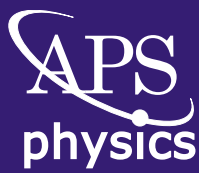
MARCH 2008 MEETING DPOLY PROGRAM

DPOLY

DIVISION *of* POLYMER PHYSICS

March Meeting Program Book



2008 APS March Meeting • March 10–14 • New Orleans, LA

DPOLY Short Course

High-throughput approaches to Polymer Physics and Materials Science

Saturday and Sunday, March 8 and 9, 2008

Course Description

The methods that revolutionized the pharmaceutical industry are now accelerating materials science. This course will consider the application of high-throughput and combinatorial experimental approaches to polymers physics and complex materials science. Our focus will be techniques and instruments that can be adopted for research in industrial laboratories or academic groups. The goal of the course is for participants to acquire enough detailed information that they can apply these powerful methods in their own laboratories.

Who Should Attend

Researchers who want an introduction to high-throughput and combinatorial measurement approaches to complex problems in polymers and materials science. This course is suitable for graduate students, faculty and industry researchers who are new to these exciting techniques.

Topics to be covered:

- Basic concepts in HT materials research
- Guidance on how and where to apply these new techniques
- Creation of gradient and discrete combinatorial libraries
- HT measurements of polymers and materials chemistry, structure, and physical properties
- Microfluidic techniques for studying polymer solutions and complex fluids
- Applications to block copolymers, surface grafted brushes, polymer blends, multiphase liquids, electronic materials, complex materials, biomaterials and nanomaterials

Course activities:

- Lectures from leaders in the field
- Practical case studies
- Guided brainstorming breakouts

Course Instructors

Eric Amis (NIST), Alamgir Karim (NIST), Michael Fasolka (NIST),Kathryn Beers (NIST), Jan Genzer (University of North Carolina), Ichiro Takeuchi (University of Maryland), Mathieu Joanicot (Rhodia), Carson Meredith (Georgia Tech)

Course Organizer:

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Legend:

(B)	Business meeting
(C)	Contributed session
(F)	Focus session
(I)	Invited session
(P)	Poster session

DBP	Division of Biological Physis
DCOMP	Division of Computational Physics
DPOLY	Division of Polymer Physics
DMP	Division of Materials Physics
FIAP	Forum on Industrial and Applied Physics
GSNP	Topical Group on Statistical and Nonlinear Physics

Session A4. Polymers at Surfaces: Adhesion, Tribology and Patterning (DPOLY)

Monday morning, 8:00 AM, Morial Convention Center - 206

Chair: Steve Granick, University of Illinois at Urbana-Champaign

8:00 AM A4.00001: Interfacial engineering using heteropolymers with adjustable monomer sequences (HAMS)
Invited Speaker: Jan Genzer

8:36 AM A4.00002: Carbon Nanotube-Based Synthetic Gecko Tapes
Invited Speaker: Ali Dhinojwala

9:12 AM A4.00003: Polymer adhesion at surfaces: biological adhesive proteins and their synthetic mimics
Invited Speaker: Phillip Messersmith

9:48 AM A4.00004: Patterning inorganic nanoparticles in Polymer Films
Invited Speaker: Eugenia Kumacheva

10:24 AM A4.00005: Wrinkling, Crumpling and Snapping for Surface Property Control
Invited Speaker: Alfred Crosby

Session A16. Dynamics of Nucleic Acids (DBP/DPOLY)

Monday morning, 8:00 AM, Morial Convention Center - 208

Chair: Igor Aronson, Argonne National Laboratory

8:00 AM A16.00001: Biochemistry on a leash: A mechanism for ligand recruitment via tethered binding sites
Daniel Reeves, Keith Cheveralls, Jane Kondev

8:12 AM A16.00002: Backtracking and error correction in DNA transcription
Margaritis Voliotis, Netta Cohen, Carmen Molina-Paris, Tanniemola Liverpool

8:24 AM A16.00003: Effects of crosslinks on motor-mediated filament organization
Igor Aranson, Falko Ziebert, Lev Tsimring

8:36 AM A16.00004: Collective alignment of polar filaments by molecular motors
Falko Ziebert, Igor Aranson

8:48 AM A16.00005: Detecting cooperative sequences in the binding of RNA Polymerase-II
Kimberly Glass, Julian Rozenberg, Michelle Girvan, Wolfgang Losert, Ed Ott, Charles Vinson

9:00 AM A16.00006: Dynamic self-assembly of nanocomposite ring structures through the interaction of thermodynamic and energy-dissipating processes
Haiqing Liu, Erik Spoerke, Marlene Bachand, Steven Koch, Bruce Bunker, George Bachand

9:12 AM A16.00007: How Large are Cooperative Effects in Hydrogen Bonded Molecular Chains?
Martin Fuchs, Matthias Scheffler, Joel Ireta

9:24 AM A16.00008: Single stranded DNA hairpin loop kinetics: A Brownian dynamics study
Martin Kenward, Kevin Dorfman

9:36 AM A16.00009: Statistical Analysis of the Chemotactic Motility Cycle of Amoeboid Cells
Baldomero Alonso-Latorre, Juan C. del Alamo, Ruedi Meili, Richard A. Firtel, Juan C. Lasheras

9:48 AM A16.00010: Force generated by polymerization of actin filaments
Coraline Brangbour, Olivia du Roure, Emmanuele Helfer, Marc Fermigier, Marie-France Carlier, Jerome Bibette, Jean Baudry

10:00 AM A16.00011: Probing Brownian Motion of an Ellipsoid with an External Force
Shao-Qing Zhang, Wu-Pei Su

10:12 AM A16.00012: Probing Protein Conformations at the Oil-water Interface Using Single-Molecule Force Spectroscopy
Ahmed Touhami, Marcela Alexander, Milena Corredig, John Dutcher

10:24 AM A16.00013: Structural motifs of biomolecules
Hoang Trinh, Jayanth Banavar, Amos Maritan, Chiara Poletto, Antonio Trovato, John Maddocks, Andrzej Stasiak

10:36 AM A16.00014: Instabilities of ordered chiral active suspensions
Tapan Adhyapak, Davide Marenduzzo, Sriram Ramaswamy

Session A18. Multiscale Modeling: Polymers, Nanocomposites, and Biomacromolecules (DPOLY/DCOMP/DBP)

Monday morning, 8:00 AM, Morial Convention Center - 210

Chair: John Curro, University of New Mexico

8:00 AM A18.00001: Aneesur Rahman Prize Talk: Dynamics of Entangled Polymer Melts: Perceptive from Molecular Dynamics Simulations
Invited Speaker: Gary S. Grest

8:36 AM A18.00002: Microrheology of Nanospheres in Rod Suspensions
Victor Pryamitsyn, Venkat Ganesan

8:48 AM A18.00003: Peptide binding to sheet silicate and metal nanoparticles: Insight from atomistic simulation
Hendrik Heinz, Ras B. Pandey, Lawrence Drummy, Richard A. Vaia, Rajesh R. Naik, Barry L. Farmer

9.00 AM A18.00004: Adsorption-desorption of peptide chains on Au surface by a coarse-grained Monte Carlo simulation
Ras B. Pandey, Hendrik Heinz, Lawrence R. Drummy, Richard A. Vaia, Rajesh R. Naik, Barry L. Farmer

9:12 AM A18.00005: Characterization of the translocation of polymers driven through nanopores using molecular dynamics simulations
Hendrick de Haan, Gary W. Slater

9:24 AM A18.00006: Coupling of atomistic and mesoscopic scales: visualizing the translocation of biopolymers through nanopores
Maria Fyta, Simone Melchionna, Massimo Bernaschi, Efthimios Kaxiras, Sauro Succi

9:36 AM A18.00007: Coarse-Grained Kinetic Modeling of Polymer Networks with Non-Affine Slip-Tube Behavior and Heterogeneous Microstructure
Brian Pasquini, Fernando Escobedo, Yong Lak Joo

9:48 AM A18.00008: Simulating thermal transport in high contrast composite media
Harshadewa S. Gunawardana, Kieran Mullen, Dimitrios V. Papavassiliou

10:00 AM A18.00009: Predictive Morphology Models for Crystalline Polymers
Jacob Harvey, Zhicheng Xiao, Yvonne Akpalu

10:12 AM A18.00010: Coarse-grained Molecular Dynamics Simulations and Analysis of Poly(L-lactic Acid) (PLLA) Melt
Gaurav Manik, Hemant Nanavati, Upendra Natarajan

10:24 AM A18.00011: Modeling the Thermodynamics of the Interaction of Nanoparticles with Cell Membranes
Valeriy Ginzburg, Sudhakar Balijepalli

10:36 AM A18.00012: Structure and dynamics of a model polymer nanocomposites
Monojoy Goswami, Bobby Sumpter

10:48 AM A18.00013: Strategies for design of polymeric nanoparticles
Jiwu Liu, Michael Mackay, Phillip Duxbury

Session A21. Reversibly Associating Polymers: Theory and Experiments (DPOLY/DBP)

Monday morning, 8:00 AM, Morial Convention Center - 213

Chair: Ken Shull, Northwestern University

8:00 AM A21.00001: Self Assembly of Mixed-Valence Ionic Amphiphiles into Faceted Vesicles
Megan Greenfield, Graziano Vernizzi, Liam Palmer, Samuel Stupp, Monica Olvera de la Cruz

8:12 AM A21.00002: Electrospining Solutions of Associating Polymers -- the Case of Stereocomplex PMMA
Matija Crne, Jung Park, Mohan Srinivasarao

8:24 AM A21.00003: Dynamics of barely reversible networks
Robert Hoy, Glenn Fredrickson

8:36 AM A21.00004: Unique Properties of Reversibly Associating Polymer Networks
Invited Speaker: Mitchell Anthamatten

9:12 AM A21.00005: Computer Simulations of Semi-flexible Polymer Chains
Venkat Padmanabhan, Sanat K. Kumar, Arun Yethiraj

9:24 AM A21.00006: Reversible Networks by Hydrogen Bonding of ABA Triblock Copolymers in an Ionic Liquid
Timothy Lodge, Atsushi Noro, Yushu Matsushita

9:36 AM A21.00007: Examination of the Structure of Molten Hydrogen-Bonded Supramolecular Diblock Copolymers
Kathleen Feldman, Matthew Kade, Craig Hawker, Edward Kramer

9:48 AM A21.00008: Self-Consistent Field Theory for Lipid/Water Mixtures: Hydrogen Bonding Effect
Won Bo Lee, Raffaele Mezzenga, Glenn H. Fredrickson

10:00 AM A21.00009: Thermoreversible bond formation in end-linking, difunctional polymer blends
Richard Elliott, Glenn Fredrickson

10:12 AM A21.00010: Inter- and Intra-Molecular Interactions of Associative Polymers in Solution
M. Wei, R. David, Julie Kornfield

10:24 AM A21.00011: Molecular Dynamics Simulation of Polyelectrolyte Brushes: From Hemispherical Micelles to Maze-like Aggregates
Jan-Michael Carrillo, Andrey Dobrynin

10:36 AM A21.00012: Effect of Hydrogen-Bonding Junctions on Microphase Separation in Block Copolymers
Greg Stone, Jim Hedrick, Fredrik Nederberg, Nitash Balsara

10:48 AM A21.00013: Relating Chain Structure to Physical Properties of Branched Polymers
Ramnath Ramachandran, Gregory Beaucage, Amit S. Kulkarni, Vassilios Galiatsatos, Douglas C. McFaddin

Session A22. Hybrid Organic-Inorganic Nanomaterials I: Patterning and Self Assembly (DPOLY)

Monday morning, 8:00 AM, Morial Convention Center - 214

Chair: R Kannan, Wayne State

8:00 AM A22.00001: Connecting quantum dots and bionanoparticles in hybrid nanoscale ultra-thin films
Ravisubhash Tangirala, Yunxia Hu, Qingling Zhang, Jinbo He, Thomas Russell, Todd Emrick

8:12 AM A22.00002: Janus Au Nanoparticle Patterning via Polymer Single Crystals
Christopher Li, Bing Li

8:24 AM A22.00003: Organic-Inorganic Nanocomposites via Directly Grafting Conjugated Polymers onto Quantum Dots
Zhiqun Lin, Jun Xu, Jun Wang, Mike Mitchell, Prasun Mukherjee, Malika Jeffries-El, Jacob W. Petrich

8.36 AM A22.00004: Amplification of Self-Assembled Nanopatterns: Bilayer Approach to High Aspect-Ratio Cylindrical Nanopore Arrays and Their Use for Templating Functional Materials
Ho-Cheol Kim, Oun-Ho Park, Joy Cheng, Mark Hart, Robert Miller, Hiroshi Ito

8:48 AM A22.00005: Nanoparticle Arrays via Self Assembled Peptide Templates
Nikhil Sharma, Matthew Lamm, Darrin Pochan

9:00 AM A22.00006: Study of Alkanethiol Self-Assembled Structure Grown on Silver
Liang Hu, Zishu Zhang, Mikhail Yu. Efremov, Eric A. Olson, Ming Zhang, Lito de la Rama, Leslie H. Allen

9:12 AM A22.00007: Ordered Inorganic/Organic Composites via Novel Templates and Techniques
Invited Speaker: James Watkins

9:48 AM A22.00008: Two-Dimensional Confinement of Nanorods in Block Copolymer Domains
Yu Liu, Ranjan Deshmukh, Russell Composto

10:00 AM A22.00009: Surfactant Directed Assembly of ZnS Nanocrystals
Youli Li, Cyrus Safinya, Jacob Israelachvili, Nataly Belman, Yuval Golan

10:12 AM A22.00010: End-functionalized triblock copolymers as a robust template for assembly of nanoparticles
Rastko Sknepnek, Joshua Anderson, Monica Lamm, Joerg Schmalian, Alex Travesset

10:24 AM A22.00011: Nanoparticle Ordering in Diblock Copolymer-based Supramolecular Systems
Thomas Schilling, Ting Xu, Shih-Huang Tung, Yue Wu

10:36 AM A22.00012: The metal insulator transition in self-assembled gold nanoparticle wires
M. E. Reeves, Jianwei Sun, J. A. Hoffmann, Jasper Nijdam, Guebre Tessema

10:48 AM A22.00013: Effects of Electric-Magnetic Fields on Hybrid Excitons in a Semiconductor Quantum Dot Coated by an Organic Shell
Que Huong Nguyen

Session A25. Block Copolymer Thin Films (DPOLY)

Monday morning, 8:00 AM, Morial Convention Center - 217

Chair: Alamgir Karim, National Institute of Standards and Technology

8:00 AM A25.00001: Control of P(S-b-PMMA) Orientation on Organosilicate Substrates by Thermal Treatment
Kookheon Char, Hyoseon Suh

8:12 AM A25.00002: Functionalization of PEO Nanocylinder Array Structure in Block Copolymer Thin Film
Kaori Kamata, Tomokazu Iyoda

8:24 AM A25.00003: Block copolymer mask with cylindrical nanochannels for wet nanopatterning on silicon wafer
Ryoko Watanabe, Kaori Kamata, Tomokazu Iyoda

8:36 AM A25.00004: Is a short fluorinated segment sufficient to induce interfacial rearrangements in diblock co-polymers?
Umesh Shrestha, Dvora Perahia, Stephan Clarson

8:48 AM A25.00005: Multi-block copolymers in thin films
Panagiotis Maniadis, Edward Kober, Turab Lookman

9:00 AM A25.00006: Two-Dimensional Instabilities in Patterned Diblock Copolymer Films
Joseph Parete, Andrew B. Croll, John S. Preston, Kari Dalnoki-Veress

9:12 AM A25.00007: Structure and dynamics of block copolymer films by XPCS
Hyunjung Kim, Heeju Lee, Young Joo Lee, Sanghoon Song, Zhang Jiang, Sunil K. Sinha, A. Ruehm

9:24 AM A25.00008: Sphere-Forming and Cylinder-Forming Block Copolymer Thin Films Aligned Under Double Shear
Andrew Marencic, Richard Register, Paul Chaikin

9:36 AM A25.00009: Rapid Directed Assembly of Block Copolymer Films on chemically patterned surfaces at Elevated Temperatures
Adam Welander, Paul Nealey

9:48 AM A25.00010: Precise Control of 3-dimensional Block Copolymer Assembly using 2-dimensional Chemical Templates
Sangcheol Kim, Hae-Jeong Lee, Ronald L. Jones, Alamgir Karim, R.M. Briber, Ho-Cheol Kim

10:00 AM A25.00011: Novel Complex Nanostructures from Directed Assembly of Block Copolymers on Incommensurate Surface Patterns
Sang Ouk Kim, Bong Hoon Kim, Harun H. Solak, Dong Meng, Qiang Wang y

10:12 AM A25.00012: Templated Self-Assembly of Asymmetric Ternary Blends of Block Copolymers and Homopolymers
Karl Stuen, Francois Detcheverry, Carla Thomas, Richard Farrell, Michael Morris, Juan de Pablo, Nealey Paul

10:24 AM A25.00013: Directed Assembly of Asymmetric Ternary Block Copolymer-Homopolymer Blends Thin Films on Checkerboard Trimming Chemical Pattern
Huiman Kang, Paul F. Nealey

10:36 AM A25.00014: Influence of added copolymers on thin film polymer blends studied by atomic force microscopy: surface morphology and dewetting
Dean Waldow, Jenifer Hoffert, Kris Peterson

10:48 AM A25.00014: Controlled Dimensions of Nanostructures in Asymmetric Ternary Blends of Block Copolymers and Homopolymers in Thin Films
Carla Thomas, Karl Stuen, Nicola Ferrier, Paul Nealey

Session B4. Self-assembled Macromolecular Structures (DPOLY)
Monday mid-day 11.15 AM, Morial Convention Center - 206
Chair: Spiros Anastasiadis, Foundation for Research and Technology, Hellas, Keraklion, Greece

11:15 AM B4.00001: Stimuli Responsive Vesicles, Micelles and Rods from Polypeptide-based Block Copolymers
Invited Speaker: Daniel Savin

11:51 AM B4.00002: Templated Self Assembly of Block Copolymer Thin Films
Invited Speaker: Alamgir Karim

12.27 PM B4.00003: Single Molecules and Surface Induced Nanopattern in Ultrathin Blockcopolymer Films - Scanning Force Microscopy
Invited Speaker: Martin Möller

1:03 PM B4.00004: Using block copolymer assembly to tailor surface properties
Invited Speaker: Christopher Ober

1:39 PM B4.00005: Integration of block copolymers into lithographic processes
Invited Speaker: Paul Nealey

Session B18. Mechanical Properties of Polymers: Fracture and Adhesion (DPOLY/FIAP)

Monday mid-day, 11:15 AM, Morial Convention Center - 210

Chair: Theresa Hermel-Davidock, Dow Chemical Company

11:15 AM B18.00001: High Strain Deformation and Fracture of Self-Assembled Polymer Gels
Invited Speaker: Kenneth Shull

11:51 AM B18.00002: Reinforcement of Epoxies Using Single Walled Carbon Nanotubes
Ramanan Krishnamoorti, Jitendra Sharma, Tirtha Chatterjee

12:03 PM B18.00003: Mechanical and Electrical Properties of Organogels with Multiwall Carbon Nanotubes
Mohammad Moniruzzaman, Karen Winey

12:15 PM B18.00004: Identification of key deformation mechanisms of polyethylene materials via in-situ x-ray scattering
Theresa Hermel-Davidock, Brian Landes, Mehmet Demirors

12:27 PM B18.00005: Brittle-tough transitions during crack growth in toughened adhesives
Invited Speaker: Michael Thoules

1:03 PM B18.00006: Controlling polymer adhesion with surface wrinkles
Edwin Chan, Erica Smith, Ryan Hayward, Alfred Crosby

1:15 PM B18.00007: Soft-soft nanocomposite adhesives made from colloidal particles
Costantino Creton, Fanny Deplace, Michael Rabjohns, Andrew Foster, Peter Lovell, Chunghong Lei, Joseph Keddie, Keltoum Ouzineb, Jeanne Marchal

1:27 PM B18.00008: Dangling chain effect on the modulus of polyurethane networks
Bruno Fayolle, Julie Diani, Pierre Gilormini

1:39 PM B18.00009: Morphological Determinants of Yield Stress for Semicrystalline Ethylene / Methacrylic Acid Copolymers
Robert Scogna, Richard Register

1:51 PM B18.00010: On the statistics of Gaussian two and three-dimensional networks: Fluctuations of junctions and collapse driven by structure
Michael Lang, Sergey Panyukov, Michael Rubinstein, Jens-Uwe Sommer

2:03 PM B18.00011: Physical understanding of the bulk modulus of polyisoprene by molecular dynamics simulations
Julie Diani, Bruno Fayolle, Pierre Gilormini

Session B22. Organic Electronics: FET I (DMP/DPOLY)

Monday mid-day, 11:15 AM, Morial Convention Center - 214

Chair: Ting Xu, University of California, Berkeley

11:15 AM B22.00001: In-crystal carriers in organic single crystal transistors
Jun Takeya, Y. Tominari, M. Yamagishi, Y. Iwasaki

11:27 AM B22.00002: Defect healing at room temperature in pentacene thin films and improved transistor performance
Wolfgang Kalb, Fabian Meier, Kurt Mattenberger, Bertram Batlogg

11:39 PM B22.00003: Impurities and carrier trap formation in rubrene
Leonidas Tsetseris, Sokrates Pantelides

11:51 PM B22.00004: Organic Field Effect Transistors Based on Micro and Nano-sized Single Crystalline Semiconductors
Invited Speaker: Zhenan Bao

12:27 PM B22.00005: Field-effect modulated Seebeck coefficient in pentacene and rubrene
K.P. Pernstich, B. Roessner, B. Batlogg

12:39 PM B22.00006: Contact-correlated bias stress instability in pentacene thin film transistors
K. Tsukagoshi, S.D. Wang, T. Minari, T. Miyadera, Y. Aoyagi

12:51 PM B22.00007: Negative Magnetoresistnace of Organic Field Effect Transistors
Masaya Nishioka, Yeonbae Lee, Allen Goldman, Yu Xia, Daniel Frisbie

1:03 PM B22.00008: Pentacene Thin-Film Transistors With Organophosphonate Self-Assembled Monolayer Modified Gate Dielectrics
Ian Hill, Matthew McDowell, Joseph McDermott, Jeffrey Schwartz, Steven Bernasek, Jaehyung Hwang, Antoine Kahn

1:15 PM B22.00009: Percolative Effects on Noise in Pentacene Transistors
Brad Conrad, William Cullen, Winston Yan, Ellen Williams

1:27 PM B22.00010: Surface-Treatment Effects on the Pentacene-Based Organic Field-Effect Transistors with Anodized Gate Dielectrics
Yeon Taek Jeong, Christopher Lombardo, Davianne Duarte, Ananth Dodabalpur

1:39 PM B22.00011: Drift mobility and frequency response of diode connected organic field effect transistors
Brian Cobb, Ananth Dodabalapur

1:51 PM B22.00012: Field-induced polymorphous disorder and bias-stress instability of pentacene organic thin-film transistors
Masahiko Ando, Claudia Duffy, Jessica Winfield, Takashi Minakata, Henning Sirringhaus

2:03 PM B22.00013: Prediction of the absolute charge mobility of molecular crystals
Alessandro Troisi

Session B25. Polymer Blends (DPOLY)

Monday mid-day, 11:15 AM, Morial Convention Center - 217

Chair: Rick Register, Princeton University

11:15 AM B25.00001: Effective Coordination Number and Interaction Parameter In Simple Models of Polymer Blends
David Morse

11:27 AM B25.00002: Nucleation in Polymer Blends
Edward Feng, Nitash Balsara

11:39 AM B25.00003: Molecular dynamics simulations of constraint release effects in entangled binary blends of linear polymers
Zuowei Wang, Ronald G. Larson

