

10th Fall Rubber Colloquium



Radisson Blu Hanover, November, 7th - 9th 2012

Preliminary Scientific Program

11.00	Opening ceremony U. Giese	
11.30	F. Cinaralp (ETRMA) <i>European Rubber Industrial Strategy 2020 - Role of Science</i>	
12.00	T. Nishi (Tokyo Institute of Technology) <i>Elastomeric - seismic protection isolators at the east japan giant earthquake</i>	
12.30	E. Zussman (Israel Institute of Technology) <i>Polymer nanofibers: mechanical and thermodynamics perspectives</i>	
13.00	Minister J. Bode (Ministry of Economy, Labour and Traffic)	
13.30	Lunch	
	Session A Elastomer Physics <i>Chairman: F. Bacchelli</i>	Session B Processing <i>Chairman: E. Haberstroh</i>
14.30	F. Stadlbauer , TU Wien (A) <i>Development of an advanced setup for the measurement of crack growth in rubber: influence of the sample geometry and the filler content</i>	F. Podzelny , Troester GmbH & Co. KG (Hannover, DE) <i>Energy efficiency in extrusion technology</i>
15.00	T. Tada , Sumitomo Rubber Industries (Kobe, JP) <i>Stress relaxation behavior of carbon black filled rubber under various deformation modes</i>	M. Schürmann , DESMA (Fridingen, DE) <i>Energy efficiency in the production of rubber moulded parts</i>
15.30	S. Robin , DIK, (Hannover, DE) <i>Lifetime prediction of elastomers - A unification of the fracture mechanics and the (Wöhler) s-n-concept</i>	M. Mondal , Leibniz-Institut für Polymerforschung (Dresden, DE) <i>Electron induced reactive processing: An advanced technique to produce thermoplastic vulcanizates (TVPs)</i>
16.00	Coffee break	
	Recycling <i>Chairman: A. Halasa</i>	Simulation and Modelling <i>Chairman: J. Ihlemann</i>
16.30	A. M. Lepadatu , University of Osnabrück (DE) <i>Recycling of EPDM rubber waste powder by activation with liquid polymers</i>	M. Achenbach , Parker Hannifin Manufac. Germ. (Bissingen, DE) <i>Surface roughening on rubber parts - unconventional method for fabricating and patterning microstructures - illustrated by numerical means</i>
17.00	W. Dierkes , University of Twente (Enschede, NL) <i>Tires back into tires: Devulcanization of tire rubbers</i>	P. Bruns , IKV - RWTH (Aachen, DE) <i>Method for considering the degree of crosslinking in mechanical FEA simulations of elastomeric parts</i>
17.30	I. Hudec , Slovak University of Technology (Bratislava, SK) <i>Pyrolysis of rubber waste and possibility of application of pyrolytic carbon in rubber blends</i>	H. Wulf , Chemnitz University of Technology (DE) <i>Simulation of temperature and strain-rate dependence of self-organization processes in filler rubber</i>
18.00	Poster Session	

