



Preliminary Detailed Programme

- version as of March 3, 2017

● TUESDAY, MAY 23

13:00 **Opening**

13:30 P1 **Green mobility – challenges and opportunities for rubber, automotive and related industry**

Rabindra Mukhopadhyay (JK Tyre, Mysuru, India)

14:15 P2 **Aging behavior of rubber materials and reactions of antioxidants**

Ulrich Giese (German Institute of Rubber Technology, Hannover, Germany)

Helena Hahn (German Institute of Rubber Technology, Hannover, Germany)

Inga Homeier (German Institute of Rubber Technology, Hannover, Germany)

15:00 *Coffee Break*

15:30 P3 **Future trends in material development of tyres – aspects and goals**

Jiří Brejcha (MITAS a.s., Prague, Czech Republic)

16:15 P4 **Rubber materials in automotive industry – Skoda Auto a.s.**

Ivana Lusticka (Skoda Auto a.s., Mlada Boleslav, Czech Republic)

17:00 **Welcome Reception, Exhibition and Posters**

● WEDNESDAY, MAY 24

Session A – Raw materials – rubbers, additives, TPE

9:00 A1 **Nanofillers and Elastomers: Opportunities and Challenges before us**

Prasanna M.S Kumar (BS Abdur Rahman University, Chennai, India)

9:30 A2 **In situ silica filled natural rubber as a new material for rubber industry**

Suriyakamon Montha (National Metal and Materials Technology Center (MTEC),

Pathum Thani, Thailand)

Piyada Suwandittakul (National Metal and Materials Technology Center (MTEC), Pathum Thani, Thailand)

Weenusarin Intiya (National Metal and Materials Technology Center (MTEC), Pathum Thani, Thailand)

- 9:55 A3 **Emergence of NC7000™ Carbon nanotube into Tire and Rubber products // Release assessment from matrix containing-MWCNT along the lifecycle**
Alicia Rul (Nanocyl, Sambreville, Belgium)
Michael Claes (Nanocyl, Sambreville, Belgium)

10:20 *Coffee Break, Exhibiton and Posters*

- 10:50 A4 **Improved Automotive Components with Liquid Rubber**
Marcel Gruendken (Kuraray Europe GmbH, Hattersheim, Germany)

- 11:20 A5 **Selecting the Right Plasticiser: Naphthenic Rubber Process Oils for Tyre and Rubber Applications**
Kamyar Alavi (Nynas, Nynäshamn, Stockholm, Sweden)
Patrik Salomonsson (Nynas, Nynäshamn, Stockholm, Sweden)
Markus Hoffmann (Nynas, Nynäshamn, Stockholm, Sweden)

- 11:45 A6 **Tuning Coloured Special Elastomer Compounds by New Processing Additives**
Volker Börger (Schill + Seilacher "Struktol" GmbH, Hamburg, Germany)
Manfred Hensel (Schill + Seilacher "Struktol" GmbH, Hamburg, Germany)
Robert Kobel-Bryk (Schill + Seilacher "Struktol" GmbH, Hamburg, Germany)
Colin Clarke (Schill + Seilacher "Struktol" GmbH, Hamburg, Germany)

- 12:10 A7 **TBA**

12:35 *Lunch*

- 13:45 A8 **From master curves for the mechanical reinforcement of rubber based nanocomposites to lightweight materials for automotive**
Maurizio Galimberti (Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering G. Natta, via Mancinelli 7, 20131 Milano, Italy)
G. Infortuna (Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering G. Natta, via Mancinelli 7, 20131 Milano, Italy)
S. Guerra (Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering G. Natta, via Mancinelli 7, 20131 Milano, Italy)
A. Bernardi (Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering G. Natta, via Mancinelli 7, 20131 Milano, Italy)
V. Barbera (Politecnico di Milano, Department of Chemistry, Materials and Chemical Engineering G. Natta, via Mancinelli 7, 20131 Milano, Italy)
S. Agnelli (Department of Mechanical and Industrial Engineering of Brescia, University of Brescia, Via Branze 38, 25123 Brescia, Italy)
S. Pandini (Department of Mechanical and Industrial Engineering of Brescia, University of Brescia, Via Branze 38, 25123 Brescia, Italy)

- 14:15 A9 **Crosslinking peroxides protected against air's oxygen inhibition**
Alfredo Defrancisci (Arkema France, Pierre-Bénite, France)

