

PLENARY SESSION
December 11, 2005

Session Chairs

James E. McGrath, Virginia Tech, USA
Sung Chul Kim, Kaist, Korea
Eric Baer, Case Western Reserve, USA

SUNDAY, DECEMBER 11, 2005

3:00 p.m. **James E. McGrath**, President, Pacific Polymer Federation IX
Overview and Objectives of the Conference

Plenary Lecture

3:15 p.m. **Eric Baer**, Case Western Reserve University, USA
Introduction of U.S. Plenary Speakers

3:30 p.m. **Kurt W. Swogger**, VP of Plastics R&D, Dow Chemical Company, USA;
P. Steve Chum, Dow Fellow and Lead Scientist, Dow Chemical Company, USA
The Development of New Generation of Polyolefins: From Molecular Design to Market Development

Plenary Lecture

4:30 p.m. **Sung Chul Kim**, KAIST, Korea
Introduction of Plenary Speaker

4:45 p.m. **Dr. Jong-Kee Yeo**, President and CTO, LG Chemicals Ltd., Korea
Restructuring of a Chemical Industry

6:00 p.m. RECEPTION (all participants invited)

NOVEL SYNTHETIC ROUTES
December 12-13, 2005

Session Chairs

Kenneth B. Wagener, University of Florida, USA
Toshio Masuda, Kyoto University, Japan
Masato Suzuki, Nagoya Institute of Technology, Japan

MONDAY, DECEMBER 12, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Novel Synthetic Routes I

Kenneth B. Wagener, Discussion Leader

8:00 a.m. **Kenneth B. Wagener**, University of Florida, USA
Session Introduction

8:15 a.m. **Robert Waymouth**, Stanford University, USA
N-Heterocyclic carbenes: A General and Versatile Platform for Organocatalytic Polymerization Reactions

8:45 a.m. **Akira Hirao**, Tokyo Institute of Technology, Japan
Precise Synthesis of Dendrimer-like Hyper Branched Polymers by Means of Living Anionic Polymerization and Functional Group Transformation

9:15 a.m. **Tsutomu Yokozawa**, Kanagawa University, Japan
Condensation Polymer Architecture from Chain-Growth Polycondensation

9:45 a.m. **Geoffrey Coates**, Cornell University, USA
A Highly Active, Isospecific Cobalt Catalyst for Propylene Oxide Polymerization

10:15 a.m. BREAK

Novel Synthetic Routes II

Robert Waymouth, Discussion Leader

10:30 a.m. **Karen L. Wooley**, Washington University, USA
The Preparation, Characterization, and Manipulation of Well-defined Nanoscopic Objects

11:00 a.m. **Jeffrey Moore**, University of Illinois, USA
Folded Oligomers and Other Well-Defined Molecular Architectures

11:30 a.m. **Tatsuki Kitayama**, Osaka University, Japan
End-functional Stereoregular Polymethacrylates—From Initiator Design to Macromolecular Architecture

12:00 p.m. **Fumio Sanda**, Kyoto University, Japan
Amino Acid-based Stimuli-responsive Helical Polymers

12:30 p.m. LUNCH ON YOUR OWN

Novel Polymerization Reactions

Toshio Masuda, Discussion Leader

2:30 p.m. **Toshio Masuda**, Kyoto University, Japan
Session Introduction

2:45 p.m. **Tadatomi Nishikubo**, Kanagawa University, Japan
Development of New Reactions of Oxetanes and Their Application to Polymer Synthesis and Polymer Industry

3:15 p.m. **Yusuke Kawakami**, Japan Advanced Institute of Science and Technology, Japan
Polymerization of Optically Pure 1-Methyl-1-(1-naphthyl)-2,3-benzosilacyclobut-2-ene and the Properties of the Obtained Polymer

3:45 p.m. **Der-Jang Liaw**, National Taiwan University of Science and Technology, Taiwan
Novel Miscellaneous Macromolecules of Multiply Active Monomers via Ring-Opening Metathesis Polymerization and Radical Polymerization: Synthesis and Architecture Transformations

4:15 p.m. BREAK

4:30 p.m. **Dennis W. Smith, Jr.**, Clemson University, USA
Step Growth Ring Forming and Ring Opening Polymerization toward Fluoropolymers, Polyarylenes, and Renewable Resource Materials

5:00 p.m. **Shiro Kobayashi**, Kyoto University, Japan
New Mechanistic Aspects in the Enzymatic Polymerization to Polysaccharides

5:30 p.m. **Timothy J. Deming**, University of California Los Angeles, USA
Self-assembly of Amphiphilic Block Copolypeptides: The Role of Chain Conformation

6:00 p.m. **Akira Harada**, Osaka University, Japan
Ring Opening Polymerization of Lactones Initiated by Cyclodextrins: Formation of Polyester-tethered Cyclodextrins

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION, Novel Synthetic Routes

TUESDAY, DECEMBER 13, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Solid State Polymerization

Masato Suzuki, Discussion Leader

8:30 a.m. **Masato Suzuki**, Nagoya Institute of Technology, Japan
Session Introduction

8:45 a.m. **Shuji Okada**, Yamagata University, Japan
Synthesis of Polydiacetylenes with Improved Optical Properties

9:15 a.m. **Akikazu Matsumoto**, Osaka City University, Japan
Feature and Mechanism of Solid-State Polymerization of 1,3-Diene Monomers

9:45 a.m. **Fred Wudl**, University of California Los Angeles, USA
The Solid State Polymerization of Sulfur Heterocycles of Interest in Organic Electronics

10:15 a.m. BREAK

Fred Wudl, Discussion Leader

10:30 a.m. **Matthias Epple**, University of Duisburg-Essen, Germany
Solid-State Synthesis of Porous Polyesters and their Application for Medical and Pharmaceutical Purpose

11:00 a.m. **Kunio Kimura**, Okayama University, Japan
Preparation of Copolymer Whisker by Using Crystallization of Oligomers

11:30 a.m. **John M. Torkelson**, Northwestern University, USA
Novel Routes to In Situ Block Copolymer Formation by Interpolymer Radical Coupling Reactions in Melt-State and Solid-State Polymer Blends

12:00 p.m. TBA

12:30 p.m. LUNCH ON YOUR OWN

LIVING POLYMERIZATIONS

December 12-13, 2005

Session Chairs

Judit Puskas, University of Akron, USA
Mitsuo Sawamoto, Kyoto University, Japan

MONDAY, DECEMBER 12, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Ionic Living Polymerizations I

Robson F. Storey, Discussion Leader

8:00 a.m. **Judit E. Puskas**, University of Akron, USA
Opening Remarks and Session Introduction

8:15 a.m. **Joseph P. Kennedy**, The University of Akron, USA
Living Polymerizations: An Academic/Industrial Symbiosis

8:45 a.m. **Virgil Percec**, University of Pennsylvania, USA
Plenary lecture: New Concepts in Living Polymerizations and New Strategies Designed with the Aid of Living Polymerizations.