11:51 AM B25.00004: Flory Theorem for Structurally Asymmetric Mixtures
Andrey Dobrynin, Frank Sun, David Shirvanyants, Gregory Rubinstein, Michael Rubinstein, Sergei Sheiko, Hyung-Il Lee, Krzysztof Matyjaszewski

12:03 PM B25.00005: The Molecular Weight and Composition Dependence of Measured Flory-Huggins Interaction Parameters for Blends of Model Polyolefins
Alisyn Nedoma, Megan Robertson, Nisita Wanakule, Nitash Balsara

12:15 PM B25.00006: Porod SAXS Studies of Shear-Induced Droplet Deformation in a Concentrated Immiscible Polymer Blend
Wesley Burghardt, Kristin Brinker

12:27 PM B25.00007: Measurements of the Onsager coefficient in a phase-separating polymer blend
Amish Patel, Nitash Balsara

12:39 PM B25.00008: Structure And Dynamics Of Semi-crystalline Polyethylene Oxide / Polyvinyl Acetate Blends
James Runt, Daniel Fragiadakis

12:51 PM B25.00009: The Structure and Thermodynamics of Cellulose Acetates
Mark Dadmun, Rujul Mehta, Gary Lynn

1:03 PM B25.00010: Effect of solvent evaporation and coagulation on morphology development of asymmetric membranes
Neelakandan Chandrasekaran, Thein Kyu

1:15 PM B25.00011: The Glass Transition and Dynamics in Athermal Poly(a-Methyl Styrene)/Oligomer Blends
Wei Zheng, Sindee Simon

1:27 PM B25.00012: Effect of compositional heterogeneity on the phase structure and crystallization behavior of polypropylene in-reactor alloys
Dujin Wang, Haijin Zhu, Benjamin Monrabal, Charles C. Han

1:39 PM B25.00013: A New Strategy to Characterize the Intimacy of Segment Mixing in Polymer Blends by 1H Solid-State NMRs
Gi Xue, Pingchuan Sun, Xiaoliang Wang, Qiang Gu

1:51 PM B25.00014: Mesoscopic drop dynamics and rheological modeling for polymer blend
Yuanze Xu, Wei Yu, Jianmao Yang

2:03 PM B25.00015: Self Similar Growth of Polyolefin Blends On a Micro-Nano Granule Reactor
Charles Han, Jiang Du, Kun Meng, Xia Dong, Jin-yong Dong, Dujin Wang

Session C1. Poster Session I (DPOLY)

Monday afternoon, 2:00 PM, Morial Convention Center - Exhibit Hall A

C1.00002: Molecular Dynamics of Polymer Systems on Graphic Processing Units (GPUs)
Joshua Anderson, Chris Lorenz, Alex Travesset

C1.00003: An Efficient Algorithm to Calculate Density of State in Large Systems: Generalized Ensemble Means and Compression-Variable Transformation
Xin Zhou

C1.00004: Understanding Thermodynamics and Surface Dynamics of Pom-pom Branched Polystyrene
Sewoo Yang, David T. Wu, Zhang Jiang, Suresh Narayanan, Mark D. Foster

C1.00005: Synthesis and characterization of erbium (III)-doped polyimide nanofibers for low temperature thermophotovoltaic applications
Zhenxin Zhong, Darrell Reneker

C1.00006: Characterization of an electrospinning jet from videographic observations of glints
Kaiyi Liu, Camden Ertley, Darrell Reneker

C1.00007: Viscoelastic Electrospinning Jets: Initial Stresses and Elongational Rheometry
Tao Han, Alexander Yarin, Darrell Reneker

C1.00008: Molecular Modeling of Thermosetting Polymers
Soumya Patnaik, Vikas Varshney, Barry Farmer

C1.00009: Nafion/poly(1-vinyl imidazole) composite membranes for fuel cell application
Dukjoon Kim

C1.00010: Metastable Structures of poly(lactic acid)
Jeff Kalish, Shaw L. Hsu, Kaoru Aou, Meg Starkweather

C1.00011: Perturbing Effects of Bulky Comonomers on the Chain Conformation of Poly(vinylidene fluoride)
Suriyakala Ramalingam, Yuning Yang, Shaw L. Hsu

C1.00012: Single Crystals of Diblock Copolymers: Tethered Chain Study
Ryan M. Van Horn, Joseph X. Zheng, Huiming Xiong, Roderic P. Quirk, Bernard Lotz, Edwin L. Thomas, Stephen Z.D. Cheng

C1.00013: Morphological Control of Segmented Polyurethanes via Crystallization Confinement of Soft Segments
Matthew Hood, Bingbing Wang, John LaScala, James Sands, Fredrick Beyer, Josh Orlicki, Mark VanLandingham, Christopher Y. Li

C1.00014: Crystal Size Effect on Dielectric Property of PVDF at High Electric Field and Its Effect on Energy Storage and Discharging Behaviors
Fangxiao Guan, Steven Boggs, Lei Zhu

C1.00015: Reducing Dielectric Loss by PVDF-CTFE Graft Copolymers
Jing Wang, Zhongzhe Yuan, Fangxiao Guan, Steven Boggs, Lei Zhu

C1.00016: Semicrystalline Polymers: A special case of polymer brushes
Vikram Kuppa, Gregory Rutledge

C1.00017: Polydomain Simulation of Liquid Crystalline Polymer Orientation in Channel Flows
Jun Fang, Wesley Burghardt

C1.00018: Thin Film morphologies of rod-coil block copolymers
Manas Shah, Venkat Ganesan

C1.00019: Structural Recovery of Epoxy Films Subjected to CO_2 Pressure Jumps
Shankar Kollengodu-Subramanian, Mataz Alcoutlabi, Lameck Banda, Gregory McKenna

C1.00020: Strain induced non-linear effects in Dynamic Viscosity measurements
J.P Ibar

C1.00021: Topology of Branched Polymers: Effect on Structure and Dynamic Properties
Ramnath Ramachandran, Gregory Beaucage, Amit S. Kulkarni, Vassilios Galiatsatos, Douglas C. McFaddin

C1.00022: Entanglement Percolation Effects on the Dynamics of Polymer Rheology
Richard Wool

C1.00023: Determining Local Mechanical Properties of Soft Materials with Cavitation Rheology
Jessica Zimberlin, Naomi Sanabria-DeLong, Gregory Tew, Alfred Crosby

C1.00024: Cavitation Rheology of Polyacrylamide Hydrogels
Santanu Kundu, Jessica Zimberlin, Alfred Crosby

C1.00025: Polyurea segmented multi-block copolymers: structure and dynamics
Jai Pathak, Jeffrey Twigg, C. M. Roland, Peter Mott, Derek Ho, Eric Lin, Mary Vukmir, Thomas Epps

C1.00026: Nanoscale Superstructures in Copolymers with Evenly Spaced Charged Groups
Wenqin Wang, Sharlene R. Williams, Timothy E. Long, Ralph H. Colby, Karen I. Winey

C1.00027: Phase behavior of polyelectrolyte multilayer investigated by thin film calorimetry
H. Huth, R. Mueller, A. Fery, C. Schick

C1.00028: Stimuli-Response of Charged Diblock Copolymer Brushes
Dong Meng, Qiang Wang

C1.00029: Characterization of polyelectrolyte behavior of the polysaccharides chitosan, heparin, and hyaluronan, by light scattering and viscometry
Soheil Boddohi, Susan Yonemura, Matt Kipper

C1.00030: Competition between liquid crystalline (LC) ordering and block copolymer (BCP) microphase separation in a series of LCBCPs
Kishore Tenneti, Xiaofang Chen, Christopher Li, Xinhua Wan, Qi-Feng Zhou, Lixia Rong, Benjamin Hsiao

C1.00031: Symmetry transition in multilayer films of block copolymer/homopolymer blends
Vindhya Mishra, E.J Kramer

C1.00032: Hierarchical Assemblies of Block Copolymer-Based Supramolecules in Thin Films
Shih-Huang Tung, Nisha C. Kalarickal, Thomas Schilling, Ting Xu

C1.00033: Solvent annealing of block copolymer thin films combined with controlled dewetting
Tae Hee Kim, Cheolmin Park

C1.00034: Morphological Study of ABC Triblock Terpolymers
Satoshi Akasaka, Akiko Mitani, Hirokazu Hasegawa, Nikos Hadjichristidis

C1.00035: Stimuli-responsive block copolymers in ionic liquids
Takeshi Ueki, Masayoshi Watanabe, Tim Lodge

C1.00036: Hysteresis and relaxation behavior of multigraft copolymers
Roland Weidisch, Ralf Schlegel, Ulrike Staudinger, Jimmy W. Mays

C1.00037: Thin Film Morphology of Block Copolymers Containing Polydimethylsiloxane as a Function of the Surface Tension of the Opposing Block
Maurice Wadley, Kevin Cavicchi

C1.00038: Novel diblock copolymer morphologies under cylindrical confinement
Priyanka Dobriyal, Thomas P Russell

C1.00039: Hard-Surface Effects in Diblock Copolymer Systems
Dong Meng, Yuhua Yin, Jacqueline Acres, Qiang Wang

C1.00040: Structural Rearrangement of Miscible Polymer Blends at the Polymer/Substrate Interface
Xiguo Zeng, Shaw L. Hsu, Brigitte Wang, Charles W. Paul

C1.00041: A Deuterium NMR Study of Water in a Blend of Soy and Polyether Polyols
Yue Zhao, Xia Tong, Shaw L. Hsu

C1.00042: Surface segregation of end-functionalized homopolymers in a homopolymer matrix
Michael Dimitriou, Craig Hawker, Edward Kramer

C1.00043: Identification of self consistent field interaction parameter from continuum Monte Carlo simulation of model polymer blends
Jun Kyung Chung, David Morse

C1.00044: Theory For The Miscibility Windows In Blends Of Polypropylene And Ethylene-α-Olefin Copolymers
David Wu, Huimin Li, John Curro

C1.00045: MALDI-ToF Analysis of Model Copolymer Blends
David Pan, Mark Arnould

C1.00046: Tuning the morphology of polymer nanocomposites: Effect of film thickness and nanoparticle shape
Sangah Gam, Aysenur Corlu, Russell J. Composto

C1.00047: Synthesis and Characterization of Polyamide Nanocomposites Using Functionalized Carbon Nanotubes
Mohammad Moniruzzaman, Karen Winey, Jayanta Chattopadhyay, W. Edward Billups

C1.00048: Bulk and Thin film Properties of Nanoparticle-based Ionic Materials
Jason Fang

C1.00049: Natural Rubber - Layered Silicates Nanocomposites: Mechanical Properties, Structure & Dynamics
Haris Retsos

C1.00050: Multilayered Polymeric Photonic Structure for THz applications
Chen Xia, Louis Kosnosky, Jie Shan, Joseph Lott, Matthew MacKey, Vishwas Pethe, Eric Baer, Anne Hiltner, Christoph Weder

C1.00051: Controlled Transdermal Iontophoresis by Polypyrrole/Poly(Acrylic Acid) Hydrogel
Phithupha Chansai, Anuvat Sirivat

C1.00052: Development of PEDOT-PSS/Zeolite Composites as a Gas Sensor
Pojjawan Chanthaanont, Anuvat Sirivat

C1.00053: Effect of Elastomers Types to the Dielectrophoresis Force and Electromechanical Responses

Ruksapong Kunanuraksapong, Anuvat Sirivat

C1.00054: Development of poly(ether ether ketone)(PEEK) derived from bisphenol-S for proton exchange membrane (PEM) in direct methanol fuel cells (DMFC)
Sairung Changkhamchom, Anuvat Sirivat

C1.00055: The Titanium-Boron Nitride interaction
Gerardo J. Vazquez, Fernando Magana, Eduardo Rangel, Gregorio Ruiz

C1.00056: Swelling Behavior of Blended Multilayer Thin Films Using Neutron Reflectivity
Bulent Akgun, Sushil Satija, Hosub Kim, Kookheon Char

C1.00057: Drop retention force as a function of drop size
Aisha Leh, Rafael Tadmor, Preeti Yadav, Prashant Bahadur, Kumud Chaurasia, Lan Dang

C1.00058: Comparison of AFM and Density Functional Theory Force Profiles
Keenan Dotson, John McCoy, Daniel McCoy, Sergio Mendez, John Curro, Brett Andrzejewski, Gabriel Lopez, David Keller

C1.00059: Influence of Molecular Weight and Processing Conditions on the Thermal Stability of Nanoimprinted Polymer Structures
Yifu Ding, Hyunwook Ding, Kyle Alvine, Brian Okerberg, Jing Zhou, Jack Douglas, Alamgir Karim, Christopher Soles

C1.00060: Transitions in Nanometer thin films - Investigations by AC Chip calorimetry
H. Huth, A. Minakov, C. Schick

C1.00061: Adhesion of Surface Ribbons
Chelsea Davis, Alfred J. Crosby

C1.00062: Analysis of the spincoating of thickness gradient polymer films
Monika Michalek, John Dutcher

C1.00063: Segmental dynamics of thin polymer films probed by dye reorientation
Keewook Paeng, Hau-Nan Lee, Stephen Swallen, Mark Ediger

C1.00064: Drop retention force as a function of rested time
Rafael Tadmor, Aisha Leh, Kumud Chaurasia, Prashant Bahadur, Lan Dang

C1.00065: Controlled Growth of Organic Semiconductor Films Using Liquid Crystal Solvents
Kevin Bufkin, Brooks Ohlson, Ben Hillman, Brad Johnson, David Patrick

C1.00066: Single-chain conformation and dynamics in connected chambers: Theory and simulation of translocation and threading
Erica Saltzman, ChiuTai Andrew Wong, Murugappan Muthukumar

C1.00067: Monte Carlo simulations of the selective adsorption of heteropolymers on heterogeneous surfaces
Yongmei Wang, Jesse Ziebarth

C1.00068: Progress on a `spectral filtering' for SCFT algorithms: Removing topological defects in block copolymer simulations
Scott Sides, Bobby Sumpter

C1.00069: Computer simulation of the formation of random-blocky copolymers
Lawrence Strickland, Jan Genzer, Carol Hall

C1.00070: Computational Models of Complex Microstructures of Amphihilic Diblock Copolymers in Dilute Solution
Jesse Boer, Apichart Linhananta

C1.00071: Secondary Forces as a Driving Mechanism for Thermally Induced Drug Release in ROMP based Polymers
Casey Kimball, Shaw L. Hsu, Greg Tew

C1.00072: DNA Electrophoresis using entropic trapping

Haobin Luo, Dilip Gersappe

C1.00073: Protein adsorption at calcium oxalate monohydrate crystal surfaces
J. Wesson, X. Sheng, J. Rimer, T. Jung, M. Ward

C1.00074: Phase Transisions in Superparamagnetic Polymer Brush Particles
Annette Schmidt, Andreas Kaiser

C1.00075: 3D Analysis of Lattice Defects in the Gyroid Network Structure of a Block Copolymer/Homopolymer Blend
Satoshi Akasaka, Tetsuro Okamoto, Vincent H. Mareau, Hirokazu Hasegawa

C1.00076: Phase Behavior of Polymer Blends Containing End-Associating Polymers
Michelle Wrue, Mitchell Anthamatten

C1.00077: Self-assembly of rod-coil block copolymers from weakly to moderately segregated regimes
Y Raffaele Mezzenga, Nicolas Sary, Georges Hadziioannou, Cyril Brochon

C1.00078: Self-Organization on Multiple Length Scales in ``Hairy-Rod''--Coil Block Copolymer Supramolecular Complexes
Raffaele Mezzenga, Matthew Hammond, Harm-Anton Klok

C1.00079: Self-Consistent Field Theory Simulations of Confined 2D Block Copolymer Thin Films
L Su-Mi Hur, Glenn Fredrickson, August Bosse, Edward Kramer, Carlos Garcia-Cervera

C1.00080: Orientation Control of Diblock Copolymer Thin Films by the Addition of Amphiphilic Surfactants
Jeong Gon Son, Kookheon Char, Paul F. Nealey, Huiman Kang

C1.00081: Diblock copolymer thin films: Compressed fluid induced order
Peter Green, Abraham Arceo

C1.00082: Crystal Orientation of Polyethylene oxide in a Defect-Free 1D Confined System of Poly ethylene oxide-b-Polystyrene Diblock Copolymer Single Crystals
Ming-Siao Hsiao, Joseph X. Zheng, Ryan M. Van Horn, Roderic P. Quirk, Stephen Z. D. Cheng, Bernard Lotz, Edwin L. Thomas, Hsin-Lung Chen

C1.00083: Well-Defined Fullerene-Containing Diblock Copolymers Based on Regioregular Poly(3-hexylthiophene) and Poly(methyl methacrylate): Synthesis and Photovoltaic Properties
Jea Uk Lee, Won Ho Jo, Ali Cirpan, Todd Emrick, Thomas Russell

C1.00084: Point Mutations Effects on Charge Transport Properties of the Tumor-Suppressor Gene p53
Rudolf A Roemer, Chi-Tin Shih, Stephan Roche

C1.00085: Endohedral Fullerenes in Organic Thin Film Photovoltaic Devices
Russel Ross, Edward VanKeuren, Martin Drees, Claudia Cardona, Brian Holloway, Dirk Guldi

C1.00086: Multilayer polymer light emitting diode (PLED) devices studied using resonant soft x-ray reflectivity
Cheng Wang, B. Watts, T. Araki, H. Ade, A. Hexemer, A. Garcia, T.-Q. Nguyen, G.C. Bazan, K.E. Sohn, E.J. Kramer

C1.00087: Breath Figure Templated Assembly of Ordered and Disordered Array of Holes in Polymer Films
Vivek Sharma, Sai M. Gogineni, Matija Crne, Mohan Srinivasarao

C1.00088: Carbon nanotube based gecko inspired self-cleaning adhesives
Sunny Sethi, Liehui Ge, Pulickel Ajayan, Dhinojwala Ali

C1.00089: Understanding the Structure and Phase Behavior of Model DNA-Linked Nanoparticles by Monte Carlo Simulations
Juan Araque, Athanassios Panagiotopoulos, Marc Robert

C1.00090: Relationship Between Interfacial Strength and Materials Properties in Hybrid Organic/Inorganic Nanomaterials
Chad Snyder, Mickey Richardson, Jing Zhou, Gale Holmes, Alamgir Karim, Nandika D'Souza

C1.00091: Control of Polymer Translocation with External Forcing
Santtu Ollila, Kaifu Luo, Tapio Ala-Nissila, See-Chen Ying

C1.00092: Structural Relaxation of Stacked Ultrathin Polystyrene Films
Yung P. Koh, Sindee L. Simon

C1.00093: Surface Dynamics Of Homopolymer Brushes
Gokce Ugur, Bulent Akgun, Zhang Jiang, Suresh Narayanan, Sanghoon Song, Heegu Lee, William J. Brittain, Hyunjung Kim, Sunil K. Sinha, Mark D. Foster

C1.00094: Mass Transport through Dynamic Polymer Networks Containing Reversibly Associating Side-Groups
Jiahui Li, Andrew Hilmer, Mitchell Anthamatten, Hung Chung, James McGrath

C1.00095: Nanoscale building blocks for the development of novel proton-exchange membranes fuel cells: A first-principles study
Philippe F. Weck, Eunja Kim, Chulsung Bae, Naduvalath Balakrishnan

C1.00096: Meso-scale modeling of block copolymer/colloid nano-composites
Marco Pinna, Ignacio Pagonabarraga, Andrei Zvelindovsky

C1.00097: Fundamentals of the reinforcement of hairy nanoparticles in rubber compounds
Xiaorong Wang

C1.00098: Thermoporosimetric Measurements of Network Heterogeneity: Melting Point Depression, Gibbs-Thomson and Flory-Huggins
Jinrong Wu, Gregory McKenna

C1.00099: Statistics and dynamics of blends of linear and ring polymers
Michael Lang, Michael Rubinstein

C1.00100: Spectroscopic Analysis of Amorphous Structure in Fluorinated Polymers
Shaw L. Hsu, Yuning Yang, Suriyakala Ramalingam

Session D6. Long-Distance Charge Transfer in Biological Systems (FIAP/DPOLY)

Monday afternoon 2.30 PM, Morial Convention Center - RO4

Chair: Nikolai Sergueev, University of Texas at Austin

2:30 PM D6.00001: Theory of Electron Transfer and Transport Pathways in Biomolecules
Invited Speaker: David Beratan

3:06 PM D6.00002: Long-Range Electron Transfer through Proteins and Solvents
Invited Speaker: Jay Winkler

3:42 PM D6.00003: Correlated electron and proton transport in cytochrome c oxidase: Coulomb proton pump with kinetic gating
Invited Speaker: Alexei Stuchebrukhov

4:18 PM D6.00004: Theoretical/Computational Probes of Homogeneous and Interfacial Electron Transfer: Electronic Structure and Energetics
Invited Speaker: Marshall Newton

4:54 PM D6.00005: A nonadiabatic and nonlinear theory for electron transfer
Invited Speaker: Serge Aubry

Session D18. Polymers at Surfaces (DPOLY)

Monday afternoon, 2:30 PM, Morial Convention Center - 210

Chair: Alfred Crosby, University of Massachusetts - Amherst

2:30 PM D18.00001: Surface Segregation in Blends of Chains with Two Architectures
Mark Foster, Sewoo Yang, Nam-Heui Lee, David Wu

2:42 PM D18.00002: Single chain mobility at an interface of a liquid polymer
Jingfa Yang, Jiang Zhao

2:54 PM D18.00003: Molecular origin of oil resistance of polyacrylonitrile: CN interactions at the surface
Veronique Lachat, Ali Dhinojwala, Dennis Peiffer, Mohsen Yeganeh

3:06 PM D18.00004: Effect of Hydrogen Bonding on Colloidal Nanocrystal Growth: The Case for PbS
Lixin Zhang, Shengbai Zhang

3:18 PM D18.00005: Conformational behavior of polymers adsorbed on nanotubes
Simcha Srebnik, Inna Gurevitz

3:30 PM D18.00006: Origin of glass transition temperature behavior in polymer nanocomposites
Jamie Kropka, Venkat Ganesan, Peter Green

3:42 PM D18.00007: Directed Self-Assembly of Gradient Concentric Carbon Nanotube Rings
Suck Won Hong, Wonje Jeong, Hyunhyub Ko, Vladimir Tsukruk, Michael Kessler, Zhiqun Lin

3:54 PM D18.00008: Use of Fluorescence Correlation Spectroscopy for Studying Polyelectrolyte-Nanoparticle Interaction in Aqueous Solution
Nadia Edwin, Denis Pristinski, Chengqing Wang, Vivek Prabhu

4:06 PM D18.00009: Directed Nanoparticle Assembly onto Random Copolymer Templates: Kinetics and Surface Considerations
Marla McConnell, Shu Yang, Russell Composto

4:18 PM D18.00010: Studies of the Dynamics of Alkane Nanoparticles
S.-K. Wang, M. Bai, H. Taub, M. Rheinstadter, J. R. D. Copley, V. Garcia Sakai, G. Gasparovic, U. G. Volkmann, F. Y. Hansen

4:30 PM D18.00011: Hierarchically Ordered Plasmonic Mask for Photo-lithography
Woo Soo Kim, Edwin L. Thomas

4:42 PM D18.00012: Dynamics of an Adsorbed Polymer Chain
Joshua Kalb, Sanat Kumar

4:54 PM D18.00013: Chasing drops: Following escaper and pursuer drop couple systems
Aisha Leh, Rafael Tadmor, Preeti Yadav, Prashant Bahadur, Kumud Chaurasia, Lan Dang

5:06 PM D18.00014: The Measurement of Surface Rheological and Surface Adhesive Properties using Nanosphere Embedment
Stephen Hutcheson, Gregory McKenna

Session D22. Organic Electronics: Synthesis and Materials (DMP/DPOLY)

Monday afternoon, 2:30 PM, Morial Convention Center - 214

Chair: Lynn Loo, Princeton University

2:30 PM D22.00001: The role of symmetry and charge delocalization in two-dimensional molecules conjugated molecules for optoelectronic applications
Invited Speaker: Mary Galvin

