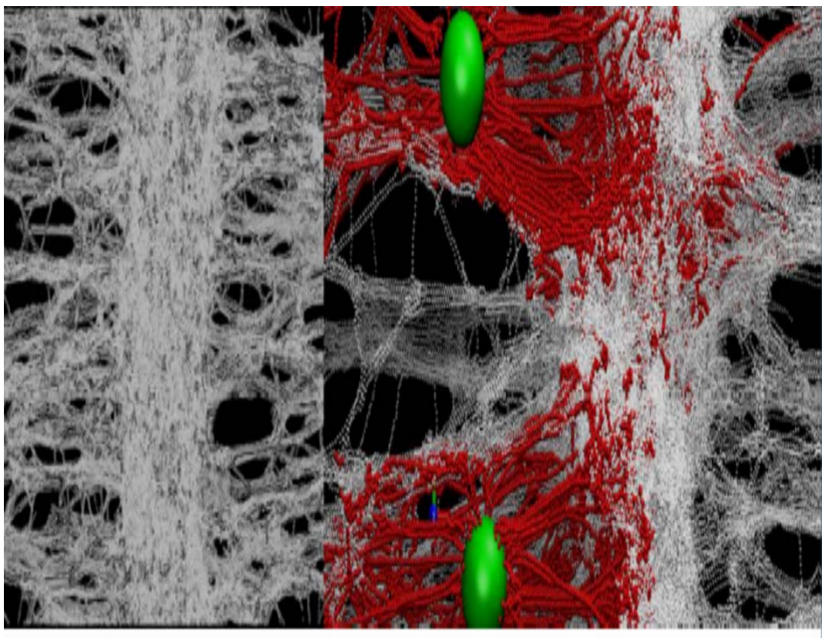
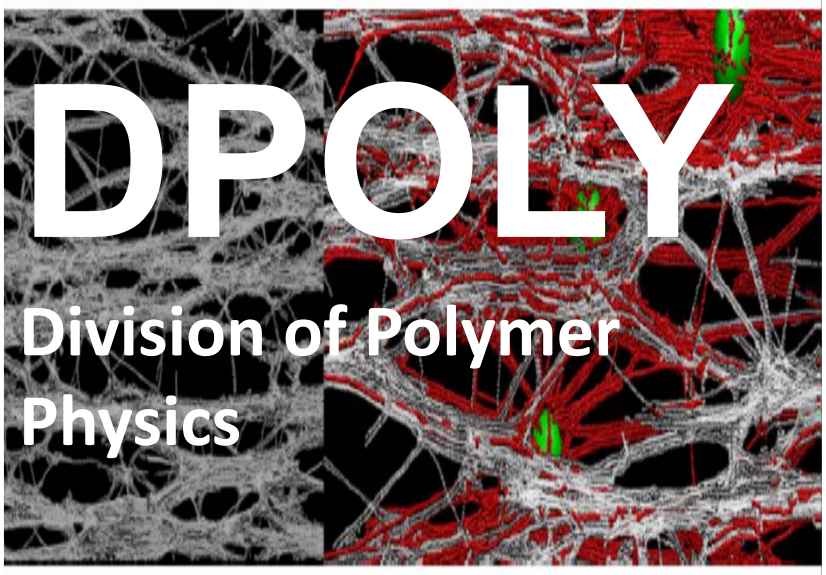
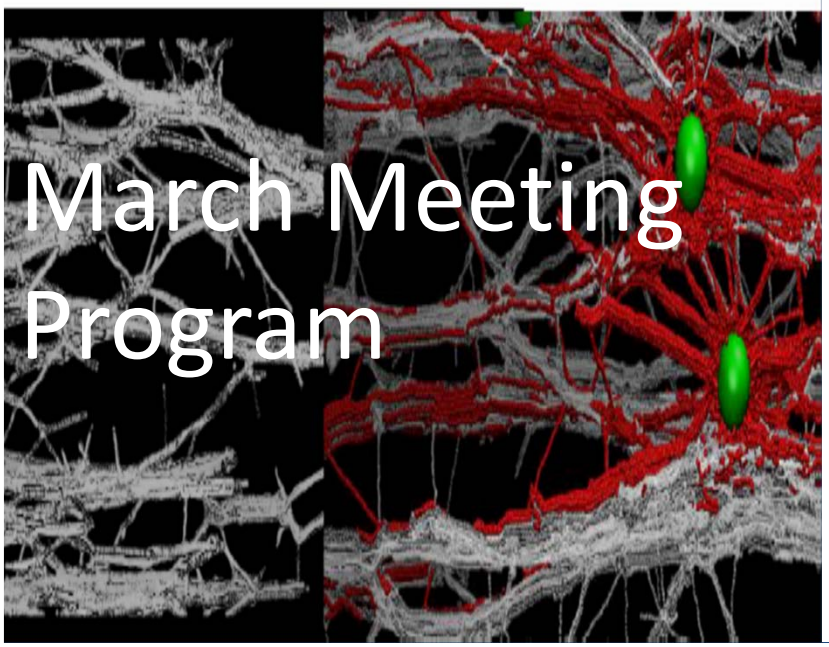