9:15 a.m. **Ryuji Fukuda**, Kaneka Corporation, Japan
Synthesis of Styrene-Isobutylene Block Copolymers using Living Carbocationic Polymerization and Performance Characteristics of Their Block Copolymers

9:45 a.m. **Alain Deffieux**, University of Bordeaux, France
Reactivity and Selectivity Control based on Trialkylaluminum Catalysis in Anionic Polymerization

10:15 a.m. BREAK

Ionic Living Polymerizations II

Timothy E. Long, Discussion Leader

10:30 a.m. **Sadahito Aoshima**, Osaka University, Japan
Fast Living Cationic Polymerization for Synthesis of Well-Defined Stimuli-Responsive Polymers

11:00 a.m. **Yi-Xian Wu**, Beijing University of Chemical Technology, China
Carbocationic Polymerization with Protic Initiation for the Synthesis of Block Copolymers

LIVING POLYMERIZATIONS, December 12, 2005, CONT'D

11:30 a.m. **Herbert Mayr**, Ludwig-Maximilians University, Germany
Kinetics of Ion-Molecule Reactions

12:00 p.m. **Nikos Hadjichristidis**, University of Athens, Greece
Well-Defined Star-Tailed Macromonomers. A Route to Novel Macromolecular Architectures

12:30 p.m. LUNCH ON YOUR OWN

Ionic Living Polymerizations III and Non-ionic Living Polymerizations I

Shiping Zhu, Discussion Leader

2:00 p.m. **Mitsuo Sawamoto**, Kyoto University, Japan
Session Introduction

2:15 p.m. **Masanobu Uchiyama**, University of Tokyo, Japan
Organozincate-mediated Anionic Polymerizations

2:45 p.m. **Wayne D. Cook**, Monash University, Australia
Pseudo-living Cationic Photopolymerization of Diepoxy, Dicyanate and Divinyl Ether

3:15 p.m. **Timothy E. Long**, Virginia Tech, USA
The Versatility of Living Anionic and Radical Polymerization Processes for Probing Multiple Hydrogen Bonding and Supramolecular Architecture

3:45 p.m. **Michael F. Cunningham**, Queen's University, Canada
Surface-Initiated Nitroxide-Mediated Radical Polymerization from Polymeric Microspheres

4:15 p.m. BREAK

Non-Ionic Living Polymerizations I

Yamago Shigeru, Discussion Leader

4:30 p.m. **Craig J. Hawker**, University of California, Santa Barbara, USA
Rapid and Efficient Synthesis of Functionalized Materials via Click Chemistry and Living Polymerization

5:00 p.m. **Masami Kamigaito**, Nagoya University, Japan
Metal-Catalyzed Living and Stereospecific Radical Polymerization

5:30 p.m. **Bernadette Charleux**, University of Pierre & Marie Curie, France
Application of Controlled/Living Free Radical Polymerization to the Design of Polymer Colloids

6:00 p.m. **Michael Georges**, University of Toronto, Canada
Mechanistic and Kinetic Studies of the Nitroxide-Mediated Living Radical Polymerization Process

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION,
Organizers/Chairs: **Mitsuo Sawamoto**, Kyoto University, Japan
Living Polymerizations

TUESDAY, DECEMBER 13, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Non-ionic Living Polymerizations II

Tsutomu Yokozawa, Discussion Leader

8:00 a.m. **Michael Cunningham**, Queen's University, Canada
Session Introduction

8:15 a.m. **Shiping Zhu**, McMaster University, Canada
Engineering Controlled/Living Radical Polymerization Processes: Catalyst Supporting and Packed-Column Reactor Technology for Continuous Atom Transfer Radical Polymerization

8:45 a.m. **Krzysztof Matyjaszewski**, Carnegie-Mellon University, USA
New initiation systems for atom transfer radical polymerization

9:15 a.m. **Yusuf Yagci**, Technical University of Istanbul, Turkey
Macromolecular Architecture Based on Mechanistic Transformation in Controlled Polymerization Methods

9:45 a.m. **Shigeru Yamago**, Osaka City University, Japan
Organotellurium-mediated Living Radical Polymerization (TERP)

10:15 a.m. BREAK

Non-Ionic Living Polymerizations III

Wayne Cook, Discussion Leader

10:30 a.m. **Terunori Fujita**, Mitsui Chemicals Inc., Japan
Living Olefin Polymerization Catalyzed by Fluorinated Ti-FI Catalysts: Creation of Unique Olefin-Based Materials

11:00 a.m. **Tsutomu Yokozawa**, Kanagawa University, Japan
Chain-Growth Polycondensation: Living Polymerization Behavior in Polycondensation

11:30 a.m. **Tom Davis**, University of New South Wales, Australia
Studies on the Mechanism of RAFT Polymerization

12:00 p.m. **Judit E. Puskas**, The University of Akron, USA
Natural Living Polymerization

12:30 p.m. **Mitsuo Sawamoto**, Kyoto University, Japan
Closing Remarks

12:40 p.m. LUNCH ON YOUR OWN

POLYMERIC BIOMATERIALS

December 12-13, 2005

Session Chairs

Allan S. Hoffman, University of Washington, USA
Kazunori Kataoka, University of Tokyo, Japan

MONDAY DECEMBER 12, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Tissue Engineering I

8:15 a.m. **Robert M. Nerem**, Georgia Tech, USA
Tissue Engineering: The Science, the Technology, and the Industry

8:45 a.m. **Buddy D. Ratner**, University of Washington, USA
Novel Polymers for Tissue Engineering Applications

9:15 a.m. **Kam Leong**, Johns Hopkins University, USA
Application of Nanostructures to Engineering of Tissues

9:45 a.m. **Young Ha Kim**, Gwangju Institute of Science and Technology, Korea
Mechano-active Vascular Tissue Engineering Using Elastic PLCL Scaffolds

