

PACIFIC POLYMER CONFERENCE IX

December 11 – 14, 2005

The Maui Westin, Hawaii USA

Plenary Session

December 11, 2005

Symposium Co-Chairs

J.E. McGrath, Virginia Tech, USA

Sung Chul Kim, Kaist, Korea

Eric Baer, Case Western Reserve, USA

Sunday, December 11, 2005

3:00 p.m.	<u>James E. McGrath</u> , President, Pacific Polymer Federation IX <i>Overview and Objectives of the Conference</i>
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Plenary Lecture

3:15 p.m.	<u>Eric Baer</u> , Case Western Reserve University, USA <i>Introduction of U.S. Plenary Speakers</i>
3:30 p.m.	<u>Kurt W. Swogger</u> , VP of Plastics R&D, Dow Chemical Company, USA; <u>P. Steve Chum</u> , Dow Fellow and Lead Scientist, Dow Chemical Company, USA <i>The Development of New Generation of Polyolefins: From Molecular Design to Market Development</i>

Plenary Lecture

4:30 p.m.	<u>Sung Chul Kim</u> , KAIST, Korea <i>Introduction of Plenary Speaker</i>
4:45 p.m.	<u>Dr. Jong-Kee Yeo</u> , President and CTO, LG Chemicals Ltd., Korea <i>Restructuring of a Chemical Industry</i>

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

December 12-13, 2005

Symposium Co-Chairs

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

Monday, December 12, 2005

Novel Synthetic Routes I

Kenneth B. Wagener, Discussion Leader

8:00 a.m.	<u>Kenneth B. Wagener</u> , University of Florida, USA <i>Session Introduction</i>
8:15 a.m.	<u>Robert Waymouth</u> , Stanford University, USA <i>N-Heterocyclic carbenes: A General and Versatile Platform for Organocatalytic Polymerization Reactions</i>
8:45 a.m.	<u>Akira Hirao</u> , Tokyo Institute of Technology, Japan <i>Precise Synthesis of Dendrimer-like Hyper Branched Polymers by Means of Living Anionic Polymerization and Functional Group Transformation</i>
9:15 a.m.	<u>Tsutomu Yokozawa</u> , Kanagawa University, Japan <i>Condensation Polymer Architecture from Chain-Growth Polycondensation</i>
9:45 a.m.	<u>Geoffrey Coates</u> , Cornell University, USA <i>A Highly Active, Isospecific Cobalt Catalyst for Propylene Oxide Polymerization</i>
10:15 a.m.	BREAK

Novel Synthetic Routes II

Robert Waymouth, Discussion Leader

10:30 a.m.	<u>Karen L. Wooley</u> , Washington University, USA <i>The Preparation, Characterization, and Manipulation of Well-defined Nanoscopic Objects</i>
11:00 a.m.	<u>Jeffrey Moore</u> , University of Illinois, USA <i>Folded Oligomers and Other Well-Defined Molecular Architectures</i>
11:30 a.m.	<u>Tatsuki Kitayama</u> , Osaka University, Japan <i>End-functional Stereoregular Polymethacrylates—From Initiator Design to Macromolecular Architecture</i>
12:00 p.m.	<u>Fumio Sanda</u> , Kyoto University, Japan <i>Amino Acid-based Stimuli-responsive Helical Polymers</i>
12:30 p.m.	LUNCH

Novel Polymerization Reactions

Toshio Masuda, Discussion Leader

2:30 p.m.	<u>Toshio Masuda</u> , Kyoto University, Japan <i>SESSION INTRODUCTION</i>
2:45 p.m.	<u>Tadatomi Nishikubo</u> , Kanagawa University, Japan

	<i>Development of New Reactions of Oxetanes and Their Application to Polymer Synthesis and Polymer Industry</i>
3:15 p.m.	Yusuke Kawakami , Japan Advanced Institute of Science and Technology, Japan <i>Polymerization of Optically Pure 1-Methyl-1-(1-naphthyl)-2,3-benzosilacyclobut-2-ene and the Properties of the Obtained Polymer</i>
3:45 p.m.	Der-Jang Liaw , National Taiwan University of Science and Technology, Taiwan <i>Novel Miscellaneous Macromolecules of Multiply Active Monomers via Ring-Opening Metathesis Polymerization and Radical Polymerization: Synthesis and Architecture Transformations</i>
4:15 p.m.	BREAK

4:30 p.m.	Dennis W. Smith, Jr. , Clemson University, USA <i>Step Growth Ring Forming and Ring Opening Polymerization toward Fluoropolymers, Polyarylenes, and Renewable Resource Materials</i>
5:00 p.m.	Shiro Kobayashi , Kyoto University, Japan <i>New Mechanistic Aspects in the Enzymatic Polymerization to Polysaccharides</i>
5:30 p.m.	Timothy J. Deming , University of California Los Angeles, USA <i>Self-assembly of Amphiphilic Block Copolypeptides: The Role of Chain Conformation</i>
6:00 p.m.	Akira Harada , Osaka University, Japan <i>Ring Opening Polymerization of Lactones Initiated by Cyclodextrins: Formation of Polyester-tethered Cyclodextrins</i>

Poster Session

7:30 p.m.	POSTER SESSION, Novel Synthetic Routes
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Tuesday, December 13, 2005

Solid State Polymerization

Masato Suzuki, Discussion Leader

8:30 a.m.	Masato Suzuki , Nagoya Institute of Technology, Japan <i>SESSION INTRODUCTION</i>
8:45 a.m.	Shuji Okada , Yamagata University, Japan <i>Synthesis of Polydiacetylenes with Improved Optical Properties</i>
9:15 a.m.	Akikazu Matsumoto , Osaka City University, Japan <i>Feature and Mechanism of Solid-State Polymerization of 1,3-Diene Monomers</i>
9:45 a.m.	Fred Wudl , University of California Los Angeles, USA <i>The Solid State Polymerization of Sulfur Heterocycles of Interest in Organic Electronics</i>
10:15 a.m.	BREAK