DPOLY

Division of Polymer Physics



March Meeting Program

2016
March 14-18
Baltimore, MD

APS physics™
dpoly

SPECIAL ACTIVITIES AND EVENTS

DPOLY SHORT COURSE Polymer Nanocomposites: Challenges and Opportunities
Saturday, Sunday, March 12-13

DPOLY RECEPTION
Sunday, March 13, 5:00PM – 8:00PM
The Pratt Street Ale House, 206 W Pratt St, Baltimore, MD 21201

DPOLY AWARDS SYMPOSIA

Polymer Physics Prize Symposium – *Prize sponsored by Dow Chemical*
Session E4: Tuesday, March 15, 8:00AM – 11:00AM; Room: Ballroom IV
Anna Balazs: Designing "Materials that Compute" - Exploiting the Properties of Self-Oscillating Polymer Gels

Padden Prize Symposium – *Prize sponsored by University of Akron*
Session F38: Tuesday, March 15, 11:15AM – 1:15PM; Room: 341
Selected Gradute Students Talks

Dillon Medal Symposium – *Prize sponsored by Elsevier, publisher of Polymer*
Session H4: Tuesday, March 15, 2:30PM – 5:30PM; Room: Ballroom IV
Thomas Epps: Tapered Block Copolymers: Tuning Self-Assembly and Properties by Manipulating Monomer Segment Distributions

DPOLY GRADUATE STUDENT LUNCH WITH EXPERTS
Tuesday, March 15, 12:30PM - 2:00PM. (Free Registration)

Graduate students enjoy complimentary box-lunch while participating in an informal and stimulating discussion with experts. This year's DPOLY team of experts includes:

Professor Rachel A. Segalman, *University of California, Santa Barbara*
Expertise: Molecular structure and self-assembly of polymers

Dr. Pieter J. in 't Veld, *BASF*
Expertise: Computational polymer physics in industry

Free Registration will be on a first-come, first-served basis. Participation is limited to eight students per topic. Sign-up will open Sunday, March 13 at 3:00PM, near the APS Registration Desk in Hall D.

DPOLY BUSINESS MEETING
Tuesday, March 15, 2016; 5:45PM - 6:45PM; Room: *336*

DPOLY NSF QUESTION AND ANSWER SESSION
Tuesday, March 15, 2016; 6:45PM - 7:30PM; Room: *336*

INDUSTRY DAY
Wednesday, March 16; sponsored by DPOLY, FIAP

DPOLY POSTER SESSION
Wednesday, March 16, 11:00AM - 2:30PM *Exhibit Hall A*
Poster Awards: 2:00 PM
DPOLY poster awards are sponsored by *Journal of Polymer Science: Polymer Physics.*

JOURNAL OF POLYMER SCIENCE Polymer Chemistry | Polymer Physics

Cover image: Molecular dynamics simulations results of crazing polymers and polymer nanocomposites, courtesy of Dr. Dong Meng, Mississippi State University

DPOLY SHORT COURSE: POLYMER NANOCOMPOSITES: CHALLENGES AND OPPORTUNITIES

Structure, Dynamics, and Processing of Polymer Nanocomposites*Organizers:* *Pinar Akcora (Stevens Institute of Technology), Rohan Hule (ExxonMobil) and Russell Composto (University of Pennsylvania)*

The course will review topics in structure, dynamics, and processing of polymer nanocomposites. A basic introduction, followed by an overview of accomplishments in various aspects of functional nanocomposites will be presented. Future opportunities and challenges in designing materials for easy processability with multi-functional features will be discussed. The course will include examples of innovative ideas translating into industrial applications, potential impediments in this process, and associated mitigation strategies.

Saturday, March 12	
1:00 p.m.	**I- Introduction to Polymer Nanocomposites** Russell Composto, University of Pennsylvania; Pinar Akcora, Stevens Institute of Technology "Short course overview and objectives"
1:30 p.m.	**II- Preparation of Functional Materials for Polymer Nanocomposites** Brian Benicewicz, University of South Carolina "Emerging synthetic tools for new designs of functional polymer nanocomposites"
2:45 p.m.	Coffee Break
3:05 p.m.	Eugenia Kumacheva, University of Toronto "Self-assembly of polymer-functionalized nanoparticles"
4:35 p.m.	Karim Alamgir, University of Akron "Particle-polymer interfaces, polymer blends and functional surfaces"
Sunday, March 13	
8:30 a.m.	**III- Fundamentals: Dispersion & Dynamics** Gary Grest, Sandia National Laboratory "Nanoparticle diffusion in a polymer matrix"
9:45 a.m.	Coffee Break
10:00 a.m.	Michael Rubinstein, University of North Carolina "Dynamics of nanoparticles in polymer matrices"
11:35 a.m.	Sudhin Datta, ExxonMobil “Industrial perspective and challenges for polymer nanocomposites”
12:30 p.m.	Lunch
1:30 p.m.	**IV- Structural Characterization** Alexander Hexemer, Lawrence Berkeley National Laboratory "SAXS/GISAXS of hybrid materials"
2:45 p.m.	Coffee Break
3:00 p.m.	**V- Processing** Chris Macosko, University of Minnesota "Processing and mechanical properties of polymer nanocomposites"
4:20 p.m.	Marc Couty, Michelin "Modeling structure and dynamics of polymer nanocomposites"

