

Technical Program

Wednesday, September 27 th , Morning		
8h20	Welcome	
8h30	Keynote Lecture: Bio-based and Biodegradable Materials: Rationale, Drivers and Technology Exemplars <u>R. Narayan</u> , <i>Michigan State University, USA</i>	
9h15	S1-a: Polylactides Sharkskin, Melt Fracture and Wall Slip Phenomena in the Extrusion of Biodegradable Polymers, <u>D. Kanev</u> , <u>E. Takacs</u> , <u>J. Vlachopoulos</u> , <i>Canada</i>	
9h45	Coffee break	
	Room OPUS 1	Room OPUS 2
	S1-b: Polylactides Chair: <i>P. Sarazin</i>	S2: Modified Cellulose/Wood Fiber Materials Chair: <i>J. Denault</i>
10h00	The Rheology of Bio-based Copolymers and Blends, <u>J. Eickhoff</u> , <u>G. M. Harrison</u> , <i>USA</i>	Preparation of Cellulose-Polymeric Ionic Liquid Composites by In-Situ Polymerization of Polymerizable Ionic Liquids in Cellulose-Dissolving Solutions, <u>J. Kadokawa</u> , <u>M.-A. Murakami</u> , <u>Y. Kaneko</u> , <i>Japan</i>
10h30	Crystallization, Uniaxial and Biaxial Stretchability of Poly(D,L-lactide)-based Blown Films, <u>G. Stoclet</u> , <u>S. Elkoun</u> , <u>V. Miri</u> , <u>R. Séguéla</u> , <u>J.-M. Lefebvre</u> , <i>France</i>	Preparation and Properties of Bacterial Cellulose Aerogel, <u>H. Maeda</u> , <u>T. Hagiwara</u> , <u>T. Sawaguchi</u> , <u>S. Yano</u> , <i>Japan</i>
11h00	Interfacial Modification of PLA/Starch Blends, <u>M. Huneault</u> , <u>H. Li</u> , <i>Canada</i>	Pulp Cellulose Fiber Modification by Grafting with Ethyl Acrylate, <u>M. Bertoldo</u> , <u>G. Zampano</u> , <u>F. Signori</u> , <u>S. Bronco</u> , <u>V. Castelvetro</u> , <i>Italy</i>
11h30	Properties of Biaxially Oriented PLA/Starch Blends, <u>N. Chapleau</u> , <u>M.A. Huneault</u> , <u>H. Li</u> , <i>Canada</i>	Effect of Nanofiller on the Performance of Wood/Melamine-Urea-Formaldehyde Nanocomposites, <u>X. Cai</u> , <u>T. Zhang</u> , <u>B. Riedl</u> , <u>H. Wan</u> , <i>Canada</i>
12h00	Lunch	

Wednesday, September 27th, Afternoon

13h30	Keynote Lecture: Biodegradable Multiphase Materials Based on Renewable Resources: Structure-Process-Properties Relationships <u>L. Avérous</u> , <i>Louis Pasteur University, France</i>	
14h15	Keynote Lecture: Production of Starch Graft Copolymers using Reactive Extrusion <u>J.L. Willett</u> , <i>U.S. Department of Agriculture, USA</i>	
15h00	Coffee break	
	Room OPUS 1	Room OPUS 2
	S3: Starch-Based Materials <i>Chair: L. Avérous</i>	S4: Structure Characterization <i>Chair: S. Elkoun</i>
15h15	Green Packaging from Starch, <u>K. Khemani</u> , <i>Australia</i>	Processing-Crystallinity-Mechanical Properties Relationships in Polylactides, <u>J.R. Sarasua</u> , <i>N. López-Rodríguez</i> , <i>A. López-Arraiza, E. Zuza, E. Meaurio, Spain</i>
15h45	Water Effects in Thermoplastic Starch Materials, <u>M. Markotsis</u> , <i>R. Truss, C. Chaleat</i> , <i>M. Russo, K. Gentil, A.-L. Sargent, P. Halley, Australia</i>	Application of Atomic Force Microscopy for the Study of Crystallization Kinetics And Morphology of Polylactide in Thin Films, <u>Y. Yuryev</u> , <i>P. Wood-Adams</i> , <i>M.-C. Heuzey, C. Dubois, J. Brisson, Canada</i>
16h15	Processing and Characterization of Starch Based Tissue Engineering Scaffolds, <i>O.P. Troncoso, F.G. Torres</i> , <i>J. Nakamatsu, A. R. Boccaccini, Peru</i>	Physical Gelation and Rheology of Chitosan Hydrogels, <u>M.-C. Heuzey</u> , <i>M. Hamdine, J. Cho</i> , <i>A. Bégin, P.J. Carreau, Canada</i>
16h45	Morphology Control in Polymer Blends with Highly Plasticized Thermoplastic Starch, <u>G. Li</u> , <i>P. Sarazin, B. D. Favis, Canada</i>	Effect of UV Radiation on PP Biodegradability, <i>F. H. de Souza, D. S. Rosa</i> , <i>N. R. Demarquette, G. J. M. Fechine, Brazil</i>
17h30	Poster Session and Cocktail	