Fred Wudl, Discussion Leader

10:30 a.m.	Matthias Eppler , University of Duisburg-Essen, Germany <i>Solid-State Synthesis of Porous Polyesters and their Application for Medical and Pharmaceutical Purpose</i>
11:00 a.m.	Kunio Kimura , Okayama University, Japan <i>Preparation of Copolymer Whisker by Using Crystallization of Oligomers</i>
11:30 a.m.	John M. Torkelson , Northwestern University, USA <i>Novel Routes to In Situ Block Copolymer Formation by Interpolymer Radical Coupling Reactions in Melt-State and Solid-State Polymer Blends</i>
12:00 p.m.	OPEN
12:30 p.m.	LUNCH

Living Polymerizations

December 12-13, 2005

Symposium Co-Chairs

Judit Puskas, Univ. of Akron

Mitsuo Sawamoto, Kyoto University

Monday, December 12, 2005

Ionic Living Polymerizations I

Discussion Leader: Robson F. Storey, University of Southern Mississippi, USA

8:00 a.m.	Judit E. Puskas , University of Akron, USA <i>Opening Remarks and Session Introduction</i>
8:15 a.m.	Joseph P. Kennedy , The University of Akron, USA <i>Living Polymerizations: An Academic/Industrial Symbiosis</i>
8:45 a.m.	Virgil Percec , University of Pennsylvania, USA <i>Plenary lecture: New Concepts in Living Polymerizations and New Strategies Designed with the Aid of Living Polymerizations.</i>
9:15 a.m.	Ryuji Fukuda , Kaneka Corporation, Japan <i>Synthesis of Styrene-Isobutylene Block Copolymers using Living Carbocationic Polymerization and Performance Characteristics of Their Block Copolymers</i>
9:45 a.m.	Alain Deffieux , University of Bordeaux, France <i>Reactivity and Selectivity Control based on Trialkylaluminum Catalysis in Anionic Polymerization</i>
10:15 a.m.	BREAK

Ionic Living Polymerizations II

Discussion Leader: Timothy E. Long, Virginia Tech. University, USA

10:30 a.m.	<u>Sadahito Aoshima</u> , Osaka University, Japan <i>Fast Living Cationic Polymerization for Synthesis of Well-Defined Stimuli-Responsive Polymers</i>
11:00 a.m.	<u>Yi-Xian Wu</u> , Beijing University of Chemical Technology, China <i>Carbocationic Polymerization with Protic Initiation for the Synthesis of Block Copolymers</i>
11:30 a.m.	<u>Herbert Mayr</u> , Ludwig-Maximilians University, Germany <i>Kinetics of Ion-Molecule Reactions</i>
12:00 p.m.	<u>Nikos Hadjichristidis</u> , University of Athens, Greece <i>Well-Defined Star-Tailed Macromonomers. A Route to Novel Macromolecular Architectures</i>
12:30 p.m.	LUNCH

Ionic Living Polymerizations III and Non-ionic Living Polymerizations I

Discussion Leader: Shiping Zhu, McMaster University, Canada

2:00 p.m.	<u>Mitsuo Sawamoto</u> , Kyoto University, Japan <i>Session Introduction</i>
2:15 p.m.	<u>Masanobu Uchiyama</u> , University of Tokyo, Japan <i>Organozincate-mediated Anionic Polymerizations</i>
2:45 p.m.	<u>Wayne D. Cook</u> , Monash University, Australia <i>Pseudo-living Cationic Photopolymerization of Diepoxy, Dicyanate and Divinyl Ether</i>
3:15 p.m.	<u>Timothy E. Long</u> , Virginia Tech, USA <i>The Versatility of Living Anionic and Radical Polymerization Processes for Probing Multiple Hydrogen Bonding and Supramolecular Architecture</i>
3:45 p.m.	<u>Michael F. Cunningham</u> , Queen's University, Canada <i>Surface-Initiated Nitroxide-Mediated Radical Polymerization from Polymeric Microspheres</i>
4:15 p.m.	BREAK

Non-Ionic Living Polymerizations I

Discussion Leader: Yamago Shigeru, Osaka City University, Japan

4:30 p.m.	<u>Craig J. Hawker</u> , University of California, Santa Barbara, USA <i>Rapid and Efficient Synthesis of Functionalized Materials via Click Chemistry and Living Polymerization</i>
5:00 p.m.	<u>Masami Kamigaito</u> , Nagoya University, Japan <i>Metal-Catalyzed Living and Stereospecific Radical Polymerization</i>
5:30 p.m.	<u>Bernadette Charleaux</u> , University of Pierre & Marie Curie, France <i>Application of Controlled/Living Free Radical Polymerization to the Design of Polymer Colloids</i>
6:00 p.m.	<u>Michael Georges</u> , University of Toronto, Canada <i>Mechanistic and Kinetic Studies of the Nitroxide-Mediated Living Radical</i>

	<i>Polymerization Process</i>
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Poster Session

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

Tuesday, December 13, 2005

Non-ionic Living Polymerizations II

Discussion Leader: Tsutomu Yokozawa, Kanagawa University, Japan

8:00 a.m.	<u>Michael Cunningham</u> , Queen's University, Canada <i>Session Introduction</i>
8:15 a.m.	<u>Shiping Zhu</u> , McMaster University, Canada <i>Engineering Controlled/Living Radical Polymerization Processes: Catalyst Supporting and Packed-Column Reactor Technology for Continuous Atom Transfer Radical Polymerization</i>
8:45 a.m.	<u>Krzysztof Matyjaszewski</u> , Carnegie-Mellon University, USA <i>New initiation systems for atom transfer radical polymerization</i>
9:15 a.m.	<u>Yusuf Yagci</u> , Technical University of Istanbul, Turkey <i>Macromolecular Architecture Based on Mechanistic Transformation in Controlled Polymerization Methods</i>
9:45 a.m.	<u>Shigeru Yamago</u> , Osaka City University, Japan <i>Organotellurium-mediated Living Radical Polymerization (TERP)</i>
10:15 a.m.	BREAK

Non-Ionic Living Polymerizations III

Discussion Leader: Wayne Cook, Monash University, Australia

10:30 a.m.	<u>Terunori Fujita</u> , Mitsui Chemicals Inc., Japan <i>Living Olefin Polymerization Catalyzed by Fluorinated Ti-FI Catalysts: Creation of Unique Olefin-Based Materials</i>
11:00 a.m.	<u>Tsutomu Yokozawa</u> , Kanagawa University, Japan <i>Chain-Growth Polycondensation: Living Polymerization Behavior in Polycondensation</i>
11:30 a.m.	<u>Tom Davis</u> , University of New South Wales, Australia <i>Studies on the Mechanism of RAFT Polymerization</i>
12:00 p.m.	<u>Judit E. Puskas</u> , The University of Akron, USA <i>Natural Living Polymerization</i>
12:30 p.m.	<u>Mitsuo Sawamoto</u> , Kyoto University, Japan <i>Closing Remarks</i>
12:40 p.m.	LUNCH

