



International Conference
on
Polymer Processing in Engineering (PPE)
6th Editions



18-19 November 2021

Virtual Conference



Conference Chair

Loredana SANTO

University of Rome Tor Vergata, Italy

Technical Program Chair

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Dunarea de Jos University of Galati, Romania

Scientific Committee Chair

Felicia STAN

Dunarea de Jos University of Galati, Romania

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Foreword

Polymer Processing in Engineering (PPE) Conference, held every two years, aims to gather academic researchers and industrial partners involved in the field of polymers.

The PPE 2021 conference covers all of the important areas in the field, from state-of-the-art research and development to characterization, fabrication, technology development, numerical modeling and many new and emerging applications of polymeric materials.

The Polymer Processing in Engineering Proceedings is scheduled to be published in the Plastic Materials Journal.

Main Topics of the Conference

Members of industry and scientific community are invited to contribute with presentations on any of the conference topics. Specific topics include, but are not limited to:

- Additive Manufacturing of polymers and polymer-based composites
- Polymer processing, rheology & rheometry
- Biopolymers & biotechnologies
- Nanopolymers & nanotechnologies
- Polymers, functional surfaces and bio-material interfaces
- Properties of polymers, including thermal, surface and adhesion
- Surface modification of polymers
- Green polymers, reprocessing & recycling
- Mechanical behavior of polymers and polymer composites
- Fracture mechanics of polymers & polymer composites
- Reliability & testing methods
- Product, mould design, & manufacturing processes
- Applications of polymers in industry
- Computational polymers & polymer composites.

PPE 2021 VIRTUAL CONFERENCE

Conference Agenda

Thursday, November 18, 2021

Time	Event	Organizer
10:30 AM to 11:00 AM	Welcome Note from the Organizing Committee Welcome Note from the Chair of the PPE 2021 Conference	Dr. Fetecau Catalin
11:00 AM to 12:00 PM	PPE 2021 Keynote Lecture	
12:00 PM to 13:00 PM	PPE 2021 Technical Presentations	
13:00 PM to 14:00 PM	PPE 2021 Technical Presentations	
14:00 PM to 15:00 PM	Virtual Lunch Break	
15:00 PM to 16:00 PM	PPE 2021 Technical Presentations	
16:00 PM to 17:00 PM	PPE 2021 Technical Presentations	
17:00 PM to 18:00 PM	PPE 2021 Technical Presentations	

Friday, November 19, 2021

Time	Event	Organizer
10:00 AM to 11:00 AM	PPE 2021 Invited Papers	Dr. Felicia Stan
11:00 AM to 12:00 PM	PPE 2021 Technical Presentations	
12:00 PM to 13:20 PM	PPE 2021 Technical Presentations	
13:30 PM to 14:00 PM	PPE 2021 Awards Ceremony PhD Student Competition Presentation Young Professional Award	Dr. Fetecau Catalin

