

2020

PROGRAM

**INSTITUTE FOR POLYMER RESEARCH
CELEBRATING 35 YEARS OF OFFICIAL INSTITUTE STATUS
FORTY-SECOND ANNUAL SYMPOSIUM
ON POLYMER SCIENCE/ENGINEERING 2020
University of Waterloo, Waterloo, Ontario
Wednesday, September 2, 2020**

12:50	Welcome and Opening Remarks
1:00 – 1:20	<p>Janine Thoma [Prof. Duhamel] Persistence Length of Polymeric Bottle Brushes Determined by Pyrene Excimer Fluorescence (Winner of 2020 IPR Award for Academic Excellence in Polymer Science/Engineering)</p>
1:20 – 1:40	<p>Elnaz Esmizadeh [Prof. Mekonnen] Degradation behavior of polypropylene during reprocessing and its biocomposites: thermal and oxidative degradation kinetics</p>
1:40 – 2:20	<p><u>5-Min. Mini Presentations</u></p> <ol style="list-style-type: none"> 1) Sainiwetha Saihrishnan [Prof. Mekonnen] Thermo-mechanical Degradation of Polypropylene-Low Density Polyethylene blend system after multiple extrusion 2) Javan Buratynski [Prof. Schipper] Using Degradable Polymers to Separate Carbon Nanotubes 3) Abdullah Ba Salem [Prof. Duhamel] Determination of Aggregation Number for Pyrene-labeled Gemini Surfactants 4) Kristijan Lulic [Prof. Duhamel] Self-Association of Oligoquinoline Foldamers Probed by Fluorescence Anisotropy 5) Hunter Little [Prof. Duhamel] Progress in Instrumentation for Time-resolved Fluorescence Anisotropy 6) Franklin Frasca [Prof. Duhamel] Relating Pyrene Excimer Fluorescence to Conformation in Pyrene-Labeled Polyamines 7) Tiana Trumpur [Prof. Forrest] Solvent Induced Nanoscopic Roughness on Glassy Polymer Thin Films 8) Minghui Liu (Prof. Zhao) Antimicrobial Activity of Quaternary Ammonium Compound/Polyurethane [QAC/PU] Colloidal Complex Film Based on Synergetic Release Killing and Contact Killing Mechanisms
2:20 – 2:40	<p>Remi Casier [Prof. Duhamel] Copolymerization and its Effects on Polymer Dynamics in Solution</p>
2:40 – 3 :00	Break

Mini-Symposium on Modification, Characterization, and Applications of Polysaccharides

3:00 - 3:20	Chunxia Tang [Prof. Tam] Functionalized Cellulose Aerogel Beads for Heavy Metal Ions Removal (Winner of the 2020 IPR Award for Academic Excellence in Polymer Science/Engineering)
3:20 – 3:40	Natun Dasgupta [Prof. Gauthier] Thermoresponsive Starch Nanoparticles for Oil Recovery from Tar Sands
3:40 – 4:00	<u>5-Min. Mini Presentations</u> 9) Maryam Bagheri [Prof. Simon] Polysaccharide-Ionic Liquid corrosion inhibitors 10) Ewomazino Ojogbo [Prof. Mekonnen] Effects of fabrication method on the dispersion of CNCs in highly crosslinked rubber composites 11) Sanjay Patel [Prof. Duhamel] Pyrene-labeled Starch Nanoparticles as Fluorescent Sensors for Explosive Detection 12) Donghan Liu [Prof. Duhamel] Synthesis and Characterization of Furan Based Non-ionic Surfactant (FBNIOS)
4:00 – 4:20	Joanne Fernandez [Prof. Gauthier] Grafting of Starch Using a Complex Initiation System of CAN-KPS
4:20 – 4:40	Muhammad Shahidul Islam [Prof. Tam] Cellulose Nanomaterials: Synthesis, Properties, and Applications
4:40 - 5:00	Damin Kim [Prof. Duhamel] Better Understanding the Structure of Glycogen with Pyrene Excimer Fluorescence
5:00	Closing Remarks