2015

March 2-6

San Antonio, TX

DPOLY

Division of Polymer Physics

March Meeting Program

APS physics

DPOLY Short Course on Glasses

The glass transition in polymers, small molecule glass formers, and colloids: Recent advances in theory, experiment, and open challenges

Saturday, February 28: 1:00 pm - 6:15 pm and Sunday, March 1: 8:30 am - 6:15 pm

Who Should Attend?

Those interested in the fundamentals of the glass transition and how these impact practical applications with emphasis on polymers and soft materials. For historical perspective small molecule systems and network glasses are also considered.

Course Description

The glass transition is an area of intense fundamental research and remains a deep challenge to our understanding of complex materials. Yet, it is also highly important in practical applications as it determines use temperatures of polymers and composites, long term durability, and performance in novel nanotechnology applications. In the present course we review classic theories of the glass, the fundamental phenomenology of the glass transition and how practical applications are affected by the glassy behavior of polymers. In addition, we provide descriptions of the modern glass transition theories and simulation methods. Finally, the course gives a window on open questions and unresolved problems in glassy materials.

Class Schedule

Saturday February 28, 2015

1:00 PM Gregory B. McKenna (Texas Tech), "Introduction to Glasses"
2:00 PM Sindee L. Simon (Texas Tech), "Thermodynamic Measurements and Models of the Structural Recovery of Glasses"
3:00 PM Gregory B. McKenna (Texas Tech), "Mechanical, Viscoelastic, and Dielectric Methods"
3:30 PM Coffee
4:00 PM Reiner Zorn (Jülich Center for Neutron Science), "Scattering in Glasses and the Boson Peak"
5:00 PM Jack F. Douglas (NIST), "Some Modern Theories of the Glass transition I"

Sunday March 1, 2015

8:30 AM Kenneth S. Schweizer (Univ. of Illinois), "Some Modern Theories of the Glass transition II"
9:45 AM Coffee
10:15 AM Rajesh Khare (Texas Tech), "Simulation of Glass-Forming Polymers and Comparison with Experiment"
11:15 AM Hendrik Meyer (Institut Charles Sadron), "Simulation of Glass-Forming Liquids"
12:15 PM Lunch
1:15 PM James M. Caruthers (Purdue), "Nonlinear Mechanical Properties, Long Term Predictions, and Glassy Constitutive Behavior"
2:15 PM Coffee
2:45 PM Mark D. Ediger (University of Wisconsin), "Crystallization from Below to Above the T_g"
3:45 PM Connie B. Roth (Emory University), "Open Questions in Ultrathin Polymer Films: Nanoconfinement Effects and Surfaces"
4:20 PM Zahra Fakhraai (University of Pennsylvania) "Dynamics of Polymer Surfaces and Relationship with Nanoscale Confinement"
4:55 PM David S. Simmons (University of Akron) "Simulation of Behavior at the Nanometer Size Scale"
5:30 PM Eric R. Weeks (Emory University), "Colloidal Glasses and How They Can Model Molecular Glasses"

Organizers

Gregory B. McKenna and Sindee L. Simon; Texas Tech University

For more information: **http://www.aps.org/meetings/march/events/dpoly.cfm**

Cover image: Transmission electron micrograph collage of bulk diblock polymer nanostructures, courtsey of Sarah E. Mastroianni, University of Delaware.

Industry Day

The first-ever Industry Day at the APS March Meeting will focus on the use of polymers in industry and the development of new advanced manufacturing methods, such as 3-D printing.

Sponsored by FIAP and DPOLY

Wednesday, March 4 With satellite sessions on Thursday, March 5
Convention Center

Who Should Attend: All are welcome. Industry specialists and early career physicists are especially encouraged to attend.

Overview: The first-ever Industry Day at the APS March Meeting will focus on the use of polymers in industry and the development of new advanced manufacturing methods, such as 3D-printing. Speakers include industry R&D leaders and senior scientists both academic and industrial labs such as Dow Chemical, IBM, DuPont, ExxonMobil, GE, Boeing, and more.

Also as part of Industry Day, order a 3D-miniature of yourself!
Twindom: Be Your Own Action Figure

Program Details
Track one will feature invited talks by industry leaders and senior scientists on physics and engineering in advanced manufacturing.

Track two will include an invited session on "Industrial Applications of Colloidal Suspensions and Filled Polymers" and a focus session on "Applied Polymer Physics in Advanced Manufacturing."

Registration: If you wish to attend Industry Day, you must register for the APS March Meeting 2015. One-day registration is available.

For more information: **http://www.aps.org/meetings/march/events/industrydays.cfm**

Table of Contents

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A20: Invited Session: Interfacing Experiment and Theory in Polymer Physics

Sponsoring Units: DPOLY
Chair: Bryan Boudouris, Purdue University
Room: *Ballroom B*

8:00AM - 8:36AM	A20.00001: Order and Disorder in Short Block Polymers **Invited Speaker:** Frank Bates
8:36AM - 9:12AM	A20.00002: Nanocomposites with Crystalline Polymers **Invited Speaker:** Sanat Kumar
9:12AM - 9:48AM	A20.00003: Segmental Interactions between Polymers and Small Molecules in Batteries and Biofuel Purification **Invited Speaker:** Nitash Balsara
9:48AM - 10:24AM	A20.00004: Using multi-scale molecular simulations to guide experimental design of biomaterials for drug and DNA delivery **Invited Speaker:** Arthi Jayaraman
10:24AM - 11:00AM	A20.00005: Ion Containing Polymers for Battery Technology **Invited Speaker:** Janna Maranas

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A41: Focus Session: Organic Electronics and Photonics – Thermoelectric, Ferroelectric, and Piezoelectric Materials

Sponsoring Units: DPOLY DMP
Chair: Jennifer Schaefer, National Institute of Standards and Technology
Room: *214A*

8:00AM - 8:12AM	A41.00001: n-type doping through tethered functionality: a new paradigm for molecular design of solution-processed organic thermoelectrics Boris Russ, Maxwell J. Robb, Bhooshan C. Popere , Erin E. Perry, Jeffrey J. Urban, Michael L. Chabinyc, Craig J. Hawker, Rachel A. Segalman
8:12AM - 8:24AM	A41.00002: Silver Nafion for Thermogalvanic Applications William Chang, Bhooshan Popere, Chris Evans, Boris Russ, Rachel Segalman
8:24AM - 8:36AM	A41.00003: Thermoelectric properties of hole- and electron-doped ambipolar polymers Anne Glaudell, Erin Perry, Ruth Schlitz, Michael Chabinyc
8:36AM - 9:12AM	A41.00004: Conductane and Thermopower in Thiophene and Oxidized Thiophene Single-Molecule Junctions **Invited Speaker:** Latha Venkataraman
9:12AM - 9:24AM	A41.00005: Thermoelectricity in Disordered Organic Semiconductors under the Premise of the Gaussian Disorder Model and its Variants Dan Mendels, Nir Tessler
9:24AM - 9:36AM	A41.00006: Morphology of PEDOT:PSS/SWCNT Composites: Insight into Carbon Nanotube Based Organic Thermoelectric Matrices Thusitha Etampawala, Mehran Tehrani, Mark Dadmun
9:36AM - 9:48AM	A41.00007: Exploiting the Different Polarity in Piezoresistive Characteristics of Conducting Polymers for Strain Gauge Applications Melda Sezen, Jeffrey T. Register, Yao Yao, Branko Glisic, Yueh-Lin Loo
9:48AM - 10:00AM	A41.00008: Temperature-dependent electrical transport in ferroelectric organic field-effect transistors Amrit Laudari, Suchismita Guha
10:00AM - 10:12AM	A41.00009: Ferroelectrically-driven photocurrent in P3HT-based diodes Eleni Pavlopoulou, Carine Lacroix, Antigoni Paspali, Guillaume Fleury, Cyril Brochon, Eric Cloutet, Fabrice Domingues Dos Santos, Mario Maglione, Georges Hadziioannou
10:12AM - 10:24AM	A41.00010: Ferroeletricity and Double Hysteresis Loop Behavior in Even-Numbered n-Nylons Zhongbo Zhang, Lei Zhu, Morton Litt
10:24AM - 10:36AM	A41.00011: Relaxor Ferroelectric Behavior from Strong Physical Pinning in a Poly(vinylidene fluoride-\textit{co}-trifluoroethylene-\textit{co}-chlorotrifluoroethylene) Random Terpolymer Lei Zhu, Lianyun Yang, Brady Tyburski, Fabrice Domingues Dos Santos
10:36AM - 10:48AM	A41.00012: Strain effects on the ferroelectric polarization of hybrid organic inorganic perovskite compounds Saurabh Ghosh, Domenico Di Sante, Alessandro Stroppa, Silvia Picozzi, Craig J. Fennie
10:48AM - 11:00AM	A41.00013: Enhanced Electrical Conductivity due to Morphological Changes in Polyanaline-Titania Core-Shell Nanocomposites Nelson Coates, Jianfeng Liu, Rachel Segalman, Jeffrey Urban

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A42: Polymeric Elastomers and Gels

Sponsoring Units: DPOLY
Chair: Edwin Chan, National Institute of Standards and Technology
Room: *214B*

8:00AM - 8:12AM	A42.00001: Tailoring Phase Behavior and Mechanical Properties in Thermoplastic Elastomers through Block Sequence and Macromolecular Architecture Adam Burns, Richard Register
8:12AM - 8:24AM	A42.00002: Shear Induced Morphology Evolution and Dynamic Viscoelastic Behavior of Binary and Ternary Elastomer Blends Xia Dong, Xianggui Liu, Wei Liu, Charles C Han, Dujin Wang
8:24AM - 8:36AM	A42.00003: Structure and mechanical properties of isotactic polypropylene (iPP) gels formed at different cooling temperatures Ryusuke Okoshi, Atsushi Hotta
8:36AM - 8:48AM	A42.00004: Multiple Stages of Crosslinking and Scission in Coarse-Grained Polymers Joanne Budzien
8:48AM - 9:00AM	A42.00005: Pure shear deformation of the chemical gels with precisely tuned network structure Takuya Katashima, Kenji Urayama, Ung-il Chung, Takamasa Sakai
9:00AM - 9:12AM	A42.00006: Wide bicontinuous compositional windows from co-networks made with telechelic macromonomers Gregory Tew
9:12AM - 9:24AM	A42.00007: Squeezing a gel to establish network structure-transport property relationships Edwin Chan, Nichole Nadermann, Kelly McLeod, Greg Tew
9:24AM - 9:36AM	A42.00008: Tensile Deformation and Morphological Evolution of Precise Acid Copolymers Luri Robert Middleton, Steve Szewczyk, Eric Schwartz, Jason Azoulay, Dustin Murtagh, Joseph Cordaro, Kenneth Wagener, Karen Winey
9:36AM - 9:48AM	A42.00009: Nonlinear behavior of ionically and covalently cross-linked alginate hydrogels SeyedMeysam Hashemnejad, Mahla Zabet, Santanu Kundu
9:48AM - 10:00AM	A42.00010: Nonlinear Elasticity and Cavitation of a Triblock Copolymer Gel Santanu Kundu, Seyed Meysam Hashemnejad, Mahla Zabet, Satish Mishra
10:00AM - 10:12AM	A42.00011: Nonlinear Elasticity of Bottlebrush Networks and Gels Andrey Dobrynin, Zhen Cao, Jan-Michael Carrillo, Sergei Sheiko
10:12AM - 10:24AM	A42.00012: On the role of geometric non-linearities in the mechanics of nematically ordered semi-flexible networks Louis Foucard, Jordan Kazuo Price, William Klug, Alex Levine
10:24AM - 10:36AM	A42.00013: Using stability analyses to predict dynamic behaviour of self-oscillating polymer gels Vaibhav Palkar, Gaurav Srivastava, Olga Kuksenok, Anna C. Balazs, Pratyush Dayal
10:36AM - 10:48AM	A42.00014: Shape Actuation of Competitive Networks Yuan Meng, Jisu Jiang, Mitchell Anthamatten
10:48AM - 11:00AM	A42.00015: Shape Memory Polymers from Blends of Elastomers and Crystalline Small Molecules Kevin Cavicchi, Nicole Brostowitz, Brent Hukill, Heather Fairbairn

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A43: Focus Session: Stable Glasses and Their Properties

Sponsoring Units: DPOLY
Chair: Kenneth Kearns, Dow Chemicals
Room: *214C*

8:00AM - 8:12AM	A43.00001: Stable glasses from strong liquids Yeong Zen Chua, Mathias Ahrenberg, Michael Tylinski, Mark D. Ediger, Christoph Schick
8:12AM - 8:24AM	A43.00002: Stable Glasses of a Low Fragility Organic Liquid M. Tylinski, A. Sepulveda, A. Guiseppi-Elie, R. Richert, Y.Z. Chua, C. Schick, M.D. Ediger
8:24AM - 8:36AM	A43.00003: Synthesis and Characterization of Exceptionally Stable Glasses of 1,3-Bis(1-naphthyl),5-(2-aryl)benzene Tianyi Liu, Kevin Cheng, Elmira Salami, Feng Gao, Chen Li, Xiao Tong, Yue Zhang, Yi-Chih Lin, William Zhang, Ethan Glor, Patrick Walsh, Zahra Fakhraai
8:36AM - 8:48AM	A43.00004: Using deposition rate as a means to alter the properties of small molecule organic glasses for OLED applications Kenneth Kearns, Paige Krzyskowski, Zachary Devereaux
8:48AM - 9:00AM	A43.00005: Structural equivalence of equal-energy vapor deposited and liquid cooled films in two dimensions Daniel Reid, Ivan Lyubimov, Juan de Pablo
9:00AM - 9:12AM	A43.00006: Do Two-Level-Systems and Boson Peak persist or disappear in highly stable glasses? Miguel A. Ramos, Tomas Perez-Castaneda, Rafael Jimenez-Rioboo, Cristian Rodriguez-Tinoco, Javier Rodriguez-Viejo
9:12AM - 9:48AM	A43.00007: Dielectric Relaxation of Materials that Form Ultra-Stable Glasses **Invited Speaker:** Ranko Richert
9:48AM - 10:00AM	A43.00008: Glasses with extreme anisotropy: vapor-deposition of liquid crystals Jaritza Gomez, Ankit Gujral, Mark D. Ediger
10:00AM - 10:12AM	A43.00009: Controlling molecular orientational anisotropy in simulated vapor-deposited glasses Ivan Lyubimov, Lucas Antony, Juan de Pablo
10:12AM - 10:24AM	A43.00010: The stability of a simulated model-glass created by cooling at a constant rate Hannah Staley, Elijah Flenner, Grzegorz Szamel
10:24AM - 10:36AM	A43.00011: Beating the bulk: Bypassing the bulk glass transition by fast heating Marta Gonzalez-Silveira, Cristian Rodriguez-Tinoco, Joan Rafols-Ribe, Aitor F. Lopeandia, Maria Teresa Clavaguera-Mora, Javier Rodriguez-Viejo
10:36AM - 10:48AM	A43.00012: How much time is needed to form a stable glass? AC calorimetric study of vapor-deposited glasses of ethylcyclohexane Christoph Schick, Yeong Zen Chua, Mathias Ahrenberg, Michael Tylinski, Mark D. Ediger
10:48AM - 11:00AM	A43.00013: Controling thickness dependent elastic moduli of organic glass films using deposition temperature Bryan Vogt

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A44: Focus Session: Extreme Mechanics: Origami, Kirigami and Mechanisms I

Sponsoring Units: GSNP GSOFT DPOLY
Chair: Christian Santangelo, University of Massachusetts Amherst
Room: *214D*

8:00AM - 8:12AM	A44.00001: How to keep your pants on: historic metamaterials and elasticity before the invention of elastic Elisabetta A. Matsumoto, L. Mahadevan
8:12AM - 8:24AM	A44.00002: Miura Tubes and Assemblages: Theory and Applications Evgueni Filipov, Glaucio Paulino, Tomohiro Tachi
8:24AM - 8:36AM	A44.00003: Mulitshape Origami Metasheets Scott Waitukaitis, Martin van Hecke
8:36AM - 9:12AM	A44.00004: Multi-stability in folded shells: non-Euclidean origami **Invited Speaker:** Arthur Evans
9:12AM - 9:24AM	A44.00005: Prediction of the force required to unwrap a thin-film origami structure Lee Wilson, Sergio Pellegrino
9:24AM - 9:36AM	A44.00006: Making the Cut: Lattice Kirigami Rules Toen Castle, Yigil Cho, XingTing Gong, Euiyeon Jung, Daniel Sussman, Shu Yang, Randall Kamien
9:36AM - 9:48AM	A44.00007: Kirigami for Two-Dimensional Electronic Membranes Zenan Qi, Dario Bahamon, David Campbell, Harold Park
9:48AM - 10:00AM	A44.00008: Designing 3D Structure by 5-7 Kirigami Xingting Gong, Yigil Cho, Toen Castle, Daniel Sussman, Randall Kamien
10:00AM - 10:12AM	A44.00009: Optimization of Actuating Origami Networks Philip Buskohl, Kazuko Fuchi, Giorgio Bazzan, James Joo, Reich Gregory, Richard Vaia
10:12AM - 10:24AM	A44.00010: Origami folding of polymer sheets by inkjet printing Ying Liu, Brandi Shaw, Michael D. Dickey, Jan Genzer
10:24AM - 10:36AM	A44.00011: Actuated 3D origami-like structures with tunable volume and stiffness Johannes Overvelde, Twan de Jong, James Weaver, Chuck Hoberman, Katia Bertoldi
10:36AM - 10:48AM	A44.00012: Stress Focusing in Creased Shells Sarah Selden, Arthur Evans, Nakul Bende, Ryan Hayward, Christian Santangelo
10:48AM - 11:00AM	A44.00013: Folding and bending of self-assembled nanoparticle membranes Yifan Wang, Jianhui Liao, Sean Mcbride, Efi Efrati, Xiao-Min Lin, Heinrich Jaeger

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A45: Crystalline Polymers

Sponsoring Units: DPOLY
Chair: Christopher Li, Drexel University
Room: *216AB*

8:00AM - 8:12AM	A45.00001: Interplay Between a Strong Memory Effect of Crystallization and Liquid-Liquid Phase Separation in Melts of Broadly Distributed Ethylene 1-Alkene Copolymers Rufina G. Alamo, Al Mamun, Xuejian Chen
8:12AM - 8:24AM	A45.00002: Butyl Branch Partitioning to the Crystal Surface in Polyethylenes Detected by NMR Klaus Schmidt-Rohr, Allison White, Kanmi Mao, Diana Smirnova
8:24AM - 8:36AM	A45.00003: Chain Trajectory of Polymer Chains in Bulk and Single Crystals: Molecular Weight Effect Toshikazu Miyoshi, Youlee Hong
8:36AM - 8:48AM	A45.00004: SAXS/WAXS measurements of HDPE crystallization during uniaxial extensional flow Erica McCready, Wesley Burghardt
8:48AM - 9:00AM	A45.00005: Selective crystallization of conjugated polymer nanowires from graphene-coated surfaces Daniel Acevedo Cartagena, Yue Zhang, Elvira Trabanino, Emily Pentzer, Todd Emrick, Alejandro Briseno, Ryan Hayward
9:00AM - 9:12AM	A45.00006: Mesomorphic State in Early Stage Crystallization of Polyethylene Kalman Migler, Angela Hight Walker, Anthony Kotula
9:12AM - 9:24AM	A45.00007: Morphology and Crystallization Behavior of Poly(3-(2'-ethyl)hexlthiophene) (P3EHT) Containing Diblock Copolymers Emily Davidson, Bryan Beckingham, Victor Ho, Rachel Segalman
9:24AM - 9:36AM	A45.00008: Exploring Molecular Dimension and Trajectory of Polymer Chains Embedded in Single Crystals Youlee Hong, Toshikazu Miyoshi
9:36AM - 9:48AM	A45.00009: On the strain-induced structural evolution upon uniaxial stretching of Poly(VinyliDene Fluoride): influence of secondary crystals and crystalline relaxation Juliette Defebvin, Sophie Barrau, Gregory Stoclet, Jean-Marc Lefebvre
9:48AM - 10:00AM	A45.00010: Quantifying tie-chain content in semicrystalline polyolefins with vapor-flow small-angle neutron scattering Amanda McDermott, Chad Snyder, Paul DesLauriers, Ronald Jones
10:00AM - 10:12AM	A45.00011: Isothermal Programming Triple Shape Memory Jing Zhou, Qiaoxi Li, Sara Turner, Valerie Ashby, Andrey Dobrynin, Sergei Sheiko
10:12AM - 10:24AM	A45.00012: Flow-induced crystallinity in polyethylene as probed by time-resolved Raman spectroscopy and optical microscopy Anthony Kotula, Angela Hight Walker, Kalman Migler
10:24AM - 10:36AM	A45.00013: Short-Range Order of Mesomorphic Phase of a Semi-crystalline Polymer by Solid-State NMR: Isotactic Polypropylene Shichen Yuan, Toshikazu Miyoshi
10:36AM - 10:48AM	A45.00014: Stress induced reversible crystal transition in poly(butylene succinate) Guoming Liu , Liuchun Zheng , Xiuqin Zhang , Chuncheng Li , Dujin Wang
10:48AM - 11:00AM	A45.00015: Crystallization of low molecular weight atactic polystyrene Yu Chai, James Gilbert, Chad Daley, James Forrest

Monday, March 2, 2015, 8:00 am – 11:00 am

Session A50: Focus Session: Beyond the Gyroid: Complex Network Phases in Self-Assembled Soft Materials

Sponsoring Units: GSOFT DPOLY
Chair: Gerd Schroeder-Turk, Friedrich-Alexander Universitat Erlangen-Nurnberg
Room: *218*

8:00AM - 8:36AM	A50.00001: Interface Energetics and Chemical Doping of Organic Electronic Materials **Invited Speaker:** Antoine Kahn
8:36AM - 8:48AM	A50.00002: Hard Spheres on the Primitive Surface Tomonari Dotera, Yusuke Takahashi
8:48AM - 9:00AM	A50.00003: Real time SANS studies on the transformation between the hexagonal cylinder phase and the bi-continuous gyroid structure: transient structures Kell Mortensen, Martin Vigild, Ruya Eskimergen
9:00AM - 9:12AM	A50.00004: oward complex network droplets -- a computational study of bicontinuous network regions in star polymer droplets Ryan Marson, Sharon Glotzer
9:12AM - 9:24AM	A50.00005: Free Energy-Based Monte Carlo Determination of a Model Microphase Former Yuan Zhuang, Kai Zhang, Patrick Charbonneau
9:24AM - 9:36AM	A50.00006: Structural Diversity of Self-Assembled Iridescent Arthropod Biophotonic Nanostructures Vinod Kumar Saranathan, Richard O. Prum
9:36AM - 9:48AM	A50.00007: The Tricontinuous 3ths(5) Phase: A New Morphology in Copolymer Melts Michael Fischer, Liliana de Campo, Jacob Kirkensgaard, Stephen Hyde, Gerd Schroeder-Turk
9:48AM - 10:00AM	A50.00008: Group Theory of Circular-Polarisation Effects in Chiral Photonic Crystals with Four-Fold Rotation Axes, Applied to the Eight-Fold Intergrowth of Gyroid Nets Matthias Saba, Mark D. Turner, Klaus Mecke, Min Gu, Gerd E. Schroder-Turk
10:00AM - 10:12AM	A50.00009: Tuning Lyotropic Liquid Crystalline Phase Behavior of Gemini Surfactants by Linker Parity Dominic Perroni, Carlos Baez-Cotto, Sriteja Mantha, Gregory Sorenson, Arun Yethiraj, Mahesh Mahanthappa
10:12AM - 10:24AM	A50.00010: Mechanical enhancement through phase separation in a bicontinuous hydrogel network Ryan Nixon, Thomas Angelini
10:24AM - 10:36AM	A50.00011: Polycontinuous Lyotropic Liquid Crystalline Network Phases from Gemini Dicarboxylate Surfactants Mahesh Mahanthappa, Gregory Sorenson, Adam Schmitt
10:36AM - 10:48AM	A50.00012: Deformations of the gyroid and Lidinoid minimal surfaces using flat structures Adam Weyhaupt

Monday, March 2, 2015, 8:00 am – 11:00 am

Other 'A' Sessions of potential interest:

Session A19: Invited Session: Fifty Years of Molecular Dynamics Simulations I: Past, Present and Future
Sponsoring Units: DCOMP DCMP DCP
Chair: Rajiv Kalia, University of Southern California
Room: *Mission Ballroom 103B*

Session A47: Focus Session: Physics of Behavior I
Sponsoring Units: DBIO
Chair: Greg Stephens, Vrije Universiteit Amsterdam & Okinawa Institute of Science and Technology
Room: *217B*

Session A49: Focus Session: Self-Phoretic Colloids and Active Emulsions I
Sponsoring Units: GSOFT
Chair: Sriram Ramaswamy, Indian Institute of Science
Room: *217D*

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B20: Invited Session: Physics of Glass-Forming Liquids: Challenges and Surprises I

Sponsoring Units: DPOLY
Chair: Gregory McKenna, Texas Tech University
Room: *Ballroom B*

11:15AM - 11:51AM	B20.00001: Glass-formers vs. Assemblers **Invited Speaker:** Sharon Glotzer
11:51AM - 12:27PM	B20.00002: Tuning polymer glass formation with additives and ions **Invited Speaker:** David Simmons
12:27PM - 1:03PM	B20.00003: The Significance of Incorporating Nanoscale Fluctuations in a Constitutive Description of Glassy Polymers **Invited Speaker:** James Caruthers
1:03PM - 1:39PM	B20.00004: Atomic motion and physical aging in structural glasses revealed by coherent X-rays **Invited Speaker:** Beatrice Ruta
1:39PM - 2:15PM	B20.00005: Inelastic Neutron Scattering Studies of the Dynamics of Glass-Forming Materials in Confinement **Invited Speaker:** Reiner Zorn

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B41: Focus Session: Polymers for Solar Energy Conversion - Charge Transport in Organic Photovoltaics

Sponsoring Units: DPOLY
Chair: Arthi Jayaraman, University of Delaware
Room: *214A*

11:15AM - 11:27AM	B41.00001: Mechanism of charge recombination in organic-inorganic hybrid perovskite solar cells Wenchao Yang, Yao Yao, Chang-Qin Wu
11:27AM - 11:39AM	B41.00002: Au Nanocluster assisted PCE improvement in PEDOT: PSS - Si Hybrid Devices Manisha Sharma, Pushpa Raj Pudasaini, Arturo A. Ayon,
11:39AM - 11:51AM	B41.00003 Co-Assembling P3HT/ZnO as Parallel-Lane Hybrid Nanowires for Photovoltaic Application Chi-An Dai, Yi-Huan Lee, Yang-Hui Chen, Leeyih Wang
11:51AM - 12:03PM	B41.00004: Fulleropyrrolidine interlayers lower cathode work function to raise organic solar cell efficiency Yao Liu, Zachariah Page, Volodimyr Duzhko, Todd Emrick, Thomas Russell
12:03PM - 12:15PM	B41.00005: Design of Radical Polymers as Transparent Conductors in Organic Photovoltaic Devices Lizbeth Rostro, Si Hui Wong, Lucio Galicia, Bryan W. Boudouris
12:15PM - 12:27PM	B41.00006: The role of exciton ionization processes in bulk heterojunction organic photovoltaic cells Yunlong Zou, Russell Holmes
12:27PM - 1:03PM	B41.00007: Novel solar energy harvesting options based on solution-processable inorganic/organic hybrid materials **Invited Speaker:** Natalie Stingelin
1:03PM - 1:15PM	B41.00008: Dark current of organic heterostructure devices with insulating spacer layers Sun Yin, Wanyi Nie, Aditya D. Mohite, Avadh Saxena, Darryl L. Smith , P. Paul Ruden
1:15PM - 1:27PM	B41.00009: Unpinning the Open-Circuit Voltage in Organic Solar Cells through Tuning Ternary Blend Active Layer Morphology Petr Khlyabich, Barry Thompson, Yueh-Lin Loo
1:27PM - 1:39PM	B41.00010: Synthesis and Structure of Fully Conjugated Block Copolymers Utilized in Organic Photovoltaics Youngmin Lee, Melissa Aplan, Qing Wang, Enrique D. Gomez
1:39PM - 1:51PM	B41.00011: Pessimal shapes for packing Yoav Kallus Xin Xu, Ananth Dodabalapur
1:51PM - 2:03PM	B41.00012: Analysis of Charge Carrier Transport in Organic Photovoltaic Active Layers Xu Han, Dimitrios Maroudas
2:03PM - 2:15PM	B41.00013: Ultrafast Measurement Confirms Charge Generation through Cold Charge Transfer States Bhoj Gautam, Robert Younts, Liang Yan, Evgeny Danilov, Harald Ade, Wei You, Kenan Gundogdu

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B42: Focus Session: Block Copolymer Thin Films I

Sponsoring Units: DPOLY
Chair: Gila Stein, University of Houston
Room: *214B*

11:15AM - 11:51AM	B42.00001: Morphology of Conjugated Block Copolymer Films: Self-Assembly, Crystallization, and Phase Separation **Invited Speaker:** Rafael Verduzco
11:51AM - 12:27PM	B42.00002: Polypeptoids: A model system for exploring sequence and shape effects on block copolymer self-assembly **Invited Speaker:** Rachel Segalman
12:27PM - 12:39PM	B42.00003: Morphology Development in Block Copolymer Thin Films via Direct Immersion Annealing Arvind Modi, Sarang Bhaway, Bryan Vogt, Ashutosh Sharma, Alamgir Karim
12:39PM - 12:51PM	B42.00004: Real-Time observation of PS-PDMS block copolymer self-assembly under solvent vapor annealing Wubin Bai, Kevin Yager , Caroline Ross
12:51PM - 1:03PM	B42.00005: The kinetics of swelling in block copolymer thin films during "solvo- microwave" and solvo- thermal annealing: The effect of vapour pressure Parvanrh Mokarian-Tabari, Timothy Collins, Cian Cummins, Claudia Delgado Simao, Clivia Sotomayor, Michael A. Morris
1:03PM - 1:15PM	B42.00006: Fluorine effects on morphology and surface energy of diblock copolymer thin films Umesh Shrestha, Dvora Perahia, Stephen Clarson
1:15PM - 1:27PM	B42.00007: Perpendicularly oriented nanostructures by using star-shaped poly(methyl methacrylate)-block-polystyrene thin film Sangshin Jang, Kyuseong Lee, Hong Chul Moon, Jicheol Park, Jongheon Kwak, Gumhye Jeon, Jin Kon Kim
1:27PM – 1:39PM	B42.00008: Liquid Crystal properties of Silver (Ag) Nanowires as a Function of Flow Hanqiong Hu, Youngwoo Woo, Xunda Feng, Chinedum Osuji
1:39PM - 1:51PM	B42.00009: Edge effects and surface patterns in a quenched lamella forming block copolymer Andrew B. Croll, Peggy Willenbring, Alexander Wagner
1:51PM - 2:03PM	B42.00010: A Stable Hexagonally Modulated Lamellar (HML) Structure of Asymmetric Polystyrene-b-Poly(2-vinylpyridine) in Film Geometry Sungmin Park, Hyungju Ahn, Byeongdu Lee, Du Yeol Ryu
2:03PM - 2:15PM	B42.00011: Adsorbed block copolymer nanolayers on solids Jennifer Imbrogno, Mani Sen, Steven Kahn, Shotaro Nishitsuji, E. Bhoje Gowd, Maya K Endoh, Tadanori Koga

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B43: Focus Session: Fluids Under Confinement, Water at Interfaces and in Confinement

Sponsoring Units: DPOLY
Chair: Elisa Riedo, Georgia Institute of Technology
Room: *214C*