14:40 A10 **An alternative antioxidant for natural rubber: Henna**
Sehriban Oncel (Kocaeli University, Kocaeli, Turkey)
Begum Kurtoglu (Kocaeli University, Kocaeli, Turkey)
Bagdagul Karaagac (Kocaeli University, Kocaeli, Turkey)

15:05 *Coffee Break, Exhibiton and Posters*

15:35 A11 **Preparation and properties of high-performance thermoplastic elastomers by electron-induced reactive processing**
Shib Shankar Banerjee (Leibniz-Institut für Polymerforschung Dresden e. V., Dresden, Germany)
Uwe Gohs (Leibniz-Institut für Polymerforschung Dresden e. V., Dresden, Germany)
Prof. Gert Heinrich (Leibniz-Institut für Polymerforschung Dresden e. V., Dresden, Germany)

16:05 A12 **New NORDEL EPDM Developments for Automotive Sealing Applications**
Varun Thakur (DOW Europe GmbH, Horgen, Switzerland)
Colin Li Pi Shan (The DOW Chemical Company, Freeport (TX), United States)
Stefan Ultsch (DOW Europe GmbH, Horgen, Switzerland)
Karin Katzer (DOW Europe GmbH, Horgen, Switzerland)

16:30 A13 **Polybutadiene Ricon and metallic salt Dymalink to enhance rubber compound properties**
Salort Fabien (Total Cray Valley, Carling (Metz), France)

Session B – Rubber testing

9:00 B1 **Existing and advanced measurements on Polymers and Rubber Compounds**
Thomas Rauschmann (TA Instruments, Wetzlar, Germany)

9:30 B2 **Improvement of a biaxial testing system for high static and dynamic loading of elastomers and its applications**
Sofya Dedova (Leibniz-Institut fuer Polymerforschung Dresden e. V., Dresden, Germany)
Konrad Schneider (Leibniz-Institut fuer Polymerforschung Dresden e. V., Dresden, Germany)
Gert Heinrich (Leibniz-Institut fuer Polymerforschung Dresden e. V., Dresden, Germany)

9:55 B3 **The dynamic ageing of vulcanizates – DMA method**
Jana Voldánová (Mitas a.s., Zlín, Czech Republic)
Jiří Maláč (Tomas Bata University, Zlín, Czech Republic)

10:20 *Coffee Break, Exhibiton and Posters*

10:50 B4 **Smart predicative methodology for testing of tire behaviour in lab scale**
Radek Stoček (PRL Polymer Research Lab. s.r.o., Zlín, Czech Republic)
Reinhold Kipscholl (Coesfeld, GmbH, Dortmund, Germany)

11:20 B5 **Application of optical strain measurement in the calculation of tearing energy of filled rubber**

Fei Xiang (Technical University of Dresden and Leibniz Institut for Polymer Research, Germany)
Konrad Schneider (Leibniz Institut for Polymer Research, Dresden, Germany)

11:45 B6 **Investigation of deformation fields near crack tips in notched planar elastomer sheets**

Annegret Schulze (Leibniz Institute of Polymer Research Dresden, Institute of Polymer Materials & University of Technology Chemnitz, Institute of Conveyor Technology and Polymers, Dresden & Chemnitz, Germany)

Gert Heinrich (Leibniz Institute of Polymer Research Dresden, Institute of Polymer Materials, Dresden, Germany)

Konrad Schneider (Leibniz Institute of Polymer Research Dresden, Institute of Polymer Materials, Dresden, Germany)

Michael Gehde (University of Technology Chemnitz, Institute of Conveyor Technology and Polymers, Chemnitz, Germany)

12:10 B7 **Temperature Dependent Shear Viscosity of Unvulcanized Rubber Compounds used under the Hood Applications**

Hamza Kocatiürk (Istanbul Technical University, Istanbul, Turkey)

Oktay Yilmaz (Yildiz Technical University, Istanbul, Turkey)

Nilgün Kızılcan (Istanbul Technical University, Istanbul, Turkey)

12:35 Lunch

13:45 B8 **Determination of Thermal Conductivity of an Industrial Rubber Compound: Challenges, Problems and Comparison of Different Test Methods**

Roman Christopher Kerschbaumer (Polymer Competence Center Leoben GmbH, Leoben, Austria)

Bernhard Lechner (Polymer Competence Center Leoben GmbH, Leoben, Austria)

