

Plenary lectures September 21st, 2011
D. Tilbrook (Hexcel Composites, Cambridge, UK) "Advanced Thermoset Composites Present and Future - An Industrial Perspective"
H. Colquhoun (University of Reading, Department of Chemistry, UK) "Self-repairing Supramolecular Polymers: The Significance of Complementary π - π -stacking Interactions"
J.-F. Gérard (INSA de Lyon, Polymer Materials Engineering, Villeurbanne, France) "Nanostructured Thermosets – From Organic-inorganic Block Copolymers to Supramolecular Units as Nanostructuring Blocks"
N. Clarke (University of Sheffield, Department of Physics & Astronomy, UK) "Modelling Reaction Induced Phase Separation in Thermoset/Thermoplastic Blends"
O. Schäfer (Wacker Chemie AG, Munich, Germany) "Improvement of the Mechanical Properties of Thermosets through Silicone-organo Copolymers"
A.G. Chmielewski (Institute of Nuclear Chemistry and Technology, Warsaw, Poland) "Electron Accelerators: A Powerful Tool for Polymers Processing"

Session 1: Chemistry I September 22nd, 2011
Invited speaker: H. Stenzenberger (Evonik Technochemie GmbH, Dossenheim, Germany) "Bismaleimides: Chemical Concepts & Recent Developments"
M. Gwiazda (Fraunhofer PYCO, Teltow, Germany) "Formation of New Thermosets by the Reaction of Cyanates with Polysilazanes"
Invited Speaker: C. Bowman (University of Colorado, Chemical and Biological Engineering, Boulder, CO, USA) "Thermoreversible Covalent Adaptable Networks"
T. Schiller (Monash University, Department of Materials Engineering, Clayton, VIC, Australia) "Photoinduced Creep and Stress Relaxation in Novel Cross-linked Polymers"

Session 2: Modeling September 22nd, 2011
Invited speaker: K.M.B. Jansen (TU Delft, Department Precision and Microsystems Engineering, The Netherlands) "Analytical Estimate for Cure-induced Warpage in Coating-substrate Assemblies"
S. Hall (University of Surrey, Division of Chemical Sciences, Guildford, UK) "Development of Thermoset Modelling and Simulation Analysis Techniques, with a Focus Towards Epoxies"
A. Lion (Universität der Bundeswehr, Institute of Mechanics, Munich, Germany) „Modelling the Glass Transition and Physical Ageing of Thermosets and Thermoplastics“
I. Hamerton (University of Surrey, Senior Lecturer of Organic Chemistry, Surrey, UK) "Examining Bulk Properties of Aromatic Polybenzoxazines"

Session 3: Chemistry II (Modifiers) September 22nd, 2011
Invited Speaker: E. Khosravi (Durham University, Department of Chemistry, UK) "Thermosetting Materials with Thermally Breakable Linkages: Towards Recyclability and Biodegradability"
T. Dingemans (TU Delft, Novel Aerospace Materials, The Netherlands) "All-aromatic Liquid Crystal Thermosets"
J. Galy (INSA de Lyon, Polymer Materials Engineering, Villeurbanne, France) "Heterogeneous Epoxy Networks from Crosslinked Polymer Microparticles: Synthesis and Characterization"
J. Kraemer (University of Bayreuth, Department of Polymer Engineering, Germany) "Classification of Internal Release Agents – Evaluation of a Test Facility and the Effect on Neat Epoxy Resins Properties"

Session 4: Characterization

September 22nd, 2011

C. Marotzke

(BAM – Federal Institute for Materials Research and Testing, Mechanical Behaviour of Polymers, Berlin, Germany)

“Failure Criterion Based on Adhesion for Composite under Transverse Loading”

I. Alig

(DKI – German Institute for Polymers, Physics)

“Monitoring of Photopolymerization Kinetics and Network Formation by Combined Ultrasonic Reflectometry and Near-infrared Spectroscopy”

C. Pretschuh

(Wood K plus, Linz, Austria)

“Dielectrical Analysis for In Situ Cure Monitoring of Aminoplast Resins in Glued Veneer Joints”