3:06 PM D22.00002: Ultra-pure organic semiconductors with improved charge carrier transport properties
Clara Santato, Fabio Cicoira, Francesca Di Maria, Manuela Melucci, Giovanna Barbarella

3:18 PM D22.00003: Side Chain Effects on the Structure and Dynamics of PPEs in different Complex Fluids
Yunfei Jiang, Dvora Perahia, Yiqing Wang, Uwe H. F. Bunz

3:30 PM D22.00004: Thermal, structural, and electrical characterization of two high performance semiconducting polymers
L.J. Richter, A.J. Moad, D.M. Delongchamp, R.J. Kline, D.J. Gundlach, D.A. Fischer, I. McCulloch, M. Heeney

3:42 PM D22.00005: Synthesis and characterization of conducting polymer inserted carbon nanotubes
A. Jeong Choi, Young Woo Nam, Yung Woo Park

3:54 PM D22.00006: X-ray scattering Study of Ordering in Liquid Crystalline Semiconducting Polymers
Michael Chabinyc, Michael Toney, Iain McCulloch, Martin Heeney

4:06 PM D22.00007: Improving the Electrical Conductivity of Polyaniline Through Molecular and Structural Control
Joung Eun Yoo, Kwang Seok Lee, Yueh-Lin Loo

4:18 PM D22.00008: Surface photoisomerization activity vs. functionalization of azobenzene derivatives
Luis Berbil-Bautista, Jongweon Cho, Niv Levy, Matthew J. Comstock, Dan Poulsen, Jean M.J. Frechet, Michael F. Crommie

4:30 PM D22.00009: Electrical and Optical Properties of a Novel Nonconjugated Conductive Polymer, Polynorbornene
Ananthakrishnan Narayanan, Aditya Kumar Palthi, Mrinal Thakur

4:42 PM D22.00010: Quadratic Electro-optic Measurements in the Nonconjugated Conductive Polymer, Poly(β-pinene) at 800 nm and 1550 nm
Jitto Titus, Ananthakrishnan Narayanan, Mrinal Thakur

4:54 PM D22.00011: Enantiotropic Polymorphism in Di-Indenoperylene
Theo Siegrist, Michael Heinrich, Jens Pflaum, Ashutosh Tripathi, Wolfgang Frey, Michael Steigerwald

5:06 PM D22.00012: Direct Nanoscale Characterization of Submolecular Mobility in Complex Organic Non-linear Optical Systems
Daniel Knorr, Tomoko Gray, Tae-Dong Kim, Jingdong Luo, Alex Jen, Rene Overney

Session D25. Theory and Simulations I (DPOLY)

Monday afternoon, 2:30 PM, Morial Convention Center - 217

Chair: Arthi Jayaraman, University of Illinois at Urbana-Champaign

2:30 PM D25.00001: Thermodynamically Consistent Nonrandom Mixing on a Bethe Lattice
Scott Milner

2:42 PM D25.00002: Mixture Properties of Flexible Chains: Comparisons between Experiment, Simulation and Theory; Contrasts between Lattice and Continuum
Ronald White, Jane Lipson

2:54 PM D25.00003: A Multichain Self-Consistent Field Theory for Correlations in Polymers: Chain Swelling in Polymer Blends
David Wu

3:06 PM D25.00004: Numerical Renormalization Group for Coarse Graining Field-Theoretic Fluid Models
Michael Villet, Glenn Fredrickson

3:18 PM D25.00005: Continuous translocations in connected chambers under pseudo-hydrodynamic force
Erica Saltzman, Murugappan Muthukumar

3:30 PM D25.00006: A two-scale-two-mode dynamic self-consistent theory of entangled interfaces in polymer fluids under flow
Yitzhak Shnidman, Ismael Yacoubou-Djima

3:42 PM D25.00007: Twinkling Fractal Theory of the Glass Transition.l
Richard Wool

3:54 PM D25.00008: Nascent Polymerized Chain Crystallization on Surface Simulated by the Growing Chain Molecular Dynamics
Xiaozhen Yang

4:06 PM D25.00009: Modeling Vapor Deposition Polymerization: Kinetic Monte Carlo Approach
Sairam Tangirala, Yiping Zhao, David P. Landau

4:18 PM D25.00010: Amphiphilic Systems under shear flow
Hongxia Guo

4:30 PM D25.00011: Formation and structure of amorphous carbon char from polymer materials
John Lawson, Deepak Srivastava

4:42 PM D25.00012: Fluctuations in Confined Homopolymers Studied by Fast Off-Lattice Monte Carlo Simulations
Yuhua Yin, Qiang Wang

4:54 PM D25.00013: Formation and structure of amorphous carbon char from polymer materials
Thomas Clancy, Sarah-Jane Frankland, Thomas Gates

5:06 PM D25.00014: Unfolding of a polymer globule: sequence of intra-molecular conformational transition
A. Polotsky, M. Charlaganov, T. Birshtein, M. Daoud, F. Leermakers, O. Borisov

5:18 PM D25.00015: Conformation and collapse of a polymer chain in explicit solvent: A solvation potential approach
Mark P. Taylor

Session H3. Polymer Physics Prize (DPOLY)

Tuesday morning, 8:00 AM, Morial Convention Center - RO1 - RO2

Chair: Mark Ediger, University of Wisconsin-Madison

8:00 AM H3.00001: Polymer Prize Talk: Segmental Dynamics in Polymers : From Cold Melts to Aging and Stressed Glasses
Invited Speaker: Kenneth Schweizer

8:36 AM H3.00002: Application of Integral Equation Theory to Polymers in the Condensed State
Invited Speaker: John G. Curro

9:12 AM H3.00003: Complex Fluid Microstructure, Rheology and Glass Transitions:~ Effect of Continuous Phase Molecular Weight
Invited Speaker: Charles Zukoski

9:48 AM H3.00004: Dynamics of fluids in complex environments
Invited Speaker: Arun Yethiraj

10:24 AM H3.00005: The Theta Point Of Long Flexible Polymer Chains: When Does It Exist?
Invited Speaker: K. Binder

Session H7. Complex Active Biomaterials: Mechanics and Microrheology (DBP/DPOLY)
Tuesday morning, 8:00 AM, Morial Convention Center – RO5
Chair: John Crocker, University of Pennsylvania

8:00 AM H7.00001: Non-equilibrium mechanics of motor-driven cytoskeletal polymer networks
Invited Speaker: Christoph Schmidt

8:36 AM H7.00002: Non-equilibrium mechanics and dynamics of active gels and living cells
Invited Speaker: Fred MacKintosh

9:12 AM H7.00003: Cytoskeletal mechanics: Structure and Dynamics
Invited Speaker: Andreas Bausch

9:48 AM H7.00004: Microrheology in Active Cytoskeletal Networks
Invited Speaker: Alex Levine

10:24 AM H7.00005: Force fluctuations and polymerization dynamics of intracellular microtubules
Invited Speaker: Clifford Brangwynne

Session H18. Block Copolymers in Solution and Blends (DPOLY)
Tuesday morning, 8:36 AM, Morial Convention Center - 210
Chair: Ryan Hayward, University of Massachusetts-Amherst

8:36 AM H18.00002: Competitive Adsorption, Exchange and Binding of Polymers and Proteins at the Oil/Water Interface
Daniel Carvajal, Kenneth Shull, Igal Szleifer

8:48 AM H18.00003: Interfacial Properties of Semifluorinated Alkane Diblock Copolymers
Flint Pierce, Dvora Perahia, Mesfin Tsige, Oleg Borodin, Gary Grest

9:00 AM H18.00004: Amphiphilic copolymer assemblies formed by interfacial instabilities of oil-in-water emulsions
Jintao Zhu, Ryan C. Hayward

9:12 AM H18.00005: Helical cylinders or multicompartment cylinders through the solution assembly of charged block copolymers with multivalent organic counterions
Darrin Pochan, Sheng Zhong, Honggang Cui, Zhiyun Chen, Karen Wooley

9:24 AM H18.00006: Spotted Polymersomes and Striped Worms - a theoretical analysis of lateral segregation of diblock copolymers
Wouter G. Ellenbroek, David A. Christian, Aiwei Tian, Andrea J. Liu, Tobias Baumgart, Dennis E. Discher

9:36 AM H18.00007: Pathways of Spontaneous Vesicle Formation of ABA Amphiphilic Molecules in Selective Solvent
Wei Jiang, Hongbo Du

9:48 AM H18.00008: Effects of depletion interactions on block copolymer micelles
Sayeed Abbas, Timothy P. Lodge

10:00 AM H18.00009: Influence of Electric Fields on the Phase Behavior of Concentrated Block Copolymer Solutions
Kristin Schmidt, Heiko Schoberth, Alexander Boker

10:12 AM H18.00010: Well Ordered Melts from Low Molar Mass Pluronic Copolymers Blended with Poly (acrylic acid): Effect of Homopolymer Molar Mass
Vikram Daga, Vijay Tirumala, Alvin Romang, Eric Lin, James Watkins

10:24 AM H18.00011: Novel Characterization of Critical Micelle Concentrations of Block Copolymers and Gradient Copolymers in Homopolymer
Robert Sandoval, Daniel Williams, Christopher Wong, Jungki Kim, John Torkelson

10:36 AM H18.00012: The influence of macromolecular architecture on the micellization in block copolymer/homopolymer blends
E. Pavlopoulou, K. Chrissopoulou, S.H. Anastasiadis, G. Portale, W. Bras, H. Iatrou, S. Pispas, N. Hadjichristidis

10:48 AM H18.00013: Phase Behavior and Dimensional Scaling of Symmetric Block Copolymer-Homopolymers Ternary Blends in Thin Films
Guoliang Liu, Mark Stoykovich, Shengxiang Ji, Paul Nealey

Session H22. Electrically and Optically Active Polymers (DPOLY)

Tuesday morning, 8:36 AM, Morial Convention Center - 214

Chair: Wesley Burghardt, Northwestern University

8:36 AM H22.00002: Periodic Polymers for Technology
Edwin Thomas

8:48 AM H22.00003: First-principles investigation of high energy density in PVDF copolymers
V. Ranjan, Liping Lu, M. Buongiorno Nardelli, J. Bernholc

9:00 AM H22.00004: Light-Controllable Polymer Micelles
Yue Zhao, Jinqiang Jiang, Guang Wang, Xia Tong, Jerome Babin, Martin Lepage

9:12 AM H22.00005: High and Stable Light Induced Birefringence from Spacer-Free Dye-Polyelectrolyte Liquid Crystal Complexes
Qian Zhang, C. Geraldine Bazuin, Christopher J. Barrett, Christian Pellerin

9:24 AM H22.00006: Reducing radiation-induced conductivity in polymeric dielectrics by small molecule electron traps
Robert J. Klein, John L. Schroeder, Shannon M. Lacy, Michael E. Belcher, Phillip J. Cole, Joseph L. Lenhart

9:36 AM H22.00007: Dynamics of acoustic phonons in exciton self-trapping in a quasi-one-dimensional system
F.X. Morrissey, S.L. Dexheimer

9:48 AM H22.00008: THz time domain spectroscopy of low-frequency vibrations in a quasi-one-dimensional system
A. Bandyopadhyay, S.L. Dexheimer

10:00 AM H22.00009: Optical studies of Pt-rich π--conjugated Polymers
Tomer Drori, M. Tong, A. Gambetti, S. Singh, C. Yang, Z. V. Vardeny, S. Tretiak

10:12 AM H22.00010: Electronic Structure of Photo-degraded Polypropylene Ultrathin Films
Orhan Kizilkaya, Pingheng Zhou, Eizi Morikawa

10:24 AM H22.00011: Molecular Dynamics Simulation of Highly Rigid Polymers in Dilute Solutions
Sabina Maskey, Flint Pierce, Dvora Perahia, Gary Grest

10:36 AM H22.00012: Ab-initio calculations of quasiparticle and excitonic properties of low band gap, polythiophene-based polymers
Filipe Ribeiro, Georgy Samsonidze, Steven Louie, Marvin Cohen

Session H25. Adsorption of Organics on Surfaces (DPOLY)

Tuesday morning, 8:36 AM, Morial Convention Center - 217

Chair: Kookheon Char, Seoul National University

8:36 AM H25.00002: Examining the air-water interfacial activity of beta-peptides using molecular simulation and experiment
Clark A. Miller, Juan J. de Pablo

8:48 AM H25.00003: Why are hyperactive ice-binding-proteins so active?
Ido Braslavsky, Yeliz Celik, Natalya Pertaya, Young Eun Choi, Maya Bar, Peter L. Davies

9:00 AM H25.00004: Probing (bio)-organic monolayers at the metal/air and metal/liquid interface by sum-frequency generation spectroscopy
Francesca Cecchet, Dan Lis, Yves Caudano, Christophe Silien, Alaa Adin Mani, Paul Thiry, André Peremans

9:12 AM H25.00005: Flow Induced Growth of Striped Alkane Monolayers
M. Bai, H. Taub, A. Diama, K. Knorr, U. G. Volkmann, F. Y. Hansen

9:24 AM H25.00006: Molecular dynamics studies of the structure and dynamics of ``perpendicular'' layers of *n*-alkane molecules adsorbed on a solid substrate
F.Y. Hansen, P. Soza, H. Taub, U.G. Volkmann

9:36 AM H25.00007: Structure and Phase Transitions of Vapor-Deposited C32 Films
V. del Campo, E.A. Cisternas, I. Vergara, T. Corrales, U.G. Volkmann, M. Bai, S.-K. Wang, H. Taub, H. Mo, S.N. Ehrlich

9:48 AM H25.00008: Thermodynamic Studies of n-Octane Thin Films Adsorbed on Magnesium Oxide(100)
David Fernandez-Canoto, J.Z. Larese

10:00 AM H25.00009: X-ray Atomic-Scale Analysis of Self-Assembled Monolayer Growth on Silicon
J.C. Lin, J. Kellar, J. Kim, N. Yoder, K. Bevan, S. Datta, S. Nguyen, M. Hersam, M. Bedzyk

10:12 AM H25.00010: Surface Interactions of Carboxylic Acids on Si(100)21
Maryam Ebrahimi, J.F. Rios, K.T. Leung

10:24 AM H25.00011: STM/S of Polydiacetylene Nanowires on Gold and Graphite
Lili Wang, Rajiv Giridharagopal, Kevin Kelly

10:36 AM H25.00012: Thermodynamic and Neutron Scattering Investigation of Ethylene Wetting on MgO (100)
Andi Barbour, Craig Brown, J. Z. Larese

10:48 AM H25.00013: Importance of Van Der Waals Interaction for Organic Molecule-Metal Junctions
Priya Sony, Peter Puschnig, Dmitrii Nabok, Claudia Ambrosch-Draxl

Session J18. Frank J. Padden Award Symposium (DPOLY)

Tuesday mid-day, 11:15 AM, Morial Convention Center - 210

Chair: Russell Composto, University of Pennsylvania

11:15 AM J18.00001: Use DNA solutions to model polymer entanglement in flow: simultaneous rheometric and particle-tracking velocimetric measurements
Pouyan Boukany, Shi-Qing Wang

11:27 AM J18.00002: Membrane-Enhanced Surface Acoustic Wave Analysis of Polymer Brushes
David A. Brass, Kenneth R. Shull

11:39 AM J18.00003: Advances in Organic Single-Crystal Transistors
Alejandro L. Briseno, Zhenan Bao, Younan Xia, Samson A. Jenekhe

11:51 AM J18.00004: Effect of lithium ion distribution on conductivity of block copolymer electrolytes
Enrique Gomez, Nitash Balsara

12:03 PM J18.00005: Self-assembly of metal--polymer analogues of amphiphilic triblock copolymers
Zhihong Nie, Daniele Fava, Eugenia Kumacheva, Shan Zou, Gilbert Walker, Michael Rubinstein

12:15 PM J18.00006: Rod-Coil Block Copolymer Self-Assembly in Thin Films
B.D. Olsen, V. Ganesan, R.A. Segalman

12:27 PM J18.00007: Why nanoconfinement may lead to the development of polymer glasses that do not physically age
Rodney Priestley, Linda Broadbelt, John Torkelson

12:39 PM J18.00008: Ionic Complexation Enhanced Block Copolymer Alignment with an Electric Field
Jia-Yu Wang, Thomas P. Russell

12:51 PM J18.00009: Polymer Surface Diffusion as a Function of Molecular Weight
Janet Wong, Steve Granick

Session J22. Organic Electronics, Photonics and Magnetics: Theory (DMP/DPOLY)

Tuesday mid-day, 11:15 AM, Morial Convention Center - 214

Chair: Zhiqiang Li, University of California, San Diego

11:15 AM J22.00001: Dependence of Mobility on Density of Gap States in Organics by GAMEaS - Gate Modulated Activation Energy Spectroscopy
Woo-young So, David Lang, Arthur Ramirez

11:27 AM J22.00002: Charge mobility of discotic mesophases of polyaromatic hydrocarbons: a multiscale quantum/classical study
Denis Andrienko, Valentina Marcon, Kurt Kremer, James Kirkpatrick, Jenny Nelson

11:39 AM J22.00003: Optical spectra and exchange-correlation effects in molecular crystals
Na Sai, Murilo L. Tiago, James R. Chelikowsky, Fernando A. Reboredo

11:51 AM J22.00004: Monte Carlo Simulation of Carrier Dynamics in an Organic Field Effect Transistor
Dharmendar Reddy Palle, Leonard Register, Ananth Dodabalapur

12:03 PM J22.00005: Dynamical Barrier to Impurity Trapping in Organic Semiconductors
David H. Dunlap, Paul E. Parris, Stephan De Bievre

12:15 PM J22.00006: Inverse Molecular Design in a Tight-Binding Framework
Dequan Xiao, Weitao Yang, David Beratan

12:27 PM J22.00007: Ab initio Evaluation of the Charge-Transfer Integrals and Band Structures of Phenanthroline-based Molecular Crystals
H. Li, J.-L. Bredas, C. Lennartz

12:39 PM J22.00008: Monte Carlo Simulations of Charge Carrier Mobility in Semiconducting Polymer Field Effect Transistors
Sven Stafstrom, Lemi Demeyu

12:51 PM J22.00009: Electron-phonon coupling in naphthalene crystal
Roel Sánchez-Carrera, Pavel Paramonov, Veaceslav Coropceanu, Jean-Luc Brédas

1:03 PM J22.00010: Solid state effects on the photophysics of π-conjugated polymer thin films
Alok Shukla, Zhendong Wang, Sumit Mazumdar

1:15 PM J22.00011: TDDFT Study of Excited State Structure and Dynamics of Photochromic Systems
John Jean, Aline Silva

1:27 PM J22.00012: Ab Initio Generated UPS of Electron Donors
Reeshemah Allen, Tunna Baruah, Mark R. Pederso êá n

Session J25. Focus Session: Biopolymers: Molecules, Solutions and Networks I (DPOLY/DBP)

Tuesday mid-day, 11:15 AM, Morial Convention Center - 217

Chair: Paula Hammond, Massachusetts Institute of Technology

11:15 AM J25.00001: Conformation and Trapping of DNA at a Convergent Stagnation Point
Jennifer Kreft, Yeng-Long Chen, Hsueh-Chia Chang

11:27 AM J25.00002: DNA Surface Hybridization Regimes
Rastislav Levicky, Ping Gong

11:39 AM J25.00003: Hybridization Pathways and Mechanisms of Model DNA Oligonucleotides in Solution
Juan Araque, Athanassios Panagiotopoulos, Marc Robert

11:51 AM J25.00004: Structure and applications of a temperature responsive recombinant protein hydrogel based on silk- and elastin-like amino acid motifs
Lawrence Drummy, Melanie Tomczak, Joseph MacAuliffe, Richard Vaia, Rajesh Naik

12:03 PM J25.00005: Fractal Nature of Semiflexible Networks in beta-Hairpin Peptide Hydrogels
Rohan Hule, Darrin Pochan

12:15 PM J25.00006: A molecular model for toughening in double-network hydrogels
Wen-li Wu, Vijay Tirumala, Taiki Tominaga, Sanghun Lee, Paul Butler, Eric Lin, Jian Ping Gong, Hidemitsu Furukawa

12:27 PM J25.00007: De novo designed peptide and peptide-polymer conjugate for biomolecular materials
Invited Speaker: Ting Xu

1:03 PM J25.00008: Single polymer stretching in elastic turbulence of polymer solution
Yonggang Liu, Victor Steinberg

1:15 PM J25.00009: Shape and conformation of confined biopolymers
Ya Liu, Bulbul Chakraborty

1:27 PM J25.00010: Raft Formation of Rod-like Polyelectrolytes
Daniel W. Sinkovits, Erik Luijten

1:39 PM J25.00011: Vapor-liquid coexistence of patchy attractive fluids: Wertheim theory study
Hongjun Liu, Sanat Kumar, Glenn Evans

1:51 PM J25.00012: Strong Keratin-like Nanofibers Made of Globular Protein
Yael Dror, Vadim Makarov, Arie Admon, Eyal Zussman

2:03 PM J25.00013: Electrospinning of Natural Polymers
Aihua He, Shanshan Xu, Huarong Nie, Junxing Li, Charles C. Han

Session L18. John H. Dillon Award Symposium (DPOLY)

Tuesday afternoon, 2:30 PM, Morial Convention Center - 210

Chair: Gregory McKenna, Texas Tech University

2:30 PM L24.00001: John H. Dillon Medal Talk: Polymer Droplets
Invited Speaker: Kari Dalnoki-Veress

3:06 PM L24.00002: Surface relaxation in glassy polymers
James Forrest, Dongping Qi, Zahra Fakhraai

3:18 PM L24.00003: Tg and Cure of a Polycyanurate at the Nanoscale
Sindee Simon, Qingxiu Li

3:30 PM L24.00004: Comparison of surface mobility of polymeric and low molecular weight glass-formers
Mark Ediger, Stephen Swallen, Ken Kearns

3:42 PM L24.00005: Modeling Solvent Evaporation from Glass-Forming Polymer Films by MD Simulations
Jorg Baschnagel, Simone Peter, Hendrik Meyer

3:54 PM L24.00006: Studies of Glassy Colloidal Systems Under Shear
Michael Massa, Chanjoong Kim, David Weitz

4:06 PM L24.00007: Growth and Stability of Polymer Surface Wrinkles
Alfred Crosby

4:18 PM L24.00008: Toughening Mechanisms in Polymer Gels
Hugh Brown

4:30 PM L24.00009: Theory of polymer crystallization
M Muthukumar

4:42 PM L24.00010: On the effective charge of hydrophobic polyelectrolytes
Elie Raphael, Alexei Chepelianskii, Farshid Mohammad-Rafiee

4:54 PM L24.00011: Disentanglement in thin polymer films
Hendrik Meyer

5:06 PM L24.00012: Complex Structural Packing of ABC Triblock Copolymers Solvent Annealed at High Humidity
Chuanbing Tang, Joona Bang, Gila Stein, Glenn Fredrickson, Craig Hawker, Edward Kramer, Michael Sprung, Jin Wang

5:18 PM L24.00013: High resolution structure of bacterial cell sacculi
John Dutcher, Ahmed Touhami, Valerio Matias, Anthony Clarke, Manfred Jericho, Terry Beveridge

5:30 PM L24.00014: Mechanical Response of Lipid Multibilayers From Micro- and Nano-Particle Embedment
Gregory McKenna, Kirthi Deshpande

Session L22. Confinement-Induced Structures in Block Copolymers (DPOLY)

Tuesday afternoon, 3:06 PM, Morial Convention Center - 214

Chair: Eric Cochran, Iowa State University

3:06 PM L22.00002: Block copolymers in cylindrical confinement: role of thermal fluctuations and confinement parameters in structure formation
Kirill Titievsky

3:18 PM L22.00003: Complex Morphologies of Symmetric Diblock Copolymers under Nano-Confinement
Dong Meng, Yuhua Yin, Jacqueline Acres, Qiang Wang

