

Aggarwal Lectures - Polymer Science

Spring 2017

Tim Swager, Massachusetts Institute of Technology

- April 19: *Molecular Electronics for Chemical Sensors*
- April 20: *Dynamic Droplets*

Spring 2016

E.W. (Bert) Meijer, Eindhoven University of Technology

- April 18: *From Supramolecular Polymers to Functional Systems*
- April 19: *Folding of Macromolecules: Functional Single-Chain Polymer Nanoparticles*

Spring 2010

Fraser Stoddart, Northwestern University

- February 25: *Polyrotaxanes*
- February 26: *Polycatenanes*

Spring 2008

Olli Ikkala, Helsinki University of Technology, Finland

- May 20: *Combining Biological Structural Units Within Polymer Self-Assemblies: A Materials Scientist's Perspective*
- May 21: *Block Copolymer Templating for Nano-Objects and Hierarchical Porous Materials*
- May 22: *Model Studies on Fullerene/Polymer Nanocomposites as Memory Elements*

Spring 2007

Edward Kramer, University of California at Santa Barbara

- May 21: *Block Copolymer Melting in Two Dimensions: Order, Disorder and Defects in Block Copolymer Monolayers*
- May 22: *Nanoparticles Covered with Polymer Brushes: Positioning in, and Influence, on Block Copolymer Morphology*
- May 23: *Probing and Simulating the Structure of Block Copolymer Multilayers and Monolayers*

Spring 2006

Jean Fréchet, University of California at Berkeley

- May 22: *Polymers and "Plastics Electronics"*
- May 23: *Polymers in Chemo- and Immuno-Therapy*

Spring 2005

Glenn Fredrickson, University of California at Santa Barbara

- May 23: *Field-Theoretic Polymer Simulations: An Introduction*
- May 24: *Field-Theoretic Polymer Simulations: Applications*
- May 25: *Field-Theoretic Polymer Simulations: Attack on the Sign Problem*

Spring 2004

Timothy Lodge, University of Minnesota

- May 24: *Martensitic Transformations in Block Copolymer Solutions*
- May 25: *The Viscosity of Polymer Mixtures: A Simple Explanation for a Complicated Phenomenon*
- May 26: *Design of Tryptych Polymeric Surfactants for Internally Structured Micelles*

Spring 2003

Matthew Tirrell, University of California at Santa Barbara

- May 19: *Forces Between Layers of Polyelectrolyte Chains Tethered to Surfaces*
- May 20: *Biofunctionalization of Interfaces with Peptide-Lipid Conjugates*
- May 21: *Issues in Chemical Processing by Self-Assembly*

Spring 2002

Andrew B. Holmes, University of Cambridge, UK

- May 20: *Conjugated Polymers for Optoelectronic Applications*
- May 21: *Synthesis in Supercritical Carbon Dioxide*
- May 22: *Synthesis of Natural and Non-natural Materials - a Matter of Conjugation*

Spring 2001

Mitsuo Sawamoto, Kyoto University

- May 21: *Metal-Catalyzed Living Radical Polymerizations Towards Precision Polymer Synthesis*
- May 22: *Lewis Acid-Catalyzed Living Cationic Polymerizations Towards Precision Polymer Synthesis*
- May 23: *Precision Polymer Synthesis via Living Polymerizations*

Spring 2000

Robert Waymouth, Stanford University

- May 22: *Designer Polyolefins: Stereospecific Olefin Polymerization with Well-Defined Catalysts*
- May 23: *Elastomeric Polypropylene: Structure and Properties of Stereoblock Polypropylene*
- May 24: *Control of Sequence Distribution in Olefin Copolymerization*

Spring 1999

Frank Bates, University of Minnesota

- May 24: *Block Copolymers – Designer Soft Materials*;
- May 25: *Interfacial Entanglements – A New Approach to Toughening Polyolefins*

Spring 1998

Rolf Mülhaupt, Institut für Makromolekulare Chemie, Albert-Ludwigs-Universität Freiburg

- May 19: *New Routes to Engineering Polymers: Supramolecular Assemblies*
- May 20: *New Routes to Engineering Polymers: Nanostructures and Hybrid Materials*
- May 21: *Tailor-Made Polyolefins and New Polymer Architectures via Catalytic Polymerization*

Spring 1997

Virgil Percec, Case Western Reserve University

- May 19: *Design of 3-Dimensional Polymers. Reaching the Limits of Conventional Organic and Polymer Chemistry*
- May 20: *Nature as Model for the Design of New Supramolecular and Macromolecular Functional Systems*
- May 21: *New Metal Catalyzed Living Radical and Step Polymerizations Using Sulfonyls and Sulfonates as Initiators and Leaving Groups*

Spring 1996

Helmut Ringsdorf, University of Mainz, Germany

- May 20: *What Do Multienzyme Complexes and Highly Photoconductive Discotic Liquid Crystals Have in Common?*
- May 21: *Tailoring of Bioreactive Surfaces: What Can We Learn From the Immuncascade?*
- May 22: *Function Based on Self-Organization and Molecular Recognition*

Fall 1995

Robert H. Grubbs, California Institute of Technology

- September 20: *The Development of Catalysts for the Ring-Opening Metathesis Polymerization of Cyclic Olefins*
- September 21: *The Use of Transition Metal Catalysts in the Synthesis of Polymers and Other Organic Molecules*
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Spring 1995

C. Grant Willson, University of Texas at Austin

- May 23: *Specialty Polymers for the Electronics Industry: W*