

3rd International Conference and Exhibition on

Biopolymers & Bioplastics

September 12-14, 2016 San Antonio, Texas, USA



Hosting Organization:
Conference Series LLC

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Scientific Program

Day 1 September 12, 2016

08:30-09:00 Registrations

Texas B

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09:00-09:25

Opening Ceremony

Keynote Forum

09.25-09.30 Introduction

09.30-09.55 **Title: Structure property relationships of biobased epoxy resins**
Richard A. Gross, Rensselaer Polytechnic Institute, USA

09.55-10.20 **Title: Bio-based thermosets from star-like highly functional reactive resins**
Dean C. Webster, North Dakota State University, USA

10.20-10.45 **Title: Circular economy and sustainability of bioplastics and biobased materials: New challenges and future prospective**
Amar Mohanty, University of Guelph, Canada

Group Photo and Coffee Break: 10:45 - 11:05 @ Foyer

Sessions: Biomaterials and Biopolymers

Session Introduction

Session Chair: David Grewell, Iowa State University, USA

Session Co-chair: Chang-Sik Ha, Pusan National University, Korea

11.05-11.25 **Title: Political landscape for bioplastics and biobased materials**
Rina Singh, Biotechnology Innovation Organization, USA

11.25-11.45 **Title: Biopolymer based bionanocomposites**
Chang-Sik Ha, Pusan National University, Korea

11.45-12.05 **Title: Supramolecular polymers based on short peptides: Building on the building blocks of life**
Rein V Ulijn, City University of New York, USA

12.05-12.25 **Title: Free radical polymerization of acrylic monomers from plant oils**
Andriy Voronov, North Dakota State University, USA

12.25-12.45 **Title: The development of nonabsorbed potassium binding polymer microparticles (patiomer) for the treatment of hyperkalemia**
Bo Chen, Relypsa Inc., USA

12.45-13.05 **Title: Cellulose dissolution: promising approach for the preparation of composite materials**
Noureddine Abidi, Texas Tech University, USA

Panel Discussion 13:05 -13:10

Lunch Break: 13:10 - 14:10 @ Texas A

Sessions: Biomaterials and Biopolymers (Cont..)

Session Introduction

Session Chair: Richard A. Gross, Rensselaer Polytechnic Institute, USA

Session Co-chair: Noureddine Abidi, Texas Tech University, USA

14.10-14.30 **Title: Synthesis of biobased nano composite materials: Metal nano particles stabilized in soy bean oil polymer**
Baki Hazer, Bülent Ecevit University, Turkey

14.30-14.50 **Title: Poly (glycerol-sebacate); A new bioelastomer with antimicrobial and immunomodulatory properties**
Peter Gabriele, Secant Group, USA

14.50-15.10 **Title: Multilayer core-sheath nanofiber scaffolds used in the differential release of bioactive molecules**
Dula Man, Delaware State University, USA

15:10-15:30 Title: **Reactive extrusion and in situ compatibilization of poly lactic acid and poly glycerol succinate: A sustainable way for toughening of PLA**

Manjusri Misra, University of Guelph, Canada

15:30-15:50 Title: **Production of an antimicrobial edible casein-based material**

Elodie Chevalier, Université de Lyon, France

Coffee Break: 15:50 - 16:05 @ Foyer

16:05-16:25 Title: **Facelift of PLLA: Effect of orientation on physical ageing in poly(L-Lactic Acid) films**

Gagik Ghazaryan, ETH Zurich, Switzerland

Workshop Session

16:25-17:25 Title: **Biocatalytic routes to monomers and polymers**

Richard A. Gross, Rensselaer Polytechnic Institute, USA

17:25-17:45 Title: **A chemical platform for the production of bio-PET**

Ryan L. Smith, Micromidas Inc., USA

Panel Discussion 17:45 -18:00

Day 2 September 13, 2016

Texas B

Keynote Forum

10:00-10:25 Title: **Fully bio-based non-isocyanate polyurethanes (NIPU) via cyclic carbonate/amine route**

Etienne Grau, University of Bordeaux, France

10:25-10:50 Title: **Sustainable plastics and the center for bioplastics and biocomposites**

David Grewell, Iowa State University, USA

Coffee Break: 10:50 - 11:10 @ Foyer

Sessions: Biopolymer applications | Plastic pollution and waste management

Session Chair: **Amar Mohanty**, University of Guelph, Canada

Session Co-chair: **Johan Pluyter**, International Flavors and Fragrances, USA

11:10-11:30 Title: **Biopolymers in flavor and fragrance delivery systems**

Johan Pluyter, International Flavors and Fragrances, USA

11:30-11:50 Title: **Development of bio-based plywood adhesive utilizing protein recovered from hydrolyzed specified risk materials**

