Tuesday, May 20th, 2014 (Opening Ceremony, 1 Plenary Session, 16 Keynotes, 32 Orals)

7:00 am – 8:15 am	Registration and Networking Breakfast			
8:30 am – 9:30 am	**Opening Ceremony**			
9:40 am – 10:45 am	**Parallel Session**			
	S1 **Natural Fiber Composites** *Royal City Ballroom A* Session Co-chairs: **Maria-Wladyka-Przybylak** **Srikanth Pilla**	**S2** **Biopolymers: Synthesis and Production** *Royal City Ballroom B* Session Co-chairs: **Ramaswamy Nagarajan** **Aman Ullah**	**S3** **Polylactic acid (PLA) Composites** *Flanders Room* Session Co-chairs: **Anh Dung Ngo** **Aji P. Mathew**	**S4** **Biomaterial Application** *John McCrae Room* Session Co-chairs: **John Dutcher** **Leonardo Simon**
9:40 am – 10:05 am Session Keynote	Keynote talk S1-1, *Cost-effective biocomposites made with cellulosic fibres* **Minh Tan Ton-That** National Research Council, Canada	Keynote talk S2-1, *Improving the performance of biobased polymers via manipulating the structures of building blocks* **Jinwen Zhang** Washington State University, USA	Keynote talk S3-1, *Biocomposite substrates for advanced wireless sensors* **Chad A. Ulven** North Dakota State University, USA	Keynote talk S4-1, *Development of bioplastics, biocomposite and adhesives from specified risk material* **David Bressler** University of Alberta, Canada
10:05 am – 10:25 am	S1-2, *Design and manufacturing of a new hybrid paper-UD flax reinforcements for eco-composite materials* Invited talk **Luc Laperrière** Université du Québec à Trois-Rivières, Canada	S2-2, *Injection molding of biopolymers* Invited talk **Frank Ehrig** Institute for Material Science and Plastics Processing, Switzerland	S3-2, *Development and characterization of extruded biocomposites derived from PLA and spent coffee filler particles.* Invited talk **Loong Tak Lim** University of Guelph, Canada	S4-2, *Breatheable and polyol based hydrogel food packaging* Invited talk **Nabanita Saha** Tomas Bata University, Czech Republic
10:25 am – 10:45 am	S1-3, *Reinforcement of polymers by flax fibres: The role of interfaces* **Antoine Le Duigou** University of South Brittany France	S2-3, *Bio-plastics from crop to car -The challenges* Invited talk **Alan Lyons** Honda of Canada Mfg., Canada	S3-3, *Design of biodegradable impact resistant PLA based materials mediated with nanofillers: From toughness to super toughness* **Jean-Marie Raquez** University of Mons, Belgium	S4-3, *Research and development of protein-based adhesives* **Jianping Wu** University of Alberta, Canada

Tuesday, May 20th, 2014 (Opening Ceremony, 1 Plenary Session, 16 Keynotes, 32 Orals)

10:45 am – 11:05 am	Networking Break			
11:05 am – 11:30 am Session Keynote	Keynote talk S1-4, *A comparative study of D-LFT PP natural fibre composites* **Victor Bravo** Magna-NRC Composites Centre of Excellence, Canada	Keynote talk S2-4, *Optically pure hydroxyl acids and extracellular PHA production from woody biomass* **Shijie Liu** State University of New York, USA	Keynote talk S3- 4, *Polylatide foam processing technologies* **Chul B. Park** University of Toronto, Canada	Keynote talk S4-4, *Examining innovations in bioplastics* **David Grewell** Iowa State University, USA
11:30 am – 11:50 am	S1-5, *EcoComposites based on natural fibres and bio-matrices: mechanical properties and processing* **Gianluca Cicala** University of Catania, Italy	S2-5, *Polymeric composite materials from bioplastics and a bioethanol coproduct, dried distillers' grains with soluble (DDGS)* **Nima Zarrinbakhsh** University of Guelph, Canada	S3-5, *The effect of single notch on the mechanical properties of poly (lactic acid) based biocomposites* **Yuqiu Yang** Donghua University, China	S4-5, *Future of natural fiber-based composites in biomedical orthopeadic applications: New advances and challenges* Invited talk **Habiba Bougherara** Ryerson University, Canada
11:50 am – 12:10 pm	S1-6, *Structure and properties of injected plant fiber composites* **Alain Bourmaud** UBS-LIMATB, France	S2-6, *Production of bio-based phenol formaldehyde foam for fire-resistant materials* **Bing Li** Western University, Canada	S3- 6, *Biocomposites of wood flour and polylactic acid: Processing and properties* **Hedieh Teymoorzadeh** Université Laval Québec, Canada	S4-6, *Improving the mechanical performance of wood-adhesive bonds by the addition of cellulose nanofibers* **Stefan Veigel** University of Natural Resources and Life Sciences, Austria
12:10 pm – 12:30 pm	S1-7, *A novel biobased reinforcement for eco-composite materials* **Ehsan Ameri** Université du Québec à Trois-Rivières, Canada	S2-7, *Synthesis of PEG-lipid bioconjugates via click reaction and their solution self-assembly* **Muhammad Arshad** University of Alberta, Canada	S3-7, *Functionalization of Distiller's Dried Grains with Solubles (DDGS) to improve impact properties of PLA* **Dilpreet Bajwa** North Dakota State University, USA	S4-7, *Biomass-based nano-structured carbon materials for energy and adsorption applications* Invited talk **Long Jiang** North Dakota State University, USA

Tuesday, May 20th, 2014 (Opening Ceremony, 1 Plenary Session, 16 Keynotes, 32 Orals)