10:15 a.m. BREAK

Tissue Engineering II

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- 10:30 a.m. **Teruo Okano**, Tokyo Women's Medical University, Japan
Intelligent Surfaces for Cell Sheet Engineering
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- 11:00 a.m. **Kevin Healy**, University of California Berkeley, USA
Controlling Stem Cell Fate via Biomimetic Polymers
-
- 11:30 a.m. **Toshihiro Akaike**, Tokyo Institute of Technology, Japan
Regulation of ES Cell Functions with Cell-Matrix Engineering
-
- 12:00 p.m. **Paul Gatenholm**, Chalmers University of Technology, Sweden
Biomimetic Scaffolds for Connective Tissue Engineering
-

12:30 p.m. LUNCH ON YOUR OWN

Polymers In Diagnostics And Drug Delivery

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- 2:15 p.m. **Patrick S. Stayton**, University of Washington, USA
Smart Biohybrid Materials
-
- 2:45 p.m. **Paul Burke**, Amgen Corporation, USA
Solvent Transport and Phase Change Challenges in the Fabrication and Development of Microencapsulated Biotherapeutics
-
- 3:15 p.m. **Tae Gwan Park**, Korea Advanced Institute of Science and Technology, Korea
Switching Porous to Nonporous Biodegradable Microspheres for Sustained Delivery of Human Growth Hormone
-
- 3:45 p.m. **Benjamin Chu**, Stony Brook University, USA
Encapsulation of Plasmid DNA by PLA-PEG-PLA Copolymer in an Electrospun PLGA Scaffold for Non-Viral Gene Delivery
-

4:15 p.m. BREAK

Novel Hydrogels

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- 4:30 p.m. **J. Kopecek**, University of Utah, USA
Hydrogels Self-Assembled from Graft and Block Copolymers
-
- 5:00 p.m. **Robert J. Miller**, Genzyme Corporation, USA
Medical Uses of Hyaluronan and Hylans
-

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- 5:30 p.m. **Sung Chul Kim**, Korea Advanced Institute of Science and Technology, Korea
Hydrophobic-Hydrophilic IPN's with Controlled Morphology
-
- 6:00 p.m. **Jie Chen**, Shanghai University, China
Preparation and Characterization of Thermo- and Ph-Sensitive Hydrogels
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POSTER SESSION AND RECEPTION

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- 7:30 p.m. POSTER SESSION AND RECEPTION, Polymeric Biomaterials
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TUESDAY, DECEMBER 13, 2005

- 7:00 a.m. CONTINENTAL BREAKFAST

Nanotechnology And Drug Delivery From Nanoparticles

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- 8:15 a.m. **Jackie Y. Ying**, Institute of Bioengineering & Nanotechnology, Singapore
Research in Bioengineering and Nanotechnology
-
- 8:45 a.m. **Emo Chiellini**, University of Pisa, Italy
Polymeric Nanoparticle Systems in Targeted Administration of Proteic Drugs
-
- 9:15 a.m. **Soon Hong Yuk**, Hannam University, Korea
Core-shell Nanoparticles for Protein Delivery
-
- 9:45 a.m. **Mitsuru Akashi**, Osaka University, Japan
Preparation of Biodegradable Poly(γ -glutamic acid) Nanospheres and their Applications for Vaccines
-

10:15 a.m. BREAK

Drug Delivery From Nanoparticles And Nanodevices

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- 10:30 a.m. **Mizuo Maeda**, RIKEN, Japan
DNA-Conjugated Polymers and Nanoparticles for Separation and Sensing
-
- 11:00 a.m. **Woo-Dong Jang**, The University of Tokyo, Japan
Therapeutic Applications of Self-assembled Photofunctional Dendrimer Nano-devices
-
- 11:30 a.m. **Ick Chan Kwon**, KIST, Korea
Self-Assembled Nanoparticles for Cancer Imaging and Therapy
-

12:00 p.m. **Natalya Rapoport**, University of Utah, USA
Echogenic Drug-loaded Nanoparticles for Image-guided Localized Tumor Therapy

12:30 p.m. LUNCH ON YOUR OWN

Non-Fouling Surfaces And Drug Delivery Systems

2:15 p.m. **Guohua Chen**, Alza Corp., a Johnson and Johnson Company, USA
Injectable Non-aqueous Biodegradable Polymer Gel for Controlled Release of Bioactive Agents

2:45 p.m. **Robert Ward**, The Polymer Technology Group, USA
Control of Polymer Surface Composition and Nanostructure via Surface Modifying End Groups (SME): Use of IR-Visible Sum Frequency Generation (SFG) to Compare Self-Assembled Monolayers to Polymers with SMEs

3:15 p.m. **Kazuhiko Ishihara**, The University of Tokyo, Japan
PC-polymer Surface Technology for Nano-biomedical Device Development

3:45 p.m. **Ging-Ho Hsiue**, National Tsing Hua University, Taiwan
Novel Mixed Micelles with Multi-Functions from Graft and Diblock Copolymers

4:15 p.m. BREAK

Novel Biomaterials, Anti-Microbial Surfaces and Degradable Stents

4:30 p.m. **Joachim Kohn**, Rutgers University, USA
Combinatorial and Computational Methods for the Discovery of Biomaterials

5:00 p.m. **Kenneth J. Wynne**, Virginia Commonwealth University, USA
Biocidal Coatings: Progress and Challenges

5:30 p.m. **Roya Borazjani**, Bausch & Lomb, USA
Inhibition of Bacterial Attachment to Contact Lens Surfaces

6:00 p.m. **Subbu Venkatraman**, Nanyang Technological University, Singapore
The Partial Elastic Memory Effect (PEM) Applied to Fully Polymeric Stents

6:30 p.m. Meeting Adjourn

POLYMERS FOR BATTERIES AND FUEL CELLS
December 12-13, 2005

Session Chairs

Tom Zawodzinski, Case Western Reserve University, USA
John B. Kerr, Lawrence Berkeley National Labs, USA

MONDAY, DECEMBER 12, 2005

7:00 a.m. CONTINENTAL BREAKFAST

8:30 a.m. **John Kerr**, Lawrence Berkley National Labs, USA
Cross-fertilization between Polymers for Batteries and Fuel Cells

