



Technical Paper Presenters

2011 Technical Papers:

- *Baked Melamine Coatings Based on a Renewable Polyhydroxythiol,*
Dr. Thomas Upshaw, Chevron Phillips Chemical Co. *Chemistry and Performance of Epoxy Modifiers – A Review,*
Michael Watkins, Cypress Chemical Consulting
- *Energy Storage for Smart Grid and Other Applications Using Composite Fly Wheels,*
Robert Kultzow, Huntsman Advanced Materials
- *The Use of Polyphenylene Ethers with Epoxy Resins – A Review,*
Dr. Edward Peters, Sabic Innovative Plastics
- *Molecular Weight Distribution of Epoxide-Amine-Adducts and Methods for Determining Them*
Dr. Martina Ortelt, Evonik Degussa GmbH
- *Effect of Cure Temperature on Thermal and Mechanical Properties of PACM Cured Epoxy for Structural Composites*
Dr. Pritesh Patel, Air Products & Chemicals
- *Application of Modified Polyetheramines as Epoxy Hardeners*
Dr. Howard Klein and Bruce Burton, Huntsman Advanced Materials
- *Novel Attributes of Nano Graphene Platelets (NGPs) for Enhancing Electrical and Mechanical Properties of Epoxy Composites*
Dr. Srinagesh Potluri, Zyvex Technologies
- *Subtle Epoxy Resin Details in Troubleshooting High Performance Epoxy Systems,*
Michael Watkins, Cypress Chemical Consulting
- *Greener Composites via CO₂-Based Vinyl Ester Resins*
Jason Anderson, Novomer Inc.
- *Mechanical Properties of the Adhesive Matrix and Their Influence on Adhesive Performance*
Dr. J.P. Huang, LORD Corporation
- *Advanced Epoxy Resins with Enhanced Toughness for Demanding Applications*
Dr. Rui Zie, Dow Chemical Company

2010 Technical Papers:

- *On Site Repair of Wind Blades: Opportunities for Thermoset Resin Formulators*
Greg Rose, ITW Plexus
- *Toughened Epoxy-Anhydride Systems for Thermoset Applications*
Dr. Krishnan Karunakaran, Dow Chemical Company
- *Shed Hydrophobic Cycloaliphatic Epoxy (S-HCEP): A New Semi-Flexible Material for Outdoor Electrical Applications*
Robert Kultzow, Huntsman Advanced Materials
- *Phosphazene Flame Retardants as a Green Chemistry to Replace Halogen-type Flame Retardants*
Ted Wursta, DKSH North America
- *Evaluating the Use of Accelerators in Phenalkamines for Improving the Low Temperature Cure Properties*
Dr. Frank Cheng, Royce International

- *The Roles of Polyaryleneethynylene (Kentera™) on Multiwall Carbon Nanotubes in Epoxy Resin Formulations*
Dr. Weijun (Kevin) Wang, Zyvex Performance Materials
- *New Epoxy Hardeners for 2K Systems*
Daniel Haile, Dow Chemical Company *Direct Writing of Nanoscale Patterns of Nanoparticles and Polymer-Nanoparticle Composites (and Graphene)*
Dr. Paul E. Sheehan, US Naval Research Lab
- *Utilization of Clay-Carbon Nanoparticle Synergy for Enhancing Electrical and Mechanical Properties of Epoxy Composites*
Krishna C. Etika, Texas A&M University (Excellence in Thermoset Polymer Research Award Winner)
- *Bio-derived Urethane Additive Chemicals*
Dr. Nicholas Kob, Huntsman
- *PPE Macromonomers-Performance Enhancement of Thermoset Resins*
Dr. Edward N. Peters, Sabic Innovative Plastics
- *New 100% Solid POS Industrial Tinting System and It's Effects on Solvent Borne Coatings*
Hersjel Wehrens, Elementis Specialties
- *Rheology Survey of Surface Treated Fumed Silicas in DGEBA*
James Toth, Evonik Degussa
- *Development of Innovative Epoxy Prepregs using Bio-Based Curing Agents*
James Weir, Composite Technical Services LLC
- *New Amine Hardener for Rapid Curing and Highly Chemical Resistant Coatings*
Charlies Uzoezie, Huntsman Advanced Materials