12:30 pm – 1:30 pm	Lunch			
1:30 pm – 3:40 pm	**Plenary Session-I,** *Sponsored by: Science Alert* **Bioplastics, Biobased Materials and Biorefining - Current Status**			
1:30 pm – 1:45 pm	Moderator: Hamdy Khalil | The Woodbridge Group, Canada			
1:45 pm – 2:10 pm	Marc Verbruggen | NatureWorks LLC, USA			
2:10 pm – 2:35 pm	Hari Sunkara | DuPont, USA			
2:35 pm – 3:00 pm	Douglas A. Weishaar | Evonik Industries, USA			
3:00 pm – 3:25 pm	Amar K. Mohanty | University of Guelph, Canada			
3:25 pm – 3:40 pm	Question & Answer/ Discussion			
3:40 pm – 4:00 pm	**Networking Break**			
4:00 pm – 6:00 pm	**Parallel Session**			
	S5 **Natural Fiber Composites** *Royal City Ballroom A* Session Co-chairs: **Rajesh Anandjiwala** **Hom Dhakal**	**S6** **Cellulosic Biomaterials** *Royal City Ballroom B* Session Co-chairs: **Marie-Pierre Laborie** **Bodo Saake**	**S7** **Structural Composites: Processing and Testing** *Flanders Room* Session Co-chairs: **Victor Bravo** **Victoria Finkenstadt**	**S8** **Biomaterials Application** *John McCrae Room* Session Co-chairs: **Marianna Kontopoulou** **Simon Potter**
4:00 pm – 4:25 pm Session Keynote	Keynote talk S5-1, *A study on the Injection molded wood particle reinforced polypropylene composite* **Hiroyuki Hamada** Kyoto Institute of Technology, Japan	Keynote talk S6-1, *Key issues related to the preparation and performance of nylon-nanocellulose composite* **Craig Clemons** United States Department of Agriculture, USA	Keynote talk S7-1, *Natural fibre composites for strengthening of civil engineering structures* **Raul Fangueiro** University of Minho, Portugal	Keynote talk S8-1, *Monodisperse phytoglycogen nanoparticles from corn as additives to bioproducts* **John R. Dutcher** University of Guelph, Canada
4.25 pm – 4.45 pm	S5-2, *A Novel interface structure for preparing compatible wood/PVC composites* Invited talk **Qiangxian Wu** Central China Normal University, China	S6-2, *Making the most out of bacterial cellulose: Sustainable thermoplastic "nano-papreg"* **Koon-Yang Lee** University College London, UK	S7-2, *A composite solution for building applications: Environmental, insulation and mechanical properties* **Angela Daniela La Rosa** University of Catania, Italy	S8-2, *Multifunctional PLA biomaterials for thermal management applications* Invited talk **Hani E. Naguib** University of Toronto, Canada

Tuesday, May 20th, 2014 (Opening Ceremony, 1 Plenary Session, 16 Keynotes, 32 Orals)

4.45 pm- 5.05 pm	S5-3, *Characterisation of a hybrid PLA, flax and paper composite* **Adrien Couture** Université du Québec à Trois-Rivières, Canada	S6-3, *Innovation and manufacturing in natural fiber-polypropylene composites* **Leonardo C. Simon** University of Waterloo, Canada	S7-3, *Failure analysis of natural fiber reinforced polyester composites subjected to combined compression and shear loading* **Shayesteh Haghdan** The University of British Columbia, Canada	S8-3, *Porous nanocomposite scaffolds containing bio-based nanoreinforcements for biomedical applications* **Narges Naseri** Luleå University of Technology, Sweden
5.05 pm -5.15pm	**Short Break**			
5:15 pm – 5:40 pm Session Keynote	Keynote talk S5-4, *Compounding and extrusion of bio-based materials: Process needs, machine requirements, project results* **Daniel Schwendemann** Institute for Material Science and Plastics Processing, Switzerland	Keynote talk S6-4, *Cellulose nanofibers for a broad range of advanced materials* **Tanja Zimmermann** EMPA Materials Science & Technology, Switzerland	Keynote talk S7-4, *Use of modeling in the design of biobased composites for the building industry* **Sarah Billington** Stanford University, USA	Keynote talk S8-4, *Green materials: From sports gear to ballistic applications and from nanofilters to seed coatings* **Anil Netravali** Cornell University, USA
5:40 pm – 6:00 pm	S5-5, *Predicting the rheological behavior of flexible bleached chemithermomechanical pulp reinforced nylon 11 green composite* **Robenson Cherizol** University of Toronto, Canada	S6-5, *Novel bio-based oil and water resistant coating material for cellulosic surfaces* **Javad Sameni** University of Toronto, Canada	S7-5, *Production and characterization of new thermal insulating bio-based material made with sunflower stalks aggregates and chitosan* **Narimane Mati-Baouche** Clermont Université, France	S8-5, *Bone formation gene expression in the vicinity of a new carbon fiber (cf)/flax/epoxy material for bone fracture plate applications* **Zahra Shaghayegh Bagheri** Ryerson University, Canada
6:15 pm onwards	**Reception followed by dinner (buffet)**			

Wednesday, May 21st, 2014 (2 Plenary Session, 12 Keynotes, 28 Orals, Poster Presentations)