3:30 PM L22.00004: Nano-structures of block copolymers under confinement
Jie Feng, Eli Ruckenstein

3:42 PM L22.00005: Morphologies of a diblock copolymer melt confined in a spherical nanopore
Bing Miao, Janine Tulkens, Robert Wickham

3:54 PM L22.00006: Spherical nano-shells of block copolymers
Marco Pinna, Andrei Zvelindovsky

4:06 PM L22.00007: Water permeable nanotubes from amphiphilic block copolymers
Jiun-Tai Chen, Mingfu Zhang, Ling Yang, Margaret Collins, Jim Parks, Armando Avallone, Thomas Russell

4:18 PM L22.00008: Effect of curvature on equilibrium and non-equilibrium properties of a 2D smectic phase.
Leopoldo R. Gomez, Enrique M. Valles, Daniel A. Vega

4:30 PM L22.00009: Phase Transitions in block copolymers under external electric field and in confinements
Andrei Zvelindovsky

4:42 PM L22.00010: Fluctuation-Induced Line-Edge Roughness in Nano-Confined Block Copolymer Thin Films
August Bosse, Ronald Jones, Alamgir Karim

4:54 PM L22.00011: The Hierarchical Morphology of Dielectric Mirrors
Michael Birnkrant, Christopher Li, Lalgudi Natarajan, Vincent Tondiglia, Pamela Lloyd, Richard Sutherland, Timothy Bunning

5:06 PM L22.00012: Crystalline - Crystalline Diblock Copolymers of Linear Polyethylene - Hydrogenated Polynorbornene
Richard Register, Sasha Myers, Sheng Li

5:18 PM L22.00013: Deformation-induced structure changes in olefin block copolymer
Feng Zuo, Yimin Mao, JongKahk Keum, Christian Burger, Benajmin Hsiao, Hongyu Chen, Debbie Chiu, Shih-Yaw Lai

Session L25. Semi-crystalline Polymers (DPOLY)

Tuesday afternoon, 3:06 PM, Morial Convention Center - 217

Chair: Ben Hsiao, Stony Brook University

3:06 PM L25.00002: Probing the crystallisation of polyethylene confined to a system of droplets
Jessica Carvalho, Kari Dalnoki-Veress

3:18 PM L25.00003: Interfacial and confinement effects to the structure of nylon 6 /clay nanocomposites made by chaotic flow
Dilru Ratnaweera, Dvora Perahia, Chaitra Mahesha, David Zumbrunnen, Mark Kampf

3:30 PM L25.00004: WAXS investigations on Polyethylene -- Carbon Nanofibers Composites
Brian Jones, Jianhua Li, Rogelio Benitez, Karen Lozano, Mircea Chipara, Alin Cristian Chipara, Magdalena Dorina Chipara, David J Sellmyer

3:42 PM L25.00005: Crystallization of Propylene-Hexene Random Copolymer
Yimin Mao, Feng Zuo, JongKahk Keum, Benjamin Hsiao

3:54 PM L25.00006: Polymer Single Crystals as 2D Templates
Stephen Cheng, Ryan Van Horn, Wenbin Zhang

4:06 PM L25.00007: Crystalline Morphology of Propylene 1-Octene Random Copolymers
Keesu Jeon, Rufina G. Alamo

4:18 PM L25.00008: Regular packing of isotactic polyolefin helices in crystal lattices
Bernard Lotz, Annette Thierry, JrJeng Ruan

4.30 PM L25.00009: Tailoring the Properties of Poly(ethylene terephthalate) without Addition of Fillers via Solid-State Shear Pulverization
Cynthia Pierre, Kosmas Kasimatis, John Torkelson

4:42 PM L25.00010: Crystallization of Bromine Substituted Polyethylenes with Precise Placement or Random Distribution
R.G. Alamo, K. Jeon, R.L. Smith, E. Boz, K.B. Wagener

4.54 PM L25.00011: Molecular and Crystalline Microstructure of Ferroelectric Poly(vinylidene fluoride-*co*-trifluoroethylene) Ultrathin Films on Bare and Self-Assembled Monolayer-Modified Au Substrates
Youn Jung Park, Seok Ju Kang, Bernard Lotz, Annette Thierry, Cheolmin Park

5:06 PM L25.00012: Chirality Information Transfer in Polylactides: From Main-Chain Chirality to Lamella Curvature
Robert Emery Prud'homme, Damien Maillard

5:18 PM L25.00013: Effects of Vitamin E on the Oxidative Reaction of Free Radicals in Ultra-High Molecular Weight Polyethylene
Benjamin Walters, Muhammad Jahan

5.30 PM L25.00014: Self-Assembly and Chain-Folding in Hybrid Coil-Coil-Cube Triblock Oligomers of Polyethylene-b-Poly(ethylene oxide)-b-Polyhedral Oligomeric Silsesquioxane
Lei Zhu, Jianjun Miao, Li Cui

5:42 PM L25.00015: Crystal aggregation in kidney stones; a polymer aggregation problem?
J. Wesson, A. Beshensky, P. Viswanathan, W. Zachowicz, J. Kleinman

Session M18. DPOLY Business Meeting (DPOLY)

Tuesday afternoon, 5:45 PM, Morial Convention Center - 210

Chair: Mark Ediger, U Wisconsin, Madison

5:45 PM DPOLY Business Meeting
Mark Ediger, Barry Farmer

Session P3. Simple Views on Bulk Polymers: Symposium Honoring P G de Gennes (DPOLY)

Wednesday morning, 8:00 AM, Morial Convention Center - RO1 - RO2

Chair: Tom Witten, University of Chicago

8:00 AM P3.00001: How Polymer Physics Was Born
Invited Speaker: Philip Pincus

8:36 AM P3.00002: Polyelectrolyte Solutions
Invited Speaker: Ralph H. Colby

9:12 AM P3.00003: Block Copolymers
Invited Speaker: Ludwik Leibler

9:48 AM P3.00004: Percolation and Gelation
Invited Speaker: Mohamed Daoud

10:24 AM P3.00005: Liquid Crystalline Polymers and Networks -- orientation, molecular shape change, mechanics
Invited Speaker: Mark Warner

Monday, March 10th 2008

Session	A4.	A16.	A18.	A21.	A22.	A25.
Room	*206*	*208*	*210*	*213*	*214*	*217*
Chair	*Granick*	*Aronson*	*Curro*	*Shull*	*Kannan*	*Karim*
8:00 AM		Reeves		Greenfield	Tangirala	Char
8:12 AM	Genzer	Voliotis	Grest	Crne	C. Li	Kamata
8:24 AM		Aranson		Hoy	Lin	Watanabe
8:36 AM		Ziebert	Pryamitsyn		Kim	Shrestha
8:48 AM	Dhinojwala	Glass	Heinz	Anthamatten	Sharma	Maniadis
9:00 AM		Liu	Pandey		Hu	Parete
9:12 AM		Fuchs	de Haan	Padmanabhan		H. Kim
9:24 AM	Messersmith	Kenward	Fyta	Lodge	Watkins	Marencic
9:36 AM		Alonso-Latorre	Pasquini	Feldman		Welander
9:48 AM		Brangbour	Gunawardana	Lee	Liu	S. Kim
10:00 AM	Kumacheva	Zhang	Harvey	Elliott	Y. Li	S. O. Kim
10:12 AM		Touhami	Manik	Wei	Sknepnek	Stuen
10:24 AM		Trinh	Ginzburg	Carrillo	Schilling	Kang
10:36 AM	Crosby	Adhyapak	Goswami	Stone	Reeves	Waldow
10:48 AM			Liu	Ramachandran	Nguyen	Thomas

Session	B4.	B18.	B22.	B25.
Room	*206*	*210*	*214*	*217*
Chair	*Anastasiadis*	*Hermel-Davidock*	*Xu*	*Register*
11:15 AM			Takeya	Morse
11:27 AM	Savin	Shull	Kalb	Feng
11:39 AM			Tsetseris	Wang
11:51 AM		Krishnamoorti		Dobrynin
12:03 PM	Karim	Moniruzzaman	Bao	Nedoma
12:15 PM		Hermel-Davidock		Burghardt
12:27 PM			Pernstich	Patel
12:39 PM	Möller	Thoules	Tsukagoshi	Runt
12:51 PM			Creton	Dadmun
1:03 PM		Chan	Hill	Chandrasekaran
1:15 PM	Ober	Creton	Conrad	Zheng
1:27 PM		Fayolle	Jeong	Wang
1:39 PM		Scogna	Cobb	Xue
1:51 PM	Nealey	Lang	Ando	Xu
2:03 PM		Diani	Troisi	Han

Session	D6	D18	D22	D25.
Room	*R04*	*210*	*214*	*217*
Chair	*Sergueev*	*Crosby*	*Loo*	*Jayaraman*
2:30 PM		Foster		Milner
2:42 PM	Beratan	Yang	Galvin	White
2:54 PM		Lachat		Wu
3:06 PM		Zhang	Santato	Villet
3:18 PM	Winkler	Srebnik	Jiang	Saltzman
3:30 PM		Kropka	Richter	Shnidman
3:42 PM		Hong	Choi	Wool
3:54 PM	Stuchebrukhov	Edwin	Chabinyc	Yang
4:06 PM		McConnell	Yoo	Tangirala
4:18 PM		Wang	Berbil-Bautista	Guo
4:30 PM	Newton	Kim	Narayanan	Lawson
4:42 PM		Kalb	Titus	Yin
4:54 PM		Leh	Siegrist	Clancy
5:06 PM	Aubry	Hutcheson	Knorr	Polotsky
5:18 PM				Taylor

C1. Poster Session I

Morial Convention Center - Exhibit Hall A

Anderson	Wadley	Luo
Zhou	Dobriyal	Wesson
Yang	Meng	Schmidt
Zhong	Zeng	Akasaka
Liu	Zhao	Wrue
Han	Dimitriou	Mezzenga
Patnaik	Chung	Mezzenga
Kim	Wu	Hur
Kalish	Pan	Son
Ramalingam	Gam	Green
Van Horn	Moniruzzaman	Hsiao
Hood	Fang	Lee
Guan	Retsos	Roemer
Wang	Xia	Ross
Kuppa	Chansai	Wang
Fang	Chanthaanont	Sharma
Shah	Kunanuraksapong	Sethi
Kollengodu-Subramanian	Changkhamchom	Araque
Ibar	Vazquez	Snyder
Ramachandran	Akgun	Ollila
Wool	Leh	Koh
Zimberlin	Dotson	Ugur
Kundu	Ding	Li
Pathak	Huth	Weck
Wang	Davis	Pinna
Huth	Michalek	Wang
Meng	Paeng	Wu
Boddohi	Tadmor	Lang
Tenneti	Bufkin	Hsu
Mishra	Saltzman	
Tung	Wang	
Kim	Sides	
Akasaka	Strickland	
Ueki	Boer	
Weidisch	Kimball	

Tuesday, March 11th 2008

Session	H3.	H7.	H18.	H22.	H25.
Room	*R01-R02*	*R05*	*210*	*214*	*217*
Chair	*Ediger*	*Crocker*	*Hayward*	*Burghardt*	*Char*
8:00 AM					
8:12 AM	Schweizer	Schmidt	BREAK	BREAK	BREAK
8:24 AM					
8:36 AM			Carvajal	Thomas	Miller
8:48 AM	Curro	MacKintosh	Pierce	Ranjan	Braslavsky
9:00 AM			Zhu	Zhao	Cecchet
9:12 AM			Pochan	Zhang	Bai
9:24 AM	Zukoski	Bausch	Ellenbroek	Klein	Hansen
9:36 AM			Jiang	Morrissey	Campo
9:48 AM			Abbas	Bandyopadhyay	Fernandez-Canoto
10:00 AM	Yethiraj	Levine	Schmidt	Drori	Lin
10:12 AM			Daga	Kizilkaya	Ebrahimi
10:24 AM			Sandoval	Maskey	Wang
10:36 AM	Binder	Brangwynne	Pavlopoulou	Ribeiro	Barbour
10:48 AM			Liu		Sony

Session	J18.	J22.	J25.
Room	*210*	*214*	*217*
Chair	*Composto*	*Li*	*Hammond*
11:15 AM	Boukany	So	Kreft
11:27 AM	Brass	Andrienko	Levicky
11:39 AM	Briseno	Sai	Araque
11:51 AM	Gomez	Palle	Drummy
12:03 PM	Nie	Dunlap	Hule
12:15 PM	Olsen	Xiao	Wu
12:27 PM	Priestley	Li	
12:39 PM	Wang	Stafstrom	Xu
12:51 PM	Wong	Sánchez-Carrera	
1:03 PM		Shukla	Y. Liu
1:15 PM		Jean	Y. Liu
1:27 PM		Allen	Sinkovits
1:39 PM			H. Liu
1:51 PM			Dror
2:03 PM			He

Session	L18.	L22.	L25.
Room	*210*	*214*	*217*
Chair	*McKenna*	*Cochran*	*Hsiao*
2:30 PM			
2:42 PM	Dalnoki-Veress	BREAK	BREAK
2:54 PM			
3:06 PM	Forrest	Titievsky	Carvalho
3:18 PM	Simon	Meng	Ratnaweera
3:30 PM	Ediger	Feng	Jones
3:42 PM	Baschnagel	Miao	Mao
3:54 PM	Massa	Pinna	Cheng
4:06 PM	Crosby	Chen	Jeon
4:18 PM	Brown	Gomez	Lotz
4:30 PM	Muthukumar	Zvelindovsky	Pierre
4:42 PM	Raphael	Bosse	Alamo
4:54 PM	Meyer	Birnkrant,	Park
5:06 PM	Tang	Register	Prud'homme
5:18 PM	Dutcher	Zuo	Walters
5:30 PM	McKenna		Zhu
5:42 PM			Wesson

5:45 PM	**M18. DPOLY Business meeting** (Rm. 210)

Wednesday, March 12th 2008

Session	P3.	P16.	P18	P22.	P25.
Room	*R01-R02*	*208*	*210*	*214*	*217*
Chair	*Witten*	*Tang*	*Ganesan*	*Chabinyc*	*Larson*
8:00 AM			Yager		
8:12 AM	Pincus	Carlsson	Akcora	Gundlach	Austin
8:24 AM			Amanuel		
8:36 AM		Beta	Diagon	Kim	Zhang
8:48 AM	Colby	Callan-Jones	Toepperwein	Ding	Persson
9:00 AM		Papoian	Stevens	Zhang	Obana
9:12 AM		Quint	Duechs	Colesniuc	Ala-Nissila
9:24 AM	Leibler	Vavylonis	He	DeMasi	Laachi
9:36 AM		Broedersz	Green	Lee	Gagnon
9:48 AM		Guo	Composto	Lai	Slater
10:00 AM	Daoud	Das	Narayanan	Lewis	Reisner
10:12 AM		Guevorkian	Fang	Liu	Meyer
10:24 AM		Zimberlin	Behling	Adetunji	Schiffbauer
10:36 AM	Warner	Vadillo-Rodriguez	Kumar	Hamadani	DePonte
10:48 AM		Superfine	Basu		Lau

Session	Q3.	Q16.	Q18.	Q22.	Q25.
Room	*R01-R02*	*208*	*210*	*214*	*217*
Chair	*Grosberg*	*Dufresne*	*Hobbie*	*Meredith*	*Anthamatten*
11:15 AM			Chatterjee		Jayaraman
11:27 AM	Higgins	Fabry	Pujari	Fasolka	Streletzky
11:39 AM			Lee		Jose
11:51 AM		De	Linton	Zhang	Keum
12:03 PM	Shaqfeh	Lamb	Chipara	Ahuja	Zhang
12:15 PM		Tee	White	Lach-hab	Larson
12:27 PM		Kress	Mu	Kalaitzidou	Hu
12:39 PM	Graessley	McCann	Li	Wang	Mriziq
12:51 PM		Norrelykke	Kannan	Jones	Pathak
1:03 PM		Korn	Stefanescu	Darling	Wang
1:15 PM	Rubinstein	Goulet	Li	Bazuin	Ziebarth
1:27 PM		Sokolov	Retsos	Epps	Qin
1:39 PM		Colbert	Weidisch	Ma	Liao
1:51 PM	Klein	Chiam	Dong	Ji	Nishitsuji
2:03 PM		van de Meent	Dasmahapatra	Tadmor	

Session	S18.	S22.	S25.
Room	*210*	*214*	*217*
Chair	*Heinz*	*Gundlach*	*Watanabe*
2:30 PM	Southard		Miquelard-Garnier
2:42 PM	Hobbie	Kahn	Hayward
2:54 PM	Schoch		Tirumala
3:06 PM	Frischknecht	Gao	Banaha
3:18 PM	Park	Worne	Lee
3:30 PM	Wang	Dillard-Crawford	Savin
3:42 PM	Aga		Mao
3:54 PM	Hines	Li	McGraw
4:06 PM	Du		Sotta
4:18 PM	Wang	Sun	Urayama
4:30 PM	Gang	Podzorov	Hedden
4:42 PM	Rivera	Lenski	Goldbart
4:54 PM	Anastasiadis	Steuerman	Baskaran
5:06 PM	Cheng	Chen	Lazo
5:18 PM	Chrissopoulou	Wallace	Winkler
5:30 PM	Balamurugan		Chambers

R1. Poster Session II	
Exhibit Hall A	
Fujiwara	Kawaguchi
Negulescu	Atorngitjawat
B. Kim	Shin
B. Kim	Good
Tripatanasuwan	J. Kim
Ryu	Chan
Zheng	Popov
Kismarahardja	Scogna
Byun	Atorngitjawat
Byun	D. Kim
Koga	Murphy
Crist	Lawson
B.Li	Zhong
Wang	Park
Jung	Qin
Bubeck	Sohn
Miao	Hernandez
Xu	S. Kim
Thompson	Lee
Hong	Emmons
Vaia	Feng
Melnichenko	C. Liu
Gangilenka	Takenaka
Papalia	Cho
Hyun	Shin
Joo	Ham
Tateishi	Bai
Fujii	Z.L. Liu
Ajward	Bai
Carbone	Koerner
Beckwith	Petrie
Chaudhury	Char
Y. Li	Spakowitz
Lagowski	Taylor
Heffernan	Luo
Carrillo	Takenaka
Pandey	Malardier-Jugroot
Linak	Shu
Chantawansri	Grosberg
Feizabadi	
Bai	
Marencic	
Bishop	
Liu	
Wang	
Huang	
Gaikwad	
N. Kim	
Ortiz	
Stefanescu	
Aliev	
Kropka	
Rahatekar	
Schick	
Ozisik	
Chen	
Niamlang	
Kamonsawas	
Thongsak	
Jhon	
Farmer	

Thursday, March 13th 2008

Session	U3.	U18.	U22.	U25.
Room	*R01-R02*	*210*	*214*	*217*
Chair	*Raphael*	*Truskett*	*Landes*	*Guenza*
8:00 AM				Detcheverry
8:12 AM	Joanny	Shell	Makarov	Kim
8:24 AM				Qiu
8:36 AM		Blawzdziewicz	Yu	Breuer
8:48 AM	Zhulina	Landau	Sergueev	Lorenz
9:00 AM		Elser	Zeng	Li
9:12 AM		Beaucage	Dong	Curgul
9:24 AM	Brown	Homouz	Kalkan	Helgeson
9:36 AM		Linhananta	Thurston	Duki
9:48 AM		Brujic	Bordallo	Cervantes
10:00 AM	Léger	Simmons	Li	Guenza
10:12 AM		Gunari	Taheri-Araghi	Cavallo
10:24 AM		Seaton	Caycedo	Lupton
10:36 AM	Brochard-Wyart	Guice	Aksimentiev	Dag
10:48 AM			Nguyen	Laprade

Session	V18.	V21.	V22.	V25.
Room	*210*	*213*	*214*	*217*
Chair	*Epps*	*Lutkenhaus*	*Kushmerick*	*Freed*
11:15 AM		Olvera de la Cruz		
11:27 AM	Balsara	Liu	Segalman	Lipson
11:39 AM		Zhao		
11:51 AM	Wang	Witte	Blum	Dayal
12:03 PM	Haque	Wang	Agrait	Meli
12:15 PM	Peddini	Chan	Perera	Mokarian-Tabari
12:27 PM	Simone	Fragiadakis	Hendriksen	Rahmani
12:39 PM	Virgili	Allahyarov	Cho	Schick
12:51 PM	Verploegen	Mullin	Bergfield	Yi
1:03 PM	Shah	Park	Neuhausen	McGarrity
1:15 PM	Komura	Boddohi	Malen	Lutkenhaus
1:27 PM	Mezzenga	Wang	Agapito	Wunderlich
1:39 PM	Leuty	Sukhishvili	H. Liu	Qin
1:51 PM	Tao	Harner	Giridharagopal	Kyu
2:03 PM	An		Osterbacka	Hall

Session	W4.	W18.	W22.	W25.
Room	*206*	*210*	*214*	*217*
Chair	*Colby*	*Horkay*	*Ryu*	*Xu*
2:30 PM			Xia	
2:42 PM	Watanabe	Landes	Liu	Schneider
2:54 PM			Yang	
3:06 PM		Balaeff	Palthi	Choi
3:18 PM	Wang	Grosberg	Holt	He
3:30 PM		Chen	Hammond	Shen
3:42 PM		Spakowitz	Singh	Han
3:54 PM	Ganesan	Huang	Wang	Lieleg
4:06 PM		Thamdrup		Jho
4:18 PM		Gao	Cicoira	Yucel
4:30 PM	Register	Butler		Chang
4:42 PM		Zang	Yunus	Grason
4:54 PM		Peng	Seipel	Nguyen
5:06 PM	Archer	Djordjevic	Bai	Forest
5:18 PM		Schwab		Hoagland
5:30 PM				Astrom

Friday, March 14th 2008

Session	X18.	X22.	X25.
Room	*210*	*214*	*217*
Chair	*Archer*	*Cicoira*	*Balsara*
8:00 AM		Pemmaraju	Martinez-Veracoechea
8:12 AM	Kornfield	Moreno	Takenaka
8:24 AM		Duman	Lennon
8:36 AM	Fytas	Pokhodnya	Croll
8:48 AM	Chen	Oesterbacka	Bluemle
9:00 AM	Sokolov	Wells	Oyerokun
9:12 AM	Soza	Yudiarsah	Choi
9:24 AM	Meyer	Lee	Bowman
9:36 AM	Jiang	Ortmann	Wanakule
9:48 AM	Mccoy		Erukhimovich
10:00 AM	Kunal		Mok
10:12 AM	Lee		Matsen
10:24 AM	Ibar		Meuler
10:36 AM	Hong		Chandler
10:48 AM	Ekenseair		Kim

Session	Y5.	Y18.	Y22.	Y25.
Room	*R03*	*210*	*214*	*217*
Chair	*Hedden*	*Green*	*Sokolov*	*Ashbaugh*
11:15 AM		Mukhopadhyay	Gottlieb	Ozisik
11:27 AM	Hammond	Roth	Oh	Chen
11:39 AM		OConnell	Houle	Sharma
11:51 AM		Ding	Murray	Kundagrami
12:03 PM	Freed	Qi	Wang	Kumar
12:15 PM		Kuppa	Nanjundiah	Sokoloff
12:27 PM		Raegen	Prabhu	Taylor
12:39 PM	Manias	Mukhopadhyay	He	Wong
12:51 PM		Bodiguel	Esker	Yan
1:03 PM		Kim	Long	Zhulina
1:15 PM	Breedveld	Torkelson	Shi	Luettmer-Strathmann
1:27 PM		Huth	Jerome	Kreer
1:39 PM		Peng	Tsui	Stojilovic
1:51 PM	Horkay	Koga	Frankland	Ibar
2:03 PM			Ismail	Medvedev

Session P16. Focus Session: Cytoskeletal Dynamics and Cell Motility I (DBP/DPOLY/DFD)