Presentation Details

Thursday, November 18, 2021

Thursday, November 18 11:00 AM – 12:00 PM	PPE 2021 Keynote Lecture Session Chair: Loredana Santo Catalin Fetecau
Crucial Parts in Composite - Nanocomposite: The Interfaces/Interphases <i>Marc J.M. Abadie¹, Catalin Fetecau³, Iulian Manole³</i> ¹ <i>Institute Charles Gerhardt Montpellier Aggregates, Interfaces & Materials for Energy, University of Montpellier, France</i> ² <i>SupraChem Lab, Institute of Macromolecular Chemistry "Petru Poni", Romania</i> ³ <i>Dunarea de Jos University of Galati, Romania</i>	
Thursday, November 18 12:00 PM – 13:00 PM	Polymers and Composites: Preparation and Characterization 1 Session Chair: Musat Viorica
Polyaniline/ Poly(Styrene-co-tert-Butyl Acrylate) Composites: Preparation Morphology and Surface Properties <i>Ana-Maria Solonaru, Andrei Honciuc, Oana-Iuliana Negru</i> <i>"Petru Poni" Institute of Macromolecular Chemistry, Romania</i>	
Determining the Surface Energy of Nanoparticles by Pickering Emulsion Polymerization Technology <i>Oana-Iuliana Negru, Andrei Honciuc, Ana-Maria Solonaru</i> <i>"Petru Poni" Institute of Macromolecular Chemistry, Romania</i>	
The Use of Microwave Aminolytic Destruction Products of Polyethylene Terephthalate Vibrating Polymer Composition Materials <i>R.L. Vesnin, M.A. Vokhmyanin, V.V. Avdonin</i> <i>Vyatka State University, Russian Federation</i>	
Thursday, November 18 13:00 PM – 14:00 PM	Additive Manufacturing 1 Session Chair: Florin Susac
Enhancement of the Mechanical Properties of Additive Manufactured Polymeric Parts by Using Different Types of Fibres <i>D.K.K. Cavalcanti, H.F.M. de Queiroz, J.S.S. Neto, M.D. Banea</i> <i>Federal Centre of Technological Education in Rio de Janeiro (CEFET/RJ), Brazil</i>	
Tensile Properties and Manufacturing Defectives of Short Carbon Fiber Specimens Made Using FDM Process <i>Blaj Mădălina-Ioana, Zaharia Sebastian, Pop Mihai Alin, Oancea Gheorghe</i> <i>Transilvania University of Braşov, Romania</i>	
Tensile Strength of Threaded Rods Made by 3D Printing of Polymeric Material <i>Marius Ionuț Rîpanu, Andrei Marius Mihalache, Laurențiu Slătineanu, Adelina Hrițuc, Oana Dodun, Gheorghe Nagiț, Margareta Coteață, Bruno Rădulescu</i> <i>"Gheorghe Asachi" Technical University of Iași, Romania</i>	

Thursday, November 18, 2021

Thursday, November 18 15:00 PM – 16:00 PM	Polymers and Composites: Preparation and Characterization 2 Session Chair: Andreea-Irina Barzic
Dynamic Patterning of Polyimide Films Using Atomic Force Microscopy Technique <i>Iuliana Stoica</i> "Petru Poni" Institute of Macromolecular Chemistry, Romania	
Composites and Polymers Failure Processes in Tribology by Scanning Electron Microscopy <i>Alina Cantaragiu (Ceoromila), George Ghiocel Ojoc, Larisa Titire (Chiper), Viorel Totolici Rus, Lorena Deleanu</i> Dunarea de Jos University of Galati, Romania	
Scratch behavior of PP/CNT nanocomposites <i>Adriana-Madalina Turcanu (Constantinescu), Felicia Stan, Fetecau Catalin</i> Dunarea de Jos University of Galati, Romania	
Thursday, November 18 16:00 PM – 17:00 PM	Recycling, Sustainability & Environment Session Chair: Iulia Bleoanca
Recycling of Carbon Fiber Laminates by Thermo-Mechanical Disassembly and Hybrid Panel Compression Molding <i>Alice Proietti, Leandro Iorio, Nicola Gallo, Marco Regi, Denise Bellisario, Fabrizio Quadrini, Loredana Santo</i> University of Rome "Tor Vergata", Italy	
Polymers and Nanotechnologies for Environmental Remediation. A Review <i>Procop Ionuț¹, Felicia Stan¹, Ioan Mateescu², Viorica Mușat¹</i> ¹ Dunarea de Jos University of Galati, Romania ² SC Romexim Plus, Romania	
Mechanical Recycling of Unsorted Thermoplastic Nanocomposites/CNT Waste and its Effect on Mechanical Properties <i>Ionut-Laurentiu Sandu, Felicia Stan, Catalin Fetecau</i> Dunarea de Jos University of Galati, Romania	
Thursday, November 18 17:00 PM – 18:00 PM	Polymers and Composites: Preparation and Characterization 3 Session Chair: Lorena Deleanu
Electrochemical Synthesis of N-Substituted Polyaniline with Different Micro/Nanostructures From Acidic and Slightly Acidic Electrolyte Solutions <i>Loredana Vacareanu, Ana Maria Solonaru, Andrei Honciuc</i> "Petru Poni" Institute of Macromolecular Chemistry, Romania	
Mechanical Properties of Ultra-High Molecular Weight Polyethylene (Tensylon) From Tensile Tests <i>Luminita-Cristina Alil¹, Michel Arrigoni², Simona M. Badea³, Cristian Barbu¹, Guilhem Bles², Lorena Deleanu⁴, Pavel Mostovyykh⁵</i> ¹ Military Technical Academy, Romania ² ENSTA Bretagne, France ³ Scientific Research Center for CBRN Defense and Ecology, Romania ⁴ Dunarea de Jos University of Galati, Romania ⁵ Saint Petersburg State Polytechnical University, Russian Federation	
A Study About Some Mechanical Properties for Composites Reinforced with Corn Cob Powder <i>Cosmin Mihai Mirițoiu¹, Marius Marinel Stănescu¹, Dumitru Bolcu¹, Alexandru Ioan Rădoi¹, Claudiu Nicolicescu¹, Alin Diniță²</i> ¹ University of Craiova, Romania ² University of Petroleum-Gas, Romania	