INDUSTRY DAY: FROM NANO TO MESO

Wednesday, March 16, 2016
Satellite Meeting on Thursday March 17
Related sessions throughout the week

Sponsors:
Division of Polymer Physics (DPOLY)
Forum on Industrial and Applied Physics (FIAP)

Industry Day at the 2016 APS March Meeting will focus on Nano-to-Meso, the application of understanding at the atomic and molecular scale to speed of development of materials and devices at the macroscopic level. Speakers include industry R&D leaders and senior scientists from academic, industrial, and national labs. Industry specialists and early career physicists are especially encouraged to attend.

Industry Day 2016 at the APS March Meeting will focus on the challenges associated with transitioning from nano to meso and the growth of the technology that allows experimental testing before hardware assembly even begins. The more one can model, the less experimentation is necessary. This reduces both the cost and time for moving concepts to full implementation, which is clearly of interest to international industries across the board. As physicists, we bring innovative concepts to the forefront with the hope that the resulting excitement will create new capabilities in the international technical sphere. Join the industrial scientists, national laboratories researchers and academic ones who will create this new paradigm.

Program Details
Program will include hard and soft materials and will feature invited talks by industrial, national laboratories and academic leaders. A lunchtime poster session, and focus sessions will present the forefront of physics, bridging industry and academic research.

Registration
Attending *Industry Day* requires registration for the APS March Meeting.
One-day registration is available.

Table of Content

Monday, March 14, 2016 8:00am-11:00am

Session A4 Invited Session: Polymer Dynamics; An Honor Session for Sir Sam Edwards

Sponsoring Units: DPOLY GSOFT GSNP
Chair: Gary Grest, Sandia National Laboratories
Room: *Ballroom IV*

8:00AM - 8:36AM	A4.00001: Polymer Dynamics from Edwards to Today **Invited Speaker**: Masao Doi
8:36AM - 9:12AM	A4.00002: Polymer dynamics, the Edwards tube model and neutron scattering. **Invited Speaker**: Julia Higgins
9:12AM - 9:48AM	A4.00003: Recent advances with generalized entropy theory of glass-formation in polymers **Invited Speaker**: Karl Freed
9:48AM - 10:24AM	A4.00004: The Ordinary-Extraordinary Transition in Dynamics of Solutions of Charged Macromolecules **Invited Speaker**: Murugappan Muthukumar
10:24AM - 11:00AM	A4.00005: Nanotribology of charged polymer brushes **Invited Speaker**: Jacob Klein

Monday, March 14, 2016, 8:00am-11:00am

Session A33 Charged & Ion-Containing Polymers

Sponsoring Units: DPOLY GSOFT
Chair: Lisa Hall, Ohio State University
Room: *336*

8:00AM - 8:12AM	A33.00001: Ionomer Self-assembly in Dilute Solution: a Coarse-grained Molecular Dynamics Study. Mahdi Ghelichi , Kourosh Malek , Michael Eikerling
8:12AM - 8:24AM	A33.00002: Electrostatic Effect on the Solution Structure and Dynamics of PEDOT:PSS Michael Leaf , Murugappan Muthukumar
8:24AM - 8:36AM	A33.00003: Ion Correlation and Transport in Polymer Electrolytes at Finite Salt Concentrations; Coarse-Grained Simulation Study Umi Yamamoto , Zhen-Gang Wang
8:36AM - 8:48AM	A33.00004: Explicit-ion Effects in the Coil-Globule Transition of Weak Polyelectrolytes Benjamin J. Sikora , Jonathan K. Whitmer
8:48AM - 9:00AM	A33.00005: The effect of ionic correlations on ion distribution across polyelectrolyte blend interfaces Ha-Kyung Kwon , Monica Olvera de la Cruz
9:00AM - 9:12AM	A33.00006: Effect of Charge Patterning on the Phase Behavior of Polymer Coacervates for Charge Driven Self Assembly Mithun Radhakrishna , Charles E. Sing
9:12AM - 9:24AM	A33.00007: Connectivity and Excluded Volume Effects in Polymeric Complex Coacervates Charles Sing , Mithun Radhakrishna
9:24AM - 9:36AM	A33.00008: Salting-out and Salting-in in Polyelectrolyte Solutions Pengfei Zhang , Jianzhong Wu , Zhen-Gang Wang
9:36AM - 9:48AM	A33.00009: Influence of Higher Valence Ions on Flexible Polyelectrolytes Stiffness and Counter-ion Distribution Alexandros Chremos , Jack F. Douglas
9:48AM - 10:00AM	A33.00010: Understanding and Controlling Transitions in Polyelectrolyte Complex Materials Sarah Perry , Li-Wei Chang , Yalin Liu , Brian Momani , Jon Velez , H. Henning Winter
10:00AM - 10:12AM	A33.00011: Complexation of two oppositely charged polyelectrolytes Hamidreza Shojaei , Murugappan Muthukumar
10:12AM - 10:24AM	A33.00012: Morphology-induced low temperature conductivity in ionic liquids. Aykut Erbas , Monica Olvera de la Cruz
10:24AM - 10:36AM	A33.00013: Structural Dynamics of Star-Shaped Weak Polyelectrolytes in Dilute Aqueous Solution Chen Qu , Y. Elaine Zhu
10:36AM - 10:48AM	A33.00014: Thermodynamics and Phase Behavior of Phosphonated Block Copolymers Containing Ionic Liquids Ha Young Jung , Moon Jeong Park