Daniel Tscharnuter (Polymer Competence Center Leoben GmbH, Leoben, Austria)

Andrea Wanner (Polymer Competence Center Leoben GmbH, Leoben, Austria)

Walter Friesenbichler (Montanuniversitaet Leoben, Leoben, Austria)

14:15 B9 **Characterisation of degradation and determination of end-of-lifetime criterion for O-ring seals**

Anja Kömmling (Federal Institute for Materials Research and Testing, Berlin, Germany)

Matthias Jaunich (Federal Institute for Materials Research and Testing, 3.4, Germany)

Dietmar Wolff (Federal Institute for Materials Research and Testing, Berlin, Germany)

14:40 B10 **Gel in natural rubber – evaluation methods and influence on processability**

Drahomír Čadek (University of Chemistry and Technology, Prague, Czech Republic)

15:05 Coffee Break, Exhibiton and Posters

15:35 B11 **Characterization of dynamic changes of filler network in rubber vulcanizate**

from electrical conductivity during uniaxial or cyclic deformation

Ivan Chodák (Polymer Institute SAS, Bratislava, Slovakia)

16:05 B12 **Identification of temperature scanning stress relaxation (TSSR) behaviour of new grade EPDM elastomers**

Murat Şen (Hacettepe University Department of Chemistry, Polymer Chemistry Division, Ankara, Turkey)

Sevriye Canan Cengiz (Hacettepe University Department of Chemistry, Polymer Chemistry Division, Ankara, Turkey)

Tuğba Bayram (Tekno Rubber Company, Kocaeli, Turkey)

Elif Kaymazlar (Hacettepe University Department of Chemistry, Polymer Chemistry Division, Ankara, Turkey)

Veli Deniz (DRC Kauçuk, Adapazarı/Sakarya, Turkey)

Bagdagul Karaagac (Kocaeli University, Kocaeli, Turkey)

16:30 B13 **Possibilities with thermal hyphenated techniques to GC-MS as an analytical tool for rubber analysis**

Franky Puype (Institute for Testing and Certification, Zlin, Czech Republic)

Samsoněk Jiri (Institute for Testing and Certification, Zlin, Czech Republic)

Session C – Manufacturing processes and machinery

9:00 C1 **Optimizing the continuous final mixing of rubber compounds**

Simon Wachter (VMI Holland BV, Epe, the Netherlands)

Coen Heukhorst (VMI Holland BV, Epe, Netherlands)

9:30 C2 **Non-isothermal CFD Analysis of a Rubber Extrusion Die used in the Production of Automotive Charge Air Line Hoses**

Oktay Yılmaz (Yildiz Technical University, Istanbul, Turkey)

Hamza Kocatürk (Graduate School of Science Engineering and Technology, Department of Polymer Science and Technology, Istanbul Technical University and R&D Centre – Fluid Circulation Systems Production, Teklas Kauçuk, Kocaeli, Turkey)

Ali Han Yıldırım (Yildiz Technical University, Istanbul, Turkey)

Nilgün Kızılcan (Istanbul Technical University, Istanbul, Turkey)

9:55 C3 **Laser technology dedicated to mold cleaning**

Matthieu Wolff (REP International, Corbas, France)

10:20 *Coffee Break, Exhibiton and Posters*

Session C – Manufacturing processes, machinery and raw materials

10:50 C4 **Effect of oil content in cross-link density of unfilled E-SBR**

Beatriz Basterra-Beroiz (Goodyear Innovation Center Luxembourg, Colmar-Berg, Luxembourg)

Robert Rommel (Goodyear Innovation Center Luxembourg, Colmar-Berg, Luxembourg)

Francois Kayser (Goodyear Innovation Center Luxembourg, Colmar-Berg, Luxembourg)

Stephan Westermann (Goodyear Innovation Center Luxembourg, Colmar-Berg, Luxembourg)

Juan L. Valentin (Institute of Polymer Science and Technology (CSIC), Madrid, Spain)

Gert Heinrich (Leibniz-Institut fuer Polymerforschung Dresden e.V., Dresden, Germany)

11:20 C5 **Zinc Oxide Order of Addition Effect on NXT Z* 45 Compounds**
Daria Sitnikova (Lomonosov Moscow State University of Fine Chemical Technology, Leverkusen, Germany)

11:45 C6 **Industry 4.0 for rubber injection machine**
Matthieu Wolff (REP International, Corbas, France)

