

9th Fall Rubber Colloquium



Novotel Hanover, November, 3th - 5th 2010

Scientific Program

11.00	Opening ceremony	
11.20	Plenary lecture: <u>S. Kawahara</u> , Nagaoka University of Technology <i>Proton exchange membrane with nanomatrix channel prepared by sulfonation of natural rubber grafted with polystyrene</i>	
12.00	Lunch	
	Session A Reinforcement <i>Chairman: M. Gerspacher</i>	Session B Simulation and Modelling <i>Chairman: J. Ihlemann</i>
13.30	<u>A. Blume</u> , Evonik Degussa GmbH (Köln, DE) <i>Mechanisms of the Silica-Silane reaction</i>	<u>A. Lion</u> , Inst. f. Mech., Univ. der Bundeswehr (Neubiberg, DE) <i>Ein Materialmodell zur Beschreibung des Glasübergangs von Polymerwerkstoffen</i>
14.00	<u>J. W. M. Noordermeer</u> , University of Twente (Enschede, NL) <i>Reinforcement of tire tread rubbers with short Aramid fibers</i>	<u>M. Freund</u> , Technische Universität Chemnitz (DE) <i>Verallgemeinerung eines physikalisch basierten Elastomer-Stoffgesetzes für die Finite-Elemente-Methode</i>
14.30	<u>H. Kahraman</u> , LFK, RWTH University (Aachen, DE) <i>Füllstoffeinfluss auf den richtungsabhängigen Mullins-Effekt bei rußgefüllten Elastomeren</i>	<u>N. Vennemann</u> , Fachhochschule Osnabrück (DE) <i>Experimentelle Untersuchungen und Entwicklung eines Modells zur Beschreibung der thermoelastischen Eigenschaften rußgefüllter SBR-Vulkanisate</i>
15.00	<u>N. Rennar</u> , FH Würzburg-Schweinfurt (Würzburg, DE) <i>Heat build-up and ultimate mechanical properties of elastomers filled with conventional and innovative fillers</i>	<u>L. Busse</u> , DIK (Hannover, DE) <i>Praxis and theory of rubber friction on rough and smooth surfaces</i>
15.30	Coffee break	
	New Materials <i>Chairman: R. H. Schuster</i>	Processing <i>Chairman: E. Haberstroh</i>
16.00	<u>S. Thiele</u> , Styron Deutschland GmbH (Merseburg, DE) <i>Modified synthetic rubber for Silica and Carbon Black containing tires</i>	<u>T. Thust</u> , DIK (Hannover, DE) <i>Adhesive strength of injection moulded thermoplastic/rubber composite parts: influence of process parameters and material properties</i>
16.30	<u>I. Mora-Barrantes</u> , Inst. Polym. Sci. Technol. (Madrid, ES) <i>Formation of covalent networks in ionic elastomers to improve their properties</i>	<u>W. May</u> , CT Datentechnik GmbH (Nienburg, DE) <i>Prozessbeurteilung in der Kautschukaufbereitung mittels Analyse von Körperschall und Drehmoment</i>
17.00	<u>K. Kulbaba</u> , Lanxess AG (Leverkusen, DE) <i>Introducing a new ultra low viscosity Therban (HNBR)</i>	<u>H. Köppen</u> , IKV - RWTH (Aachen, DE) <i>Change of material properties of TPV during production in internal mixers</i>
17.30	<u>A. Halasa</u> , University of Akron (US) <i>Applications of anionic polymerization to the conceptual performance tires</i>	<u>R. Engehausen</u> , Lanxess Deutschl. GmbH (Leverkusen, DE) <i>Qualitätsmanagement in Japan - Was sind die Besonderheiten?</i>
18.00	Poster Session	