J. McHugh

(fenotec Gesellschaft für Industrieerzeugnisse mbH, Dept. fenopreg, Beelitz, Germany)

“Ultrasound Technique for the Characterisation of Prepreg Systems Demonstrated Using the Vacuum Bagging Process”

Session 5: Chemistry III (Modifiers)

September 22nd, 2011

S. Awang Ngah

(Imperial College London, Department of Mechanical Engineering, UK)

“Fracture Toughness of Toughened Amine Cured Epoxy System – Analysis of Bulk and Glass Fibre Composite Materials”

B. Just

(Schill+Seilacher “Struktol” GmbH, Hamburg, Germany)

“Elastomermodification of Epoxy Resins”

M. Barasc

(Dow Europe, Horgen, Switzerland)

“Advanced Epoxy Resins with Enhanced Toughness for Demanding Applications”

J. de Boysere

(Thor GmbH, Speyer, Germany)

“pinfa: A New Flame Retardants Association”

Session 6: Processing I

September 22nd, 2011

Invited Speaker: **L. Feher**

(Johnson Controls GmbH, Burscheid, Germany)

“High-Frequency Absorption for Polymer Composites Processing”

R. Sekula

(ABB, Corporate Research, Krakow, Poland)

“Towards Robust Processing: Application of Advanced Numerical Simulation and Testing Methods in Epoxy Products”

G. Murray

(Bac2 Conductive Composites, Southampton, UK)

“Latent Acid Catalysts for Thermoset Process Control”

S. Backhaus

(CTC GmbH Stade - Composite Technology Center, Stade, Germany)

“PRTM - Continuous and flexible production of high quality CFRP profiles”

Session 7: Chemistry IV

September 22nd, 2011

U. Arnold

(KIT – Karlsruhe Institute of Technology, Institute of Catalysis Research and Technology, Eggenstein-Leopoldshafen, Germany)

“Renewables as Fillers for Epoxy Resins”

M. Chrysanthos

(INSA de Lyon, Polymer Materials Engineering, Villeurbanne, France)

“Novel Biobased Thermosetting Systems For High Performance Materials”

G. Engelmann

(Fraunhofer IAP, Potsdam, Germany)

“Kraft Lignin as a Component for Epoxy Resins”

C. Uhlig

(Fraunhofer PYCO, Teltow Germany)

“Effect of Molar Mass and A-B-ratio of a Block-co-polymer Used as Toughening Agent in Epoxy Resins and Implications as to Their General Phase Behaviour in Epoxies”

Session 8: Processing II	
September 22nd, 2011	
J. Cremer (Wacker Chemie AG, Munich, Germany) „Silicone-PU Flexible Foams – A Versatile Class of Highly Flame-retardant Polyurethane Foams“	
M. Cornick (Dynea Erkner GmbH, Erkner, Germany) “Phenolic Foams: Technology, Manufacture and Applications“	
J. Werner (TU Dresden, Institute of Lightweight Engineering and Polymer Technology, Germany) “Forming of Partly-crosslinked Thermosets“	
R. Lorenz (University of Applied Sciences, Chemical Engineering, Muenster, Germany) “Thermosets and Composites in the Underground“	

Session 9: Fiber Reinforced Thermosets	
September 23rd, 2011	
Invited speaker: M. Jeschke (Technical Fibre Ltd., Lancaster, UK) “Nonwoven Materials for the Future“	
I. Partridge (Cranfield University, Composites Centre, UK) “Through-the-thickness Reinforcement of Composites“	
E. Henry (Université Catholique de Louvain, Institute of Condensed Matter and Nanosciences, Louvain-la-Neuve, Belgium) “Toward a New Generation of Aeronautic Composite Materials Using Nanofilled Thermoplastic as Reinforcement“	
N. Wiegand (Leibniz IPF, Dresden, Germany) “A Multi-scale Investigation of Binders on the Properties of Glass Fibre Reinforced Epoxy Resin“	
T. McGrail (University of Limerick, Irish Centre for Composites Research (IComp), Limerick, Ireland) “Toughening Strategies for Liquid Resin Infusion Processes“	
F. Busnel (National Research Council Canada, Industrial Materials Institute, Boucherville, QC, Canada) “Improvement of the Processing of Polyurethane Reinforced by Glass and Cellulosic Fibres“	
C. Scheuer (Momentive Specialty Chemicals GmbH, Duisburg, Germany) “Infusion of Thick Carbon Fibre Structures Supported by a Newly Developed Epoxy System to Reduce Weight and Total Costs“	