11:15AM - 11:27AM	B43.00001: Molecular Dynamics Simulations of Water Evaporation Chengyuan Wen, Gary Grest, Shengfeng Cheng
11:27AM - 11:39AM	B43.00002: Structure of the Ice-Clathrate Interface Andrew Nguyen, Matthew Koc, Tricia Shepherd, Valeria Molinero
11:39AM - 11:51AM	B43.00003: Experimental evidence for empty cage methane clathrate hydrates grown using surfactants Jeffrey Botimer, Derek Dunn-Rankin, Peter Taborek
11:51AM - 12:03PM	B43.00004: Formation of 1D adsorbed water structures on CaO(001) Xunhua Zhao, Saswata Bhattacharya, Luca M. Ghiringhelli, Sergey V. Levchenko, Matthias Scheffler
12:03PM - 12:15PM	B43.00005: Characterization of the Mobility and Reactivity of Water Molecules on TiO2 Nanoparticles by 1H Solid-State Nuclear Magnetic Resonance Xiaoliang Wang, Lili Zhu, Pingchuan Sun, Dongshan Zhou, Gi Xue
12:15PM - 12:27PM	B43.00006: Diffusive Dynamics of Water inside Hydrophobic Carbon Micropores Studied by Neutron Spectroscopy and MD Simulation Souleymane Diallo, Lukas Vlcek, Eugene Mamontov, Jong Keum, Jihua Chen, Joseph Hayes, David Wesolowski, Ariel Chialvo
12:27PM - 12:39PM	B43.00007: Quantum tunneling and vibrational dynamics of ultra-confined water Alexander I. Kolesnikov, Lawrence M. Anovitz, Georg Ehlers, Eugene Mamontov, Andrey Podlesnyak, Timothy R. Prisk, Andrew Seel, George F. Reiter
12:39PM - 12:51PM	B43.00008: Nanomechanical measurements of ionic effect on nanoconfined water Edward Kramkowski , Shah Khan , Peter Hoffmann
12:51PM - 1:03PM	B43.00009: Supressed Water Crystallization in Nano-Structured Physical Hydrogel Clinton Wiener, Bryan Vogt, Robert Weiss
1:03PM - 1:15PM	B43.00010: Thermodynamics of water structural reorganization due to geometric confinement Wylie Stroberg, Seth Lichter
1:15PM - 1:27PM	B43.00011: Ice-like Behavior of Ultra-Confined Water Timothy Prisk, Alexander Kolesnikov, Eugene Mamontov, Lawrence Anovitz
1:27PM - 1:39PM	B43.00012: The consequences of water in adhesion, friction and wetting Ali Dhinojwala, Adrian Defante, Tarak Burai, Matthew Becker
1:39PM - 1:51PM	B43.00013: How different is water crystallization from polymer crystallization under confinement? George Floudas, Yasuhito Suzuki, Hatice Duran, Martin Steinhart, Hans-Juergen Butt
1:51PM - 2:03PM	B43.00014: Frictional energy barrier and blocking temperature in water molecules and carbon nanotubes system Jianwei Zhang, Jiaxi Li, Wenfeng Li
2:03PM - 2:15PM	B43.00015: The Role of Water and Carbon Dioxide Intercalation on Na-Montmorillonite Swelling Behavior at Geological Carbon Sequestration Conditions Meysam Makaremi, Kenneth Jordan, George Guthrie, Evgeniy Myshakin

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B44: Focus Session: Extreme Mechanics: Origami, Kirigami and Mechanisms II

Sponsoring Units: GSNP GSOFT DPOLY
Chair: Arthur Evans, University of Massachusetts Amherst
Room: *214D*

11:15AM - 11:27AM	B4400001: Unravelling Origami Metamaterial Behavior Maryam Eidini, Glaucio Paulino
11:27AM - 11:39AM	B44.00002: Origami Mechanics: Bistability and Isometries Mokhtar Adda-Bedia, Frederic Lechenault
11:39AM - 11:51AM	B44.00003: Shapeable elastic lattice of springs Naomi Oppenheimer, Thomas Witten
11:51AM - 12:27PM	B44.00004: Topological mechanics: from metamaterials to active matter **Invited Speaker:** Vincenzo Vitelli
12:27PM - 12:39PM	B44.00005: Critical transition to bistability arising from hidden degrees of freedom in origami structures Itai Cohen, Jesse Silverberg, Jun-Hee Na, Arthur Evans, Bin Liu, Thomas Hull, Christian Santangelo, Robert Lang, Ryan Hayward
12:39PM - 12:51PM	B44.00006: A probabilistic approach to randomness in geometric configuration of scalable origami structures Ke Liu, Glaucio Paulino, Paolo Gardoni
12:51PM - 1:03PM	B44.00007: Exponential Number of Shapes in Origami Metasheets Peter Dieleman, Scott Waitukaitis, Martin van Hecke
1:03PM - 1:15PM	B44.00008: Topological modes bound to lattice dislocations in mechanical metamaterials Jayson Paulose, Bryan Chen, Vincenzo Vitelli
1:15PM - 1:27PM	B44.00009: Wave Propagation in Origami-inspired Foldable Metamaterials Matthew Spellings, Michael Engel, Daphne Klotsa, Wenbo Shen, Greg van Pai Wang, Sijie Sun, Katia Bertoldi
1:27PM - 1:39PM	B44.00010: Quantification of a Helical Origami Fold Eric Dai, Xiaomin Han, Zi Chen
1:39PM - 1:51PM	B44.00011: Associative memory through rigid origami Arvind Murugan, Michael Brenner
1:51PM - 2:03PM	B44.00012: Hiding the weakness: structural robustness using origami design Bin Liu, Christian Santangelo, Itai Cohen
2:03PM - 2:15PM	B44.00013: Untangling the mechanics versus topology of overhand knots Pedro Reis, Mohammad Jawed, Peter Dieleman, Basile Audoly

Monday, March 2, 2015, 11:15 am – 2:15 pm

Session B45: Polymer Melts & Solutions I

Sponsoring Units: DPOLY
Chair: Debra Audus, National Institute of Standards and Technology
Room: *216AB*

11:15AM - 11:27AM	B45.00001: Domain Growth Kinetics in Stratifying Foam Films Yiran Zhang, Vivek Sharma
11:27AM - 11:39AM	B45.00002: Atomistic Simulations of Poly(N-isopropylacrylamide) Surfactants in Water Lauren J. Abbott, Mark J. Stevens
11:39AM - 11:51AM	B45.00003: Self-assembly of Giant Molecular Shape Amphiphiles in Solution Rong Wang, Shiying Ma
11:51AM - 12:03PM	B45.00004: Transition to Area-Dependent Dissipation in Droplet Spreading Kari Dalnoki-Veress, Mark Ilton, Oliver Baumchen
12:03PM - 12:15PM	B45.00005: Patterning Polymer Films with Bidirectional Control of Marangoni Flow by Photochemically Manipulating Surface Tension Chae Bin Kim, Dustin Janes, Sunshine Zhou, Austin Dulaney, Christopher Ellison
12:15PM - 12:27PM	B45.00006: Coffee Stains from Drops with Receding Contact Lines Julian Freed-Brown
12:27PM - 12:39PM	B45.00007: Supramolecular Structural Forces and Hydrodynamics of Stratifying Foam Films Vivek Sharma, Yiran Zhang, Subinuer Yilixiati
12:39PM - 12:51PM	B45.00008: Concentration Dependent Structure of Block Copolymer Solutions SooHyung Choi, Frank S. Bates, Timothy P. Lodge
12:51PM - 1:03PM	B45.00009: Structure and flow properties of block copolyelectrolyte hydrogels Samanvaya Srivastava, Matthew Tirrell
1:03PM - 1:15PM	B45.00010: Network structures of triblock copolymer by two-step phase separation Mikihito Takenaka, Ayano Inoue, Hirokazu Hasegawa
1:15PM - 1:27PM	B45.00011: The Amphiphilic Character of Cellulose Molecules in True Solution in Solvent Mixtures Containing Ionic Liquid and its Utilization in Emulsification Sofia Napso, Yachin Cohen, Dmitry Rein, Rafail Khalfin, Noemi Szekely
1:27PM - 1:39PM	B45.00012: The Effect of Illumination on the Gelation Process of Optoelectronic Materials Brian Morgan, Mark Dadmun
1:39PM - 1:51PM	B45.00013: Effect of Water Concentration on the Molecular Structure of Polyacrylate Gels Sriramvignesh Mani, Fardin Khabaz, Rajesh Khare
1:51PM - 2:03PM	B45.00014: Polymer-Carbon Nanotube Composite Films at the Oil/Water Interface: Assembly and Properties David Hoagland, Tao Feng, Thomas P. Russell
2:03PM - 2:15PM	B45.00015: The Generality of Parallel Offsets of Rheological Response of Filled Elastomers Shoubo Li, Guochun Zhan, Yongli Mi, Xiaorong Wang

Monday, March 2, 2015, 11:15 am – 2:15 pm

Other 'B' Sessions of potential interest:

Session B47: Focus Session: Physics of Behavior II
Sponsoring Units: DBIO
Chair: Joshua Shaevitz, Princeton University
Room: *217B*

Session B48: Focus Session: Physics of Protein Interactions
Sponsoring Units: DBIO
Chair: Megan Valentine, University of California, Santa Barbara
Room: *217C*

Session B51: Invited Session: Frontiers of Soft Matter I
Sponsoring Units: GSOFT GSNP
Chair: Randall Kamien, University of Pennsylvania
Room: *Grand Ballroom C1*

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D19: Invited Session: Fifty Years of Molecular Dynamics Simulations II: Past, Present and Future

Sponsoring Units: DCOMP DPOLY GSOFT/DBIO
Chair: Rajiv Kalia, University of Southern California
Room: *103B*

2:30PM - 3:06PM	D19.00001: A Variational Approach to Enhanced Sampling and Free Energy Calculations **Invited Speaker:** Michele Parrinello
3:06PM - 3:42PM	D19.00002: Bridging scales: from atoms to coarse-grained models for soft matter systems **Invited Speaker:** Christine Peter
3:42PM - 4:18PM	D19.00003: Polymers at Surfaces and Interfaces **Invited Speaker:** Mesfin Tsige
4:18PM - 4:54PM	D19.00004: Systematic Coarse-graining of Molecular Dynamics Simulations **Invited Speaker:** Gregory Voth
	Withdrawn

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D20: Invited Session: Physics of Glass-Forming Liquids: Challenges and Surprises II

Sponsoring Units: DPOLY
Chair: Sindee Simon, Texas Tech University
Room: *Ballroom B*

2:30PM - 3:06PM	D20.00001: The structure of glass as revealed by dynamical large deviation methods **Invited Speaker:** Juan P. Garrahan
3:06PM - 3:42PM	D20.00002: Approaching the Glass Transition from Various Directions **Invited Speaker:** Jane Lipson
3:42PM - 4:18PM	D20.00003: Simple aging in molecular glasses **Invited Speaker:** Kristine Niss
4:18PM - 4:54PM	D20.00004: Colloidal liquids and glasses: Insights from microscopy **Invited Speaker:** Eric R. Weeks
4:54PM - 5:30PM	D20.00005: Fluids with short-range attractions and longer-range repulsions **Invited Speaker:** Thomas Truskett

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D41: Focus Session: Polymers for Solar Energy Conversion - Morphological Impacts

Sponsoring Units: DPOLY DFD GSNP
Chair: Bryan Boudouris, Purdue University
Room: *214A*

2:30PM - 3:06PM	D41.00001: Fully conjugated block copolymers for organic photovoltaics **Invited Speaker:** Enrique Gomez
3:06PM - 3:18PM	D41.00002: Computational Description of Donor-Acceptor pi-Conjugated Materials for Organic Photovoltaics Applications Jean-Luc Bredas
3:18PM - 3:30PM	D41.00003: New Insight into Morphology of High Performance BHJ Photovoltaics Using High Resolution AFM Feng Liu, Dong Wang, Ken Nakajima, Thomas Russell
3:30PM - 3:42PM	D41.00004: Creating Efficient Quasi-3D Transport Pathways with Crossed-Chain Polymer Interfaces Christopher Takacs, Michael Brady, Neil Treat, Michael Chabinyc
3:42PM - 3:54PM	D41.00005: Small Molecule Bulk Heterojuction: Impact of two thermodynamically stable morphologies on the efficiency of organic photovoltaics devices Nuradhika Herath, Valeria Lauter, Jim Browning, Illa Ivanov, Jong Keum, Kai Xiao, Jiahua Zhu, Sanjib Das, Gong Gu
3:54PM - 4:06PM	D41.00006: Vertical Phase Separation in Bulk-Heterojunction Polymer Solar Cells Yueh-Lin Loo, He Wang, Jongbok Kim
4:06PM - 4:18PM	D41.00007: Morphology and performance of organic photovoltaics containing a small-molecule acceptor Liheng Cai, John Heyman, Linas Mazutis, Lloyd Ung, Rodrigo Guerra, Donald Kathryn O'Hara
4:18PM - 4:30PM	D41.00008: Direct internuclear distance measurements of P3HT/PCBM interfaces in bulk heterojunction thin films using 13C \textbraceleft 2H\textbraceright REDOR NMR Ryan Nieuwendaal, Dean Delonghcamp, Alex Sieval, J.C. Hummelen, Martin Heeney, Zhuping Fei
4:30PM - 4:42PM	D41.00009: Measuring the complete cross-cell carrier mobility distributions in bulk heterojunction solar cells Jason Seifter, Yanming Sun, Hyosung Choi, Byoung Hoon Lee, Alan Heeger
4:42PM - 4:54PM	D41.00010: Two-Dimensional Effects on Lateral Organic Bulk Heterojunction Devices Kelly Liang, Eric Danielson, Zien Ooi, Ananth Dodabalapur
4:54PM - 5:06PM	D41.00011: High-Performance All-Polymer Solar Cells Based on Face-on Stacked Polymer Blends with Low Interfacial Tension Bumjoon Kim, Hyunbum Kang, Changyeon Lee, Taesu Kim
5:06PM - 5:18PM	D41.00012: All-polymer photovoltaics: Correlating Efficiency and Morphology Yan Jin, Jong K. Keum, Kunlun Hong, James F. Browning, Gregory S. Smith, Vikram K. Kuppa
5:18PM - 5:30PM	D41.00013: Role of Molecular Linker on Charge Separation and Photovoltaic Performance in All-Conjugated Block Copolymers Jorge Wu Mok, Yen-Hao Lin, Kendall Smith, Rafael Verduzco

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D42: Focus Session: Block Copolymer Thin Films II

Sponsoring Units: DPOLY
Chair: Chris Ellison, University of Texas at Austin
Room: *214B*

2:30PM - 2:42PM	D42.00001: Minimal Topographic Surfaces for Directed Self-assembly of Cylinder-forming Block Copolymer Thin films with Lateral Order Jaewon Choi, Kenneth Carter, Thomas Russell
2:42PM - 2:54PM	D42.00002: Pathways toward unidirectional alignment in block copolymer thin films on faceted surfaces Ilja Gunkel, Xiaodan Gu, Abhinav Sarje, Alexander Hexemer, Thomas Russell
2:54PM - 3:06PM	D42.00003: Combining Graphoepitaxy and Electric Fields towards Uniaxial Alignment of Solvent-annealed Cylinder forming Poly(styrene)-\textit{block}-poly(dimethylsiloxane) block copolymers Christine Kathrein, Wubin Bai, Larisa Tsarkova, Tao Huang, Apostolos Avgeropoulos, Alexander Boker, Caroline Ross
3:06PM - 3:42PM	D42.00004: Self-Assembly of Diblock Copolymers on Modified and Patterned Surfaces **Invited Speaker:** Venkat Ganesan
3:42PM - 3:54PM	D42.00005: Optimizing the Morphology Characterization of Block Copolymer Directed Self-Assembly Thin Films using Inverse Genetic Algorithms Adam Hannon, Daniel Sunday, Donald Windover, Christopher Liman, Jaun de Pablo, Joseph Kline
3:54PM - 4:06PM	D42.00006: Instantaneous Formation of Block Copolymer Patterns via Solvo-Thermal Casting Process Hyun Jung Jung, Sanghoon Woo, June Huh, Joona Bang
4:06PM - 4:18PM	D42.00007: Cyclic Solvent Vapor Annealing for Rapid, Robust Vertical Orientation of Features in BCP Thin Films Sean Paradiso, Kris Delaney, Glenn Fredrickson
4:18PM - 4:30PM	D42.00008: Decoupling Substrate Surface Interactions in Block Polymer Thin Film Self-Assembly Cameron Shelton, Thomas Epps
4:30PM - 4:42PM	D42.00009: A Block Copolymer Self-Assembly Approach for 3D Nanoconfined Dopants in Semiconductors Bhooshan Popere, Boris Russ, William Chang, Andrew Heitsch, Peter Trefonas, Rachel Segalman
4:42PM - 4:54PM	D42.00010: Defect motion and annihilation in block copolymer thin films Marcus Mueller, Weihua Li
4:54PM - 5:06PM	D42.00011: Accelerating the search for globally stable block polymer microphases using genetic algorithms Carol Tsai, Kris Delaney, Glenn Fredrickson
5:06PM - 5:18PM	D42.00012: Kinetic Aspects of Defect Annihilation in Block Copolymer Thin Films on Patterned Substrates Su-Mi Hur, Paulina Rincon-Delgadillo, Vikram Thapar, Abelardo Ramirez-Hernandez, Gurdaman Khaira, Paul Nealey, Marcus Mueller, Juan de Pablo

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D43: Focus Session: Self Assembled Block Copolymers and Soft Nanoparticles in Solution I

Sponsoring Units: DPOLY
Chair: Sangwoo Lee, Rensselaer Polytechnic Institute
Room: *214C*

2:30PM - 2:42PM	D43.00001: Exotic nanoparticles with block copolymer design and solution construction with kinetic contro Darrin Pochan
2:42PM - 2:54PM	D43.00002: Corona contraction and polyelectrolyte complexation of polybasic micelles in buffered aqueous solution Jennifer Laaser, Yaming Jiang, Theresa Reineke, Timothy Lodge
2:54PM - 3:06PM	D43.00003: Predicting the Solution Morphology of a Sulfonated Block Copolymer in Binary Solvent Mixtures Philip Griffin, Grace Salmon, Jamie Ford, Karen Winey
3:06PM - 3:18PM	D43.00004: Structure of block copolymer micelles in the presence of co-solvents Megan Robertson, Shu Wang, Kim Mai Le, Rachele Piemonte, Louis Madsen
3:18PM - 3:30PM	D43.00005: Solvents effect on the structure of pentablock ionic polymers: A SANS study Manjula Senenayake, Thusitha Etampawala, Sidath Wijesinghe, Naresh Osti , Lilin He, Dvora Perahia
3:30PM - 3:42PM	D43.00006: Reversible, All-Aqueous Assembly of Hydrogen-Bonded Polymersomes Yuhao Wang, Svetlana Sukhishvili
3:42PM - 4:18PM	D43.00007: Aqueous Self-Assembly of Non-Ionic Bottlebrush Block Copolymer Surfactants with Tunable Molecular Shapes **Invited Speaker:** Javid Rzayev
4:18PM - 4:30PM	D43.00008: Phase Transfer of Polystyrene-b-poly(ethylene oxide) Polymersomes from a Hydrophobic Ionic Liquid to Water Soonyong So, Timothy Lodge
4:30PM - 4:42PM	D43.00009: Micellizationa and Gelation of Water Soluable Thermo-and Light-sensitive Block Copolymer Investigated by SANS Lilin He, Bin Hu, Bin Zhao
4:42PM - 4:54PM	D43.00010: Writing with vesicles Chi Hang Boyce Tsang, Yongfeng Zhou, Steve Granick
4:54PM - 5:06PM	D43.00011: Controlling Molecular Ordering and Self-Assembly of Conjugated Polymers in Solution Jiahua Zhu, Youngkyu Han, Changwoo Do, Ilia Ivanov
5:06PM - 5:18PM	D43.00012: Characterization of Block Copolymer Self-Assembly: From Solution to Nanoporous Membranes Yachin Cohen, Liat Oss-Ronen, Yeshayahu Talmon, Judith Schmidt, Aurel Radulescu, Volker Abetz
5:18PM - 5:30PM	D43.00013: Self-Assembly of Soft Colloids with Multi-scale Phase-Separated Structures Chris Sosa, Robert K. Prud'homme, Rodney D. Priestley

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D45: Polymer Melts & Solutions II

Sponsoring Units: DPOLY
Chair: Muzhou Wang, National Institute of Standards and Technology
Room: *216AB*

2:30PM - 2:42PM	D45.00001: Visco-elasticity of bottlebrush polymer melts: Pushing the lower limit of the entanglement modulus William Daniel, Joanna Burdynska, Andrey Dobrynin, Krzysztof Matyjaszewski, Michael Rubinstein, Sergei Sheiko
2:42PM - 2:54PM	D45.00002: First-Passage Time in Entangled Star Polymers Melts Jing Cao, Jian Zhu, Zuowei Wang, Alexei Likhtman
2:54PM - 3:06PM	D45.00003: Simplified tube models for entangled supramolecular polymers Paul Jones, Thorin Kane, Brian Familo, Ross Netusil, Patrick Howard, Marie Victor Boudara, Daniel Read
3:06PM - 3:18PM	D45.00004: Fingerprinting the Non-linear Response of Three Arm Star Polystyrene by Mechanical Spectral Hole Burning, Lissajous-Bowditch Loops, and Fourier Transform Rheology Zhiyuan Qian, Gregory B. McKenna
3:18PM - 3:30PM	D45.00005: Breakup dynamics of Non-Newtonian droplets in microfluidic devices: From necking to Rupture Pouyan Boukany, Shaurya Sachdev
3:30PM - 3:42PM	D45.00006: Polymer relaxation and stretching dynamics in semi-dilute DNA solutions: a single molecule study Kai-Wen Hsiao, Christopher Brockman, Charles Schroeder
3:42PM - 3:54PM	D45.00007: Optical Nanodozers Ahmed Khorshid, Walter Reisner, Takahiro Sakaue
3:54PM - 4:06PM	D45.00008: Shear and normal forces in charged polymer brushes Qi Liao, Michael Rubinstein
4:06PM - 4:18PM	D45.00009: A Molecular Mechanism of viscoelasticity in aligned polyethylene A. Hammad, H. Hasan, T.D. Swinburne, M. Khawaja, S. Del-Rosso, L. Iannucci, A.P. Sutton
4:18PM - 4:30PM	D45.00010: Electrostatics effects on normal load capacity of two like-charge hydrogels Aykut Erbas, Jos Zwanikken, Monica Olvera de la Cruz
4:30PM - 4:42PM	D45.00011: Entangled Polymer-Nanocomposites: Dynamics and phase stability Rahul Mangal, Samanvaya Srivastava, Lynden Archer
4:42PM - 4:54PM	D45.00012: Slip-spring model of entangled rod-coil block copolymers Muzhou Wang, Alexei E. Likhtman, Bradley D. Olsen
4:54PM - 5:06PM	D45.00013: Influence of Asymmetric Chain Dynamics on the Viscoelastic Response of Block Copolymers Near the Order-Disorder Transition Robert Hickey, Timothy Gillard, Timothy Lodge, Frank Bates

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Session D48: Focus Session: Dynamically Bonded Soft Matter

Sponsoring Units: DBIO DPOLY
Chair: Niels Holten-Andersen, Massachusetts Institute of Technology
Room: *217C*

2:30PM - 2:42PM	D48.00001: Adhesion of \textit{D. discoideum} on Hydrophobic Substrate Bret Flanders, Nicoleta Ploscariu
2:42PM - 2:54PM	D48.00002: Energetic modeling and single-molecule verification of dynamic regulation on receptor protein diffusion by actin corrals and lipid raft domains receptor Chien Yu Lin, Jung Y. Huang, Leu-Wei Lo
2:54PM - 3:06PM	D48.00003: Possible Domain Formation In PE/PC Bilayers Containing High Cholesterol Matthew Hein, Fazle Hussain, Juyang Huang
3:06PM - 3:42PM	D48.00004: Self-Healing of Polymer Networks with Reversible Bonds **Invited Speaker:** Michael Rubinstein
3:42PM - 3:54PM	D48.00005: Assembly of transmembrane proteins on oil-water interfaces Peter Yunker, Corey Landry, Shaorong Chong, David Weitz
3:54PM - 4:06PM	D48.00006: Bio-Inspired Composite Interfaces: Controlling Hydrogel Mechanics via Polymer-Nanoparticle Coordination Bond Dynamics Niels Holten-Andersen
4:06PM - 4:18PM	D48.00007: Photo-induced Reshuffling of Covalent Networks for Shape Actuators Mitchell Anthamatten, Yuan Meng
4:18PM - 4:54PM	D48.00008: Thermoreversible materials from supramolecular assembly **Invited Speaker:** Ludwik Leibler
4:54PM - 5:06PM	D48.00009: Mussel-inspired reversible metal-coordinate bonds as a pathway towards temporal control over the mechanical hierarchy of soft materials Scott Grindy, Robert Learsch, Niels Holten-Andersen
5:06PM - 5:18PM	D48.00010: Active Dynamic Frictional Probes Joshua Steimel, Juan Aragones, Alfredo Alexander-Katz
5:18PM - 5:30PM	D48.00011: Magnesium Dependence of the RNA Free Energy Landscape Ryan Hayes, Jeffrey Noel, Ana Mandic, Paul Whitford, Karissa Sanbonmatsu, Udayan Mohanty, José Onuchic
5:30PM - 5:42PM	D48.00012: Exploiting Dynamic Bonds in Polymer-grafted Nanoparticle Networks to Create Mechanomutable, Reconfigurable Composites Anna C. Balazs, Matthew J. Hamer, Balaji V.S. Iyer, Victor V. Yashin

Monday, March 2, 2015, 2:30 pm – 5:30 pm

Other 'D' Sessions of potential interest:

Session D49: Focus Session: Active Living Matter I
Sponsoring Units: GSOFT DBIO
Chair: Vernita Gordon, University of Texas at Austin
Room: *217D*

Session D50: Focus Session: Dynamic Jamming Fronts and Shear Thickening
Sponsoring Units: GSOFT GSNP
Chair: Eric Brown, Yale University
Room: *218*

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F20: Invited Session: Polymer Physics Prize

Sponsoring Units: DPOLY
Chair: Nitash Balsara, University of California, Berkeley
Room: *Ballroom B*

8:00AM - 8:36AM	F20.00001: Polymer Prize Lecture: A molecular perspective on the deformation of polymer glasses **Invited Speaker:** Mark Ediger
8:36AM - 9:12AM	F20.00002: Nanoparticles in liquid crystals, and liquid crystals in nanoparticles **Invited Speaker:** Juan de Pablo
9:12AM - 9:48AM	F20.00003: Broadband Coherent Raman Scattering for Rapid Spectroscopic Imaging **Invited Speaker:** Marcus Cicerone
9:48AM - 10:24AM	F20.00004: What have we learned after 20 years of measuring glass transitions in thin polymer films? **Invited Speaker:** James Forrest
10:24AM - 11:00AM	F20.00005: Surface Mediated Self-Assembly of Amyloid Peptides **Invited Speaker:** Zahra Fakhraai

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F41: Focus Session: Organic Electronics and Photonics, Design of Semiconducting Materials

Sponsoring Units: DPOLY
Chair: Alejandro Briseno, University of Massachusetts-Amherst
Room: *214A*

8:00AM - 8:36AM	F41.00001: BREAK
8:36AM - 8:48AM	F41.00002: Addition of ferrocene controls polymorphism and enhances charge mobilities in poly(3-hexylthiophene) thin-film transistors Brandon Smith, Michael Clark, Christopher Grieco, Alec Larsen, John Asbury , Enrique Gomez
8:48AM - 9:00AM	F41.00003: Predicting nematic coupling constants of semiflexible polymers from MD simulations Wenlin Zhang, Enrique Gomez, Scott Milner
9:00AM - 9:12AM	F41.00004: Heteroatom-Containing Contorted Molecular Semiconductors Nicholas Davy, Gabriel Man, Sean Parkin, Antoine Kahn, Yueh-Lin Loo
9:12AM - 9:48AM	F41.00005: Manipulating the backbone structure of semiconducting polymers **Invited Speaker:** Christine Luscombe
9:48AM - 10:00AM	F41.00006: Synthesis and Self-Assembly of Rod2Coil Miktoarm Star Copolymers of Poly(3-dodecxylthiophene) and Poly(methyl methacrylate) with high rod fractions Jicheol Park, Hong Chul Moon, Chung-Royng Choi, Jin Kon Kim
10:00AM - 10:12AM	F41.00007: A Quantum Chemical Study of Structural and Electronic Properties of DTBT and DTBT:C70 Complexes Mesfin Tsige, Ram Bhatta
10:12AM - 10:24AM	F41.00008: Theoretical modelling of high-dielectric constant donors for high-conversion organic film solar cells Kenji Mishima, Koichi Yamashita
10:24AM - 10:36AM	F41.00009: Investigation of intermolecular interactions between fluorene-based conjugated polymers using the dispersion-corrected DFT Sarah Ayoub, Jolanta B. Lagowski
10:36AM - 10:48AM	F41.00010: Breaking charge conjugation symmetry for novel π-conjugated donor and acceptor materials design Yongwoo Shin, Xi Lin
10:48AM - 11:00AM	F41.00011: High-throughput organic semiconductor discovery combining tight-binding and first-principles calculations Andre Leitao Botelho, Tim Mueller

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F42: Wetting, Adhesion and Dynamics of Polymer Films and Interfaces

Sponsoring Units: DPOLY
Chair: Ryan Hayward, Unversity of Massachussets, Amherst
Room: *214B*

8:00AM - 8:36AM	F42.00001: BREAK
8:36AM - 8:48AM	F42.00002: Molecular Velcro constructed from polymer loop brushes showing enhanced adhesion force Tian Zhou, Biao Han, Lin Han, Christopher Li
8:48AM - 9:00AM	F42.00003: Probing the adhesion of particles to responsive polymer coatings with hydrodynamic shear stresses Ryan Toomey, Gulnur Efe
9:00AM - 9:12AM	F42.00004: Dynamic Polymer Brush at Polymer/Water Interface Hideaki Yokoyama, Kazuma Inoue, Kohzo Ito, Manabu Inutsuka, Keiji Tanaka, Norifumi Yamada
9:12AM - 9:24AM	F42.00005: Planar dipolar polymer brush: field theoretical investigations Jyoti Mahalik, Rajeev Kumar, Bobby Sumpte
9:24AM - 9:36AM	F42.00006: Direct Observation of the End-to-End Distance of Chains in a Polymer Langmuir Monolayer Jiro Kumaki, Fumiki Honma
9:36AM - 9:48AM	F42.00007: Confined by air - on the outstanding stability of free-standing films of pure silicone-based block-copolymer melts Thibaut Gaillard, Matthieu Roche, Thomas Voisin, Christophe Poulard, Clement Honorez, Lorene Champougny, Emmanuelle Rio, Patrick Davidson, Wiebke Drenckhan
9:48AM - 10:00AM	F42.00008: Universal Regimes in the Relaxation of Stepped Liquid Interfaces near Contact Lines Oliver Baeumchen, Thomas Salez, Michael Benzaquen, Elie Raphael, Marco Rivetti
10:00AM - 10:12AM	F42.00009: Tracking particles in ionic liquid thin films with in-situ scanning electron microscopy Paul Kim, Alexander Ribbe, Thomas Russell, David Hoagland
10:12AM - 10:24AM	F42.00010: How do evaporating thin films evolve? Unravelling phase-separation mechanisms during solvent-based fabrication of polymer blends Olga Wodo, Baskar Ganapathysubramanian
10:24AM - 10:36AM	F42.00011: Polymeric surfaces exhibiting photocatalytic activity and controlled anisotropic wettability Spiros H. Anastasiadis, Melani A. Frysali, Lampros Papoutsakis, George Kenanakis, Emmanuel Stratakis, Maria Vamvakaki, Grigoris Mountrichas, Stergios Pispas
10:36AM - 10:48AM	F42.00012: The Role of Contact Angle on the Depletion Layer when at the Interface Between Water and a Hydrophobic Surface Adele Poynor, Shannon Petersen, Brooke Ollander
10:48AM - 11:00AM	F42.00013: Wetting Properties of Chemically Modified Surfaces: The role of hydrogen bonding Selemon Bekele, Mesfin Tsige