Thursday, September 28th, Morning

8h30	Keynote Lecture: Polymer Blends with Thermoplastic Starch <u>B.D. Favis</u> , <i>École Polytechnique de Montréal, Canada</i>	
9h15	S5-a: Biocomposites A Survey and Potential Applications of Natural Fibers in Composites, <u>A.L. Leão</u> , <i>P.C. Ferrão, J.C. Caraschi; S.M. Sartor, Brazil</i>	
9h45	Coffee break	
	Room OPUS 1	Room OPUS 2
	S5-b: Biocomposites <i>Chair: B.D. Favis</i>	S6: Bio-Based Monomers <i>Chair: K. Cole</i>
10h00	Natural Fiber Reinforced Recycled Thermoplastic, <u>J.D. Muzzy</u> , <i>USA</i>	
10h30	Agave/Polyethylene Biocomposites: The Effect of Coupling Agent and Weld Line on Mechanical Properties, <u>S. Leduc</u> , <i>J. R. Galindo Ureña, R. González-Núñez, J. Ramos Quirarte, B. Riedl, D. Rodrigue, Canada</i>	Synthesis and Rheology of Chemically Modified Canola Oil, <i>A. Campanella, M. Fahimian, R. P. Wool, J. Raghavan, Argentina, Canada, USA</i>
11h00	Effects of Coupling Agent and Wood Species on Selected Properties of High-Density Polyethylene/Wood Fiber Composites, <u>S. Y. Zhang</u> , <i>Y. Zhang, M. Bousmina, Canada</i>	New Bio-based Polymeric Materials Based on Plant Oils, <u>H. Uyama</u> , <i>Japan</i>
11h30	High Performance Polyolefin - Wood Fiber Composites, <u>M-T. Ton-That</u> , <i>J. Denault, F. Perrin, K. Cole, Canada</i>	High-Hydrocarbon Nylons from Plant Oil Derived Monomers: Nylon 18,18 with Monomers Obtained from Oleic Acid, <u>L. J. Mathias</u> , <i>A. Sikes, C. Bennett, E. Kaya, USA</i>
12h00	Lunch	

Thursday, September 28th, Afternoon

13h30	Keynote Lecture: Bio-based Polymers and Composites <u>R.P. Wool</u> , <i>University of Delaware, USA</i>	
14h15	Keynote Lecture: Bacterial Polyesters: Discovery, Bioplastics, Biorefinery <u>R. Marchessault</u> , <i>McGill University, Canada</i>	
15h00	Coffee break	
	Room OPUS 1	Room OPUS 2
	S5-c: Biocomposites <i>Chair: J. D. Muzzy</i>	S7: PHAs <i>Chair: M.F. Champagne</i>
15h15	The Effect of Fiber Pretreatment and Compatibilizer on Impact Energy, Tensile and Physical Properties of Flax Fiber-Polypropylene Composite, <u>M. Soleimani</u> , <i>S. Panigrahi, L. Tabil, A. Opoku, Canada</i>	Environment-Friendly Polymers and Cost-Effective Blends Based on Biosynthetic Poly-3-hydroxybutyrate, <u>H. Seliger</u> , <i>R. Kohler, P. Sulzberger, H. Haerberlein, Germany</i>
15h45	Formulation and Processing of Polypropylene – Flax Fiber Composites, <u>M.-T. Ton-That</u> , <u>J. Denault</u> , <i>E. Patenaude, W. Leelapornpisit, Canada</i>	Surface Modification of PLA and PHA Films: Effect of Reaction Solvent on Surface and Bulk Properties, <u>R. Rasal</u> , <u>D. Hirt</u> , <i>USA</i>
16h15	The Effects of Rice Hull and its Particle Sizes in Thermoplastic Composites, <u>D. Pitidhammahorn</u> , <u>S. Covavisaruch</u> , <i>Thailand</i>	PHA Production: The Challenge of the Industrial Scale, <u>M.-E. Dubeau</u> , <i>Canada</i>