Wednesday morning, 8:00 AM, Morial Convention Center - 208

Chair: Jay Tang, Brown University

8:00 AM P16.00001: Actin Disassembly Mediated by Severing, Debranching, and Hydrolysis
Invited Speaker: Anders Carlsson

8:36 AM P16.00002: Actin dynamics in SCAR-deficient cells
Carsten Beta, Hellen Ishikawa-Ankerhold, Till Bretschneider, Guenther Gerisch, Annette Mueller-Taubenberger, Robert Insall, Eberhard Bodenschatz

8:48 AM P16.00003: A Possible Role for a Viscous Fingering-Type Instability in Cell Motility
Andrew Callan-Jones, Jean-Francois Joanny, Jacques Prost

9:00 AM P16.00004: The Stochastic Dynamics of Filopodial Growth
Garegin A. Papoian, Yueheng Lan, Pavel Zhuravlev

9:12 AM P16.00005: Mechanics of Lamellipodia
D. A. Quint, J. M. Schwarz

9:24 AM P16.00006: Assembly Mechanism of the Contractile Ring for Cytokinesis by Fission Yeast
Dimitrios Vavylonis, Jian-Qiu Wu, Xiaolei Huang, Ben O'Shaughnessy, Thomas Pollard

9:36 AM P16.00007: Nonlinear elasticity of composite networks of stiff biopolymers with flexible linkers
Chase Broedersz, C. Storm, F.C. MacKintosh

9:48 AM P16.00008: Effects of Osmotic Force and Torque on Microtubule Bundling and Pattern Formation
Yongxing Guo, Yifeng Liu, Rudolf Oldenbourg, Jay Tang, James Valles

10:00 AM P16.00009: Buckling and force propagation in intracellular microtubules
Moumita Das, Alex J. Levine, F.C. MacKintosh

10:12AM P16.00010: Hydrodynamic tether extrusion from ``gelly'' vesicles
Karine Guevorkian, Sebastien Kremer, Francoise Brochard-Wyart

10:24 AM P16.00011: Living Microlens Arrays
Jessica Zimberlin, Patricia Wadsworth, Alfred Crosby

10:36 AM P16.00012: Local viscoelasticity of the surfaces of individual Gram-negative bacterial cells measured using atomic force microscopy
Virginia Vadillo-Rodriguez, Terry Beveridge, John Dutcher

10:48 AM P16.00013: Stall Force and Response of Lung Cilia
Richard Superfine, David Hill, Vinay Swaminathan, E. Timothy O"Brien, Ric Boucher, Brian Button, Ashley Estes

Session P18. Polymer Nanocomposites I (DPOLY)

Wednesday morning, 8:00 AM, Morial Convention Center - 210

Chair: Venkat Ganesan, University of Texas at Austin

8:00 AM P18.00001: Disordered nanoparticle interfaces for defect-tolerance in the self-assembly of block-copolymers
Kevin Yager, Alamgir Karim, Eric Amis

8:12 AM P18.00002: Anisotropic Self-Assembly of Spherical Nanoparticles in Polymer Composites
Pinar Akcora, Sanat K. Kumar, Yu Li, Brian Benicewicz, Linda S. Schadler, Devrim Acehan, Jack F. Douglas

8:24 AM P18.00003: Enthalpic Relaxation of Silica-Polyvinyl Acetate Nanocomposites
Samuel Amanuel, Sanford Sternstein

8:36 AM P18.00004: Particle structuring in stretched soft/hard nanocomposite
Yann Le Diagon, Stephanie Mallarino, Christian Fretigny

8:48 AM P18.00005: Particle inclusion effect on the rheological properties of polymeric materials
Gregory Toepperwein, George Papakonstantopoulos, Juan de Pablo

9:00 AM P18.00006: Dimensional Analysis of Percolation Theory: Applications to Polymer Composites
Derrick Stevens, Torissa Hoffman, Russell Gorga, Laura Clark

9:12 AM P18.00007: A hybrid particle-field (HPF) simulation method for polymer-nanoparticle composites
Dominik Duechs, Scott Sides, Glenn Fredrickson

9:24 AM P18.00008: Responsive Assemblies: Gold Nanoparticles with Mixed Ligands in Microphase Separated Block Copolymers
Jinbo He, Elizabeth Glogowski, Qifang Li, Todd Emrick, Thomas Russell, Xuefa Li, Jin Wang

9:36 AM P18.00009: Dynamics of polystyrene/polystyrene-capped gold nanoparticle mixtures
Peter Green, Hyunjoon Oh

9:48 AM P18.00010: Magnetic Nanoparticle Dispersion in HOMO and Block Copolymer Films
Russell Composto, Kohji Ohno, Vincent Ladmiral, Grant Smith, Dmitry Bedrov, Chen Xu

10:00 AM P18.00011: Kinetics of self-assembly in CdSe/polystyrene thin film nanocomposite system
Suresh Narayanan, Jonathan Kiel, Michael Sprung, Michael Mackay, Suba Asokan, Michael Wong, Jin Wang

10:12 AM P18.00012: Novel Non-toxic Antifouling/Fouling Release Nanocomposite Materials
Jason Fang

10:24 AM P18.00013: Physical Characterization of Hierarchically Structured Nanocomposites
Ross Behling, Eric Cochran

10:36 AM P18.00014: Conducting polymer nanofibers for high sensitivity detection of chemical analytes
Abhishek Kumar, Ignaty Leshchiner, Subhalakshmi Nagarajan, Ramaswamy Nagarajan, Jayant Kumar

10:48 AM P18.00010: Relaxation Dynamics of Nano Particles Embedded in a Soft Glassy Matrix
Jaydeep Basu, Sunita Srivastava, Ajoy Kandar, Mrinmay Mukhopadhyay, Laurence Lurio, Sunil Sinha

Session P22. Organic Electronics: FET II (DPOLY/DMP)

Wednesday morning, 8:00 AM, Morial Convention Center - 214

Chair: Michael Chabinyc, Palo Alto Research Center

8:00 AM P22.00001: High Performance Solution Processable TFTs
Invited Speaker: David Gundlach

8:36 AM P22.00002: Solution-Processible Thin Film Transistors Using Surface-modified BaTiO3/Polymer Nanocomposites as Gate Insulators
Philseok Kim, Xiaohong Zhang, Peter Hotchkiss, Benoit Domerq, Simon Jones, Seth Marder, Bernard Kippelen, Joseph Perry

8:48 AM P22.00003: Evolution of the Unoccupied States in Alikali metal doped Copper-Phthalocyanine
Huanjun Ding, Kiwan Park, Yongli Gao

9:00 AM P22.00004: Soft X-Ray Emission and Absorption study of the Electronic Structure of the Organic Semiconductor Titanyl Phthalocyanine (TiO-Pc)
Y. Zhang, S. Wang, A. DeMasi, L.F.J. Piper, K.E. Smith, J. Downes, A. Matsuura

9:12 AM P22.00005: Charge transport mechanisms in phthalocyanine thin films
Corneliu Colesniuc, Amos Sharoni, Ivan K. Schuller

9:24 AM P22.00006: Soft X-Ray Spectroscopic Studies of the Electronic Structure of Aluminum tris-8-hydroxyquinoline (Alq3)
A. DeMasi, L.F.J. Piper, Y. Zhang, I. Reid, S. Wang, K.E. Smith, J. Downes, N. Peltekis, C. McGuinness, A. Matsuura

9:36 AM P22.00007: High Carrier Density and High Hole Mobilities of Ion Gel Gated Polymer Thin-Film Transistors
Jiyoul Lee, C. Daniel Frisbie, Timothy P. Lodge

9:48 AM P22.00008: Ionic-doping-induced nonvolatile switching in conductive polymer/inorganic complex for nonvolatile memory
Qianxi Lai, Yong Chen

10:00 AM P22.00009: Chemical Vapor Sensing Using Dual Channel Hybrid Organic/Inorganic Field-Effect Transistors
Shannon Lewis, Sebastian Schoefer, Deepak Sharma, Ananth Dodabalapur

10:12 AM P22.00010: Correlation of microstructure and magnetotransport in organic semiconductor spin valve structures
Y. Liu, J. Gorham, T. Lee, H. Fairbrother, H. E. Katz, D. H. Reich, S. Waston, J. Borchers

10:24 AM P22.00011: EPR Studies of Highly Interconnected Nanostructured Polyaniline Network
Oludurotimi O. Adetunji, N.-R. Chiou, N.P. Raju, A.J. Epstein

10:36 AM P22.00012: Capacitance-voltage characterization of polythiophene-based field-effect transistors
Behrang Hamadani, Iain McCulloch, Martin Heeney, David Gundlach

Session P25. Focus Session: DNA and Protein Analysis with Micro and Nano Fluidics (DPOLY/DBP)

Wednesday morning, 8:00 AM, Morial Convention Center - 217

Chair: Ron Larson, University of Michigan

8:00 AM P25.00001: Learning from the Jersey Turnpike: Cell Lysis, Labeling and Washing with Microfluidic Metamaterials
Invited Speaker: Robert Austin

8:36 AM P25.00002: DNA Docking with Functionalized Colloidal Probes
Lu Zhang, Yingxi Elaine Zhu

8:48 AM P25.00003: Confinement spectroscopy: A novel approach to force spectroscopy
Fredrik Persson, Pawel Utko, Walter Reisner, Anders Kristensen

9:00 AM P25.00004: Fluorescence microscopy studies of the DNA motion near voltage biased solid-state nanopores
Kazuhiko Obana, Yoichi Nakamura, Kaya Kobayashi, Toshiyuki Mitsui

9:12 AM P25.00005: Influence of polymer-pore interactions on translocation
Tapio Ala-Nissila, Kaifu Luo, See-Chen Ying, Aniket Bhattacharya

9:24 AM P25.00006: Nanofilters for high throughput DNA separation
Nabil Laachi, Carmelo Declet, Christina Matson, Kevin Dorfman

9:36 AM P25.00007: Rapid DNA Idetification by Dielectrophoresis of Nanocolloids
Zachary Gagnon, Satyajyoti Senapati, Jason Gordon, Hsueh-Chia Chang

9:48 AM P25.00008: The non-driven polymer translocation through a nanopore: relaxation and translocation are not decoupled
Gary W. Slater, Michel G. Gauthier

10:00 AM P25.00009: Digital DNA: Physics of DNA in Nanopit Lattices
Walter Reisner, Jonas Tegenfeldt, Niels Larsen, Henrik Flyvbjerg, Derek Stein, Anders Kristensen

10:12 AM P25.00010: Dynamics of DNA molecules confined to slit-like nanofluidic channels
Christine Meyer, Douwe Jan Bonthuis, Derek Stein, Cees Dekker

10:24 AM P25.00011: Electrokinetic transport at a nanocapillary/microchannel interface
Jarrod Schiffbauer, Kathleen Kelley, Boyd Edwards, Aaron Timperman

10:36 AM P25.00012: Water-encapsulated protein source for x-ray serial crystallography
Daniel DePonte, U. Weierstall, R.B. Doak, J.H.C. Spence

10:48 AM P25.00013: Separation of DNA in nanoscale devices with alternating channel depth
Henry Lau, Elizabeth Strychalski, Harold Craighead, Lynden Archer

Session Q3. Simple Views on Polymer Dynamics: Symposium Honoring P G de Gennes (DPOLY)

Wednesday mid-day, 11:15 AM, Morial Convention Center - RO1 - RO2

Chair: A. Grosberg, University of Minnesota

11:15 AM Q3.00001: Quasielastic scattering -- theory and experiment hand in hand
Invited Speaker: Julia Higgins

11:51 AM Q3.00002: The Coil-Stretch Transition after more than 30 years
Invited Speaker: Eric Shaqfeh

12:27 PM Q3.00003: Dynamics of Polymer Solutions
Invited Speaker: William Graessley

1:03 PM Q3.00004: Dynamics of Entangled Polymers
Invited Speaker: Michael Rubinstein

1:39 PM Q3.00005: Interdiffusion and disentanglement of polymer brushes
Invited Speaker: Jacob Klein

Session Q16. Focus Session: Cytoskeletal Dynamics and Cell Motility II (DBP/DPOLY/DFD)

Wednesday mid-day, 11:15 AM, Morial Convention Center - 208

Chair: Eric Dufresne, Yale University

11:15 AM Q16.00001: Cell migration through connective tissue in 3-D
Invited Speaker: Ben Fabry

11:51 AM Q16.00002: Dynamics of active cellular response under stress
Rumi De, Assaf Zemel, Samuel Safran

12:03 PM Q16.00003: Observation of Non-local Mechanical Responses to Locally Applied Forces in Cells using Magnetic Micropost Arrays
Corinne Lamb, Yaohua Liu, Daniel Reich, Nathan Sniadecki, Christopher Chen

12:15 PM Q16.00004: Substrate Stiffness Detection by Cellular Stress and Strain
Shang-You Tee, Paul Janmey

12:27 PM Q16.00005: Probing Eukaryotic Chemotaxis with Optically Manipulated Biomimetic Microparticles
Holger Kress, Cecile Mejean, Jin Gyu Park, Tarek Fahmy, Eric Dufresne

12:39 PM Q16.00006: Quantifying *Dictyostelium discoideum* Aggregation
Colin McCann, Paul Kriebel, Carole Parent, Wolfgang Losert

12:51 PM Q16.00007: Cell motility as a persistent random walk
Simon Norrelykke, Frank Julicher

1:03 PM Q16.00008: Role of receptor patch geometry for cell adhesion in hydrodynamic flow
Christian Korn, Ulrich Schwarz

1:15 PM Q16.00009: Dynamic friction measurements on living HeLa cells
Marc-Antoni Goulet, Marie-Josée Colbert, Kari Dalnoki-Veress

1:27 PM Q16.00010: AFM method to study mechanics of biological cells with real brushy surface
Igor Sokolov, Swaminathan Iyer, Ravi Gaikwad, Venkatesh Subba-Rao, Craig Woodworth

1:39 PM Q16.00011: Dynamical measurement of the physical properties of single cells
Marie-Josee Colbert, Cecile Fradin, Kari Dalnoki-Veres

1:51 PM Q16.00012: Computational modeling of cell-cell adhesion and cell-endothelium peeling
Keng-Hwee Chiam, Raymond Quek

2:03 PM Q16.00013: Implications of Cytoplasmic Streaming for Intracellular Transport and Micro-scale Mixing
Jan-Willem van de Meent, Idan Tuval, Wim van Saarloos, Ray Goldstein

Session Q18. Polymer Nanocomposites II (DPOLY)

Wednesday mid-day, 11:15 AM, Morial Convention Center - 210

Chair: Erik Hobbie, National Institute of Standards and Technology

11:15 AM Q18.00001: Cluster Dominated Rheology of SWNTs based Polymer Nanocomposites
Tirtha Chatterjee, Ramanan Krishnamoorti

11:27 AM Q18.00002: Preparation and Characterization of Polypropylene / MWCNT Dispersions
Saswati Pujari, Wesley Burghardt, Thillaiyan Ramanathan, L. Catherine Brinson, Kosmas Kasimatis, John Torkelson

11:39 AM Q18.00003: Improving the Dispersion and Interfaces in Polymer-Carbon Nanotube Nanocomposites by Sample Preparation Choice
Chang-Uk Lee, Mark Dadmun

11:51 AM Q18.00004: Enhancing Dispersion and Properties of SWNT-polymer Nanocomposites by Controlled Non-covalent Interactions
Dias Linton

12:03 PM Q18.00005: Spectroscopic Investigations on Polypropylene -- Carbon Nanofibers Composites Microparticles
Mircea Chipara, Jones Brian, Karen Lozano, John R. Villareal, Alin Cristian Chipara, Anna Hernandez, Magdalena Dorina Chipara, David J Sellmyer

12:15 PM Q18.00006: Simulation of Electrical Conductivity of Composites Containing Uniaxially-Aligned, Finite Rods above the Percolation Threshold
Sadie White, Brian Didonna, Lai-Ching Chou, Tom Lubensky, Karen Winey

12:27 PM Q18.00007: Polymer Dynamics in Single Wall Carbon Nanotube / Polystyrene Nanocomposites
Minfang Mu, Russell Composto, Nigel Clarke, Karen Winey

12:39 PM Q18.00008: Periodic Patterning of Polyethylene Block Copolymers Directed by Carbon Nanotubes
Bing Li, Lingyu Li, Christopher Li

12:51 PM Q18.00009: Clay dispersion and interaction effects in supercritical CO2 processed polystyrene-clay nanocomposites.
R. Kannan, R. Bellair, M. Manitou, S. Horsch, E. Gulari

1:03 PM Q18.00010: Surface characterization of Laponite-Poly(ethylene oxide) nanocomposite film
Eduard A. Stefanescu, Ioan I. Negulescu, William H. Daly, Bogdan C. Donose, Anh V. Nguyen

1:15 PM Q18.00011: Viscoelastic Behavior of Polyhedral Oligomeric Silsequioxane (POSS)-Filled Epoxy Matrices
Qingxiu Li, Stephen Hutcheson, Gregory McKenna, Kadine Mohomed, Sindee Simon

1:27 PM Q18.00012: Spectacular Improvements in Toughness of Poly(lactide-co- glycolide), PLG, Nanocomposites
Haris Retsos

1:39 PM Q18.00013: Self-assembled star block copolymer-clay nanocomposites: Morphology and mechanical properties

Roland Weidisch, Martin Ganss, Bhabani Kumar Satapathy, Ulrike Staudinger, Alejandra Garcia-Marcos, Konrad Knoll

1:51 PM Q18.00014: Rheological Studies on the Quasi-quiescent Crystallization of Polypropylene Nanocomposites
Xia Dong, Tongchen Sun, Fenghua Chen, Ke Wang, Qiang Fu, Charles C. Han

2:03 PM Q18.00015: Effect of additive particles on the crystallization of homopolymers
Ashok Dasmahapatra, Guruswamy Kumaraswamy, Hemant Nanavati

Session Q22. Focus Session: New Methods in Polymer Physics (DPOLY/FIAP)

Wednesday mid-day, 11:15 AM, Morial Convention Center - 214

Chair: Carson Meredith, Georgia Institute of Technology

11:15 AM Q22.00001: Combinatorial Methods for Polymer Physics: Tools for discovery that enable knowledge generation
Invited Speaker: Michael Fasolka

11:51 AM Q22.00002: In-situ Liquid Accessible Volume Measurement of Polymer Films Using Surface Plasmon Resonance
Yibing Zhang, Mohsen Yeganeh

12:03 PM Q22.00003: Interface and dynamic indentation of crosslinked polyester films
Suresh Ahuja

12:15 PM Q22.00004: Prediction of Zeolite Types Based on Structural Data
M. Lach-hab, D. A. Carr, I. Vaisman, E. Blaisten-Barojas

12:27 PM Q22.00005: Adaptable Polymer Microsrolls
Kyriaki Kalaitzidou, Alfred J. Crosby

12:39 PM Q22.00006: Resonant soft x-ray GISAXS on block copolymer films
Cheng Wang, T. Araki, B. Watts, H. Ade, A. Hexemer, S. Park, T.P. Russell, W.F. Schlotter, G.E. Stein, C. Tang, E.J. Kramer

12:51 PM Q22.00007: Orientation Distribution for Thin Film Block Copolymers
Ronald Jones, Xiaohua Zhang, Sangcheol Kim, Alamgir Karim, Robert Briber, Ho-cheol Kim

1:03 PM Q22.00008: Unusual Domain Morphology in PS-b-PFS Block Copolymer Films
Seth Darling, Muruganathan Ramanathan, Elizabeth Nettleton

1:15 PM Q22.00009: Using Functional Small Molecules to Control Self-Assembly and Patterning in Block Copolymer Thin Films
C. Geraldine Bazuin, David Gaspard, Ximin Chen, Damien Mauran, Robert E. Prud'homme, Christian Pellerin

1:27 PM Q22.00010: Combinatorial Studies of Free Surface Effects on Block Copolymer Thin Films
Thomas Epps, Julie Lawson, Thomas Scherr, Michael Fasolka

1:39 PM Q22.00011: Self-assembly of Cylindrically Confined Block Copolymers in Core-Shell Electrospun Fibers
Minglin Ma, Gregory Rutledge

1:51 PM Q22.00012: A Generalized Method for the Preparation of Neutral Brushes from Homopolymer Mixtures
Shengxiang Ji, Guoliang Liu, Fan Zheng, Franz Himpsel, Paul Nealey

2:03 PM Q22.00013: Centrifugal adhesion balance (CAB) : A novel surface characterization technique
Rafael Tadmor, Lan Dang, Aisha Leh, Prashant Bahadur, Kumud Chaurasia

Session Q25. Physical Properties of Melts and Solutions (DPOLY)

Wednesday mid-day, 11:15 AM, Morial Convention Center - 217

Chair: Mitchell Anthamatten, U Rochester

11:15 AM Q25.00001: Structure and Assembly of Dense Solutions and Melts of Polymer Tethered Nanoparticles
Arthi Jayaraman, Kenneth S. Schweizer

11:27 AM Q25.00002: Line shape analysis of dynamic light scattering results on polymeric microgel nanoparticles
Kiril A Streletzky, Imaan Benmerzouga, John McKenna

11:39 AM Q25.00003: Chain dynamics in a semidilute polymer solution under steady shear
Prasanth Jose, Grzegorz Szamel

11:51 AM Q25.00004: Investigation of Extensional Flow-induced Crystallization in Entangled Polymer Melts
Jong Kahk Keum, Yimin Mao, Feng Zuo, Benjamin S. Hsiao

12:03 PM Q25.00005: Transport and rheology in block copolymer mesophases
Xusheng Zhang, Jorge Vi\~{n}als

12:15 PM Q25.00006: Universal Scaling of Linear and Nonlinear Rheological Properties of Semidilute and Concentrated Polymer Solutions
Ronald Larson, Youngsuk Heo

12:27 PM Q25.00007: The linear rheological responses of cyclic polyoctenamer melt
Miao Hu, Gregory McKenna, Yan Xia, Robert Grubbs, Julie Kornfield

12:39 PM Q25.00008: Rheology and birefringence of Fomblin YR at very high shear rates.
Khaled Mriziq, Hank Cochran, Mark Dadmun

12:51 PM Q25.00009: Rheo-Dielectric Studies of Concentrated Polyisoprene Solutions
Jai Pathak, Riccardo Casalini, C. M. Roland, Simone Capaccioli, Nikos Hadjichristidis

1:03 PM Q25.00010: Isothermal and Self-Seeding Crystallization from Polyethylene Solution
Howard Wang, Narayan Ch Das, Kaikun Yang, Boualem Hammouda

1:15 PM Q25.00011: Retention behavior of star-shaped polymers near the chromatographic critical condition
Jesse Ziebarth, Yongmei Wang, Kyuhyun Im, Hae-Woong Park, Youngtak Kim, Sunyoung Ahn, Taihyun Chang

1:27 PM Q25.00012: Mechanical Hole Burning Spectroscopic Investigation I
Qian Qin, Gregory McKenna

1:39 PM Q25.00013: Linking number of linear chain in polymer solution and melts
Qi Liao

1:51 PM Q25.00014: Computer simulation study on the shear-induced phase separation in semi-dilute polymer solutions by using Iannirubertо-Marrucci model
Shotaro Nishitsuji, Mikihito Takenaka, Takashi Taniguchi, Hirokazu Hasegawa

Session R1. Poster Session III(DPOLY)

Wednesday mid-day, 1:00 PM, Morial Convention Center - Exhibit Hall A

R1.00002: Ultrafast dephasing processes in β-carotene homologues
Masazumi Fujiwara, Kensei Yamauchi, Mitsuru Sugisaki, Hideki Hashimoto, Richard Cogdell

R1.00003: Characterization of Bioderived Polyhydroxyalkanoates by Size Exclusion Chromatography
Ioan Negulescu, Rafael Cueto, Kelly Rusch, Teresa Gutierrez-Wing, Benjamin Stevens