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F43: Blends and Block Copolymers

Sponsoring Units: DPOLY
Chair: Anupriya Agarwal, Clemson University
Room: *214C*

8:00AM - 8:36AM	F43.00001: BREAK
8:36AM - 8:48AM	F43.00002: Controlling Phase Separation of Interpenetrating Polymer Networks by Addition of Block Copolymers Brian Rohde, Ramanan Krishnamoorti, Megan Robertson
8:48AM - 9:00AM	F43.00003: Melt-Miscibility in Block Copolymers Containing Polyethylene and Substituted Polynorbornene Blocks William Mulhearn, Richard Register
9:00AM - 9:12AM	F43.00004: Fluctuation Effects in AB/A/B Diblock Copolymer-Homopolymer Ternary Mixtures near the Lamellar-Disorder Transition Timothy Gillard, Robert Hickey, Brian Habersberger, Timothy Lodge, Frank Bates
9:12AM - 9:24AM	F43.00005: How to Place Block Copolymer Molecules at the Interface of a Binary Blend Zhong-Ren Chen, Yuci Xu, Shuo Zhong
9:24AM - 9:36AM	F43.00006: Pressure dependence of various phase transitions for the miscible block copolymer blends Du Yeol Ryu, Yonghoon Lee, Hoyeon Lee, Yeongsik Kim
9:36AM - 9:48AM	F43.00007: Crystallization of a bimodally distributed copolymer system and a blend containing propylene-ethylene moieties Onyenkachi Wamuo, Ying Wu, Shaw Hsu, Charles(Chuck) Paul, Andrea Eodice
9:48AM - 10:00AM	F43.00008: Understanding How the Presence of Uniform Electric Fields Can Shift the Miscibility of Polystyrene / Poly(vinyl methyl ether) Blends Annika Kriisa, Connie B. Roth
10:00AM - 10:12AM	F43.00009: Magnetic Field Alignment of PS-P4VP: a Non-Liquid Crystalline Coil-Coil Block Copolymer Yekaterina Rokhlenko, Kai Zhang, Steven Larson, Padma Gopalan, Corey O'Hern, Chinedum Osuji
10:12AM - 10:24AM	F43.00010: Phase Behavior of Binary Blend Consisting of Asymmetric Polystyrene-block-poly(2-vinylpyridine) Copolymer and Asymmetric Deuterated Polystyrene-block-poly(4-hydroxystyrene) Copolymer Having Hydrogen Bonding Jongheon Kwak, Sung Hyun Han, Hong Chul Moon, Victor Pryamitsyn, Venkat Ganesan, Jin Kon Kim
10:24AM - 10:36AM	F43.00011: Quenching Phase Separation by Vapor Deposition Polymerization Ran Tao, Mitchell Anthamatten
10:36AM - 10:48AM	F43.00012: Understanding Segregation Processes in Blends of Bottlebrush-Linear Polymer Thin Films Indranil Mitra, Xianyu Li, Stacy L. Pesek, Boris Makarenko, Brad S. Lokitz, David Uhrig, John F. Ankner, Rafael Verduzco, Gila E. Stein
10:48AM - 11:00AM	F43.00013: Using β-NMR to Measure Surface Segregation of Short Chains in Binary Blends of Polystyrene Iain McKenzie, David L. Cortie, Chad R. Daley, Pendar Mahmoudi, Nasser M. Abukhdeir, Mark W. Matsen, Robert F. Kiefl, C. D. Philip Levy, W. Andrew MacFarlane, Ryan M. L. McFadden, Gerald D. Morris, Matthew R. Pearson, James A. Forrest

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F50: Soft Glasses

Sponsoring Units: GSOFT DPOLY
Chair: Mark Shattuck, City College of New York
Room: *218*

8:00AM - 8:12AM	F50.00001: Controlling disordered materials from the boundaries A. Alan Middleton, Sean Sweeney
8:12AM - 8:24AM	F50.00002: Connecting glassy dynamics to micro-scale elasticity Wenhai Zheng, Matthieu Wyart, David Pine
8:24AM - 8:36AM	F50.00003: Jamming and free energy landscapes for three caged soft disks Xin Du, Eric Weeks
8:36AM - 8:48AM	F50.00004: Microscopic Theory of Activated Penetrant Diffusion in Liquids and Glasses Rui Zhang, Kenneth Schweizer
8:48AM - 9:00AM	F50.00005: Antiferromagnetic Ising Model in Hierarchical Networks Xiang Cheng, Stefan Boettcher
9:00AM - 9:12AM	F50.00006: Protein crowding in solution, frozen and freeze-dried states: small-angle neutron and X-ray scattering study of lysozyme/sorbitol/water systems Susan Krueger, Sheila Khodadadi, Nicholas Clark, Arnold McAuley, Viviana Cristiglio, Narayanan Theyencheri, Joseph Curtis, Evgenyi Shalaev
9:12AM - 9:24AM	F50.00007: Typical Value of Susceptibilities in the Three Dimensional Edwards-Anderson Spin Glass Model in an External Field Sheng Feng, Ka-Ming Tam, Ye Fang, J. Ramanujam, Juana Moreno, Mark Jarrell
9:24AM - 9:36AM	F50.00008: Dimensional dependence of mobility correlations and dynamic heterogeneity in two-dimensional and three-dimensional glass forming fluids Elijah Flenner, Grzegorz Szamel
9:36AM - 9:48AM	F50.00009: Correlations of structure and dynamics in colloidal supercooled liquids Moyosore Odunsi, Eric Weeks
9:48AM - 10:00AM	F50.00010: Measurement of Stress Networks in 3D Colloidal Glasses Neil Lin, Matthew Bierbaum, James Sethna, Itai Cohen
10:00AM - 10:12AM	F50.00011: Physical Aging in a Colloidal Glass Subjected to Concentration Jump Conditions Xiaoguang Peng, Gregory B. McKenna
10:12AM - 10:24AM	F50.00012: Structural signatures of dynamic heterogeneities in monolayers of colloidal ellipsoids Zhongyu Zheng, Yuren Wang, Yilong Han
10:24AM - 10:36AM	F50.00013: Dynamics approaching the 2D colloidal glass transition Skanda Vivek, Eric Weeks
10:36AM - 10:48AM	F50.00014: Dynamical heterogeneities in hard-sphere systems near random close packing W. Wendell Smith, Peter Williams, Mark Shattuck, Corey O'Hern
10:48AM - 11:00AM	F50.00015: A new phase of disordered phonons modelled by random matrices Sebastian Schmittner, Martin Zirnbauer

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Session F51: Invited Session: Smart Assemblies: Self-Replication, Computation and Error-Free Self-Assembled Systems

Sponsoring Units: DCMP GSOFT DPOLY
Chair: Pablo Damasceno, University of Michigan
Room: *Grand Ballroom C1*

8:00AM - 8:36AM	F51.00001: Self-Replication of Colloidal Clusters **Invited Speaker:** Michael Brenner
8:36AM - 9:12AM	F51.00002: Emergence of Darwinian Evolution in Robotic Systems **Invited Speaker:** Chris Adami
9:12AM - 9:48AM	F51.00003: The Molecular Programming Project **Invited Speaker:** Erik Winfree
9:48AM - 10:24AM	F51.00004: TBD **Invited Speaker:** Paul Chaikin

Tuesday, March 3, 2015, 8:00 am – 11:00 am

Other 'F' Sessions of potential interest:

Session F36: Focus Session: Biofunctionalized Nano-Materials
Sponsoring Units: GSOFT DBIO
Chair: Ras Pandey, University of Southern Mississippi
Room: *211*

Session F46: Invited Session: DBIO Award Symposium
Sponsoring Units: DBIO
Chair: Ramin Khajeh, University of California, Berkeley
Room: *217A*

Session F48: Focus Session: Physics of Proteins I
Sponsoring Units: DBIO
Chair: Dongping Zhong, Ohio State University
Room: *217C*

Tuesday, March 3, 2015, 11:15 am – 2:15 pm

Session G41: Focus Session: Organic Electronics and Photonics - Small Molecule Semiconductors

Sponsoring Units: DPOLY DMP
Chair: Enrique Gomez, Pennsylvania State University
Room: *214A*

11:15AM - 11:27AM	G41.00001: Using photovoltage to measure device-relevant exciton diffusion in luminescent and non-luminescent organic semiconducting materials Tyler Mullenbach, Russell Holmes
11:27AM - 11:39AM	G41.00002: Using Mass Transport to Guide the Purification of Small Molecule Organic Semiconductors via Sublimation Nathan T. Morgan, Yi Zhang, Matthew L. Grandbois, Bruce M. Bell, Russell J. Holmes, E. L. Cussler
Author Not Attending	G41.00003: Separation of Carrier-Transport and Light-Emission Functions in a Light-Emitting Organic Transistor with Bilayer Configuration Hui Shang, Hidekazu Shimotani, Kanagasekaran Thangavel, Katsumi Tanigaki
11:51AM - 12:27PM	G41.00004: Tuning the opto-electronic properties of donor-acceptor polymers with molecular doping **Invited Speaker:** Elizabeth von Hauff
12:27PM - 12:39PM	G41.00005: Polymorphism in Core-Chlorinated Naphthalene Tetracarboxylic Diimide Thin Films Geoffrey Purdum, Falk May, Nan Yao, Thomas Weitz, Yueh-Lin Loo
12:39PM - 12:51PM	G41.00006: Small Conjugated Molecules: Orbital Energy Modeling Using Tuned Range-Separated Functional Ram Bhatta, Mesfin Tsige
12:51PM - 1:03PM	G41.00007: Low Field Electronic Behavior and Contact Impedance of Organic Single Crystal Transistors Emily Bittle, James Basham, Thomas Jackson, Oana Jurchescu, David Gundlach
1:03PM - 1:15PM	G41.00008: Site energies and charge transfer rates near pentacene grain boundaries from first-principles calculations Hajime Kobayashi, Yuichi Tokita
1:15PM - 1:27PM	G41.00009: Nanoscale domains in thin-film pentacene seen by mid-infrared near-field spectroscopy Fritz Keilmann, Bert Nickel, Christian Westermeier, Clemens Liewald, Sergiu Amarie, Adrian Cernescu
1:27PM - 1:39PM	G41.00010: Tunable Molecular Orientation and Elevated Thermal Stability of Vapor-Deposited Organic Semiconductors Diane Walters, Shakeel Dalal, Ivan Lyubimov, Juan de Pablo, Mark Ediger
1:39PM - 1:51PM	G41.00011: GIWAXS characterization of amorphous, anisotropic, vapor-deposited organic semiconductor films Ankit Gujral, Kathryn O'Hara, Michael Chabinyc, Mark Ediger
1:51PM - 2:03PM	G41.00012: Device applications and structural and optical properties of Indigo -- A biodegradable, low-cost organic semiconductor Zhengjun Wang, Kelly L. Pisane, Konstantinos Sierros, Mohindar S. Seehra, Dimitris Korakakis

Tuesday, March 3, 2015, 11:15 am – 2:15 pm

Session G42: Padden Award Symposium

Sponsoring Units: DPOLY
Chair: Wes Burghardt, Northwestern University
Room: *214B*

11:15AM - 11:27AM	G42.00001: Get in Line: Orienting Cylinders in Block Copolymer Thin Films via Shear Raleigh Davis, Richard Register, Paul Chaikin
11:27AM - 11:39AM	G42.00002: How Mechanical Deformation of Polymers during Vitrification Alters the Subsequent Stability of the Glass Laura A. G. Gray, Connie B. Roth
11:39AM - 11:51AM	G42.00003: Lithium dendrite growth through solid polymer electrolyte membranes Katherine Harry, Nicole Schauser, Nitash Balsara
11:51AM - 12:03PM	G42.00004: DNA-programmable Nanoparticle Self-Assembly and Crystallization via Multi-Scale Modelling & Simulation Ting Li, Monica Olvera de la Cruz
12:03PM - 12:15PM	G42.00005: Chain exchange in triblock copolymer micelles Jie Lu, Timothy Lodge, Frank Bates
12:15PM - 12:27PM	G42.00006: Mechanics of helical mesostructures from polymer-nanoparticle hybrids Jonathan Pham, Jimmy Lawrence, Gregory Grason, Todd Emrick, Alfred Crosby
12:27PM - 12:39PM	G42.00007: Simple, generalizable route to highly aligned block copolymer thin films Zhe Qiang, Kevin Cavicchi, Bryan Vogt
12:39PM - 12:51PM	G42.00008: Nanoscale physical properties of polymer glasses formed by solvent-assisted laser deposition Kimberly Shepard, Craig Arnold, Rodney Priestley
12:51PM - 1:03PM	G42.00009: Chains, Rings, and Dendrites of Active Colloidal Polymers Jie Zhang, Steve Granick

Tuesday, March 3, 2015, 11:15 am – 2:15 pm

Session G43: Focus Session: Fluids Under Confinement and in Biological Systems

Sponsoring Units: DPOLY DBIO GSOFT
Chair: Erio Tosatti, International School for Advanced Studies
Room: *214C*

11:15AM - 11:27AM	G43.00001: Stiff Filamentous Viruses Probe the Mobility of Counterions During Nanopore Translocations Angus McMullen, Jay Tang, Derek Stein
11:27AM - 11:39AM	G43.00002: Salmonella detection in a microfluidic channel using orbiting magnetic beads Matt Ballard, Zachary Mills, Drew Owen, Srinivas Hanasoge, Peter Hesketh, Alexander Alexeev Sethna
11:39AM - 11:51AM	G43.00003: Sequencing proteins with transverse ionic transport Paul Boynton, Massimiliano Di Ventra
11:51AM - 12:03PM	G43.00004: Nanoscale Electrospray Ion Sources and a New DNA Sequencing Technique William Maulbetsch, Joseph Bush, Derek Stein
12:03PM - 12:15PM	G43.00005: Statics and dynamics of softly confined polymers Andrea Scagliarini, Mauro Sbragaglia, Marcello Sega
12:15PM - 12:27PM	G43.00006: Threading moieties play a significant role in determining the DNA binding properties of binuclear ruthenium complexes Thayaparan Paramanathan, Andrew Clark, Fredrik Westerlund, Per Lincoln, Micah J. McCauley, Ioulia Rouzina, Mark C. Williams
12:27PM - 1:03PM	G43.00007: Physics and (patho)physiology in confined flows: from colloidal patterns to cytoplasmic rheology and sickle cell anemia **Invited Speaker:** L Mahadevan
1:03PM - 1:15PM	G43.00008: Quantifying the molecular mechanism for highly stereo-selective DNA threading intercalation Ali Almaqwashi, Johanna Andersson, Per Lincoln, Ioulia Rouzina, Fredrik Westerlund, Mark C. Williams
1:15PM - 1:27PM	G43.00009: Improving signal-to-noise performance for DNA translocation in solid-state nanopores at MHz bandwidths Bartholomeus Machielse, Adrian Balan, David Niedzwiecki, Jianxun Lin, Peijie Ong, Rebecca Engelke, Kenneth Shepard, Marija Drndic
1:27PM - 1:39PM	G43.00010: DNA translocation measurements through low-capacitance solid-state nanopore chips at high bandwidths Chen-Chi Chien, David Niedzwiecki, Bartholomeus Machielse, Adrian Balan, Jianxun Lin, Peijie Ong, Kenneth Shepard, Marija Drndic
1:39PM - 1:51PM	G43.00011: Up and down events in nanoparticle translocation through solid-state nanopores Mehdi Zanjani, Rebecca Engelke, Jennifer Lukes, Marija Drndic
1:15PM - 2:03PM	G43.00012: Structural Integrity of Proteins under Applied Bias during Solid-State Nanopore Translocation Mohammad R. Hasan, Raja Raheel Khanzada, Mohammed A. I. Mahmood, Adnan Ashfaq, Samir M. IQBAL

Tuesday, March 3, 2015, 11:15 am – 2:15 pm

Session G45: Focus Session: Polymers in Batteries and Electrochemical Capacitors I

Sponsoring Units: DPOLY
Chair: Joe Elabd, Texas A&M University
Room: *216AB*

11:15AM - 11:51AM	G45.00001: Electrostatic Assembly of Nanomaterials for Hybrid Electrodes and Supercapacitors **Invited Speaker:** Paula Hammond
11:51AM - 12:03PM	G45.00002: High Energy Density and High Temperature Multilayer Capacitor Films for Electric Vehicle Applications Imre Treufeld, Michelle Song, Lei Zhu, Eric Baer, Joe Snyder, Deepak Langhe
12:03PM - 12:15PM	G45.00003: Orientationally Ordered Lamellar Block Copolymer Films for Electrostatic Capacitor Applications Christopher Grabowski, Saumil Samant, Alamgir Karim, Michael Durstock
12:15PM - 12:27PM	G45.00004: Origins of enhanced capacity retention in copolymerized sulfur-based composite cathodes for Li-S batteries Christopher Soles, Vladimir Oleshko, Jenny Kim, Steven Hudson, Kookeon Char, Jared Griebel, Adam Simmonds, Richard Glass, Jeff Pyun
12:27PM - 12:39PM	G45.00005: Effect of Molecular Weight on Mechanical and Electrochemical Performance of All Solid-State Polymer Electrolyte Membranes Ruixuan He, Daniel Ward, Mauricio Echeverri, Thein Kyu
12:39PM - 12:51PM	G45.00006: Stacked Polymer nanofiber array for high-performance supercapacitors Shiren Wang, Jenny Qiu
12:51PM - 1:03PM	G45.00007: Sprayable, Paintable Layer-by-Layer Polyaniline Nanofiber/Graphene Electrodes for Electrochemical Energy Storage Se Ra Kwon, Ju-Won Jeon, Jodie Lutkenhaus
1:03PM - 1:15PM	G45.00008: Superionic solid-state polymer electrolyte membrane for high temperature applications Thein Kyu, Ruixuan He, Jinwei Cao
1:15PM - 1:27PM	G45.00009: Spatial position control of nanofeatures assisted by nanoporous templates fabricated by block copolymer based lithography Dong Hyun Lee, Dong-Eun Lee
1:27PM - 1:39PM	G45.00010: Electrochemical Stability of Model Polymer Electrolyte/Electrode Interfaces Daniel Hallinan, Guang Yang
1:39PM - 1:51PM	G45.00011: Determination of Lithium Ion Distributions in Nanostructured Block Polymer Electrolyte Thin Films by XPS Depth Profiling Ming Luo, Jonathan Gilbert, Cameron Shelton, Michael Rubner, Robert Cohen, Thomas Epps
1:51PM - 2:03PM	G45.00012: High Performance Electroactive Polymer Actuators Based on Sulfonated Block Copolymers Comprising Ionic Liquids Onnuri Kim, Moon Jeong Park
2:03PM - 2:15PM	G45.00013: Effect of Mobile Ions on the Electric Field Needed to Orient Charged Diblock Copolymer Thin Films Ashkan Dehghan, Michael Schick, An-Chang Shi

Tuesday, March 3, 2015, 11:15 am – 2:15 pm

Other 'G' Sessions of potential interest:

Session G44: Focus Session: Extreme Mechanics: Contortion of Filaments, Ribbons and Bundles
Sponsoring Units: GSNP
Chair: Greg Grason, University of Massachusetts at Amherst
Room: *214D*

Session G48: Focus Session: Physics of Proteins II
Sponsoring Units: DBIO
Chair: Katherine Niessen, State University of New York, Buffalo
Room: *217C*

Session G49: Fracture, Friction, and Deformation
Sponsoring Units: GSOFT
Chair: Mike Salerno, Sandia National Laboratories
Room: *217D*

Session G51: Invited Session: Frontiers of Soft Matter II
Sponsoring Units: GSOFT GSNP
Chair: M. Cristina Marchetti, Syracuse University
Room: *Grand Ballroom C1*

Other 'H' Sessions of potential interest:

Session H2: Graduate Student Lunch With The Experts
Sponsoring Units: APS
Room: *Ballroom A*

DPOLY Experts:
Prof. Chinedum Osuji (Yale University) - Orienting Nanoscale Structures in Self-Assembling Soft Materials

Dr. Brent Neal (Milliken & Company) - Polymer Physics and Advanced Manufacturing: An Industrial Perspective

Tuesday, March 3, 2015, 2:30 pm – 5:30 pm

Session J20: Invited Session: Dillon Medal Symposium

Sponsoring Units: DPOLY
Chair: Rachel Segalman, University of California, Santa Barbara
Room: *Ballroom B*

2:30PM - 3:06PM	J20.00001: John H. Dillon Medal Lecture: Magnetic Field Directed Self-Assembly of Block Copolymers and Surfactant Mesophases **Invited Speaker:** Chinedum Osuji
3:06PM - 3:18PM	J20.00002: Directed Assembly of Block Polymers Brad Parry, Ivan Surovtsev, Matthew Cabeen, Corey O'Hern, Eric Dufresne, Edwin Thomas
3:18PM - 3:30PM	J20.00003: Failure of Batteries with Block Copolymer Electrolytes and Lithium Metal Anodes Nitash Balsara, Didier Devaux, Katherine Harry, Dilworth Parkinson, Rodger Yuan, Daniel Hallinan, Alastair MacDowell
3:30PM - 3:42PM	J20.00004: Polymer Dynamics under Cylindrical Nano-Confinement Karen Winey, Wei-Shao Tung, Robert Riggleman
3:42PM - 3:54PM	J20.00005: The physical aging of star-shaped macromolecules: role of functionality Peter Green, Bradley Frieberg, Emmanouil Glynos, Georgios Sakellariou
3:54PM - 4:06PM	J20.00006: Solvent, Thermal and Solvent-Thermal Methods on Block Copolymer Thin Films Thomas Russell, Xiaodan Gu, Ilja Gunkel, Alexander Hexemer
4:06PM - 4:18PM	J20.00007: Predicting the distribution of functional nanoparticles in block polymers Robert Riggleman
4:18PM - 4:30PM	J20.00008: Coarse-Grained Simulation of Ion Diffusion in Polymer Melts: Effect of Physical Crosslinking and Finite Concentration Zhen-Gang Wang, Umi Yamamoto
4:30PM - 4:42PM	J20.00009: Thermodynamics and Kinetics of Defect Annihilation in Block Copolymer Assembly Juan de Pablo
4:42PM - 4:54PM	J20.00010: Polymer stability and function for electrolyte and mixed conductor applications Paula Hammond, Nicole Davis, David Liu, Chibueze Amanchukwu, Nate Lewis, Yang Shao-Horn
4:54PM - 5:06PM	J20.00011: Structural evolution of polyelectrolyte-complex-core micelles and ordered-phase bulk materials Matthew Tirrell, Daniel Krogstad, Edward Kramer
5:06PM - 5:18PM	J20.00012: Flexible Battery Cathodes Enabled by Conductive Block Copolymers Jodie Lutkenhaus, Rafael Verduzco, Hyosung An, Yen-Hao Lin
5:18PM - 5:30PM	J20.00013: Swelling of polyelectrolyte and polyzwitterion brushes by humid vapors Jan Genzer, Casey Galvin, Michael Dimitriou, Sushil Satija

Tuesday, March 3, 2015, 2:30 pm – 5:30 pm

Session J41: Focus Session: Organic Electronics and Photonics, Optical and Electrical Properties

Sponsoring Units: DPOLY
Chair: Michael Chabinyc, University of California, Santa Barbara
Room: *214A*

2:30PM - 3:06PM	J41.00001: BREAK
3:06PM - 3:18PM	J41.00002: Measuring Exciton Diffusion in Conjugated Polymer Films with Super-resolution Microscopy Samuel Penwell, Lucas Ginsberg, Rodrigo Noriega Manez, Naomi Ginsberg
3:18PM - 3:30PM	J41.00003: Probing the exciton coherent size in organic crystals and the effect of polar bonds Wai-Lun Chan, Ti Wang
3:30PM - 3:42PM	J41.00004: Fully three dimensional calculations of c-AFM current flow patterns, including space charge effects, traps and fibrous morphologies Kanokkorn Pimcharoen, Phillip Duxbury
3:42PM - 3:54PM	J41.00005: Interface structure of P3HT/SWNT blend and charge separation process on it Katsuhiko Nishimra, Ryota Jono, Mikiya Fujii, Koichi Yamashita
3:54PM - 4:06PM	J41.00006: Charge transfer type excitons at donor/acceptor interfaces of organic solar cells Azusa Muraoka, Koichi Yamashita
4:06PM - 4:18PM	J41.00007: On the theory of Carriers's Electrostatic Interaction near an Interface Michael Waters, Hossein Hashemi, John Kieffer
4:18PM - 4:54PM	J41.00008: Combining and Correlating DC, Modulated, and Transient Measurement Techniques to Disentangle and Quantify Key Physical Properties for Organic Semiconductor Devices **Invited Speaker:** David Gundlach
4:54PM - 5:06PM	J41.00009: Special Effect of Polystyrene on Quenching Pyrene in presence of Nitro-Aromatics Explosives David Uhrig, Hyun-Sook Jang, Hyun-Seok Cho, John W. Van Zee, Mu-Pingh Nieh
5:06PM - 5:18PM	J41.00010: Transient magneto-photoinduced absorption study of singlet fission in low band gap copolymers Uyen Huynh, Z. Valy Vardeny
Author Not Attending	J41.00011: On the Origins of Reduced Nongeminate Recombination in Organic Semiconductor Blends Michael Heiber, Vladimir Dyakonov, Carsten Deibel

Tuesday, March 3, 2015, 2:30 pm – 5:30 pm

Session J43: Focus Session: Manipulating Glasses: Mechanics

Sponsoring Units: DPOLY GSOFT
Chair: Daniel Sussman, University of Pennsylvania
Room: *214C*

2:30PM - 3:06PM	J43.00001: BREAK
3:06PM - 3:18PM	J43.00002: Nano confinement effects on dynamic and viscoelastic properties of Selenium Films Heedong Yoon, Gregory McKenna
3:18PM - 3:30PM	J43.00003: Effect of temperature on segmental mobility is reduced, but not eliminated during constant strain rate deformation of poly(methyl methacrylate) glasses Kelly Hebert, Benjamin Bending, Josh Ricci, M.D. Ediger
3:30PM - 3:42PM	J43.00004: Thermally Induced Deformation in Metallic Glass: the Activations and Relaxations Yue Fan, Takuya Iwashita, Takeshi Egami
3:42PM - 3:54PM	J43.00005: An energy landscape description of the mechanical response of model glassy materials Minglei Wang, Kai Zhang, Meng Fan, Yanhui Liu, Jan Schroers, Mark Shattuck, Corey O'Hern
3:54PM - 4:06PM	J43.00006: Yield and plastic behavior of glassy polymers Luca Conca, Alain Dequidt, Didier Long, François Lequeux, Paul Sotta, Jean-Yves Delannoy
4:06PM - 4:18PM	J43.00007: What drives polymer glasses ductile? Shi-Qing Wang, Shiwang Cheng, Xiaoxiao Li, Panpan Lin, Jianning Liu
4:18PM - 4:30PM	J43.00008: Plastic deformation of a model glass induced by a local shear transformation Nikolai Priezjev
4:30PM - 4:42PM	J43.00009: What deformation does and does not do in ductile polymer glasses Jianning Liu, Shi-Qing Wang
4:42PM - 5:18PM	J43.00010: Heterogeneous Glasses and Sustainable Cement **Invited Speaker:** Emanuela del Gado

Tuesday, March 3, 2015, 2:30 pm – 5:30 pm

Session J45: Extreme Mechanics

Sponsoring Units: GSNP DPOLY
Chair: Joel Marthelot, Massachusetts Institute of Technology
Room: *216AB*

2:30PM - 2:42PM	J45.00001: Graphene Statistical Mechanics Mark Bowick, Andrej Kosmrlj, David Nelson, Rastko Sknepnek
2:42PM - 2:54PM	J45.00002: Fanning the Optimal Breeze with an Abanico Grace Goon, Joel Marthelot, Pedro Reis
2:54PM - 3:06PM	J45.00003: Theoretical and experimental analysis of mylar balloons Antonio Romaguera, Vincent Demery, Benny Davidovitch
3:06PM - 3:18PM	J45.00004: Voltage Induced Buckling Instability, a Means for Advanced Functionality within Soft Materials Behrouz Tavakol, Sarah E. Beauchamp, Aschvin Chawan, Douglas P. Holmes
3:18PM - 3:30PM	J45.00005: Discontinuous Buckling Luuk Lubbers, Corentin Coulais, Johannes Overvelde, Katia Bertoldi, Martin van Hecke
3:30PM - 3:42PM	J45.00006: Bulk Elastic Fingering in Soft Materials Baudouin Saintyves, John Biggins, Zhiyan Wei, Serge Mora, L. Mahadevan, Elisabeth Bouchaud
3:42PM - 3:54PM	J45.00007: Mechanical properties of 3D printed warped membranes Andrej Kosmrlj, Kechao Xiao, James C. Weaver, Joost J. Vlassak, David R. Nelson
3:54PM - 4:06PM	J45.00008: Localization in an Idealized Heterogeneous Elastic Sheet Bekele Gurmessa, Andrew B. Croll
4:06PM - 4:18PM	J45.00009: Primary and secondary bifurcations in compressed elastomeric bilayers with small modulus contrast Anesia Auguste, Lihua Jin, Zhigang Suo, Ryan C. Hayward
4:18PM - 4:30PM	J45.00010: The Structural Change of Buckling Depending on the Directional Mechanical Heterogeneity of Top Thin Films Dokyeong Kwon, Hyoseon Suh, Domin Kim, Kookheon Char
4:30PM - 4:42PM	J45.00011: High Aspect Ratio Wrinkles Yu-Cheng Chen, Alfred Crosby
4:42PM - 4:54PM	J45.00012: Competition between adhesion and inertia during stick-slip peeling of Pressure Sensitive Adhesives M.-J. Dalbe, R. Villey, M. Ciccotti, P.-P. Cortet, S. Santucci, L. Vanel
4:54PM - 5:06PM	J45.00013: Influence of large strain rheology on the peeling performances of Pressure Sensitive Adhesives Richard Villey, Matteo Ciccotti, Costantino Creton, Pierre-Philippe Cortet, David J. Yarusso
5:06PM - 5:18PM	J45.00014: What can cracked polymer do Kexin Jiao, Chuanhong Zhou, Punit Kohli, Anish Poudel, Tsuchin Chu
5:18PM - 5:30PM	J45.00015: Formation of ^{3}He droplets in dilute ^{3}He-^{4}He solid solutions Chao Huan, Don Candela, Sung Kim, Liang YIn, Jiang-sheng Xia, Neil Sullivan

Tuesday, March 3, 2015, 2:30 pm – 5:30 pm

Other 'J' Sessions of potential interest:

Session J3: Invited Session: Research and Opportunties in Nanoscience: An Industrial Perspective
Sponsoring Units: COM
Chair: Alfredo Alexander-Katz, Massachusetts Institute of Technology
Room: *002AB*

Session J34: Interfacial Fluid Mechanics II: Wetting Phenomena
Sponsoring Units: DFD
Chair: Edmund Webb III, Lehigh University
Room: *210A*

Tuesday, March 3, 2015, 5:45 pm – 6:45 pm
Session K41: DPOLY Business Meeting
Sponsoring Units: DPOLY
Room: *214A*

Tuesday, March 3, 2015, 6:45 pm – 7:45 pm (immediately following business meeting)
Session KA41: DPOLY NSF Question & Answer Session: Polymers, Soft Matter, MGI
Sponsoring Units: DPOLY
Room: *214A*

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L18: Invited Session: Industry Day: Dynamics and Non-Equilibrium Processes of Colloids and Filled Polymer Blends

Sponsoring Units: DPOLY FIAP GSOFT
Chair: Valeriy Ginzburg, Dow Chemical
Room: *Mission Room 103A*