PART 1: FUEL CELLS

Overview: Materials and Systems

8:55 a.m. **Richard Carlin**, ONR, USA
Military Needs in Fuel Cells

9:20 a.m. **Lesia Protsailo**, UTC Fuel Cells, USA
Durability Aspects of PEM Fuel Cells

9:45 a.m. **Brian Benicewicz**, Rensselaer Polytechnic Institute, USA
Durability of High Temperature PBI Fuel Cell Membranes

10:15 a.m. BREAK

Mechanisms

10:30 a.m. **D. Bussian**, University of California at Santa Barbara, USA
Experimental and theoretical work towards understanding Nafion structure and improving Pt loading

11:00 a.m. **Stephen Paddison**, University of Alabama-Huntsville, USA
From molecular structure to material function: a multiscale modeling approach to PEMs

11:30 a.m. **Gregory A. Voth**, University of Utah, USA
Molecular Dynamics Simulation of Excess Proton Solvation and Transport in Polymer Electrolyte Membranes

12:00 p.m. **Beery Chou**
Toward Proton Conductors for Low RH: Building Blocks

12:30 p.m. LUNCH ON YOUR OWN

New Polymers

1:45 p.m. **Steve Hamrock**, 3M™ Fuel Cell Components Program, USA
New PFSA Membranes with Improved Durability

2:15 p.m. **Joseph. M. DeSimone**, University of North Carolina at Chapel Hill, USA
New Super Proton-Conductive, High Acid-Containing Fluoropolymer PEMs from Cured Liquid Precursors

2:45 p.m. **Yoshimitsu Sakaguchi**, Toyobo Corporation Ltd., Japan
Polybenzimidazole Membranes Containing Sulfonic and/or Phosphonic Group

3:15 p.m. **Ken Tasaki**, Mitsubishi, USA
Fullerene Composite Membranes for Low Humidity Operation of H₂PEFC and DMFC

3:45 p.m. **Peter N. Pintauro**, Case Western Reserve University, USA
Modified Nafion as the Membrane Material for Direct Methanol Fuel Cells

4:15 p.m. BREAK

MEA

4:30 p.m. **Gary Wnek**, Case Western Reserve University, USA
Electrostatic Polymer Processing Applied to PEM Fabrication

5:00 p.m. **Bryan Pivovar**, Los Alamos National Laboratory, USA
Optimizing Alternative Polymer Performance in Fuel Cell Applications

5:30 p.m. **Donald G. Baird**, Virginia Tech, USA
Development of Moldable Thermoplastic Composite Bipolar Plates with High Through-Plane Conductivity

6:00 p.m. Summary and Adjourn

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION, Polymers for Batteries and Fuel Cells

TUESDAY, DECEMBER 13, 2005

7:00 a.m. CONTINENTAL BREAKFAST

PART 2: BATTERIES

Battery Technology Overview

8:00 a.m. **Masayoshi Watanabe**, Yokohama National University, Japan
Design of Li⁺-Conducting Polymer Electrolytes and Their Electrochemical Interfaces

8:45 a.m. **Wesley Henderson**, U. S. Naval Academy, USA
Revisiting 'Dry' Polymer Electrolytes - The Incorporation of Ionic Liquids for Lithium Batteries

9:30 a.m. **Oleg Borodin/Grant D. Smith**, University of Utah
Molecular Dynamics Simulations of Polymer, Gel and Liquid Electrolytes

10:15 a.m. BREAK

Mechanisms and Materials

10:45 a.m. TBA

11:30 a.m. **Hiroyuki Nishide**, Waseda University, Japan
Organic Radical Polymers as a New Class of Electrode-Active Materials for Secondary Batteries

12:30 p.m. LUNCH ON YOUR OWN

POLYMERS IN THE MARINE ENVIRONMENT

December 12-13, 2005

Session Chairs

Peter Zarras, Navair, USA
Maureen Callow, University of Birmingham, United Kingdom
Hans Griesser, University of South Australia, Australia

MONDAY, DECEMBER 12, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Introduction and evaluation methods

K. J. Wynne and M. Callow, Discussion Leaders

8:00 a.m. Brief Introductory Remarks

8:15 a.m. **Julian E Hunter**, International Paint UK Ltd, United Kingdom
Global Regulation of Antifouling Paints - Bureaucratic Nightmare or a Common Sense Approach to Ensure Safety of Products on the Market?

8:45 a.m. **James A. Callow**, University of Birmingham, United Kingdom
Rapid laboratory-scale bioassays for primary evaluation of novel coatings and surfaces

9:15 a.m. **Goffrey Swain**, Florida Institute of Technology, USA
Challenges and Solution for the Field Testing of Antifouling Surfaces

9:45 a.m. **Thomas E. Ready**, North Dakota State University, USA
Combinatorial Methods for Evaluating New Marine Coatings

10:15 a.m. BREAK

Polymers for the control of biofouling

T. E. Ready and C. K. Ober, Discussion Leaders

10:30 a.m. **Kenneth J. Wynne**, Virginia Commonwealth University, USA
Strange Polymer Surfaces: Marine Coatings Applications?

11:00 a.m. **Dean C. Webster**, North Dakota State University, USA
Toward Tough and Durable Fouling Release Coatings: High Throughput Synthesis and Screening of Crosslinked Siloxane-Urethane Coatings

POLYMERS IN THE MARINE ENVIRONMENT,
December 12, 2005, CONT'D

11:30 a.m. **Emo Chiellini**, Universita of Pisa, Italy
Low-surface Energy Polymeric Materials for Nanostructured Antifouling Coatings

12:00 p.m. **Philippe Dubois**, University of Mons-Hainaut, Belgium
Carbon nanotube/organoclay EVA-based ternary nanocomposite: synergistic effect of the combined nanofillers

12:30 p.m. LUNCH ON YOUR OWN

Polymers and Mechanisms for antifouling and fouling release

A. J. Guenther and K. Wooley, Discussion Leaders

2:00 p.m. Brief Introductory Remarks

2:15 p.m. **Joseph M. DeSimone**, University of North Carolina at Chapel Hill, USA
Perfluoropolyether (PFPE) Fouling-Release Coatings

2:45 p.m. **Carsten Werner**, Leibniz Institute of Polymer Research Dresden, Germany
Molecular Engineering of Maleic Anhydride Copolymer Coatings

3:15 p.m. **Christopher K. Ober**, Cornell University, USA
Strategies for Fouling Release using Multilayer Polymer Coatings