R1.00004: Assembly of functionalized dicomponent nanorods at liquid-liquid and -air interfaces
Bokyung Kim, Soojin Park, Dian Chen, Thomas McCarthy, Thomas Russell

R1.00005: Fabrication of Highly Ordered Silicon Oxide Dots and Stripes from Block Copolymer Thin Films
Bokyung Kim, Soojin Park, Jiayu Wang, Thomas Russell

R1.00006: Oscillatory jet flow in electrospinning of polymer nanofibers
Sureeporn Tripatanasuwan, Darrell Reneker

R1.00007: Interaction Chromatography of Random Copolymers with Tunable Monomer Sequence Distributions
Chang Y. Ryu, Junwon Han, Byung Ho Jeon, James J. Semler, Young K. Jhon, Jan Genzer

R1.00008: Polymorphism Control of Poly(vinylidene fluoride)
Jianfen Zheng, Aihua He, Junxing Li, Charles C. Han

R1.00009: Role of Crystallinity in CNT Dispersion and Electrical Conductivity of SWCNT-Thermoplastic Nanocomposites
Ade Kismarahardja, James Brooks, Keesu Jeon, Rufina Alamo

R1.00010: Self-Assembling Semicrystalline Polymer into Highly Ordered, Microscopic Concentric Rings by Evaporation
Myunghwan Byun, Suck Won Hong, Lei Zhu, Zhiqun Lin

R1.00011: Drying-mediated Formation of ``Coffee Rings'' of Regioregular Conjugated Polymers
Myunghwan Byun, Suck Won Hong, Zhiqun Lin

R1.00012: New insight into surface melting in ultrathin polymer films: a combined surface x-ray scattering study
Tadanori Koga, Y. Wang, M. Rafailovich, J. Sokolov, A. Tikhonov, D. Schultz, M. Lee, X. Li, J. Wang

R1.00013: The Equilibrium Amorphous Fraction of Polymer Crystals
Buckley Crist

R1.00014: Asymmetrical Functionalization of Nanoparticles Mediated by Polymer Single Crystals
Bing Li, Christopher Li

R1.00015: Periodic Modification of Nanofibers by Polymer Crystallization
Bingbing Wang, Christopher Li

R1.00016: Shear-induced orientation of poly(vinylidene fluoride-co-trifluoroethylene) thin films
Heejoon Jung, Jiyoun Chang, Cheolmin Park

R1.00017: Surface Orientation in Injection-Molded Thermotropic Liquid Crystalline Copolyester (TLCP) Plaques

Robert Bubeck, Jun Fang, Wesley Burghardt, Susan Burgard, Katherine Robertson, Daniel Fischer

R1.00018: Synthesis and Self-Assembly of Amphiphilic Protoporphyrin-Based Oligomers
Jianjun Miao, Lei Zhu

R1.00019: Nanomechanical Measurements on Ultra-thin Poly(n-butyl methacrylate) Films
Shanhong Xu, Gregory McKenna

R1.00020: ``Phase'' Behavior of Aqueous Solutions of Poly(N-isopropylacrylamide)
Tomoaki Kawaguchi, Kunihiko Kobayashi, Masashi Osa, Takenao Yoshizaki

R1.00021: Effect of Intermolecular Hydrogen Bonding on the Dynamics of Poly (2-vinylpyridine) Mixtures Containing Low Molecular Weight Phenolic Compounds
Pornpen Atorngitjawat, Robert Klein, Amanda McDermott, Paul Painter, James Runt

R1.00022: Small Angle Neutron Scattering of poly (ethylene oxide) ethyl alcohol / water mixtures
Sang Hak Shin, Robert Briber, Boualem Hammouda, Derek Ho

R1.00023: Multiscale Computer Simulation of Failure in Aerogels
Brian Good

R1.00024: Active substrates through controlled creasing of surface-attached hydrogels
Jungwook Kim, Ryan Hayward

R1.00025: Designing Surface Instabilities as Responsive Materials
Edwin Chan, Jeffrey Karp, Robert Langer

R1.00026: Correlation properties of dipole systems
Yuri Popov, Philip Taylor

R1.00027: Micromechanics of Yielding for Ethylene / Methacrylic Acid Ionomers
Robert Scogna, Richard Register

R1.00028: Ion Conduction and Polymer Dynamics of Poly(2-vinylpyridine) - Lithium Perchlorate Mixtures
Pornpen Atorngitjawat, James Runt

R1.00029: Surface Structure of Ionic Liquids Determined by X-ray reflectivity and Sum-Frequency Generation Spectroscopy
Doseok Kim, Yoonnam Jeon, Jaeho Sung, Wei Bu, David Vaknin, Yukio Ouchi

R1.00030: Surface Energy Effects on Polyelectrolyte Adsorption
Ryan J. Murphy, Vivek M. Prabhu, Denis Pristinski, Eric K. Lin

R1.00031: Generating surface energy gradients for block copolymer thin film studies
Julie Lawson, Thomas Epps

R1.00032: Helix self-assembly through the coiling of cylindrical micelles
Sheng Zhong, Honggang Cui, Zhiyun Chen, Karen Wooley, Darrin Pochan

R1.00033: Self-assembled Patterns of Block Copolymer/Homopolymer Blends
Dong Sik Park, Erol Sancaktar

R1.00034: UV-convergent One-loop Theory of Homogeneous Diblock Copolymer Melts
Jian Qin, Piotr Grzywacz, David Morse

R1.00035: Thin film effects on the morphology of diblock and triblock copolymers
Karen Sohn, Ken Kojio, Robert Coffin, Brian Berry, Guillermo Bazan, Edward Kramer, Michael Sprung, Jin Wang

R1.00036: A Comparative Study of Microphase Separation of Polyurethane Multiblock Copolymers with Different Soft Segment Chemistries

Rebeca Hernandez, Taeyi Choi, Jadwiga Weksler, Ajay Padsalgikar, Lichong Xu, Christopher Siedlecki, James Runt

R1.00037: Hierarchical Self-Assembly of Block Copolymers for Lithography-Free Nanopatterning
Sang Ouk Kim, Bong Hoon Kim, Sang Chul Jeon

R1.00038: Block Copolymer Micelle Shuttles with Controllable Transfer Temperature between Ionic Liquids and Aqueous Solutions
Zhifeng Bai, Yiyong He, Timothy Lodge

R1.00039: Sphere-Forming and Cylinder-Forming Block Copolymer Thin Films Aligned Under Oscillatory Shear
Andrew Marencic, Ranulfo Allen, Richard Register, Paul Chaikin

R1.00040: Hydrogenated ROMP Block Copolymers as Thermoplastic Elastomers
John Bishop, Richard Register

R1.00041: Composition Distributions and Effective Concentration of Miscible Polymer Blends Probed by MD Simulation
Wenjuan Liu, Ralph Colby, Dmitry Bedrov

R1.00042: Fundamentals of the phase behavior of hairy nanoparticles in polymer melts
Xiaorong Wang, Victor J. Foltz

R1.00043: Phase diagram of a binary liquid crystal mixture involving induced mesophase transitions
Tsang-Min Huang, Thein Kyu, Shila Garg, Kathy McReary

R1.00044: Dynamic Heterogeneity in Interacting Miscible Polymer Blends
Ashish Gaikwad, Timothy Lodge

R1.00045: Induced Mesophase in Mixtures of Photopolymerizable Hyperbranched Polyester and Liquid Crystal Mesogen
Namil Kim, Thein Kyu, Mami Nosaka, Hiroto Kudo, Tadatomi Nishikubo

R1.00046: Interfacial slip in polymer blends with nanoparticles
Joseph Ortiz, Eihab Jaber, Dilip Gersappe

R1.00047: X-ray characterization of hybrid PEO-clay nanocomposite films
Eduard A. Stefanescu, Ioan I. Negulescu, William H. Daly

R1.00048: Interfacial and random field effects in polymers filled with nanoparticles
Fouad Aliev, Vladimir Dolidze, Ivan Joel Lopez

R1.00049: Polymer nanocomposite (PNC) T_g from the perspective of percolation theory
Jamie Kropka, Peter Green, Venkat Ganesan

R1.00050: Effect of shear on the rheological and electrical properties of epoxy/MWCNTs dispersions
Sameer S. Rahatekar, K. K. Koziol, Alan H. Windle, Erik K. Hobbie, Jeffery W. Gilman

R1.00051: The amount of immobilized polymer in PMMA SiO_2 nanocomposites determined from calorimetric data
Christoph Schick, Albert Sargsyan, Andreas Wurm, Sevan Davtyan, Anahit Tonoyan

R1.00052: Controlling Polymer Rheological Properties via Nanoparticle Concentration and Surface Chemistry
Rahmi Ozisik, Meisha Shofner, Linda Schadler, Sanford Sternstein

R1.00053: "Cooperative" Secondary Relaxation Induced High Room-Temperature Dielectric Constant in Supramolecular Diblock Copolymer Assembly
Wei Chen, Jia-Yu Wang, Thomas Russell

R1.00054: Electric Field Enhanced Diffusion of Salicylic Acid through Polyacrylamide Hydrogels
Sumonman Niamlang, Anuvat Sirivat

R1.00055: Induced Interaction of NH4NO3 With Poly(p-phenylene vinylene) by means of Zeolite Y
Jirarat Kamonsawas, Anuvat Sirivat

R1.00056: Styrene-Isoprene-Styrene Triblock Copolymer (SIS)/Polydiphenylamine Blends for Actuator Application
Kraipop Thongsak, Anuvat Sirivat

R1.00057: The effects of monomer sequence distribution and isotopic substitution on solution phase behavior of random copolymers
Young Kuk Jhon, Ramanan Krishnamoorti, Jan Genzer

R1.00058: The Antimicrobial Activity of Porphyrin Attached Polymers
Lesley Thompson

R1.00059: Mesoscale Patterns Formed by Evaporation of a Polymer Solution in the Proximity of a Sphere on a Smooth Substrate: Molecular Weight and Curvature Effects
Suck Won Hong, Jianfeng Xia, Myunghwan Byun, Qingze Zou, Zhiqun Lin

R1.00060: Thermal-reversible, size-selective desorption of nanoparticles from polymer brushes
Richard Vaia, Steve Diamanti, Shafi Arifuzzaman, Jan Genzer

R1.00061: SANS from CO_2-saturated coals at conditions relevant to subsurface sequestration
Yuri Melnichenko, Andrzej Radlinski, Gang Cheng, Maria Mastalerz, George Wignall

R1.00062: Selective excitation of excitonic transitions in PTCDA crystals and thin films
V.R. Gangilenka, A. DeSilva, Lyubov V. Titova, L.M. Smith, H.P. Wagner, R. Scholz

R1.00063: Variable-Density Micelle Arrays in Block Copolymer Thin Films
John Papalia, Douglas Adamson, Richard Register, Paul Chaikin

R1.00064: Control of pattern by buckling in polymer thin film
Ding Choon Hyun, Unyong Jeong

R1.00065: Nanohole Structure in Polystyrene-*block*-poly(methyl methacrylate) Thin Film
Wonchul Joo, Seung Yun Yang, Jin Kon Kim, Hiroshi Jinnai

R1.00066: Thickness Dependence of Fluorescence Dynamics in Thin and Ultrathin Polystyrene Films
Yohei Tateishi, Yohei Okada, Keiji Tanaka, Toshihiko Nagamura

R1.00067: Interfacial Characterization of Poly(methyl methacrylate) with Non-solvents
Yoshihisa Fujii, Hironori Atarashi, Masahiro Hino, Keiji Tanaka, Toshihiko Nagamura

R1.00068: Two photon absorption in PTCDA films using the z-scan technique
A.M. Ajward, V.R. Gangilenka, H. Schmitzer, H.P. Wagner

R1.00069: Photochemical Branching/Crosslinking of Preformed Polymers Using bis-Benzophenone
Nicholas Carbone, Mary Dickson, Jeffrey Koberstein

R1.00070: Toward a mininum criteria of multi dimensional instanton formation for condensed matter systems?
Andrew Beckwith

R1.00071: The Anomalous Translocation Dynamics of Long-Chain Molecules
Srabanti Chaudhury, Binny J. Cherayil

R1.00072: Electric Field and Electron-Electron Interactions Effects on Bipolaron Transport in Polythiophene
Yaping Li, Jolanta Lagowski

R1.00073: Theoretical studies of the structures and optical properties of the dimers of the fluorene and carbazole derivatives
Jolanta Lagowski, Zhijun Gong

R1.00074: Orientational Relaxation in Simulated Polymer Melts
Taylor Dotson, John McCoy, Joanne Budzien, Douglas Adolf, Keenan Dotson, Julieanne Heffernan

R1.00075: Molecular Dynamics Simulations of Nanoimprinting Process
Jan-Michael Carrillo, Andrey Dobrynin

R1.00076: Probing the segmental mobility and energy of the active zones of a protein chain (aspartic acid protease) by a coarse-grained bond-fluctuation Monte Carlo simulation
Ras Pandey, Barry Farmer

R1.00077: Brownian dynamics simulations of tethered polymers on curved surfaces
Margaret Linak, Martin Kenward, Kevin D. Dorfman

R1.00078: Phase Behavior of Polystyrene-block-poly(2-vinylpyridine) coordinated by Metal Chloride
Dong Hyun Lee, Wonchul Joo, Jin Kon Kim, June Huh, Du Yeol Ryu

R1.00079: Vibrational Spectroscopy of Polymers at High Pressures
Erik Emmons, K.C. Chiartkunchand, Richard Kraus, Jeffrey Thompson, Aaron Covington

R1.00080: Self-Assembly of Diblock Copolymers with Dipolar Ends: A Monte Carlo Simulation
Jie Feng, Hendrik Heinz, Kevin Cavicchi

R1.00081: Evolution of multicompartment micelles to mixed corona micelles
Chun Liu, Zhibo Li, Marc Hillmyer, Timothy Lodge

R1.00082: Control of microdomain orientations in block copolymer thin films with chemically-patterned substrate
Mikihito Takenaka, Satoshi Akasaka, Yasuhiko Tada, Tomohiro Inoue, Hiroshi Yoshida, Hirokazu Hasegawa

R1.00083: Control of the processing window for block copolymer nanostructures by the addition of a homopolymer
Junhan Cho, Du Yeol Ryu, Kwang Hyun Song, Sang Bo Na, Youngmin Kim

R1.00084: Order-to-disorder Transition on PS-b-PI Copolymer Thin Film
Changhak Shin, Hyungju Ahn, Du Yeol Ryu, Kwang-Woo Kim

R1.00085: Surface Neutrality for PS-b-PMMA Copolymer Thin Film

Sujin Ham, Eunhye Kim, Changhak Shin, Du Yeol Ryu, Craig Hawker, Thomas Russell

R1.00086: Optical Absorption and Emission of Fully Conjugated Heterocyclic Aromatic Rigid-rod Polymers Containing Sulfonated Pendants
Shih Jung Bai, Shen-Rong Han

R1.00087: Non-linear V-I Characters of LSMO/PAn/Co/Al Organic Spin-Valve
Z.L. Liu, H.G Cheng, Z.H. Qin, J. Chen, X.J. Wang

R1.00088: Electroluminescence of Conjugated Rigid-rod Polymer Tuned by Emission Layer Thickness
Shih Jung Bai, Hua-Wei Tseng, Jen-Wei Huang

R1.00089: Growth Kinetics of Au Nanoparticles: Mean Field Modeling and SAXS
Hilmar Koerner, Michael Tambasco, Robert MacCuspie, Richard Vaia, Sanat Kumar

R1.00090: Effect of Ligand Molecular Weight and Nanoparticle Core Size on Polymer-Coated Gold Nanoparticle Location in Block Copolymers
Joshua Petrie, Bumjoon Kim, Glenn Fredrickson, Ed Kramer

R1.00091: Patterning of Nano-Objects on PS-b-PMMA Thin Films by Selective Swelling
Kookheon Char, Jeong Gon Son, Paul F. Nealey, Huiman Kang

R1.00092: Target site search strategy of gene regulatory proteins
Andrew Spakowitz, Mario Diaz de la Rosa

R1.00093: Conformational Dynamics and Interactions of a DNA Aptamer Observed by Single Molecule Spectroscopy
James Taylor, Qusai Darugar, Ajish Potty, Richard Willson, Christy Landes

R1.00094: Scaling Exponents for Polymer Translocation through a Nanopore
Kaifu Luo, Tapio Ala-Nissila, Pawel Pomorski, Mikko Karttunen, See-Chen Ying, Aniket Bhattacharya

R1.00095: Stretch-Induced density fluctuations in glassy polymers
Mikihito Takenaka, Shotaro Nishitsuji, Shimizu Hirofumi, Shin'ya Yoshioka

R1.00096: Functionalized polymeric nanotubes
Cecile Malardier-Jugroot

R1.00097: A New Design of Coiled-Coil Helix Bundle Peptide-Polymer Conjugates
Jessica Shu, Cen Tan, William DeGrado, Ting Xu

R1.00098: Effects of molecular weight and entanglement on the dispersion of a layer of platelets in a polymer chain matrix
Barry Farmer, Ras Pandey

R1.00099: Numerical Self-Consistent Field Theory of Flat and Curved Polymer Thin Films
Tanya L. Chantawansri, Carlos J. Garcia-Cervera, Hector D. Ceniceros, Glenn H. Fredrickson

R1.00100: Topologically constrained polymer collapse
Alexander Grosberg, Thomas Vettorel, Kurt Kremer

R1.00101: Target Finding Time for Microtubules Interacting with Catastrophe-Suppressing Drugs
Mitra Shojania Feizabadi

Session S18. Hybrid Organic-Inorganic Nanomaterials II: Assembly and Fabrication (DPOLY)

Wednesday afternoon, 2:30 PM, Morial Convention Center - 210

Chair: Hendrik Heinz, University of Akron

2:30 PM S18.00001: Transparent Organic Field-Effect Transistors with Carbon Nanotube Electrodes
Adrian Southard, Vinod K. Sanguan, Tracy L. Moore, Ellen D. Williams, Michael S. Fuhrer, Daniel Hines, Vince Ballaratto

2:42 PM S18.00002: Directed self assembly of macroscopic nanowires from single-wall carbon nanotubes suspended in aqueous bile-salt solutions
E. K. Hobbie, J. A. Fagan, M. L. Becker, S. D. Hudson, J. Chun, B. J. Bauer, M. Pasquali

2:54 PM S18.00003: Time and Temperature Dependent Rheological Behavior of Single-Walled Carbon Nanotubes Dispersed in Thermoreversible Acrylic Copolymer Alcohol Solutions
Andrew B. Schoch, Kenneth R. Shull, L. Catherine Brinson

3:06 PM S18.00004: Forces between nanorods with end-adsorbed chains in polymer melts
Amalie Frischknecht

3:18 PM S18.00005: Shape and size selection of Au nanorods by reversible flocculation
Kyoungweon Park, Wei Lu, Hilmar Koerner, Richard Vaia

3:30 PM S18.00006: Industrial viable process of making nanoparticles of various shapes and interior structures
Xiaorong Wang

3:42 PM S18.00007: Performance of ZnO nanowire-based hybrid solar cells decorated with CdTe quantum dots deposited by a pulsed electron beam technique
Roberto Aga, Richard Mu, Kenneth Singer

3:54 PM S18.00008: Organic and Carbon-based Thin-film Transistors on Flexible Substrates
Daniel R. Hines, A. E. Southard, J.H. Chen, M.S. Fuhrer, E.D. Williams

4:06 PM S18.00009: Self-assembled contacts to nanoparticles using metallic Ga droplets
Kan Du, E. Glogowski, M.T. Tuominen, T. Emrick, T.P. Russell, A.D. Dinsmore

4:18 PM S18.00010: ATRP of MMA on Asymmetrically Functionalized Gold Nanoparticles
Bingbing Wang, Bing Li, Christopher Li

4:30 PM S18.00011: DNA guided assembly of well-organized nano-architectures
Oleg Gang, Dmytro Nykypanchuk, Mathew Maye, Daniel van der Lelie

4:42 PM S18.00012: Schottky nanodiodes based on electrospun polymer nanofibers: Effect of varying fiber diameter
Rut Rivera, Nicholas Pinto, Alan Johnson Jr.

4:54 PM S18.00013: Effects of severe confinement on the structure and dynamics in polymer nanocomposites
S.H. Anastasiadis, K. Chrissopoulou, S. Fotiadou, K. Andrikopoulos, G.A. Kourouklis, B. Frick

5:06 PM S18.00014: pH and Protein Sensing with Functionalized Semiconducting Oxide Nanobelt FETs
Yi Cheng, C.S. Yun, G.F. Strouse, P. Xiong, R.S. Yang, Z.L. Wang

5:18 PM S18.00015: On the Miscibility of Polymer / Layered Silicate Nanocomposites
K. Chrissopoulou, I. Altintzi, I. Andrianaki, N. Koufaki, S. Fotiadou, S.H. Anastasiadis, E.P. Giannelis

5:30 PM S18.00016: Magnetic fluorescent particles with polypeptide shell
Sreelatha S. Balamurugan, Paul S. Russo

Session S22. Focus Session: Organic Electronics: Contacts and Interfaces (DMP/DPOLY)

Wednesday afternoon, 2:30 PM, Morial Convention Center - 214

Chair: Dave Gundlach, National Institute of Standards and Technology

2:30 PM S22.00001: Energetics of organic semiconductor interfaces: enhancing injection via chemical doping
Invited Speaker: Antoine Kahn

3:06 PM S22.00002: Electronic Structure of Interfaces and Heterojunction Ambipolar Organic Thin Film Transistor.
Yongli Gao, Huanjun Ding, Haibo Wang, Donghang Yan

3:18 PM S22.00003: Sub-100 nm Contact Effects in Poly 3-hexylthiophene (P3HT)
Jeff Worne, Douglas Natelson

3:30 PM S22.00004: Improving mobility by contact treating Organic Thin Film Transistors (OTFTs)
Krystyna Dillard-Crawford, Oana Jurchescu

3:42 PM S22.00005: Infrared study of charge injection in organic field-effect transistors
Invited Speaker: Zhiqiang Li

4:18 PM S22.00006: Studies of Au/SAMs/PEDOT-PSS/Au tunnel junctions
Nan Sun, Marya Lieberman, Steven Ruggiero

4:30 PM S22.00007: Electronic functionalization of organic semiconductors with self-assembled monolayers
Vitaly Podzorov

4:42 PM S22.00008: Impedance Spectroscopy of Organic Thin Film Transistors and Contacts
Daniel Lenski, Adrian Southard, Michael S. Fuhrer

4:54 PM S22.00009: Cross-sectional Imaging of Organic Optoelectronic Devices and Molecularly Assembled Nanostructures
D.W. Steuerman, A. Garcia, R. Yang, D.S. Seferos, H. Wu, D. Korystov, A. Mikhailovsky, J.P. Lofvander, G.C. Bazan, D.D. Awschalom

5:06 PM S22.00010: Trapping carriers in organic field-effect transistors by metal nanoparticles
Yu Chen, Masaya Nishioka, Allen Goldman

5:18 PM S22.00011: Charge-retraction time-of-flight technique for mobility measurements in organic materials
Jason Wallace, Ralph Young, Ching Tang, Shaw Chen

Session S25. Gels and Elastomers (DPOLY)

Wednesday afternoon, 2:30 PM, Morial Convention Center - 217

Chair: Hiroshi Watanabe, University of Kyoto

2:30 PM S25.00001: Large strain deformation of hydrophobically modified polyelectrolyte hydrogels
Guillaume Miquelard-Garnier, Costantino Creton, Dominique Hourdet

2:42 PM S25.00002: Creasing instability of surface-attached hydrogels
Ryan C. Hayward, Veronica Trujillo, Jungwook Kim, Anesia Burns

2:54 PM S25.00003: Swelling-Induced Deformation of Nanopatterned Polymer Lines
Vijay Tirumala, Christopher Stafford, Rui Huang, Leonidas Ocola