8:00AM - 8:36AM	L18.00001: Structure-Property Relationships of Architectural Coatings by Neutron Methods **Invited Speaker:** Alan Nakatani
8:36AM - 9:12AM	L18.00002: Thermal Imaging Processes of Polymer Nanocomposite Coatings **Invited Speaker:** Jeffrey Meth
9:12AM - 9:48AM	L18.00003: Dynamics of Polyelectrolyte Chains within Layer-by-Layer Assemblies **Invited Speaker:** Svetlana Sukhishvili
9:48AM - 10:24AM	L18.00004: Field responsive shear thickening fluids for personal protective equipment and MMOD shielding for spacecraft and astronauts **Invited Speaker:** Norman Wagner
10:24AM - 11:00AM	L18.00005: Nanostructured Block Copolymer Solutions and Composites: Mechanical and Structural Properties **Invited Speaker:** Lynn Walker

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L19: Invited Session: Industry Day: Introduction to Additive Manufacturing

Sponsoring Units: FIAP DPOLY
Chair: Barbara Jones, IBM
Room: *Mission Room 103B*

8:00AM - 8:36AM	L19.00001: Additive Manufacturing at NIST **Invited Speaker:** Eric Lin
8:36AM - 9:12AM	L19.00002: Advances in Manufacturing **Invited Speaker:** Robert Allen
9:12AM - 9:48AM	L19.00003: 3D Buckligami: Digital Matter 3D Printing, Additive Manufacturing, and Solid Freeform Fabrication: The Technologies of the Past, Present and Future **Invited Speaker:** Joseph Beaman
9:48AM - 10:24AM	L19.00004: Additive Manufacturing Enabled Ubiquitous Sensing in Aerospace and Integrated Building Systems **Invited Speaker:** Joseph Mantese
10:24AM - 11:00AM	L19.00005: Manufacturing of Wearable Sensors for Human Health and Performance Monitoring **Invited Speaker:** Azar Alizadeh

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L41: Focus Session: Organic Electronics and Photonics - Transport in Polymer Thin Films

Sponsoring Units: DPOLY DMP
Chair: Barry Rand, Princeton University
Room: *214A*

8:00AM - 8:12AM	L41.00001: Changes in the Solution Behavior of Conjugated Polymers with Light Absorption Mark Dadmun, Brian Morgan
8:12AM - 8:24AM	L41.00002: Correlating Transport with Nanostructure and Chemical Identity in Radical Polymer Conducting Glasses Bryan Boudouris, Lizbeth Rostro, Aditya Baradwaj, Martha Hay
8:24AM - 8:36AM	L41.00003: Using NEXAFS spectroscopy to probe the Biaxial Orientation of a Pyridal[2,1,3]thiadiazole-containing Donor-Acceptor Polymer Shrayesh Patel, Greg Su, Chan Luo, Ming Wang, Alan Heeger, Guillermo Bazan, Michael Chabinyc, Edward Kramer
8:36AM - 9:12AM	L41.00004: Percolation, tie-lines, and the microstructural determinants of charge transport in semicrystalline conjugated polymers **Invited Speaker:** Andrew Spakowitz
9:12AM - 9:24AM	L41.00005: Charge motion in Poly(3-hexylthiophene-2,5-diyl) studied with Scanning Probe Microscopy Jason Moscatello, Chloe Castaneda, Katherine Aidala
9:24AM - 9:36AM	L41.00006: Probing charge delocalization in a semi-crystalline supramolecular polymer Keehoon Kang, Shun Watanabe, Katrina Broch, Daisuke Matsumoto, Kazuhiro Marumoto, Hisaaki Tanaka, Shin-ichi Kuroda, Martin Heeney, Henning Sirringhaus
9:36AM - 9:48AM	L41.00007: A Blend Approach to P3HT Based Field Effect Transistor Performance Enhancement via Inclusion of 2,5-bis(3-dodecylthiophen-2-yl)thieno[3,2-b]thiophene Ping-Hsun Chu, Lei Zhang, Jung Ok Park, Mohan Srinivasarao, Alejandro L. Briseno, Elsa Reichmanis
9:48AM - 10:00AM	L41.00008: Probing electric fields within organic transistors by nonlinear optics Paulo B. Miranda, Silvia G. Motti, Douglas J. C. Gomes
10:00AM - 10:12AM	L41.00009: Sub-threshold charge transport in polymer transistors Seohee Kim, Tae-Jun Ha, Prashant Sonar, Ananth Dodabalapur
10:12AM - 10:24AM	L41.00010: High Performance Short-Channel Organic Field-Effect Transistors with Graphene Electrodes Narae Kang, Saiful I. Khondaker
10:24AM - 10:36AM	L41.00011: Charge transport in ion-gel gated IDTBT transistors Shun Wang, Bei Bao, Xianyi Shao, Lu Tan, Yueshen Wu, Libin Wen, Xuxu Bai, Xiaojun Guo, Ying Liu
10:36AM - 10:48AM	L41.00012: Conditions for the Formation of P3HT Organogels During Spin-Coating: Tuning Electrical Properties in Thin Films Cameron S Lee, Wen Yen, Adam Holt, Joshua Sangoro, Alexei Sokolov, Mark D Dadmun
10:48AM - 11:00AM	L41.00013: Insights from transport modeling of unusual charge carrier behavior of PDTSiTzTz:PC71BM bulk heterojunction materials with Graphene Electrodes Oleksiy Slobodyan, Sarah Moench, Kelly Liang, Eric Danielson, Bradley Holliday, Ananth Dodabalapur

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L42: Focus Session: Renewable and Sustainable Polymers

Sponsoring Units: DPOLY
Chair: Megan Robertson, University of Houston
Room: *214B*

8:00AM - 8:36AM	L42.00001: Ecobionanocomposites: Hierarchical supramolecular materials incorporating stereocomplexation **Invited Speaker:** John Dorgan
8:36AM - 8:48AM	L42.00002: Positive effect of biaxial stretching on the mechanical behavior of PLA-Talc nanocomposites Saadia Ouchiar, Grégory Stoclet, Cyrille Cabaret, Vincent Gloaguen, Jean-Marc Lefebvre
8:48AM - 9:00AM	L42.00003: Manipulating Interactions in Cellulose Nanocrystal/Waterborne Epoxy Composites through Physical Mixing Meisha L. Shofner, Natalie M. Girouard, J. Carson Meredith, Gregory T. Schueneman
9:00AM - 9:12AM	L42.00004: Epoxy thermoset networks derived from vegetable oils and their blends Chang Ryu, Matthew Ravalli
9:12AM - 9:24AM	L42.00005: Structure-Property Relationships in Thiol-Ene Networks Composed of Plant-Derived Phenolic Acids Guozhen Yang, Hiruy Tesefay, Megan Robertson
9:24AM - 9:36AM	L42.00006: Polyester Vitrimers from Biosourced Lactones Jacob Brutman, Paula Delgado, Marc Hillmyer
9:36AM - 9:48AM	L42.00007: Short-Range Correlation of Successive Helical Jump Motions of Poly(L-Lactic Acid) Chains as Revealed by Solid State NMR Wei Chen, Toshikazu Miyoshi
9:48AM - 10:00AM	L42.00008: Rayleigh-Taylor Instability Analysis at Biobased Composite Interfaces Richard Wool, Xintian Su
10:00AM - 10:12AM	L42.00009: Thermodynamic Interactions and Shear Alignment of Sustainable Triblock Copolymers Shu Wang, Megan Robertson, Sameer Vajjala Kesava, Enrique Gomez
10:12AM - 10:24AM	L42.00010: Structure and phase behavior of aqueous methylcellulose solutions John McAllister, Peter Schmidt, Timothy Lodge, Frank Bates
10:24AM - 11:00AM	L42.00011: Water in Renewable Polymers: Nonequilibrium Thermodynamics **Invited Speaker:** Yossef Elabd

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L43: Focus Session: Stable Glasses, Fluids Under Confinement and at Interfaces

Sponsoring Units: DPOLY GSOFT GSNP
Chair: Zahra Fakhraai, University of Pennsylvania
Room: *214C*

8:00AM - 8:12AM	L43.00001: Observation of Charge Inversion and Divalent Ion Transport in Nanochannels Xin Li, Weihua Guan, Ben Weiner, Mark Reed
8:12AM - 8:24AM	L43.00002: Electrostatic effects of dielectric interfaces on confined electrolyte Yufei Jing, Vikram Jadhao, Jos W. Zwanikken, Monica Olvera de la Cruz
8:24AM - 8:36AM	L43.00003: Squeezout of a model ionic liquid under confinement and charging Erio Tosatti, Rosario Capozza, Andrea Benassi, Andrea Vanossi
8:36AM - 8:48AM	L43.00004: Electrical charging effects on sliding lubrication properties of a model confined ionic liquid Rosario Capozza, Andrea Benassi, Andrea Vanossi, Erio Tosatti
8:48AM - 9:00AM	L43.00005: Crossover in the local diffusive dynamics of equilibrium and supercooled confined fluids Jonathan Bollinger, Thomas Truskett
9:00AM - 9:12AM	L43.00006: Geometrical frustration and correlated capillary instabilities among concentric polymer toroids Zheng Zhang, Gene Hilton, Yifu Ding
9:12AM - 9:48AM	L43.00007: Ultrastable Glasses and the Random First Order Transition Theory of Glasses **Invited Speaker:** Peter Wolynes
9:48AM - 10:00AM	L43.00008: Probing the Dynamics of Thin TPD Glass Films via Dewetting Yue Zhang, Ethan Glor, Tianyi Liu, Chen Li, Zahra Fakhraai
10:00AM - 10:12AM	L43.00009: Dewetting of a Liquid-Liquid System Stefan Bommer, Nikolas Becker, Sebastian Jachalski, Dirk Peschka, Barbara Wagner, Ralf Seemann
10:12AM - 10:24AM	L43.00010: Coupling the coffee-ring effect to phase separation in drying polymer-nanocrystal deposits Erik K. Hobbie, Joseph B. Miller, Austin C.P. Usselman, Rebecca J. Anthony, Uwe R. Kortshagen, Alexander J. Wagner, Alan R. Denton
10:24AM - 11:00AM	L43.00011: Surface Diffusion of Molecular Glasses and Its Role in Crystal Growth and Glass Engineering **Invited Speaker:** Lian Yu

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Session L45: Focus Session: Polymers in Batteries and Electrochemical Capacitors II

Sponsoring Units: DPOLY
Chair: Jodie Lutkenhaus, Texas A&M University
Room: *216AB*

8:00AM - 8:12AM	L45.00001: Ion transport and softening in a polymerized ionic liquid Rajeev Kumar, Vera Bocharova, Evgheni Strelcov, Veronika Strehmel, Joshua Sangoro, Alexei Sokolov, Sergei Kalinin, Bobby Sumpter
8:12AM - 8:24AM	L45.00002: Formation of ion clusters in the phase separated structures of neutral-charged polymer blends Ha-Kyung Kwon, Monica Olvera de la Cruz
8:24AM - 8:36AM	L45.00003: Diffusional Response of Assembled Polyelectrolyte Chains to Salt Annealing Victor Selin, John F. Ankner, Svetlana Sukhishvili
8:36AM - 8:48AM	L45.00004: Characterization of diblock copolymer lamellar structure from neutron scattering measurements and molecular dynamics simulations Cheol Jeong, Jenny Kim, Sangcheol Kim, Tsung-han Tsai, E. Brian Coughlin, Christopher Soles
8:48AM - 9:00AM	L45.00005: Phase separation predicted to induce water-rich channels in fuel cell membranes Daniel Herbst, Thomas Witten, Tsung-Han Tsai, Bryan Coughlin, Ashley Maes, Andrew Herring
9:00AM - 9:12AM	L45.00006: Cation-containing Polymers with Co-continuous Microphase-Separated Morphologies for Rapid Transport Membranes Frederick Beyer, Samuel Price, Alice Savage, Xiaoming Ren, Natalie Pomerantz, Walter Zukas
9:12AM - 9:24AM	L45.00007: Morphology and Proton Transport in Porous Block Copolymer Electrolyte Membranes Chelsea Chen, Jeffrey Kortright, David Wong, Nitash Balsara
9:24AM - 9:36AM	L45.00008: Structure-morphology-property relationships in polymerized ionic liquids Joshua Sangoro, Maximilian Heres, Joseph Minutolo, Jacob Shamblin, Maik Lang, Stefan Berdzinski, Veronika Strehmel, Stephen Paddison
9:36AM - 9:48AM	L45.00009: Controlling ion aggregation and conduction in PEO-based ionomers David Caldwell II, Janna Maranas
9:48AM - 10:24AM	L4500010: Dynamics of Polymerized Ionic Liquids and their Monomers **Invited Speaker:** Ralph H. Colby
10:24AM - 10:36AM	L45.00011: Morphology and Ionic Conductivity of Oriented Block Copolymer/Ionic Liquid Mixtures Sharon Sharick, Karen I. Winey
10:36AM - 10:48AM	L45.00012: Effect of Lithium Ion Concentration of a Single-Ion-Conducting Block Copolymer Electrolyte on the Morphology-Conductivity Relationship Adriana A. Rojas, Sebnem Inceoglu, Nikolaus G. Mackay, Didier Devaux, Greg Stone, Nitash Balsara
10:48AM - 11:00AM	L45.00013: Role of Constituent Hard Polymer in Enhancing Lithium Transference Number of Lithium Salt-Polymer Complexes Moon Jeong Park

Wednesday, March 4, 2015, 8:00 am – 11:00 am

Other 'L' Sessions of potential interest:

Session L36: Focus Session: Reconfiguring and Actuating Soft Matter I: Metamaterials
Sponsoring Units: GSOFT
Chair: Vincenzo Vitelli, Leiden University
Room: *211*

Session L50: Self and Directed Assembly I: Mostly Nanoparticles/Rods and Colloids
Sponsoring Units: GSOFT
Chair: Alberto Olson-Reichhardt, Georgia Institute of Technology
Room: *218*

Wednesday, March 4, 2015, 11:00 am – 2:00 pm

Session P1: Poster Session II – APS
Soft Condensed Matter: Posters 2-42
Statistical and Non Linear Physics: Posters 44-71
Biological Physics: Posters 73-133
Fluids: Posters 135-143
Polymer Physics: Posters 145-316
Room: *Exhibit Hall C*

P1.00145: Enthalpy Relaxation of a DGEBA Epoxy as a function of Time, Temperature, and Cooling Rate
Caitlyn M. Clarkson, John D. McCoy, Jamie M. Kropka

P1.00146: Frank-Kasper and other superlattice formations in a set of giant molecules having ABn type of Janus particles
Xueyan Feng, Yiwen Li, Mingjun Huang, Chi-Hao Hsu, Stephen Z.D. Cheng

P1.00147: Strain Rate Dependence of Compressive Yield and Relaxation in DGEBA Epoxies
Gabriel K. Arechederra, Riley C. Reprogle, Caitlyn M. Clarkson, John D. McCoy, Jamie M. Kropka, Kevin N. Long, Robert S. Chambers

P1.00148: Template-directed synthesis of structurally-defined branched polymer architectures
Amanda Marciel

P1.00149: Light scattering measurement of sodium polyacrylate products
Nisha Lama, David Norwood, Steven Boone, Valerie Massie-Boyer

P1.00150: Kinetics of the coil-to-globule transition in aqueous solution of poly (N-isopropoylacrylamide)
Reza Farasat

P1.00152: Effect of Crystallinity on Melt Memory of Random Ethylene Copolymers
Xuejian Chen, Al Mamun, Alamo G. Rufina

P1.00153: Structural Analysis of Semiconducting Polymers Exposed to High Energy Radiation
Saeed Ahmadi Vaselabadi, Nikhila Mahadevapuram, David Shakarisaz, Joseph Strzalka, Paul Ruchhoeft, Gila Stein

P1.00154: Mechanical properties of syndiotactic polypropylene (sPP) gels: the effects of temperature and solute concentration
Ryusuke Okoshi, Atsushi Hotta

P1.00155: Structural Characterization of Layered Morphologies in Precise Copolymers
Edward B. Trigg, L. Robert Middleton, Taylor W. Gaines, Kenneth B. Wagener, Karen I. Winey

P1.00156: Polymer Crystals Formed at Liquid-Liquid Interface Show Broken Symmetry
Wenda Wang, Hao Qi, Ziyin Huang, Christopher Y. Li

P1.00158: Correlating solubility parameters and solvatochromic parameters with the self-assembly of poly(3-hexylthiophene) in mixtures of organic solvents
Madeleine Gordon, David Boucher

P1.00159: Demixing transition and molecular interactions in Poly(N-isopropyl acrylamide) solutions compared to its monomer
Moritz Futscher, Martine Philipp, Peter Mueller-Buschbaum, Alfons Schulte

P1.00160: Pressure and temperature response of Poly(N-isopropyl acrylamide) in aqueous solution probed with Raman microscopy
Coleman Cariker, Alfons Schulte

P1.00163: Systematic Investigation of the Mechanical and Surface Properties of Poly(dimethylsiloxane) Networks
Matthew Melillo, Zoe Klein, Edwin Walker, Jan Genzer

P1.00164: Effect of system compliance and indenter geometry on puncture mechanics of soft materials
Shruti Rattan, Sami Fakhouri, Alfred Crosby

P1.00165: Rheology of Poly(N-isopropylacrylamide)-Clay Nanocomposite Hydrogels
Jack Lombardi, Di Xu, Divya Bhatnagar, Dilip Gersappe, Jonathan Sokolov, Miriam Rafailovich

P1.00166: Self-Assembly and Relaxation Behavior of Graphene Containing Acrylic Triblock Copolymer Gels
Mahla Zabet, SeyedMeysam Hashemnejad, Santanu Kundu

P1.00168: Bottlebrush additives drive formation of vesicle chains in polymer blends
Hui Zhen Mah, Pantea Afzali, Rafeal Verduzco, Gila Stein

P1.00169: Phase Equilibria in Ternary Blends of Two Linear Homopolymers and A Ring Gradient Copolymer
Dachuan Sun, Junhan Cho

P1.00172: Characteristic Phase Behaviors for Symmetric PS-b-PAMAs (n= 1?6) and Their Pressure Dependence
Yonghoon Lee, Hoyeon Lee, Dong Hyun Lee, Du Yeol Ryu

P1.00173: Orienting Nanostructured Block Copolymer Thin Films via Entropy
Ting-Ya Lo, Ashkan Dehghan, Prokopios Georgopanos, Apostolos Avgeropoulos, An-Chang Shi, Rong-Ming Ho

P1.00174: A Facile Method to Fabricate Double Gyroid as A Polymer Template for Nanohybrids
Hsiao-Fang Wang, Rong-Ming Ho

P1.00175: Selective Permeating Properties of Butanol and Water through Polystyrene-b-polydimethylsiloxane-b-polystyrene Pervaporation Membranes
Chaeyoung Shin, Zachary Baer, X. Chelsea Chen, A. Evren Ozcam, Douglas Clark, Nitash Balsara

P1.00176: Effect of Asymmetric Confinement on the Microdomain Morphology of Block Copolymers
Youngkeol Kim, Guiduk Yu, Kookheon Char

P1.00177: Synthesis of zwitterionic polymer-based amphiphilic triblock copolymers by atom transfer radical polymerization for production of extremely stable nanoemlusions
Jin Yong Lee, Ji Eun Kim, Jin Woong Kim

P1.00178: Ab initio molecular dynamics simulations of the thermal degradation of model compounds of industrially-relevant copolyesters
Erol Yildirim, Andrew T. Detwiler, Curt Cleven, Ahmed El-Shafei, Melissa A. Pasquinelli

P1.00179: Resonant Soft X-ray Scattering for Soft Materials
Cheng Wang, Athony Young, Alexander Hexemer, Howard Padmore

P1.00181: Complexation between Charged Dendrimers and Polyelectrolytes
Gunja Pandav, Venkat Ganesan

P1.00182: The effect of multivalent ions on the thermal transition of hydrated polyelectrolyte multilayers
Dariya Reid, Jodie Lutkenhaus

P1.00183: Phase Behavior and Conductivity of Phosphonated Block Copolymers Containing Ionic Liquids
Ha Young Jung, Sung Yeon Kim, Moon Jeong Park

P1.00184: Molecular Dynamics of Coarse-grained Ionomers Showing Aggregate Morphology During Deformation
Janani Sampath, Lisa M. Hall

P1.00185: Effects of Acid and Ionic Aggregation on the Polymer Dynamics in Precise Ionomers
Luri Robert Middleton, Jacob Tarver, Jason Azoulay, Dustin Murtagh, Ken Wagener, Joseph Cordaro, Madhu Tyagi, Christopher Soles, Karen Winey

P1.00186: Structure and Proton Conductivity in Mixtures of Poly(acrylic acid) and Imidazole
Han-Chang Yang, Philip J. Griffin, Karen I. Winey

P1.00187: pH-Responsive Behavior of Poly(acrylic acid) Brushes of Varying Thickness
Vivek Yadav, Megan Robertson, Jacinta Conrad

P1.00188: Influence of Hydration Level on Polymer and Water Dynamics in Alkaline Anion Exchange Fuel Cell Membranes
Jacob Tarver, Jenny Kim, Madhu Tyagi, Christopher Soles, Tsung-Han Tsai, Bryan Coughlin

P1.00189: Understanding the impact of nanoscale aggregation on charge transport and structural dynamics in room temperature ionic liquids
Philip Griffin, Adam Holt, Yangyang Wang, Alexei Sokolov

P1.00190: Spray-assisted layer-by-Layer (LbL) assembly of anisotropic materials
Souvik De, Pilar Suarez Martinez, Avanti Kavarthapu, Jodie Lutkenhaus

P1.00191: Morphology and charge transport in ammonium based polymerized ionic liquids
Maximilian Heres, Joseph Minutolo, Jacob Shamblin, Maik Long, Stefan Berdzinski, Veronika Stremel, Joshua Sangoro

P1.00192: Effect of Supercharging on Coacervation Between Proteins and Polyelectrolytes
Bradley Olsen, Allie Obermeyer, Carolyn Mills, Xuehui Dong

P1.00194: Synthesis and Characterization of Branched Poly(ester urea)s with Different Branch Density
Jiayi Yu, Matthew Becker

P1.00196: Spray Deposition of Multilayer Gas Barrier Thin Films
Tara Givens, Fangming Xiang, Jaime Grunlan

P1.00197: Inexpensive Fabrication of Metallic Interconnects on Flexible Substrates
Aditi Naik, Rohit Kothari, James Watkins

P1.00198: A Molecular Perspective of Inter-filament Bonding in Fused Deposition Modeling 3-D Printing
Edward Duranty, Brandon Spradlin, Mark Dadmun

P1.00200: Contrasting Polymer Behavior Under Nanoconfinement using Thermomechanically Consistent Coarse-Grained Models
Sinan Keten, Wenjie Xia, David Hsu

P1.00202: Coarse-Graining in Simulations of Multicomponent Polymer Systems
Vaidyanathan Sethuraman, Venkat Ganesan

P1.00203: Structural analysis of liquid crystalline order in polymer melts
Kiran Khanal, Jutta Luettmer-Strathmann

P1.00204: Size and Shape Descriptors of Two Dimensional Polymer Sheets in Solution near the Crossover Concentration
Salomon Turgman Cohen, Jacobi Tanner

P1.00205: The effect of copolymers on the interfaces in incompatible homopolymers blend: Molecular dynamics study
Jiho Ryu, Won Bo Lee

P1.00206: Monte Carlo Simulations on Phase Transitions and Conformational Properties of Catenated Double-ring Copolymers
Dachuan Sun, Junhan Cho

P1.00207: Using graphs to interrogate the atomic structure of polymer blends
Olga Wodo, Baskar Ganapathysubramanian

P1.00208: An atomistic model for cross-linked HNBR elastomers used in seals
Nicola Molinari, Adrian Sutton, John Stevens, Arash Mostofi

P1.00209: Pattern Recognition of Adsorbing HP Lattice Proteins
Matthew S. Wilson, Guangjie Shi, Thomas Wust, David P. Landau, Friederike Schmid

P1.00210: Calculating Pressure and Surface Tension of Lattice Polymers
Qiang Wang, Pengfei Zhang

P1.00211: Protein-like folding and other phase transitions of a single polymer chain
Mark Taylor, Wolfgang Paul, Kurt Binder

P1.00212: Simulation of dynamics of disordered diblock copolymers near the order-disorder transition
Pavani Medapuram, David Morse

P1.00213: Conformation of Single Polymer Chains
Howard Wang, Xiaorong Wang

P1.00215: Binding Affinity Effects on Physical Characteristics of a Model Phase-Separated Protein Droplet
Sara Chuang, Salman Banani, Michael Rosen, Clifford Brangwynne

P1.00216: Fluorescence microscopy techniques for characterizing the microscale mechanical response of entangled actin networks
Savanna Blair, Tobias Falzone, Rae Robertson-Anderson

P1.00217: Assembly, Properties and Function of Synthetic Phase-Separated RNA/Protein Organelles
Nicole Taylor, Shana Elbaum, Howard Stone, Clifford Brangwynne

P1.00219: Design of block and graft copolymers for use as compatibilizers in organic solar cell active layers
Dylan Kipp, Venkat Ganesan

P1.00220: Self-Assembly of Carotenoids During Solution Casting of Solar Devices
Dusantha Alwis, Dilru Ratnaweera, Thusitha Etampawala, Mark Dadmun, Udumalagala Chandrika, Pradeep Jayaweera

P1.00221: Hydrogen Bonding-mediated Conjugated Polymers for Bulk-Heterojunction Organic Photovoltaics
Yen-Hao Lin, Wanyi Nie, Aditya Mohite, Gautam Gupta, Rafael Verduzco

P1.00222: Side Chain Engineering of Naphthalenediimide-Based N-type Polymer for High-Performance All-Polymer Solar Cell near 6{\%} Efficiency
Changyeon Lee, Hyunbum Kang, Wonho Lee, Taesu Kim, Ki-Hyun Kim, Han Young Woo, Cheng Wang, Bumjoon Kim

P1.00223: Fabrication of Organic Bulk Heterojunction Solar Cells on Flexible Substrates
Gabriel Calderon, Milzaida Merced-Sanabria, Carolyn Carradero-Santiago, Josee Vedrine-Pauleus

P1.00225: Electrochemiluminescent Ion Gels for DC-Driven, Sub-2V Solid-State Emissive Devices by Incorporating Redox Coreactants
Hong Chul Moon, Timothy P. Lodge, C. Daniel Frisbie

P1.00226: Ferroelectric switching behavior in morphology controlled ferroelectric-semiconductor polymer blends for organic memory
Eunhee Lim, Gregory Su, Edward Kramer, Michael Chabinyc

P1.00227: Microscopic simulations of electronic excitations in donor-acceptor heterojunctions of small-molecule based solar cells
Bjoern Baumeier

P1.00228: Enhancing the Thermoelectric Characteristics of PEDOT:PSS Through the Incorporation of a Redox-Active Small Molecule
Edward Tomlinson, Matthew Willmore, Xiaoqin Zhu, Bryan Boudouris

P1.00229: Morphology optimization for enhanced performance in organic photovoltaics
Olga Wodo, Jaroslaw Zola, Baskar Ganapathysubramanian

P1.00230: Facile Control of a Wide Range of Regioregularity: Significant Influence on Mechanical and Electrical Properties of Conjugated Polymers
Jin-Seong Kim, Jae-Han Kim, Wonho Lee, Hojeong Yu, Hyeong Jun Kim, Inho Song, Joon Hak Oh, Taek-Soo Kim, Bumjoon Kim

P1.00231: Using COMSOL Multiphysics Software to Analyze the Thin Film Resistance Model of a Conductor on PET
Carolyn Carradero-Santiago, Milzaida Merced-Sanabria, Josee Vedrine-Pauleus

P1.00232: Electron transport and light absorption/emission in molecular complexes
Carlos Perez, Xiaomei Jiang

P1.00233: Electron transport and light absorption/emission in molecular complexes
Miguel Martinez, Lev Mourokh

P1.00234: Nanostructural Patterning Improves the Performance of Non-volatile Polymer Memory Devices
Seung Hyun Sung, Bryan W. Boudouris

P1.00235: Cross-linking high-k fluoropolymer gate dielectrics enhances the charge mobility in rubrene field effect transistors
Jwala Adhikari, Matthew Gadinski, Qing Wang, Enrique Gomez

P1.00236: Monte Carlo simulations of charge transport in heterogeneous organic semiconductors
Pyie Phyo Aung, Kiran Khanal, Jutta Luettmer-Strathmann

P1.00240: The impact of P3HT molecular weight and solvent composition on P3HT films processed from binary solvent mixtures
Lawson Lloyd, Madeleine Gordon, David Boucher

P1.00242: In situ Mechanistic Investigation of an Organic Radical Polymer Cathode on Interfacial Charge Transport and Cycling Stability
Fei Li, Jodie Lutkenhaus

P1.00243: Flexible Hybrid Electrodes Containing Vanadium Pentoxide (V2O5) and an Electron- and Ion-Conducting Diblock Copolymer for Energy Storage
Hyosung An, Jared Mike, Kendall Smith, Lisa Swank, Yen-Hao Lin, Stacy Pesek, Rafael Verduzco, Jodie Lutkenhaus

P1.00244: Phase Behavior and Electrochemical Performance of Solid-State Magnesium Ion Electrolytes from Diblock Copolymers
Jacob Thelen, Sebnem Inceoglu, Nitash Balsara

P1.00245: Polyhedral Oligomeric Silsesquioxanes -- Based Hybrid Electrolytes with Controlled Network Structure
Qiwei Pan, Christopher Li

P1.00247: Structure and Ionic Conductivity Evolution of a Block Copolymer Electrolyte during Thermal Annealing
Mahati Chintapalli, Nitash Balsara

P1.00248: β−NMR Measurements of Lithium Ion Transport in Thin Films of Pure and Lithium-Salt-Doped Poly(ethylene oxide)
Iain McKenzie, Masashi Harada, David L. Cortie, Robert F. Kiefl, C.D. Philip Levy, W. Andrew MacFarlane, Ryan M.L. McFadden, Gerald D. Morris, Shin-Ichi Ogata, Matthew R. Pearson, Jun Sugiyama

P1.00249: Increase of the Effective Dispersity in ARB-Type Triblock Copolymer
Sanghoon Woo, Hyunjung Jung, June Huh, Du Yeol Ryu, Joona Bang

P1.00250: Control Large Nanoparticle Assemblies in Suparmolecular Nanoparticle Thin Films
Jingyu Huang, Ting Xu

P1.00251: Crystallization Driven Responsive Janus Assembly
Hao Qi, Shan Mei, Christopher Li

P1.00252: Meso-scale Modeling of Self-assembly of Polymer-Grafted Nanoparticles
Derrick Mancini, Sanket Deshmukh, Subramanian Sankaranarayanan

P1.00253: Mesoscale Polymer Assemblies
Satyan Choudhary, Jonathan Pham, Alfred Crosby

P1.00255: Structure of polymer brushes on flat substrates and its dependence on the conditions of the surface-initiated polymerization
Rohan Patil, Jiri Srogl, Douglas Kiserow, Jan Genzer

P1.00256: Tribological properties of adsorbed PEO nanolayers on planar solids
Wenduo Zeng, Naisheng Jiang, Jake Lindberg, Maya K. Endoh, Tadanori Koga

P1.00257: Effects of the Adsorbed Polymer Nanolayers on the Dewetting of Polystyrene Thin Films
Justin Cheung, Jiaxun Wang, Naisheng Jiang, Maya Endoh, Tadanori Koga

P1.00258: Coatings with Thermally Switchable Surface Energy Produced From Block Copolymer Films
Raleigh Davis, Richard Register

P1.00259: Potential Energy Calculations for Water Adsorption on Poly (methyl methacrylate)
Mateusz J. Zuba, Patrick Howard, Brian Familo, Thorin Kane, Ross L. Netusil, Carolina C. Ilie

P1.00260: Macroion Interaction at Polyelectrolyte Brush Interfaces
Chen Qu

P1.00261: Elastocapillarity: Adhesion and Wetting in Soft Polymeric Systems
Zhen Cao, Mark Stevens, Andrey Dobrynin