	Session A Simulation and Modelling <i>Chairman: M. Klüppel</i>	Session B Compounding and Mixing <i>Chairman: H. Geisler</i>
08.30	M. Freund , Chemnitz University of Technology (DE) <i>Simulation of the Payne effect using the concept of representative directions</i>	L. Klafke de Azeredo , Compounds AG (Pfäffikon, CH) <i>Rubber compounds and flame resistance</i>
09.00	A. Lang , DIK, (Hannover, DE) <i>Theoretical and experimental studies of friction of graphene filled elastomers</i>	K. Brandt , alfa Development GmbH (Poing, DE) <i>Hard rubber compounds - Influence of filler and vulcanization system on chemical resistance and mechanical properties</i>
09.30	H. Baaser , Freudenberg R&D Services (Weinheim, DE) <i>Temperature dependent diffusion processes treated by finite elements</i>	S. Patermann , University of Bayreuth (DE) <i>PP/EPDM blends by dynamic vulcanisation: Influence of increasing peroxide concentration on mechanical and morphological characteristics</i>
10.00	R. Raghunath , DIK, (Hannover, DE) <i>A new material model for simulating the deformation behaviour of cellular rubber</i>	G. Schmaucks , Elkem AS (Kristiansand, NO) <i>Noxite® HT-ACM and SIDISTAR® R low surface silica - an ideal solution for demanding applications</i>
10.30	Coffee break	
	Reinforcement and Fillers <i>Chairman: G. Thielen</i>	Characterization <i>Chairman: A. Alshuth</i>
11.00	M. Tian , Beijing University of Chemical Technology (CN) <i>Controllable dielectric and conductivity performances of polymer composites by novel synthesized core/shell conductive particles</i>	J. Perlo , ITMC-RWTH (Aachen, DE) <i>In-line MR imaging with a mobile tomograph</i>
11.30	M. Heinz , Orion Engineered Carbons GmbH (Cologne, DE) <i>Novel investigations for Tear Resistance testing</i>	R. Perez-Aparicio , LPMA (CNRS/Rhodia) (Saint Fons, F) <i>Network effects and local deformation in reinforced elastomers by means of low-field H NMR experiments</i>
12.00	P. Grau , LPMA (CNRS/Rhodia) (Saint Fons, F) <i>Viscoelastic properties of rubber blends filled with silica depending on their morphologies</i>	T. Förster , WIWeB (Erding, DE) <i>Quantification of acrylonitrile in nitrile butadiene rubbers by thermogravimetry coupled with IR-spectroscopy</i>
12.30	M. Viol , Evonik Industries AG (Wesseling, DE) <i>Comparison of different silica-silane combinations as a basis to meet future requirements</i>	W. Kuhn , IIC Dr. Kuhn UG&Co KG (Blieskastel, DE) <i>Silica and carbon black matrix-filler interactions in SBR/BR blends as studied by NMR cross-link density analysis</i>
13.00	Lunch	
	Elastomer Physics <i>Chairman: J. Jungk</i>	Ageing and Resistance <i>Chairman: W. Dierkes</i>
14.00	LB. Tunnicliffe , Queen Mary University (London, UK) <i>Linear-viscoelastic energy dissipation at the filler-matrix interface in carbon black-rubber composites</i>	C. Naumann , Chemnitz University of Technology (DE) <i>Simulation of oxidative ageing processes in rubbery components</i>
14.30	V. Katzenmaier , Freudenberg Forschungsdienste KG (Weinheim, DE) <i>Application of low-field NMR for rubber characterization in the production</i>	N. Roche , LRCCP (Vitry-sur-Seine, F) <i>Mechanical and tribological behaviour of various rubber surface modified by ion implantation, influence of ageing</i>
15.00	F. Bacchelli , ENI - Versalis (Ravenna, IT) <i>The rheology of storage hardening in raw eSBR</i>	I. Homeier , DIK, (Hannover, DE) <i>Characterisation of ageing behaviour of elastomers - kinetic aspects</i>
15.30	Coffee break	
	New Materials <i>Chairman: I. Hudec</i>	Nanocomposites <i>Chairman: R. Schuster</i>
16.00	M. Lückmann , DIK, (Hannover, DE) <i>Effects of Ionic liquids on special rubbers</i>	A. Misiun , DIK, (Hannover, DE) <i>Hybrid polymeric nanoparticles of controlled size, composition and functionality</i>
16.30	A. Halasa , University of Akron (US) <i>Co- and terpolymers of α-methylstyrene with conjugated diene above its ceiling temperature</i>	M. Galimberti , Politecnico di Milano (Milano, IT) <i>The role of nanofillers in promoting hybrid filler networking and synergism with carbon black in a hydrocarbon rubber</i>
17.00	S. Kawahara , University of Technology (Nagaoka, JP) <i>Nanomatrix structure and properties of natural rubber</i>	L. Zhang , Beijing University of Chemical Technology (CN) <i>Some new results on science and technology of rubber nanocomposites</i>
17.30	J. Friedel , Shell Deutschland Oil GmbH (Hamburg, DE) <i>Gas-to Liquid fluids for the polymer industry</i>	P. Magill , Lanxess Inc. (London, CA) <i>Butyl rubber nanocomposites for tire innerliners - A Review</i>
19.00	Social Event	

