

SUNDAY OCTOBER 15, 2006

- 1:00 pm **REGISTRATION DESK OPENS**, [Registration desk will remain open throughout meeting]
- 2:45 pm **OPENING REMARKS by CONFERENCE CHAIR**
 Prof. Dennis Smith (*Clemson University*)
- 3:00 pm **OPENING TUTORIAL: Prof. Darryl DesMarteau (*Clemson University*)**
 "Why Fluorine? A Centennial Review since Henri Moisson's Nobel Prize for the discovery of Fluorine"

SESSION 1

Synthesis and Characterization – Part I

- 3:40 pm Dr. Bruno Ameduri (*CNRS, Montpellier, France*)
 "Recent Advances in the Controlled Radical Polymerization of Fluoromonomers"
- 4:30 pm **BREAK**
- 4:45 pm Prof. Mike Chung (*Pennsylvania State University*)
 "Synthesis and Characterization of Fluoropolymers with High dielectric and Ferroelectric Properties Using Control Borane/Oxygen Radical Initiators"
- 5:15 pm Dr. Scott Schmidt (*Arkema Inc*)
 "Synthesis and Applications of Fluorinated Block Copolymers using Nitroxide Mediate CRP Techniques"
- 6:00 pm **WELCOME RECEPTION**
- 7:00 pm **DINNER ON YOUR OWN**

MONDAY OCTOBER 16, 2006

- 7:15 am **CONTINENTAL BREAKFAST**

SESSION 1 (continued)

Synthesis and Characterization - Part I

- 8:00 am Prof William Dolbier (*University of Florida*)
 "Novel Fluoropolymers formed by a $S_{RN}1$ Condensation Polymerization Mechanism"
- 8:30 am Prof. George Kostov (*CNRS, Montpellier, France*)
 "New Fluorinated Surfactants based on 3,3,3-Trifluoropropene"
- 8:55 am Prof. Ayusmen Sen (*Pennsylvania State University*)
 "New Fluoroalkene Copolymers through Radical Polymerization"
- 9:20 am **BREAK**

SESSION 2

Environmental Impact and Regulatory Issues

- 9:35 am Dr. Greg Hammond (*Environment Canada*)
 "Fluoropolymer Regulatory Issues in North America and Beyond"

10:05 am Prof. Jennifer Field (*Oregon State University*)
“Fluorochemical Fate During Municipal Wastewater Treatment and Why it Matters”

10:45 am Prof. Scott Mabury (*University of Toronto, Canada*)
“Tracking the Dirty Byproducts of a World Trying to Stay Clean – Environmental Fate of Precursor Fluorinated Alcohols”

SESSION 3

Coatings and Surfaces

11:15 am Prof. Kenneth J. Wynne (*Virginia Commonwealth University*)
“Functional Surfaces through Semifluorinated Polymer Surface Modifiers”

11:45 am **LUNCH TOGETHER**

SESSION 3

Coatings and Surfaces, cont’d

1:00 pm Dr. Joe Mabry (*US Air Force Research Laboratory*)
"Hydrophobic Nanocomposites Containing Fluorinated Polyhedral Oligomeric Silsesquioxanes (POSS)"

1:30 pm Prof. Atsushi Takahara (*Kyushu University, Japan*)
“Precise Characterization of Surface Nanostructure of Highly Water Repellent Poly(fluoro acrylate)s”

2:00 pm Prof. Harry R. Allcock (*Pennsylvania State University*)
“Hydrophobic and Superhydrophobic Surfaces from Fluorinated Polyphosphazenes”

2:30 pm Prof. Karen Gleason (*Massachusetts Institute of Technology*)
“Initiated Chemical Vapor Deposition (iCVD) of Low Surface Energy Fluorinated Acrylic Homopolymer and Copolymer Thin Films”

3:00 pm Dr. Don Kleyer (*Dow Corning USA*), Dr. Peter Hupfield, (*Dow Corning Ltd, UK*), Dr. Yasuo Itami, Dr. Yasuhiro Nakai, and Dr. Tetsuya Masutani (*Daikin Industries, Ltd., Japan*)
"Perfluoropolyether Silanes, Structural Modification for Enhanced Performance as Surface Treatment Agents"

3:30 pm **BREAK**

3:45 pm Prof. Marek Urban (*University of Southern Mississippi*)
“Synthesis and Film Formation of F-Containing Colloidal Particles Assisted by Bio-active Phospholipids”

4:15 pm Prof. Chris Ober (*Cornell University*)
“Fluoropolymer Surfaces for the Biology Materials Interface”

4:45 pm Prof. Joseph Schlenoff (*Florida State University*)
“Fluorinated Polyelectrolyte Multilayers for Ultrahydrophobic and Biopatterned Materials”

5:15: pm Dr. Romain Severac (*DuPont de Nemours, France*)
“Water-Soluble Fluorinated Polymers: Interactions with Fluorinated Surfactants”

5:45 pm Dr. Valeri Kapeliouchko (*Solvay Solexis, Italy*)
“New Environment Friendly Fluoropolymer Dispersions”