P1.00262: The Utilization of Chloroform Post-Treatment to Improve the Adhesion of Au Thin Films onto PMMA
Kathleen Krist, Chris Hughes, Xiaofeng Hu, Brian Augustine

P1.00263: Understanding ``grafting through'' polymerization reactions involving surface-bound monomers
Preeta Datta, Jan Genzer

P1.00264: Effect of Interfaces on Self-diffusion and Glass Transition Temperature of Poly(isobutyl methacrylate) Thin Films
Reika Katsumata, Austin Dulaney, Christopher Ellison

P1.00265: Programming Surface Energy Driven Marangoni Convection in Polymer Thin Films to Generate Topographic Patterns
Chae Bin Kim, Dustin Janes, Talha Arshad, Joshua Katzenstein, Nathan Prisco, Dana McGuffin, Roger Bonnecaze, Christopher Ellison

P1.00266: Work of adhesion and separation between soft elastomers
Nanshu Lu

P1.00268: The Effect of Hydrogen Bonding on the interfacial width of PS-b-PMMA Block Copolymer Microdomains
Kyuseong Lee, Sunghyun Han, Sangshin Jang, Jicheol Park, Jongheon Kwak, Jin Kon Kim

P1.00269: Long-Range Ordering of Block Copolymers on Well-Controlled Patterned Substrates
Dong-Eun Lee, Nam-Kyun Kim, JiNa Park, DongHyun Lee

P1.00270: Macroscopic Alignment of Cylindrical Block Polymer Thin Film via Raster Solvent Vapor Annealing with Soft Shear
Ming Luo, Douglas Scott, Thomas Epps

P1.00271: Tracking Solvent Uptake in Block Polymer Thin Films during Solvent Vapor Annealing
Cameron Shelton, Ronald Jones, Joseph Dura, Thomas Epps

P1.00272: Effect of polymer brushes on the Self Assembly of 3D Poly(Styrene-Methylmethacrylate) thin films
Baraka Lwoya, Julie Albert

P1.00273: Optimization and Characterization of Self-assembled Triblock Polymer Membranes with Chemically-Tunable Pore Walls for Nanofiltration
Jessica Sargent, Ryan Mulvenna, Rafael Prato, Jacob Weidman, William Phillip, Bryan Boudouris

P1.00274: Thin Films of Bottlebrush Block Copolymers with Homopolymer
Gajin Jeong, Benjamin R. Sveinbjornsson, Robert Howard Grubbs, Thomas P. Russell

P1.00275: Investigation of solvent annealing time dependence on morphology formation in polystyrene--\textit{block}--polylactide thin films
Ryan Gnabasik, Gunnar Nelson, Andrew Baruth

P1.00276: Controlling Structure in Sulfonated Block Copolymer Membranes
Phuc Truong, Gila Stein, Joe Strzalka

P1.00277: Capillary forces induced wrinkling onto ultrathin single and bilayer polymer films
Jooyoung Chang, Joseph Paulsen, Kamil Toga, Narayanan Menon, Thomas Russell

P1.00279: Electrical Properties of PVDF Based Nanocomposites
Jerry Contreras, Heinrich D. Foltz, Yuping Duan, Hasina F. HHuq, Steven C. Tidrow, Mircea Chipara

P1.00280: Additive-Driven Assembly of Block Copolymer and Nanoparticles: Influence of Nanoparticle Size and Loading
Yue Gai, Ying Lin, James Watkins

P1.00281: Mechanically Robust Polymer-Graphene Aerogels
Heonjoo Ha, Kadhiravan Shanmuganathan, Christopher Ellison

P1.00282: Life-time of the bound layer in nanocomposites
Dan Zhao, Jacques Jestin, Sanat K. Kumar

P1.00284: Unusual dielectric loss properties of carbon nanotube - polyvinylidene fluoride composites in low frequency region (100 Hz \textless f \textless 1 MHz)
Guang-Lin Zhao, Yi Zhen, Juan Arredondo

P1.00285: Dispersion of bimodal polymer brushes functionalized anisotropic gold nanoparticles in polymer nanocomposites
Lili Zhu, Gi Xue, Linda Reven

P1.00286: Time-resolved WAXD studies on the crystallization of isotactic polypropylene/graphene nanocomposites
Shotaro Nishitsuji, Maya Endoh, Yichen Guo, Miriam Rafailovich, Tadanori Koga

P1.00287: Rheology and Phase Transitions in Highly Filled Additive/Block Copolymer Composites
Benjamin M. Yavitt, Rohit Kothari, H. Henning Winter, James J. Watkins

P1.00288: PEO-MWCNTs Nanocomposites: The Effect of the Nature of Solvent on the Morphology and Physical Properties of Nanocomposites
Alfonso Salinas, Charles Cartwright, Kevin L. Newcombe, Mircea Chipara, Ibrahim Elamin, James Hinthorne, Dorina M. Chipara, Karen Lozano

P1.00289: Photo-actuating waveguiding fibers based on light responsive hydrogelszwitterion/P3HT blends
Ying Zhou, Adam Hauser, Nathan Rasmussen, Mark Kuzyk, Ryan Hayward

P1.00290: Polymer Grafted Nanoparticle-based Oil Dispersants
Daehak Kim, Ramanan Krishnamoorti

P1.00291: PNIPAM grafting on the surface of zirconium phosphate
Hai Li, Xuezhen Wang, Zhengdong Cheng

P1.00292: Toward Designer Nanoparticle Assemblies: Supramolecular Nanocomposites on Patterned Surfaces
Katherine Evans, Joseph Kao, Ting Xu

P1.00293: Fluorescence in nanocomposites based on polyethylene oxides and block copolymers of polyethylene oxide-polypropylene oxide loaded with rare earth doped fluorides
Brian Yust, Francisco Pedraza, Dhiraj Sardar, Aaron Saenz, Mircea Chipara

P1.00294: Anisotropic Polymer Conformations in Aligned SWCNT/PS Nanocomposites
Wei-Shao Tung, Russell Composto, Nigel Clarke, Karen Winey

P1.00296: Capillary instability of periodic polymer structures: Influence of viscosity, substrate confinement and local curvature
Zheng Zhang, Yifu Ding

P1.00297: Static and Dynamic Capillary Forces in Pollen Adhesion and Detachment
Carson Meredith, Donglee Shin, Haisheng Lin

P1.00300: Hysteretic self-folding of micro-scale polymer origami films
Jun-Hee Na, Jesse Silverberg, Arthur Evans, Christian Santangelo, Thomas Hull, Itai Cohen, Ryan Hayward

P1.00302: Conformations and dynamics of a translocating semi-flexible chain through a Nano-pore facilitated by chaperones
Ramesh Adhikari, Aniket Bhattacharya

P1.00303: Uncovering the effect of DNA topology on the mobility and conformational dynamics of crowded DNA molecules
Stephanie Gorzcyza, Cole E. Chapman, Rae M. Robertson-Anderson

P1.00305: Glass transition cooperativity from broad band heat capacity spectroscopy
Yeong Zen Chua, Gunnar Schulz, Evgeni Shoifet, Heiko Huth, Reiner Zorn, Juern W.P. Schmelzer, Christoph Schick

P1.00307: Thermal Stability of Vapor-Deposited Stable Glasses of an Organic Semiconductor
Diane Walters, Ranko Richert, Mark Ediger

P1.00308: Effect of absorbed water on the thermodynamic and kinetic properties of vapor-deposited organic glasses
Marta Gonzalez-Silveira, Cristian Rodriguez-Tinoco, Joan Rafols-Ribe, Aitor F. Lopeandia, Javier Rodriguez-Viejo

P1.00309: Surface Self-diffusion of Organic Glasses and Low Molecular Weight Polystyrene
Wei Zhang, Caleb Brian, Lian Yu

P1.00310: Infrared spectroscopic investigation of stable glasses of indomethacin
Jing Jiang, Mark Ediger

P1.00312: Non-affine reorganizations in glassy polymers under applied strain in the plastic regime
Didier Long, Luca Conca, Alain Dequidt, Jean-Yves Delannoy, Paul Sotta, Francois Lequeux

P1.00314: Volume Recovery of Polymeric Glasses
N. Sakib, S.L. Simon

P1.00315: Cure Kinetics of the Hydroxyl-Epoxide Reaction in DGEBA Epoxy Hardened with Diethanolamine
Lebelo Hailesilassie, Narjes Fredj, Caitlyn M. Clarkson, John D. McCoy, Mathew C. Celina, Jamie M. Kropka

P1.00316: Liquid Substrate Effects on the Glass Transition Temperature of Nanoscopically Confined Polystyrene Spheres
Dane Christie, Chuan Zhang, Rodney Priestley

Wednesday, March 4, 2015, 11:15 am – 2:15 pm

Session M19: Invited Session: Industry Day: Progress and Challenges of Additive Manufacturing

Sponsoring Units: FIAP DPOLY
Chair: Miriam Rafailovich, State University of New York, Stonybrook
Room: *Mission Room 103B*

11:15AM – 11:51AM	M19.00001: Advances in Additive Manufacturing **Invited Speaker:** Vlastimil Kunc
11:51AM - 12:27PM	M19.00002: 3D Printing of Human Tissue Mimics via Layer-by-Layer Assembly of Polymer/Hydrogel Biopapers **Invited Speaker:** Bradley Ringeisen
12:27PM - 1:03PM	M19.00003: 3-D Constructs--Molded vs. Printed: The differences from a cell based perspective **Invited Speaker:** Marcia Simon
1:03PM - 1:39PM	M19.00004: Novel Patterning Approaches for Continued Device Scaling **Invited Speaker:** Florian Gstrein

Wednesday, March 4, 2015, 11:15 am – 2:15 pm

Session M43: Focus Session: Industry Day: Applied Polymer Physics in Advanced Manufacturing

Sponsoring Units: DPOLY FIAP
Chair: Brent Neal, Milliken & Company
Room: *214C*

11:15AM - 11:27AM	M43.00001: Detection of pharmaceutical crystals in polymer particles by transmission electron microscopy Ralm Ricarte, Marc Hillmyer, Timothy Lodge
11:27AM - 11:39AM	M43.00002: Colloidal Aggregate Structure under Shear by USANS Tirtha Chatterjee, Antony K. Van Dyk, Valeriy V. Ginzburg, Alan I. Nakatani
11:39AM - 11:51AM	M43.00003: Parameterization and Adsorption Study of Hydrophobic Ethoxylated Urethane (HEUR) using Coarse-Grained MD Simulations with Implicit Water Shihu Wang, Ronald G. Larson, Valeriy V. Ginzburg
11:51AM - 12:03PM	M43.00004: Modeling the Adsorption of Hydrophobic Ethoxylated Urethane (HEUR) Thickeners onto Latex Surfaces using Self-Consistent Field Theory Valeriy Ginzburg, Antony Van Dyk, Tirtha Chatterjee, Shihu Wang, Ronald Larson
12:03PM - 12:15PM	M43.00005: Atomistic Molecular Dynamics Simulations of the Electrical Double Zifeng Li, Scott Milner, Kristen Fichthorn
12:15PM - 12:27PM	M43.00006: Interdiffusion of Polycarbonate in Fused Deposition Modeling Welds Jonathan Seppala, Aaron Forster, Sushil Satija, Ronald Jones, Kalman Migler
12:27PM - 12:39PM	M43.00007: Elasticity and Extensibility Determine Printability and Spinnability of Polymer Solutions Jelena Dinic, Leidy Nallely Jimenez, Vicky Mei, Yiran Zhang, Vivek Sharma
12:39PM - 12:51PM	M43.00008: Controlling Fiber Morphology in Simultaneous Centrifugal Spinning and Photopolymerization Yichen Fang, Austin Dulaney, Christopher Ellison
12:51PM - 1:03PM	M43.00009: Engineering the Crystalline Morphology of Polymer Thin Films at a Molecular Level via Matrix Assisted Pulsed Laser Evaporation Hyuncheol Jeong, Craig Arnold, Rodney Priestley
1:03PM - 1:15PM	M43.00010: Coupling frontal photopolymerization and surface instabilities for a novel 3D patterning technology Alessandra Vitale, Matthew Hennessy, Omar Matar, Jack Douglas, Joao Cabral
1:15PM - 1:27PM	M43.00011: Improving information density in ferroelectric polymer films by using nanoimprinted gratings Daniel E. Martinez-Tong, Michela Soccio, Daniel R. Rueda, Aurora Nogales, Mari Cruz Garcia-Gutierrez, Tiberio A. Ezquerra
1:27PM - 1:39PM	M 43.00012: Liquid filament instability due to stretch-induced phase separation in polymer solutions Arkadii Arinstein, Valery Kulichikhin, Alexander Malkin
1:39PM - 2:15PM	M43.00013: 3D Printing of Personalized Organs and Tissues **Invited Speaker:** Kaiming Ye

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q36: Focus Session: Self-assembled Block Copolymers and Soft Nanoparticles in Solution II

Sponsoring Units: DPOLY
Chair: Zhong-Ren Chen, Ningbo University
Room: *211*

2:30PM - 3:06PM	Q36.00001: Topologically Active Soft Materials for Cellular Delivery **Invited Speaker:** Cecilia Leal
3:06PM - 3:18PM	Q36.00002: Control of Nanostructure of Block Copolymer Particles through Size and Aspect Ratio-controlled Nanoparticle Surfactants Kang Hee Ku, Jae Man Shin, Hyunseung Yang, Bumjoon J. Kim
3:18PM - 3:30PM	Q36.00003: Multiple Phases of Binary Micellar Crystals Derived from Aqueous Solutions of Charged Block Copolymers Kookheon Char, Seyoung Kim, Soo-Hyung Choi, Sheng Li
3:30PM - 3:42PM	Q36.00004: Structure and Self-Assembly of Thermoreversible Triblock Copolymer Micelles and Gels Vivek Prabhu, Shrinivas Venkataraman, Yi Yan Yang, Jim Hedrick
3:42PM - 3:54PM	Q36.00005: Hierarchical assembly of block copolymer micelles into reversible networks: MC simulations Zilu Wang, Elena Dormidontova
3:54PM - 4:06PM	Q36.00006: Assembly of Block Copolymer-Nanoparticles Conjugates Towards Sub-10-nm Hybrid Ordered Nanostructures Zhiwei Lin, Pengtao Lu, Chih-Hao Hsu, Stephen Cheng
4:06PM - 4:18PM	Q36.00007: Giant Molecules based on Precisely Functionalized POSS Nano-atoms: Tuning from Crystals to Frank-Kasper and Quasicrystal Phases Stephen Z. Cheng, Mingjun Huang, Kan Yue, Chih-Hao Hsu, Zhiwei Lin
4:18PM - 4:30PM	Q36.00008: Kelvin Problem and Sphericity Metric in the Packing Structures of Soft Particles Sangwoo Lee, Chris Leighton, Frank Bates
4:30PM - 4:42PM	Q36.00009: Tunable Encapsulation Structure of Block Copolymer Coated SWNTs in Aqueous Solution Youngkyu Han, Suk-kyun Ahn, Zhe Zhang, Gregory S. Smith, Changwoo Do
4:42PM - 4:54PM	Q36.00010: Graphene quantum dots as tunable surfactant dots Minxiang Zeng
4:54PM - 5:06PM	Q36.00011: Preparation of uniform-sized block copolymer particles by membrane emulsification Jaeman Shin, Minsoo Kim, Gi-Ra Yi, Bumjoon Kim

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q39: Focus Session: Polymer Nanocomposites - Active Particles and Dynamics

Sponsoring Units: DPOLY
Chair: Jacinta Conrad, University of Houston
Room*: 213AB*

2:30PM - 2:42PM	Q3900001: Vertical Diblock Copolymer Cylinder-Nanorod Nanocomposites Boris Rasin, Huikuan Chao, Xingchen Ye, Yaoting Wu, Jeffrey Meth, Christopher Murray, Robert Riggleman, Russell Composto
2:42PM - 2:54PM	Q39.00002: Photothermal Heating via Gold Nanorods within Polymer Nanocomposites Jason Bochinski, Somsubhra Maity, Wei-Chen Wu, Joseph Tracy, Laura Clarke
2:54PM - 3:06PM	Q39.00003: Utilizing Fiber-containing Thermo-responsive Gels to Extract Nanoparticles from Solution Ya Liu, Olga Kuksenok, Anna Balazs
3:06PM - 3:18PM	Q39.00004: Photothermal heating as a methodology for post processing of polymeric nanofibers Russell Gorga, Laura Clarke, Jason Bochinski, Vidya Viswanath, Somsubhra Maity, Ju Dong, Gabriel Firestone
3:18PM - 3:30PM	Q39.00005: Modeling Stimuli-Responsive Nanoparticle Monolayer Xin Yong
3:30PM - 3:42PM	Q39.00006: Using Gold Nanorods to Probe the Local Environment within Polymer Nanocomposites Laura Clarke, Somsubhra Maity, Wei-Chen Wu, Joseph Tracy, Jason Bochinski
3:42PM - 3:54PM	Q39.00007: Contrasting nanoparticles diffusion in synthetic and biopolymer solutions Sharmine Alam, Indermeet Kohli, Ashis Mukhopadhyay
3:54PM - 4:06PM	Q39.00008: Low trap density of states in solution-deposited organic semiconductors by Vibration Assisted Crystallization W. Joshua Kennedy, Keith Slinker, Hilmar Koerner, Gregory Ehlert, Jeffery Baur
4:06PM - 4:18PM	Q39.00009: Supramolecular Nanocomposites Under Confinement: Chiral Optically Active Nanoparticle Assemblies and Beyond Peter Bai, Sui Yang, Wei Bao, Miquel Salmeron, Xiang Zhang, Ting Xu
4:18PM - 4:54PM	Q39.00010: Harnessing Biomimetic Catch Bonds to Create Mechanically Robust Nanoparticle Networks **Invited Speaker:** Anna Balazs
4:54PM - 5:06PM	Q39.00011: Microwave Induced Welding of Carbon Nanotube-Thermoplastic Interfaces for Enhanced Mechanical Strength of 3D Printed Parts Charles Sweeney, Micah Green, Mohammad Saed
5:06PM - 5:18PM	Q39.00012: Smart Hybrids made of Polymer Brushes and Gold Nanospheres Stephanie Christau, Felix Brose, Tim Moeller, Ralf Koehler, Zuleyha Yenice, Jan Genzer, Regine von Klitzing

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q41: Focus Session: Organic Electronics and Photonics - Structure-Property Relationships

Sponsoring Units: DPOLY DMP
Chair: Jacob Tarver, National Institute of Standards and Technology
Room: *214A*

2:30PM - 2:42PM	Q41.00001: Quantifying Order in Semiconducting Polymers Chad Snyder
2:42PM - 2:54PM	Q41.00002: Multi-scale Modeling Study of poly(3-hexylthiophene) and [6,6]-phenyl-C_{61}-butyric acid methyl ester Towards Organic Photovoltaic Cell Application Hanjong Yoo, Ki Chul Kim, Seung Soon Jang
2:54PM - 3:06PM	Q41.00003: Structure and segmental dynamics in amorphous conjugated polymers Pengfei Zhan, Janna Maranas, Enrique Gomez
3:06PM - 3:42PM	Q41.00004: Pushing structural limits to reveal fundamental mechanisms of organic solar cell operation **Invited Speaker:** Barry Rand
3:42PM - 3:54PM	Q41.00005: Predicting X-ray absorption spectra of semiconducting polymers for electronic structure and morphology characterization Gregory Su, Shrayesh Patel, C. Das Pemmaraju, Edward Kramer, David Prendergast, Michael Chabinyc
3:54PM - 4:06PM	Q41.00006: Phase Separation and Development of a Scanning Time of Flight Microscope to Study Charge Transport in Structured Organic Semiconductors Sanjoy Paul, Suvagata Tripathi, Gautam Singh, Robert Twieg, Satyendra Kumar, Brett Ellman
4:06PM - 4:18PM	Q41.00007: Relating chemical structure to the mechanical and electrical properties in organic crystalline semiconductors Marcos Reyes-Martinez, Alfred Crosby, Alejandro Briseno
4:18PM - 4:30PM	Q41.00008: Nanoscale Orientation Effects on Carrier Transport in a Low-Band-Gap Polymer Ban Dong, Bingyuan Huang, Aaron Tan, Peter Green
4:30PM - 4:42PM	Q41.00009: Directed alignment of conjugated polymers for enhanced long-range photocurrent collection Anton Li, David Bilby, Ban Dong, Jinsang Kim, Peter Green
4:42PM - 4:54PM	Q41.00010: Modifying Photoluminescence Emission from Thin Polymer Films through Local Deformation Zones Po-Jui Chen, Xuan Long Ho, Jonathon David White
4:54PM - 5:06PM	Q41.00011: Photocatalytically Active Oligomeric Graphitic Carbon Nitride: Conformational Flexibility, Electronic Levels, Carrier Localization Volker Blum, Vincent Lau, Tiago Botari, William Huhn, Bettina V. Lotsch
5:06PM - 5:18PM	Q41.00012: Improving Photocatalytic Activity through Electrostatic Self-Assembly: Polyelectrolytes as Tool for Solar Energy Conversion? Franziska Groehn

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q42: Focus Session: Theory and Simulation of Macromolecules I

Sponsoring Units: DPOLY DCOMP
Chair: Lisa Hall, Ohio State University
Room: *214B*

2:30PM - 2:42PM	Q42.00001: Computation of the Gibbs free energy difference between polymorphs Daniel W. Sinkovits, Sanat K. Kumar
2:42PM - 2:54PM	Q42.00002: New Molecular Theory for Dense, Thin Polymer Films Karl Freed
2:54PM - 3:06PM	Q42.00003: Examination of surface nucleation during the growth of long alkane crystals by molecular dynamics simulation Alexander Bourque, Gregory Rutledge
3:06PM - 3:18PM	Q42.00004: Molecular Dynamics Simulations of Homogeneous Crystallization in Polymer Melt Bin Kong
3:18PM - 3:30PM	Q42.00005: Molecular dynamics simulation of electromechanical breakdown of polyolefins under a high electric field Mayank Misra, Daniel Sinkovits, Sanat Kumar
3:30PM - 3:42PM	Q42.00006: Recovery of polymer folding landscapes from univariate time series and its dimensionality reduction using machine learning Jiang Wang, Andrew Ferguson
3:42PM - 4:18PM	Q42.00007: Flow-Induced Crystallization and Nucleation in Isotactic Polypropylenes **Invited Speaker:** Scott Milner
4:18PM - 4:30PM	Q42.00008: Emergent tilt order in zigzagging polymer liquids Benjamin Loewe, Anton Souslov, Paul M. Goldbart
4:30PM - 4:42PM	Q42.00009: Aggregation Transitions in Flexible Homopolymer Systems Tomas Koci, Michael Bachmann
4:42PM - 4:54PM	Q42.00010: Scaling properties of the free energy of a wormlike chain in confinement Jeff Z.Y. Chen
4:54PM - 5:06PM	Q42.00011: Parallel framework for wormlike chains using self consistent field theory David Ackerman, Baskar Ganapathysubramanian
5:06PM - 5:18PM	Q42.00012: Structure and dynamics of highly adsorbed semiflexible polymer melts Jan-Michael Carrillo, Shiwang Cheng, Rajeev Kumar, Monojoy Goswami, Alexie Sokolov, Bobby Sumpter
5:18PM - 5:30PM	Q42.00013: Polymer segregation under confinement: Free energy calculations and segregation dynamics simulations James Polson, Logan Montgomery

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q43: Focus Session: Manipulating Glasses, Theory and Experiment

Sponsoring Units: DPOLY GSOFT
Chair: Connie Roth, Emory University
Room: *214C*

2:30PM - 2:42PM	Q43.00001: Dynamic Correlation Length Scales under Isochronal Conditions at High Pressures Riccardo Casalini
2:42PM - 2:54PM	Q43.00002: Stochastic model prediction of the Kovacs' ``expansion gap'' effect for volume relaxation in glassy polymers Grigori Medvedev, James Caruthers
2:54PM - 3:06PM	Q43.00003: A hybrid Brownian Dynamics model for yielding, aging, and rejuvenation in deforming polymeric glasses Weizhong Zou, Ronald Larson
3:06PM - 3:42PM	Q43.00004: Structural Recovery of Glass-Forming Materials **Invited Speaker:** Sindee Simon
3:42PM - 3:54PM	Q43.00005: Quantitative relaxation dynamics of supercooled liquids from first principles Liesbeth Janssen, Peter Mayer, David Reichman
3:54PM - 4:06PM	Q43.00006: Using s-ensemble to probe glasses formed by cooling and aging David Chandler, Juan P. Garrahan, Aaron S. Keys
4:06PM - 4:18PM	Q43.00007: Nontrivial correlation length distinguishes melt from glass in a large-scale atomistic non-equilibrium simulation of a glass transition Kranthi Mandadapu, Alexander Hudson, David Chandler
4:18PM - 4:30PM	Q43.00008: Thwarting Crystallization through Hydrogen Bonding in Triazine Molecular Glasses Audrey Laventure, Armand Soldera, Olivier Lebel, Christian Pellerin
4:30PM - 4:42PM	Q43.00009: Theory of the Role of Attractive Forces in the Dynamics of Supercooled Liquids under Isochoric and Isobaric Conditions Zachary E. Dell, Kenneth S. Schweizer
4:42PM - 4:54PM	Q43.00010: Relation of dynamics and local structure to glass-formability in a crystallizable bead-spring polymer model Hong Nguyen, Tyler Smith, Robert Hoy, Nikos Karayiannis
4:54PM - 5:06PM	Q43.00011: Connecting Thermodynamic Trends to the Polymer Glass Transition Ronald White, Jane Lipson
5:06PM - 5:18PM	Q43.00012: Dynamic Odd-Even Effects in a Network-Forming~Ionic Glass Homologue Jan-Michael Carrillo, Shiwang Cheng, Rajeev Kumar, Monojoy Goswami, Ke Yang, Madhusudan Tyagi, Jeffrey Moore, Yang Zhang
5:18PM - 5:30PM	Q43.00013: Glass formation behavior of an isolated polymer chain Weston Merling, Jack Mileski, David Simmons

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Session Q45: Transport in Charged and Ion-Containing Polymers

Sponsoring Units: DPOLY
Chair: Christopher Soles, National Institute of Standards and Technology
Room: *216AB*

2:30PM - 2:42PM	Q45.00001: Molecular Dynamics Simulations of Ion Transport and Mechanisms in Polymer Nanocomposites Santosh Mogurampelly, Venkat Ganesan
2:42PM - 2:54PM	Q45.00002: Viscoelastic Nanomechanics of Ionically Cross-linked Polyelectrolyte Networks Biao Han, Daeyeon Lee, Lin Han
2:54PM - 3:06PM	Q45.00003: Charge transport and glassy dynamics of poly(ethylene oxide)-based single-ion conductors under geometrical confinement James Runt, Ciprian Iacob
3:06PM - 3:18PM	Q45.00004: High Efficiency Conduction at High Ion Contents in Ionomeric Electrolytes Keran Lu, Janna Maranas, Scott Milner
3:18PM - 3:30PM	Q45.00005: Effect of molecular weight on ion diffusion and transference number in poly(ethylene oxide) Ksenia Timachova, Nitash Balsara
3:30PM - 3:42PM	Q45.00006: Investigation of conduction mechanism in mixed anion solid polymer electrolytes Dan Ye, Janna Marana
3:42PM - 3:54PM	Q45.00007: Conductivity Scaling Relationships in Nanostructured Membranes based on Protic Polymerized Ionic Liquids Gabriel Sanoja, Nathaniel Lynd, Rachel Segalman
3:54PM - 4:06PM	Q45.00008: Electrochemical Doping of poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] using Polymerizable Ionic Liquids Layla Masri, Janelle Leger
4:06PM - 4:18PM	Q45.00009: Structure and dynamics of single-ion conducting P(STFSILi)-ran-P(EGMA) copolymer electrolytes Jennifer Schaefer, Christopher Soles
4:18PM - 4:30PM	Q45.00010: Tuning the ionic conductivity in protic polymerized ionic liquid homo, random, and block copolymers Christopher Evans, Rachel Segalman
4:30PM - 4:42PM	Q45.00011: Morphology-Conductivity Relationship in Salt-containing Diblock Copolymer/Homopolymer Mixtures Matthew Irwin, Robert Hickey
4:42PM - 4:54PM	Q45.00012: The Effect of Structural Modifications on Ionic Conductivity in Newly-Designed Polyester Electrolytes Danielle Pesko, Yuki Jung, Geoff Coates, Nitash Balsara
4:54PM - 5:06PM	Q45.00013: Membranes with artificial free-volume enabled by block copolymer self-assembly Nikos Petzetakis, Nitash Balsara
5:06PM - 5:18PM	Q45.00014: Noise and Ionic Conductivity in Glass Nanochannels Benjamin Wiener, Alessandro Siria, Lyd\'eric Bocquet, Derek Stein
5:18PM - 5:30PM	Q45.00015: Structure of Nafion Thin Films on Gold Adam Weber, Ahmet Kusoglu, Alexander Hexemer

Wednesday, March 4, 2015, 2:30 pm – 5:30 pm

Other 'Q' Sessions of potential interest:

Session Q0: Kavli Foundation Special Symposium: Frontiers of Light
Sponsoring Units: APS
Room: *Ballroom A*

Session Q19: Invited Session: Industry Day: Rheology and Processing for Additive Manufacturing
Sponsoring Units: FIAP
Chair: Tirtha Chatterjee, The Dow Chemical Company
Room: *Mission Room 103B*

Session Q46: Rheology and Flow of Soft Materials
Sponsoring Units: GSOFT
Chair: Roseanna Zia, Cornell University
Room: *217A*

Session Q49: Focus Session: Swimmers
Sponsoring Units: GSOFT
Chair: Andrea Liu, University of Pennsylvania
Room: *217D*

Session Q50: Focus Session: Reconfiguring and Actuating Soft Matter II: Tunable Interactions
Sponsoring Units: GSOFT
Chair: Zorana Zeravcic, Rockefeller University
Room: *218*

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S20: Invited Session: Ion-Containing

Sponsoring Units: DPOLY
Chair: Kevin Cavicchi, University of Akron
Room: *Ballroom B*

8:00AM - 8:36AM	S20.00001: Thermal and pH Transitions in Polyelectrolyte Complexes and Multilayers **Invited Speaker:** Jodie Lutkenhaus
8:36AM - 9:12AM	S20.00002: Multicomponent transport in membranes for redox flow batteries **Invited Speaker:** Charles Monroe
9:12AM - 9:48AM	S20.00003: Morphology control in solid polymer electrolytes **Invited Speaker:** Christopher Li
9:48AM - 10:24AM	S20.00004: Morphology and Ionic Conductivity of Block Copolymer Electrolytes Containing Ionic Liquids **Invited Speaker:** Moon Jeong Park
10:24AM - 11:00AM	S20.00005: Ionomer Dynamics: Insights from Broadband Dielectric Spectroscopy **Invited Speaker:** James Runt

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S33: Focus Session: Conformations and Dynamics of Biopolymers I

Sponsoring Units: DBIO DPOLY
Chair: Aniket Bhattacharya, University of Central Florida
Room: *208*

