thermogravimetric Analysis of SMC Resins for Electric-vehicle Battery Enclosure Applications June Wu, *Ineos*	Effects of Midplane Carbon Nanotube Sheet Interleave on the Strength and Impact Damage Resistance Amir Nasirmanesh, *Baylor University*	
4:30–5:00	Evaluation of Surface Appearance of Sheet Molded Composites Tom Skelskey, *Ineos*	Mode I and Mode II Fracture Toughness Measurement for Non-crimp CFRP Composites Aaditya Pradeep Suratkar, *Western University*	
5:00–5:30	**KEYNOTE ADDRESS** (Opal/Garnet/Onyx): **Brent Collyer**, *VP Engineering, R&D Director Lightweighting, Rassini International Inc.*, **Rassini's Innovative Journey to HP-RTM Manufacturer**		
5:30–7:00	COCKTAIL RECEPTION *Sponsored by* HEXION Responsible Chemistry		
7:00	CONFERENCE ADJOURNS FOR THE DAY		

WEDNESDAY NOVEMBER 3

AGENDA 2021

EXHIBITS OPEN WEDNESDAY 7:30 AM – 6:30 PM

ALL TIMES USA EDT

7:30–8:30 REGISTRATION / BREAKFAST / EXHIBITS OPEN

8:30–9:30 **OPENING REMARKS AND AWARD PRESENTATIONS Including Best Paper and Scholarship Awards** (Opal/Garnet/Onyx):
Leonardo Simon, Khaled Shahwan, Xiaosong Huang, *2021 SPE ACCE Chairs*

8:30–9:00 **KEYNOTE ADDRESS** (Opal/Garnet/Onyx): **John Hopkins,** *CEO,*
IACMI (Institute for Advanced Composites Manufacturing Innovation), **IACMI: A National Asset and What Comes Next**

9:00–10:00 EXHIBITS OPEN / COFFEE BREAK *Sponsored by* HIGHLAND PLASTICS INC. / JUDGING OF STUDENT POSTERS

	OPAL/GARNET/ONYX SUSTAINABLE COMPOSITES	EMERALD/AMETHYST ENABLING TECHNOLOGIES	PEARL BUSINESS TRENDS / TECHNOLOGY SOLUTIONS
10:00–10:30	Thermal and Physical Properties of Thermosetting Composites with Incorporated Graphene Daniel Mulqueen, *Enviracarbon*	2022 Toyota Tundra 2nd Row Composite Seat Structures Kipp Grumm, *BASF*	Integrating AI-Enabled Automatic Inspection of Composites with Automotive Quality Processes Scott Blake, *Aligned Vision*
10:30–11:00	Thermally-modified Wood: A Good Filler for Biopolymers Douglas Gardner, *University of Maine*	Short Fiber TuFF Technology for Automotive Part Production Dirk Heider, *Composites Automation*	Advances in Multimaterial EV Battery Enclosures Roman Hillermeier, *Structeam*
11:00–11:30	Manufacture High Thruput Sustainable Automotive Parts Using Spray Transfer Molding (STM) Technology Elias Shakour, *BASF*	EMI Shielding Solutions for Automotive FRP Composite Applications Michael Campbell, *TFP-Americas*	Replacing Conventional Metal Wheel Balance Weights with Automated Precision Balance Composite System Erik LaBelle, *3M*

11:30–12:30 NETWORKING LUNCHEON *Sponsored by* LOTTE CHEMICAL

	ADVANCES IN THERMOPLASTIC COMPOSITES	ENABLING TECHNOLOGIES	BUSINESS TRENDS / TECHNOLOGY SOLUTIONS
12:30–1:00	An Approach for Integration of RTM Process Simulation Anand Bora, *Moldex3D*	Introduction of a Battery Enclosure Thermal Runaway Material Screening Program Amanda Nummy, *HATCI*	The New Plasma Black: Performance and Environmental Benefit Thomas Maier, *Monolithmaterials*
1:00–1:30	Composite Lift Gate with Clear Polymer Window with Integrated Seal & Invisible Defroster Technology Boney Mathew, *Mathson Composite Group LLC*	Enabling a Circular Lifecycle for Lignin-derived Non-Isocyanate Polyurethane Foams James Sternberg, *Clemson Composites Center*	Properties of Polypropylene-based Wood-plastic Composites (WPCs) Using Two Different Wood Fillers Geeta Pokhrel, *University of Maine*
1:30–2:00	Development of Electrically Conductive Composites of Nylon12 by Incorporation of Biocarbon Filler Chinmoyee Das, *Michigan Technological University*		The Future of Composites Manufacturing: An Automation Case Study Jamie Snudden, *Airborne*

2:00–3:00 EXHIBITS OPEN / COFFEE BREAK *Sponsored by* HIGHLAND PLASTICS INC.

