

**INSTITUTE FOR POLYMER RESEARCH  
TWENTY-SIXTH ANNUAL SYMPOSIUM  
ON POLYMER SCIENCE/ENGINEERING  
2004**

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**Held at:  
Conrad Grebel College  
Great Hall  
University of Waterloo  
Waterloo, Ontario  
Tuesday, May 11 – Wednesday, May 12, 2004**

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**TUESDAY, MAY 11, 2004**

- 8:30 a.m.           **Coffee**
- 8:50                   **Welcome and Opening Remarks**
- 9:00 - 9:30           **Steve Teertstra, Chemistry, Waterloo**  
Physical characterization of arborescent polystyrene-graft-polyisoprene  
copolymers  
**(2003 IPR Scholarship Awardee)**
- 9:30 - 10:00          **Mingzhen Zhang, Chemistry, Waterloo**  
Study of the microcrystallisation of ethylene propylene copolymer by  
fluorescence
- 10:00 - 10:30         **Mercy Bulsari, Chemical Engineering, Waterloo**  
Extrusion of silicone-modified polypropylene with supercritical CO<sub>2</sub>  
**(2003 IPR Scholarship Awardee)**
- 10:30 - 11:00         **Coffee**
- 11:00 - 11:30         **Carlos Lopez, winner joint SPM-CIQA Prize for the Best Thesis on  
Polymers (MA) and MSED scholarship  
University of Guadalajara, Mexico  
CID-DESC, Mexico**  
Study of the polymer blends drop deformation during the blown film  
process
- 11:30 - 12:00 p.m.   **Narges Ghadi, Chemical Engineering, Ryerson University**  
Modelling and simulation of emulsion polymerization reactors
- 12:00 - 1:30           **Lunch**
- 1:30 - 2:00           **Diego Guzman, winner joint SPM-CIQA Prize for the Best Thesis on  
Polymers (PhD) and MSED scholarship  
Faculty of Chemistry, Univ. Nacional Autonoma de Mexico (UNAM)  
University of Mexico (Instituto Mexicano des Petroleo), Mexico**  
Ortho-substituted aromatic polyimides: chemistry, properties and structure

- 2:00 - 2:30      **Neda Felorzabihi, Chemical Engineering, Ryerson University**  
Modelling and simulation of gas phase ethylene polymerization with Ziegler-Natta and metallocene catalysts in a bubbling fluidized bed reactor
- 2:30 - 3:00      **Jason Xi Zhang, Chemical Engineering, Waterloo**  
In situ polymerization of polyethylene-nanoalumina composites
- 3:00 - 3:30      **Coffee**
- 3:30 - 4:30      **Informal Discussions with Graduate Students and IPR Researchers and/or Optional Tours of Facilities**
- 4:30 - 5:30      **IPR Industrial Advisory Board MEETING**  
University Club, Burgundy Room
- 6:00 - 7:30      **IPR Industrial Advisory Board DINNER**  
University Club, Burgundy Room
- 7:30 - 10:30     **Poster Presentations and Informal Get-together**  
University Club, Main Dining Room  
(IPR graduate students/researchers and symposium participants)

### **WEDNESDAY, MAY 12, 2004**

- 8:30    a.m.      **Coffee**
- 9:00 - 9:30      **Xiangdong Fang, Professor, Chemistry, Waterloo**  
1,2-Heteroborolyls: design, synthesis and application of olefin polymerization catalysis
- 9:30 - 10:00     **Nan Jiang, Chemical Engineering, Waterloo**  
Studies of gas permeation through poly(dimethyl/siloxane)/polyetherimide membranes
- 10:00 - 10:30     **Coffee**
- 10:30 - 11:00     **Howard Siu, Chemistry, Waterloo**  
Level of association of a pyrene labelled associating polymer as a function of surfactant concentration
- 11:00 - 11:30     **Li Liu, Chemical Engineering, Waterloo**  
Permeation, sorption and diffusion of olefins in poly(ether block amide) membranes
- 11:30 - 12:00     **Shuihan Zhu, Chemical Engineering, Waterloo**  
Thermoplastic vulcanizates (TPVs) prepared by reactive processing from blends of reclaimed rubbers and polypropylenes
- 12:00    p.m.      **Closing remarks/Lunch/Adjournment**

# INSTITUTE FOR POLYMER RESEARCH

## TWENTY-SIXTH ANNUAL SYMPOSIUM ON POLYMER SCIENCE/ENGINEERING

### POSTER SESSION

TUESDAY MAY 11, 2004

UNIVERSITY CLUB

7:30 pm

Joy Cheng Chem Eng'g., Waterloo Jose Alvarado Civil Eng'g., Waterloo	Relationships between chemical and micromechanical properties for polyethylene pipes: Structural application and micromechanical modelling
Jason Dockendorff Chemistry, Waterloo	Metal-loaded arborescent polymer micelles
Diego Guzman FQ-UNAM (CID-DESC), Mexico	Structural anisotropy and chemical transformations of rod-like polyimides with ortho substituents in diamine moiety
Sumit Kundu Chem. Eng'g, Waterloo	Mechanical properties of membranes for fuel cells
Mike Leamen/ Matt Scolah Chem. Eng'g, Waterloo	Advances with copolymerizations at elevated temperatures
Ziqiang Li Chem. Eng'g, Waterloo	Solubility and diffusion coefficient of supercritical carbon dioxide in nylon-66
Gabriel Njikang Chemistry, Waterloo	Induced association of arborescent amphiphilic copolymers at the air/water interface
Sheena Shankar/ Ramin Khesareh Chem. Eng'g., Waterloo	Copolymerization of methyl methacrylate with styrene and acrylonitrile at elevated temperatures
Bushra Siddique Chemistry, Waterloo	A new biocompatible drug delivery system
Carlos Lopez Univ. of Guadalajara, Mexico	Blends of Polyamide-6/low density polyethylene blown films: study of processing-morphology-properties relationships
Zhongshun Yuan Chemistry, Waterloo	One-pot synthesis of arborescent polymers