3:06 PM S25.00004: Drop spreading and resorbtion on gel surfaces
Mehdi Banaha, Adrian Daerr, Laurent Limat

3:18 PM S25.00005: Anomalous Composition-Dependent Swelling Behavior of Photocrosslinked VP/AA Copolymeric Hydrogels
J. Hannah Lee, David Bucknall

3:30 PM S25.00006: Organogels from Polypeptide-based Block Copolymers
Daniel Savin, Daniel Bercovici, Sandeep Naik

3:42 PM S25.00007: Soft random solids and their spatial elastic heterogeneity
Xiaoming Mao, Paul Goldbart, Xiangjun Xing, Annette Zippelius

3:54 PM S25.00008: Effective removal of entanglement points by network dilution
Joshua D. McGraw, Kari Dalnoki-Veress

4:06 PM S25.00009: Advances in elastomer reinforcement: slow dynamics
Paul Sotta, Stéphane Dupres, Pierre-Antoine Albouy, Didier Long

4:18 PM S25.00010: Polydomain-Monodomain Transition of Randomly Disordered Nematic Elastomers with Different Crosslinking Histories
Kenji Urayama, Etsuko Kohmon, Ryo Mashita, Toshikazu Takigawa

4:30 PM S25.00011: New Insights Regarding the Polydomain-to-Monodomain Transition in Smectic Elastomers
Ronald Hedden, Harshad Patil, Daniel Lentz

4:42 PM S25.00012: Nematic elastomers: From a microscopic model to macroscopic elasticity theory
Paul Goldbart, Xiangjun Xing, Stephan Pfahl, Swagatam Mukhopadhyay, Annette Zippelius

4:54 PM S25.00013: Elasticity of a Chiral elastomer
Aparna Baskaran, Xiangjun Xing

5:06 PM S25.00014: Determination of the refractive indices of liquid crystal elastomers
Israel Lazo, Peter Palffy-Muhoray

5:18 PM S25.00015: Magnetoactive Liquid Crystal Elastomers
Moritz Winkler, Andreas Kaiser, Simon Krause, Heino Finkelmann, Annette Schmidt

5:30 PM S25.00016: Calamitic liquid crystal elastomers swollen with bent-core liquid crystals
M. Chambers, J.T. Gleeson, S. Sprunt, A. Jakli

Session U3. Simple Views on Bulk Polymers: Symposium Honoring P G de Gennes (DPOLY)

Thursday morning, 8:00 AM, Morial Convention Center - RO1 - RO2

Chair: E. Raphael

8:00 AM U3.00001: Polymer adsorption
Invited Speaker: Jean-Francois Joanny

8:36 AM U3.00002: Polymer brushes
Invited Speaker: Ekaterina Zhulina

9:12 AM U3.00003: Adhesion
Invited Speaker: Hugh Brown

9:48 AM U3.00004: Slippage
Invited Speaker: Liliane Léger

10:24 AM U3.00005: Polymers in Confined Geometry
Invited Speaker: Francoise Brochard-Wyart

Session U18. Polymer Collapse and Protein Folding (GSNP/DPOLY)
Thursday morning, 8:00 AM, Morial Convention Center - 210
Chair: Tom Truskett, University of Texas at Austin

8:00 AM U18.00001: Folding peptides and proteins with all-atom physics: methods and applications
Invited Speaker: M. Scott Shell

8:36 AM U18.00002: Studies of Protein Folding in Non-Funeled Free Energy Landscapes
Corey O'Hern, Gregg Lois, Jerzy Blawzdziewicz

8:48 AM U18.00003: Exploring HP protein models using Wang-Landau sampling
Thomas Wuest, David P. Landau

9:00 AM U18.00004: Think locally, act globally: a new approach to protein structure prediction
Simon Gravel, Veit Elser

9:12 AM U18.00005: Resolution of the unfolded state
Gregory Beaucage

9:24 AM U18.00006: Crowding Effects on the Thermodynamics of Apoflavodoxin Folding
Dirar Al Homouz

9:36 AM U18.00007: Protein Folding Simulation of Mutant Go Models of the Wild-Type Trp-cage Protein
Apichart Linhananta, Junmin Liu

9:48 AM U18.00008: Statistical features of the rough energy landscape of proteins emerging from single molecule force-clamp spectroscopy
Jasna Brujic, Maxime Clusel, Eric Corwin

10:00 AM U18.00009: Asymmetrical collapse of charged heterogeneous macromolecules
Natalia Denesyuk, John Weeks

10:12 AM U18.00010: A Model for the Thermally Induced Polymer Coil-to-Globule Transition
David Simmons, Isaac Sanchez

10:24 AM U18.00011: Force Induced Globule-to-Coil Transition of Single Polymer Chains
Nikhil Gunari, Gilbert Walker

10:36 AM U18.00012: Wang-Landau sampling for homopolymer collapse
Daniel T. Seaton, Steven J. Mitchell, David P. Landau

10:24 AM U18.00013: Stimuli-Responsive, Concentrated Aqueous Solutions of DMAEMA-containing Amphiphilic Di- and Triblock Copolymers
Kyle Guice, Yueh-Lin Loo

Session U22: Nonequilibrium Fluctuations in Biomolecules (DPOLY)
Thursday morning, 8:00 AM, Morial Convention Center - 214
Chair: Christy Landes, University of Houston

8:00 AM U22.00001: Driving proteins and DNA with mechanical forces: Pushing, pulling, and squeezing molecules using computer simulations
Invited Speaker: Dmitrii Makarov

8:36 AM U22.00002: Fluorescent resonant energy transfer: Correlated fluctuations of donor and acceptor
Zhi-Gang Yu

8:48 AM U22.00003: The water effects on long-distance charge transfer in polypeptides
Nikolai Sergueev, Alexander Demkov

9:00 AM U22.00004: In_2O_3 nanowire based field effect transistor for biological sensors
Zhongming Zeng, Kai wang, Weilie Zhou

9:12 AM U22.00005: Messenger RNA sequence and the translation process --a particle transport perspective
Jiajia Dong, Beate Schmittmann, Royce K.P. Zia

9:24 AM U22.00006: Photocycle of a single photoactive yellow protein molecule studied by surface-enhanced Raman scattering
Kaan Kalkan, Kushagra Singhal, Wouter Hoff, Aihua Xie

9:36 AM U22.00007: Sticky-sphere model for phase separation of mixtures of the eye lens proteins gamma-B and alpha crystallin: non-monotonic dependence on mutual attraction
George Thurston, Maurino Bautista, David Ross, Vern Lindberg, Hossein Shahmohamad

9:48 AM U22.00008: Structural Isotopic Effects in the smallest chiral amino acid: Observation of a structural phase transition in fully deuterated alanine
Heloisa Bordallo, Joelma de Souza, Paulo de Tarso, Dimitri Argyriou

10:00 AM U22.00009: Exploring the Electrical Conductivity of Myoglobin
Debin Li, David Lederman, Peter M Gannett

10:12 AM U22.00010: Selective binding affinity of cationic antimicrobial peptides for lipid membranes: roles of peptide charge and hydrophobicity
Sattar Taheri-Araghi, Bae-Yeun Ha

10:24 AM U22.00011: Excitation dynamics in purple bacteria photosynthetic membranes under different light adaptation conditions
Felipe Caycedo, Ferney Rodriguez, Luis Quiroga

10:36 AM U22.00012: Microscopic Electrohydrodynamics of DNA electrophoresis
Aleksei Aksimentiev, Binquan Luan

10:48 AM U22.00013: Multivalent counterions inhibit DNA ejection from viral capsid
Toan Nguyen

Session U25. Theory and Simulation II (DPOLY)

Thursday morning, 8:00 AM, Morial Convention Center - 217

Chair: Marina Guenza, University of Oregon

8:00 AM U25.00001: Monte Carlo simulations of a coarse-grain model for block-copolymer melts: method and application
Francois Detcheverry, Darin Pike, Paul Nealey, Juan de Pablo, Marcus Mueller

8:12 AM U25.00002: Interaction between Polymer Grafted Particles: Self-Consistent-Field Study
Jaeup Kim, Mark Matsen

8:24 AM U25.00003: Discovering Ordered Phases of Block Copolymers: A New Fourier-space Approach
Feng Qiu, An-Chang Shi, Zuojun Guo, Hongdong Zhang, Yuliang Yang

8:36 AM U25.00004: Cylindrical phase of diblock copolymers in thin films
Marianne Breuer, Barbara Drossel

8:48 AM U25.00005: Cubic Micellar Crystals of $A_nB_mA_n$ Block Copolymers from MD
Chris Lorenz, Joshua Anderson, Alex Travesset

9:00 AM U25.00006: Brownian Dynamics Simulation of Kinetics of HEX Cylinders to FCC Spheres Transition in ABA Triblock Copolymer in Selective Solvent
Minghai Li, Rama Bansil

9:12 AM U25.00007: Thermal and Mechanical Properties of Polymer Nanofibers from Molecular Simulations
Sezen Curgul, Krystyn J. Van Vliet, Gregory C. Rutledge

9:24 AM U25.00008: A Simplified Theory for the Dynamics and Rheology of Stable Electrospinning Jets
Matthew Helgeson, Kristie Grammatikos, Joseph Deitzel, Norman Wagner

9:36 AM U25.00009: Predicting glass transition temperatures from simulation studies
Solomon Duki, Philip Taylor

9:48 AM U25.00010: Band Structure Controlled by Chiral Imprinting
Adrian Reyes Cervantes, P. Castro-Garay, Ruben Ramos-Garcia

10:00 AM U25.00011: Coarse-graining and Multiscale Modeling of Polymeric Materials
Marina Guenza, Ivan Lyubimov

10:12 AM U25.00012: Static properties of equilibrium polymers confined in ultrathin films
Anna Cavallo, Joachim P. Wittmer, Albert Johner, Joerg Baschnagel

10:24 AM U25.00013: Promotion of the Polyfluorene Beta-Phase: A First Principles Study
Elizabeth M. Lupton, Feng Liu, David G. Prendergast, Jeffrey B. Neaton

10:36 AM U25.00014: Atomic structures and electronic properties of poly(3-hexyl thiophene) on ZnO(110-1) surface.
Sefa Dag, Lin-Wang Wang

10:48 AM U25.00015: Ab initio study of a promizing class of copolymers for application to high-efficiency photovoltaics
Jean Frédéric Laprade, Michel Côté

Session V18. Properties of Block Copolymers (DPOLY)

Thursday mid-day, 11:15 AM, Morial Convention Center - 210

Chair: Thomas Epps, University of Delaware

11:15 AM V18.00001: Thermodynamics, Structure and Transport in Model Fuel Cell Membranes
Invited Speaker: Nitash Balsara

11:51 AM V18.00002: Water Uptake and Proton Conductivity of Asymmetric Poly(styrenesulfonate-block-methylbutylene) Copolymers I
Xin Wang, Moon Jeong Park, Nitash Balsara

12:03 PM V18.00003: Temperature dependent charge transport properties of poly(3-hexylthiophene) block poly(styrene) copolymer field-effect transistor
Firoze Haque, Paul Stokes, Lei Zhai, Saiful I. Khondaker

12:15 PM V18.00004: Morphology and Dynamic Mechanical Properties of Styrene Containing Tri-Block Copolymers for Electromagnetic Wave Interaction Applications
Sateesh Peddini, Kenneth Mauritz, David Nikles, James Weston

12:27 PM V18.00005: The Lyotropic Phase Behavior of Diblock Copolymers Swollen with Ionic Liquids
Peter Simone, Timothy Lodge

12:39 PM V18.00006: Structure and Thermodynamics of Block Copolymers Doped with Ionic Liquids
J.M. Virgili, N.P. Balsara, R.A. Segalman

12:51 PM V18.00007: Controlling the morphology of liquid crystalline block copolymers: interfacial and liquid crystal content effects
Eric Verploegen, Tejia Zhang, Paula Hammond

1:03 PM V18.00008: Self-assembly of side chain liquid crystalline block copolymers
Manas Shah, Victor Pryamitsyn, Venkat Ganesan

1:15 PM V18.00009: Structural Formation Process of Microphase Separated Films with Liquid Crystalline Phase Transition
Motonori Komura, Tomokazu Iyoda

1:27 PM V18.00010: Rod-to-Coil Transition in Polypeptide/π-Conjugated Polymer / Polypeptide Triblock Copolymers
Raffaele Mezzenga, Laurent Rubatat, Xiangxing Kong, Samson Jenekhe, Janne Ruokolainen, Mohamad Hojeij

1:39 PM V18.00011: The effect of chain stiffness on the morphology of diblock copolymers
G. Leuty, J. Bedard, Mesfin Tsige

1:51 PM V18.00012: Self-assembled OLEDs from rod-coil block copolymers
Y. Tao, R.A. Segalman

2:03 PM V18.00013: Self-assembly of linear rod-coil block copolymers
Li-jia An, Ji-zhong Chen, Zhao-yan Sun, Cheng-xiang Zhang

Session V21. Charged and Ion-Containing Polymers I (DPOLY)

Thursday mid-day, 11:15 AM, Morial Convention Center - 213

Chair: Jodie Lutkenhaus, Yale University

11:15 AM V21.00001: Nano-Patterns in Gels of Charged Chains with Self-Attracting Interactions
Monica Olvera de la Cruz, Juan J. de Pablo

11:27 AM V21.00002: Interactions in Ion-containing Polymers Probed by ab initio Methods
Wenjuan Liu, Ralph Colby, Michael Janik

11:39 AM V21.00003: Conformation transition and counterion distribution of single polyelectrolyte chains in aqueous solution
Jiang Zhao, Shengqin Wang

11:51 AM V21.00004: Unifying Self-Consistent Field Theory for Weak Polyelectrolytes
Kevin Witte, You-Yeon Won

12:03 PM V21.00005: Composition and Structure Changes of the Ionic Aggregates with Acid Content and Neutralization Level in Poly (styrene-*co*-methacrylic acid) Ionomers
Wenqin Wang, Tsung-Ta Chan, Andrew Perkowski, Shulamith Schlick, Karen I. Winey

12:15 PM V21.00006: Multiple Nanoscale Morphologies of Poly(Ethylene- *co* -Acrylic Acid) Ionomers
Christopher D. Chan, Travis W. Baughman, Kathleen L. Opper, Kenneth B. Wagener, Karen I. Winey

12:27 PM V21.00007: Conduction, Ion Association and Dynamics in Polyethylene Oxide-based Polyester Ionomers
Daniel Fragiadakis, Shichen Dou, Ralph Colby, James Runt

12:39 PM V21.00008: Correlation between structure and conductivity in stretched Nafion
Elshad Allahyarov, Philip Taylor

12:51 PM V21.00009: Morphology study in block copolymer electrolytes
Scott Mullin, Nisita Wanakule, Nitash Balsara

1:03 PM V21.00010: Increased Water Retention in Polymer Electrolyte Membranes Assisted by Capillary Condensation
Moon Jeong Park, Nitash P. Balsara

1:15 PM V21.00011: Engineering polyelectrolyte multilayer structure at the nanometer length scale by tuning polymer solution conformation
Soheil Boddohi, Christopher Killingsworth, Matt Kipper

1:27 PM V21.00012: Layer Thickness and Charge Compensation of Polyelectrolyte Multilayers
Qiang WANG

1:39 PM V21.00013: pH-Induced Release of Polyanions from Multilayer Films
Svetlana Sukhishvili, Eugenia Kharlampieva, John Ankner, Michael Rubinstein

1:51 PM V21.00014: Properties of Polyelectrolytes in an Ionic Liquid
John Harner, David Hoagland

Session V22. Organic Electronics: Molecular Junctions (DPOLY/DMP)

Thursday mid-day, 11:15 AM, Morial Convention Center - 214

Chair: James Kushmerick, National Institute of Standards and Technology

11:15 AM V22.00001: Molecular Thermoelectrics
Invited Speaker: Rachel Segalman

11:51 AM V22.00002: Chemical Structure and Molecular Switches
Amy Blum, David Long, Martin Moore, James Kushmerick, James Tour, Banahalli Ratna

12:03 PM V22.00003: Inelastic electron spectroscopy of single alkanedithiol molecules
Nicolas Agrait, Carlos R. Arroyo

12:15 PM V22.00004: A Molecular Switch Made of Charge Transfer Complexes on Au (111)
U.G.E. Perera, F. Jäckel, V. Iancu, K.-F. Braun, N. Koch, J.P. Rabe, S.-W. Hla

12:27 PM V22.00005: Correlating Structure and Conductivity of Pentathiopene Monolayers
Bas Hendriksen, Yabing Qi, Florent Martin, Frank Ogletree, Miquel Salmeron

12:39 PM V22.00006: Direct measurement of photomechanical switching cross-sections of single-molecules on a surface
Jongweon Cho, Matthew J. Comstock, Niv Levy, Luis Berbil-Bautista, Frank Lauterwasser, Jean M. J. Frechet, Michael F. Crommie

12:51 PM V22.00007: Many-body treatment of quantum transport through single molecules
Justin Bergfield, Charles Stafford

1:03 PM V22.00008: Single molecule characterization with well-defined contacts
Alex Neuhausen, Frank Jaeckel, Jeremy Hiatt, Joseph Sulpizio, David Goldhaber-Gordon, Chris Chidsey, W. E. Moerner, Zhenan Bao

1:15 PM V22.00009: Transport Fluctuations in Metal-Molecule Junctions
Jonathan Malen, Kanhayalal Baheti, Peter Doak, Rachel Segalman, Arun Majumdar

1:27 PM V22.00010: Electronic transport through single-molecule- and monolayer-based molecular junctions
Luis Agapito, Hai-Ping Cheng

1:39 PM V22.00011: Enhancement of STM-Induced Molecular Fluorescence of a Porphyrin Film by Cavity Effect
Hongwen Liu, Tiezhu Han, Yutaka Ie, Yoshio Aso, Hiroshi Iwasaki, Ryusuke Nishitani

1:51 PM V22.00012: Substrate-Dependent Electronic Behavior of Polydiacetylene Nanowires
Rajiv Giridharagopal, K. F. Kelly

2:03 PM V22.00013: Organic memory devices using the negative differential resistance effect
R. Osterbacka, J.K. Baral, H.S. Majumdar, F. Jansson, A. Laiho, R.H.A. Ras, J. Ruokolainen, O. Ikkala, H. Jiang, E. Kauppinen

Session V25. Focus Session: Interfaces and Adhesion I (DPOLY)

Thursday mid-day, 11:15 AM, Morial Convention Center - 217

Chair: Karl Freed, University of Chicago

11:15 AM V25.00001: A model for glass transitions in polymer thin films
Invited Speaker: Jane Lipson

11:51 AM V25.00002: Creating defect free structures by directed photochemical reaction in a ternary phase separating system
Pratyush Dayal, Olga Kuksenok, Anna Balazs

12:03 PM V25.00003: Entropic Effects in the Phase Behavior of Athermal Nanoparticle / Homopolymer Thin Film Mixtures
Luciana Meli, Abraham Arceo, Peter Green

12:15 PM V25.00004: Mechanism of Interfacial Instability in Thin Polymer Film in Controlled Solvent Atmosphere
Parvaneh Mokarian-Tabari, Jonathan. R. Howse, Sasha Y. Heriot, Mark Geoghegan, Richard A.L. Jones

12:27 PM V25.00005: Spanning Trees and the Dynamics of Compact Polymers
Armin Rahmani, Andrea Velenich, Claudio Chamon

12:39 PM V25.00006: Uper Limit of Superheating in Polymer Crystals Revealed from Linear Heating Covering Seven Orders of Magnitude in Heating Rate
Christoph Schick, Alexander Minakov, Andreas Wurm

12:51 PM V25.00007: Molecular simulation of crystal nucleation of an n-alkane
Peng Yi, Gregory Rutledge

1:03 PM V25.00008: Entropically Driven Layering Near a Substrate: A Fluids DFT Study
Erin McGarrity, Amalie Frischknecht, Michael Mackay

1:15 PM V25.00009: Properties of Ferroelectric Polyvinylidene fluoride-co-trifluoroethylene Nanorods
Jodie Lutkenhaus, Thomas Russell

1:27 PM V25.00010: Thermodynamics and Kinetics of Crystallization of Flexible Molecules
Bernhard Wunderlich

1:39 PM V25.00011: UV-convergent One-loop Theory of Binary Homopolymer Blends
Jian Qin, Frank Bates, David Morse

1:51 PM V25.00012: Effect of intensity gradient profiles on crystal growth subject to holographic free radical photopolymerization
Thein Kyu, Pankaj Rathi, Soojeoung Park

2:03 PM V25.00013: Statistical Mechanical Theory of Phase Separation and Structure in Dense Polymer-Particle Mixtures
Lisa Hall, Ken Schweizer

Session W4. Dynamics of Polymers (DPOLY)

Thursday afternoon, 2:30 PM, Morial Convention Center - 206

Chair: Ralph Colby, Pennsylvania State University

2:30 PM W4.00001: Dielectric and Viscoelastic Investigation of Entanglement Relaxation
Invited Speaker: Hiroshi Watanabe

3:06 PM W4.00002: How does cohesive breakdown occur in entangled polymeric liquids?
Invited Speaker: Shi-Qing Wang

3:42 PM W4.00003: Dynamics of Polymer-Nanoparticle Mixtures
Invited Speaker: Venkat Ganesan

4:18 PM W4.00004: Shear Alignment and Realignment of Block Copolymer Microdomains in Thin Films
Invited Speaker: Richard Register

4:54 PM W4.00005: Nanoparticle Ionic Fluids
Invited Speaker: Lynden Archer

Session W18. Dynamics of Nucleic Acid-Protein Interactions (DPOLY/DBP)

Thursday afternoon, 2:30 PM, Morial Convention Center - 210

Chair: Ferenc Horkay, National Institutes of Health

2:30 PM W18.00001: Single-Molecule Dynamics of a DNA Aptamer Targeting VEGF Protein
Invited Speaker: Christy Landes

3:06 PM W18.00002: Thermal Disorder Effect on the DNA Electronic Structure
Alexander Balaeff, Elizabeth Hatcher, Shahar Keinan, Ravindra Venkatramani, David Beratan

3:18 PM W18.00003: Thermodynamic Restriction on Evolutionary Optimization of Transcription Factor Proteins
Alexander Grosberg, Longhua Hu, Robijn Bruinsma

3:30 PM W18.00004: Electron affinities of nucleobases, glycine and their complexes
Ed S. Chen, Edward C. Chen

3:42 PM W18.00005: Chemical physics of DNA packaging in a nucleosome core particle
Andrew Spakowitz, Bariz Sudhanshu

3:54 PM W18.00006: Atto-M level DNA detection without amplification.
Hong-Wen Huang, Vishva Ray, Seong Jin Koh

4:06 PM W18.00007: DNA analysis in polymer nanofluidic devices
Lasse Thamdrup, Anna Klukowska, Anders Kristensen

4:18 PM W18.00008: Separation of long DNA molecules through cleavage of hydrogen bonds under a stretching force
Lizeng Gao, Jiamin Wu, Jianzhong Wu, Di Gao

4:30 PM W18.00009: Self-organized DNA/F-actin gels: entangled networks of nematic domains with tunable density
John Butler, Olena Zribi, Ivan Smalyukh, Ghee Hwee Lai, Ramin Golestanian, Thomas Angelini, Gerard Wong

4:42 PM W18.00010: : Histone code or not? Combinatorial pattern analyses of histone modifications
Chongzhi Zang, Weiqun Peng, Zhibin Wang, Dustin E. Schones, Artem Barski, Suresh Cuddapah, Kairong Cui, Tae-Young Roh, Keji Zhao, Jeffrey Rosenfeld, Michael Zhang

4:54 PM W18.00011: Changes of histone modification landscape in cell differentiation
Weiqun Peng, Chongzhi Zang, Kairong Cui, Tae-Young Roh, Dustin Schones, Keji Zhao

5:06 PM W18.00012: Biophysical modeling of transcription initiation by bacterial RNA polymerase
Marko Djordjevic