2009 Technical Papers:

- *Advances in Epoxy Technology for Windmill Blade Composite Fabrication*
Dr. Rajesh Turakhia, Dow Chemical Company
- *Flame Retarded Thermoset Materials based on Phosphorus Chemistry*
Timothy Reilly, Clariant Corporation
- *Novel Toughened High Performance Vinyl Ester Resins*
Gerhard Bohme, Hexion Specialty Chemicals
- *New Products: XTA-770 and XTA-796 as Alternatives to AEP and ACCELERATOR™ Accelerator for Epoxy Resin Polymerization and Illustrations of Some Structure-Property Relationships*
Bruce Burton, Huntsman Corporation
- *Improved Low Temperature Performance of Epoxy Adhesives*
Jeremy Pasatta, CVC Thermoset Specialties
- *Next Generation Fire-Retardant Prepreg Formulation for Mass Transportation Applications*
Paul Spencer, Gurit UK
- *Storage-stable NDI Prepolymers: Elastomers with Superior Mechanical & Dynamic Load-Bearing Characteristics*
Ashok Sarpeshkar, Baulé USA
- *Behavior of Solid, Core-Shell-Rubber Nanospheres, Singly Dispersed in Thermoset Composites*
Sean Walsh, Kaneka Texas Corporation
- *Aliphatic 2-Component Polyurea and Hybrid-Polyurea-Polyurethane Sealants*
Dr. Jay Johnston, Bayer MaterialScience

- *A Stable Dispersion of a Polymerized Elastomeric Phase in Epoxy Resin for Enhanced Physical Properties*
Ranell Santa Cruz, Innovative Resin Systems
- *High-Temperature Epoxies Enhanced by Polyhedral Oligomeric Silsesquioxane (POSS) Molecules*
Bruce X. Fu, Hybrid Plastics
- *Benzoxazine Technology and New Products from Huntsman*
KP Subrahmanian, Huntsman Corporation
- *Polybutadiene Resins in Re-Entrable Encapsulants*
Alain Drexler, Sartomer
- *Opportunities for Thermoset Resins in the Wind Energy Market*
Dr. Sanjay Mazumdar, Lucintel

2008 Technical Papers:

- *Tailor-Made Polyhedral Oligomeric Silsesquioxane (POSS) Molecules for Thermoset Resins*
Bruce X. Fu, Hybrid Plastics Inc.
- *Novel Epoxy Toughening for Coatings & Composites Applications*
Dr. Rajesh Turakhia, Dow Epoxy
- *High Performance-NanoParticles-EcoFriendly: Innovative base epoxy resins enabling a new generation of Composite*
Beloit Balmana, Nanoledge, Inc.
- *Nanostrength Block Copolymers for Epoxy Toughening*
Robert Barsotti, Arkema Inc.
- *Silica Nanoparticles & Rubber Toughening – a Synergy in Adhesives & Composites Applications*
Stephan Sprenger, nanoresins AG
- *Thermoset Solutions for Fuel Cell Seals*
Paul Kozak and Daniel Ramrus, Ballard Power Systems
- *Mixed Mineral Thixotropes – A New Class of Additives for Molded Thermoset Systems*
Terry Brennan, Southern Clay Products
- *Opportunities for Thermoset Resins I the Composites Industry*
Dr. Sanjay Mazumdar, Lucintel
- *Structural Strengthening of Concrete with FRP Composites*
Dave White, Sika Corporation
- *Healable, Shape Memory Polymers for Reflexive Composites*
Thomas Barnell, Cornerstone Research Group
- *Novel Latent Curing Agents for Thermoset Resin Applications*
Michael Lowry, Air Products & Chemicals
- *Nylon Nanocomposites in Flexible Packaging Applications,*
Ying Liang, Nanocor
- *Alternatives in Toughening*
Bill Starner, CVC Thermoset Specialties
- *Innovative Amine Curing Agents for Epoxy Resins*
David Fernee, Hexion Inc.

