

Elastomery 2015 – Nov.3 – Nov.5 2015**Hôtel de ville de Tours****Program****Tuesday, Nov. 3rd, 2015**

- **8h00-9h00** REGISTRATION / COFFEE
- **9h00-9h30** Welcome speeches

Session I - Physics, chemistry and modification of elastomers**Chairmen Ulrich Giese, Jean Louis Halary**

- **9h30-10h00 Plenary Talk** - Bielinski Dariusz , Lodz University of Technology (Poland)
Application of Ion Bombardment to Rubber: Modification of chemical composition, morphology and properties
- **10h00-10h20** - Pawelec Iwona, West Pomeranian University of Technology (Poland)
Novel block Poly(Ether-Esters) based on bio Poly(Timethylene Furanoate) as rigid segment
- **10h20-10h40** - Candau Nicolas, Centre de Mise en Forme des Matériaux (France)
Effet of stretching on the network structure of carbon black filled EPDM Rubbers
- **10h40-11h00** - Hernandez Marianella, Delft University of Technology (The Netherlands)
Effect of degree of curing on the healing behavior of Natural Rubber

11h-11h30 COFFEE BREAK

- **11h30-1150** - Bandzierz Katarzyna, Lodz University of Technology (Poland)
Effect of crosslink density and curatives on the glass transition temperature of elastomers
- **11h50-12h10** - Norvez Sophie, ESPCI (France)
Physical versus chemical crosslinks in Epoxidized Natural Rubber
- **12h10-12h30** - Millerau Pierre, ESPCI (France)
Toughening elastomers with sacrificial bonds

12h30-14h00 LUNCH**Session II - Testing Equipment and Applications****Chairmen Noëlle Billon, John Dick**

- **14h00-14h30 Plenary Talk** - Dick John, Alpha Technologies (United States of America)
Effects of variation in strain measurements with the Extended Dynamic Range (EDR) of the RPA on the accuracy of shear thinning measurements for rubber compounds
- **14h30-14h50** - Pietrzak Dominik, Institute of Polymer and Dye Technology, Lodz University of Technology (Poland)
Capabilities of MCC-IMS for analysis of rubber
- **14h50-15h20** - Gebauer Timo, SIGMA Engineering GmbH, Aachen (Germany)
Influence of material tests on the pressure prediction in elastomer molds

15h20-16h30 COFFEE BREAK / POSTERS

Session III - Raw Materials Used In Rubber Technology

Chairmen N.Ranganathan, Denis Rodrigue

- **16h30-17h00 Plenary Talk** - Giese Ulrich, Deutsches Institut für Kautschuktechnologie e.V. (Germany)
Volatile components in rubber processing and from rubber materials? Analyses and origin
- **17h00-17h20** - Anyszka Rafal, Lodz University of Technology (Poland)
Application of Halloysite nano-fillers in rubber industry
- **17h20-17h40** - Sicinski Mariusz, Lodz University of Technology (Poland)
Modification of fillers in low temperature plasma

18h00-19h00 MEETING OF ELASTOMERY EDITORIAL BOARD

Wednesday, Nov. 4th, 2015

- **8h00-9h00** REGISTRATION / COFFEE
- **9h00-9h10** Announcements

Session IV- Elastomer composites and their properties

Chairmen Jinbo Bai, Jack Noordermeer

- **9h10-9h40 Plenary Talk** - Noordermeer Jacques, University of Twente (The Netherlands)
Relationship between the chemical structure of silane coupling agents and dynamic performance of SBR/Silica tire tread compounds
- **9h40-10h00** - Jain Anuj, Deutsches Institut für Kautschuktechnologie e.– Hannover (Germany)
Improvement of the properties of rubber compounds with silica, CNT and Silica/CNT hybrid as fillers
- **10h00-10h20** - Imiela Mateusz, Lodz University of Technology (Poland)
Ceramizable elastomer composites based on HNBR/EVM blends based composites

10h20-11h10 COFFEE BREAK /POSTERS

- **11h10-11h30** –Jinbo Bai, Ecole Centrale Paris (France)
Effects of conductive network constructions on the piezo-resistive performance of elastomer
- **11h30-12h10** - Rathi Akansha, University of Twente (The Netherlands)
Effect of aromatic oil on phase dynamics of s-SBR/BR blends for passenger car tire treads
- **12h10-12h30** - Irska Izabela, West Pomeranian University of Technology (Poland)
Influence of POSS nanoparticles on the morphology, phase separation and physical properties of PTT-block-PTMO based nanocomposites prepared by in situ polymerization

12h30-14h00 LUNCH

Session V - Modelling Aspects

Chairmen Stéphane Meo, Andre Hamerski

- **14h00-14h30 Plenary Talk** - Meo Stéphane, University of Tours - COMUE Leonard de Vinci (France)
Constitutive modeling of the dynamical properties of a filled rubber and simulation of laminated devices with a specific FEM tool.
- **14h30-14h50** - Gros Alice, Institut de Recherche en Génie Civil et Mécanique (France)
Modeling strain-induced crystallization of Natural Rubber under uniaxial loading
- **14h50-15h10** - Debek Cezary, Institute for Engineering of Polymer Materials and Dyes (Poland)
The safety platform with elastomeric damping layers for underground mining
- **15h10-15h30** - Reddy Srinivas, MSC Software (France)
Improving modeling accuracy for design and development of elastomeric products

