

**INSTITUTE FOR POLYMER RESEARCH
CELEBRATING 33 YEARS OF OFFICIAL INSTITUTE STATUS
THIRTY-NINTH ANNUAL SYMPOSIUM
ON POLYMER SCIENCE/ENGINEERING 2017
Conrad Grebel College
Great Hall
University of Waterloo, Waterloo, Ontario
Wednesday, May 3, 2017**

8:30 a.m.	Coffee
8:50	Welcome and Opening Remarks
9:00 - 9:20	Nimer Murshid , Chemistry, Waterloo Metal-Carbonyl Building Blocks for Aqueous Colloids with Aggregation-Induced Functions (Winner of the 2016 IPR Award for Academic Excellence in Polymer Science/Engineering)
9:20 - 10:00	Industry Speaker: Dr Kevin Kulbaba ARLANXEO Canada Inc. Title: Viscoelastic Properties of Commercial Elastomers - From Tires to Chewing Gum
10:00 – 10:20	<u>5-Min. Mini Presentations</u> 1) Joanne Fernandez Polyacrylonitrile-Modified Starch Nanoparticles by Cerium (IV)-Promoted Grafting 2) Liying Wang Synthesis of Polylactide-b-Polylysine Copolymers 3) Hunter Little Probing the Conformation of Foldamers in Solution through Fluorescence Anisotropy 4) Ryan Amos Modification of Cooked Waxy Corn Starch with Maleated Compounds.
10:20 - 10:45	Coffee
10:45 - 11:05	Nicholas Lanigan Processable Bulk Supramolecular Polymers From Small Molecule Building Blocks
11:05 – 11:25	Alison Scott Facilitating Reactivity Ratio Estimation with the Error-in-Variables-Model: ‘prêt-à-porter’ computational package.

- 11:25 – 11:45 **5-Min. Mini Presentations**
- 5) **Deepak Dharman**
Synthesis of Isoprenic Polybutadiene Macromonomers for the Preparation of Branched Polybutadiene
- 6) **Shipei Zhu**
Production of Highly Mono Disperse Polymers by Evaporative Purification
- 7) **Jasmine Zhang**
Study of the Interactions of Pyrene-Labeled SNPs with Sodium Dodecyl Sulfate (SDS)
- 8) **Aleksander Cholewinski**
Underwater Adhesion and Mechanical Properties of Catechol-modified Alginate Hydrogels
- 12:00 - 1:00 **Lunch**
- 1:00 - 1:40 Industry Speaker Dr. Andrew Kee Woodbridge Group
Title: High-Performance Polyurethane Foams for Lower Mass Automotive Seating
- 1:40 – 2:00 **Abdullah Ba Salem**
Probing the Interactions between Pyrene-labeled Gemini Surfactants and Non-Gemini Surfactants by Fluorescence
- 2:00 – 2:20 **Remi Casier**
Predicting the Fraction of Mixing Between Latex Particles
- 2:20 - 2:40 **Kate Stewart**
Sensory Array for Volatile Organic Compounds based on Doped Poly (o-ansidine)
- 2:40 - 3:00 **Jesse Quinn , Chemical Engineering, Waterloo**
Nature-Inspired Polymers: Promising Materials for OTFT-Based Sensors
(Winner of 2015 IPR Award for Academic Excellence in Polymer Science/Engineering)
- 3:00 - 3:20 **Coffee**
- 3:20 - 3:40 **Lu li**
Conformation of the Side Chains of Amylopectin in DMSO Determined by Pyrene Excimer Fluorescence and Molecular Mechanics Optimizations
- 3:40 - 4:00 **Janine Thoma**
Probing the Conformations of Pyrene Labeled PEGMA Polymeric Bottle Brushes in Solution by Pyrene Excimer Formation

- 4:00 - 4:20 Mohammed Awad
Study of MMA in Emulsion Polymerization via AGET ATRP using Large Batch Reactor
- 4:20 – 4:40 **Tori Hisko**
Fluorescently Labelled Latex Particles to Monitor Film Formation
- 4:40 – 5:00 **Damin Kim**
Characterization of Hydrophobically Modified Starch Nanoparticles by Pyrene Fluorescence
- 5:00 **Closing remarks**
- 6:00 - 7:30 **IPR Industrial Member DINNER**
University Club, Main Dining Room
- 7:30 - 9:00 **Poster Presentations and Informal Get-together**
University Club, Main Dining Room
(IPR graduate students/researchers and symposium participants)

Poster presentations follow on next page

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THIRTY-NINTH ANNUAL SYMPOSIUM
ON POLYMER SCIENCE/ENGINEERING 2017
POSTER SESSION
WEDNESDAY, MAY 3, 2017
UNIVERSITY CLUB
7:30 – 9:00 pm**

Boya Zhang Chem. Eng., Waterloo	Detection of Toxic Analytes using a Sensor Array
Zehou You Chemistry, Waterloo	Effect of Low Molecular Weight Polymer Diluent on Latex Film Formation
Alison Scott Chem. Eng., Waterloo	“EVM on a Chip”: Investigating Kinetic Behaviour of Copolymerizations
Janine Thoma Chemistry, Waterloo	Quantification of Long-Range, Polymer Chain Dynamics of a ‘Stiff’ Polymer’
Katherine Stewart Chem. Eng., Waterloo	Polymer-based Sensor Array for Multiple Volatile Organic Compounds
Mustafa Mohamed Shahwan Chem. Eng., Ryerson	Dynamic Modeling by Identification Technique of PVA Solution Degradation in a Tubular Photochemical Reactor
John Tam Chem. Eng., Ryerson	Kinetic study of SARA ATRP polymerization
Mohammed Awad Chem. Eng., Ryerson	Effect of Ligands on Controlled Polymerization of Methyl Methacrylate by AGET Method in Emulsion System
Faisal Sahul Hameed Chem. Eng., Ryerson	Modelling and Simulation of ARGET ATRP of BMA solution in Continuous Stirred Tank Reactor(CSTR)
Lu Li Chemistry, Waterloo	Conformation of the Side Chains of Amylopectin in DMSO Determined by Pyrene Excimer Fluorescence and Molecular Mechanics Optimizations
Damin Kim Chemistry, Waterloo	Characterization of Hydrophobically Modified Starch Nanoparticles with Pyrene Fluorescence