12:10 C7 **Adhesion of Rubber on Smooth and Rough Surfaces**
Matthias Kröger (University of Technology Freiberg, Freiberg, Germany)
Stefan Nitzsche (University of Technology Freiberg, Freiberg, Germany)

12:35 Lunch

Session C – Others

13:45 C8 **Development of Mechano-adaptive Elastomers by the Exploitation of Filler Structure**
Amit Das (Leibniz-Institut für Polymerforschung Dresden, Germany)
Gert Heinrich (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)
Tamil Selvan Natarajan (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

14:15 C9 **Strontium ferrite filled rubber composites cured with different curing systems**
Ján Kruželák (Slovak University of Technology in Bratislava, Slovakia)
Rastislav Dosoudil (Slovak University of Technology in Bratislava, Bratislava, Slovakia)
Ivan Hudec (Slovak University of Technology in Bratislava, Bratislava, Slovakia)

14:40 C10 **Towards a wider application of phenolic resin curing systems**
David Mann (SI Group, Bethune, France)
Timothy E Banach (SI Group, Niskayuna, NY, United States)
John Whitney (SI Group, Niskayuna, NY, United States)
Alexandra Krawicz (SI Group, Niskayuna, NY, United States)

15:05 Coffee Break, Exhibiton and Posters

Session C – Raw materials – rubbers, additives, TPE

15:35 C11 **Development of Self-healing natural rubber/bromobutyl rubber blends**
Sakrit Hait (Leibniz-Institut für Polymerforschung Dresden, Germany, Dresden, Germany)
Hai Hong Le (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

Sven Wießner (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

Klaus Werner Stöckelhuber (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

Frank Böhme (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

Gert Heinrich (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

Amit Das (Leibniz-Institut für Polymerforschung Dresden e.V., D-01069, Dresden, Germany, Dresden, Germany)

- 16:05 C12 **Reinforcement effect of ice crystals in hydrophilic rubber matrix**
Tamil Selvan Natarajan (Leibniz-Institut für Polymerforschung Dresden, Germany)
Klaus Werner Stöckelhuber (Leibniz-Institut für Polymerforschung Dresden e. V, Dresden, Germany)
Petr Formanek (Leibniz-Institut für Polymerforschung Dresden e. V, Dresden, Germany)
Sven Wießner (Leibniz-Institut für Polymerforschung Dresden e. V, Dresden, Germany)
Gert Heinrich (Leibniz-Institut für Polymerforschung Dresden e. V, Dresden, Germany)
Amit Das (Leibniz-Institut für Polymerforschung Dresden e. V, Dresden, Germany)
- 16:30 C13 **Solution SBR for green tires**
DongHyuk Na (Kumho Petrochemical, Daejeon, Korea)
MinSung Kwon (Kumho Petrochemical, Daejeon, Korea)
- 16:55 C14 **Synthetic rubbers of PJSC «Nizhnekamskneftekhim» for tire industry. Production and innovation**
Ildar G. Akhmetov (PJSC «Nizhnekamskneftekhim», Nizhnekamsk, Russian Federation)
Anas G. Sakhabutdinov (PJSC «Nizhnekamskneftekhim», Nizhnekamsk, Russian Federation)

● THURSDAY, MAY 25

9:00 P5 **TBA**
Robert Schuster (Deutsches Institut für Kautschuktechnologie, Hannover, Germany)

9:45 P6 **Structure of Natural Rubber**
Seiichi Kawahara (Nagaoka University of Technology, Niigata, Japan)

10:30 *Coffee Break, Exhibiton and Posters*

Recycling and environmental aspects

11:00 P7 **Designing life-time recycling loops for elastomer products**

Jacques W.M. Noordermeer (University of Twente, Enschede, the Netherlands)

Wilma Dierkes (University of Twente, Enschede, Netherlands)

Anke Blume (University of Twente, Enschede, Netherlands)

Kuno Dijkhuis (Elastomer Reserach Testing B.V., Deventer, Netherlands)

Hans van Hoek (University of Twente, Enschede, Netherlands)

Reuvekamp Louis (University of Twente, Enschede, Netherlands)

Saiwari Siti (Prince of Songkla University, Pattani, Thailand)

11:45 P8 **A new industry standard; green and clean carbon black**
Chris Twigg (Black Bear Carbon, Nederweert, the Netherlands)

12:30 **Closing session**