Friday, September 29th

8h30	<p>Keynote Lecture: Advances in the Use of Nano-fillers with Different Surface Charge Density for the Nanocomposite Formation: Application to Foams <u>M. Okamoto</u>, Toyota Technology Institute, Japan</p>
<p>S8-a: Bio-Based Nanocomposites Chair: J. Denault</p>	
9h15	<p>Development of Bacterial Cellulose - Starch Nanocomposites Using a Bottom - Up Manufacturing Approach, C. Grande, <u>F.G. Torres</u>, C. Gomez, Peru</p>
9h45	<p>Ionic Liquids as Compatibilizers for the Preparation of Biopolymer Nanocomposites: Characterization Using Laser Scanning Confocal Microscopy, <u>J. W. Gilman</u>, P. Maupin, M. Zammarano, P. Trulove, D. M. Fox, H. DeLong, Ph. Dubois, M. Murariu, Belgium, Italy, USA</p>
10h15	<p>Coffee Break</p>
<p>S8-b: Bio-Based Nanocomposites Chair: M.-T. Ton-That</p>	
10h30	<p>Unique Crystallization Behavior of Biodegradable Poly[(Butylene Succinate)-co-Adipate] Nanocomposite, <u>S. Sinha-Ray</u>, M. Bousmina, Canada</p>
11h00	<p>Properties of Poly(D,L-lactide)-based Nanocomposites, F. Peurton, S.Elkoun, <u>J. Soulestin</u>, M. Sclavons, N. Quievy, J.-M. Lefebvre, J. Devaux, M.-F. Lacrampe and P. Krawczak, France, Belgium</p>
11h30	<p>Intercalation/Exfoliation and Performance of Clay-Poly(lactic acid) Nanocomposites, M-T. Ton-That , <u>J.Denault</u>, W.Leelapornpisit, Canada</p>
12h00	<p>Extrusion of Foamed PLA Nanocomposites: Processing and Properties, <u>M. F. Champagne</u>, J. Reignier, R. Gendron, Canada</p>
12h30	<p>End of Conference</p>

Poster Session
Wednesday, September 27th, 17h30-19h00

1	Properties of Clay-PLASB Nanocomposites Prepared via In Situ Polymerization <i>H. S. Kim, J. S. Yoon, Korea</i>
2	Degradation of Poly(L-lactide) by a New Thermophilic Bacterium, <i>M. N. Kim, W. G. Kim, H. Y. Weon, S. H. Lee, S. T. Park, Korea</i>
3	Preparation and Properties of a Copolymer Composed of MPC and BMA having a Reacting Isocyanate Group, <i>Y. Shindo, Y. Takenaka, K. Fukumoto, N. Kato, K. Ishihara, Japan</i>
4	Preparation and Characterization of Poly(L-lactic acid)/Multiwalled Carbon Nanotubes Composites, <i>H.-S. Kim, H.-J. Jin, J.-S. Yoon, Korea</i>
5	Evaluation of the Biodegradability of Blends of Polyethylene and Aliphatic Polyesters, <i>A. V. Machado, I. Moura, F. M. Duarte, G. Botelho, R. Nogueira, Portugal</i>
6	Effects of Mixing Procedure on Crystallization and Degradation of Poly(3-hydroxybutyrate), <i>P. S. Calvão, N. R. Demarquette, A. M. dos Santos, Brazil</i>
7	Prediction of Bulk Properties of Polylactides via Density Functional Theory and Implicit Solvation Models, <i>J. McAliley, D. A. Bruce, USA</i>
8	Synthesis, Characterization and Swelling Study of Chemically Modified Chitosan Films <i>F. Ganji, M. J. Abdekhodaie, Iran</i>
9	Preparing a Novel Biodegradable Polymeric Scaffold with Porosity Gradient using a Near Critical CO ₂ Process, <i>S. Liu, X. Cao, V. Nawaby, Canada</i>
10	HDPE/TPS Blends Compatibilized with a Maleic Anhydride Grafted Polyethylene, <i>A. Taguet, M.A. Huneault, B.D. Favis, Canada</i>
11	Obtaining of Nano-Cellulose from Natural Fibres <i>V. Alvarez, V. Cyras; J. Morán and A. Vázquez</i>
12	Bioconversion of Maple Sap into Poly-B-Hydroxybutyrate (PHB) by <i>Alcaligenes Latus</i> , <i>A. Yezza, J. Hawari, Canada</i>
13	Stability of PLA/Thermoplastic Starch under Biaxial Stretching <i>M. Mihai-Hotea, M.A. Huneault, B.D. Favis, N. Chapleau, Canada</i>
14	Fracture Mechanics of PLA/Starch Blends and Nanocomposites, <i>O. H. Arroyo, M.N. Bureau, M. A. Huneault, B. D. Favis, Canada</i>
15	Novel Aliphatic Polyesters of Oleic Diacid (D18:1) : Synthesis, Epoxydation, Crosslinking and Biodegradation, <i>F. Laflèche, P. Guegan, S. Claude, France</i>