Polymeric Biomaterials

December 12-13, 2005

Symposium Co-Chairs

Allan S. Hoffman, University of Washington, USA

Kazunori Kataoka, University of Tokyo, Japan

Monday December 12, 2005

Tissue Engineering I

8:15 a.m.	Robert M. Nerem , Georgia Tech, USA <i>Tissue Engineering: The Science, the Technology, and the Industry</i>
8:45 a.m.	Buddy D. Ratner , University of Washington, USA <i>Novel Polymers for Tissue Engineering Applications</i>
9:15 a.m.	Kam Leong , Johns Hopkins University, USA <i>Application of Nanostructures to Engineering of Tissues</i>
9:45 a.m.	Young Ha Kim , Gwangju Institute of Science and Technology, Korea <i>Mechano-active Vascular Tissue Engineering Using Elastic PLCL Scaffolds</i>
10:15 a.m.	BREAK

Tissue Engineering II

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

Polymers In Diagnostics And Drug Delivery

2:15 p.m.	Patrick S. Stayton , University of Washington, USA <i>Smart Biohybrid Materials</i>
2:45 p.m.	Paul Burke , Amgen Corporation, USA <i>Solvent Transport and Phase Change Challenges in the Fabrication and Development of Microencapsulated Biotherapeutics</i>

3:15 p.m.	Tae Gwan Park , Korea Advanced Institute of Science and Technology, Korea <i>Switching Porous to Nonporous Biodegradable Microspheres for Sustained Delivery of Human Growth Hormone</i>
3:45 p.m.	Benjamin Chu , Stony Brook University, USA <i>Encapsulation of Plasmid DNA by PLA-PEG-PLA Copolymer in an Electrospun PLGA Scaffold for Non-Viral Gene Delivery</i>
4:15 p.m.	BREAK

Novel Hydrogels

4:30 p.m.	J. Kopecek , University of Utah, USA <i>Hydrogels Self-Assembled from Graft and Block Copolymers</i>
5:00 p.m.	Robert J. Miller , Genzyme Corporation, USA <i>Medical Uses of Hyaluronan and Hylans</i>
5:30 p.m.	Sung Chul Kim , Korea Advanced Institute of Science and Technology, Korea <i>Hydrophobic-Hydrophilic IPN's with Controlled Morphology</i>
6:00 p.m.	Jie Chen , Shanghai University, China <i>Preparation and Characterization of Thermo- and pH-Sensitive Hydrogels</i>

Poster Session

7:30 p.m.	POSTER SESSION, Polymeric Biomaterials
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Tuesday, December 13, 2005

Nanotechnology And Drug Delivery From Nanoparticles

8:15 a.m.	Jackie Y. Ying , Institute of Bioengineering & Nanotechnology, Singapore <i>Research in Bioengineering and Nanotechnology</i>
8:45 a.m.	Emo Chiellini , University of Pisa, Italy <i>Polymeric Nanoparticle Systems in Targeted Administration of Proteic Drugs</i>
9:15 a.m.	Soon Hong Yuk , Hannam University, Korea <i>Core-shell Nanoparticles for Protein Delivery</i>
9:45 a.m.	Mitsuru Akashi , Osaka University, Japan <i>Preparation of Biodegradable Poly(γ-glutamic acid) Nanospheres and their Applications for Vaccines</i>
10:15 a.m.	BREAK

Drug Delivery From Nanoparticles And Nanodevices

10:30 a.m.	<u>Mizuo Maeda</u> , RIKEN, Japan <i>DNA-Conjugated Polymers and Nanoparticles for Separation and Sensing</i>
11:00 a.m.	<u>Woo-Dong Jang</u> , The University of Tokyo, Japan <i>Therapeutic Applications of Self-assembled Photofunctional Dendrimer Nano-devices</i>
11:30 a.m.	<u>Ick Chan Kwon</u> , KIST, Korea <i>Self-Assembled Nanoparticles for Cancer Imaging and Therapy</i>
12:00 p.m.	<u>Natalya Rapoport</u> , University of Utah, USA <i>Echogenic Drug-loaded Nanoparticles for Image-guided Localized Tumor Therapy</i>
12:30 p.m.	LUNCH

Non-Fouling Surfaces And Drug Delivery Systems

2:15 p.m.	<u>Guohua Chen</u> , Alza Corp., a Johnson and Johnson Company, USA <i>Injectable Non-aqueous Biodegradable Polymer Gel for Controlled Release of Bioactive Agents</i>
2:45 p.m.	<u>Robert Ward</u> , The Polymer Technology Group, USA <i>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</i>
3:15 p.m.	<u>Kazuhiko Ishihara</u> , The University of Tokyo, Japan <i>PC-polymer Surface Technology for Nano-biomedical Device Development</i>
3:45 p.m.	<u>Ging-Ho Hsiue</u> , National Tsing Hua University, Taiwan <i>Novel Mixed Micelles with Multi-Functions from Graft and Diblock Copolymers</i>
4:15 p.m.	BREAK

Novel Biomaterials, Anti-Microbial Surfaces and Degradable Stents

4:30 p.m.	<u>Joachim Kohn</u> , Rutgers University, USA <i>Combinatorial and Computational Methods for the Discovery of Biomaterials</i>
5:00 p.m.	<u>Kenneth J. Wynne</u> , Virginia Commonwealth University, USA <i>Biocidal Coatings: Progress and Challenges</i>
5:30 p.m.	<u>Roya Borazjani</u> , Bausch & Lomb, USA <i>Inhibition of Bacterial Attachment to Contact Lens Surfaces</i>
6:00 p.m.	<u>Subbu Venkatraman</u> , Nanyang Technological University, Singapore <i>The Partial Elastic Memory Effect (PEM) Applied to Fully Polymeric Stents</i>
6:30 p.m.	Meeting Adjourn