15h30-16h50 COFFEE BREAK / POSTERS

16h20-16h50 Meeting of the International Scientific Committee

Session VI - Fatigue of Rubber**Chairmen Florian Lacroix, Dariusz Bielinski**

- **16h50-17h20 Plenary Talk** - Ranganathan Mohan, University of Tours - COMUE Leonard de Vinci (France)
The universality of the energy based approach to fatigue
- **17h20-17h40** - Lacroix Florian, University of Tours (France) - COMUE Leonard de Vinci
Influence of a resting time on the fatigue behavior of the Polychloroprene Rubber
- **17h40-18h00** - Boucaud-Gauchet Séverine, INSA Centre Val de Loire - COMUE Leonard de Vinci (France)
Carbon black fillers influence on thermal ageing and fatigue damages in HNBR rubber composites
- **18h-18h20** - De massieux Quentin, ESPCI (France)
Dissipation mechanisms during crack propagation of a filled Natural Rubber

19h00 - Music by Trio Ranganathan

20h00 - Conference Dinner
Best Poster award

Thursday, Nov. 5th, 2015

- **8h30-9h00** COFFEE
- **9h00-9h10** Announcements

Session VII- Industrial Session – Product Life Cycle Management

Chairmen Jean-Pierre Queslel, Jean-Francis Spindler

- **9h10-9h40 Plenary Talk** - Janin Claude (France)
Rubber Birth and Dead (or Rebirth)
- **9h40-10h10** - Chaussée Thomas, Solvay (France)
Mechanical reinforcement of elastomer : effect of silica particles
- **10h10-10h30** - Viot Jean François, Solvay (France)
Life cycle assessment: A tool for helping ingredient manufacturers identifying priority levers for environmental impact reduction over the life cycle of their products

10h30 - 11h00 COFFEE BREAK

- **11h00-11h30 Plenary Talk** - Denstaedt Glenn, Lehigh Technologies (United States)
Improved DeMattia crack growth performance in sidewall compounds Incorporating micronized rubber powder
- **11h30-12h00 Plenary Talk** - Lacoste Jacques, Centre National d'Evaluation de Photoprotection-France (France)
Environmental ageing of elastomers - the duality chains scissions and crosslinking reactions
- **12h00 -12h20** - Valantin Chloé, Université de Tours - COMUE Leonard de Vinci (France)
Nanoindentation Study of Chord-Rubber composites

12h20– 13h50 LUNCH

Session VIII - Recycling and valorization of Rubber waste

Chairmen: Olivier Gille, Karol Nicinski

- **13h50-14h20 Plenary Talk** - Rodrigue Denis, Université Laval (Canada)
Recent developments in thermo-mechanical regeneration of waste rubber
- **14h20-14h50 Plenary Talk** – Chaniot François, Sacred (France) and Jonathan Teixeira, REP(France)
ECOTHER: An industrial way to recycle rubber and reduce energy and raw material costs
- **14h50-15h10** - Gozdek Tomasz, Lodz University of Technology (Poland)
Application of plasma in Rubber Technology: Properties of vulcanizates filled by plasma-modified ground tire rubber
- **15h10-15h30**- Rajendran Vignesh Kumar, University of Twente (The Netherlands)
Screening of devulcanization aids for truck tire rubber

Session IX- Conference Closure

15h30 -15h50 Vote of Thanks

POSTERS

- Irska Izabela: Unconventional systems based on EPDM rubber for application in materials exposed to the harmful weathering conditions
West Pomeranian University of Technology (Poland)
- Marchel Andrzej: The assessment of corn plants (*Zea mays*) growing on soil with application of rubber rag
Stomil Sanok S.A. (Poland)
- Pavageau Elodie, Lacroix Florian: Interfaces identification and dynamic mechanical analyses. Comparison between four textile-rubber composites
LMR-CERMEL, Université de Tours, COMUE Leonard de Vinci (France)
- Lacroix Florian: Nanoindentation contribution for the study of mechanical properties of rubber
LMR-CERMEL, Université de Tours, COMUE Leonard de Vinci (France)
- Defarges Marie-Pierre: Comparative study of glass transition of elastomers by DMA and by DSC
LMR-CERMEL, Université de Tours, COMUE Leonard de Vinci (France)
- Oravec Jan: Improved surface adhesion of Cu alloys to NR blends
VIPO A.S. (Slovakia)
- Bajda Miroslaw: Estimation of energy-saving potential for belt conveyor transportation based on tested dynamic parameters of conveyor belt rubber cover
Wroclaw University of Technology (Poland)
- Bielinski Dariusz: Application of oil originated from rubber pyrolysis as a monomer/modifier for sulphur-organic copolymers synthesis
Lodz University of Technology (Poland)
- Aneta Stepkowska: Polycyclic aromatic hydrocarbons (PAHs) in carbon black
Institute for Engineering of Polymer Materials and Dyes in Torun (Poland)
- Sicinski Mariusz: Elastomer composites containing plasma-modified carbon nanotubes
Institute of Polymer & Dye Technology, Lodz University of Technology (Poland)
- Pawlowska Urszula: « ELASTOMERY ». A scientific and technical journal covering the field of elastomers
Institute for Engineering of Polymer Materials and Dyes in Torun (Poland)
- Lacassagne Elodie: Elastopole. The French competitiveness cluster on elastomers
Elastopole (France)
- Debek Cezary, Skalski Pawel, Potocki Krzysztof
Magnetorheological elastomers from Natural Rubber
Institute for Engineering of Polymer Materials and Dyes in Torun, Institute of Aviation - Centre of New Technologies (Poland)
- Seghar Said : Relation between Styrene Butadiene Rubber recycling process, microstructure and mechanical behavior of the recycled rubbers
Université de Tours - COMUE Leonard de Vinci (France)