



The 8th International Conference on Modification, Degradation and Stabilization of Polymers

CONFERENCE PROGRAM

August 31st – September 4th
Portorož, Slovenia
2014



University of Ljubljana
Faculty of *Mechanical Engineering*



Monday, Morning	31st of August, Sunday		
	15.00-18.00	Registration	
	19.00-21.00	Welcome reception	
	1st of September, Monday		
	8.00 - 9.00	Registartion	
	9.00 - 9.20	Opening ceremony	
		Chair: Sahar Al-Malaika	
	9.20 - 10.00	PL1: Crispulo Gallegos Protein-based bioplastics: an overview	
	10.00 - 10.10	Technical break	
		Chair: Andrzej Dworak	Chair: Sahar Al-Malaika
	10.10 - 10.20	3. Ewa Kicko-Walczak Flame retardants nano composites - synergy effect of combining conventional antypirenes with nanofillers on the level of flammability of thermoset resins	56. Hajme Ohtani On-line UV irradiation pyrolysis-GC/MS system for rapid evaluation of photo, thermal and oxidative degradation of polymeric materials
	10.20 - 10.30	5. Hanna Maria Effect of nanoclay in natural rubber -nitrile rubber blends and its effect on morphological and physicomechanical properties	28. Victor Rollon-Garrido Characterization of thermally, thermo- and photo-oxidatively degraded LDPE
	10.30 - 10.40		
	10.40 - 10.50		
	10.50 - 11.10	Coffee break	
	11.10 - 11.20	6. Beata Kaczmarek The influence of UV-irradiation on mechanical properties of chitosan cross-linked by tannic acid	29. Cristian-Dragos Varganici On the thermal stability of Poly(vinil alcohol) and cellulose based cryogels
	11.20 - 11.30		
	11.30 - 11.40		
	11.40 - 11.50	14. Jingbo Wang Melamine/phenol derivatives: synthesis and potential application as antioxidants in polypropylene	30. Dan Rosu Accelerated photoaging of dyed textiles
	11.50 - 12.00	15. Haibo Fan Nitration of cyclic ladder polyphenylsilsesquioxane	31. Emmanuel Richaud Understanding of carbonyls products formation during polydicyclopentadiene oxidation based on kinetic approach
	12.00 - 12.10		
	12.10 - 12.20	77. Ziqian Li Study of the synergistic effect of ODPSS and DOPO on flame retarded epoxy resins	33. Erik Duemichen Investigation of the influence of metal oxide particles on the thermal degradation mechanism of polyamide 66 and polybutylene terephthalate
	12.20 - 12.30		
	12.30 - 13.50	Lunch	

1st of September, Monday		
	Chair: Mathew Celina	
13.50 - 14.20	KL1: Alberto D'Amore Instability of polymer glasses	
14.20 - 14.30	Technical break	
	Chair: Baltus Bonse	Chair: Pieter Gijsman
14.30 - 14.40	62. Stephane Bruzaud Polyhydroxyalkanoates-based blends: an efficient way to modulate functional properties of materials	34. Julie Courtat Chemical modification of spherical fillers by phosphorous to improve the flame retardancy of polypropylene
14.40 - 14.50		
14.50 - 15.00	63. Mario Stein Degradation of organic radioactive waste and impact of released gas on repository safety	35. Jihane Sahyoun Synthesis of fire retarded PA66-PA6 copolymers by association of sol-gel chemistry and reactive extrusion
15.00 - 15.10		
15.10 - 15.20	64. Boris Eyheraguibel Impact of environmental conditions on Oxobiodegradable polymers decomposition	36. Manfred Bohn Kinetic modelling of stabilizer consumption and molar mass degradation in NC-based materials
15.20 - 15.30		
15.30 - 16.10	Coffee break + Poster session	
	Chair: Maria Mucha	Chair: Gabriela Botelho
16.10 - 16.20	65. Serena Coiai Functionalized poly(butylene succinate) by nitroxide radical coupling	37. Ulrike Braun Sulphur containing additives for polystyrene: influencing the decomposition behaviour in the condensed phase
16.20 - 16.30		
16.30 - 16.40	66. Irena Vukovic-Kwiatkowska Packaging materials of new generation based on PLA modified with polyacrylates	38. Anil Naik Melamine integrated metal phosphates in the flame retardancy of polyamide-66
16.40 - 16.50		
16.50 - 17.00	67. Morgan Deroine Accelerated ageing and lifetime prediction of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) immersed in distilled water	39. Koen Adema Depth-resolved characterization of chemical composition and light absorption in a weathered polyester-urethane clearcoat
17.00 - 17.10		
17.10 - 17.20	68. Kahina Iggui Biodegradation of PHBV nanobiocomposites films: effect of the clays	40. Agnieszka Bereska Synthesis and application of organophosphorus flame retardants
17.20 - 17.30		
17.30 - 17.40	69. Henrik Petersen Development of environmentally friendly plasticized PVC by means of nanotechnology	41. Renaud Dupretz Fire retardancy of a new polypropylene-grafted starch
17.40 - 17.50		
17.50 - 19.00	Coffee break + Poster session	

