

**8th International Conference Polymeric Materials in Automotive
PMA 2020**

&

24rd Slovak Rubber Conference SRC 2020

PROGRAM

September 16 - 18, 2020

**Conference Center of Lindner Hotel Gallery Central
Bratislava, Slovak Republic**

Organised by: **Slovak University of Technology in Bratislava
Faculty of Chemical and Food Technology
Institute of Natural and Synthetic Polymers**

**Polymer Institute
Slovak Academy of Sciences**

Wednesday (September 16, 2020)

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10.00 – 10.10	Opening ceremony	CHODÁK Ivan	
Chairperson	CHODÁK Ivan		
10.10 – 10.30	Opening Lecture	GATIAL Anton Faculty of Chemical and Food Technology STU Bratislava,	Research activities of the Faculty of Chemical and Food Technology STU in Bratislava
10.30 – 10.50	Opening Lecture	MOSNAČEK Jaroslav Polymer Institute SAS Bratislava,	Research activities of the Polymer Institute of Slovak Academy of Sciences Bratislava
10.50 – 11.30	Opening Invited Lecture	KLEIN Štefan Academy of Fine Arts and Design in Bratislava	The challenges of the Transport in the Future
11.30 – 12.10	Opening Invited Lecture	GIESE Ulrich Deutsches Institut für Kautschuktechnologie DIK, Hannover	Electro Mobility – New chances or risks for the rubber industry in the future
12.10 – 12.40	Opening Invited Lecture	MAGDOLEN Ľuboš Faculty of Mechanical Engineering STU Bratislava	Autonomous Vehicle SinRod made in Slovakia
12.40 - 14.00	Lunch		
Chairperson	GIESE Ulrich		
14.00 – 14.45	Invited Main Lecture	ALEXY Pavel STU Bratislava	Plastics in the circular economy – technical and ecological aspects
14.45 – 15.30	Invited Lecture	SCACCHI Michele Alpha Technology	Different techniques to detect long chain branching in polymers by non-linear viscoelastic characterization
15.30 – 16.00	Coffee Break		
Chairperson	SCACCHI Michele		
16.00 - 16.30	Invited Lecture	STOČEK Radek Coesfeld GmbH & Co. Dortmund, Germany	Heat built up of rubber under cyclic loading: in-situ analysis
16.30 - 17.00	Invited Lecture	STAŠKOVAN Ondrej Anton Paar Slovakia s.r.o., Bratislava	The new Anton Paar MCR 702 MultiDrive - the most versatile platform for rheology and dynamic mechanical analysis (DMA)
17.00 – 17.20	Contributed lecture	KARVANIS Konstantinos	Thermal analysis of post-cured aramid fiber reinforced polymer composites
17.20 – 18.30	Poster Session		
19.00 – 22.00	Cocktail		

LIST of POSTERS

1. **Dočkal, A.:** Morphology of micro injected IPP samples with fast temperature variation and control of the cavity temperature
2. **Dosoudil R.:** Carbon-based composites for electromagnetic shielding purposes
3. **Gemeiner P.:** The effect of various dopants on the electrical and structural properties of printed conductive polymer PEDOT:PPS thin electrodes
4. **Hložeková, K.:** Elastomeric composite materials
5. **Hricová, M.:** Fibres from PLA
6. **Lisý, K.:** Rubber composites filled with carbon nanotubes and magnetic ceramics for electromagnetic noise reduction in cars
7. **Macúrik P.:** Influence of trans – polyoctylene rubber (TOR) on styrene – butadiene rubber properties
8. **Majerský J:** Materials for injection molding screws
9. **Meluš, P.:** Extrusion Head for Bead Wire Rubberising Equipped with Pressure Sensor
10. **Novák, I. :** Investigation of properties of hot melt adhesive based on metallocene polyolefin grafted with acrylic acid
11. **Novák, I. :** Antibacterial treatment of polyethylene with halogen compounds and low-temperature plasma
12. **Omaníková, L. :** Filled biodegradable polymer blends based on PLA and PHB suitable for 3D printing
13. **Oravec, J.:** Pressure Oscillations in Rubberising Head at Treating Bead Wire Surface with Silane Coupling Agents
14. **Ryba, J.:** Properties of fibres prepared from biodegradable polymers and their blends
15. **Ujhelyiová A. :** Properties of blends and blended fibres prepared from various types of polylactid acid
16. **Vašková I.:** BIOCOMPACT – CE project overview
17. **Peidayesh H.:** Electrical conductivity behaviour of SBR filled with carbon black, graphite and their mixtures under cyclic mechanical stress
18. **Feranc J.:** Composites material based on PLA/PHB suitable for 3D printing