Birendra B. Adhikari, University of Alberta, Canada

11:50-12:10 Title: **Fabrication of multifunctional biopolymer composites with high performance by controlling the dispersion and distribution of graphene in the composites**

Jinrui Huang, Chinese Academy of Forestry, China

12:10-12:30 Title: **Novel tung oil-based unsaturated ester macromonomer for thermosetting polymers**

Chengguo Liu, Chinese Academy of Forestry, China

12:30-12:50 Title: **Creation of keratin resin and fibroin resin using fibrous animal waste products**

Shinji Hirai, Muroran Institute of Technology, Japan

12:50-13:10 Title: **Isolation and characterization of polyvinyl alcohol (PVA) degrading fungal strains from soils**

Somayeh Mollasalehi, University of Manchester, UK

Lunch Break: 13:10 - 14:00 @ Texas A

14:00-14:20 Title: **Biodegradation of biopolymers under soil and compost conditions**

Asma Said Khalid Al Hosni, University of Manchester, UK

Workshop Session

14:20-15:30 Title: **High Performance, high bio-content thermosets for composites and coatings**

Dean Webster, North Dakota State University, USA

Panel Discussion 15:30-15:45

Coffee Break: 15:45 - 16:05 @ Foyer

Poster Presentations: 16:05-17:00 @ Foyer

BPBP-01 Title: **Biosynthesis of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) with high C₆-monomer composition from CO₂ by recombinant of *Ralstonia eutropha***

Kenji Tanaka, Kindai University, Japan

- BPBP-02** Title: **Valorisation of food wastes through acidogenic fermentation**
María C Veiga, University of A Coruña, Spain
- BPBP-03** Title: **Study on the curing characteristics and synthesis process of modified urea-formaldehyde resin with low formaldehyde release**
Jiyou Gu, Northeast Forestry University, China
- BPBP-04** Title: **Thermal treatment of soybean protein and its effects on the water resistance of soybean protein adhesive**
Zhen-Hua Gao, Northeast Forestry University, China
- BPBP-05** Title: **Preparation and performance of water-borne acrylic wood coatings modified by rice husk ash**
Shuangying Wei, Northeast Forestry University, China
- BPBP-06** Title: **Comparative analysis between maize and cassava starch through XPS**
Yanhua Zhang, Northeast Forestry University, China
- BPBP-07** Title: **Zinc Oxide nanoparticles control skin infection and improve dermal wound healing in Humans**
Rebeca Betancourt Galindo, Centro de Investigación en Química Aplicada, Mexico
- BPBP-08** Title: **Surface modified chitin with silane as reinforcement in mortar composites**
Anju Ramakrishnan, Indian Institute of Technology Madras, India
- BPBP-09** Title: **The survival-dose effect model of microorganism implanted by low energy N⁺**
Ning Zhang, Chinese Academy of Forestry, China

Best Poster Award Presentation 17:00 - 17:15

Day 3 September 14, 2016

Texas B

Keynote Forum

09:00-09:25 Title: **Understanding biodegradability-The science, the misuse and true value proposition**
Ramani Narayan, Michigan State University, USA

Workshop Session

09:25-10:25 Title: **Bio-based and biodegradable compostable plastics: Logic, definitions and testing methods**
Ramani Narayan, Michigan State University, USA

Coffee Break: 10:25-10:45 @ Foyer

Sessions: Routes to drop-in monomers and bioplastics | Future and scope for biopolymers and bioplastics | New-to-the-world biopolyesters

Session Chair: Oliver Ehlert, DIN CERTCO GmbH, Germany

10:45-11:10 Title: **Certification of bioplastics – Standards and politics**
Oliver Ehlert, DIN CERTCO GmbH, Germany

11:10-11:35 Title: **PEF (polyethylene 2,5-furandicarboxylate): A new emerging biobased polyester from carbohydrates**
Nathanael Guigo, University Nice Sophia Antipolis, France

11:35-12:00 Title: **Biodegradable polymers from brewery wastewater**
María C. Veiga, University of A Coruña, Spain

12:00-12:25 Title: **Biopolymers-based active edible coatings to improve quality and safety of food products**
Elena Poverenov, Agricultural Research Organization The Volcani Center, Israel

Panel Discussion 12:25 - 12:40

Award & Closing Ceremony

Lunch Break: 12:40 - 13:45 @ Texas A

Bookmark Your Dates

5th International Conference and Exhibition on

Biopolymers & Bioplastics

October 19-21, 2017 San Francisco, USA

Website: www.biopolymers-bioplastics.conferenceseries.com

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