Thursday, November 4, 2010

Session A Nanocomposites <i>Chairman: I. Hudec</i>		Session B Aging and Resistance <i>Chairman: U. Giese</i>	
09.00	L. Klafke de Azeredo , DIK (Hannover, DE) <i>High performance nanoclay composites by Continuous Dynamic Latex Compounding</i>	K. Zoumis , Unimatec Chem. Eur. GmbH & Co. (Weinheim, DE) <i>FTIR-Thunderdome Thermooxidation studies of high temperature acrylate elastomers</i>	
09.30	J. Kruzalac , Slovak University of Technology (Bratislava, SK) <i>Elastomeric materials with magnetic fillers - properties and network</i>	C. Bergmann , Hansen&Rosenthal (Hamburg, DE) <i>Modern lubricants and their influence on high performance FKM materials</i>	
10.00	R. Kazakeviciute-Makovska , Ruhr-Universität Bochum (DE) <i>Interrelation between strain and stress recovery in shape memory polymer nanocomposites</i>	C. Schwarzendahl , DIK (Hannover, DE) <i>Accelerated Test Method for Thermal-Oxidative Ageing Investigations</i>	
10.30	Coffee break		
Reinforcement <i>Chairman: A. Blume</i>		Compounding and Mixing <i>Chairman: A. Bischoff</i>	
11.00	R. Friehe , Evonik Degussa GmbH (Köln, DE) <i>Ultra high structure softblack - excellent rubber reinforcement and dynamic stiffness at low filler level</i>	A. Diekmann , DIK (Hannover, DE) <i>NMR-Untersuchungen zum Einfluss von Weichmachern auf die Kettendynamik</i>	
11.30	J. Fritzsche , Continental Reifen GmbH (Hannover, DE) <i>Influence of mechanical aging on the filler network structure monitored by dielectric relaxation spectroscopy</i>	O. Chaikumpollert , Nagaoka University of Technology (JP) <i>A novel method to prepare protein free Natural Rubber and its characterization</i>	
12.00	Lunch		
New Materials <i>Chairman: R. Engehausen</i>		Compounding and Mixing <i>Chairman: H. Geisler</i>	
13.30	V. Börger , Schill+Seilacher "Struktol" GmbH (Hamburg, DE) <i>Parallel improvement of processing and physical properties in peroxide cured Elastomers by the use of reactive silicone based additives</i>	E. Hamann , Styron Deutschland GmbH (Schkopau, DE) <i>Effect of styrene and vinyl content of styrene butadiene rubber on dispersion and distribution of carbon black in SSB/NR blends</i>	
14.00	A. Das , Leibniz-Inst. für Polymerforschung (Dresden, DE) <i>Functional Layered Double Hydroxide producing green or transparent rubber compounds</i>	A. Roos , Lanxess Deutschland GmbH (Leverkusen, DE) <i>Halogen Free Flame Retardant (HFFR) compounding with EVM and EVM/HNBR</i>	
14.30	M. Jones , Zeon Chemicals L.P. (Louisville, US) <i>Innovation in HNBR Elastomers - Improvements in processing & performance</i>	W. Dierkes , University Twente (Enschede, NL) <i>A key to enhanced compatibility and dispersion in rubber blends</i>	
15.00	T. Steinke , DIK (Hannover, DE) <i>Functional Magnetic Elastomers and their application</i>	S. Ilisch , Martin-Luther-Universität Halle-Wittenberg (DE) <i>Influencing factors on dispersion and distribution of Silica in SSB/NR blends</i>	
15.30	Coffee break		
Processing <i>Chairman: J. W. M. Noordemeer</i>		Simulation and Modelling <i>Chairman: M. Klüppel</i>	
16.00	K. Opdenwinkel , IKV - RWTH (Aachen, DE) <i>Spritzgießen physikalisch geschäumter Elastomerformteile</i>	S. Robin , DIK (Hannover, DE) <i>Lebensdauerrelevante Belastungsprozesse und Materialstrukturen bei Elastomeren</i>	
16.30	I. Hudec , Slovak University of Technology (Bratislava, SK) <i>Surface modification of textile reinforcing materials by plasma</i>	J. M. Bielsa , Instituto Tecnológico de Aragón (Zaragoza, ES) <i>Development of numerical models for the FE dynamic analysis of rubber components</i>	
17.00	R. Kleeschulte , Universität Paderborn (DE) <i>Analyse von Diffusionsvorgängen beim Zwei-Komponenten-Spritzguss aus Thermoplast und Thermoplastischem Elastomer</i>	D. Juhre , DIK (Hannover, DE) <i>Characterization of reinforcement of elastomers through appropriate measures of stress softening extent</i>	
17.30	C. Behmenburg , IKV - RWTH (Aachen, DE) <i>Ansätze zur Verbesserung der Energieeffizienz beim Elastomerspritzgießen</i>	T. Brüger , Vibracoustic GmbH & Co. (Hamburg, DE) <i>Äquitriaxialer Zug: Diskussion der Bewertung dieses speziellen Beanspruchungszustandes im Inneren von Elastomerartikeln</i>	
19.00	Social Event		