- 6:15 pm **DAILY SESSIONS END**
- 6:30 pm **SOCIAL AND POSTER SESSION**
- 7:30 pm **DINNER ON YOUR OWN**

TUESDAY OCTOBER 17, 2006

- 7:15 am **CONTINENTAL BREAKFAST**

SESSION 4

Photonic, Optical and Electronic Applications

- 8:00 am **TUTORIAL:** Prof. John Ballato (*COMSET, Clemson University*)
"Fundamentals of Optical Materials: Application Specific Promises and Pitfalls"
- 9:00 am Dr. William Coggio (*3M Company*)
"The Role of Low Refractive Index Fluoropolymer Acrylates in Anti-Reflective (AR) Optical Films"
- 9:30 am Dr. Louay Eldada (*DuPont Photonics Technology*)
"Advances in Fluoropolymer-Based Optoelectronics for Data Transmission, Processing, and Display"
- 10:00 am **BREAK**

SESSION 5

Structure / Property Relationships

- 10:15 am Prof. Timothy Romack (*East Carolina University*)
"Precision Syntheses and Characterization of Fluorocarbon-Based Self-Assembling Materials"
- 10:45 am Dr. Gary Grest (*Sandia National Laboratories*) and Prof. Dvora Perahia (*Clemson University*)
"Interfacial Characteristics of Random Semifluorinated Diblock Co-polymers"
- 11:15 am **MORNING SESSIONS END**
- 11:45 pm **LUNCH TOGETHER**

SESSION 6

Synthesis and Characterization – Part II

- 1:00 pm **TUTORIAL:** Prof. Joe Thrasher (*University of Alabama*)
"Characterization of Perfluoroalkylethers by Matrix Assisted Laser desorption Ionization/ Time of Flight (MALDI/TOF) Mass Spectrometry"
- 2:00 pm Dr. Richard Thomas (*OMNOVA Solutions Inc*)
"Characterization of a Poly(fluorooxetane) and Poly(fluorooxetane-co-THF) by MALDI Mass Spectrometry, Size Exclusion Chromatography, and NMR Spectroscopy"
- 2:30 pm Prof. Joe DeSimone (*North Carolina State University & University of North Carolina*)
"Organic Delivery Vehicles for Probing and Treating Biological Systems: Adapting Fluoropolymer-based Molding Processes for Use in Nano-medicine"

- 3:00 pm Joshua Orlicki (*US Army Research Laboratory*)
"Fatty Acid Based Monomers as Replacements for Styrene in Vinyl Ester Resins"
- 3:30 pm **BREAK**
- 3:45 pm Prof. Mark McHugh (*Virginia Commonwealth University*)
"Impact of Fluorination on the Solubility of Trifluorovinyl Isopropylidenediphenyl Ether Copolymers in Supercritical Fluid Solvents"
- 4:15 pm Prof. Paul Deck (*Virginia Tech*)
"A Diels-Alder Platform for Fluoropolyphenylenes."
- 4:45 pm Dr. Lotfi Hedhli (*Arkema Group*)
"Randomly Branched PVDF - Characterization and Applications"
- 5:15 pm Prof. David Collard (*Georgia Tech*)
"Polymer and copolymer synthesis and mechanism"
- 5:45 pm Dr. Matthew Celina (*Sandia National Laboratories*)
"Polymer Performance, Degradation and Materials Selection"
- 6:15 pm **DAILY SESSIONS END**
- 6:30 pm **SOCIAL AND POSTER SESSION**
- 7:30 pm **DINNER ON YOUR OWN**

WEDNESDAY October 18, 2006

- 7:15 am **CONTINENTAL BREAKFAST**

SESSION 7

Membrane and Energy Conversion Applications

- 8:00 am Dr. Mike Yandrasits (*3M Company*)
"3M Ionomer for Fuel Cells"
- 8:30 am Prof. Stephen Paddison (*University of Alabama, Huntsville*)
"QM/MM Modeling of the Short-Side-Chain Perfluorosulfonic Acid Membrane"
- 9:00 am Dr. Vincenzo Arcella (*Solvay Solexis, Italy*)
"Hyflon® Ion Membranes and MEA Activities at Solvay Solexis"
- 9:30 am Prof. Robert B. Moore (*University of Southern Mississippi*)
"Morphological and Molecular Dynamics in Perfluorosulfonate Ionomer Membrane Systems"
- 10:00 am Prof. Stephen Creager (*Clemson University*)
"Semi-fluorinated Electrolytes for Energy Conversion"
- 10:30 am **BREAK**
- 10:45 am Prof. Pat Cassidy (*Texas State University*)
"Fluorine-Containing FDA Polyimide Membranes for Gas Separation containing Nanoparticles"

- 11:15 am Prof. Tomoyuki Suzuki (*Nagoya Institute of Technology, Japan*)
“Gas Transport Properties of Fluorine-Contained Hyperbranched Polyimide – Silica Hybrids”
- 11:45 am Prof. Kunio Kimura (*Okayama University*)
“Low Temperature Preparation of Fluorine-containing Poly(aryl thioether)s and Conversion to Poly(aryl sulfone)s”
- 12:15pm Prof. Dennis Smith (*Clemson University*)
“Two Polymerization Mechanisms of Aromatic Trifluorovinylethers”
- 12:45 pm **CLOSING REMARKS**