7:00 am – 8:25 am	Networking Breakfast			
8:30 am – 10:00 am	Parallel Session			
	S9 **Natural Fiber Composites** *Royal City Ballroom A* Session Co-chairs: **Anil Netravali** **Mikael S. Hedenqvist**	**S10** **Cellulosic Biomaterial** *Royal City Ballroom B* Session Co-chairs: **Richard P. Wool** **Peter Frise**	**S11** **Bioeconomy** *Flanders Room* Session Co-chairs: **Murray McLaughlin** **Gordon Selling**	**S12** **Biorefinery** *John McCrae Room* Session Co-chairs: **Jim Grey** **Satya Narayan Naik**
8:30 am – 8:55 am Session Keynote	Keynote talk S9-1, *Flammability characteristics of kenaf and wool fibre reinforced polypropylene composites using non-halogenated fire retardants* **Debes Battacharyya** University of Auckland, New Zealand	Keynote talk S10-1, *Agriwaste residues as a raw material for bionanocomposites* **Alcides Lopes Leão** UNESP, Brazil	Keynote talk S11-1, *Transition to biobased economy: Foresight as an approach to transform and upgrade the international jute, abaca, coir, kenaf & sisal fiber sector.* **Dilip Tambyrajah** International Natural Fiber Organization, The Netherlands	Keynote talk S12-1, *Biodiesel from microalgae: Characterization and purification* **Rodrigo Navia** University of La Frontera, Chile.
8:55 am – 9:15 am	S9-2, *Soybean and corn genes for performance in polypropylene/ stem fiber composites* Invited talk **K. Peter Pauls** University of Guelph, Canada	S10-2, *Nanocellulose as functional material: Possibilities & challenges* Invited talk **Aji P Mathew** Luleå University of Technology, Sweden	S11-2, *Role of public policy in the bioeconomy* Invited talk **Alfons Weersink** University of Guelph, Canada	S12-2, *Utilization of lignocellulosic C5 streams for the production of value added products* Invited talk **Sudip Rakshit** Lakehead University, Canada
9:15 am – 9:35 am	S9-3, *Multi-criteria constituent selection in biobased composites for construction applications using creep properties* **Sabbie A. Miller** Stanford University, USA	S10-3, *Cellulose nanowhiskers (CNW) extracted from sugar bagasse* **Motaung Tshwafo** CSIR, South Africa	S11-3, *Ontario's bioeconomy: role of research and innovation and agricultural biomass* **Rajib Hazarika and Mahendra Thimmanagari** OMAF and MRA, Canada	S12-3, *Nondestructive estimation of the chemical and thermal properties of forest biomass using vibrational spectroscopy and thermogravimetric analysis* **Gifty Ewurama Acquah** Auburn University, USA

Wednesday, May 21st, 2014 (2 Plenary Session, 12 Keynotes, 28 Orals, Poster Presentations)

9:35 am – 10:00 am Session Keynote	Keynote talk S9-4, *Natural fibre composites: Processing, performance and applications* **Manjusri Misra** University of Guelph, Canada	Keynote talk S10-4, *Making the most of fibre off-cuts: Using nanocellulose as binder to create hierarchical composites* **Alexander Bismarck** University of Vienna, Austria	Keynote talk S11-4, *World bioplastics technology and markets: Monomer and polymer developments and trends* **Terence A. Cooper** ARGO Group International, USA	Keynote talk S12-4, *Structural characterization, and value-added applications of lignin and hemicelluloses towards a biorefinery scenario* **Run-Cang Sun** Beijing Forestry University, China
10:00 am – 10:20 am	**Networking Break**			
10:20 pm – 12:30 pm	**Plenary Session-II,** *Sponsored by: Agri-Technology Commercialization Centre* **Challenges and Prospects of Commercialization - New Materials to Market Place**			
10:20 am – 10:35 am	Moderator: Peter Frise | AUTO21, University of Windsor, Canada			
10:35 pm – 11:00 am	Richard P. Wool | University of Delaware, USA			
11:00 am – 11:25 pm	Richard Gross | Rensselaer Polytechnic Institute, USA			
11:25 am – 11:50 am	Rui Resendes | GreenCentre Canada, Canada			
11:50 am – 12:15 pm	Jay Hutchins | Faurecia North America, USA			
12:15 pm – 12:30 pm	Question & Answer/ Discussion			
12:30 am – 1:30 pm	**Lunch**			
1:30 pm – 3:40 pm	**Plenary Session-III,** *Sponsored by: Club Coffee* **Bioproducts: Interaction between Government, Industry, Academia and Society**			
1:30 pm – 1:45 pm	Moderator: Dilip Tambyrajah | International Natural Fiber Organization, The Netherlands			
1:45 pm – 2:10 pm	Ramani Narayan | Michigan State University, USA			
2:10 pm – 2:35 pm	Ron Buckhalt | United States Department of Agriculture (USDA), USA			
2:35 pm – 3:00 pm	Michael Toombs | Ontario Ministry of Agriculture and Food (OMAF), Canada			
3:00 pm – 3:25 pm	Wolfgang Baltus | National Innovation Agency, Thailand			
3:25 pm – 3:40 pm	Question & Answer/ Discussion			

Wednesday, May 21st, 2014 (2 Plenary Session, 12 Keynotes, 28 Orals, Poster Presentations)

3:40 pm – 4:00 pm	Networking Break			
4:00 pm – 5:45 pm	Parallel Session			
	S13 **Biomass: Supply chain/logistics and value addition** *Royal City Ballroom A* Session Co-chairs: **Raul Fangueiro** **Sudip Rakshit**	**S14** **Biopolymer Blends** *Royal City Ballroom B* Session Co-chairs: **Jinwen Zhang** **Loong Tak Lim**	**S15** **Polylactic acid (PLA) Composites** *Flanders Room* Session Co-chairs: **Hiroyoku Hamada** **Wolfgang Baltus**	**S16** **Biorefinery** *John McCrae Room* Session Co-chairs: **David Bressler** **Shijie Liu**
4:00 pm – 4:25 pm Session Keynote	Keynote talk S13-1, *Biochar production and applications development in Alberta* **Anthony Anyia** Alberta Innovates Technology Futures, Canada	Keynote talk S14-1, *Bioplastics, back to the basic* **Yunil Hwang** Samsung Fine Chemicals Co., Korea	Keynote talk S15-1, *Novel lightweight fully bio-based fiber-reinforced polymer composite* **Ning Yan** University of Toronto, Canada	Keynote talk S16-1, *The Evolution of IGPC Ethanol Inc.* **Jim Grey** IGPC, Canada
4:25 pm – 4:45 pm	S13-2, *Next generation fibre quality assessment: Proving the FibreCITY concept* Invited talk **Simon Potter** Composites Innovation Centre, Canada	S14-2, *Reactive modification of PLA and its blends with polyhydroxyalkanoates to improve processability and properties* Invited talk **Marianna Kontopoulou** Queen's University, Canada	S15-,2 *Polylactic acid based blends reinforced with talc microparticles* Invited talk **Pietro Russo** National Council of Research, Italy	S16-2, *Biorefining of citrus juice facility waste to bioplastic and bioethanol: environmental and financial perspectives* Invited talk ***Heather L. MacLean*** University of Toronto, Canada