8:00AM - 8:12AM	S33.00001: Comparison of the Single Molecule Dynamics of Linear and Circular DNAs in Planar Extensional Flows Yanfei Li, Kai-Wen Hsiao, Christopher Brockman, Daniel Yates, Gregory McKenna, Charles Schroeder, Michael San Francisco, Julie Kornfield, Rae Anderson
8:12AM - 8:24AM	S33.00002: Ratchet rectification effect on the translocation of a flexible polyelectrolyte chain induced by spatial asymmetry of the channel Debasish Mondal, Murugappan Muthukumar
8:24AM - 8:36AM	S33.00003: Comparison of Translocations of Ring and Linear Polymers Ning Ouyang, Murugappan Muthukumar
8:36AM - 8:48AM	S33.00004: Increasing polymer diffusivity by increasing the contour length: The surprising effect of YOYO-1 on DNA dynamics Seunghwan Shin, Kevin Dorfman, Xiang Cheng
8:48AM - 9:00AM	S33.00005: Using an effective dimensionality to map the force-extension relation for a semi-flexible polymer in a nanoslit Hendrick de Haan
9:00AM - 9:12AM	S33.00006: Correlated Fluctuations of DNA Between Nanofluidic Traps Alexander Klotz, Lyndon Duong, Mikhail Mamaev, Walter Reisner
9:12AM - 9:24AM	S33.00007: Metastable Tight Knots in DNA Liang Dai, C. Benjamin Renner, Patrick Doyle
9:24AM - 9:36AM	S33.00008: Translocation of a Polymer Chain Through a Nanopore Starting From a Confining Nanotube: The Limit of high Peclet Numbers Gary W. Slater, David Sean, Hendrick de Haan
9:36AM - 9:48AM	S33.00009: Dynamics of a fluctuating semi-flexible membrane Nathaniel Tukdarian, Aiqun Huang, Ramesh Adhikari, Aniket Bhattacharya
9:48AM - 10:00AM	S33.00010: Expanded experimental parameter space of semiflexible polymer assemblies through programmable nanomaterials David Smith, Carsten Schuldt, Jessica Lorenz, Teresa Tschirner, Maximilian Moebius-Winkler, Josef Kaes, Martin Glaser, Tina Haendler, Joerg Schnauss
10:00AM - 10:12AM	S33.00011: Molecular stress sensors constructed from DNA Meenakshi Prabhune, Jonathan Bath, Andrew J. Turberfield, Florian Rehfeldt, Christoph F. Schmidt
Author Not Attending	S33.00012: AFM Studies of Conformational Changes in Proteins and Peptides Nicoleta Ploscariu, Pinakin Sukthankar, John Tomich, Robert Szoszkiewicz
10:24AM - 11:00AM	S33.00013: Reptation Theory and Many Body Effects in Semiflexible Polymer Dynamics **Invited Speaker:** Erwin Frey

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S41: New Directions in Polymer Physics

Sponsoring Units: DPOLY
Chair: Julie Albert, Tulane University
Room: *214A*

8:00AM - 8:12AM	S41.00001: Surprises in the nonequilibrium self-organization of active Janus particles Jie Zhang, Jing Yan, Steve Granick
8:12AM - 8:24AM	S41.00002: Selective-Assemblies of Frank-Kasper A15 and Other Superlattices via Precisely Controlled Positional Interactions in Nano-Sized Giant Tetrahedra Dmitriy Alhazov, Michael Burman, Arkadii Arinstein, Eyal Zussman
8:24AM - 8:36AM	S41.00003: The Influence of Interfacial Block Copolymer on the buckling and drainage of an emulsion droplet approaching a flat surface Damith Rozairo, Andrew B. Croll
8:36AM - 8:48AM	S41.00004: Electrostatically driven selective deposition of nanoparticles on chemically modified block copolymer patterns Tom Wagner, Larisa Tsarkova, Alexander Boeker
8:48AM - 9:00AM	S41.00005: The effect of added block copolymer on oil in oil emulsions Itaru Asano, Timothy Lodge
9:00AM - 9:12AM	S41.00006: Assembly of polymeric nanoparticles: Molecular dynamics study Sabina Maskey, Dvora Perahia, Gary S. Grest
9:12AM - 9:24AM	S41.00007: Assembly of Magnetite Nanoparticles Grafted with Ion-Containing Diblock Copolymers Yang Jiao, Pinar Akcora
9:24AM - 9:36AM	S41.00008: Engineer concentration gradient drug particles using microfluidic systems Jianbin Wang, Pavithra Sundararajan, Adam Procopio, Larry Rosen, Jerry Klinzing, Patrick Marsac
9:36AM - 9:48AM	S41.00009: Steered molecular dynamics of epoxy-amine reactions in EPON862-DETDA Yae Ji Kim, Samuel Reeve, Alejandro Strachan
9:48AM - 10:00AM	S41.00010: Phase Transition in a Model of Y-shaped Molecules Donovan Ruth, Raul Toral, Danielle Holz, Jeffrey Rickman, James Gunton
10:00AM - 10:12AM	S41.00011: Chirality Transfer in Chiral Homopolymers and Chiral Block Copolymers Rong-Ming Ho
10:12AM - 10:24AM	S41.00012: Polydot at the interface with DPPC membrane: A Molecular Dynamics Simulation Study Sidath Wijesinghe, Dvora Perahia, Gary Grest, Christoph Junghans
10:24AM - 10:36AM	S41.00013: Investigation of a new approach for high-yield molecular electronic junctions with direct metal transfer method Hyunhak Jeong, Heejun Jeong, Takhee Lee
10:36AM - 10:48AM	S41.00014: Photo-crosslinking and Post-Functionalization of Solution Assembled Conjugated Polymer Nanofibrils Hyeong Jun Kim, Matthew Skinner, Alejandro Briseno, Todd Emrick, Bumjoon Kim, Ryan Hayward

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S42: Electrically and Optically Active Polymers

Sponsoring Units: DPOLY
Chair: Chelsea Chen, Lawrence Berkeley National Laboratory
Room: *214B*

8:00AM - 8:12AM	S42.00001: Dopant Induced Solubility Control Patterning Adam Moule, Ian Jacobs, Jun Li, Stephanie Burg, David Bilsky, Brandon Rotondo, Pieter Stroeve, Matthew Augustine
8:12AM - 8:24AM	S42.00002: Orthogonal Photolithography as transformative patterning technique for Organic Electronics and Photonics Alex Zakhidov
8:24AM - 8:36AM	S42.00003: Self-assembled peptide nanostructure-based polymeric electronic materials Soma Khanra, Suchi Guha, Wendel Alves, Thiago Cipriano
8:36AM - 8:48AM	S42.00004: Investigation of Different Organic Solar Cell Active Region Structures Deposited by Resonant Infrared Matrix-Assisted Pulsed Laser Evaporation (RIR-MAPLE) Adrienne Stiff-Roberts, Ryan McCormick, Ayomide Atewologun
8:48AM - 9:00AM	S42.00005: Intrinsic series resistance of organic photovoltaic devices Non Thongprong, Phillip Duxbury
9:00AM - 9:12AM	S42.00006: Photovoltaic Cells Involving Nonconjugated Conductive Polymer, Iodine-doped Styrene-Butadiene-Rubber (SBR) Justin Van Cleave, Mrinal Thakur
9:12AM - 9:24AM	S42.00007: Conformation of cellulose based polyelectrolyte NaCMC in solution: Effect of concentration and solvent quality Dylan Kipp, Olga Wodo, Baskar Ganapathysubramanian, Venkat Ganesan
9:24AM - 9:36AM	S42.00008: Block Copolymer nanocomposite thin films for high energy-density capacitors Saumil Samant, Shimelis Hailu, Christopher Grabowski, Michael Durstock, Dharmaraj Raghavan, Alamgir Karim
9:36AM - 9:48AM	S42.00009: Theoretical Prediction of Room Temperature Thermal Superconductivity in Single Polythiophene Chains Wei Lv, Asegun Henry
9:48AM - 10:00AM	S42.00010: Nonvolatile 1D Photonic Films Composed of Lamellar Forming Block Copolymer/Ionic Liquid Atsushi Noro, Yusuke Tomita, Yushu Matsushita, Joseph Walish, Edwin Thomas
10:00AM - 10:12AM	S42.00011: DNA in Nanoscale Electronics Jian Qin, Dimitrios Priftis, Robert Farina, Sarah Perry, Lorraine Leon, Jonathan Jason Slinker, Marc McWilliams, Chris Wohlgamuth, Alon Gorodetsky
10:12AM - 10:24AM	S42.00012: DNA guided nickel ion chain memristive system development and characterization Chia-Ching Chang, Hsueh-Liang Chu, Wen-Bin Jian, Yu-Chang Chen
10:24AM - 10:36AM	S42.00013: Bio-inspired peptide nanostructures for organic field-effect transistors Grant Knotts, Thiago Cipriano, Amrit Laudari, Roberta Bianchi, Wendel Alves, Suchi Guha
10:36AM - 10:48AM	S42.00014: Residual Stresses and Photoluminescence of Conjugated Polymer Thin Films Ya-Wei Yang, Yi Chien, Tsang-Lang Lin, Gunter Reiter, Arnold Chang-Mou Yang
10:48AM - 11:00AM	S42.00015: Polymeric Carbon Dioxide Capture Membranes for Artificial Photosynthesis Daniel Miller, Nathaniel Lynd

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S43: Focus Session: Dynamics of Glassy Polymers Under Confinement I

Sponsoring Units: DPOLY
Chair: Rob Riggleman, University of Pennsylvania
Room: *214C*

8:00AM - 8:12AM	S43.00001: Structural Recovery for a Single Polystyrene Ultrathin Film Using Flash DSC Yung P. Koh, Siyang Gao, Sindee L. Simon
8:12AM - 8:24AM	S43.00002: Dynamics of Poly(2-vinylpyridine)/Silica Nanocomposites from Brillouin and Raman Light Scattering Shiwang Cheng, Alexander Kisliuk, Vladimir Novikov, Adam P. Holt, Alexei P. Sokolov
8:24AM - 8:36AM	S43.00003: Improving Dielectric Breakdown Strength: Physically Aging Amorphous Polymers and Nanocomposites Richard A. Vaia, Christopher A. Grabowski, Hilmar Koerner
8:36AM - 8:48AM	S43.00004: Temperature Step Dewetting Method for Determination of Tg Dependence on Thickness for Linear and Star Branched Polystyrene Astrid Torres Arellano, Gregory McKenna
8:48AM - 9:00AM	S43.00005: Influence of the Free Interface on the Glass Transition Temperature of Irreversibly Adsorbed Polystyrene Thin Films Mary Burroughs, Rodney Priestley
9:00AM - 9:12AM	S43.00006: Modeling Mobility in Glassy Thin Films Jeffrey DeFelice, Jane Lipson, Nicholas Tito, Scott Milner
9:12AM - 9:48AM	S43.00007: Perturbation of Glassy Dynamics in Thin Polymer Films due to Interfaces **Invited Speaker:** Connie B. Roth
9:48AM - 10:00AM	S43.00008: A Comparison of Particle Embedment and Nanoindentation: Probing the Surface Properties of Polymeric Materials Saumil Samant, Shimelis Hailu, Christopher Grabowski, Michael Durstock, Meiyu Zhai, Heedong Yoon, Gregory McKenna
10:00AM - 10:12AM	S43.00009: Investigating the effect of chain architecture on the dynamics of thin entangled polymer films Ethan Glor, Zahra Fakhraai
10:12AM - 10:24AM	S43.00010: Dynamic glass transition measurements on nm-thin films of low molecular mass substances using AC chip-nanocalorimetry Mathias Ahrenberg, Christoph Schick , Heiko Huth
10:24AM - 10:36AM	S43.00011: Why do some diluents alter the magnitude of nanoconfinement effects on the glass transition? Jayachandra Hari Mangalara, Nicholas Weiner, Michael Marvin, David Simmons
10:36AM - 10:48AM	S43.00012: Tuning the Tg-Confinement Effect by Controlling the Amount of Residual Surfactant Present in Emulsion Polymerized Polystyrene Thin Films Lawrence Chen, John Torkelson
10:48AM - 11:00AM	S43.00013: Homogeneous nucleation of polymers under confinement and its relation to the liquid-to-glass ``transition'' Yasuhito Suzuki, Hatice Duran, Martin Steinhart, Hans-Jurgen Butt, George Floudas

Thursday, March 5, 2015, 8:00 am – 11:00 am

Session S45: Focus Session: Polymer Nanocomposites: Dynamics

Sponsoring Units: DPOLY
Chair: Laura Clarke, North Carolina State University
Room: *216AB*

8:00AM - 8:36AM	S45.00001: Dynamics in Polymer Nanocomposites **Invited Speaker:** Nigel Clarke
8:36AM - 8:48AM	S45.00002: Determination of the Tracer Diffusion Coefficient of Soft Polystyrene Nanoparticles using Neutron Reflectivity Adam Imel, Brad Miller, Wade Holley, Durairaj Baskaran, Jimmy Mays, Mark Dadmun
8:48AM - 9:00AM	S45.00003: Viscosity of Polymer Nanocomposite with Athermal Hairy Nanoparticles Fei Chen, Ophelia Tsui
9:00AM - 9:12AM	S45.00004: Probing the interfacial region in polymer-graphene oxide nanocomposites Michael Weir, Stephen Boothroyd, David Johnson, Richard Thompson, Nigel Clarke, Karl Coleman
9:12AM - 9:24AM	S45.00005: Polymer dynamics in PMMA-carbon nanocomposites Rana Ashkar, Mansour Abdulbaki, Christopher Bertrand, Madhusudan Tyagi, Antonio Faraone, Paul Butler, Ramanan Krishnamoorti
9:24AM - 9:36AM	S45.00006: Macromolecular Diffusion in Dynamic Polymer Nanocomposite Chia-Chun Lin, Matteo Cargnello, Nigel Clarke, Karen Winey, Russell Composto
9:36AM - 9:48AM	S45.00007: Dynamics of Brush-grafted Nanoparticles in Polymer Melts Russell Composto, Chia-Chun Lin, Kohji Ohno, Michael Hore, Jeffrey Meth, Nigel Clarke, Karen Winey
9:48AM - 10:00AM	S45.00008: Unexpected Molecular Weight Dependence of Dynamics in Polymer Nanocomposites Adam Holt, Shiwang Cheng, Vera Bocharova, Philip Griffin, Adam Imel, Mark Dadmun, Alexei Sokolov
10:00AM - 10:12AM	S45.00009: Role of the Interfacial Interactions from an Adjacent Wall on Polymer Diffusion Jihoon Choi, Nigel Clarke, Karen Winey, Jeffrey Meth, Russell Composto
10:12AM - 10:24AM	S45.00010: Length-Scale Dependent Viscosity in Semidilute Polyelectrolyte Solutions Ryan Poling-Skutvik, Ramanan Krishnamoorti, Jacinta Conrad
10:24AM - 10:36AM	S45.00011: Temperature Dependence of Rheology and Polymer Diffusion in Silica/Polystyrene Nanocomposites Wei-Shao Tung, Nigel Clarke, Russell Composto, Jeffrey Meth, Karen Winey
10:36AM - 10:48AM	S45.00012: Anomalous Drag Reduction and Hydrodynamic Interactions of Nanoparticles in Polymer Nanocomposite Thin Films Jaydeep Basu, Nafisa Begam, Sivasurender Chandran, Michael Sprung

Thursday, March 5, 2015, 8:00 am – 11:00 am

Other 'S' Sessions of potential interest:

Session S8: Disordered and Glassy Systems
Sponsoring Units: GSOFT
Chair: Megan Valentine, University of California, Santa Barbara
Room: *006C*

Session S19: Invited Session: Additive Manufacturing: The Promises and Risks
Sponsoring Units: FPS FIAP
Chair: Arian Pregenzer, Sandia National Laboratories
Room: Mission Room 103B

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Session T33: Focus Session: Conformations and Dynamics of Biopolymers II

Sponsoring Units: DBIO DPOLY
Chair: Aniket Bhattacharya, University of Central Florida
Room: *208*

11:15AM - 11:27AM	T33.00001: Coupled biopolymer networks J.M. Schwarz, Tao Zhang
11:27AM - 11:39AM	T33.00002: Conformations of double stranded DNA: the effect of breathing bubbles Aiqun Huang, Aniket Bhattacharya
11:39AM - 11:51AM	T33.00003: Knots along DNA Confined in Nanochannels C. Benjamin Renner, Liang Dai, Patrick Doyle
11:51AM - 12:03PM	T33.00004: Protein dynamics from structural ensembles: Diffusive and activated contributions in a linear mode description Jeremy Copperman, Marina Guenza
12:03PM - 12:15PM	T33.00005: Driven Polymer Translocation into a Crosslinked Gel David Sean, Gary W. Slater
12:15PM - 12:27PM	T33.00006: Backfolded Odijk regime for semiflexible polymers confined in nanochannels Abhiram Muralidhar, Douglas Tree, Kevin Dorfman
12:27PM - 12:39PM	T33.00007: Electrophoresis of a polyelectrolyte attached to a solid object: A strong influence of the attachment point Mykyta V. Chubynsky, Gary W. Slater
12:39PM - 12:51PM	T33.00008: Electrostatic effects on hyaluronic acid configuration John Berezney, Omar Saleh
12:51PM - 1:03PM	T33.00009: Nuclear Pore Complex Protein Sequences Determine Overall Copolymer Brush Structure and Function? David Ando, YongWoon Kim, Roya Zandi, Michael Colvin, Michael Rexach, Ajay Gopinathan
1:03PM - 1:15PM	T33.00010: When DNA Collides With Itself Zubair Azad, Robert Riehn
1:15PM - 1:27PM	T33.00011: Molecular Dynamics study on the Micellization of Rhamnolipids Elango Munusamy, Steven D. Schwartz
1:27PM - 1:39PM	T33.00012: Combining Protein Dynamics and Aggregation Measurements Curtis Meuse
1:39PM - 1:51PM	T33.00013: Wide Field Spectroscopy of Diffusing and Interacting DNA Using Tunable Nanoscale Geometries Shane Scott, Jason Leith, Hugo Brandao, Simon Sehayek, Alexander Hofkirchner, Jill Laurin, Daniel Berard, Alexander Verge, Paul Wiseman, Sabrina Leslie
1:51PM - 2:03PM	T33.00014: Observation of DNA dynamics near silicon nanopores by controlling the ultraviolet light spot Hirohito Yamazaki, Shintaro Ito, Keiko Esashika, Toshiharu Saiki
2:03PM - 2:15PM	T33.00015: Tension-induced binding of semiflexible biopolymers Panayotis Benetatos, Alice von der Heydt, Annette Zippelius

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Session T41: Polymer Nanocomposites I

Sponsoring Units: DPOLY
Chair: Praveen Agarwal, Dow Chemical Company
Room: *214A*

11:15AM - 11:27AM	T41.00001: Self-Assembly of Grafted Nanoparticles for Transport Channels in Membranes Connor Bilchak, Ellie Buenning, Christopher Durning, Sanat Kumar
11:27AM - 11:39AM	T41.00002: Effects of temperature on structure and mechanical properties of alkanethiol coated gold nanoparticle membranes K. Michael Salerno, Gary Grest
11:39AM - 11:51AM	T41.00003: Quantitative Analogy Between Polymer Grafted Nanoparticles and Patchy Particles Makoto Asai, Angelo Cacciuto, Sanat Kumar
11:51AM - 12:03PM	T41.00004: Reversible Thermal-Stiffening in Polymer Nanocomposites Erkan Senses, Pinar Akcora
12:03PM - 12:15PM	T41.00005: SANS Study on the Behaviors of Polymeric Ligands on the Nanoparticle Surfaces Seyong Kim, Soo-Hyung Choi, June Huh, Joona Bang
12:15PM - 12:27PM	T41.00006: Semi-crystalline polymer nanocomposites: interplay of matrix crystallization and nanoparticle self-assembly Dan Zhao, Jacques Jestin, Longxi Zhao, Sanat K. Kumar, Mohammad Mohammadkhani, Brian C. Benicewicz
12:27PM - 12:39PM	T41.00007: Chemically Designed Molecular Interfaces in Cross-Linked Poly(ethylene glycol)/Silica Nanocomposites Reveal Strong Size-Dependent Trends in Gas Permeability Norman Su, Jeffrey Urban
12:39PM - 12:51PM	T41.00008: Interactions between Nanoparticles and Polymer Brushes: Molecular Dynamics Simulations and Self-consistent Field Theory Calculations Shengfeng Cheng, Chengyuan Wen, Sergei Egorov
12:51PM - 1:03PM	T41.00009: Dispersion/Aggregation of polymer grafted nanorods in a polymer matrix studied by Dissipative Particle Dynamics Joao Maia, Shaghayegh Khani
1:03PM - 1:15PM	T41.00010: Phase Behavior of Polymer-Grafted Nanoparticles in a Polymer Matrix Katrina Irene Mongcopa, Rana Ashkar, Paul Butler, Ramanan Krishnamoorti
1:15PM – 1:27PM	T41.00011: Phase Behavior of Polymer-Grafted Nanoparticles in a Polymer Matrix Anastassia Rissanou, Vagelis Harmandaris
1:27PM – 1:39PM	T41.00012: Thermally Tunable Metallodielectric Photonic Crystals from Self-assembly of Brush Block Copolymers and Gold Nanoparticles Dongpo Song, Cheng Li, Nicholas Colella, Xuemin Lu, James Watkins
1:39PM – 1:51PM	T41.00013: Design and organization of nanoparticles in thin film copolymer/homopolymer hosts Junnan Zhao, Peter Green
1:51PM – 2:03PM	T41.00014: Transport Channels in Polymer Nanocomposite Membranes for Vapor Separations Eileen Buenning, Connor Bilchak, Sanat Kumar, Christopher Durning
2:03PM - 2:15PM	T41.00015: Directed Phase Separation of Brush-coated Nanoparticles in Miscible and Immiscible Polymeric Thin Films Ren Zhang, Bongjoon Lee, Jack Douglas, Sanat Kumar, Michael Bockstaller, Alamgir Karim

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Session T42: Focus Session: Theory and Simulation of Macromolecules II

Sponsoring Units: DPOLY DCOMP
Chair: Amalie Frischknecht, Sandia National Laboratories
Room: *214B*

11:15AM - 11:27AM	T42.00001: Dynamics and rheology of living polymers Subas Dhakal, Radhakrishna Sureshkumar
11:27AM - 11:39AM	T42.00002: Extreme value statistics of work done in stretching a polymer in a gradient flow Marija Vucelja, Konstantin Turitsyn, Michael Chertkov
11:39AM - 11:51AM	T42.00003: Importance of chain tumbling and finite extension on the start-up and relaxation behavior of transient networks Michelle Sing, Zhen-Gang Wang, Gareth McKinley, Bradley Olsen
11:51AM - 12:27PM	T42.00004: Mesoscopic Simulation Methods for Polymer Dynamics **Invited Speaker:** Ronald Larson
12:27PM - 12:39PM	T42.00005: Multi-fluid simulations of polymer dynamics Douglas Tree, Kris Delaney, Glenn Fredrickson
12:39PM - 12:51PM	T42.00006: Tightening the noose on tube models: a priori determination of equilibration time and other tube model parameters for 1,4-polybutadienes Priyanka Desai, Ronald Larson, Xue Chen, Seung Joon Park
12:51PM - 1:03PM	T42.00007: Plastic deformation of triblock elastomers by molecular simulation Amanda Parker, Jorg Rottler
1:03PM - 1:15PM	T42.00008: Entanglement effect in polymer melts by Dissipative Particle Dynamics (DPD) Shaghayegh Khani, Joao Maia
1:15PM - 1:27PM	T42.00009: Manipulating and Separating Polymers and Particles at the Microscale using Conformation-dependent Electrophoretic Mobility Patrick Underhill, Harsh Pandey
1:27PM - 1:39PM	T42.00010: Long-time diffusivity of DNA chains in nanochannels: A Brownian dynamics study Aashish Jain, Kevin Dorfman
1:39PM - 1:51PM	T42.00011: Molecular modelling of the deformation behaviour of a densely crosslinked glassy epoxy Sandipan Chattaraj, Prita Pant, Dnyanesh Pawaskar, Hemant Nanavati
1:51PM - 2:03PM	T42.00012: Nanovoid formation in cross-linked epoxy and poly(dicyclopentadiene) networks during high strain rate deformation Robert M. Elder, Daniel B. Knorr, Jr., Joseph L. Lenhart, Jan W. Andzelm, Timothy W. Sirk
2:03PM - 2:15PM	T42.00013: Modelling poly(p-phenylene teraphthalamide) at Extreme Tensile Loading using Reactive Potentials Dundar Yilmaz

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Session T43: Focus Session: Dynamics of Glassy Polymers Under Confinement II

Sponsoring Units: DPOLY
Chair: Rodney Priestley, Princeton University
Room: *214C*

11:15AM - 11:51AM	T43.00001: Cooperative Motion as a Unifying Principle to Understand Confinement Effects on Glass Formation **Invited Speaker:** Francis Starr
11:51AM - 12:03PM	T43.00002: Effects of Substrate Interaction on Slow Dynamics and Vitrification In Confined Thin Films Stephen Mirigian, Kenneth Schweizer
12:03PM - 12:15PM	T43.00003: Many Body Effects on Particle Diffusion in Polymer Nanocomposites Zachary E. Dell, Kenneth S. Schweizer
12:15PM - 12:27PM	T43.00004: Fragility Nanoconfinement Effect in Thin Polymer Films: Novel Characterization by Ellipsometry Tian Lan, John Torkelson
12:27PM - 12:39PM	T43.00005: Vitrification of thin polymer films: from linear chain to soft-colloid like behavior Emmanouil Glynos, Bradley Frieberg, Georgios Sakellariou, Alexandros Chremos, Peter Green
12:39PM - 12:51PM	T43.00006: Dynamics of Hyperbranched Polymers under Confinement Krystallenia Androulaki, Kiriaki Chrissopoulou, Spiros H. Anastasiadis, Daniele Prevosto, Massimiliano Labardi
12:51PM - 1:03PM	T43.00007: Enhanced Tg-Confinement Effect in Crosslinked Polystyrene Characterized by Ellipsometry Kailong Jin, John Torkelson
1:03PM - 1:15PM	T43.00008: Reaction Rate Acceleration and Tg Depression of Polycyanurate Under Nanopore Confinement Evelyn Lopez, Sindee L. Simon
1:15PM - 1:27PM	T43.00009: The Effect of Nanoconfinement on Free Radical Equilibrium Polymerization Haoyu Zhao, Sindee Simon
1:27PM - 1:39PM	T43.00010: XPCS Studies of Nanoparticle Motion within Glassy Polymer MeltsEffect of film processes on the chain conformations of adsorbed polymer nanolayers Mani Sen, Maya K Endoh, Tadanori Koga, Daisuke Kawaguchi, Keiji Tanaka
1:39PM - 1:51PM	T43.00011: Investigation of the Temperature-Dependent Specific Volume of Supported Polystyrene Films Upon Confinement Xinru Huang, Connie Roth
1:51PM - 2:03PM	T43.00012: Quantitative Relations Between Cooperative Motion and Emergent Elasticity in Model Glass-Forming Polymer Materials Beatriz A Pazmino Betancourt, Paul Hanakata, Francis W Starr, Jack F. Douglas

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Session T45: Transport in Polymer Membranes

Sponsoring Units: DPOLY
Chair: Rajiv Taribagil, Infineum
Room: *216AB*

11:15AM - 11:27AM	T45.00001: Three-Step Water Sorption of Thin Nafion Films Daisuke Kawaguchi, Yudai Ogata, Norifumi Yamada, Keiji Tanaka
11:27AM - 11:39AM	T45.00002: Impact of Ageing on Properties of PFSA Ionomers Ahmet Kusoglu, Meron Tesfayr, Shouwen Shi, Will Tong, Adam Weber
11:39AM - 11:51AM	T45.00003: In-situ measurement of swelling induced stress of thin Nafion films during hydration cycles Bradley Frieberg, Kirt Page, Gery Stafford, Christopher Soles
11:51AM - 12:03PM	T45.00004: Elucidating the Role of Confinement on Structure and Water Transport in Nafion Thin Films Eric Davis, Nichole Nadermann, Edwin Chan, Christopher Stafford, Kirt Page
12:03PM - 12:15PM	T45.00005: Kinetics of swelling enhancement of polyelectrolyte brushes Xiao Chu, Jingfa Yang, Guangming Liu, Jiang Zhao
12:15PM - 12:27PM	T45.00006: Nano Aggregation of Structured Ionic Copolymers: Molecular Dynamics Simulation Study Dipak Aryal, Dvora Perahia, Gary S. Grest
12:27PM - 12:39PM	T45.00007: Cluster Morphology in Lightly Sulfonated Polystyrene Anupriya Agrawal, Dvora Perahia, Gary S. Grest
12:39PM - 12:51PM	T45.00008: Salt uptake and dynamics in thin, highly crosslinked polyamide membranes Kathleen Feldman, Edwin Chan, Christopher Stafford
12:51PM - 1:03PM	T45.00009: Fabrication of ultrafiltration membranes using dynamic thermal annealing of Block Copolymer films Alamgir Karim, Yan Luo, Yan Sun
1:03PM - 1:15PM	T45.00010: Super stretchy polymer multilayer thin films with tunable gas barrier Fangming Xiang, Sarah Ward, Tara Givens, Jaime Grunlan
1:15PM - 1:27PM	T45.00011: A molecular study of gas solubility in nitrile rubber Musab Khawaja, Arash Mostofi, Adrian Sutton
1:27PM - 1:39PM	T45.00012: Liquid Crystalline Block Copolymers with Brush Type Architecture: Toward Functional Membranes by Magnetic Field Alignment Youngwoo Choo, Manesh Gopinadhan, Lalit Mahajan, Rajeswari Kasi, Chinedum Osuji
1:39PM - 1:51PM	T45.00013: Bubble Growth and Dynamics in a Strongly Superheated Electrolyte within a Solid-State Nanopore Edlyn Levine, Gaku Nagashima, Michael Burns, Jene Golovchenko
1:51PM - 2:03PM	T45.00014: Self-assembly of Spherical Macroions in Solution: A Coarse-grained Molecular Dynamics Study Zhuonan Liu, Tianbo Liu, Mesfin Tsige
2:03PM - 2:15PM	T45.00015: Effects of polymer hydrophobicity on the diffusivity of water and ethanol in acrylate copolymer gels Fardin Khabaz, Sriramvignesh Mani, Rajesh Khare

Thursday, March 5, 2015, 11:15 am – 2:15 pm

Other 'T' Sessions of potential interest:

Session T47: Focus Session: Mechanical Structure-Function Relations in Biological Matter II
Sponsoring Units: DBIO
Chair: Moumita Das, Rochester Institute of Technology
Room: *217B*

Session T49: Focus Session: Reconfiguring and Actuating Soft Matter III: Shape
Sponsoring Units: GSOFT
Chair: Karen Daniels, North Carolina State University
Room: *217D*

Session T50: Liquid Crystals II: Chiral and Nanocomposites
Sponsoring Units: GSOFT
Chair: Chenhui Zhu, Lawrence Berkeley National Laboratory
Room: *218*

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W20: Invited Session: Physics of Biomacromolecules

Sponsoring Units: DPOLY
Chair: Patrick Underhill, Rensselaer Polytechnic Institute
Room: *Ballroom B*

2:30PM - 3:06PM	W20.00001: Electrostatic self-assembly of biomolecules **Invited Speaker:** Monica Olvera De La Cruz
3:06PM - 3:42PM	W20.00002: Theory and Computational Design of Protein Materials **Invited Speaker:** Jeffery Saven
3:42PM - 4:18PM	W20.00003: Self-assembly of Amyloid Fibrils in One, Two and Three Dimensions **Invited Speaker:** Raffaele Mezzenga
4:18PM - 4:54PM	W20.00004: Protein-engineered block-copolymers as stem cell delivery vehicles **Invited Speaker:** Sarah Heilshorn
4:54PM - 5:30PM	W20.00005: New frontiers in single polymer dynamics **Invited Speaker:** Charles Schroeder

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W33: Focus Session: Conformations and Dynamics of Biopolymers III