Friday, November 19, 2021

Friday, November 19 10:00 AM – 11:00 AM	Nanomaterials & Nanotechnologies – Invited Papers Session Chair: Marc J.M. Abadie
The Role of Polymers and Polymers Science in the Evolution of Nanomaterial and Nanotechnologies <i>Viorica Musat</i> "Dunarea de Jos" University of Galati, Romania	
Protein Nano - Capsules and Fibers as Vehicles for Bioactive Compounds <i>Daniela Borda, Iulia Bleoanca, Andreea Lanciu</i> "Dunarea de Jos" University of Galati, Romania	
Friday, November 19 11:00 PM – 12:00 PM	Additive Manufacturing 2 Session Chair: Laurentiu Slatineanu Florin Susac
Improved Approach to Designing the Vacuum Channels for Additively Manufactured Thermoforming Moulds <i>Marius-Andrei Boca^{1,2}, Alexandru Sover², Laurențiu Slătineanu¹</i> ¹ "Gheorghe Asachi" Technical University of Iași, Romania ² University of Applied Sciences Ansbach, Germany	
Some Insights on Chemical Treatment of 3D Printed Parts <i>Ioan Tamașag, Dumitru Amarandei, Irina Beșliu</i> Ștefan cel Mare University, Romania	
Shape Optimization of Topology Interlocking Elements <i>Vasile Ermolai^{1,2}, Alexandru Sover², Gheorghe Nagit¹</i> ¹ "Gheorghe Asachi" Technical University of Iasi, Romania ² Ansbach University of Applied Sciences, Germany	
Friday, November 19 12:00 AM – 13:20 PM	Polymers and Composites for Sensors and Solar Cells Session Chair: Felicia Stan
Preparation and Sensor Characteristics of Polyimides Filled with Iron Oxide Title <i>Simona Luminita Nica¹, Camelia Hulubei¹, Valentin Nica², Iosif Iulian Petrila³</i> ¹ Petru Poni Institute of Macromolecular Chemistry, Romania ² Istituto Italiano di Tecnologia, Italy ³ Alexandru Ioan Cuza University, Romania	
Dielectric Behaviour of PVP 360 and PVA for Thin Flexible Transistors Application <i>Elena Emanuela Herbei, Mariana Bușilă, Petrică Alexandru, Viorica Mușat</i> Dunarea de Jos University of Galati, Romania	
Layered Polymer Shielding Cover with Graded Refractive Index for Solar Cells with Enhanced Light Harvesting <i>Andreea Irina Barzic</i> "Petru Poni" Institute of Macromolecular Chemistry, Romania	
Synthesis of Supramolecular Networks Based of Polyrotaxanes Architectures <i>Ana-Maria Resmeriță, Aurica Farcaș</i> "Petru Poni" Institute of Macromolecular Chemistry, Romania	

PPE2021 Conference Venue

The PPE 2021 conference will be virtual.

The Conference will be managed with Microsoft -Teams Platform.



Conference Sponsors