3:45 p.m. **Michael Grunze**, Universität Heidelberg, Germany
New Synthetic Concepts and In Situ Characterization

4:15 p.m. BREAK

C. K. Ober and P. Zarras, Discussion Leaders

4:30 p.m. **Karen Wooley**, Washington University, USA
Surface and Sub-surface Structure and Properties for Composite Amphiphilic Networks and Their Exploitation for Minimally-adhesive and Host-guest Applications

5:00 p.m. **Manoj Chaudhury**, Lehigh University, USA
Understanding the Mechanism of Release of Biofoulants from Polymeric Coatings using Fracture Mechanics

5:30 p.m. **Zhan Chen**, University of Michigan, USA
Spectroscopic Studies on Biofouling Control/Release Polymer Surfaces and Their Interactions with Adhesive Proteins at the Molecular Level and in Situ

6:00 p.m. **Robin L. Garrell**, University of California, Los Angeles, USA
Adhesion, Cohesion and Modulus of the Mussel Adhesive Protein Mefp-1

6:30 p.m. **Anthony Brennan**, University of Florida, USA
Engineered Anti-fouling Designs for Marine Environments

7:00 pm **Shan Zou**, University of Toronto, Canada
Nanoscale Mechanics of Algal and Barnacle Adhesives and their Polymer Substrates

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION, Polymers in the Marine Environment

TUESDAY, DECEMBER 13, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Polymers and Mechanisms for antifouling and fouling release

P. Armistead and M. Callow, Discussion Leaders

8:15 a.m. Brief Introductory Remarks

8:30 a.m. **Abraham Marmor**, Technion – Israel Institute for Technology, Israel
Strategies for Super-Hydrophobic Surface Design

9:00 a.m. **Hans Elwing**, Göteborg University, Sweden
Quartz Crystal Microbalance with Dissipation Monitoring (QCM-D), a New Tool for Optimization of Marine Anti-fouling Coatings

9:30 a.m. **Karine Vallée-Réhel**, Laboratoire de Biotechnologie et Chimie, France
Biodegradable Copolymers based on Polycaprolactone for Antifouling Paints

10:00 a.m. BREAK

A. J. Guenther and M. McElvany, Discussion Leaders

10:15 a.m. **Rocky de Nys**, James Cook University, Australia
Biomimetic Fouling Control – Developing Templates for Novel Antifouling Technologies

10:45 a.m. **Jin Ho Lee**, Hannam University, Korea
PEO-containing Polymers for Anti-fouling Surface Coating

11:15 a.m. **Jan Genzer**, North Carolina State University, USA
Functional Siloxane-Based Foul-Release Coatings: Preparation and Properties

11:45 p.m. **Bo Liedberg**, Linköping University, Sweden
Nano- and Microstructured Anti-fouling Coatings

12:30 p.m. LUNCH ON YOUR OWN

Corrosion Protection Using Polymers and Testing

P. Zarras and A. Webb, Discussion Leaders

2:30 p.m. Brief Introductory Remarks

2:40 p.m. **Andrew J. Guenther**, Naval Air Warfare Center, USA
Low-Moisture Thermoplastic Toughening Approaches for Cyanate Ester Resins

3:10 p.m. **Wim van Ooij**, University of Cincinnati, USA
Novel Approaches in the Development of Environmentally Compliant Coatings for Corrosion Protection of Metals

3:40 p.m. **Qi Zhao**, University of Dundee, United Kingdom
Development and Evaluation of Anti-fouling and Anti-corrosion Ni-P-PTFE Composite Coatings

4:15 p.m. BREAK

P. Zarras and B. Benicewicz, Discussion Leaders

4:40 p.m. **Brian C. Benicewicz**, Rensselaer Polytechnic University, USA
New Electroactive Polymers for Anti-corrosion Coatings

5:10 p.m. **Patrick J. Kinlen**, Crosslink Polymer Research, USA
Corrosion Protection of Aluminum Alloys by Controlled Release of Inhibitors from Electroactive Polymer Coatings

5:40 p.m. **Dennis E. Tallman**, North Dakota State University, USA
Scanning Probe Studies of Active Coatings for Corrosion Control of Al Alloys

6:10 p.m. **F. Mansfeld**, University of Southern California, USA
Models for Quantitative Analysis of EIS Data for Polymer Coatings

6:40 p.m. **John D. Stenger-Smith**, NAVAIR-
WD, USA
*Derivatives of Poly(phenylene
vinylene)s as Hexavalent Chromium
Free Coatings of Aluminum for
Corrosion Prevention in Marine
Environments*

**ADVANCES IN ENGINEERING
POLYMERS**

December 13-14, 2005

Session Chairs

Daniel J. Brunelle, GE Global Research, USA
Yoshiki Chujo, Kyoto University, Japan

TUESDAY, DECEMBER 13, 2005

Yoshiki Chujo, Discussion Leader

2:00 p.m. **Daniel J. Brunelle**, GE Global
Research, USA, **Yoshiki Chujo**, Kyoto
University, Japan
Introduction

2:15 p.m. **Mitsuru Ueda**, Tokyo Institute of
Technology, Japan
*Thermally Stable and Photosensitive
Polymers*

2:45 p.m. **Timothy E. Long**, Virginia Tech, USA
*Well-Defined Branching for Tailored
Rheological Performance: To Branch
or Not to Branch?*

3:15 p.m. **Chang-Sik Ha**, Pusan National
University, Korea
*Polyimides for Hybrid Organic
Electroluminescent Devices*

3:45 p.m. **Anne Hiltner**, Case Western Reserve
University, USA
*Polymer Interphase Materials by
Forced Assembly*

4:15 p.m. BREAK

4:30 p.m. **Daniel J. Brunelle**, GE Global
Research, USA
*Aromatic Polyethers via Phase
Transfer Catalyzed Displacement
Polymerization*

5:00 p.m. **Masa-aki Kakimoto**, Tokyo Institute
of Technology, Japan
*Preparation and Application of
Polysiloxysilane Hyperbranched
Polymers*

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND
RECEPTION, Advances in
Engineering Polymers

WEDNESDAY, DECEMBER 14, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Daniel Brunelle, Discussion Leader

8:15 a.m. **Masayoshi Watanabe**, Yokohama
National University, Japan
*Ionic Liquids and Polymers: A New
Combination for New Materials*