2007 Technical Papers:

- *Advances in Intumescent Coatings*
Phil Rhodes, Broadview Technologies
- *Wood Composite Overlay*
Atta Zaghloul, CPD Construction Products
- *Low Emission Epoxy Vinyl Ester Resin in Pultrusion*
Dr. Tim Pepper, Ashland Performance Materials
- *Green Chemistry Does Not Fear Humidity in a Floor*
Dr. Jean-Luc Dallons, Cardolite Corporation
- *Fast Curing Polyurea Sealants; Controllable Reactivity with Commercially Available Secondary Amines*
Dr. Jay Johnston, Bayer Material Science
- *Demonstration of Military Composites with Low Hazardous Air Pollutant Content*
Dr. John J. LaScalla, U.S. Army Research Lab
- *Joining of Medical Plastics Using Atmospheric Discharge Pretreatments of Adherents Prior to Adhesive Bonding*
Rory A. Wolf, Enercon Industries Corp.
- *Regulatory Affairs/VOC Update*
Charles Bartish, Air Products & Chemicals
- *A New Cycloaliphatic Amine for Coatings and Composites Applications*
Rajesh Turakhia, Dow Chemical Company
- *Thermoset Curing Schedule and its Affect on the Final Properties*
Dr. Steve Sauerbrunn, Mettler-Toledo
- *Cycloaliphatic Epoxy Resins*
Robert Kultzow, Huntsman Advanced Materials

2006 Technical Papers:

- *Fast Curing Anticorrosion Primers for Steel Protection*
Jean-Luc Dallons, Cardolite Corporation
- *(Meth)Acrylic Structural Bonding in Modern Vehicle Assembly*
Al DeCato, Henkel Corporation
- *Thermal Degradation of Carbon Fiber/Cyanate Ester Resin Composites Filled with Clay Silicate Nanoparticles*
Dr. Shawn Doherty, University of Delaware Center for Composite Materials
- *A Novel Polyfunctional Epoxy Resin with High Heat Resistance and Mechanical Properties*
Pradip Kumar Dubey, Aditya Birla Chemicals (Thailand)
- *Garage Floor Coatings; Identifying Waterborne Epoxies with Optimum Handling and Performance Properties*
Dave Dubowik, Air Products & Chemicals
- *Long Term Durability Testing Machine for CPD Polymer Flooring*
Camelia Gardo, CPD Construction
- *Novel Epoxy Toughening Technology*
Steve Hoyles, The Dow Chemical Company
- *Thermoset Epoxy Polymer Concrete for the Fabrication of Chemical Containment Vessels*
Paul Lynch, Cappar Limited
- *Thermoset Resins in Production Boatbuilding*
Joe Parker, Pro-Set Epoxy

- *Growing More Ductile Epoxies: An Essential Work of Fracture Study*
Frederick A. Pfaff, Stonhard Division of the StonCor Group, Inc.
- *The True Polyurea Spray Elastomer Story: Chemistry, Advances and Applications*
Dudley J. Primeaux II, Primeaux Associates LLC
- *Azyrals: New Polybenzoxazine Chemistry for Building Composites*
Roger Tietze, Huntsman Advanced Materials Division
- *Formulating High-Performance Waterborne Epoxy Coatings*
Michael J. Watkins, Hexion Specialty Chemicals
- *Effect of Index on Curing Kinetics and Rheology of Polyurethane Gels*
Lifeng Wu, Huntsman Polyurethanes