Sponsoring Units: DBIO DPOLY
Chair: Jeffrey Noel, Rice University
Room: *208*

2:30PM - 2:42PM	W33.00001: Non-Gaussian Distribution of DNA Barcode Extension In Nanochannels Using High-throughput Imaging Julian Sheats, Wesley Reinhart, Jeff Reifenberger, Damini Gupta, Abhiram Muralidhar, Han Cao, Kevin Dorfman
2:42PM - 2:54PM	W33.00002: Simulation of Microtubules: Mechanical properties Mark Stevens
2:54PM - 3:06PM	W33.00003: Small-angle neutron and X-ray scattering reveal conformational changes in rhodopsin activation Utsab R. Shrestha, Debsindhu Bhowmik, Suchitrhanga M.C.D. Perera, Udeep Chawla, Andrey V. Struts, Vito Graziono, Sai Venkatesh Pingali, William T. Heller, Shuo Qian, Michael F. Brown, Xiang-Qiang Chu
3:06PM - 3:42PM	W33.00004: Effects of Uniaxial Strain on Shear Moduli of Semiflexible Polymer Networks **Invited Speaker:** Paul Janmey
3:42PM - 3:54PM	W33.00005: Emergence of attraction in simulations of coarse-grained double stranded DNA Shahzad Ghanbarian, Joerg Rottler
3:54PM - 4:06PM	W33.00006: Capturing Transition Paths and Transition States for Conformational Rearrangements in the Ribosome Jeffrey Noel, Jorge Chahine, Vitor Leite, Paul Whitford
4:06PM - 4:18PM	W33.00007: Study on the stability of the DNA hairpin d(ATCCAT-GTTA-TAGGAT) employing molecular dynamics simulation Sangwook Wu
4:18PM - 4:30PM	W33.00008: Effect of solvent viscosity on driven translocation of a semi-flexible polymer through a nanopore Ramesh Adhikari, Aniket Bhattacharya
4:30PM - 4:42PM	W33.00009: Spontaneous curvature in chiral polar filaments near interfaces Peter D. Olmsted, Emily E. Riley, Sophia Jordens, Ivan Usov, Lucio Isa, Raffaele Mezzenga
4:42PM - 4:54PM	W33.00010: Adsorption of Helical Polymers on a Substrate Matthew Williams
4:54PM - 5:06PM	W33.00011: Stem dependence on stiffness in 3D RNA simulation using SimRNA Wayne Dawson, Michal Boniecki, Janusz Bujnicki
5:06PM - 5:18PM	W33.00012: Elasticity of 3D networks with rigid filaments and compliant crosslinks Knut M. Heidemann, Abhinav Sharma, Florian Rehfeldt, Christoph F. Schmidt, Max Wardetzky
5:18PM - 5:30PM	W33.00013: Molecular Dynamics Investigations of the alpha-helix to Beta-barrel Conformational Transformation in RfaH Jeevan GC, Yuba Bhandari, Bernard Gerstman, Prem Chapagain

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W41: Polymer Nanocomposites II

Sponsoring Units: DPOLY
Chair: Shengfeng Cheng, Virginia Polytechnic Institute and State University
Room: *214A*

2:30PM - 2:42PM	W41.00001: Liquid crystal self-assembly of zirconium phosphate nanosheet in polymeric matrix Xiayun Huang, Xuezhen Wang, Zhengdong Cheng
2:42PM - 2:54PM	W41.00002: Raman, UV-Vis, and Wide Angle X-Ray Scattering Investigations on Polyvinylidene Fluoride -- Fe3O4 Nanocomposites Jerry Contreras, Ibrahim Elamin, Jason Parsons, Dorina M. Chipara, James Hinthorne, Karen Lozano, Mircea Chipara
2:54PM - 3:06PM	W41.00003: Synergistic templated self-assembly of cellulose nanocrystals in thin block copolymer films Danielle Grolman, Jeffrey Gilman, Chelsea Davis, Alamgir Karim
3:06PM - 3:18PM	W41.00004: Raman and Wide Angle X-Ray Studies on Polystyrene-Block Polyisoprene-Block Polystyrene - Graphene Nanocomposites Dorina Chipara, Oscar M. Guerrero, Alejandra Gonzalez, Brian Yust, Ibrahim Elamin, James Hinthorne, Mircea Chipara
3:18PM - 3:30PM	W41.00005: Computations Related to Nanoparticle Characterization and Nanocomposite Property Estimation Fernando Vargas-Lara, Ahmed Hassan, Edward Garboczi, Jack F. Douglas
3:30PM - 3:42PM	W41.00006: Differential Scanning Calorimetry Investigations on Polyvinylidene Fluoride -- Fe3O4 Nanocomposites Samantha Salinas, Robert Jones, Dorina M. Chipara, Mircea Chipara
Author Not Attending	W41.00007: Characteristics of vinyl-ester and carbon fiber composite dry and wet probe by Positron Annihilation Lifetime Spectroscopy Mahmoud Madani, Richard D. Granata
3:54PM - 4:06PM	W41.00008: Raman Spectroscopy of Poly-Urea Formaldehyde Microcapsules Omar Espino, Dorina Chipara, Mircea Chipara, Melissa Martinez
4:06PM - 4:18PM	W41.00009: Controlling the dispersion and configuration of nanofillers in electrically driven polymer jets with and without air flow Yevgen Zhmayev, Yong Joo, Jay Park, Ling Fei, Prabhleen Kaur, Hongshen Liu
4:18PM - 4:30PM	W41.00010: Flow Effect on Alignment of MWCNTs in Polymer Mashael Alghamdi, Georgi Georgiev, Germano Iannacchione
4:30PM - 4:42PM	W41.00011: Polymer Morphology and Crystallinity close to Inorganic Surfaces Kiriaki Chrissopoulou, Hellen Papananou, Spiros H. Anastasiadis, Konstantinos S. Andrikopoulos, George A. Voyiatzis
4:42PM - 4:54PM	W41.00012: The path to achieving molecular dispersion in an extremely dense reactive mixture Jigneshkumar Patel, Zou Xiang, Shaw Hsu, Andrew Schoch
4:54PM - 5:06PM	W41.00013: Polymer/Pristine Graphene Based Composites: From Emulsions to Strong, Electrically Conducting Foams Steven Woltornist, Jan-Michael Carrillo, Thomas Xu, Andrey Dobrynin, Douglas Adamson
5:06PM - 5:18PM	W41.00014: Organic-Inorganic Shish-Kebabs: Nanocrystal Kebabs Periodically Assembled on Stretched Flexible Polymer Shish Zhiqun Lin, Hui Xu, Yuci Xu, Xinchang Pang, Yanjie He, Jaehan Jung, Haiping Xia
5:18PM - 5:30PM	W41.00015: Strain-Tunable One Dimensional Photonic Crystals Based on Zirconium Dioxide/Slide-Ring Elastomer Nanocomposites for Mechanochromic Sensing Irene Howell, Cheng Li, Nicholas Colella, Kohzo Ito, James Watkins

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W42: Focus Session: Multiscale Modeling of Polymers

Sponsoring Units: DPOLY
Chair: Janna Maranas, Pennsylvania State University
Room: *214B*

2:30PM - 2:42PM	W42.00001: Coarse graining of polystyrene sulfonate Dvora Perahia, Anupriya Agrawal, Gary S. Grest
2:42PM - 2:54PM	W42.00002: Morphology and Dynamics of Tapered Diblock Copolymers from fDFT-initialized MD Simulations Lisa M. Hall, Youngmi Seo, Jonathan R. Brown
2:54PM - 3:06PM	W42.00003: Properties of Coarse-Grained Polymer Models: Statics, Dynamics, and Crystallinity Gary Grest, K. Michael Salerno, Anupriya Agrawal, Dvora Perahia
3:06PM - 3:42PM	W42.00004: Thermodynamically Consistent Coarse-Graining of Polymers **Invited Speaker:** Marina Guenza
3:42PM - 3:54PM	W42.00005: Modelling and multiscale simulations of meta aromatic polyurea: microscopic geometry and dielectric properties Rui Dong, Vivek Ranjan, Marco Buongiorno Nardelli, Jerzy Bernholc
3:54PM - 4:06PM	W42.00006: The conditional reversible work method for molecular coarse graining of soft matter Nico van der Vegt, Emiliano Brini, Gregor Deichmann
4:06PM - 4:18PM	W42.00007: Systematic and Simulation-Free Coarse Graining of Polymeric Systems: A Structure-based Study Delian Yang, Qiang Wang
4:18PM - 4:30PM	W42.00008: Systematic and Simulation-Free Coarse Graining of Polymeric Systems: A Relative-Entropy-based Study Qiang Wang, Delian Yang
4:30PM - 4:42PM	W42.00009: A proposed method for directed self-assembly of graphene nanoribbons James Geraets, Reidun Twarock, Yvette Hancock
4:42PM - 4:54PM	W42.00010: Universal aspects of conformations and transverse fluctuations of a two-dimensional semi-flexible chain Hsiao-Ping Hsu, Aiqun Huang, Aniket Bhattacharya, Kurt Binder
4:54PM - 5:06PM	W42.00011: Stretching wormlike chain: interplay between chain stiffness and excluded volume in the long chain limit Xiaolan Li, Abhiram Muralidhar, Charles Schroeder, Kevin Dorfman
5:06PM - 5:18PM	W42.00012: Design of Cross-linking Connectivity in Simulations of Polymer Networks Timothy Sirk, Joseph Lenhart, Jan Andzelm
5:18PM - 5:30PM	W42.00013: Accelerated dynamics of bead-spring polymer chains Gopinath Subramanian

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W43: Focus Session: Dynamics of Glassy Polymers Under Confinement III

Sponsoring Units: DPOLY
Chair: David Simmons, University of Akron
Room: *214C*

2:30PM - 2:42PM	W43.00001: Molecular-weight Dependent Tg Depression of Silica-supported Poly(alpha-methyl styrene) Films Ophelia Tsui, Kun Geng
2:42PM - 2:54PM	W43.00002: Influence of the chemical structure on the slip boundary condition of liquids Mischa Klos, Sebastian Backes, Juan Manuel Castillo Sanchez, Martin Horsch, Hans Hasse, Karin Jacobs
2:54PM - 3:06PM	W43.00003: New paradigm for stabilization of liquid polymer films on solids Tad Koga, Naisheng Jiang, Jiaxun Wang, Xiaoyu Di, Justin Cheung, Maya Endoh
3:06PM - 3:18PM	W43.00004: Approach to universal self-similar attractor for the levelling of thin liquid films Elie Raphael, Michael Benzaquen, Paul Fowler, Laetitia Jubin, Thomas Salez, Kari Dalnoki-Veress
3:18PM - 3:30PM	W43.00005: Confinement Effects with Films of Nonlinear Polystyrene Mark Foster, Qiming He, Suresh Narayanan, David Wu
3:30PM - 3:42PM	W43.00006: The Dynamics of a Polymer Confined in Anodic Aluminum Oxide Nanopore Gi Xue, Ye Sa
3:42PM - 3:54PM	W43.00007: The effect of surface chemistry on the glass transition of amorphous polycarbonate inside cylindrical nanopores Dariya Reid, Marcela Alves Freire, Jodie Lutkenhaus
3:54PM - 4:06PM	W43.00008: Large-scale diffusion of entangled polymers along nanochannels Kay Saalwachter, Frank Lange, Martin Steinhart, Patrick Judeinstein
4:06PM - 4:18PM	W43.00009: Nanoscale pattern fidelity and transfer of hierarchically patterned thermoplastics films Ying Chen, Manish Kulkarni, Allan Marshall, Jack Douglas, Alamgir Karim
4:18PM - 4:30PM	W43.00010: Elevated single polymer surface diffusion on a film near its glass transition temperature Mark Geoghegan, Matthew Mears, Christopher Clarkson, Zhenyu Zhang, John Torkelson
4:30PM - 4:42PM	W43.00011: Local Glass Transition Temperature Gradients Near Polymer-Polymer Interfaces Roman Baglay, Connie Roth
4:42PM - 4:54PM	W43.00012: Free Surface and Interfacial Effects on Tg Confinement Behavior of Template Supported Nanotubes Anthony Tan
4:54PM - 5:06PM	W43.00013: Residual Stress Relaxation and Stiffness-Confinement Effects in Polymer Films: Characterization by Non-Contact Ellipsometry and Fluorescence Techniques Shadid Askar, John Torkelson
5:06PM - 5:18PM	W43.00014: Can a reduction in mass transport occur at invariant segmental time? Simone Napolitano, Michele Sferrazz
5:18PM - 5:30PM	W43.00015: Physical Properties of PC-PMMA Multilayers Arifur Rahman, Eric Baer, Alin Cristian Chipara, Robert Vajtai, Pullickel M. Ajayan, James Hinthorne, Ibrahim Elamin, Mircea Chipara

Thursday, March 5, 2015, 2:30 pm – 5:30 pm

Session W45: Structure and Phase Behavior of Charged and Ion Containing Polymers

Sponsoring Units: DPOLY
Chair: Anupriya Agrawal, Clemson University
Room: *216AB*

2:30PM - 2:42PM	W45.00001: A molecular simulation study on salt response of polyelectrolyte complexes Hanne Antila, Paul Van Tassel, Maria Sammalkorpi
2:42PM - 2:54PM	W45.00002: Coarse-grained Molecular Simulation Studies of Complexation of Sulfobetaine-Lysine Copolymer and DNA for Gene Delivery Ahmadreza F. Ghobadi, Arthi Jayaraman
2:54PM - 3:06PM	W45.00003: Experiments of salt concentration effects on translocation dynamics of polyelectrolytes passing through alpha-hemolysin pore Byoung-jin Jeon, Murugappan Muthukumar
3:06PM - 3:18PM	W45.00004: Salt Effects on the Structure and Stability of Ionizable Polydots - SANS Study Naresh Osti, Sidath Wijesinghe, Manjula Senanayake, Anuradhi Wickramasinghe, Thusitha Etampawala, Dvora Perahia
3:18PM - 3:30PM	W45.00005: Ionic Effect on Conformational Structure of Weak Polyelectrolyte in Dilute Solution: from Monovalent, Multivalent to Macro ions Chen Qu
3:30PM - 3:42PM	W45.00006: Phase Behavior of Charged Nanoparticle-Polyelectrolyte Solution Gunja Pandav, Venkat Ganesan
3:42PM - 3:54PM	W45.00007: Effects of mixing ratio, salt concentration and temporal trend on the formation of polyelectrolyte complex Yanpu Zhang, Erol Yildirim, Hanne Antila, Maria Sammalkorpi, Jodie Lutkenhaus
3:54PM - 4:06PM	W45.00008: Molecular Connectivity and Correlation Effects in Polymeric Complex Coacervates Mithun Radhakrishna, Charles Sing
4:06PM - 4:18PM	W45.00009: Molecular Dynamics Simulations of Ultracentrifuged Polyelectrolyte Complexes Diddo Diddens, Albert Johner, Jorg Baschnagel
4:18PM - 4:30PM	W45.00010: Tuning the phase diagram of polyelectrolyte blends with a pinch of salt Jos Zwanikken, Monica Olvera de la Cruz
4:30PM - 4:42PM	W45.00011: Image method for Coulomb energy for many-body system of charged dielectric spheres Jian Qin, Juan de Pablo, Karl Freed
4:42PM - 4:54PM	W45.00012: Phase behavior and multi-body effects in polyelectrolyte – nanoparticles mixtures Victor Pryamitsyn, Venkat Ganesan, Jeffrey Errington
4:54PM - 5:06PM	W45.00013: Ionic Liquids: Trends in Behavior and Miscibility with Polymers Michelle Chen, Ronald White, Jane Lipson
5:06PM - 5:18PM	W45.00014: Surface Tension and Lamellar Spacing in Polyelectrolyte Blends and Block Copolymers Charles Sing, Monica Olvera de la Cruz
5:18PM - 5:30PM	W45.00015: Molecular Origins of Thermal Transitions in Polyelectrolyte Assemblies Erol Yildirim, Yanpu Zhang, Hanne S. Antila, Jodie L. Lutkenhaus, Maria Sammalkorpi

Friday, March 6, 2015, 8:00 am – 11:00 am

Session Y41: Focus Session: Biopolymers I: Biohybrids, Biointerfaces, and Modeling

Sponsoring Units: DPOLY
Chair: Bradley D. Olsen, Massachusetts Institute of Technology
Room: *214A*

8:00AM - 8:36AM	Y41.00001: Multiscale modelling of polymers at soft-bio interface **Invited Speaker:** Paola Carbone
8:36AM - 8:48AM	Y41.00002: Self-Assembly of DNA--Graft Copolymer Nanoparticles Zonghui Wei, Yong Ren, John-Michael Williford, Hai-Quan Mao, Erik Luijten
8:48AM - 9:00AM	Y41.00003: Monodisperse dendrimeric phytoglycogen nanoparticles in water act as hard sphere colloidal dispersions John Dutcher, Erzsi Papp-Szabo, Carley Miki
9:00AM - 9:12AM	Y41.00004: Tracing lipids and their association with keratin in the adhesive gecko setae by NMR Spectroscopy Dharamdeep Jain, Alyssa.Y. Stark, Peter.H. Niewiarowski, Toshikazu Miyoshi, Ali Dhinojwala
9:12AM - 9:24AM	Y41.00005: Regulating Ice Nucleation with Anti-freezing Proteins Jianjun Wang
9:24AM - 9:36AM	Y41.00006: Deposition and Grafting of Collapsed Elastin-Like Co-Polypeptides on Silicon Robin Mays, Julie Albert, Sarah MacEwan, Michael Dickey, Ashutosh Chilkoti, Jan Genzer
9:36AM - 9:48AM	Y41.00007: Nanostructure Formation in Fusion Protein Block Copolymers Containing A Globular Protein Block Bradley Olsen, Guokui Qin, Matthew Glassman, Christopher Lam, Dongsook Chang, Eric Schiable, Alexander Hexemer
9:48AM - 10:00AM	Y41.00008: Tailoring selectivity and flux in interior functionalized peptide nanotubes through self-assembly Sinan Keten, Luis Ruiz
10:00AM - 10:12AM	Y41.00009: Coarse-grained modelling of RNA Petr Sulc, Flavio Romano, Thomas Ouldridge, Jonathan Doye, Ard Louis
10:12AM - 10:24AM	Y41.00010: Rationally Designed Random Heteropolymer Surfactants for the Encapsulation and Stabilization of Proteins in Organic Solvents Brian Panganiban, Baofu Qiao, Mona Obadia, Monica Olvera de la Cruz, Eric Drockenmuller, Ting Xu
10:24AM - 11:00AM	Y41.00011: Binding and protonation of polypeptides and proteins in pH responsive gels **Invited Speaker:** Igal Szleifer

Friday, March 6, 2015, 8:00 am – 11:00 am

Session Y42: Theory and Modeling of Diblock Copolymers and Blends

Sponsoring Units: DPOLY
Chair: Charles Sing, University of Illinois at Urbana-Champaign
Room: *214B*

8:00AM - 8:12AM	Y42.00001: Ordering in Mixed Polymer Brushes Amalie L. Frischknecht, Chester K. Simocko, Dale L. Huber
8:12AM - 8:24AM	Y42.00002: Transferable potentials for coarse-grained simulations of block copolymer biomimetic membranes Malgorzata Kowalik, Ian Sines, Janna K. Maranas, Manish Kumar
8:24AM - 8:36AM	Y42.00003: Molecular Dynamics Simulations of Microphase Separating Tapered Diblock Copolymers Youngmi Seo, Jonathan R. Brown, Lisa M. Hall
8:36AM - 8:48AM	Y42.00004: Dynamic and Topological Properties of Lamellar Phases Vaidyanathan Sethuraman, Venkat Ganesan
8:48AM - 9:00AM	Y42.00005: Field-theoretic Monte Carlo simulations of a diblock copolymer melt Bart Vorselaars, Pawel Stasiak, Mark Matsen
9:00AM – 9:12AM	Y42.00006: Accurate fluctuation-corrected phase diagrams of high-molecular-weight block-copolymer melts Kris Delaney, Glenn Fredrickson
9:12AM – 9:24AM	Y42.00007: Morphology of Tapered and Ion-containing Diblock Copolymers from Fluids Functional Density Theory Jonathan R. Brown, Lisa M. Hall
9:24AM – 9:36AM	Y42.00008: Survey of experimental data from diblock copolymer melts: Do experiments and simulations agree? Pavani Medapuram, David Morse
9:36AM – 9:48AM	Y42.00009: Finite Size Effects and Commensurability in Lattice Simulations of Symmetric Diblock Copolymers Akash Arora, Frank S. Bates, Kevin D. Dorfman
9:48AM – 10:00AM	Y42.00010: Dynamical self-consistent field theory of the evolution of instabilities in polymer blends and diblock copolymer melts Douglas Grzetic, Robert Wickham
10:00AM – 10:12AM	Y42.00011: Free energies and commensurability effects in simulations of three-dimensional ordered phases of diblock copolymers Taher Ghasimakbari, David Morse
10:12AM – 10:24AM	Y42.00012: Estimation of χ parameter from molecular simulations Ashwin Ravichandran, Chau-Chyun Chen, Rajesh Khare
10:24AM – 10:36AM	Y42.00013: Effects of dipole reorientations on ion solvation in polymer blends and block copolymer melts Issei Nakamura
10:36AM – 10:48AM	Y42.00014: Interfaces between immiscible large and small block copolymers Russell Spencer, Mark Matsen
10:48AM – 11:00AM	Y42.00015: Tailoring the morphology of polymer blend particles: 3D simulations and linear stability analysis B S Sarath Pokuri, Baskar Ganapathysubramanian

Friday, March 6, 2015, 8:00 am – 11:00 am

Session Y43: Focus Session: Fluids Under Confinement, Colloids and Liquid Crystals

Sponsoring Units: DPOLY GSOFT DCMP
Chair: Alberto Fernandez-Nieves, Georgia Institute of Technology
Room: *214C*

8:00AM - 8:12AM	Y43.00001: Dripping Cylindrical Double Emulsions Jiawei Yang, Laura Adams, David Weitz
8:12AM - 8:24AM	Y43.00002: Hydrodynamic damping of dense colloidal packings under confinement Michael Ryan, Tim Still, Matthew Waite, Arjun Yodh, Kevin Aptowicz
8:24AM - 8:36AM	Y43.00003: Simulation of blade printing of colloidal morphologies Alexander Wagner, Alan Denton, Erik Hobbie
8:36AM - 9:12AM	Y43.00004: Dynamics of Colloids in Nematic Liquid Crystals **Invited Speaker:** Oleg Lavrentovich
9:12AM - 9:24AM	Y43.00005: Disc-shaped colloids interacting in a nematic liquid crystal Alena Antipova, Colin Denniston
9:24AM - 9:36AM	Y43.00006: Liquid Crystals Confined in Micro and Nanochannels Yu-Bing Guo, Jie Xiang, Oleg Lavrentovich, Qi-Huo Wei
9:36AM - 9:48AM	Y43.00007: Defects in liquid crystals in confined geometries: simulation studies Sajedeh Afghah, Andrew Konya, Robin Selinger
9:48AM - 10:00AM	Y43.00008: Fluctuating Hybrid lattice Boltzmann method for nematic liquid crystals Ganna Piatkovska, Colin Denniston
10:00AM - 10:12AM	Y43.00009: Tetratic and smectic liquid crystals on a sphere: defects, patterns and cubes Oksana Manyuhina, Mark Bowick
10:12AM - 10:24AM	Y43.00010: Visualization of the Flow Field induced by an Oscillating Post in a Freely Suspended Smectic Liquid Crystal Membrane Zhiyuan Qi, Kyle Ferguson, John Papaioannou, Yancey Sechrest, Tobin Munsat, Cheol Park, Matt Glaser, Joe Maclennan, Noel Clark, Tatiana Kuriabova, Thomas Powers
10:24AM - 10:36AM	Y43.00011: Liquid crystal-enabled electro-osmosis through spatially separated charges in photo-patterned surface alignment Chenhui Peng, Yubing Guo, Sergij Shiyanovskii, Qihuo Wei, Oleg Lavrentovich
10:36AM - 10:48AM	Y43.00012: Elastic Response of Liquid Crystalline Mixtures Jonathan Whitmer
10:48AM - 11:00AM	Y43.00013: Viral nematics in confined geometries Kyle Lawlor, Oksana Manyuhina, Mark Bowick, Cristina Marchetti

Friday, March 6, 2015, 8:00 am – 11:00 am

Other 'Y' Sessions of potential interest:

Session Y49: Focus Session: Yielding of Colloidal Crystals, Glasses, and Other Soft Materials
Sponsoring Units: GSOFT GSNP
Chair: Shomeek Mukhopadhyay, Yale University
Room: *217D*

Friday, March 6, 2015, 11:15 am – 2:15 pm

Session Z20: Invited Session: Physics of Entanglements

Sponsoring Units: DPOLY
Chair: Scott Milner, Pennsylvania State University
Room: *Ballroom B*

11:15AM - 11:51AM	Z20.00001: Shear banding in time dependent flows of polymers and wormlike micelles **Invited Speaker:** Suzanne Fielding
11:51AM - 12:27PM	Z20.00002: How polymer entanglement responds to fast large deformation: are we there yet? **Invited Speaker:** Shi-Qing Wang
12:27PM - 1:03PM	Z20.00003: From molecules to non-linear rheology of highly branched, entangled polymers: getting your priorities right **Invited Speaker:** Daniel Read
1:03PM - 1:39PM	Z20.00004: Entangled linear, branched and hyperbranched polymers in shear flow **Invited Speaker:** Dimitris Vlassopoulos
1:39PM - 2:15PM	Z20.00005: Polymer twists: entanglement and packing ansatz **Invited Speaker:** Jian Qin

Friday, March 6, 2015, 11:15 am – 2:15 pm

Session Z41: Focus Session: Biopolymers II: Phase Behavior, Rheology, and Mechanics

Sponsoring Units: DPOLY

Chair: Joseph Lott, University of Southern Mississippi
Room: *214A*

11:15AM - 11:51AM	Z41.00001: Chirality-selected phase behavior in ionic polypeptide complexes **Invited Speaker**: Matthew Tirrell
11:51AM - 12:03PM	Z41.00002: Biomimetic Coacervate Environments for Protein Analysis Sarah Perry, Patrick McCall, Samavayan Srivastava, David Kovar, Margaret Gardel, Matthew Tirrell
12:03PM - 12:15PM	Z41.00003: Molecular Rigidity and Entropy-Enthalpy Compensation in DNA Hybridization Jack Douglas, Fernando Vargas-Lara
12:15PM - 12:27PM	Z41.00004: Spider Silks-Biomimetics Beyond Silk Fibers: Hydrogels, films {\&} Adhesives from Aqueous Recombinant Spider Silk dopes: A Synchrotron X-Ray Nano-Structural Study Sujatha Sampath, Justin Jones, Thomas Harris, Randolph Lewis
12:27PM - 12:39PM	Z41.00005: Seeing believes: Watching entangled sculpted branched DNA in real time Ah-Young Jee, Juan Guan, Kejia Chen, Steve Granick
12:39PM - 12:51PM	Z41.00006: DNA electrophoresis in tri-block copolymer gels--- experiments and Brownian dynamics simulation Ling Wei, David H. Van Winkle
12:51PM - 1:03PM	Z41.00007: Injectable Self-Assembling Peptide Hydrogel: Effects of Hydrophobic Drug Encapsulation and Delivery Jessie Sun, Brandon Stewart, Alisa Litan, Sigrid Langhans, Joel P Schneider, Darrin J Pochan
1:03PM - 1:15PM	Z41.00008: Anomalous diffusion dynamics of associating artificial proteins in hydrogels Shengchang Tang, Muzhou Wang, Bradley Olsen
1:15PM - 1:27PM	Z41.00009: Physics of soft hyaluronic acid-collagen type II double network gels Svetlana Morozova, Murugappan Muthukumar
1:27PM - 1:39PM	Z41.00010: Viscoelastic Characterization of Gels at Metal-Protein Interfaces Elizabeth Martin, Kenneth Shull
1:39PM - 1:51PM	Z41.00011: Investigation of Monodisperse Dendrimeric Polysaccharide Nanoparticle Dispersions Using Small Angle Neutron Scattering John Atkinson, Jonathan Nickels, Erzsi Papp-Szabo, John Katsaras, John Dutcher
1:51PM - 2:03PM	Z41.00012: The mechanical properties of p-granule components Louise Jawerth, Shambaditya Saha, Marcus Jahnel, Frank Juelicher, Anthony Hyman
2:03PM - 2:15PM	Z41.00013: The spatial response of nonlinear strain propagation in response to actively driven microspheres through entangled actin networks Tobias Falzone, Savanna Blair, Rae Robertson-Anderson

Friday, March 6, 2015, 11:15 am – 2:15 pm

Session Z42: Theory and Modeling of Polymer Nanocomposites, Interfaces, and Surfaces

Sponsoring Units: DPOLY
Chair: Ting Ge, University of North Carolina
Room: *214B*

11:15AM - 11:27AM	Z42.00001: Physical gelation in polymer-nanofiller systems Di Xu, Dilip Gersappe
11:27AM - 11:39AM	Z42.00002: Polymer Crowding and Depletion-Induced Interactions in Polymer-Nanoparticle Mixtures Wei Kang Lim, Alan Denton
11:39AM - 11:51AM	Z42.00003: Depletion potential between nanoparticles: From small molecule liquids to dense polymer melts Debapriya Banerjee, Kenneth Schweizer
11:51AM - 12:03PM	Z42.00004: Self-assembled chains of polymer-grafted nanorods in homopolymer films Christina Ting, Boris Rasin, Russell Composto, Amalie Frischknecht
12:03PM - 12:15PM	Z42.00005: Field-theoretic study on polymer-depletion interaction between colloids in solution Wei Li, Kris Delaney, Glenn Fredrickson
12:15PM - 12:27PM	Z42.00006: Field Theoretic Simulations of Polymer Nanocomposites in the Presence of Adsorbing Block Copolymers Jason Koski, Robert Riggleman
12:27PM - 12:39PM	Z42.00007: Theory and Simulation Studies of Effect of Entropic and Enthalpic Driving Forces on Morphology in Polymer Grafted Particle Filled Nanocomposites Tyler Martin, Arthi Jayaraman
12:39PM - 12:51PM	Z42.00008: Disentanglement in polymer-star mixtures Hendrik Meyer
12:51PM - 1:03PM	Z42.00009: Strong Selective Adsorption of Polymers Ting Ge, Michael Rubinstein
1:03PM - 1:15PM	Z42.00010: Detailed atomistic simulations of functionalized graphene/polymer systems Petra Bacova, Anastassia Rissanou, Vagelis Harmandaris
1:15PM - 1:27PM	Z42.00011: Surface Tension of Nano-Confined Lattice Polymers Pengfei Zhang, Qiang Wang
1:27PM - 1:39PM	Z42.00012: Polymer adsorption transition: Applications of the Wang-Landau and partition function zeros methods Mark Taylor, Samip Basnet, Jutta Luettmer-Strathmann
1:39PM - 1:51PM	Z42.00013: Molecular Simulation studies of adsorption of polymers on non-planar surfaces: Influence of surface characteristics Abishek Venkatakrishnan, Anne Shim, Aquil Frost, John Lewnard, Vikram Kuppa
1:51PM - 2:03PM	Z42.00014: Detailed atomistic simulations of functionalized graphene/polymer systems He Zhu, Kshitij C. Jha, Ram S. Bhatta, Mesfin Tsige, Ali Dhinojwala
2:03PM - 2:15PM	Z42.00015: Molecular-dynamics study of the Case-II diffusion of methanol in PMMA Jiayuan Miao, Mesfin Tsige, Philip Taylor

Friday, March 6, 2015, 11:15 am – 2:15 pm

Session Z43: Focus Session: Fluids Under Confinement, Instabilities

Sponsoring Units: DPOLY GSOFT
Chair: Peter Yunker, Harvard University
Room: *214C*