Polymers for Batteries and Fuel Cells

December 12-13, 2005

Symposium Co-Chairs

Tom Zawodzinski, Case Western Reserve University, USA

John B. Kerr, Lawrence Berkeley National Labs, USA

Monday, December 12, 2005

8:30 a.m.	<u>John Kerr</u> , Lawrence Berkley National Labs, USA <i>Cross-fertilization between Polymers for Batteries and Fuel Cells</i>
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PART 1: FUEL CELLS

Overview: Materials and Systems

8:55 a.m.	<u>Richard Carlin</u> , ONR, USA <i>Military Needs in Fuel Cells</i>
9:20 a.m.	<u>Lesia Protsailo</u> , UTC Fuel Cells, USA <i>Durability Aspects of PEM Fuel Cells</i>
9:45 a.m.	<u>Brian Benicewicz</u> , Rensselaer Polytechnic Institute, USA <i>Durability of High Temperature PBI Fuel Cell Membranes</i>
10:15 a.m.	BREAK

Mechanisms

10:30 a.m.	<u>D. Bussian</u> , University of California at Santa Barbara, USA <i>Experimental and theoretical work towards understanding Nafion structure and improving Pt loading</i>
11:00 a.m.	<u>Stephen Paddison</u> , University of Alabama-Huntsville, USA <i>From molecular structure to material function: a multiscale modeling approach to PEMs</i>
11:30 a.m.	<u>Gregory A. Voth</u> , University of Utah, USA <i>Molecular Dynamics Simulation of Excess Proton Solvation and Transport in Polymer Electrolyte Membranes</i>
12:00 p.m.	<u>Beery Chou</u> , <i>Toward Proton Conductors for Low RH: Building Blocks</i>
12:30 p.m.	LUNCH

New Polymers

1:45 p.m.	Steve Hamrock , 3M™ Fuel Cell Components Program, USA <i>New PFSA Membranes with Improved Durability</i>
2:15 p.m.	Joseph. M. DeSimone , University of North Carolina at Chapel Hill, USA <i>New Super Proton-Conductive, High Acid-Containing Fluoropolymer PEMs from Cured Liquid Precursors</i>
2:45 p.m.	Yoshimitsu Sakaguchi , Toyobo Corporation Ltd., Japan <i>Polybenzimidazole Membranes Containing Sulfonic and/or Phosphonic Group</i>
3:15 p.m.	Ken Tasaki , Mitsubishi, USA <i>Fullerene Composite Membranes for Low Humidity Operation of H₂PEFC and DMFC</i>
3:45 p.m.	Peter N. Pintauro , Case Western Reserve University, USA <i>Modified Nafion as the Membrane Material for Direct Methanol Fuel Cells</i>
4:15 p.m.	BREAK

MEA

4:30 p.m.	Gary Wnek , Case Western Reserve University, USA <i>Electrostatic Polymer Processing Applied to PEM Fabrication</i>
5:00 p.m.	Bryan Pivovar , Los Alamos National Laboratory, USA <i>Optimizing Alternative Polymer Performance in Fuel Cell Applications</i>
5:30 p.m.	Donald G. Baird , Virginia Tech, USA <i>Development of Moldable Thermoplastic Composite Bipolar Plates with High Through-Plane Conductivity</i>
6:00 p.m.	Summary and Adjourn

Poster Session

7:30 p.m.	POSTER SESSION, Polymers for Batteries and Fuel Cells
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Tuesday, December 13, 2005

PART 2: BATTERIES

Battery Technology Overview

8:00 a.m.	Masayoshi Watanabe , Yokohama National University, Japan <i>Design of Li⁺-Conducting Polymer Electrolytes and Their Electrochemical Interfaces</i>
8:45 a.m.	Wesley Henderson , U. S. Naval Academy, USA <i>Revisiting 'Dry' Polymer Electrolytes - The Incorporation of Ionic Liquids for Lithium Batteries</i>
9:30 a.m.	Oleg Borodin/Grant D. Smith , University of Utah <i>Molecular Dynamics Simulations of Polymer, Gel and Liquid Electrolytes</i>

10:15 a.m.	BREAK
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Mechanisms and Materials

10:45 a.m.	<u>TBA</u>
11:30 a.m.	<u>Hiroyuki Nishide</u> , Waseda University, Japan <i>Organic Radical Polymers as a New Class of Electrode-Active Materials for Secondary Batteries</i>
12:30 p.m.	LUNCH

Polymers in the Marine Environment

December 12-13, 2005

Symposium Co-Chairs

Peter Zarras, Navair, USA

Maureen Callow, University of Birmingham, USA

Hans Griesser, U. South Australia, Australia

Monday, December 12, 2005

Introduction and evaluation methods

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

8:00 a.m.	<i>Brief Introductory Remarks</i>
8:15 a.m.	<u>Julian E. Hunter</u> , International Paint UK Ltd, United Kingdom <i>Global Regulation of Antifouling Paints - Bureaucratic Nightmare or a Common Sense Approach to Ensure Safety of Products on the Market?</i>
8:45 a.m.	<u>James A. Callow</u> , University of Birmingham, United Kingdom <i>Rapid laboratory-scale bioassays for primary evaluation of novel coatings and surfaces</i>
9:15 a.m.	<u>Geoffrey Swain</u> , Florida Institute of Technology, USA <i>Challenges and Solution for the Field Testing of Antifouling Surfaces</i>
9:45 a.m.	<u>Thomas E. Ready</u> , North Dakota State University, USA <i>Combinatorial Methods for Evaluating New Marine Coatings</i>
10:15 a.m.	BREAK

Polymers for the control of biofouling

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

10:30 a.m.	<u>Kenneth J. Wynne</u> , Virginia Commonwealth University, USA <i>Strange Polymer Surfaces: Marine Coatings Applications?</i>
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11:00 a.m.	Dean C. Webster , North Dakota State University, USA <i>Toward Tough and Durable Fouling Release Coatings: High Throughput Synthesis and Screening of Crosslinked Siloxane-Urethane Coatings</i>
11:30 a.m.	Emo Chiellini , Universita of Pisa, Italy <i>Low-surface Energy Polymeric Materials for Nanostructured Antifouling Coatings</i>
12:00 p.m.	Philippe Dubois , University of Mons-Hainaut, Belgium <i>Carbon nanotube/organoclay EVA-based ternary nanocomposite: synergistic effect of the combined nanofillers</i>
12:30 p.m.	LUNCH