Wednesday, May 21st, 2014 (2 Plenary Session, 12 Keynotes, 28 Orals, Poster Presentations)

4:45 pm – 5:05 pm	S13-3, *Sustainable bioenergy production systems for southwestern Ontario, Canada* Invited talk **Bill Deen** University of Guelph, Canada	S14-3, *Morphology, thermal and mechanical properties of ternary blends of PLA, PBAT, and PP and effect of reinforcing additives* **Arturo Rodriguez** University of Guelph, Canada	S15-3, *Influence of the use of PEG and poly (ε-caprolactone) triol (PCL -T) as plasticisers in nanocomposites of poly(L-lactic acid) with montmorillonite* **Ana Paula Testa Pezzin** University of Joinville Region, Brazil	S16-3, *Biorefining of porphyridium cruentum by membrane technology* **Philippe Michaud** Clermont Université, France
5:05 pm – 5:25 pm	S13-4, *Growing the possibilities for the sustainable bioeconomy (in Ontario)* Invited talk **Nick Betts** Grain Farmers of Ontario, Canada	S14-4, *Comparison of thermal and mechanical properties of PLA blends containing thermoplastic elastomers and reactive copolymers* **Pascal Y. Vuillaume** Centre de Technologie Minérale et de Plasturgie, QC, Canada	S15-4, *Dynamic mechanical properties of foamed poly(lactic acid) and poly(lactic acid)/wood flour composites* **Joanna Ludwiczak** Wroclaw University of Technology, Poland	S16-4, *Physicochemical properties of biodiesel synthesized from vegetable oil & animal fat* **Rizalman Mamat** Universiti Malaysia Pahang, Malaysia
5:25 pm – 5:45 pm	S13-5, *The potential location for lignocellulosic ethanol processing plant in Ontario* **Poritosh Roy** University of Guelph, Canada	S14-5, *BioABS: Creation of a new tough biobased polymer* **Ryan Vadori** University of Guelph, Canada	S15-5, *Hemp dust - an agricultural by-product for green composites? - a holistic approach* **Sebastian Spierling** University of Applied Sciences and Arts Hannover, Germany	S16-5, *Analysis of cycle-to-cycle variations of a diesel engine operating with palm biodiesel* **Ahmad Fitri Yusop** Universiti Malaysia Pahang, Malaysia
6:15 pm onwards	**Reception and Poster Presentation**			

Thursday, May 22nd, 2014 (6 Keynotes, 30 Orals, Banquet in Niagara Falls)

7:00 am – 8:25 am	Networking Breakfast		
8:30 am – 10:15 am	Parallel Session		
	S17 **Thermoset Biocomposites** *Royal City Ballroom A* Session Co-chairs: **Hazizan Md Akil** **Habiba Bougherara**	**S18** **Biomaterials: Lignin** *Royal City Ballroom B* Session Co-chairs: **Bandaru V. Ramarao** **Anthony Anyia**	**S19** **Natural Fibers and Vegetable Oils** *Flanders Room* Session Co-chairs: **Sarah Billington** **Pia Qvintus**
8:30 am – 8:55 am Session Keynote	Keynote talk S17-1, *From the plant cell wall to nanocellulose and bio-based polymers* **Marie-Pierre Laborie** Universität Freiburg, Germany	Keynote talk S18-1, *Surface engineering of sustainable filler materials in preparation of polymer Compounds* **Sadhan Jana** University of Akron, USA	Keynote talk S19-1, *Synergistic effect of modified natural fibers with halogen-free fire retardants in reducing flammability of composites* **Maria Wladyka-Przybylak** Institute of Natural Fibres and Medicinal Plants, Poland
8:55 am – 9:15 am	S17-2, Synthesis and characterization of tannin-based adhesives for wood composites **Ricarda Böhm** Albert-Ludwigs University of Freiburg, Germany	S18-2, *Mechanical and thermal characterization on reactive extrusion of lignin, PLA and PBAT blends* **Mohamed Abdelwahab** University of Guelph, Canada	S19-2, *Modifications of feather Keratin for biosorption and biocomposite applications* Invited talk **Aman Ullah** University of Alberta, Canada
9:15 am – 9:35 am	S17-3, *Influence of temperature on the impact damage and flexural properties of flax/VE composites* Invited talk **Hom Dhakal** University of Portsmouth, UK	S18-3, *Chemical activation of lignins: A comparative study for substitution of phenolic resins for particleboards* **Ralph Lehnen** Thünen Institute of Wood Research, Germany	S19-3, *Evaluation of soybean lines with modified fatty acid profiles for biomaterial production for the automotive industry* Invited talk **Istvan Rajcan** University of Guelph, Canada

Thursday, May 22nd, 2014 (6 Keynotes, 30 Orals, Banquet in Niagara Falls)