	ADVANCES IN THERMOPLASTIC COMPOSITES	ENABLING TECHNOLOGIES	
3:00–3:30	A Metal Plastic Hybrid (MPH) Rail Extension Design Solution for Automotive Bumpers Somasekhar Bobba Venkat, *SABIC*	Efforts Toward Automated Foreign Object Detection of Carbon Fiber Laminates Using Pulse Echo Ultrasound Nathaniel Blackman, *Baylor*	
3:30–4:00	Combined LFT-D and GMT Glass Reinforced Nylon Composite for Optimized Part Molding and Performance Navraj Heer, *Fraunhofer Project Centre for Composites Research*	Microsandwich - The Solution to Light-weighting, Cost-reduction and Sustainability Available Now Russell Elkin, *3A Composites*	
4:00–430	THERMOFIL HP- Innovative Solutions for Lightweighting Using Engineering Glass Fiber Reinforced PP Nicolas Schlutig, *Sumika*	Waste to Product with Dieffenbacher's LFT-D Technology Louis Kaptur, *Dieffenbacher*	

4:30–5:30 **PANEL DISCUSSION** (Opal/Garnet/Onyx): **Driving Value in Automotive Composites Manufacturing**
Moderator: **Leonardo Simon,** *University of Waterloo;* Panelists: **Dan Dowdall,** *INEOS Composites;* **DDale Brosius,** *IACMI;*
more panelists to be announced

5:30–6:30 COCKTAIL RECEPTION

6:30 CONFERENCE ADJOURNS FOR THE DAY

AGENDA 2021

THURSDAY NOVEMBER 4

ALL TIMES USA EDT

7:30–8:30	REGISTRATION / BREAKFAST		
8:30–9:00	**AWARD PRESENTATIONS** (Opal/Garnet/Onyx): **Student Poster Competition and Parts Competition Award Presentations** Uday Vaidya, *2021 ACCE Student Poster Competition Chair* / Teri Chouinard, *2021 ACCE Parts Competition Chair*		
	OPAL/GARNET/ONYX ADVANCES IN THERMOSET COMPOSITES	**EMERALD/AMETHYST SUSTAINABLE COMPOSITES**	**PEARL BONDING, JOINING & FINISHING** *Sponsored by* Schmidt & Heinzmann
9:00–9:30	Pushing Structural Sheet Molding Compound Forward by Next-gen Production Line 'CUBE' David Buecheler, *Schmidt-Heinzmann*	The Use of Soy-based Oils to Incorporate Recycled Crumb Rubber into Automotive Rubber Composites, Alexander Jones, *Ford Motor Company*	Automotive Surge Tank Development via Hybrid Weld Techniques (Vibration Weld + IR Pre-heat) Ankur Bhosale, *BASF*
9:30–10:00	Composite Compression Limiter for Injection Molded Parts with Improved Pullout Strength Kipp Grumm, *BASF*	Can SMC Composites Deliver Sustainable Solutions? Adam Halsband, *Forward Engineering*	Numerical Study of Unavoidable Material Variability Effects on Damage Development Within a Composite Richard Larson, *Old Dominion University*
10:00-10:30	Assembly and Reuse of Aromatic ThermoSetting coPolyester (ATSP) Composites Jacob Meyer, *ATSP Innovations*	Recycled Carbon Fiber Composites: Automotive Perspectives, Omar Faruk, *University of Toronto*	Mechanical/Electrical Properties of MWCNT/PP Films for Structural Health Monitoring of GF/PP Joints Wencai Li, *Louisiana State University*
10:30–11:00	Pultrusion Overmolding for Energy Management Applications Ricardo Mercado, *BASF*	A New Approach to Lightweight, Sustainable Nonwoven Composites in the Automotive Industry Ziniu Yu, *BASF*	
11:00	CONFERENCE ADJOURNS FOR THE YEAR		
12:00–1:00	TOUR OF IACMI SCALE UP RESEARCH FACILITY (SURF)		

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TUESDAY 7:00 AM – 7:00 PM • WEDNESDAY 7:30 AM – 6:30 PM