Monday, March 14, 2016 8:00am-11:00am

Session A38 Focus Session: Polymer Nanocomposites; Active Particles and Applications

Sponsoring Units: DPOLY FIAP GSOFT
Chair: Michael Hore, Case Western Reserve University
Room: *341*

8:00AM - 8:12AM	A38.00001: Plasmonic Gold Nanorod Dispersions with Electrical and Optical Tunability Christopher Grabowski , Clare Mahoney , Kyoungweon Park , Ali Jawaid , Timothy White , Richard Vaia
8:12AM - 8:24AM	A38.00002: Molecular dynamics study of reversible thermal stiffening in viscoelastic polymer blends and nanocomposites Wei Peng , Raghavan Ranganathan , Fiona Kine , Rahmi Ozisik , Pawel Keblinski
8:24AM - 8:36AM	A38.00003: Role of bound polymer mobility on multiscale dynamics of PEO in attractive nanocomposites Erkan Senses , Antonio Faraone , Pinar Akcora
8:36AM - 9:12AM	A38.00004: Hierarchical Nanocomposites for Device Applications **Invited Speaker**: James Watkins
9:12AM - 9:24AM	A38.00005: Driving degradation within biodegradable polymers with embedded nanoparticles Russell Gorga , Gabriel Firestone , Daniela Fontecha , Jason Bochinski , Laura Clarke
9:24AM - 9:36AM	A38.00006: Waveguiding Actuators Based on Photothermally Responsive Hydrogels Ying Zhou , Adam Hauser , Nakul Bende , Mark Kuzyk , Ryan Hayward
9:36AM - 9:48AM	A38.00007: In-situ curing of liquid epoxy via gold-nanoparticle mediated photothermal heating Gabriel Firestone , Ju Dong , Jason Bochinski , Russell Gorga , Laura Clarke
9:48AM - 10:00AM	A38.00008: High Thermal Conductivity Aligned Polyethylene-Graphene Nanocomposites; Jivtesh Garg , Mortaza Saeidijavash
10:00AM - 10:12AM	A38.00009: Mechanical Properties of Polymeric Nanocomposites with Liquid Inclusions; Heyi Liang , Zhen Cao , Andrey Dobrynin
10:12AM - 10:24AM	A38.00010: Tailoring the Structure of Polymer Networks with Photo-Controlled Radical Polymerization Awaneesh Singh , Olga Kuksenok , Jeremiah A. Johnson , Anna C. Balazs
10:24AM - 10:36AM	A38.00011: Use Electrospinning to Introduce Graphene into Poly(4-Vinylpridine) (P4VP) Polymer Fibers and Their Biocompatibility with Dental Pulp Stem Cells (DPSCs) Linxi Zhang , Chung-chueh Chang , Miriam Rafailovich
10:36AM - 10:48AM	A38.00012: Studies of a new class of high electro-thermal performing Polyimide embedded with 3D scaffold in the harsh environment of outer space; Manuela Loeblein , Asaf Bolker , Siu Hon Tsang , Nurit Atar , Cecile Uzan-Saguy , Ronen Verker , Irina Gouzman , Eitan Grossman , Edwin Hang Tong Teo

Monday, March 14, 2016 8:00am-11:00am

Session A39 Focus Session: Physics of Proteins -Bio Meets Quantum

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Mark Tuominen, University of Massachusetts Amherst
Room: *342*