Thursday (September 17, 2020) PMA 2020 & SRC 2020

Chairperson	ALEXY Pavol		
8.30 – 9.00	Key Lecture	OMASTOVÁ Mária	New hybrid materials and their applications
9.00 – 9.20	Contributed Lecture	RUSNÁKOVÁ Soňa	FST properties of polymer sandwich structures
9.20 – 9.40	Contributed Lecture	JARSEN Lisa	Degradation mechanism and behaviour of thermoplastic polymer at powertrain
9.40 – 10.00	Contributed Lecture	MICUŠÍK Matej	Epoxy/carbon fiber composites with designed interface interaction
10.00 – 10.20	Contributed Lecture	KHUNOVÁ Viera	High performance multifunctional magnetic PCL/Gel nanofibres reinforced by halloysite nanotubes
10.20 – 10.40	Contributed Lecture	REPISKÁ Martina	Composites based on biodegradable polymer matrix
10.40 – 11.10		Coffee Break	
Chairperson	STOČEK Radek		
11.10 – 11.40	Key Lecture	BREJCHA Jiří	ELT /end-of-life tire/ - waste or source of material?
11.40 - 12.00	Contributed Lecture	KRUPS Tatjana	Aging behavior of fluoroelastomer in synthetic oils
12.00 – 12.20	Contributed Lecture	MACHU Aleš	Quick Read on Durability with the Intrinsic Strength Analyser
12.20 – 12.40	Contributed Lecture	ŠTĚNIČKA Martin	Intrinsic Strength Analyser: Tool for getting data for numerical simulation of durability
12.40 - 13.00	Contributed Lecture	KVASNIČÁKOVÁ Andrea	Cross-linking and properties of rubber magnets cured with combined sulfur and peroxide vulcanization systems
13.00 – 14.00		Lunch	
Chairperson	OMASTOVÁ Mária		
14.00 – 14.30	Key Lecture	BONDAREV Dmitrij	Polymer surfaces: analysis and modification
14.30 – 14.50	Contributed Lecture	KOLLÁR Jozef	Latex polymers derived from emulsion polymerization – synthesis, properties and
14.50 – 15.10	Contributed Lecture	PLAVEC Roderik	The effect of multiple processing od degradation of biodegradable polymer blends based on PLA and PHB
15.10 – 15.30	Contributed Lecture	HLAVÁČIKOVÁ Slávka	Recycling of biodegradable biobased blends PLA/PHB
15.30 – 16.00		Coffee Break	
Chairperson	KRUMP Henrich		
16.00 – 16.20	Contributed Lecture	PIPPING Falko	Renewable adhesives made from Tulipalin A
16.20 – 16.40	Contributed Lecture	VAŠKOVÁ Ida	Additive manufacturing in medical application
16.40 – 17.00	Contributed Lecture	DANIŠOVÁ Lucia	Biodegradable and biobased blends PLA/PHB/TPS for blown films
17.00 – 17.20	Contributed Lecture	MEDLENOVÁ Elena	Biodegradable and biobased blends PLA/PHB/TPS for injection molding
17.20 – 18.30	Poster Session	18.30 – 22.00	Conference Gala Evening

Friday (September 18, 2020)

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Chairperson	STAŠKOVAN Ondrej		
8.30 – 9.00	Invited Lecture	MAJERSKÝ Juraj Wittmann-Battenfeld SK, Trenčín	Industry 4.0 in injection moulding
9.00 – 9.30	Invited Lecture	KRÁL Jan Compuplast Zlín	Extrusion line for 3D filaments
9.30 – 10.00	Invited Lecture	KRUMP Henrich BizLink Technology (Slovakia) s. r. o., Trenčianska Teplá	Influence of physical and chemical blowing agents on properties of thermoplastic and thermoplastic elastomer blends
10.00 – 10.30	Invited Lecture	KRUŽELÁK Ján STU Bratislava	Rubber magnets with EMI absorbtion shielding ability
10.30 – 11.00	Coffee Break		
Chairperson	HUDEC Ivan		
11.00 – 11.45	Invited Main Lecture	GIESE Ulrich Deutsches Institut für KautschuktechnologieDIK, Hannover, Germany	Elastomer composites using polysaccharide based fillers from renewable resources
11.45 – 12.30	Invited Main Lecture	PUKÁNSKY Béla Budapest University of Technology and Economics	Physical ageing of Poly(Lactic Acid): free volume and internal stresses
12.15 – 13.00	Invited Lecture	MOCZO Janos Budapest University of Technology and Economics	Wood composites
13.00	Conference Closing Ceremony	HUDEC Ivan	
13.00 – 14.00	Lunch		