2005 Technical Papers:

- *New Developments in Polyetheramine Curing Agents*
David Alexander, Huntsman Advanced Materials
- *Epoxy, Urethane, Silicon: Choice of Encapsulate for High Reliability Magnetic Components*
Robert O. Sanchez and Howard W. Arris, Sandia National Laboratories
- *New Concept of Water Based Epoxy Adduct for Water Reducible Epoxy Formulation Dimensionally Stable and Shape Retentive*
Giorgio Sabbadini, Cognis Italy S.p.A.
- *Halogen Free Epoxy Resin for High Performance Electronic Applications*
Hitesh Soni, Thai Organic Chemicals Co., Ltd.
- *Kaneka Core-Shell Toughening Agents for Thermosetting Resins*
Doug Sober, Kaneka Texas Corporation
- *Utilizing a Design of Experiments Approach to Nonskid Coating Formulation*
Charlie Tricou, Applied Research Lab, Penn State University.
- *Di- and Tri-functional Epoxides as Reactive Diluents in Epoxy Systems*
Hubert Monteiro, Royce International
- *Epoxy systems for Applications Below Zero Degrees Celsius*
Robert Kultzow, Huntsman Advanced Materials
- *The Chemistry and Application of Intumescent Agents for Use in Epoxies and Self Crosslinking Styrene-Acrylic Monomers*
Phillip Rhodes, Broadview Technology
- *Nanostrength™ Block Copolymers: Improving Toughness on the Nanometer Scale*
Sheng Hong, Arkema Inc.
- *Higher Performance Raw Materials for Improved Polyurea Properties*
Ray Scott, The Hanson Group LLC
- *Novel Waterborne Epoxy Curing Agent Technology*
Dave Dubowik, Air Products & Chemicals

2004 Technical Papers:

- *Epoxy Resin Infusion Systems for Large Scale Composites*
Jeff Bassman, Jeffco Products
- *Selecting the Appropriate Performance Additives*
Darrel Bryant, Material Apps LLC
- *Post-curing Effects on VARTM FRP Composite Material Properties*
Jason Cain, Virginia Tech
- *Bonding of Epoxy Encapsulants to Thermoplastic Substrates*
Robert Kultzow, Huntsman Advanced Materials

- *Global Epoxy Market Dynamics*
Christophe Marche and Karen Green, The Dow Chemical Company
- *Vortex Mixer*
Payam Towfigh, State Mix
- *New Water Based Amine Technology for Epoxy Application Over Green Concrete*
Willy Raymond and Stosh Ramatowski, Air Products & Chemicals
- *Productivity on Purpose: A marriage of chemistry and machinery keeps inline skate wheel production in the United States*
Walt Smith, ITWC Inc.
- *Nonskid Coating Formulation Utilizing a Design of Experiments (DOE) Approach*
Charlie Tricou, Applied Research Lab, Penn State University
- *Adhesives and Potting Compounds for High Service Temperature in Automotive Electronics Applications*
Liz Walker, Emerson & Cuming
- *Properties & Effects of Chemically Modified Bis A Epoxy Resin for Cure Acceleration*,
Charlie Zarnitz, CVC Specialty Chemicals

2003 Technical Papers:

- *Phenalkamines in Concrete Applications*
Ryan Davis, Cardolite Corporation.
- *Polyurea Overview*
John Durig, Sherwin Williams/General Polymers.
- *Novel Technology for Water Vapour Permeable Floor Coatings*
Peter Lucas, Air Products & Chemicals
- *Overmolding Material & Process for Electronic Module Assemblies*
Dick Macy, Bayer Corporation.
- *The World of Epoxy Adhesives*
David Nick, DPNA International Inc.
- *The Fracture Behavior of Filled Epoxies*
Dr. Raymond Pearson, Lehigh University.
- *Secondary Amines for Aliphatic Polyurea Polymers*
Mark Posey, Huntsman Corporation.
- *Fluorescent UV Weathering Devices (QUV) vs. Xenon Weathering Devices (Q-Sun)*
Jeff Quill, Q Panel.
- *Anti-Float Technology for Floor Coatings – A Seamless Solution*
Stephen Wheeler, Rebus, Inc.
- *Reactive Resins: Uses in Construction*,
Ray Williamson, Sika Corporation

Note: TRFA members can download and print complimentary copies of TRFA technical papers and presentations from the members-only website.