8:00AM - 8:12AM	A39.00001: Hidden Linear Quantum States in Proteins: Did Davydov Get the Sign Wrong? Robert Austin , Aihua Xie , Britta Redlich , Lex van der Meer
8:12AM - 8:24AM	A39.00002: Single-Molecule Electronic Measurements of the Dynamic Flexibility of Histone Deacetylases James Froberg , Seungyong You , Junru Yu , Manas Haldar , Abbas Sedigh , Sanku Mallik , D.K. Srivastava , Yongki Choi
8:24AM - 8:36AM	A39.00003: Single-Molecule Electronic Monitoring of DNA Polymerase Activity Denys O. Marushchak , Kaitlin M. Pugliese , Mackenzie W. Turvey , Yongki Choi , O. Tolga Gul , Tivoli J. Olsen , Arith J. Rajapakse , Gregory A. Weiss , Philip G. Collins
8:36AM - 8:48AM	A39.00004: Observation of an electrical signal from a single molecule Arooj Aslan , Noor Shaheen , Kyle Dobiszewski , Alokik Kanwal , Reginald Farrow , Gordon Thomas
8:48AM - 9:00AM	A39.00005: Relevance of Aromatic Amino Acids for Electron Conduction along Geobacter Pili Protein. Ramesh Adhikari , Nikhil Malvankar , Mark Tuominen , Derek Lovley
9:00AM - 9:12AM	A39.00006: Finite Difference Frequency Domain (FDFD) Band Structure Calculations of Diatom Frustules Jonathan Mishler , Stephen Bauman , Salvador Barraza-Lopez , Andrew Alverson , Joseph Herzog
9:12AM - 9:24AM	A39.00007: Protein separation using an electrically tunable membrane Ining Jou , Dmitriy Melnikov , Maria Gracheva
9:24AM - 9:36AM	A39.00008: Investigating the Binding of Peptides to Graphene Surfaces for Biosensing Applications Amanda Garley , Nabanita Saikia , Stephen Barr , Gary Leuty , Rajiv Berry , Hendrik Heinz
9:36AM - 9:48AM	A39.00009: The formation of bio-corona on graphene and boron nitride Achyut Raghavendra , Bishwambhar Sengupta , Jingyi Zhu , Apparao Rao , Ramakrishna Podila
9:48AM - 10:00AM	A39.00010: First principles simulations of nano-peptides on copper surfaces. Duy Le , Talat S. Rahman
10:00AM - 10:12AM	A39.00011: “Cold Denaturation” induces inversion of dipole and spin transfer in chiral peptide monolayers Soumyajit Sarkar , Meital Eckshtain-Levi , Eyal Capua , Sivan Refaely-Abramson , Yulian Gavrilov , Shinto Mathew , Yossi Paltiel , Yaakov Levy , Leeor Kronik , Ron Naaman
10:12AM - 10:24AM	A39.00012: A New Apparatus for Studies of Low Energy Electron Collisions with Nucleotide Molecules Jessica Duron , Leigh Hargreaves
10:24AM - 10:36AM	A39.00013: Resonant soft X-ray scattering on protein solutions Dan Ye , Thinh Le , Cheng Wang , Peter Zwart , Esther Gomez , Enrique Gomez

10:36AM - 10:48AM	A39.00014: Strontium and Barium in aqueous solution and an ion channel blocking site. Mangesh Chaudhari , Susan Rempe
10:48AM - 11:00AM	A39.00015: An Efficient Single-Molecule Resolution Method for Simulating Spatio-Temporal Dynamics of Protein Interaction Networks that Involve the Cell Membranes Osman N. Yogurtcu , Margaret E. Johnson

Monday, March 14, 2016 8:00am-11:00am

Session A42 Polymer Thin Films: Patterning and Flow

Sponsoring Units: DPOLY
Chair: Justin Pye, Emory University
Room: *345*

8:00AM - 8:12AM	A42.00001: Deformation of Thin Free-standing Films with Sessile Droplets Through the Glass Transition Adam Fortais , Rafael Schulman , Kari Dalnoki-Veress
8:12AM - 8:24AM	A42.00002: Measuring spatially distributed rheology of thin polymer films by non-contact shearing. Mithun Chowdhury , Yunlong Guo , Rodney D. Priestley
8:24AM - 8:36AM	A42.00003: Photodirecting Marangoni Flow to Pattern Thin Polymer Films: Decoupling Viscosity and Diffusivity Chae Bin Kim , Amanda Jones , Dustin Janes , Talha Arshad , Roger Bonnecaze , Christopher Ellison
8:36AM - 8:48AM	A42.00004: The Parametric Study of Focused Laser-Induced Marangoni Dewetting for Patterning Polymer Thin Films Jonathan Singer , Tianxing Ma , Steven Kooi , Edwin Thomas
8:48AM - 9:00AM	A42.00005: Degrafting of polymer brushes from substrates enables insight about the brush structure and facilitates surface patterning. Rohan Patil , Salomon Turgman-Cohen , Jiri Srogl , Douglas Kiserow , Jan Genzer
9:00AM - 9:12AM	A42.00006: Fabrication of Converging and Diverging Polymeric Microlens Arrays By A Thermocapillary Replication Technique Soon Wei Daniel Lim , Kevin Fiedler , Sandra Troian
9:12AM - 9:24AM	A42.00007: Ultrasmooth, Polydopamine Modified Surfaces for Block Copolymer Nanopatterning on Inert and Flexible Substrates Reika Katsumata , Joon Hee Cho , Sunshine Zhou , Chae Bin Kim , Austin Dulaney , Dustin Janes , Christopher Ellison
9:24AM - 9:36AM	A42.00008: Adsorption and Pattern Recognition of Polymer at Complex Heterogeneous Surfaces Leila Rajabibonab , Shaun Hendy
9:36AM - 9:48AM	A42.00009: Wake and wave resistance on viscous thin films Rene Ledesma-Alonso , Michael Benzaquen , Thomas Salez , Elie Raphael
9:48AM - 10:00AM	A42.00010: Plug flow in a viscous freely-suspended film Kari Dalnoki-Veress , Mark Ilton , Miles Couchman , Thomas Salez , Michael Benzaquen , Paul Fowler , Elie Raphael
10:00AM - 10:12AM	A42.00011: Understanding and Improving the Quality of Inter-Layer Interfaces in FDM 3-D Printing Edward Duranty , Brandon Spradlin , Madeline Stark , Mark Dadmun
10:12AM - 10:24AM	A42.00012: Modelling Polymer Deformation during 3D Printing Claire McIlroy , Peter Olmsted
10:24AM - 10:36AM	A42.00013: Fundamental characterization of soft matter 3D printing processes Kalman Migler , Jonathan Seppala , Chelsea Davis , Kaitlyn Hillgartner