9:35 am – 9:55 am	S17-4, *Mechanical properties of needle punched kenaf mat reinforced composites* **Toshihiko Hojo** SEWS-STC Co., Ltd. , Shanghai, China	S18-4, *Formation of lignin-protein linkages in biomimetic systems and the search for lignin-protein linkages in planta* **Brett G. Diehl** Penn State University, USA	S19-4, *Composites out of waste fibres remained after bio-catalytic degradation of wheat straw* **Maria Sotenko** University of Warwick, UK
9:55 am – 10:15 am	S17-5, *Mechanical property of jute/UP composites by spray up method* **Tetsuo Kikuchi** Toyugiken Co., LTD, Japan	S18-5, *Completely bio-based lignin epoxy resin applications and characterization* **Jose Gutierrez** Stanford University, USA	S19-5, *Surface analysis of natural fibres by XPS and Inverse Gas Chromatography* **Angelica Legras** The University of Queensland, Australia
10:15 am – 10:35am	**Networking Break**		
10:35 am – 12:20 pm	**Parallel Session**		
	S20 **Biobased composites** *Royal City Ballroom A* Session Co-chairs: **Sadhan Jana** **Pietro Russo**	**S21** **Durability and LCA** *Royal City Ballroom B* Session Co-chairs: **Ramani Narayan** **Nabanita Saha**	**S22** **Bioeconomy** *Flanders Room* Session Co-chairs: **Alfons Weersink** **Manjusri Misra**
10:35 am – 11:00 am Session Keynote	Keynote talk S20-1, *The application of bioproducts in the manufacturing of automotive parts.* **Hamdy Khalil** The Woodbridge Group, Canada	Keynote talk S21-1, Hygroscopic effect on the static & fatigue behaviours of hemp fibre in tensile loading **Anh Dung Ngo** Ecole de Technologie Superieure, Canada	Keynote talk S22-1, *Moving to the future - A hybrid cluster* **Murray McLaughlin** Bioindustrial Innovation Canada, Canada
11:00 am – 11:20 am	S20-2, *Processing of biomass fillers and reinforcements at entitled capacity on co-rotating twin screw extruders* Invited talk **Robert Roden** STEER Engineering, India	S21-2, *Environmental degradation of various bio-based thermoplastic polymers and composites* **John Wolodko** Alberta Innovates – Technology, Canada	S22-2, *A review on the challenges, opportunities and needed research for implementing the bioeconomy strategy in a regional scale* **Alberto Bezama** Helmholtz Centre for Environmental Research, Germany

Thursday, May 22nd, 2014 (6 Keynotes, 30 Orals, Banquet in Niagara Falls)

11:20 am – 11:40 am	S20-3, *Biopolymer performance in composite structures made by resin infusion processes* **Pierre Mertiny** University of Alberta, Canada	S21-3, *Effect of water absorption on the mechanical properties of long date palm leaf fiber reinforced epoxy composites* **Daniel Roberto Hernández Ochoa** Qatar University, Qatar	S22-3, Holistic comparison of composites and aluminum based on the Bioconcept car **Christoph Habermann** Institute for Bioplastics and Biocomposites, Germany
11:40 am – 12:00 pm	S20-4, *Effect of 3-Aminopropyltriethoxysilane on curing characteristics, mechanical and morphological properties of attapulgite/rubber composites* **Nadras Othman** University Sains Malaysia, Malaysia	S21-4, *Life cycle assessment comparison of bio-based and petroleum-based composite materials* **Hassan I. Moussa** University of Waterloo, Canada	S22-4, *Case study for a palm biomass biorefinery utilizing renewable sugars from oil palm frond for the production of poly(3-hydroxybutyrate) bioplastic* **Mior Ahmad Khushairi Mohd Zahari** Universiti Malaysia Pahang, Malaysia
12:00 pm – 12:20 pm	S20-5, *Novel high performance green composites from biopolymer ternary blends and natural fibers* **Kunyu Zhang** University of Guelph, Canada	S21-5, *Life cycle assessment (LCA) of thermally processed acrylonitrile butadiene styrene* **Kristy Crews** Tuskegee University, USA	S22-5, *Microbial production of polyhydroxybutyrate using non-sugar based carbon sources* **Mojtaba Binazadeh** TerraVerdae Bioworks, Canada
12:20 pm – 1:20 pm	**Lunch**		
1:20 pm – 2:20 pm	**Parallel Session**		
	S23 **Biopolymer Blends** *Royal City Ballroom A* Session Chair: **Craig Clemons**	**S24** **Biopolymers: Starch** *Royal City Ballroom B* Session Chair: **David Grewell**	**S25** **Natural Fiber Composites** *Flanders Room* Session Chair: **Ning Yan**
1:20 pm – 1:40 pm	S23-1, *Biodegradable aliphatic polycarbonate based materials* Invited talk **James H. Wang** Kimberly-Clark Corporation, USA	S24-1, *Structure-function properties of starch spherulites grafted with poly(methyl acrylate)* **Victoria Finkenstadt** US Department of Agriculture, USA	S25-1, *Utilization of greenhouse wastes for bio-material* **Jianbo Lu** Alberta Agriculture and Rural Development, Canada

Thursday, May 22nd, 2014 (6 Keynotes, 30 Orals, Banquet in Niagara Falls)

1:40 pm – 2:00 pm	S23-2, *Biobased, Biodegradable and Biorenewable PLA/PHBV/PPC Ternary Polymer Blends* Invited talk **Srikanth Pilla** Clemson University, USA	S24-2, *Physicochemical properties of thermoplastic potato flour, starch and their bioplastic film* **Qiang Liu** Agriculture and Agri-Food Canada, Canada	S25-2, *Research on wood-plastic composites in Northeast Forestry University, China* *--- focusing on WPC windows* **Weihong Wang** Northeast Forestry University, China
2:45 pm	**Leave for Niagara Falls**		
6:30 pm – 10:00 pm	**Banquet**		

