

**INSTITUTE FOR POLYMER RESEARCH  
CELEBRATING 31 YEARS OF OFFICIAL INSTITUTE STATUS  
THIRTY-SEVENTH ANNUAL SYMPOSIUM  
ON POLYMER SCIENCE/ENGINEERING 2015  
Conrad Grebel College  
Great Hall  
University of Waterloo, Waterloo, Ontario  
Wednesday, May 6, 2015**

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8:30 a.m.	<b>Coffee</b>
8:50	<b>Welcome and Opening Remarks</b>
9:00 - 9:20	<b>Marzieh Rianhinezhad , Chemical Engineering, Waterloo</b> Relationships between copolymerization kinetics and structural properties of acrylamide/acrylic acid copolymer <b>(Winner of the 2014 IPR Award for Academic Excellence in Polymer Science/Engineering)</b>
9:20 - 10:00	Industry Speaker: <b>Dr. James Taylor BASF</b> Title: Glass Transition Evolution of Plasticized Latex Films
10:00 – 10:25	<b><u>5-Min. Mini Presentations</u></b> <b>1) Yu Chai</b> Crystallization of low molecular weight atactic polystyrene <b>2) Kai Cao</b> Synthesis of main-chain metal carbonyl organometallic macromolecules (MCMCOMs) by migration insertion polymerization (MIP) <b>3) Shouliang Nie</b> Rheological properties of tailor-made metallocene and Ziegler-Natta based controlled rheology polypropylenes <b>4) Zihe Pan</b> The study of self-cleaning property and oil adhesion reduction of bio-inspired superoleophobic micropillars <b>5) Lu Li</b> Intramolecular Chain Dynamics of Polysaccharides Probed by Pyrene Excimer Formation
10:25 - 10:45	<b>Coffee</b>
10:45 - 11:05	<b>Alison Scott</b> Reactivity ratio estimation for AMPS/AAm and AMPS/AAC copolymers: a comparative experimental study
11:05 – 11:25	<b>Mike Fowler</b> Effect of Sequence on the Ionization Behaviour of a Series of Amphiphilic Polypeptides

11:25 – 12:00

**5-Min. Mini Presentations**

**6) Yung Priscilla Lai**

Development of weak cation exchange membrane absorber materials for protein capture

**7) Mosa Alsehli**

Arborescent polypeptides for sustained drug release

**8) Yinghui He**

*Developing Novel Materials for Perovskite Solar Cells.*

**9) Li Chen**

Enhanced catalytic property of gold nanoparticles loaded on polyamidoamine dendrimer-grafted cellulose nanocrystals

**10) Dapeng Liu**

Temperature stimulated self-assembly of metal organometallic polymer PFpP in DMSO

12:00 - 1:00

**Lunch**

1:00 - 1:40

Industry Speaker: **Dr. Bryce McGarvey, Imperial**

Title: Polymers in the Petroleum Industry: From Additive Chemistry to Feedstock Production to Equipment Fouling

1:40 – 2:00

**Kate Stewart**

Tips for selecting polymeric ethanol-sensing materials: Detection mechanisms and sensing materials

2:00 – 2:20

**Remi Casier**

Use of Pyrene Excimer Fluorescence to Probe Polymer Chain Diffusion between Latex Particles during Film Formation

2:20 - 2:40

**Shiva Farhangi**

Novel Pyrenyl Derivative to Probe Polymer Polarity

2:40 - 3:00

**Behnam Meschi Amoli, Chemical Engineering, Waterloo**

systems

Title: Hybrid epoxy-based conductive composites with Macro/nano filler

**(Winner of 2014 IPR Award for Academic Excellence in Polymer Science/Engineering)**

3:00 - 3:20

**Coffee**

3:20 - 3:40

**Nishil Mohammed**

Cellulose nanocrystals incorporated hydrogels for wastewater treatment

3:40 - 4:00

**Vo Thu An Nguyen**

Magnetic micelles as therapy and diagnostic (theranostic) agents

4:00 - 4:20

**Shuixiu Lai**

Sorptive separation of phenolic compounds from wastewater

4:20 – 4:40

**Nimer Murshid**

Synthesis and Self-Assembly of Iron-Carbonyl Amphiphilic Macromolecules

4:40 – 5:00

**Ryan Amos**

Synthesis of Vegetable Oil-Based Resins

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-SEVENTH ANNUAL SYMPOSIUM  
ON POLYMER SCIENCE/ENGINEERING 2015  
POSTER SESSION  
WEDNESDAY, MAY 6, 2015  
UNIVERSITY CLUB  
7:30 – 9:00 pm**

Akilu Worku Chemistry, Waterloo	Polyion complexes for the preparation of gold nanoparticles
Mosa Alsehil Chemistry, Waterloo	Arborescent polypeptides for sustained drug release
Sun Bi Chem. Eng., Waterloo	A high mobility pyridine-flanked DPP-based polymer showing ambipolar and n-type unipolar transport performance in organic thin film transistors
Yinghui He Chem. Eng., Waterloo	(3E,7E)-3,7-Bis(2-oxoindolin-3-ylidene)-5,7-dihydropyrrolo[2,3-f]indole-2,6(1H,3H)-dione based polymers for ambipolar organic thin film transistors
Alison Scott Chem. Eng., Waterloo	Contrasting binary and ternary reactivity ratios for AMPS, AAm and AAc
Lu Li Chemistry, Waterloo	Characterization of Structure and Dynamics of Starch Nanoparticles by Fluorescence
Yu Chai Physics and Astronomy, Waterloo	Crystallization of low molecular weight atactic polystyrene
Yung Priscilla Lai Chemistry, Waterloo	Development of weak cation exchange membrane adsorber materials for protein capture
Nicholas Lanigan Chemistry, Waterloo	Truss Arrangement of Iron Atoms in Supramolecular Polymers
Paulina Arczewska Civil and Envi. Eng., Waterloo	Effects of alkaline environment on mechanical properties of Glass Fiber Reinforced Polymer (GFRP) bars
Justin Raimbault Chemistry, Waterloo	Probing the Interactions between Hydrophobically Modified Water-Soluble PEOs by Pyrene Excimer Fluorescence