10:36AM - 10:48AM A42.00014: Pinch-off dynamics, extensional viscosity and relaxation time of dilute and ultradilute aqueous polymer solutions
Madeleine Biagioli , Jelena Dinic , Leidy Nallely Jimenez , Vivek Sharma

Additional *A* Sessions of Potential Interest

Session A34 Focus Session: **Active Matter I**
Sponsoring Units: GSOFT DBIO GSNP/DFD
Chair: Joern Dunkel, Massachusetts Institute of Technology
Room: *337*

Session A35 Focus Session: Active Matter: Collective Phenomena in Living Systems I

Sponsoring Units: DBIO GSOFT GSNP
Chair: Karsten Kruse, Saarland University, Germany
Room: *338*

Session A37 Focus Session: Phase Transitions and Self-Assembly in Biological Systems I

Sponsoring Units: GSOFT DBIO
Chair: Jens Glaser, University of Michigan
Room: *340*

Monday, March 14, 2016 11:15am-2:15pm

Session B2 Invited Session: The Edwards Statistical Mechanics

Sponsoring Units: GSOFT DPOLY GSNP
Chair: Fyl Pincus, University of California, Santa Barbara
Room: *Ballroom II*

11:15AM - 11:51AM	B2.00001: Numerical calculation of granular entropy: counting the uncountable. **Invited Speaker**: Daan Frenkel
11:51AM - 12:27PM	B2.00002: Granular statistical mechanics -- Building on the legacy of Sir Sam Edwards **Invited Speaker**: Raphael Blumenfeld
12:27PM - 1:03PM	B2.00003: Aging in out-of-equilibrium systems: an overview **Invited Speaker**: Jean-Philippe Bouchaud
1:03PM - 1:39PM	B2.00004: Soft active matter : a contemporary example of Edwardsian statistical mechanics **Invited Speaker**: Tanniemola Liverpool
1:39PM - 2:15PM	B2.00005: Thinking Outside the Sandbox **Invited Speaker**: Jasna Brujic

Monday, March 14, 2016 11:15am-2:15pm

Session B4 Invited Session: Macromolecular Assemblies; Structure and Dynamics

Sponsoring Units: DPOLY
Chair: Nitash Balsara, Univ of California - Berkelev
Room: *Ballroom IV*

11:15AM - 11:51AM	B4.00001: Dynamics of Chain Exchange in Block Copolymer Micelles **Invited Speaker**: Timothy Lodge
11:51AM - 12:27PM	B4.00002: Assemblies of Cellulose Nanocrystals. **Invited Speaker**: Eugenia Kumacheva
12:27PM - 1:03PM	B4.00003: Mega-supramolecules for safer, cleaner fuel **Invited Speaker**: Julie Kornfield
1:03PM - 1:39PM	B4.00004: Charge Effects on the Self-Assembly of Protein Block Copolymer Nanostructures **Invited Speaker**: Bradley Olsen
1:39PM - 2:15PM	B4.00005: Giant Surfactants based on Precisely Functionalized POSS Nano-atoms: Tuning from Crystals to Frank-Kasper Phases and Quasicrystals **Invited Speaker**: Stephen Z. D. Cheng