8:45 a.m. **Geoffrey W. Coates**, Cornell
University, USA
*A C₂-Symmetric, Living α -Diimine
Ni(II) Catalyst: Regioblock
Copolymers from Propylene*

9:15 a.m. **Kuwang-Sup Lee**, Hannam
University, Korea
*Fabrication of Nano/Micro-
Objects by using Two-Photon
Initiated Polymerization Technique*

9:45 a.m. **Reinoud J. Gaymans**, Universite of
Twente, The Netherlands
*High TG Polymers with Mono Disperse
Crystallizable Segments*

10:15 a.m. BREAK

10:30 a.m. **James E. McGrath**, Virginia Tech,
USA
*Poly (Arylene Ether Benzonitrile)
Homo and Statistical Copolymers*

11:00 a.m. **Kazuo Akagi**, University of Tsukuba,
Japan
*Synthesis and Properties of Liquid
Crystalline Helical Conjugated
Polymers*

11:30 a.m. **Yoshiki Chujo**, Kyoto University,
Japan
*Organic-Inorganic Polymer Hybrids
Based on Sol-Gel Reaction*

12:00 p.m. **Akira Harada**, Osaka University,
Japan
*Cyclodextrin-based Supramolecular
Polymers*

12:30 p.m. LUNCH ON YOUR OWN

Akira Harada, Discussion Leader

2:00 p.m. **Frank W. Harris**, The University of Akron, USA
Synthesis and Characterization of Polyimides with Twisted Configurations

2:30 p.m. **Wayne D. Cook**, Monash University, Australia
Polymerization Kinetics and Properties of Thiol-ene Networks

3:00 p.m. **Liviu Mirci**, University Politehnica Timisoara, Romania
New Polymer Processing Aids in the Esteric Class

3:30 p.m. **Atsushi Takahara**, Kyushu University, Japan
Influence of Wetting Anisotropy of Substrate on Polymer Film Fabrication by Ink-Jet Method

4:00 p.m. **Daniel J. Brunelle and Yoshiki Chujo**
Closing Remarks

**POLYMER MICROELECTRONICS
AND PHOTONICS**
December 13-14, 2005

Session Chairs

Stephen Cheng, University of Akron, USA
Frank Harris, University of Akron, USA
Fosong Wang, Chinese Academy of Sciences, R. O. China

TUESDAY, DECEMBER 13, 2005

Microelectronic and Conducting Materials

Frank Harris, Discussion Leader

2:00 p.m. **Frank Harris**, University of Akron, USA
Session Introduction

2:15 p.m. **James E. McGrath**, Virginia Tech, USA
Advanced Materials for Proton Exchange Membranes

2:45 p.m. **Christopher K. Ober**, Cornell University, USA
Recent Developments in Molecular Glass Resists

3:15 p.m. **Takayoshi Nakamura**, Hokkaido University, Japan
Nanostructures of conducting and magnetic molecular materials

3:45 p.m. **James L. Hedrick**, IBM Almaden Research Center, USA
Templating Organosilicate Vitrification using Unimolecular Self Organizing Polymers: Evolution of Morphology and Nanoporosity Development with Network Formation

4:15 p.m. BREAK

Microelectronic and Conducting Materials

Frank Harris, Discussion Leader

4:30 p.m. **Curtis W Frank**, Stanford University, USA
Structure and Dynamics of Ultrathin Films of Perfluoropolyethers Used as Hard-Disk Lubricants

5:00 p.m. **Wen-li Wu**, National Institute of Standards and Technology, USA
Direct Measurement of the Counterion Distribution within a Model Photoresist Film During its Dissolution^s

5:30 p.m. **Benjamin Chu**, Stony Brook University, USA
New Pathway for Development of Low Dielectric Constant Polymers A Demonstration of Concept

6:00 p.m. **Leonard V. Interrante**, Rensselaer Polytechnic Institute, USA
Polycabosilanes as Low-k Dielectric Materials

WEDNESDAY, DECEMBER 14, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Polymer Photonics and Electronics

Stephen Cheng, Discussion Leader

7:55 a.m. **Stephen Cheng**, University of Akron, USA
Session Introduction

8:00 a.m. **Paras N. Prasad**, State University of New York-Buffalo, USA
New Opportunities for Polymers at the Interface of Photonics, Nanotechnology and Biotechnology

8:45 a.m. **Yasuhiko Shirota**, Fukui University of Technology, Japan
Design and Synthesis of New Vinyl Polymers and Related Materials, and Their Applications for Electronics and Photonics

9:15 a.m. **Yang Yang**, University of California
Los Angeles, USA
*Polymer/nano Particle Composite for
High Performance Electronic Devices*

9:45 a.m. **Soo Young Park**, Seoul National
University, Korea
*Functional polymer films for the
fluorescence patterning and reversible
optical recording*

10:15 a.m. BREAK

Polymer photonics

Paras Prasad, Discussion Leader

10:30 a.m. **Barry L. Farmer**, AFRL, Materials
and Manufacturing Directorate, USA
*Photonics Research at the Air Force
Research Laboratory*

11:00 a.m. **Chain Shu Hsu**, National Chiao Tung
University, Taiwan ROC
*High Efficiency Polymer Light Emitting
Diodes Based on Poly(2,3-diphenyl-1,4-
phenylene vinylene)s*

11:30 a.m. **Yukio Furukawa**, Waseda University,
Japan
*Infrared and Raman Spectroscopy of
Polymer Light-emitting Diodes and
Field-effect Transistors*

12:00 p.m. **Thein Kyu**, The University of Akron,
USA
*Diffraction Efficiency in Relation to
Structure Development in Polymer
Photonic Crystals*

12:30 p.m. LUNCH ON YOUR OWN

Polymer Electronics and Photonics

Barry Farmer, Discussion Leader

2:00 p.m. Session Introduction

2:15 p.m. **Lloyd Robeson**, Air Products and
Chemicals, USA
*Sequestration of Electroactive
Materials in a High T_g Insulating
Polymer Matrix for Optoelectronic
Applications*

2:45 p.m. **Dong Hoon Choi**, Korea University,
Korea
*Multifunctional dendritic materials for
optoelectronics*

3:15 p.m. **Dennis W. Smith, Jr.**, Clemson
University, USA
*Synthesis and Integration of
Perfluorocyclobutyl (PFCB) Polymers
for Photonics*