Friday, May 23rd, 2014 (1 Plenary Session, 10 Keynotes, 15 Orals, Closing Ceremony)

7:30 am – 8:30 am	Networking Breakfast				
8:30 am – 10:20 am	Parallel Session				
	S26 **Thermoset Biocomposites** *Royal City Ballroom A* Session Co-chairs: **Mohini Sain** **Qiangxian Wu**	**S27** **Cellulose: Production and Application** *Royal City Ballroom B* Session Co-chairs: **Alexander Bismarck** **Tanja Zimmermann**	**S28** **Biopolymers: Synthesis and Production** *Flanders Room* Session Co-chairs: **Andrew Myers** **Hari Sunkara**	**S29** **Biorefinery** *John McCrae Room* Session Co-chairs: **Rodrigo Navia** **Run Cang Sun**	**S30** **Lignin and Biomaterial Feedstock** *Gryphon Room* Session Co-chairs: **Ron Buckhalt** **Long Jiang**
8:30 am – 8:55 am Session Keynote	Keynote talk S26-1, *Natural fibres as reinforcements in bio-composite applications* **Rajesh D. Anandjiwala** CSIR, South Africa	Keynote talk S27-1, *Production of nanocellulose from pinecone biomass for Bionanocomposite applicatins* **Ajay Dalai** University of Saskatchewan, Canada	Keynote talk S28-1, *Improved zein articles using polyethylenemaleic Anhydride* **Gordon Selling** United States Department of Agriculture, USA	Keynote talk S29-1, *Biorefinery of castor seed for sustainable biolubricant production* **Satya Narayan Naik** Indian Institute of Technology, India	Keynote talk S30-1, *Lignin-polyethylene blends: The effect of lignin source and esterification on blend properties* **Bodo Saake** University of Hamburg, Germany
8:55 am – 9:15 am	S26-2, *Study of the permeability of a unidirectional flax / paper short fibers composite* **Habibi Mohamed** Université du Québec à Trois-Rivières, Canada	S27-2, *Thermomechanical characterization of triaxially braided regenerated cellulose bio-based epoxy composites* **Rani Elhajjar** University of Wisconsin, USA	S28-2, *Distillers dried grains with solubles as a source of inexpensive polymer components* Invited talk **Andrew Myers** Pittsburg State University, USA	S29-2, *Characteristics of pre-treated densified lignocellulosic biomass produced via torrefaction & hydrothermal carbonization* Invited talk **Animesh Dutta** University of Guelph, Canada	S30-2, *Sustainability of short rotation woody crop production for bioenergy and carbon sequestration* Invited talk **Naresh Thevathasan** University of Guelph, Canada

Friday, May 23rd, 2014 (1 Plenary Session, 10 Keynotes, 15 Orals, Closing Ceremony)

9:15 am – 9:35 am	S26-3, *Kaolinite/banana-plantain fiber/polyester composites: Mechanical tensile and water absorption properties* **Lady Joana Rodríguez** Universidad Nacional de Colombia Sede Manizales, Colombia	S27-3, *Production and purification of bacterial cellulose nanocrystals* **Isabela Reiniati** University of Western Ontario, Canada	S28-3, *3-Methoxy vinylcatechol Analogues (Biostyrene) for styrene replacement in thermoset polyesters* **Stuart Coles** University of Warwick, UK	S29-3, *Analysis of diesel engine performance operating with pure concentrated waste plastic disposal fuel (WPDF)& waste cooking oil (WCO) blends* **Abdullah Adam** University Malaysia Pahang, Malaysia	S30-3, *Lignin as a source for novel carbon materials: Investigation on the carbonaceous materials from various lignin sources* **Singaravelu Vivekanandhan** MK University, India
9:35 am – 10.00 am Session Keynote	Keynote talk S26-4, *Pultruded natural fibre Reinforced composites: Preparation, properties & applications* **Hazizan Md Akil** University Sains Malaysia, Malaysia	Keynote talk S27-4, *Nanocellulose – towards applications* **Pia Qvintus** VTT Technical Research Centre of Finland, Finland	Keynote talk S28-4, *Chitosan polymer blends and chitosan exposed to carboxylic acids* **Mikael S. Hedenqvist** KTH Royal Institute of Technology, Stockholm	Keynote talk S29-4, *Bio-based feedstock in the synthesis of bio-inspired advanced materials* **Ramaswamy Nagarajan** University of Massachusetts Lowell, USA	Keynote talk S30-4, *Flocculation and separations for lignin and other inhibitor removal in biomass hydrolyzates* **Bandaru V. Ramarao`** Empire State Paper Research Institute, USA
10:00 am – 10:20 am	S26-5, *Chemical and mechanical behavior of oil palm empty fruit bunches fiber reinforced polyvinyl alcohol composite* **Ching Yern Chee** Univeristy of Malaya, Malaysia	S27-5, *Adsorption characteristics of heavy metal ions from aqueous medium onto nano polysaccharides* **Peng Liu** Luleå University of Technology, Sweden	*S 28-5, Polylactic acid based nanocomposites for food packaging* Invited talk **Vimal Katiyar** Indian Institute of Technology Guwahati, India	S29-5, Is the Integrated bio-refinery the new rural sustainability model? **Mojgan Kavoosi** Biowaste to Energy for Canada Integration Initiative (BECii) Corp, Canada	S30-5, *Perennial crop biomass for the production of high-quality fibres, bioethanol and value-added co-products* **Annick Bertrand** Agriculture and Agri-Food Canada, Canada