Monday, Afternoon

Tuesday morning	2nd of September, Tuesday		
		Chair: Andreja Kutnar	
	9.00 - 9.30	KL2: Philip Evans Wood photostabilization and protection: divergent pathways and future prospects	
	9.30 - 9.40	Technical break	
		Chair: Philip Evans	Chair: Jan Pilar
	9.40 - 9.50	74. Holger Militz	32. Enikő Földes
	9.50 - 10.00	Reactive resins for wood modification	The effect of the characteristics of HDPE powder on the processing stability of the polymer and the properties of the product
	10.00 - 10.10	75. Lone Ross Gobakken	42. Mathew Celina
	10.10 - 10.20	Deterioration of wood by mould and blue stain fungi	Oxygen diffusion through polymer at elevated temperature
	10.20 - 10.30	76. Andreja Kutnar	43. Tetiana Salivon
	10.30 - 10.40	End of life scenarios and environmental impacts of wood products	Thermo-oxidative degradation of XPE and PVC used in electrical insulation
	10.40 - 10.50	78. Marko Petrič	44. Hesam Makki
	10.50 - 11.00	Wood coatings made of liquefied wood and some other lignocellulosic materials	A multi-scale simulation approach to study the weathering of polyester-urethane coatings
	11.00 - 11.40	Coffee break + Poster session	
		Chair: Andreja Kutnar	Chair: Rongjie Yang
	11.40 - 11.50	70. Beata Szolnoki	45. Emilie Courvoisier
	11.50 - 12.00	Synthesis and characterization of epoxy resins derived from d-glucose	Kinetic analysis of the thermal degradation of peek
	12.00 - 12.10	71. Marta-Malgorzata Targosz	46. Xavier Colin
	12.10 - 12.20	Aerosols emitted in post-crash fires from structural composite materials	A general kinetic model for the photothermal oxidation of polypropylene
	12.20 - 12.30	72. Alojz Anžlovar	48. Qing Lin
	12.30 - 12.40	Fast preparation of nanocrystalline cellulose by microwave-assisted hydrolysis	Investigation of thermal stability and flammability of PMMA composites by combination of APP with ZrO ₂ , sepiolite or MMT
	12.40 - 12.50	73. Stamatina Vouyiouka	49. Aleksandra Sut
	12.50 - 13.00	Mechanical recycling of poly(butylene succinate) through the remelting-restabilization technique	Synergy in flame retardant polymers: solid-state NMR identifying the chemistry behind it
	13.00 - 13.10		47. Katalin Bocz
	13.10 - 13.20		Oriented polymer fibres for improving the flame retardant efficiency of intumescent additive systems
	13.20 - 14.40	Lunch	

2nd of September, Tuesday		
	Chair: Jean-Luc Gardette	
14.40 - 15.10	KL3: Pieter Gijsman The (unexpected) role of water in the thermo-and photo-oxidative degradation of polyamide	
15.10 - 15.20	Technical break	
	Chair: Mathew Celina	Chair: Alberto D'Amore
15.20 - 15.30	7. Ewa Wierzicka The role of block thermoplastic rubber of dtyrene-isoprene-styrene type functionalized by a boron compound as compatibilizer to polystyrene/polypropylene blends	50. Nadka Dintcheva Thermally stable polymer-layered silicate nanocomposites through intercalation of novel organo-modifier
15.30 - 15.40		
15.40 - 15.50	8. Jan Pilar Heterogeneity of accelerated photooxidation in commodity polymers stabilized by HAS: ESRI, IR and microhardness study	51. Amandine Viretto PCFC-FTIR coupling: A new tool to study the combustion
15.50 - 16.00		
16.00 - 16.10	9. Laida Cano Nanostructured and toughened thermosetting systems modified with PEO-b-PPO-b-PEO triblock copolymer	52. Lata Soccalingame Influence of artificial UV weathering on the reprocessing of wood flour reinforced polypropylene
16.10 - 16.20		
16.20 - 16.30	10. Irati Barandiaran Generation of nanocomposites based on block copolymer and Fe ₂ O ₃ nanoparticles modified by grafting to method with PMMA-b-PLC copolymer	53. Ghania Ounoughene Fate of Halloysite nanotubes (HNTs) when incinerating PA6/HNTs composites
16.30 - 16.40		
16.40 - 16.50	11. Demet Kaya Effect of PH on volume phase transition for (acrylamide-co-acrylic acid) composite hydrogel by using fluorescence technique	27. Pavel Oblak Processability and mechanical properties of extensively recycled HDPE
16.50 - 17.00		
17.00 - 17.40	Coffee break + Poster session	
17.40 - 19.00	General assembly for MoDeSt society members	
19.00 - 20.00		
20.00 - 22.00	Gala dinner	