Monday, March 14, 2016 11:15am-2:15pm

Session B33 Focus Session: Polymers in Batteries

Sponsoring Units: DPOLY
Chair: Brad Frieberg, NIST
Room: *336*

11:15AM - 11:27AM	B33.00001: Correlating morphology to dc conductivity in polymerized ionic liquids Ciprian Iacob , Atsushi Matusmoto , Tadashi Inoue , James Runt
11:27AM - 11:39AM	B33.00002: Formation and growth of lithium metal dendrites through solid block copolymer membranes Katherine Harry , Kenneth Higa , Nitash Balsara
11:39AM - 11:51AM	B33.00003: All Solid-State Lithium Metal Batteries Using Cross-linked Polymer Electrolytes Qiwei Pan , Christopher Li
11:51AM - 12:27PM	B33.00004: NMR Investigations of Structure and Dynamics in Polymers for Energy Storage Applications **Invited Speaker**: Steven Greenbaum
12:27PM - 12:39PM	B33.00005: Li conductivity in siloxane-based polymer electrolytes Eric Stacy , Fei Fan , Hongbo Feng , Catalin Gainaru , Jimmy Mays , Alexei Sokolov
12:39PM - 12:51PM	B33.00006: Systematic Experimental and Computational Investigation of Ion Transport in Novel Polyether Electrolytes Danielle Pesko , Michael Webb , Yukyung Jung , Qi Zheng , Thomas Miller III , Geoffrey Coates , Nitash Balsara
12:51PM - 1:03PM	B33.00007: Highly Flexible Self-Assembled Cathodes Enabled by Conducting Diblock Copolymers Hyosung An , Jared Mike , Kendall Smith , Lisa Swank , Yen-Hao Lin , Stacy Pesek , Rafael Verduzco , Jodie Lutkenhaus
1:03PM - 1:15PM	B33.00008: Effects of plasticization on ionic conductivity enhancement of crosslinked polymer electrolyte membrane Ruixuan He , Thein Kyu
1:15PM - 1:27PM	B33.00009: Atomistic Simulations of Ternary Polymer Electrolytes Containing Ionic Liquids: Ion Transport and Viscoelastic Behavior Santosh Mogurampelly , Venkat Ganesan
1:27PM - 1:39PM	B33.00010: Effects of cation and anion solvation on ion transport in functionalized perfluoropolyethers electrolytes Ksenia Timachova , Mahati Chintapalli , Kevin Olsen , Joseph DeSimone , Nitash Balsara
1:39PM - 1:51PM	B33.00011: Aggregate-mediated charge transport in ionomeric electrolytes Keran Lu , Janna Maranas , Scott Milner
1:51PM - 2:03PM	B33.00012: Versatile cation transport in imidazolium based polymerized ionic liquids Christopher Evans , Rachel Segalman
2:03PM - 2:15PM	B33.00013: Ion conduction in high ion content PEO-based ionomers. David Caldwell II , Janna Maranas

Monday, March 14, 2016 11:15am-2:15pm

Session B34 Focus Session: Where Simulation, Theory, and Experiment Meet Across Length Scales I

Sponsoring Units: DPOLY DCOMP FIAP
Chair: Robert Riggleman, University of Pennsylvania
Room: *337*

11:15AM - 11:27AM	B34.00001: Theory of Chirality Transfer in Block Copolymer Melts Ishan Prasad , Gregory Grason
11:27AM - 11:39AM	B34.00002: Relationship of Structural and Stress Relaxation in Disordered Diblock Copolymer Melts Taher Ghasimakbari , David Morse
11:39AM - 11:51AM	B34.00003: Equilibrium and Kinetics of Block Copolymers Micelles Joshua Mysona , David Morse
11:51AM - 12:27PM	B34.00004: Connecting Molecular Dynamics Simulations and Fluids Density Functional Theory of Block Copolymers **Invited Speaker**: Lisa Hall
12:27PM - 12:39PM	B34.00005: Multi-fluid models of polymeric liquids Douglas Tree , Glenn Fredrickson
12:39PM - 12:51PM	B34.00006: Using Self Consistent Field Theory on Polymeric Mixtures Kier von Konigslow , Chul Park , Russell Thompson
12:51PM - 1:03PM	B34.00007: The Effects of Branching and Deuterium Labeling on Polymer Blend Miscibility Jeffrey DeFelice , Julia Higgins , Jane Lipson
1:03PM - 1:15PM	B34.00008: Determination of interfacial properties using a PC-SAFT based classical density functional theory for fluid mixtures of industrial interest Jian Yang , Diego Cristancho , Rakesh Srivastava
1:15PM - 1:27PM	B34.00009: Monte Carlo field-theoretic simulations of a homopolymer blend Russell Spencer , Mark Matsen
1:27PM - 1:39PM	B34.00010: Development of Simulation Methods in the Gibbs Ensemble to Predict Polymer-Solvent Phase Equilibria Thomas Gartner , Thomas Epps , Arthi Jayaraman
1:39PM - 1:51PM	B34.00011: Effect of Composition and Chain Length on Parameter of Polyolefin Blends: A Molecular Dynamics Study Rajesh Khare , Ashwin Ravichandran , Chau-Chyun Chen
1:51PM - 2:03PM	B34.00012: Molecular Simulation of Olefin Oligomer Blend Phase Behavior Qile Chen , Timothy Lodge , Ilja Siepmann
2:03PM - 2:15PM	B34.00013: A Semi-Empirical Multi-Scale Dynamic Monte Carlo Model of Organic Photovoltaic Performance in RIR-MAPLE Bulk Heterojunction Films Adrienne Stiff-Roberts , Ayomide Atewologun