5:18 PM W18.00013: Nucleosome Positioning and Epigenetics
David Schwab, Robijn Bruinsma

Session W22. Focus Session: Organic Photovoltaics and LEDs (DPOLY/DMP)

Thursday afternoon, 2:30 PM, Morial Convention Center - 214

Chair: Chang Ryu, Rensselaer Polytechnic Institute

2:30 PM W22.00001: Probing Photoconductivity in Phthalocyanines by Terahertz Spectroscopy
Chen Xia, Brian Kubera, Volodimyr Duzhko, Hefei Shi, Kenneth Singer, Jie Shan

2:42 PM W22.00002: Solution Processed Carbon Nanotube /PMMA Nano Composite Infrared Photodetectors
Yi Liu, Liwei Liu, Paul Stokes, Qun Huo, Saiful I. Khondaker

2:54 PM W22.00003: Triplet excitons in a ladder-type conjugated polymer: application in organic optoelectronics
K. Yang, M. Arif, S. Guha

3:06 PM W22.00004: Photovoltaic Effect in a Composite involving the Nonconjugated Conductive Polymer, Poly(β-pinene) and C_{60}
Aditya Kumar Palthi, Ananthakrishnan Narayanan, Mrinal Thakur

3:18 PM W22.00005: Femtosecond and CW transient studies of photoinduced charge transfer in donor/acceptor blends for organic solar cells
Josh Holt, Sanjeev Singh, Tomer Drori, Alexandre Ndobe, Z. Valy Vardeny

3:30 PM W22.00006: Quantum efficiency in organic phototransistors
William Hammond, Jiangeng Xue

3:42 PM W22.00007: Ultrafast dynamics in blends of π-conjugated polymers/fullerenes
Sanjeev Singh, Minghong Tong, ChuanXiang Sheng, Zeev Vardeny

3:54 PM W22.00008: Spin Response in Organic Light Emitting Diodes
Fujian Wang, Cungeng Yang, Tomer Drori, Z. Valy Vardeny

4:06 PM W22.00009: Organic Semiconductors: devices, growth and ordered assembly
Invited Speaker: Fabio Cicoira

4:42 PM W22.00010: Spin injection effects on exciton distributions in conjugated organic semiconductors
Mohammad Yunus, P. Paul Ruden, Darryl Smith

4:54 PM W22.00011: Electrically detected coherent spin manipulation of polaron pairs in an MEH-PPV OLED
Heather Seipel, Dane McCamey, Seoyoung Paik, Manfred Walter, Nick Borys, John Lupton, Christoph Boehme

5:06 PM W22.00012: Tunable and White Light Emitting Diodes of Single Component Fluorinated Benzoxazole Graft Copolymers
Shih Jung Bai, Chien-Chang Wu

Session W25. Biopolymers: Molecules, Solutions and Networks II (DPOLY/DBP)

Thursday afternoon, 2:30 PM, Morial Convention Center - 217

Chair: Ting Xu, University of California, Berkeley

2:30 PM W25.00001: Design of Responsive Peptide-based Hydrogels as Therapeutics
Invited Speaker: Joel Schneider

3:06 PM W25.00002: Synchrotron x-ray diffraction study on the size distribution and mechanical stability of microtubules by microtubule-associated-protein (MAP) tau
M.C. Choi, U. Raviv, H. Miller, M. Gaylord, E. Kiris, D. Ventimiglia, L. Wilson, M.W. Kim, S. Feinstein, C.R. Safinya

3:18 PM W25.00003: Effect of Mg Ions on Microrheological Properties of F-actin Solution across Isotropic-Nematic Phase Transition
Jun He, Michael Mak, Yifeng Liu, Jay Tang

3:30 PM W25.00004: The stability of cellulose
Tongye Shen, S. Gnanakaran

3:42 PM W25.00005: Morphology, segregation and remodeling of type I collagen hetero- and homotrimer fibrils
Sejin Han, Wolfgang Losert, Sergey Leikin

3:54 PM W25.00006: Transient Binding and Viscous Dissipation in Semi-flexible Polymer Networks
Oliver Lieleg, Mireille Claessens, Andreas Bausch

4:06 PM W25.00007: Microtubule Self- Assembly
YongSeok Jho, M.C. Choi, O. Farago, MahnWon Kim, P.A. Pincus

4:18 PM W25.00008: Direct Observation of Early-Time Hydrogelation in β-Hairpin Peptide Self-Assembly
Tuna Yucel, Joel Schneider, Darrin Pochan

4:30 PM W25.00009: Loop Closure Dynamics of Flexible and Semi-flexible Polymer
Jen-Fang Chang, Yeng-Long Chen

4:42 PM W25.00010: Equilibrium Size Distribution of Twisted Biopolymer Bundles
Gregory Grason, Robijn Bruinsma

4:54 PM W25.00011: The Dependence of Actin Filament Assembly on Linking Agent Concentration
Lam Nguyen, Qi Wang, Wei Yang, Linda Hirst

5:06 PM W25.00012: Dimensional percolation of sheared nano-rod dispersions and consequences for highly anisotropic property tensors
M. Gregory Forest, Xiaoyu Zheng, Ruhai Zhou, Richard Vaia

5:18 PM W25.00013: Polymer Crystallization-Driven Gelation of an Ionic Liquid
David Hoagland, John Harner

5:30 PM W25.00014: Avalanches, hardening and softening in dense cross-linked actin networks
Jan Astrom, Sunil Kumar, Ilpo Vattulainen, Mikko Karttunen

Session X18. Focus Session: Dynamics and Structures in Polymer Melts, Gels and Glasses (DPOLY)

Friday morning, 8:00 AM, Morial Convention Center - 210

Chair: Lynden Archer, Cornell University

8:00 AM X18.00001: Elastomeric Photopolymers: Shaping Polymer Gels with Light
Invited Speaker: Julia Kornfield

8:36 AM X18.00002: Dynamics of Swollen Gel Layers Anchored to Solid Surfaces
George Fytas, Maria Gianneli, Robert Roskamp, Ulrich Jonas, Kaloian Koynov, Wolfgang Knoll, Benoit Loppinet

8:48 AM X18.00003: Theory of the effect of deformation on the relaxation and mechanical properties of polymer glasse
Kang Chen, Kenneth Schweizer

9:00 AM X18.00004: Why Temperature Variation of the Chain Relaxation is Universal for Many Polymers?
Alexei Sokolov

9:12 AM X18.00005: Molecular dynamics simulations of layers of linear and branched alkanes under shear
P. Soza, F.Y. Hansen, H. Taub, U.G. Volkmann

9:24 AM X18.00006: On the influence of excluded volume in polymer melts
Hendrik Meyer, J.P. Wittmer, J. Farago, A. Johner, J. Baschnagel

9:36 AM X18.00007: Observation of Anomalous Viscosity in Entangled Polymer Films near the Glass Transition
Zhang Jiang, M. K. Mukhopadhyay, Sunil K. Sinha, Suresh Narayanan, Laurence B. Lurio, Sanghoon Song, Hyunjung Kim

9:48 AM X18.00008: Kohlrausch Parameter Determination for Simple Chain Models
John Mccoy, Taylor Dotson, Julieanne Heffernan, Keenan Dotson, Joanne Budzien, Douglas Adolf

10:00 AM X18.00009: Understanding Fragility in Polymers
Kumar Kunal, Christopher Robertson, Alexei Sokolov

10:12 AM X18.00010: Dye Reorientation as a Probe of Stress-induced Mobility in PMMA Glasses
Hau-Nan Lee, Keewook Paeng, Stephen Swallen, Mark Ediger

10:24 AM X18.00011: On the effect of Molecular weight and Frequency dependence of Tg on the interpretation of Dynamic viscosity data
J.P. Ibar

10:36 AM X18.00012: Influence of pressure (density) on fast dynamics in polymers
Liang Hong, Burak Begen, Alexander Kisliuk, Alexei Sokolov

10:48 AM X18.00013: Visualization and Analysis of the Dynamics of Methanol Transport in Poly(Methyl Methacrylate)
Adam Ekenseair, Richard Ketcham, Nicholas Peppas

Session X22. Organic Magnetics and Bio-Electronics (DPOLY/DMP)

Friday morning, 8:00 AM, Morial Convention Center - 214

Chair: Fabio Cicoira, Cornell University

8:00 AM X22.00001: *Ab initio* simulations of the transport properties of Mn_{12} based spin-devices
Chaitanya Das Pemmaraju, Ivan Rungger, Stefano Sanvito

8:12 AM X22.00002: Modeling the organic magnet $Fe[TCNE]_2$
J. Moreno, M.A. Majidi, K.I. Pokhodnya

8:24 AM X22.00003: Reversible Photoinduced Magnetism in V-Cr Prussian blue analogues
K. Deniz Duman, Jung-Woo Yoo, N.P. Raju, Amber C. McConnell, William W. Shum, Kendric J. Nelson, Joel S. Miller, A.J. Epstein

8:36 AM X22.00004: Magnetic properties of organic-based $Ni[TCNE](MeCN)_2][BF_4]$ magnet
Konstantin Pokhodnya, Victor Dokukin, Joel S. Miller

8:48 AM X22.00005: Magnetoresistance in bulk heterojunction solar cells
Ronald Oesterbacka, Sayani Majumdar, Himadri Majumdar, Harri Aarnio, Reino Laiho

9:00 AM X22.00006: Extending transfer-matrix studies of charge transport in dsDNA: diagonal ladder model
Stephen Wells, Rudoph Roemer

9:12 AM X22.00007: Sequence Dependent Charge Transport on Double Stranded DNA
Efta Yudiarsah, Sergio E. Ulloa

9:24 AM X22.00008: Theory of electron conductance across a DNA basepair
Myeong Lee, Otto Sankey

9:36 AM X22.00009: Charge transport in guanine crystals
Frank Ortmann, Karsten Hannewald, Friedhelm Bechstedt

Session X25. Block Copolymer Phase Behavior (DPOLY)

Friday morning, 8:00 AM, Morial Convention Center - 217

Chair: Nitash Balsara, University of California, Berkeley

8:00 AM X25.00001: Molecular Simulation of Bicontinuous Phases in Diblock Copolymer Melts
Francisco Martinez-Veracoechea, Fernando Escobedo

8:12 AM X25.00002: Orthorhombic *Fddd* Network in Diblock Copolymer Melts
Mikihito Takenaka, Myung Im Kim, Satoshi Akasaka, Tsutomu Wakada, Shotaro Nishitsuji, Hirokazu Hasegawa

8:24 AM X25.00003: Fluctuation effects in block copolymers
Erin M. Lennon, Richard Elliott, Glenn H. Fredrickson

8:36 AM X25.00004: Scaling of Diblock Copolymer Lamella near the Order Disorder Transition
Andrew B. Croll, An-Chang Shi, Kari Dalnoki-Veress

8:48 AM X25.00005: Self-assembly of Asymmetric Architectures: Study of the Phase Behavior of an ABAC Block Copolymer
Michael Bluemle, Guillaume Fleury, Timothy Lodge, Frank Bates

9:00 AM X25.00006: Soft and Strong Thermoplastic Elastomers Through Molecular Design
Folusho Oyerokun, Glenn Fredrickson, Dale Handlin

9:12 AM X25.00007: Influence of Soft Segment Composition on Phase Separated Microstructure of PDMS-Based Multiblock Polyurethane Copolymers
Taeyi Choi, Jadwiga Weksler, Ajay Padsalgikar, James Runt

9:24 AM X25.00008: Nanoparticle-Regulated Phase Behavior and Morphological Development in an Ordered Block Copolymer
Michelle Bowman, Steven Smith, Jon Samseth, Michael Bockstaller, Russell Thompson, Kim Rasmussen, Richard Spontak

9:36 AM X25.00009: Effects of Lithium Salts on the Domain Size of Polyethylene Oxide Containing Block Copolymers
Nisita Wanakule, Scott Mullin, Nitash Balsara

9:48 AM X25.00010: Weak Segregation Theory of Microphase Separation in Block Copolymers: New Results and Perspectives
Igor Erukhimovich

10:00 AM X25.00011: Tunable Microphase Segregation of Gradient Copolymers: Ordering in Materials with Sinusoidal Composition Profiles
Michelle Mok, Wesley Burghardt, John Torkelson

10:12 AM X25.00012: Polydispersity effects in block copolymer melts
Mark Matsen

10:24 AM X25.00013: Polydispersity-Driven Morphological Transitions in ABC Triblock Terpolymers
Adam J.Meuler, Christopher J.Ellison, Christopher M.Evans, Marc A.Hillmyer, Frank S.Bates

10:36 AM X25.00014: Scaling of the ODT of Block Copolymers in Compressed CO_2
Curran Chandler, Timothy Francis, James Watkins

10:48 AM X25.00015: Pressure Effect on Phase Behavior of Weakly Interacting Block Copolymers by using FTIR spectroscopy
Hye Jeong Kim, Seung Bin Kim, Jin Kon Kim, Young Mee Jung

Session Y5. Charged and Ion-Containing Polymers II (DPOLY)

Friday mid-day, 11:15 AM, Morial Convention Center - RO3

Chair: Ron Hedden, Pennsylvania State University

11:15 AM Y5.00001: Manipulating Assembly, Disassembly and Exchange in Responsive Polyelectrolyte Multilayers
Invited Speaker: Paula Hammond

11:51 AM Y5.00002: Using Folding Pathways to Predict Protein Structure
Invited Speaker: Karl Freed

12:27 PM Y5.00003: Temporal and Spatial Distributions of Water in Ion-Containing Perfluorosulfonic Polymers
Invited Speaker: Evangelos Manias

1:03 PM Y5.00004: Microrheological studies of solvent-response dynamics of polyelectrolytes
Invited Speaker: Victor Breedveld

1:39 PM Y5.00005: Ion- and pH-dependent volume transitions in biopolymer gels
Invited Speaker: Ference Horkay

Session Y18. Dynamics of Thin Polymer Films (DPOLY)

Friday mid-day, 11:15 AM, Morial Convention Center - 210

Chair: Peter Green, University of Michigan

11:15 AM Y18.00001: The effect of confinement on the structure of polystyrene melt films
Mrinmay K Mukhopadhyay, Sunil K Sinha, Laurence B Lurio, Curt DeCaro, Zhang Jiang, Michael Sprung

11:27 AM Y18.00002: Tuning the Glass Transition Temperature over 100 K using Polymer-Polymer Interface
Connie B. Roth, Rodney D. Priestley, Soyoung Kim, John M. Torkelson

11:39 AM Y18.00003: The viscoelastic properties of ultrathin polymer films as measured with a novel nanobubble inflation technique
Paul OConnell, Gregory McKenna

11:51 AM Y18.00004: Fabricating Nanoscale Gratings with Gradient Pattern Height by Annealing Imprinted Polymer Patterns
Yifu Ding, Hyunwook Ro, Jirun Sun, Jing Zhou, Sheng Lin-Gibson, Christopher Soles

12:03 PM Y18.00005: Substrate and chain size dependence of near surface dynamics of glassy polymers
Dongping Qi, Zahra Fakhraai, James Forrest

12:15 PM Y18.00006: Molecular Simulation of Confined Polymer Films : Structure, Dynamics and the Glass Transition
Vikram Kuppa, Gregory Rutledge

12:27 PM Y18.00007: Probing Relaxation in Glassy Freestanding Diblock Copolymer Films
Adam N. Raegen, Andrew B. Croll, Kari Dalnoki-Veress

12:39 PM Y18.00008: Ellipsometric Investigation of the Surface Dynamics of a Polymer Film near the Glass Transition Temperature
Ashis Mukhopadhyay, Christopher Grabowski

12:51 PM Y18.00009: Confinement effects on the dynamics of polymers
Hugues Bodiguel, Guang Yin Jing, Christian Fretigny

1:03 PM Y18.00010: Suppression of the Tg-Confinement Effect in Thin Polymer Films by the Presence of an Anti-Plasticizer
Soyoung Kim, Manish Mundra, Connie Roth, John Torkelson

1:15 PM Y18.00011: New Measurements of the Effects of Confinement on the Glass Transition Temperature of Freely Standing Polymer Films
John Torkelson, Soyoung Kim, Connie Roth

1:27 PM Y18.00012: Glass transition in ultra thin polymeric films measured by differential AC-Chip calorimetry
H. Huth, A. Minakov, C. Schick

1:39 PM Y18.00013: Relaxation Kinetics of Nanostructures on Polymer Surface: Effect of Orientation, Spatial Confinement, and Chain Mobility
H.G. Peng, Y.P. Kong, A.F. Yee

1:51 PM Y18.00014: Direct Measurements of Heterogeneous Viscosity Distributions in Ultrathin Polymer Films
Tadanori Koga, C. Li, J. Koo, J. Jiang, M. Rafailovich, S. Narayanan, D. Lee, L. Lurio, S. Sinha

Session Y22. Interfaces and Adhesion II (DPOLY)

Friday mid-day, 11:15 AM, Morial Convention Center - 214

Chair: Alexei Sokolov, University of Akron

11:15 AM Y22.00001: Polymer monolayer -- substrate adhesion strength
Moshe Gottlieb, Haim Dvir

11:27 AM Y22.00002: Role of Interfacially Active Diblock Copolymers toward Controlling the Glass Transition of Thin Polymer Films
Hyunjoon Oh, Peter Green

11:39 AM Y22.00003: Weak interfaces for UV cure nanoimprint lithography
Frances Houle, Ann Fornof, Eva Simonyi, Dolores Miller, Hoa Truong

11:51 AM Y22.00004: Spincoating of ultrathin chitosan films
Chris Murray, John Dutcher

12:03 PM Y22.00005: Protein Diffusion at the Interface of Responsive Polymer Thin Films
Shengqin Wang, Yingxi Elaine Zhu

12:15 PM Y22.00006: Structure and dynamics of molecules undergoing lubricated sliding
Kumar Nanjundiah, Anish Kurian, Ping Hsu, Ali Dhinojwala

12:27 PM Y22.00007: Measurement advances to follow polymer thin film reaction-diffusion processes
Vivek Prabhu, Shuhui Kang, Kristopher Lavery, Kwang-Woo Choi, Wen-li Wu, Eric K. Lin

12:39 PM Y22.00008: Methanol Diffusion into Thin Ionomer Films: An *in situ* Study Using Neutron Reflectometry
Lilin He

12:51 PM Y22.00009: Pattern Formation in Dewetting Nanoparticle/Polymer Bilayers
Alan Esker, Rituparna Paul, Ufuk Karabiyik, Michael Swift, John Hottle

1:03 PM Y22.00010: Case II diffusion and solvent-polymer films drying: a meso-scale model
Didier Long, Mireille Souche

1:15 PM Y22.00011: Nonsolvent-induced dewetting of thin polymer films
Tong-Fei Shi, Lin Xu, Li-Jia An

1:27 PM Y22.00012: Mechanical Properties of Thin Polymer Films Studied by Atomic Force Microscopy
Blandine Jerome, Christian Vialleton, Laurent Chazeau, Elisabeth Charlaix

1:39 PM Y22.00013: Equilibrium Pathyway of Spin-coated Polymer Films
Ophelia Tsui, Yong Jian Wang, Fuk Kay Lee, C.-H. Lam, Zhaohui Yang

1:51 PM Y22.00014: Molecular Dynamics Simulations of Adhesion at Epoxy Interfaces
Sarah-Jane Frankland, Thomas Clancy, Thomas Gates

2:03 PM Y22.00015: Interfacial Properties of Polydimethylsiloxane-Water Systems
Ahmed E. Ismail, Gary S. Grest, Mark J. Stevens, Mesfin Tsige, David R. Heine

Session Y25. Theory and Simulations III (DPOLY)

Friday mid-day, 11:15 AM, Morial Convention Center - 217

Chair: Hank Ashbaugh, Tulane University

11:15 AM Y25.00001: Early Stage Crystallization in Isotactic Polypropylene: Influence of Nanofillers
Rahmi Ozisik, Xiaofeng Chen, Sanat Kumar, Phillip Choi

11:27 AM Y25.00002: Early Stage Crystallization in Isotactic Polypropylene: Influence of Substrate-Polymer Interaction and Confinement
Xiaofeng Chen, Rahmi Ozisik, Sanat Kumar, Phillip Choi

11:39 AM Y25.00003: Growth, non-coalescence and assembly of water drops that form ordered arrays over evaporating polymer solutions
Vivek Sharma, Mohan Srinivasarao

11:51 AM Y25.00004: Theory of competitive counterion adsorption on flexible polyelectrolytes: Divalent salts
Arindam Kundagrami, M. Muthukumar

12:03 PM Y25.00005: Confinement free energy of flexible polyelectrolytes in spherical cavities
Rajeev Kumar, M Muthukumar

12:15 PM Y25.00006: An Explanation for the Very Low Friction of Polyelectrolyte Brushes
Jeffrey Sokoloff

12:27 PM Y25.00007: Simulation study of proton transport in ionomer
Philip Taylor, Elshad Allahyarov

12:39 PM Y25.00008: Polymer capture by electro-osmotic flow of oppositely charged nanopores
Chiu Tai Andrew Wong, M. Muthukumar

12:51 PM Y25.00009: Depletion interaction and effect of polydispersity in non-adsorbing polymer solutions
Dadong Yan, Shuang Yang, C.C. Han, An-Chang Shi

1:03 PM Y25.00010: Unimolecular spreading of a molecular brush on adsorbing surface
Ekaterina Zhulina, Sergey Panyukov, Michael Rubinstein

1:15 PM Y25.00011: Effect of chain stiffness on structural and thermodynamic properties of polymer melts
Jutta Luettmer-Strathmann

1:27 PM Y25.00012: Ameba-like diffusion in two-dimensional polymer melts: how critical exponents determine the structural relaxation
Torsten Kreer, Hendrik Meyer, Joerg Baschnagel

1:39 PM Y25.00013: Connections between static and dynamic properties of athermal polymer melts: a Monte Carlo simulation study
Nenad Stojilovic, Jutta Luettmer-Strathmann

1:51 PM Y25.00014: Thermodynamic modeling of melt deformation
J.P Ibar

2:03 PM Y25.00015: Can a material clock based model describe highly non-linear creep?
Grigori Medvedev, James Caruthers

Special DPOLY Events

Sunday, March 9th 2008, 5:30pm – 9:00pm

DPOLY Reception
Louis XVI Restaurant
The Saint Louis Hotel
730 Rue Bienville
New Orleans, LA 70130
504-200-3110

This DPOLY reception recognizes Ken Schweizer (recipient of the 2008 Polymer Physics Prize) and Kari Dalnoki-Veress (recipient of the 2008 Dillon Medal).

Tuesday, March 11th 2008
DPOLY Business Meeting
Room: 210, Morial Convention Center, 5:45 – 6:45 PM

DPOLY Award Lectures

Polymer Physics Prize:

Ken Schweizer
Segmental Dynamics in Polymers: From Cold Melts to Aging and Stressed Glasses
Tuesday, March 11th 2008, 8:00 AM
RO1-RO2, Morial Convention Center

Padden Prize Symposium:

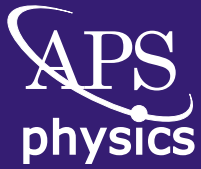
Tuesday, March 11th 2008, 11:15 AM
Room 210, Morial Convention Center

Dillon Medal:

Kari Dalnoki-Veress
Polymer Droplets
Tuesday, March 11th 2007, 2:30 PM
Room 210, Morial Convention Center

Symposium Honoring P. G. de Gennes: Simple Views on Bulk Polymers
Wednesday, March 12th, 2008, 8:00 AM
RO1-RO2, Morial Convention Center

Disclaimer: The information contained within this booklet is unofficial and is accurate as of 1/28/2008. For all official information please refer to the APS March Meeting Proceedings (http://meetings.aps.org/Meeting/MAR08/)



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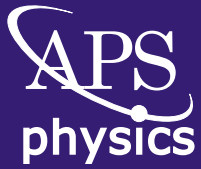

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