	Session A Elastomer Physics <i>Chairman: C. Wrana</i>	Session B Characterization <i>Chairman: T. Alshuth</i>
09.00	F. Bacchelli , Polimeri Europa (Ravenna, IT) <i>Bridging the gap between raw polymer viscoelasticity and post-cure properties of rubber compounds</i>	I. Morozov , Leibniz-Institut für Polymerforschung (Dresden, DE) <i>Characterization of filled rubber compounds by AFM</i>
09.30	M. Achenbach , Parker Hannifin (Bietigheim-Bissingen, DE) <i>Thermodynamic aspects of rubber</i>	M. Jaunich , BAM (Berlin, DE) <i>Low temperature properties of rubber seals</i>
10.00	C. Robertson , Bridgestone Americas (Akron, US) <i>Further consideration of viscoelastic two glass transition behavior of nanoparticle-filled polymers</i>	R. Stoczek , Technische Universität Chemnitz (DE) <i>Untersuchungen zum Einfluss der Kerbeinbringung auf die Rissausbreitung in Elastomeren Werkstoffen unter dynamischer Beanspruchung</i>

10.30 Coffee break

	Vulcanisation/Crosslinking <i>Chairman: T. Früh</i>	Characterization <i>Chairman: U. Giese</i>
11.00	M. Säwe , Rhein Chemie Rheinau GmbH (Mannheim, DE) <i>Ersatz von kritischen Chemikalien in Gummimischungen - Guanidine</i>	J. L. Valentín , Inst. Polym. Sci. Technol. (Madrid, ES) <i>Application of low field NMR spectroscopy to rubber science and technology</i>
11.30	S. Borrós , GEMAT (Barcelona, ES) <i>Discussion on the different mechanisms of rubber vulcanisation activated by ZnO and MgO</i>	E. Danieli , ITMC - RWTH (Aachen, DE) <i>Rubber testing by desktop NMR Imaging and Spectroscopy</i>
12.00	M. van Duin , DSM Research (BC Geleen, NL) <i>Keltan ACE high-VNB-EPDM: a radical breakthrough in peroxide curing of EPDM</i>	B. Wennehorst , Leibniz Universität Hannover (DE) <i>Investigations into the tribological characteristics of radial lip seals - results of LIF and friction measurements</i>

12.30 Lunch

	Reinforcement <i>Chairman: J. Fritzsche</i>	Simulation and Modelling <i>Chairman: D. Juhre</i>
14.00	M. Gerspacher , Lye (FR) <i>Flocculation of Carbon Black in rubber compounds: It's negative effects</i>	H. Baaser , Freudenberg Forschungsdienste KG (Weinheim, DE) <i>Über die Dissipation in viskoelastischen Werkstoffmodellen</i>
14.30	B. Haidar , Institut de Science des Matériaux de Mulhouse (FR) <i>What do we expect from a silanized filler polymer interface?</i>	J. Kroll , Lanxess (Leverkusen, DE) <i>Eine alternative phänomenologische Beschreibung viskoelastischen Elastomerverhaltens bei finiten Deformationen: Modellbildung und FE-Implementierung</i>
15.00	E. Peuvrel-Disdier , CEMEF, Sophia Antipolis (FR) <i>Characterization of dispersion mechanisms of agglomerated fillers in an elastomer matrix under shear by in-situ observations</i>	M. Thornagel , Sigma Engineering GmbH (Aachen, DE) <i>Process simulation of rubber injection moulding - effects of inserts on the heat flux and the article quality</i>
15.30	T. Horst , Institute of Polymer Research (Dresden, DE) <i>Fracture surface statistics of filled rubber</i>	R. Dargazany , Depart. of Cont. Mech., RWTH (Aachen, DE) <i>Micro-meso scale transition approach for aggregated Carbon Blacks</i>
16.00	Closing remarks : U. Giese	