Poster presentations	
Participant	Poster title
Alig, I. (DKI – German Institute for Polymers, Darmstadt, Germany)	Curing and Load Performance of Adhesive Anchor for Building Applications
Bernaschek, A. (InnoMat GmbH, Teltow, Germany)	Nap Core – Core Material for Sandwich Construction
Chagnon, L. (Haute Alsace University, ENSCMU - Engineering Chemistry National School of Mulhouse, France)	Scratch Recovery of an Urethane-based Network
Chowdhury, Y. (InnoMat GmbH, Teltow, Germany)	Shrinkage and CTE of Resins by Volume Dilatometry
Gwiazda, M. (Fraunhofer PYCO, Teltow, Germany)	New Flame-retardant RTM Resins - RTM6 Benchmark
Hanel, J. (Coatema Coating Machinery GmbH, Dormagen, Germany)	The High Importance of a Perfect Coating and Laminating Process for High Prepreg Qualities for Composite Application in the Space and Aircraft Industry
Haveman, D. (DSM Composite Resins, Zwolle, The Netherlands)	Alternative Curing System with Hybrid Curing Technology
Ischdonat, N. (EADS Innovation Works, Hamburg, Germany)	Ageing Effects on Aircraft Cabin Components
Kahle, O. (Fraunhofer PYCO, Teltow, Germany)	Characterization of UltrabARRIER Layers for Flexible Thin Film Solar Cells
Kallenberg, S. (Brandenburg University of Technology Cottbus, Germany)	Injection Moulding of Epoxidized Linseed Oil
Lorenz, R. / Steffen, S. (University of Applied Sciences Münster, Steinfurt, Germany) und (Fraunhofer PYCO, Teltow, Germany)	Shrinkage Control of High-T _g Unsaturated Polyester Resins with Polymethylmethacrylate
McHugh, J. (fenopreg GmbH, Beelitz, Germany)	Thermoset Process Control by US-plus®: Ultrasound Measuring System - Principle and Application
McNamara, L. (University of Surrey, Division of Chemical Sciences, Guildford, UK)	Empirical Study of the Cure of Commercially Available Benzoxazines and Initiators Using Thermo-mechanical and Spectroscopic Techniques
Neumeyer, T. (University of Bayreuth, Polymer Engineering, Germany)	Influence of Degree of Conversion and Viscosity on Tack Properties of Neat Epoxies
Perier, L. (O1dB-Metравib, Limonest, France)	Coupled DMA/Macro Calorimetry for Liquid to Solid Composite Characterization
Prager, L. (Leibniz Institute of Surface Modification, Leipzig, Germany)	Creation of organic-inorganic multilayer systems: aspects of photochemical-based fabrication of gas barriers

Poster presentations	
Stasiak, M. (Fraunhofer PYCO, Teltow, Germany)	Physico-chemical Active Principles of Novel Nano/microparticle Types in Polymeric Composites
Winkler, T. (Berliner Nanotest und Design GmbH, Berlin, Germany)	Mechanical Characterization of Lightweight Composite Materials and Structures to Support Their Optimization
Wuzella, G. (Wood 3C – Wood Carinthian Competence Center, St. Veit an der Glan, Austria)	Thermal Cure Kinetics of Carbonated Triglyceride Oil with Ethylenediamine as Curing Agent to Form Bio-based Non-isocyanate Polyurethane Network
L. Zang (KIT – Karlsruhe Institute of Technology, Institute of Catalysis Research and Technology, Eggenstein-Leopoldshafen, Germany)	Guanidinium Salts as Efficient Accelerators for Amine and Anhydride Curing of Epoxy Resins