Polymers and Mechanisms for antifouling and fouling release

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

2:00 p.m.	<i>Brief Introductory Remarks</i>
2:15 p.m.	Joseph M. DeSimone , University of North Carolina at Chapel Hill, USA <i>Perfluoropolyether (PFPE) Fouling-Release Coatings</i>
2:45 p.m.	Carsten Werner , Leibniz Institute of Polymer Research Dresden, Germany <i>Molecular Engineering of Maleic Anhydride Copolymer Coatings</i>
3:15 p.m.	Christopher K. Ober , Cornell University, USA <i>Strategies for Fouling Release using Multilayer Polymer Coatings</i>
3:45 p.m.	Michael Grunze , Universität Heidelberg, Germany <i>New Synthetic Concepts and In Situ Characterization</i>
4:15 p.m.	BREAK

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

4:30 p.m.	Karen Wooley , Washington University, USA <i>Surface and Sub-surface Structure and Properties for Composite Amphiphilic Networks and Their Exploitation for Minimally-adhesive and Host-guest Applications</i>
5:00 p.m.	Manoj Chaudhury , Lehigh University, USA <i>Understanding the Mechanism of Release of Biofoulants from Polymeric Coatings using Fracture Mechanics</i>
5:30 p.m.	Zhan Chen , University of Michigan, USA <i>Spectroscopic Studies on Biofouling Control/Release Polymer Surfaces and Their Interactions with AdhesiveProteins at the Molecular Level and in Situ</i>
6:00 p.m.	Robin L. Garrell , University of California, Los Angeles, USA <i>Adhesion, Cohesion and Modulus of the Mussel Adhesive Protein Mefp-1</i>
6:30 p.m.	Anthony Brennan , University of Florida, USA <i>Engineered Anti-fouling Designs for Marine Environments</i>
7:00 pm	Shan Zou , University of Toronto, Canada <i>Nanoscale Mechanics of Algal and Barnacle Adhesives and their Polymer Substrates</i>

Poster Session

7:30 p.m.	POSTER SESSION, Polymers in the Marine Environment
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Tuesday, December 13, 2005

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 Marmur , Technion – Israel Institute for Technology, Israel <i>Strategies for Super-Hydrophobic Surface Design</i>
9:00 a.m.	Hans Elwing , Göteborg University, Sweden <i>Quartz Crystal Microbalance with Dissipation Monitoring (QCM-D), a New Tool for Optimization of Marine Anti-fouling Coatings</i>
9:30 a.m.	Karine Vallée-Réhel , Laboratoire de Biotechnologie et Chimie, France <i>Biodegradable Copolymers based on Polycaprolactone for Antifouling Paints</i>
10:00 a.m.	BREAK

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

10:15 a.m.	Rocky de Nys , James Cook University, Australia <i>Biomimetic fouling control–Developing templates for novel antifouling technologies</i>
10:45 a.m.	Jin Ho Lee , Hannam University, Korea <i>PEO-containing Polymers for Anti-fouling Surface Coating</i>
11:15 a.m.	Jan Genzer , North Carolina State University, USA <i>Functional Siloxane-Based Foul-Release Coatings: Preparation and Properties</i>
11:45 p.m.	Bo Liedberg , Linköping University, Sweden <i>Nano- and Microstructured Anti-fouling Coatings</i>
12:30 p.m.	LUNCH

Corrosion Protection Using Polymers and Testing

P. Zarras and A. Perez, Discussion Leaders

2:30 p.m.	<i>Brief Introductory Remarks</i>
2:40 p.m.	Andrew J. Guenther , Naval Air Warfare Center, USA <i>Low-Moisture Thermoplastic Toughening Approaches for Cyanate Ester Resins</i>
3:10 p.m.	Wim van Ooij , University of Cincinnati, USA <i>Novel Approaches in the Development of Environmentally Compliant Coatings for Corrosion Protection of Metals</i>
3:40 p.m.	Qi Zhao , University of Dundee, United Kingdom

	<i>Development and Evaluation of Anti-fouling and Anti-corrosion Ni-P-PTFE Composite Coatings</i>
4:15 p.m.	BREAK

P. Zarras and B. Benicewicz, Discussion Leaders

4:40 p.m.	Brian C. Benicewicz , Rensselaer Polytechnic University, USA <i>New Electroactive Polymers for Anti-corrosion Coatings</i>
5:10 p.m.	Patrick J. Kinlen , Crosslink Polymer Research, USA <i>Corrosion Protection of Aluminum Alloys by Controlled Release of Inhibitors from Electroactive Polymer Coatings</i>
5:40 p.m.	Dennis E. Tallman , North Dakota State University, USA <i>Scanning Probe Studies of Active Coatings for Corrosion Control of Al Alloys</i>
6:10 p.m.	F. Mansfeld , University of Southern California, USA <i>Models for Quantitative Analysis of EIS Data for Polymer Coatings</i>
6:40 p.m.	John D. Stenger-Smith , NAVAIR-WD, USA <i>Derivatives of Poly(phenylene vinylene)s as Hexavalent Chromium Free Coatings of Aluminum for Corrosion Prevention in Marine Environments</i>

Advances in Engineering Polymers

December 13-14, 2005

Symposium Co-Chairs

Dan Brunelle, GE Global Research, USA

Yoshiki Chujo, Kyoto University, Japan

Tuesday, December 13, 2005

Yoshiki Chujo, Discussion Leader

2:00 p.m.	Dan Brunelle , GE Global Research, Yoshiki Chujo , Kyoto University <i>Introduction</i>
2:15 p.m.	Mitsuru Ueda , Tokyo Institute of Technology, Japan <i>Thermally Stable and Photosensitive Polymers</i>
2:45 p.m.	Timothy E. Long , Virginia Tech, USA <i>Well-Defined Branching for Tailored Rheological Performance: To Branch or Not to Branch?</i>
3:15 p.m.	Chang-Sik Ha , Pusan National University, Korea <i>Polyimides for Hybrid Organic Electroluminescent Devices</i>
3:45 p.m.	Anne Hiltner , Case Western Reserve University, USA <i>Polymer Interphase Materials by Forced Assembly</i>
4:15 p.m.	BREAK