3:45 p.m. **Lixiang Wang**, CIAC, Chinese
Academy of Science, China
*Single Polymer with Simultaneous Two
or Three Primary Color Emission for
White Electroluminescence*

4:15 p.m. BREAK

Polymer Electronics and Photonics

Lloyd Robeson, Discussion Leader

4:30 p.m. **Andrew B. Holmes**, University of
Melbourne, Australia
*Polydibenzosiloles – New Hosts for
Electrophosphorescence*

5:00 p.m. **Christopher Li**, Drexel University,
USA
*Polymer crystallization/melting
induced thermal switching in a series of
holographically patterned Bragg
reflectors*

5:30 p.m. **Supawan Tantayanan**, Chulalongkorn
University, Thailand
*Synthesis and Photoinduced Electron
Transfer of Polyimides Containing
Trans-/Cis-
Diaminotetraphenylporphyrin*

6:00 p.m. **A. L. Rusanov**, Russian Academy of
Sciences, Russia
*Low K Polymers Based on 2,4,6-
trinitrotoluene(TNT) Derivatives*

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND
RECEPTION, Polymer
Microelectronics and Photonics

**MAGNETIC MATERIALS AT THE INTERFACE
OF POLYMER SCIENCE AND BIOLOGY**

December 13-14, 2005

Session Chairs

Judy Riffle, Virginia Tech, USA
Tim G. St. Pierre, University of Western Australia,
Australia
Urs Häfeli, University of British Columbia, Canada

TUESDAY, DECEMBER 13, 2005

7:00 a.m. CONTINENTAL BREAKFAST

**Advances in Magnetic Nanomaterials and
Microspheres 1**

Judy Riffle and Tim St. Pierre, Discussion Leaders

8:30 a.m. **Judy Riffle**, Virginia Tech, USA
Introduction and Symposium Overview

8:45 a.m. **Shouheng Sun**, Brown University,
USA
*Surface Functionalization of Magnetic
Nanoparticles for Biomedical
Applications*

9:15 a.m. **Cordula Gruettner**, Micromod, Inc.,
Rostock, Germany
*Application Specific Surface Design of
Magnetic Polymer Particles*

9:45 a.m. **Chongwu Zhou**, University of
Southern California, USA
*Nanocasting Synthesis and Transport
Studies of Magnetic Nanowires*

10:15 a.m. BREAK

**Advances in Magnetic Nanomaterials and
Microspheres 2**

Cordula Groettner and Metha Rutnakornpituk,
Discussion Leaders

10:30 a.m. **Judy S. Riffle**, Virginia Tech, USA
*Insight into Formation of Magnetite-
Polymer Complexes and their
Dispersions in Aqueous Fluids*

11:00 a.m. **Hideo Sawada**, Hirosaki University,
Japan
*Preparation and Applications of
Magnetic Nanoparticles by the Use of
Self-Assembled Fluorinated Oligomeric
Aggregates*

11:30 a.m. **Martin Saunders**, The University of
Western Australia, Australia
*Atomic Scale Characterization of
Macromolecule/Cobalt Nanoparticle
Composites for Biomedical
Applications*

12:30 p.m. LUNCH ON YOUR OWN

MAGNETIC MATERIALS AT THE INTERFACE OF POLYMER
SCIENCE AND BIOLOGY, December 13, 2005, CONT'D

Biomedical/Medical Aspects 1

Hugh DeLong and Jon Dobson, Discussion Leaders

1:30 p.m. **Diether Recktenwald**, BD
Biosciences, USA
*Affinity Reagent Based Cell and
Particle Separation Systems*

2:00 p.m. **Axel J. Rosengart**, The University of
Chicago Pritzker School of Medicine,
USA
*Development of a Nanocarrier-Based
Detoxification Technology*

2:30 p.m. **Urs Häfeli**, University of British
Columbia, Canada
*Comparison of the Cell Toxicity of
Nanoparticles made from Materials
and Different Sizes*

3:00 p.m. BREAK

Biomedical/Medical Aspects 2

J. P. Dailey, Discussion Leader

3:15 p.m. **Francis Creighton and Rogers Ritter**,
Stereotaxis, Inc., USA
*Stereotaxis Magnetic Navigation
Technology as a Targeted Drug
Delivery Platform*

3:45 p.m. **Bernhard Gleich**, Philips Research
Laboratories, Hamburg, Germany
*Magnetic Particle Imaging: A Method
for Imaging 3-D Magnetic Material
Distributions*

4:15 p.m. **Jeffrey J. Chalmers**, The Ohio State
University, USA
*Quantification of the Field Interaction
Parameters and the Binding Constants
of Several Antibody-magnetic
Nanoparticle Conjugates*

4:45 p.m. **Shin-ichi Takeda**, Osaka University,
Japan
*Development of a Three-Dimensional
Magnetic Navigation and Magnetically
Targeted Drug Delivery System*

5:15 p.m. Adjourn Session

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND
RECEPTION, Magnetic Materials at
the Interface of Polymer Science and
Biology

WEDNESDAY, DECEMBER 14, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Magnetic Nanotechnology / Assays / Devices 1

Urs Hafeli and Armin Ebner, Discussion Leaders

8:30 a.m. **Axel Hoffmann**, Argonne National Laboratories, USA
Using Brownian Motion of Magnetic Nanoparticles for Biomagnetic Sensing

9:00 a.m. **Shan Wang**, Stanford University, USA
Functionalization and Characterization of Magnetic Biochips for Sensitive DNA Detection

9:30 a.m. **Qasem Ramadan**, Institute of Microelectronics, Singapore
An Integrated Microfluidic Platform for Manipulation of Magnetic Carriers

10:00 a.m. **James A. Ritter**, University of South Carolina, USA
In Vitro Studies of Implant Assisted Magnetic Drug Targeting

10:30 a.m. BREAK

Advances in Magnetic Materials and Properties

Mike Kaminski and Alan Esker, Discussion Leaders

10:45 a.m. **Taeghwan Hyeon**, Seoul National University, South Korea
Generalized and Large-scale Synthesis of Monodisperse Magnetic Nanocrystals and Uniform-sized Magnetic Nanorods

11:15 a.m. **Tim St. Pierre**, The University of Western Australia, Australia
Probing the Oxidative Stability and Structure of Polymer-coated Cobalt Nanoparticles