Friday, November 9, 2012

	Session A Processing <i>Chairman: J. Noordermeer</i>	Session B Nanotechnology <i>Chairman: L. Zhang</i>
08.30	O. Chaikumpollert , Nagaoka University of Technology (JP) <i>Effect of decelerated fermentation on morphology and mechanical properties of natural rubber latex</i>	Y. Yamamoto , Tokyo National College of Tech. (Tokyo, JP) <i>Preparation of polymer electrolyte membrane with nanomatrix channel prepared by sulfonation of natural rubber grafted with polystyrene</i>
09.00	A. Schröder , Rhein Chemie Rheinau GmbH (Mannheim, DE) <i>iCOM[®]: A new process for final integrated continuous mixing</i>	L. Bokobza , E.S.P.C.I (Paris Cedex, F) <i>Multiwall carbon nanotubes effects on the properties of rubber materials. Comparison with other types of fillers</i>
09.30	D. F. Rouckhout , ExxonMobil Chem. Europe (Machelen, BE) <i>Effect of cured liner gauge on tire performance</i>	Y. Lu , Beijing University of Chemical Technology (CN) <i>Preparation and properties of natural rubber reinforced with carbon nanotubes</i>
10.00	P. Abraham , Zeon Europe GmbH (Düsseldorf, DE) <i>HyTemp AR2 12XP - A new HT-ACM elastomer for enhanced extrusion processing in high-temperature oil resistant hose applications</i>	A. Grishin , Plasmatreat GmbH (DE) <i>Atmospheric pressure plasma coating for improved rubber-metal bonding</i>
10.30	Coffee break	
	Characterization <i>Chairman: C. Bergmann</i>	Materials and new Development <i>Chairman: S. Kawahara</i>
11.00	M. A. Malmierca , CSIC (Madrid, ES) <i>New insights on the structure and evolution of ionic elastomers</i>	J. McIntyre , DIK, (Hannover, DE) <i>NR-compounds with magnetic powder</i>
11.30	J. Valentin , CSIC (Madrid, ES) <i>Time-domain NMR in rubber science and technology: Natural rubber latex</i>	B. Haidar , Inst. de Sci. des Materiaux de Mulhouse (F) <i>How adhesive clay filled rubbery-layer shields materials from flames</i>
12.00	A. Papon , Rhodia Silica (Collonges au Mont d'Or, F) <i>Gradient of glass transition in spherical silica filled polymer: evidence by nuclear magnetic resonance and differential scanning calorimetry</i>	K. Zoumis , Unimatec Chemical Europe (Weinheim, DE) <i>Noxite High Performance High Temperature Acrylate Rubbers (HT-ACM). Improved media resistance in fuels and new highly additivated engine and transmission oils. A comprehensive study</i>
12.30	M. Jaunich , BAM (Berlin, DE) <i>Low temperature properties of rubber seals. Results of component tests</i>	K. Subramaniam , Leibniz-Institut für Polymerforschung (Dresden, DE) <i>Networking of ionic liquid modified CNTs in polar and non-polar elastomers</i>
13.00	Lunch	
	Reinforcement and Fillers <i>Chairman: M. Gerspacher</i>	Vulcanization/Crosslinking <i>Chairman: D. Juhre</i>
14.00	G. Thielen , Goodyear (Colmar Berg, L) <i>Silica in tires. From raw material to technology concept</i>	M. Guzman , GEMAT (Barcelona, ES) <i>Novel activators for sulfur vulcanization of various rubbers</i>
14.30	Y. P. Wu , Beijing University of Chemical Technology (CN) <i>Characterization of filler-rubber interaction, network structure and their effects on viscoelasticity for Styrene-Butadiene Rubber filled with different fillers</i>	N. Rennar , FHWS (Würzburg, DE) <i>Optimization studies of the accelerated sulphur vulcanization of diene rubbers by novel accelerators and activators</i>
15.00	E. Peuvrel-Disdier , Mines-Paris Techn (Sophia-Antipolis, F) <i>Mechanisms of dispersion in silica filled elastomers: Input of different approaches</i>	J. Noordermeer , University of Twente (Enschede, NL) <i>Adhesion of RFL-treated short-cut aramid fibers to sulphur and peroxide-cured elastomers</i>
15.30	J. Meier , Aragon Institute of Technology (Zaragoza, ES) <i>Synthetic layered silicates as synergistic filler additive for tire tread compounds</i>	M. van Duin , Lanxess Elastomers (Geleen, NL) <i>Zeolite activation of resol cure of EPDM and other rubbers</i>
16.00	Closing remarks : U. Giese	