11:15AM - 11:27AM	Z43.00001: Capillary Leveling of a Free-Standing Film Mark Ilton, Miles Couchman, Michael Benzaquen, Thomas Salez, Paul Fowler, Elie Raphael, Kari Dalnoki-Veres
11:27AM - 11:39AM	Z43.00002: Visualization of the Flow Field induced by an Oscillating Post in a 2D Fluid Membrane Z. Qi, K. Ferguson, J. Papaioannou, Y. Sechrest, T. Munsat, C. S. Park, M. A. Glaser, J. E. Maclennan, N. A. Clark, T. Kuriabova, T. R. Powers
11:39AM - 11:51AM	Z43.00003: Time-harmonic Stokes Flow of a Newtonian Fluid in the Entrance Region of a Semi-infinite Circular Tube: Insights Involving the Estimation of Entrance Length and the Selection of Appropriate Entrance Boundary Conditions Irwin S. Goldberg, Richard Lombardini
11:51AM - 12:27PM	Z43.00004: Effect of surface elasticity on the rheology of nanometric and micrometric liquids **Invited Speaker:** Elisabeth Charlaix
12:27PM - 12:39PM	Z43.00005: The Effect of Compression Frequency on the Collapse Dynamics of Langmuir Monolayers Jeremy Eaton, Michael Dennin
12:39PM - 12:51PM	Z43.00006: Plateau-Rayleigh Instability and Capillary Droplet Propulsion on a Fiber Sabrina Haefner, Michael Benzaquen, Oliver Baeumchen, Thomas Salez, Robert Peters, Joshua D. McGraw, Karin Jacobs, Elie Raphael, Kari Dalnoki-Veress
12:51PM - 1:03PM	Z43.00007: Parametric study of Newtonian droplet entering smaller confinement- a numerical study Zhifeng Zhang, Jie Xu, Xiaolin Chen
1:03PM - 1:15PM	Z43.00008: Line tension and entropy in a liquid crystal Langmuir film Elizabeth Mann, Pritam Mandal, Joseph Yarzebinski, Nabin Thapa, J. Adin Mann
1:15PM - 1:27PM	Z43.00009: Active nemato-hydrodynamics in toroidal microchannels Richard Green, John Toner, Vincenzo Vitelli
1:27PM - 1:39PM	Z43.00010: Can a hard-sphere fluid feel the topology of a confining pore? Gerd Schroeder-Turk, Johannes Knauf, Roland Roth, Klaus Mecke
1:39PM - 1:51PM	Z43.00011: Controllable Coexistence of Multiple Instabilities on a Single Liquid Filament Michael Hein, Jean-Baptiste Fleury, Ralf Seemann

Friday, March 6, 2015, 11:15 am – 2:15 pm

Session Z45: Porous Media, Fibers, and Flow

Sponsoring Units: DPOLY
Chair: Jonathan Brown, Ohio State University
Room: *216AB*

11:15AM - 11:27AM	Z45.00001: Methane Adsorption and Diffusion in Nanoporous Gray Shale by QENS Bo Wang, Matthew Byran, Garfield Warren, Paul Sokol
11:27AM - 11:39AM	Z45.00002: Enhanced Methanol Diffusion in Homogeneous Isotropic and Anisotropic Silica Aerogels Jeongseop A. Lee, Yizhou Xin, A.M. Zimmerman, Yang Shen, William Halperin
11:39AM - 11:51AM	Z45.00003: Diffusive and Rotational Dynamics of Condensed n-H2 Confined in MCM-41 Paul Sokol, Matthew Bryan, Timothy Prisk
11:51AM - 12:03PM	Z45.00004: Molecularly thin metal organic framework (MOF) film at air-water interface: Fabrication and buckling under compression Pritam Mandal, Sahraoui Chaieb
Author Not Attending	Z45.00005: Mechanism of breakup of electrospun jet at the nozzle Kostya Kornev, Vladislav Vekselman, Gilles Mohl
12:15PM - 12:27PM	Z45.00006: Atomic scale images of polyvinylidene fluoride nanofibers by electron microscopy Darrell Reneker, Christian Kisielowski, George Chase, Dinesh Lolla, Joe Gorse
12:27PM - 12:39PM	Z45.00007: Flow in wavy walled microchannels Raghavi Rao, Pushpavanam S
12:39PM - 12:51PM	Z45.00008: Micropillar sequence design for inertial fluid flow sculpting Daniel Stoecklein, Baskar Ganapathysubramanian, Chueh-Yu Wu, Dino Di Carlo
12:51PM - 1:03PM	Z45.00009: Three-dimensional microstreaming flows Bhargav Rallabandi, Alvaro Gomez-Marin, Massimiliano Rossi, Cheng Wang, Christian Kaehler, Sascha Hilgenfeldt
1:03PM - 1:15PM	Z45.00010: Retarded desorption from porous media caused by wetting/dewetting of the external surface Thomas Lee, Benoit Coasne, Roland J.-M. Pellenq, Franz-Josef Ulm, Lyderic Bocquet
1:15PM - 1:27PM	Z45.00011: Particle Migration and Sorting in Microbubble Streaming Flow Sascha Hilgenfeldt, Raqeeb Thameem, Bhargav Rallabandi, Rui Yang
1:27PM - 1:39PM	Z45.00012: Fluidic Dielectrophoresis: The Polarization and Displacement of Electrical Liquid Interfaces Zachary Gagnon
1:39PM - 1:51PM	Z45.00013: Effects of the uniaxial elongation of a polymer/CNT fiber on its electrical properties Hyun Woo Cho, Bong June Sung
1:51PM - 2:03PM	Z45.00014: Development and Studies of Nematic Liquid Crystalline Organic Semiconductors Salma Begum, Sanjoy Paul, Suvagata Tripathi, Robert Twieg, Brett Ellman
2:03PM - 2:15PM	Z45.00015: High thermal conductivity polymers Mortaza Saeidijavash, Jivtesh Garg

Friday, March 6, 2015, 11:15 am – 2:15 pm

Other 'Z' Sessions of potential interest:

Session Z4: Physics of Batteries, Supercapacitors and Fuel Cells
Sponsoring Units: GERA
Room: *Mayor Cockrell Room 004*

Session Z50: Membranes, Micelles and Vesicles
Sponsoring Units: GSOFT
Chair: Haskell Taub, University of Missouri, Columbia
Room: *218*

Monday

Session	**A20**	**A41**	**A42**	**A43**	**A44**	**A45**	**A50**
Room	*Ballroom B*	*214A*	*214B*	*214C*	*214D*	*216AB*	*218*
Chair	*Boudouris*	*Schaefer*	*Chan*	*Kearns*	*Santangelo*	*Li*	*Schroeder-Turk*
8:00 AM		Russ	Burns	Schick	Matsumoto	Alamo	
8:12 AM	**Bates**	Chang	Dong	Tylinski	Filipov	Schmidt-Rohr	**Kahn**
8:24 AM		Glaudell	Okoshi	Liu	Waitukaitis	Miyoshi	
8:36 AM			Budzien	Kearns		McCready	Dotera
8:48 AM	**Kumar**	**Venkataranan**	Katashima	Reid	**Evans**	Cartagena	Mortensen
9:00 AM			Tew	Ramos		Migler	Marson
9:12 AM		Mendels	Chan		Wilson	Davidson	Zhuang
9:24 AM	**Balsara**	Etampawala	Middleton	**Richert**	Castle	Hong	Kumar
9:36 AM		Sezen	Hashemnejad		Qi	Defebvin	Fischer
9:48 AM		Laudari	Kundu	Gomez	Gong	McDermott	Saba
10:00 AM	**Jayaraman**	Pavlopoulou	Dobrynin	Lyubimov	Buskohl	Zhou	Perroni
10:12 AM		Zhang	Foucard	Staley	Liu	Kotula	Nixon
10:24 AM		Zhu	Palkar	Gonzalez-Silveira	Overvelde	Yuan	Mahanthappa
10:36 AM	**Maranas**	Ghosh	Meng	Schick	Selden	Liu	Weyhaupt
10:48 AM		Coates	Cavicchi	Vogt	Wang	Chai	

Session	**B20**	**B41**	**B42**	**B43**	**B44**	**B45**
Room	*Ballroom B*	*214A*	*214B*	*214C*	*214D*	*216AB*
Chair	*McKenna*	*Jayaraman*	*Stein*	*Riedo*	*Evans*	*Audus*
11:15 AM		Yang		Wen	Eidini	Zhang
11:27 AM	**Glotzer**	Sharma	**Verduzco**	Nguyen	Adda-Bedia	Abbott
11:39 AM		Dai		Botimer	Oppenheimer	Wang
11:51 AM		Liu		Zhao		Dalnoki-Veress
12:03 PM	**Simmons**	Rostro	**Segalman**	Wang	**Vitelli**	Kim
12:15 PM		Zou		Diallo		Freed-Brown
12:27 PM			Modi	Kolesnikov	Cohen	Sharma
12:39 PM	**Caruthers**	**Stingelin**	Bai	Kramkowski	Liu	Choi
12:51 PM			Mokarian-Tabari	Wiener	Dieleman	Srivastava
1:03 PM		Yin	Shrestha	Stroberg	Paulose	Takenaka
1:15 PM	**Ruta**	Khlyabich	Jang	Prisk	Spellings	Napso
1:27 PM		Lee	Hu	Dhinojwala	Dai	Morgan
1:39 PM		Xu	Croll	Floudas	Murugan	Mani
1:51 PM	**Zorn**	Han	Park	Zhang	Liu	Hoagland
2:03 PM		Gautam	Imbrogno	Makaremi	Reis	Li

Monday

Session	D19	D20	D41	D42	D43	D45	D48
Room	*103B*	*Ballroom B*	*214A*	*214B*	*214C*	*216AB*	*217C*
Chair	*Kalia*	*Simon*	*Boudouris*	*Ellison*	*Lee*	*Wang*	*Holten-Anderson*
2:30 PM	**Parrinello**	**Garrahan**	**Gomez**	Choi	Pochan	Daniel	Flanders
2:42 PM				Gunkel	Laaser	Cao	Lin
2:54 PM				Kathrein	Griffin	Jones	Hein
3:06 PM	**Peter**	**Lipson**	Bredas	**Ganesan**	Robertson	Qian	**Rubinstein**
3:18 PM			Liu		Senenayake	Boukany	
3:30 PM			Takacs		Wang	Hsiao	
3:42 PM	**Tsige**	**Niss**	Herath	Hannon	**Rzayev**	Khorshid	Yunker
3:54 PM			Loo	Jung		Liao	Holten-Anderson
4:06 PM			Cai	Paradiso		Hammad	Anthamatten
4:18 PM	**Voth**	**Weeks**	Nieuwendaal	Shelton	So	Erbas	**Ludwik**
4:30 PM			Seifter	Popere	He	Mangal	
4:42 PM			Liang	Mueller	Tsang	Wang	
4:54 PM	**Withdrawn**	**Truskett**	Kim	Tsai	Zhu	Hickey	Grindy
5:06 PM			Jin	Hur	Cohen		Steimel
5:18 PM			Mok		Sosa		Hayes
5:30 PM							Balazs

A20: Interfacing Experiment and Theory in Polymer Physics
A41: Organic Electronics and Photonics - Thermoelectric, Ferroelectric, and Piezoelectric Materials
A42: Polymeric Elastomers and Gels
A43: Stable Glasses and Their Properties
A44: Extreme Mechanics: Origami, Kirigami and Mechanisms I
A45: Crystalline Polymers
A50: Beyond the Gyroid: Complex Network Phases in Self-Assembled Soft Materials

B20: Physics of Glass-Forming Liquids: Challenges and Surprises I
B41: Polymers for Solar Energy Conversion - Charge Transport in Organic Photovoltaics
B42: Block Copolymer Thin Films I
B43: Fluids under Confinement, Water at Interfaces and in Confinement
B44: Extreme Mechanics: Origami, Kirigami and Mechanisms II
B45: Polymer Melts & Solutions I

D19: Fifty Years of Molecular Dynamics Simulations II: Past, Present and Future
D20: Physics of Glass-Forming Liquids: Challenges and Surprises II
D41: Polymers for Solar Energy Conversion - Morphological Impacts
D42: Block Copolymer Thin Films II
D43: Self-Assembled Block Copolymers and Soft Nanoparticles in Solution I
D45: Polymer Melts & Solutions II
D48: Dynamically Bonded Soft Matter

Tuesday

Session	**F20**	**F41**	**F42**	**F43**	**F50**	**F51**
Room	*Ballroom B*	*214A*	*214B*	*214C*	*218*	*Grand Ballroom C1*
Chair	*Balsara*	*Briseno*	*Hayward*	*Agarwal*	*Shattuck*	*Damasceno*
8:00 AM	**Ediger**	**Break**			Middleton	**Brenner**
8:12 AM					Zheng	
8:24 AM					Du	
8:36 AM	**de Pablo**	Smith	Zhou	Rohde	Zhang	**Adami**
8:48 AM		Zhang	Toomey	Mulhearn	Cheng	
9:00 AM		Davy	Yokoyama	Gillard	Krueger	
9:12 AM	**Cicerone**	**Luscombe**	Mahalik	Chen	Feng	**Winfree**
9:24 AM			Kumaki	Ryu	Flenner	
9:36 AM			Gilliard	Wamuo	Odunsi	
9:48 AM	**Forrest**	Park	Baeumchen	Kriisa	Lin	**Chaikin**
10:00 AM		Tsige	Kim	Rokhlenko	Peng	
10:12 AM		Mishima	Wodo	Kwak	Zheng	
10:24 AM	**Fakhraai**	Ayoub	Anastasiadis	Tao	Vivek	
10:36 AM		Shin	Poynor	Mitra	Smith	
10:48 AM		Botelho	Bekele	McKenzie	Schmittner	

F20: Polymer Physics Prize
F41: Organic Electronics and Photonics, Design of Semiconducting Materials
F42: Wetting, Adhesion and Dynamics of Polymer Films and Interfaces
F43: Blends and Block Copolymers
F50: Soft Glasses
F51: Smart Assemblies: Self-Replication, Computation and Error-Free Self-Assembled Systems

Tuesday

Session	G41	G42	G43	G45
Room	*214A*	*214B*	*214C*	*216AB*
Chair	*Gomez*	*Burghardt*	*Tosatti*	*Elabd*
11:15 AM	Mullenbach	Davis	McMullen	**Hammond**
11:27 AM	Morgan	Gray	Ballard	
11:39 AM	Shang	Harry	Boynton	
11:51 AM	**von Hauff**	Li	Maulbetsch	Treufeld
12:03 PM		Lu	Scagliarini	Grabowski
12:15 PM		Pham	Paramanathan	Soles
12:27 PM	Purdum	Qiang	**Mahadevan**	He
12:39 PM	Bhatta	Shepard		Wang
12:51 PM	Bittle	Zhang		Kwon
1:03 PM	Kobayashi		Almaqwashi	Kyu
1:15 PM	Keilmann		Machielse	Lee
1:27 PM	Walters		Chien	Hallinan
1:39 PM	Gujral		Zanjani	Luo
1:51 PM	Wang		Hasan	Kim
2:03 PM				Dehghan

Session	J20	J41	J43	J45
Room	*Ballroom B*	*214A*	*214C*	*216AB*
Chair	*Segalman*	*Chabinyc*	*Sussman*	*Marthelot*
2:30 PM	**Osuji**	**Break**		Bowick
2:42 PM				Goon
2:54 PM				Romaguera
3:06 PM	Parry	Penwell	Yoon	Tavakol
3:18 PM	Balsara	Chan	Hebert	Lubbers
3:30 PM	Winey	Pimcharoen	Fan	Saintyves
3:42 PM	Green	Nishimra	Wang	Kosmrlj
3:54 PM	Russell	Muraoka	Conca	Gurmessa
4:06 PM	Riggleman	Waters	Wang	Auguste
4:18 PM	Wang	**Gundlach**	Priezjev	Kwon
4:30 PM	de Pablo		Liu	Chen
4:42 PM	Hammond		**del Gado**	Dalbe
4:54 PM	Tirrell	Uhrig		Villey
5:06 PM	Lutkenhaus	Huynh		Jiao
5:18 PM	Genzer			Huan

G41: Organic Electronics and Photonics - Small Molecule Semiconductors
G42: Padden Award Symposium
G43: Fluids under Confinement and in Biological Systems
G45: Polymers in Batteries and Electrochemical Capacitors I

J20: Dillon Medal Symposium
J41: Organic Electronics and Photonics, Optical and Electrical Properties
J43: Manipulating Glasses: Mechanics
J45: Extreme Mechanics

Tuesday, 5:45 pm, DPOLY Business Meeting, Room 214A
Tuesday, 6:45 pm, DPOLY NSF Polymers Q&A, Room 214A

Wednesday

Session	L18	L19	L41	L42	L43	L45
Room	*103A*	*103B*	*214A*	*214B*	*214C*	*216AB*
Chair	*Ginzburg*	*Jones*	*Rand*	*Robertson*	*Fakhraai*	*Lutkenhaus*
8:00 AM	**Nakatani**	**Lin**	Dadmun	**Dorgan**	Li	Kumar
8:12 AM			Boudouris		Jing	Kwon
8:24 AM			Patel		Tosatti	Selin
8:36 AM	**Meth**	**Allen**	**Spakowitz**	Ouchiar	Capozza	Jeong
8:48 AM				Shofner	Bollinger	Herbst
9:00 AM				Ryu	Zhang	Beyer
9:12 AM	**Sukhishvili**	**Beaman**	Moscatello	Yang	**Wolynes**	Chen
9:24 AM			Kang	Brutman		Sangoro
9:36 AM			Chu	Chen		Caldwell
9:48 AM	**Wagner**	**Mantese**	Miranda	Wool	Zhang	**Colby**
10:00 AM			Kim	Wang	Bommer	
10:12 AM			Kang	McAllister	Hobbie	
10:24 AM	**Walker**	**Alizadeh**	Wang	**Elabd**	**Yu**	Sharick
10:36 AM			Lee			Rojas
10:48 AM			Slobodyan			Park

Session	M19	M43
Room	*Mission Room 103B*	*214CB*
Chair	*Rafailovich*	*Neal*
11:15 AM	**Kunc**	Ricarte
11:27 AM		Chatterjee
11:39AM		Wang
11:51 AM	**Ringeisen**	Ginzburg
12:03 PM		Li
12:15 PM		Seppala
12:27 PM	**Simon**	Dinic
12:39 PM		Fang
12:51 PM		Jeong
1:03 PM	**Gstrein**	Vitale
1:15 PM		Martinez-Tong
1:27 PM		Arinstein
1:39 PM		**Ye**
1:51 PM		
2:03 PM		

L18: Industry Day: Dynamics and Non-Equilibrium Processes of Colloids and Filled Polymer Blends
L19: Industry Day: Introduction to Additive Manufacturing
L41: Organic Electronics and Photonics - Transport in Polymer Thin Films
L42: Renewable and Sustainable Polymers
L43: Stable Glasses, Fluids under Confinement and at Interfaces
L45: Polymers in Batteries and Electrochemical Capacitors II

M19: Industry Day: Progress and Challenges of Additive Manufacturing
M43: Industry Day: Applied Polymer Physics in Advanced Manufacturing

Wednesday

P1: Poster Session II – 11:00 AM – 2:00 PM			
Exhibit Hall C, DPOLY posters 145-316			
145 Clarkson	189 Griffin	230 Kim	271 Shelton
146 Feng	190 De	231 Carradero-Santiago	272 Lwoya
147 Arechederra	191 Heres	232 Perez	273 Sargent
148 Marciel	192 Olsen	233 Martinez	274 Jeong
149 Lama	194 Yu	234 Sung	275 Gnabasik
150 Farasat	196 Givens	235 Adhikari	276 Truong
152 Chen	197 Naik	236 Aung	277 Chang
153 Vaselabadi	198 Duranty	240 Lloyd	279 Contreras
154 Okoshi	200 Keten	242 Li	280 Gai
155 Trigg	202 Sethuraman	243 An	281 Ha
156 Wang	203 Khanal	244 Thelen	282 Zhao
158 Gordon	204 Cohen	245 Pan	284 Zhao
159 Futscher	205 Ryu	247 Chintapalli	285 Zhu
160 Cariker	206 Sun	248 McKenzie	286 Nishitsuji
163 Melillo	207 Wodo	249 Woo	287 Yavitt
164 Rattan	208 Molinari	250 Huang	288 Salinas
165 Lombardi	209 Wilson	251 Qi	289 Zhou
166 Zabet	210 Wang	252 Mancini	290 Kim
168 Mah	211 Taylor	253 Choudhary	291 Li
169 Sun	212 Medapuram	255 Patil	292 Evans
172 Lee	213 Wang	256 Zeng	293 Yust
173 Lo	215 Chuang	257 Cheung	294 Tung
174 Wang	216 Blair	258 Davis	296 Zhang
175 Shin	217 Taylor	259 Zuba	297 Meredith
176 Kim	219 Kipp	260 Qu	300 Na
177 Lee	220 Alwis	261 Cao	302 Adhikari
178 Yildirim	221 Lin	262 Krist	303 Gorzcyza
179 Wang	222 Lee	263 Datta	305 Chua
181 Pandav	223 Calderon	264 Katsumata	307 Walters
182 Reid	225 Moon	210 Daniel	308 Gonzalez-Silveira
183 Jung	175 Tran	211 Sung	309 Zhang
184 Sampath	176 Soles	265 Kim	310 Jiang
185 Middleton	226 Lim	266 Lu	312 Long
186 Yang	227 Baumeier	268 Lee	314 Sakib
187 Yadav	228 Tomlinson	269 Lee	315 Hailesilassie
188 Tarver	229 Wodo	270 Luo	316 Christie

Wednesday

Session	**Q36**	**Q39**	**Q41**	**Q42**	**Q43**	**Q45**
Room	*211*	*213AB*	*214A*	*214B*	*214C*	*216AB*
Chair	*Chen*	*Conrad*	*Tarver*	*Hall*	*Roth*	*Soles*
2:30 PM	**Leal**	Rasin	Snyder	Sinkovits	Casalini	Mogurampelly
2:42 PM		Bochinski	Yoo	Freed	Medvedev	Han
2:54 PM		Liu	Zhan	Bourque	Zou	Runt
3:06 PM	Ku	Gorga	**Rand**	Kong	**Simon**	Lu
3:18 PM	Char	Yong		Misra		Timachova
3:30 PM	Prabhu	Clarke		Wang		Ye
3:42 PM	Wang	Alam	Su	**Milner**	Janssen	Sanoja
3:54 PM	Lin	Kennedy	Paul		Chandler	Masri
4:06 PM	Cheng	Bai	Reyes-Martinez		Mandadapu	Schaefer
4:18 PM	Lee	**Balazs**	Dong	Loewe	Laventure	Evans
4:30 PM	Han		Li	Koci	Dell	Irwin
4:42 PM	Zeng		Chen	Chen	Nguyen	Pesko
4:54 PM	Shin	Sweeney	Blum	Ackerman	White	Petzetakis
5:06 PM	Yang	Christau	Groehn	Carrillo	Carrillo	Wiener
5:18 PM				Polson	Merling	Weber

Q36: Self-assembled Block Copolymers and Soft Nanoparticles in Solution II
Q39: Polymer Nanocomposites - Active Particles and Dynamics
Q41: Organic Electronics and Photonics - Structure-Property Relationships
Q42: Theory and Simulation of Macromolecules I
Q43: Manipulating Glasses, Theory and Experiment
Q45: Transport in Charged and Ion-Containing Polymers

Thursday

Session	**S20**	**S33**	**S41**	**S42**	**S43**	**S45**
Room	*Ballroom B*	*208*	*214A*	*214B*	*214C*	*216AB*
Chair	*Cavicchi*	*Bhattacharya*	*Albert*	*Chen*	*Riggleman*	*Clarke*
8:00 AM	**Lutkenhaus**	Li	Zhang	Moule	Koh	**Clarke**
8:12 AM		Mondal	Alhazov	Zakhidov	Cheng	
8:24 AM		Ouyang	Rozairo	Khanra	Vaia	
8:36 AM	**Monroe**	Shin	Wagner	Stiff-Roberts	Arellano	Imel
8:48 AM		de Haan	Asano	Thongprong	Burroughs	Chen
9:00 AM		Klotz	Maskey	Van Cleave	DeFelice	Weir
9:12 AM	**Li**	Dai	Jiao	Kipp	**Roth**	Ashkar
9:24 AM		Slater	Wang	Samant		Lin
9:36 AM		Tukdarian	Kim	Lv		Composto
9:48 AM	**Park**	Smith	Ruth	Noro	Samant	Holt
10:00 AM		Prabhune	Ho	Qin	Glor	Choio
10:12 AM		Ploscariu	Wijesinghe	Chang	Ahrenberg	Poling-Skutvik
10:24 AM	**Runt**	**Frey**	Jeong	Knotts	Mangalara	Tung
10:36 AM			Kim	Yang	Chen	Basu
10:48 AM				Miller	Suzuki	

S20: Ion-Containing Polymers
S33: Conformations and Dynamics of Biopolymers I
S41: New Directions in Polymer Physics
S42: Electrically and Optically Active Polymers
S43: Dynamics of Glassy Polymers Under Confinement I
S45: Polymer Nanocomposites: Dynamics

Thursday

Session	T33	T41	T42	T43	T45
Room	*208*	*214A*	*214B*	*214C*	*216AB*
Chair	*Bhattacharya*	*Agarwal*	*Frischknecht*	*Priestley*	*Taribagil*
11:15 AM	Schwarz	Bilchak	Dhakal	**Starr**	Kawaguchi
11:27 AM	Huang	Salerno	Vucelja		Kusoglu
11:39 AM	Renner	Asai	Sing		Frieberg
11:51 AM	Copperman	Senses	**Larson**	Mirigian	Davis
12:03 PM	Sean	Kim		Dell	Chu
12:15 PM	Muralidhar	Zhao		Lan	Aryal
12:27 PM	Chubynsky	Su	Tree	Glynos	Agrawal
12:39 PM	Berezney	Cheng	Desai	Androulaki	Feldman
12:51 PM	Ando	Maia	Parker	Jin	Karim
1:03 PM	Azad	Mongcopa	Khani	Lopez	Xiang
1:15 PM	Munusamy	Rissanou	Underhill	Zhao	Khawaja
1:27 PM	Meuse	Song	Jain	Sen	Choo
1:39 PM	Scott	Zhao	Chattaraj	Huang	Levine
1:51 PM	Yamazaki	Buenning	Elder	Betancourt	Liu
2:03 PM	Benetatos	Zhang	Yilmaz	Geng	Khabaz

Session	W20	W33	W41	W42	W43	W45
Room	*Ballroom B*	*208*	*214A*	*214B*	*214C*	*216AB*
Chair	*Underhill*	*Noel*	*Cheng*	*Maranas*	*Simmons*	*Agrawal*
2:30 PM	**De La Cruz**	Sheats	Huang	Perahia	Tsui	Antila
2:42 PM		Stevens	Contreras	Hall	Klos	Ghobadi
2:54 PM		Shrestha	Grolman	Grest	Koga	Jeon
3:06 PM	**Saven**	**Janmey**	Chipara	**Guenza**	Raphael	Osti
3:18 PM			Vargas-Lara		Foster	Qu
3:30 PM			Salinas		Xue	Pandav
3:42 PM	**Mezzenga**	Ghanbarian	Madani	Dong	Reid	Zhang
3:54 PM		Noel	Espino	van der Vegt	Saalwachter	Radhakrishna
4:06 PM		Wu	Zhmayev	Yang	Chen	Diddens
4:18 PM	**Heilshorn**	Adhikari	Alghamdi	Wang	Geoghegan	Zwanikken
4:30 PM		Olmsted	Chrissopoulou	Geraets	Baglay	Qin
4:42 PM		Williams	Patel	Hsu	Tan	Pryamitsyn
4:54 PM	**Schroeder**	Dawson	Woltornist	Li	Askar	Chen
5:06 PM		Heidemann	Lin	Sirk	Napolitano	Sing
5:18 PM		GC	Howell	Subramanian	Rahman	Yildirim

T33: Conformations and Dynamics of Biopolymers II
T41: Polymer Nanocomposites I
T42: Theory and Simulation of Macromolecules II
T43: Dynamics of Glassy Polymers under Confinement II
T45: Transport in Polymer Membranes

W20: Physics of Biomacromolecules
W33: Conformations and Dynamics of Biopolymers III
W41: Polymer Nanocomposites II
W42: Multiscale Modeling of Polymers
W43: Dynamics of Glassy Polymers Under Confinement III
W45: Structure and Phase Behavior of Charged and Ion Containing Polymers

Friday

Session	Y41	Y42	Y43
Room	*214A*	*214B*	*214C*
Chair	*Olsen*	*Sing*	*Fernandez-Nieves*
8:00 AM	**Carbone**	Frischknecht	Yang
8:12 AM		Kowalik	Ryan
8:24 AM		Seo	Wagner
8:36 AM	Wei	Sethuraman	**Lavrentovich**
8:48 AM	Dutcher	Vorselaars	
9:00 AM	Jain	Delany	
9:12 AM	Wang	Brown	Antipova
9:24 AM	Mays	Medapuram	Guo
9:36 AM	Olsen	Arora	Afghah
9:48 AM	Keten	Grzetic	Piatkovska
10:00 AM	Sulc	Ghasimakbari	Manyuhina
10:12 AM	Panganiban	Ravichandran	Qi
10:24 AM	**Szleifer**	Nakamura	Peng
10:36 AM		Spencer	Whitmer
10:48 AM		Pokuri	Lawler

Session	Z20	Z41	Z42	Z43	Z45
Room	*Ballroom B*	*214A*	*214B*	*214C*	*216AB*
Chair	*Milner*	*Lott*	*Ge*	*Yunker*	*Brown*
11:15 AM	**Fielding**	**Tirrell**	Xu	Elie	Wang
11:27 AM			Lim	Qi	Lee
11:39 AM			Banerjee	Goldberg	Sokol
11:51 AM	**Wang**	Perry	Ting	**Charlaix**	Mandal
12:03 PM		Douglas	Li		Kornv
12:15 PM		Sampath	Koski		Reneker
12:27 PM	**Read**	Jee	Martin	Eaton	Rao
12:39 PM		Wei	Meyer	Haefner	Stoecklein
12:51 PM		Sun	Ge	Zhang	Rallabandi
1:03 PM	**Vlassopoulos**	Tang	Bacova	Mann	Lee
1:15 PM		Morozova	Zhang	Green	Hilgenfeldt
1:27 PM		Martin	Taylor	Schroeder-Turk	Gagnon
1:39 PM	**Qin**	Atkinson	Venkatakrishnan	Hein	Cho
1:51 PM		Jawerth	Zhu		Begum
2:03 PM		Falzone	Miao		Saeidijavash

Y41: Biopolymers I: Biohybrids, Biointerfaces, and Modeling
Y42: Theory and Modeling of Diblock Copolymers and Blends
Y43: Fluids under Confinement, Colloids and Liquid Crystals

Z20: Physics of Entanglements
Z41: Biopolymers II: Phase Behavior, Rheology, and Mechanics
Z42: Theory and Modeling of Polymer Nanocomposites, Interfaces, and Surfaces
Z43: Fluids under Confinement, Instabilities
Z45: Porous Media, Fibers, and Flow

DPOLY SPECIAL EVENTS

DPOLY Reception:

Time: Sunday, March 1, 5:30 pm – 7:30 pm

Venue: Hilton Palacio Del Rio: The Stetson Ballroom
Location: Hilton Palacio Del Rio; 200 South Alamo Street; San Antonio, TX 78205
(next to convention center)

DPOLY Award Lectures:

Polymer Physics Prize Symposium:

Mark Ediger: "A molecular perspective on the deformation of polymer glasses"
Session F20: Tuesday, March 3, 8:00 am – 11:00 am
Room: Ballroom B

Padden Prize Symposium:

Session G42: Tuesday, March 3, 11:15 am – 1:03 pm
Room: 214B

Dillon Medal Symposium:

Chinedum Osuji: "Magnetic Field Directed Self-Assembly of Block Copolymers and Surfactant Mesophases"
Session J20: Tuesday, March 3, 2:30 pm – 5:30 pm
Room: Ballroom B

DPOLY Business Meeting:
Session K41: Tuesday, March 3, 5:45 pm – 6:45 pm
Room: 214A

NSF Question and Answer Session on Polymers, Soft Matter, and the Materials Genome Initiative
Session KA41: Tuesday, March 3, 6:45 pm – 7:45 pm (immediately following business meeting)
Room: 214A

Disclaimer: The information provided in this booklet is unofficial and is accurate as of 20.01.2015. For all official information please refer to the APS March Meeting Proceedings (http://meetings.aps.org/Meeting/MAR15). If there is any discrepancy between this booklet and the APS website, trust the APS website.