11:45 a.m. **Metha Rutnakornpituk**, Naresuan University, Thailand
Synthesis and Characterization of Biocompatible Magnetite Nanoparticles

12:30 p.m. LUNCH ON YOUR OWN

Medical/Biomedical Applications

Shan Wang and Michael Miller, Discussion Leaders

1:30 p.m. **Armin Ebner**, University of South Carolina, USA
Magnetic Implants for Magnetic Drug Targeting

2:00 p.m. **James P. Dailey**, Case Western Reserve University, USA
Magnetic Fluids in Eye Surgery

2:30 p.m. **Maciej Zborowski**, Cleveland Clinic Foundation, USA
Magnetophoretic Cell Sorting using Functionalized Magnetic Nanoparticles

3:00 p.m. **Michael Kaminski**, Argonne National Laboratories, USA
Design and Magnetic Separation of Nanospheres for In-vivo Use

3:30 p.m. BREAK

Magnetic Nanomaterials / Properties / Dispersions

Maciej Zborowski and Qasem Ramadan, Discussion Leaders

3:45 p.m. **Alan R. Esker**, Virginia Tech, USA
Interfacial Properties of Biocompatible Magnetic Nanoparticles

4:15 p.m. TBA

4:45 p.m. **Elliot Gilbert**, University of Melbourne, Australia
TBA

5:15 p.m. **Tim St. Pierre**, University of Western Australia, Australia
Closing remarks

AEROSPACE MATERIALS AND STRUCTURES
December 14, 2005

Session Chairs

Jeff Baur, Wright Patterson Air Force Base, USA
Dong Yang Wu, CSIRO, Australia

TUESDAY, DECEMBER 13, 2005

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION, Aerospace Materials and Structures

WEDNESDAY, DECEMBER 14, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Dong Yang Wu, Discussion Leader

8:00 a.m. **Jeff Baur**, Air Force Research Laboratory, WPAFB, USA
Session Introduction

8:15 a.m. **Barry L. Farmer**, Air Force Research Laboratory, WPAFB, USA
Air Force Materials Research: Now and Tomorrow

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- 8:45 a.m. **Martha K. Williams**, NASA, Spaceport Engineering and Technology, USA
Thermal Insulation Materials for Aerospace Vehicles and Spaceport Applications
-
- 9:15 a.m. **Suraj Rawal**, Lockheed Martin Space Systems, USA
Spacecraft Applications for Advanced Polymers
-
- 9:45 a.m. **Michael F. Durstock**, Air Force Research Lab, USA
Solar Power for Defense Applications: Organic and Nanoparticle Hybrid Photovoltaic Devices
-
- 10:15 a.m. BREAK
-
- Jeff Baur, Discussion Leader
-
- 10:30 a.m. **Kathy C. Chuang**, NASA Glenn Research Center, USA
High T_g Polyimides for Resin Transfer Molding (RTM)
-
- 11:00 a.m. **M. Bauer**, Fraunhofer Institute of Reliability and Microintegration, Germany
New Resins and Fibre Reinforced Materials with High Flame Retardancy
-
- 11:30 a.m. **M. B. Saeed**, Beijing University of Aeronautics and Astronautics, China
Adhesive Strength of Partially Imidized Thermoplastic Polyimide Films in Bonded Joints
-
- 12:00 p.m. **Dong Yang Wu**, CSIRO Manufacturing and Infrastructure Technology, Australia
Development and Characterization of Polymer Nanocomposites
-
- 12:30 p.m. LUNCH ON YOUR OWN

GENERAL SESSION
December 14, 2005

Session Chairs

Richard Blackwell, Bausch & Lomb, USA
Andrew Whittaker, University of Queensland, Australia

TUESDAY, DECEMBER 13, 2005

POSTER SESSION AND RECEPTION

7:30 p.m. POSTER SESSION AND RECEPTION, General Session

WEDNESDAY, DECEMBER 14, 2005

7:00 a.m. CONTINENTAL BREAKFAST

Morning Session

Richard Blackwell, Discussion Leader

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- 8:15 a.m. Open comments **Richard Blackwell** and **Andrew Whittaker**
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- 8:20 a.m. **Yasuhiro Morisaki**, Kyoto University, Japan
Synthesis and Properties of Cyclophane-containing Conjugated Polymers
-
- 8:40 a.m. **Richard Kotek**, North Carolina State University, USA
Ring-opening Polymerization of Cyclic Oligoesters of Poly(trimethylene terephthalate)
-
- 9:00 a.m. **Kanji Suvama**, Osaka Prefecture University, Japan
Photochemical Formation of Tertiary Amine from Quaternary Ammonium Salts and Its Use in Photo-Crosslinking of Polymers
-
- 9:20 a.m. **Milena Ginic-Markovic**, Flinders University, Australia
Surface Modification of MWCNTs By Thin Layer of Polymer Coating
-

9:40 a.m. BREAK

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- 10:30 a.m. **Sorin Manolache**, University of Wisconsin-Madison, USA
The Synthesis Of Hard Carbon Nanostructures Using S_f6 Plasma Environments
-

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| 10:50 a.m. | TBA |
| 11:10 a.m. | Yongsok Seo , Seoul National University, Korea <i>Compatibilizer Reinforced Interface between a Flexible Polymer and a Rodlike Polymer</i> |
| 11:30 p.m. | David R. Rohindra , University of the South Pacific, Fiji <i>Preparation and Properties of Genipin Cross-Linked of Chitosan/poly(vinyl alcohol) Hydrogels</i> |

12:30 p.m. LUNCH ON YOUR OWN

Afternoon Session

Andrew Whittaker, Discussion Leader

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|-----------|---|
| 2:15 p.m. | Richard I Blackwell , Bausch & Lomb, USA <i>Recent Advances in the Design of Polymers for Ophthalmic Application</i> |
| 2:35 p.m. | Chaiyoot Changsarn , Rajamangala University of Tech. Thanyaburi, Thailand <i>Preparation and Thermal Study of Nanocomposites of Hydroxyapatite/Biodegradable Copolyesters for Biomedical Applications</i> |
| 2:55 p.m. | Hong Chen , Wuhan University of Technology, China <i>Preparation and Characterization of Biocompatible Polymer Surfaces</i> |
| 3:15 p.m. | David L. Officer , Massey University, New Zealand <i>Functionalised Polythiophene Films and Fibres</i> |
| 3:35 p.m. | Closing Remarks |