4:30 p.m.	Daniel J. Brunelle , GE Global Research, USA <i>Aromatic Polyethers via Phase Transfer Catalyzed Displacement</i>
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	<i>Polymerization</i>
5:00 p.m.	<u>Masa-aki Kakimoto</u> , Tokyo Institute of Technology, Japan <i>Preparation and Application of Polysiloxysilane Hyperbranched Polymers</i>
5:30 p.m.	BREAK FOR DINNER

Poster Session

7:30 p.m.	POSTER SESSION, Advances in Engineering Polymers
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Wednesday, December 14, 2005

Daniel Brunelle, Discussion Leader

8:15 a.m.	<u>Masayoshi Watanabe</u> , Yokohama National University, Japan <i>Ionic Liquids and Polymers: A New Combination for New Materials</i>
8:45 a.m.	<u>Geoffrey W. Coates</u> , Cornell University, USA <i>A C₂-Symmetric, Living α Diimine Ni(II) Catalyst: Regioblock Copolymers from Propylene</i>
9:15 a.m.	<u>Kuwang-Sup Lee</u> , Hannam University, Korea <i>Fabrication of Nano/Micro-Objects by using Two-Photon Initiated Polymerization Technique</i>
9:45 a.m.	<u>Reinoud J. Gaymans</u> , Universite of Twente, The Netherlands <i>High TG Polymers with Mono Disperse Crystallizable Segments</i>
10:15 a.m.	BREAK

10:30 a.m.	<u>James E. McGrath</u> , Virginia Tech, USA <i>Poly (Arylene Ether Benzonitrile) Homo and Statistical Copolymers</i>
11:00 a.m.	<u>Kazuo Akagi</u> , University of Tsukuba, Japan <i>Synthesis and Properties of Liquid Crystalline Helical Conjugated Polymers</i>
11:30 a.m.	<u>Yoshiki Chujo</u> , Kyoto University, Japan <i>Organic-Inorganic Polymer Hybrids Based on Sol-Gel Reaction</i>
12:00 p.m.	<u>Akira Harada</u> , Osaka University, Japan <i>Cyclodextrin-based Supramolecular Polymers</i>
12:30 p.m.	LUNCH

Akira Harada, Discussion Leader

2:00 p.m.	<u>Frank W. Harris</u> , The University of Akron, USA <i>Synthesis and Characterization of Polyimides with Twisted Configurations</i>
2:30 p.m.	<u>Wayne D. Cook</u> , Monash University, Australia <i>Polymerization Kinetics and Properties of Thiol-ene Networks</i>
3:00 p.m.	<u>Liviu Mirci</u> , University Politehnica Timisoara, Romania <i>New Polymer Processing Aids in the Esteric Class</i>
3:30 p.m.	<u>Atsushi Takahara</u> , Kyushu University, Japan <i>Influence of Wetting Anisotropy of Substrate on Polymer Film Fabrication by Ink-Jet Method</i>
4:00 p.m.	<u>Dan Brunelle and Yoshiki Chujo</u>

	<i>Closing Remarks</i>
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Polymer Microelectronics and Photonics

December 13-14, 2005

Symposium Co-Chairs

Stephen Cheng, University of Akron, USA

Frank Harris, University of Akron, USA

Fosong Wang, Chinese Academy of Sciences, China

TUESDAY, December 13, 2005

Microelectronic and Conducting Materials

Frank Harris, Discussion Leader

2:00 p.m.	Frank Harris , University of Akron, USA <i>Session Introduction</i>
2:15 p.m.	James E. McGrath , Virginia Tech, USA <i>Advanced Materials for Proton Exchange Membranes</i>
2:45 p.m.	Christopher K. Ober , Cornell University, USA <i>Recent Developments in Molecular Glass Resists</i>
3:15 p.m.	Takayoshi Nakamura , Hokkaido University, Japan <i>Nanostructures of conducting and magnetic molecular materials</i>
3:45 p.m.	James L. Hedrick , IBM Almaden Research Center, USA <i>Templating Organosilicate Vittrification using Unimolecular Self Organizing Polymers: Evolution of Morphology and Nanoporosity Development with Network Formation</i>
4:15 p.m.	BREAK

Microelectronic and Conducting Materials

Frank Harris, Discussion Leader

4:30 p.m.	Curtis W Frank , Stanford University, USA <i>Structure and Dynamics of Ultrathin Films of Perfluoropolyethers Used as Hard-Disk Lubricants</i>
5:00 p.m.	Wenli Wu , National Institute of Standards and Technology, USA <i>Direct Measurement of the Counterion Distribution within a Model Photoresist Film During its Dissolution^s</i>
5:30 p.m.	Benjamin Chu , Stony Brook University, USA <i>New Pathway for Development of Low Dielectric Constant Polymers A Demonstration of Concept</i>

6:00 p.m.	Leonard V. Interrante Rensselaer Polytechnic Institute, USA <i>Polycabosilanes as Low-k Dielectric Materials</i>
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WEDNESDAY, December 14, 2005

Polymer Photonics and Electronics

Stephen Cheng, Discussion Leader

7:55 a.m.	Stephen Cheng , University of Akron, USA <i>Session Introduction</i>
8:00 a.m.	Paras N. Prasad , State University of New York-Buffalo, USA <i>New Opportunities for Polymers at the Interface of Photonics, Nanotechnology and Biotechnology</i>
8:45 a.m.	Yasuhiko Shirota , Fukui University of Technology, Japan <i>Design and Synthesis of New Vinyl Polymers and Related Materials, and Their Applications for Electronics and Photonics</i>
9:15 a.m.	Yang Yang , University of California Los Angeles, USA <i>Polymer/nano Particle Composite for High Performance Electronic Devices</i>
9:45 a.m.	Soo Young Park , Seoul National University, Korea <i>Functional polymer films for the fluorescence patterning and reversible optical recording</i>
10:15 a.m.	BREAK