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10:20 am – 10:35 am	**Networking Break**
10:35 am – 12:45 pm	**Plenary Session-IV,** *Sponsored by: University of Guelph* **Bioeconomy and Policy Aspects**
10:35 am – 10:50 am	Moderator: Debes Bhattacharyya | University of Auckland, New Zealand
10:50 am – 11:15 am	Catherine Cobden | Forest Products Association of Canada, Canada
11:15 am – 11:40 am	Gord Surgeoner | Ontario Agri-Food Technologies (OAFT), Canada
11:40 am – 12:05 pm	John van Leeuwen | EcoSynthetix, Canada
12:05 pm – 12:30 pm	Mohini Sain | University of Toronto, Canada
12:30 pm – 12:45 pm	Question & Answer / Discussion
12:45 pm	**Lunch and Closing Ceremony**

Friday, May 23rd, 2014 (1 Plenary Session, 10 Keynotes, 15 Orals, Closing Ceremony)

Poster Presentations at Gryphon Room	
P1.	*High efficiency nanocellulose membranes for water purification* **Zoheb Karim** | Lulea University of Technology, Sweden
P2.	*Model and prototype of green electrostatic harvester based on carbon-coated nanocellulose conductive films* **Yin Li** | University of Guelph, Canada
P3.	*Nanocrystalline cellulose based nanocomposites* **Austin N. Pickett** | Kimberly-Clark Corporation, Corporate Research and Engineering, USA
P4.	*Study of self-assembly of cellulose nanowhiskers during solvent evaporation and dewetting* **Tiago dos Santos** | Albert-Ludwigs University of Freiburg, Germany
P5.	*The structure and properties of sulfobutylated cellulose ether (SBC) based water-reducing agents* **Halidan Maimaiti** | Xinjiang University, China
P6.	*Synthesis and characterization of chitosan-silicon carbide nanocomposite* **Nadia Hussein El-Sayed** | Tabuk University, Saudi Arabia
P7.	*Synthesis and swelling properties of azacrown ether cross-linked chitosan membranes for removal of aqueous heavy metal ions* **Julius Ratumo Toeri** | University of Freiburg, Germany
P8.	*The lysozyme sustained release system based on poly(3-hydroxybutyrate)-poly(ethylene glycol) microparticles: biocompatibility and enzymatic activity* **Zernov Anton** | Moscow University, Russia
P9.	*A study on bionanocomposites made from starch and sepiolite* **Gildas Coativy** | University of Guelph, Canada
P10.	*Development of biopolymer-based nanocomposites for automotive applications* **Saqib Anwar** | University of the Punjab, Pakistan
P11.	*The Performance of Ni/ZrO2-CeO2-Al2O3 catalysts prepared by different methods for tar cracking and carbon deposit reduction* **Zhengshun Wu** | Central China Normal University, China
P12.	*Application of alcohol-liquefied wood / epoxy as a new formaldehyde-free particleboard adhesive system* **Yi Liu** | Beijing Forestry University, China
P13.	*Valorization of polysaccharidic fractions of olive oil processing by-products* **Philippe Michaud** | Clermont Université, France
P14.	*Production of high value added compounds from food processing wastes* **Sayed S. Abozaied** | Cairo University, Egypt

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P15.	*Novel enzyme-metal bifunctional nano-hybrid biobased catalyst and Its Performance for starch conversion in one pot* **Yijun Jiang** | Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences, China
P16.	*High strength nanopaper from Miscanthus biogas production residue* **Eva Lems** | University of Natural Resources and Life Sciences, Austria
P17.	*Effect of electron beam irradiation on pretreatment of kenaf as a renewable source for biofuel* **Joon-Pyo Jeun** | Korea Atomic Energy Research Institute, Korea
P18.	*A new technology for the production of biodiesel catalyzed by solid acids* **Jingchang Zhang** | Beijing University, China
P19.	*Analysis of blended fuel properties and engine cyclic variations with ethanol additive* **Obed M. Ali** | University Malaysia Pahang, Malaysia
P20.	*Extraction and characterization of lignin and from different biomass resources* **Dereca Watkins** | Tuskegee University, USA
P21.	*Biochar properties obtained from Ontario perennial grasses* **Ehsan Behazin** | University of Guelph, Canada
P22.	*A study of carbonized lignin as an alternative to carbon black* **Michael Snowdon** | University of Guelph, Canada
P23.	Adhesion strength of bioadhesives prepared from lignin and dried distillers' grains with solubles (DDGS) **Tao Wang** | University of Guelph, Canada
P24.	*A study on the curing reaction of blends of epoxy resin and epoxidized soybean oil with bio-based hardener* **Ghodsieh Mashouf Roudsari** | University of Guelph, Canada
P25.	*Application of computer simulation and taguchi method to optimize differential shrinkage in injection molded bio-based hybrid polypropylene composites* **Birat KC** | University of Toronto, Canada
P26.	*Investigating co-injection moulding as an advantageous process for combining biodegradable polymers* **Nicholas Hotz** | University of Guelph, Canada
P27.	*Kinetic parameter studies during SF of laccase enzyme from white-rot fungi Pleurotus species and bio-depolymerization of bark to characterize aromatic compounds by gas chromatography–mass spectrometry (GC–MS).* **Muhammad Ferhan** | University of Toronto, Canada.
P28.	*Biopolyesters synthesis from glycerol: Influence of glycerol composition on structural and mechanical features of biobased materials* **Oscar Valerio** | University of Guelph, Canada
P29.	*Producing a bioplastic blend from partially biobased poly (trimethylene terephthalate) (PTT) and biobased polyethylene (Bio-PE)* **Eugene Enriquez** | University of Guelph, Canada