Tuesday afternoon

Wednesday, Afternoon	3rd of September, Wednesday	
	Chair: Igor Emri	
	9.00 - 9.40	PL2: Matija Strlič Lifetime prediction of materials of historic value
	9.40 - 10.10	KL4: Andrzej Dworak Thermoresponsive polymer surfaces for cell sheet culture and harvesting
	10.10 - 10.40	Coffee break
		Chair: Francesco La-Mantia
	10.40 - 10.50	12. Magdalena Perchacz Organic/inorganic hybrid materials based on epoxy matrix
	10.50 - 11.00	79. James Lewicki: Smart silicone composites. The synthesis, characterization and application of well-defined hierarchical PDM S/inorganic composites with novel physical properties
	11.00 - 11.10	13. Octavie Okamba Diogo Correlation between macromolecular and mechanical properties changes during polyamide-11 oxydation
	11.10 - 11.20	80. Regina Jeziorska Polyolefines with antimicrobial activity
	11.20 - 11.30	16. Jiaohong Zhao Investigation of thermo-oxidative aging behavior of NBR in oils
	11.30 - 11.40	81. Annegret Jentsch Influence of typical stabilizers on the aging behavior of EVA foils for PV applications during artificial UV-weathering
	11.40 - 11.50	17. Rui Yang Investigation of natural aging behavior of PP/CaCO ₃ composites
	11.50 - 12.00	82. Agnes Rivaton Is there any possible conjugated polymer for efficient solar cells?
	12.00 - 12.10	18. Manuel Oliveira Synthesis of functional block copolymers by controled radical polymerization
	12.10 - 12.20	83. Isabel Fraga: Unravelling the photodegradation mechanisms of a low bandgap polymer by combinig experimental and modeling approaches
	12.20 - 13.40	Lunch
		Chair: Jean-Luc Gardette
	13.40 - 13.50	84. Boris Gorelik Photo-stabilization of higly filled thermoset composites
	13.50 - 14.00	85. Anthony Chapel Luminiscent composite phosphors/polymer: impact of red phosphor (Y ₃ BO ₆ :Eu ³⁺) on EVA properties and photoageing
	14.00 - 14.10	
	14.10 - 14.20	
	14.20 - 14.40	
	15.00 - 19.00	Excursion

4th of September, Thursday		
	Chair: Manfred Wagner	
9.00 - 9.30	KL5: Sandrine Therias Latest Advances in the Photodegradation of Nanocomposites	
9.30 - 9.40	Technical break	
	Chair: Alojz Anžlovar	Chair: James Lewicki
9.40 - 9.50	19. Hesham Moustafa: Study the effect of maleic anhydride as compatibilizing agent on filler-rubber interaction, rheological, mechanical and swelling properties of NR/clay platelet NC	54. Alexis Colin Thermo-oxidation of an acrylic-silicone coating: degradation mechanism related to material properties evolution
9.50 - 10.00		
10.00 - 10.10	20. Ievgeniia Topolniak Influence of zeolite particles loading on the morphology and photostability of ethylene vinyl alcohol copolymer (evoh) nanocomposite	55. Laurent Chazeau Rupture properties of gamma irradiated EPDMs with different chemical compositions
10.10 - 10.20		
10.20 - 10.30	21. Bartłomiej Bereska Novel self-lubricating epoxy composites comprising hyperbranched cross-linking agents	26. Mogan Patel Accelerated thermal ageing and mechanical stress-strain responses of foamed polysiloxanes
10.30 - 10.40		
10.40 - 11.10	Coffee break	
	Chair: Regina Jeziorska	Chair: Xavier Colin
11.10 - 11.20	22. Mirela Zaltariov Nanostructures self-assembled through non-covalent bonding of metal complexes with ligands containing siloxane or silane fragments	57. Camille Rouillon Pigmented polypropylene photo-ageing: an AFM study
11.20 - 11.30		
11.30 - 11.40	23. Béla Pukánszky Interactions, structure and properties in ionomer/lignosulfonate blends	58. Baltus Bonse Organic and inorganic pigments in polypropylene: mechanical and flame retardant properties
11.40 - 11.50		
11.50 - 12.00	24. Sergii Ponyrko Epoxy-silica nanocomposite by nanoaqueous sol-gel process	60. Bettina Dittrich Graphene - promising nanofiller and adjuvant for flame retarded polymer composites
12.00 - 12.10		
12.10 - 12.20	25. Roberto Benavides Electron beam Irradiation of PVC formulations added with transfer agents	61. Florian Cavodeau Influence of the mechanical properties of fillers on the breakdown of barrier layer in EVA/ATH composites
12.20 - 12.30		
12.30 - 13.00		
13.00 - 14.30	Lunch + Closing ceremony	

Thursday afternoon

Legend:

	- social events
	- lunches
	- coffee breaks
	- technical breaks
	- Plenary lecture
	- Keynote lecture
	- Polymer modification, blends, composites and nanostructured polymers
	- Polymer degradation and stabilization (including fire retardancy and art conservation)
	- Polymers for innovative technical and medical applications (including polymer coatings and optoelectronic materials)
	- Degradation and protection of wood products
	- Polymers and environment (recycling, reuse, biodegradation, bio-based polymers)