Polymer photonics

Paras Prasad, Discussion Leader

10:30 a.m.	Barry L. Farmer , AFRL, Materials and Manufacturing Directorate, USA <i>Photonics Research at the Air Force Research Laboratory</i>
11:00 a.m.	Chian Shu Hsu , National Chiao Tung University, Taiwan ROC <i>High Efficiency Polymer Light Emitting Diodes Based on Poly(2,3-diphenyl-1,4-phenylene vinylene)s</i>
11:30a.m.	Yukio Furukawa , Waseda University, Japan <i>Infrared and Raman Spectroscopy of Polymer Light-emitting Diodes and Field-effect Transistors</i>
12:00 p.m.	Thein Kyu , The University of Akron, USA <i>Diffraction Efficiency in Relation to Structure Development in Polymer Photonic Crystals</i>
12:30 p.m.	LUNCH

Polymer Electronics and Photonics

Barry Farmer, Discussion Leader

2:00 p.m.	<i>SESSION INTRODUCTION</i>
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2:15 p.m.	Lloyd Robeson , Air Products and Chemicals, USA <i>Sequestration of Electroactive Materials in a High T_g Insulating Polymer Matrix for Optoelectronic Applications</i>
2:45 p.m.	Dong Hoon Choi , Korea University, Korea <i>Multifunctional dendritic materials for optoelectronics</i>
3:15 p.m.	Dennis W. Smith, Jr. , Clemson University, USA <i>TBA</i>
3:45 p.m.	Lixinag Wang , CIAC, Chinese Academy of Science, China <i>Single Polymer with Simultaneous Two or Three Primary Color Emission for White Electroluminescence</i>
4:15 p.m.	BREAK

Polymer Electronics and Photonics

Lloyd Robeson, Discussion Leader

4:30 p.m.	Andrew B. Holmes , University of Melbourne, Australia <i>Polydibenzosiloles – New Hosts for Electrophosphorescence</i>
5:00 p.m.	Christopher Li , Drexel University, USA <i>Polymer crystallization/melting induced thermal switching in a series of holographically patterned Bragg reflectors</i>
5:30 p.m.	Supawan Tantayanon , Chulalongkorn University, Thailand <i>Synthesis and Photoinduced Electron Transfer of Polyimides Containing Trans-/Cis- Diaminotetraphenylporphyrin</i>
6:00 p.m.	A. L. Rusanov , Russian Academy of Sciences, Russia <i>Low K Polymers Based on 2,4,6- trinitrotoluene(TNT) Derivatives</i>

Poster Session

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

December 13-14, 2005

Symposium Co-Chairs

Judy Riffle, Virginia Tech, USA

Tim G. St. Pierre, University of Western Australia, Australia

Urs Hafeli, University of British Columbia, Canada

Tuesday, December 13, 2005

Advances in Magnetic Nanomaterials and Microspheres 1

Judy Riffle and Tim St. Pierre, Discussion Leaders

8:30 a.m.	Judy Riffle , Virginia Tech, USA
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	<i>Introduction and Symposium Overview</i>
8:45 a.m.	<u>Shouheng Sun</u> , Brown University, USA <i>Surface Functionalization of Magnetic Nanoparticles for Biomedical Applications</i>
9:15 a.m.	<u>Cordula Groettner</u> , Micromod, Inc., Rostock, Germany <i>Application Specific Surface Design of Magnetic Polymer Particles</i>
9:45 a.m.	<u>Chongwu Zhou</u> , University of Southern California, USA <i>Nanocasting Synthesis and Transport Studies of Magnetic Nanowires</i>
10:15 a.m.	BREAK

Advances in Magnetic Nanomaterials and Microspheres 2

Cordula Groettner and Metha Rutnakornpituk, Discussion Leaders

10:30 a.m.	<u>Judy S. Riffle</u> , Virginia Tech, USA <i>Insight into Formation of Magnetite-Polymer Complexes and their Dispersions in Aqueous Fluids</i>
11:00 a.m.	<u>Hideo Sawada</u> , Hirotsaki University, Japan <i>Preparation and Applications of Magnetic Nanoparticles by the Use of Self-Assembled Fluorinated Oligomeric Aggregates</i>
11:30 a.m.	<u>Martin Saunders</u> , The University of Western Australia, Australia <i>Atomic Scale Characterization of Macromolecule/Cobalt Nanoparticle Composites for Biomedical Applications</i>
12:30 p.m.	LUNCH

Biomedical/Medical Aspects 1

Hugh DeLong and Jon Dobson, Discussion Leaders

1:30 p.m.	<u>Diether Recktenwald</u> , BD Biosciences, USA <i>Affinity Reagent Based Cell and Particle Separation Systems</i>
2:00 p.m.	<u>Axel J. Rosengart</u> , The University of Chicago Pritzker School of Medicine, USA <i>Development of a Nanocarrier-Based Detoxification Technology</i>
2:30 p.m.	<u>Urs Häfeli</u> , University of British Columbia, Canada <i>Comparison of the Cell Toxicity of Nanoparticles made from Materials and Different Sizes</i>
3:00 p.m.	BREAK

Biomedical/Medical Aspects 2

J. P. Dailey and Linda Harris, Discussion Leaders

3:15 p.m.	<u>Francis Creighton and Rogers Ritter</u> , Stereotaxis, Inc., USA <i>Stereotaxis Magnetic Navigation Technology as a Targeted Drug Delivery Platform</i>
3:45 p.m.	<u>Bernhard Gleich</u> , Philips Research Laboratories, Hamburg, Germany <i>Magnetic Particle Imaging: A Method for Imaging 3-D Magnetic Material</i>

	<i>Distributions</i>
4:15 p.m.	Jeffrey J. Chalmers , The Ohio State University, USA <i>Quantification of the Field Interaction Parameters and the Binding Constants of Several Antibody-magnetic Nanoparticle Conjugates</i>
4:45 p.m.	Shin-ichi Takeda , Osaka University, Japan <i>Development of a Three-Dimensional Magnetic Navigation and Magnetically Targeted Drug Delivery System</i>
5:15 p.m.	ADJOURN SESSION

Poster Session

7:30 p.m.	POSTER SESSION, Magnetic Materials at the Interface of Polymer Science and Biology
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Wednesday, December 14, 2005