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P30.	*Properties of polymer blends from poly (3- hydroxybutyrate-co-3-hydroxyvalerate), poly (ε- caprolactum), and kraft lignin* **Benjamin Adams** | University of Guelph, Canada
P31.	*Reactive blending of protein rich meals and biodegradable polymers for green packaging* **Tizazu Mekonnen** | University of Guelph, Canada
P32.	*Process optimization and characterization of the electrospun lignin fibers from different plant sources* **Vida Pousorkhabhi** | University of Guelph, Canada
P33.	*Electrospinning of poly(d-lactic acid) with carbon nanomaterials: processing and characterization* **Zeinab Abboud** | University of Guelph, Canada
P34.	*Electrospun soy-based nanofiber wound dressings with active curcumin: Processing, characterization and proposed commercialization plan* **Alexis Wagner** | University of Guelph, Canada
P35.	*Hydrolytic Degradation of Biodegradable Polyesters under Simulated Environmental Conditions* **Rajendran Muthuraj** | University of Guelph, Canada
P36.	*Mechanical properties optimization and characterization of the poly lactide (PLA)/polypropylene carbonate (PPC) blends* **Qirui Sun** | University of Guelph, Canada
P37.	Hydrophobic properties of wood, surface modified by hydrothermal (telethermal) deposition of TiO2 nanocrystals **Pavel Pori** | Chemcolor Sevnica, d. o. o., Slovenia
P38.	Surface and thermal characterization of hemp fibres enhanced by a novel sulfonic acid treatment **Michael George** | University of Alberta, Canada
P39.	*Qualitative and quantitative gas chromatography - mass spectroscopy of beech bark subrin* **Anna Fichtner** | University of Freiburg, Germany
P40.	*Corn genes for performance in polypropylene/ cob fibre composites* **Mohammad Arif** | University of Guelph, Canada
P41.	*Composite from residue of enzymatic hydrolysis of sugarcane bagasse in polypropylene matrix* **Alcides Lopes Leão** | UNESP, Brazil
P42.	*A comparison between the environmental sustainability and physic-mechanical properties of biocomposites reinforced with perennial grasses, agriculture residues and food processing by-products* **Rachel Campbell Murdy** | University of Guelph, Canada
P43.	*Formulation optimization od distillers' grain biocomposites with response surface methodology* **Nima Zarrinbakhsh** | University of Guelph, Canada
P44.	*Flammability study of natural fiber reinforced biocomposites: effects of durability and compatibilizer* **Emmanuel Ogunsona** | University of Guelph, Canada

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P45.	*Reinforced bioplastics from chicken feathers* **Yussef Esparza** | University of Alberta, Canada
P46.	*Polylactic acid (PLA) based biocomposites with improved impact toughness and heat resistance* **Vidhya Nagarajan** | University of Guelph, Canada
P47.	*Life cycle assessment of a woven flax fiber reinforced epoxy composites* **Vertonica F. Powell-Rose**| University of Tuskegee, USA
P48.	*Is BioABS with soy hull financially feasible?* **Zhaohui Ma** | University of Guelph, Canada
P49.	*Bio-renewable hydrogen production by supercrititcal gasification of cowdung* **Mohammad Shahed Hasan Khan Tushar** | University of Guelph, Canada
P50.	*Torrefaction of Ontario biomass and characterizations* **Bimal Acharya** | University of Guelph, Canada
P51.	*Morphology and mechanical properties of polylactic acid and cellulosic nanofiber composite foams* **WeiDan Ding**| University of Toronto, Canada
P52.	*Water resistance of tanninbased adhesive bondlines* **Ricarda Böhm** | Albert-Ludwigs-University Freiburg, Germany
P53.	*Thermal and Mechanical Properties of Epoxidized soybean oil-siloxane crosslinked matrix system* **Mohamed Abdelwahab** | University of Guelph, Canada
P54.	*A new centre of excellence in process analysis and technology* **Martin Tubach** | Reutlingen University, Germany
P55.	*Colloidal probe characterization of hemp fibres treated with enzymes and sulfonic acids* **Paolo Mussone** | University of Alberta, Canada
P56.	*Effect of modified microcrystalline cellulose by physical method on the properties of epoxy resin composites* **Yuanfeng Pan** | Auburn University, USA
P57.	*Evaluation of binary and ternary nanobiocomposite of thermoplastic starch/ polycaprolactone/ beta tricalcium phosphate for bone tissue engineering applications* **Marzieh Taherimehr** | Sharif University of Technology, Iran
P58.	*Incorporation and in vitro release behavior of hydrophobic drug in Lipid-b-poly(ethylene glycol) micelles* **Shimiao Zhang** | University of Alberta, Canada
P59.	*In-situ modifications of keratin biopolymer for sorption of arsenic* **Muhammad Faisal Irfan** | University of Alberta, Canada

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P60.	*Green approach by using superheated steam pre-treatment for selectively removal of hemicellulose in oil palm mesocarp fiber* **Noor Ida Amalina Ahamad Nordin** | Universiti Putra Malaysia, Malaysia
P61.	*Life cycle assessment of cellulose nanowhiskers prepared with ionic liquid* **Wei Xu** | University Freiburg, Germany
P62.	*Making flexible highly conductive transparent natural cellulose substances* **Detao Liu** | South China University of Technology, China
P63.	*Microbial production of medium chain length polyhydroxyalkanoates (mcl-PHAs) from biodiesel industry by-products* **Parveen Kumar Sharma** | University of Manitoba, Canada
P64.	*Preparation and characterization of ethanol organosolv lignin based hydrogels with good mechanical flexibility* **Bai-Liang Xue, Jia-Long Wen** | Beijing Forestry University, China
P65.	*Synthesis of polyurethane using castor oil and waste glycerol* **Gustavo E Ramirez-Caballero** | Universidad Industrial de Santander, Colombia
P66.	*Thermal stabilization of TEMPO-oxidized cellulose nanofibers prepared by TEMPO-Buffer system* **Mei Xu** | Nanjing Forestry University, China
P67.	*Bioplastics: A review on current status, processing, properties and applications* **Mehdi Jonoobi** | University of Guelph, Canada