Magnetic Nanotechnology / Assays / Devices 1

Urs Hafeli and Armin Ebner, Discussion Leaders

8:30 a.m.	Axel Hoffmann , Argonne National Laboratories, USA <i>Using Brownian Motion of Magnetic Nanoparticles for Biomagnetic Sensing</i>
9:00 a.m.	Shan Wang , Stanford University, USA <i>Functionalization and Characterization of Magnetic Biochips for Sensitive DNA Detection</i>
9:30 a.m.	Qasem Ramadan , Institute of Microelectronics, Singapore <i>An Integrated Microfluidic Platform for Manipulation of Magnetic Carriers</i>
10:00 a.m.	James A. Ritter , University of South Carolina, USA <i>In Vitro Studies of Implant Assisted Magnetic Drug Targeting</i>
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 <i>Large-scale Synthesis of Monodisperse Ferrite Nanoparticles via a Simple, Inexpensive and Environmentally-friendly Route</i>
11:15 a.m.	Tim St. Pierre , The University of Western Australia, Australia <i>Probing the Oxidative Stability and Structure of Polymer-coated Cobalt Nanoparticles</i>
11:45 a.m.	Metha Rutnakornpituk , Naresuan University, Thailand <i>Synthesis and Characterization of Biocompatible Magnetite Nanoparticles</i>
12:30 p.m.	LUNCH

Medical/Biomedical Applications

Shan Wang and Michael Miller, Discussion Leaders

1:30 p.m.	Armin Ebner , University of South Carolina, USA <i>Magnetic Implants for Magnetic Drug Targeting</i>
2:00 p.m.	James P. Dailey , Case Western Reserve University, USA <i>Magnetic Fluids in Eye Surgery</i>
2:30 p.m.	Maciej Zborowski , Cleveland Clinic Foundation, USA <i>Magnetophoretic Cell Sorting using Functionalized Magnetic Nanoparticles</i>
3:00 p.m.	Michael Kaminski , Argonne National Laboratories, USA <i>Design and Magnetic Separation of Nanospheres for In-vivo Use</i>
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 <i>Interfacial Properties of Biocompatible Magnetic Nanoparticles</i>
4:15 p.m.	Linda Harris , Virginia Tech and the University of Western Australia, USA <i>Amphiphilic Copolymer Nanoreactors for Discrete Iron Oxide Nanoparticles</i>
4:45 p.m.	Elliot Gilbert , University of Melbourne, Australia <i>TBA</i>
5:15 p.m.	Tim St. Pierre <i>Closing remarks</i>

Aerospace Materials and Structures

December 14, 2005

Symposium Co-Chairs

Tia Benson Tolle, Wright Patterson Air Force Base, USA
Dong Yang Wu, CSIRO, Australia

Tuesday, December 13, 2005, 7:30 p.m.

Poster Session

7:30 p.m.	POSTER SESSION, Aerospace Materials and Structures
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Wednesday, December 14, 2005

Dr. Dong Yang Wu, Discussion Leader

8:00 a.m.	<u>Jeff Baur</u> , Air Force Research Laboratory, WPAFB, USA <i>Session Introduction</i>
8:15 a.m.	<u>Barry L. Farmer</u> , Air Force Research Laboratory, WPAFB, USA <i>Air Force Materials Research: Now and Tomorrow</i>
8:45 a.m.	<u>Martha K. Williams</u> , NASA, Spaceport Engineering and Technology, USA <i>Thermal Insulation Materials for Aerospace Vehicles and Spaceport Applications</i>
9:15 a.m.	<u>Suraj Rawal</u> , Lockheed Martin Space Systems, USA <i>Spacecraft Applications for Advanced Polymers</i>
9:45 a.m.	<u>Michael F. Durstock</u> , Air Force Research Lab, USA <i>Solar Power for Defense Applications: Organic and Nanoparticle Hybrid Photovoltaic Devices</i>
10:15 a.m.	BREAK

Tia Benson Tolle, Discussion Leader

10:30 a.m.	<u>Kathy C. Chuang</u> , NASA Glenn Research Center, USA <i>High T_g Polyimides for Resin Transfer Molding (RTM)</i>
11:00 a.m.	<u>M. Bauer</u> , Fraunhofer Institute of Reliability and Microintegration, Germany <i>New Resins and Fibre Reinforced Materials with High Flame Retardancy</i>
11:30 a.m.	<u>M. B. Saeed</u> , Beijing University of Aeronautics and Astronautics, China <i>Adhesive Strength of Partially Imidized Thermoplastic Polyimide Films in Bonded Joints</i>
12:00 p.m.	<u>Dong Yang Wu</u> , CSIRO Manufacturing and Infrastructure Technology, Australia <i>Development and Characterization of Polymer Nanocomposites</i>
12:30 p.m.	LUNCH

General Lecture Session

December 14, 2005

Symposium Co-Chairs

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

Morning Session

Discussion Leader: Richard Blackwell, Bausch & Lomb

8:15 a.m.	Open comments Richard Blackwell and Andrew Whittaker
8:20 a.m.	<u>Yasuhiro Morisaki</u> , Kyoto University, Japan <i>Synthesis and Properties of Cyclophane-containing Conjugated Polymers</i>
8:40 a.m.	<u>Richard Kotek</u> , North Carolina State University, USA

	<i>Ring-opening Polymerization of Cyclic Oligoesters of Poly(trimethylene terephthalate)</i>
9:00 a.m.	Kanji Suyama , Osaka Prefecture University, Japan <i>Photochemical Formation of Tertiary Amine from Quaternary Ammonium Salts and Its Use in Photo-Crosslinking of Polymers</i>
9:20 a.m.	Milena Ginic-Markovic , Flinders University, Australia <i>Surface Modification of MWCNTs By Thin Layer of Polymer Coating</i>
9:40 a.m.	BREAK

10:30 a.m.	S. Manolache , University of Wisconsin-Madison, USA <i>The Synthesis Of Hard Carbon Nanostructures Using Sf6 Plasma Environments</i>
10:50 a.m.	Min Park , Korea Institute of Science and Technology, Korea <i>Fabrication of Polyphenylenesulfide/Carbon Fiber Thermoplastic Towpreg Through Direct Melt Impregnation Method</i>
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

Afternoon Session

Discussion Leader: Andrew Whittaker, University of Queensland, Australia

2:15 p.m.	Richard I Blackwell , Bausch and 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 Colpolyesters 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.	D. L. Officer , Massey University, New Zealand <i>Functionalised Polythiophene Films and Fibres</i>
3:35	Closing Remarks