Monday, March 14, 2016 11:15am-2:15pm

Session B38 Focus: Nanocomposites from Nano to Meso

Sponsoring Units: DPOLY FIAP
Chair: Jian Yang, Dow Chemical Company
Room: *341*

11:15AM - 11:27AM	B38.00001: Nanoparticle Ordering in Semicrystalline Polymers Vianney Gimenez-Pinto , Dan Zhao , Sanat Kumar
11:27AM - 11:39AM	B38.00002: Dispersion of Mixed Brush Gold Nanorods in Polymer Matrices Robert Ferrier , Jason Koski , Robert Riggleman , Russell Composto
11:39AM - 11:51AM	B38.00003: Examination of nanoparticle dispersion using a novel GPU based radial distribution function code Thomas Rosch , Matthew Wade , Frederick Phelan
11:51AM - 12:03PM	B38.00004: Analysis of the kinetics of filler segregation in granular block copolymer microstructure Bongjoon Lee , Markus Bleuel , David Ott , Michael Bockstaller
12:03PM - 12:15PM	B38.00005: Localization of Individual Nanoparticle in the Perforated Lamellar Phase of Self-assembled Block Copolymer Driven by Entropy Minimization Tae Won Nam
12:15PM - 12:51PM	B38.00006: Predicting the dynamics and thermodynamics of nanoparticles in block copolymers **Invited Speaker**: Robert Riggleman
12:51PM - 1:03PM	B38.00007: A Novel Method to Characterize Nanorod Orientation and Aggregation in Polymer Nanocomposites Ethan Glor , Robert Ferrier , Russell Composto , Zahra Fakhraai
1:03PM - 1:15PM	B38.00008: Microstructure of 3D-Printed Polymer Composites Investigated by Small-Angle Neutron Scattering Tae Hui Kang , Brett G. Compton , William T. Heller , Voker S. Urban , Chad E. Duty , Changwoo Do
1:15PM - 1:27PM	B38.00009: Large Volume Self-Organization of Polymer/Nanoparticle Hybrids with Millimeter Scale Grain Sizes using Brush Block Copolymers Dongpo Song , James Watkins
1:27PM - 1:39PM	B38.00010: Tuning the interactions between nanoparticles in block copolymer domains Ben Lindsay , Jeffrey Meth , Russell Composto , Robert Riggleman
1:39PM - 1:51PM	B38.00011: Novel Polymer Nanocomposites Resulted from Melt Processing of Polystyrene-Based Substrates Coated with Layer-by-Layer Assemblies Iman Soltani , Richard Spontak
1:51PM - 2:03PM	B38.00012: Stabilization of PS/PLA cocontinuous blends by interfacial graphene Lian Bai , Siyao He , John Fruehwirth , Andreas Stein , Xiang Cheng , Christopher Macosko

Monday, March 14, 2016 11:15am-2:15pm

Session B42 Physics of Copolymers I

Sponsoring Units: DPOLY
Chair: Chaitanya Ullal, Rensselaer Polytechnic Institute
Room: *345*

11:15AM - 11:27AM	B42.00001: Block Copolymer Bottlebrushes: New Routes to Ever Smaller Microdomain Sizes Mahesh Mahanthappa , Frank Speetjens
11:27AM - 11:39AM	B42.00002: Rich Phase Behavior of Sphere-Forming Asymmetric ABAC Block Copolymer Melts Sid Chanpuriya , Akash Arora , Kyungtae Kim , Kevin Dorfman , Frank Bates
11:39AM - 11:51AM	B42.00003: Formation of Frank-Kasper sigma-phase from polydisperse diblock copolymers Meijiao Liu , Weihua Li , An-Chang Shi
11:51AM - 12:03PM	B42.00004: Phase Behavior of SISprime O Tetrablock Terpolymers: A Self-consistent Field Theory Study Akash Arora , David C. Morse , Frank S. Bates , Kevin D. Dorfman
12:03PM - 12:15PM	B42.00005: Preparation and Morphology of ABn Mictoarm Block Copolymers. Atsushi Takano , Momoka Watanabe , Yusuke Asai , Jiro Suzuki , Yushu Matsushita
12:15PM - 12:27PM	B42.00006: Frank-Kasper sigma phase stabilized by tailored architectures of block copolymers. Weihua Li , Meijiao Liu , Nan Xie , Feng Qiu , An-Chang Shi
12:27PM - 12:39PM	B42.00007: From the Disordered State to the Frank-Kasper Sigma Phase: Readily Tuning the Phase Behavior of Block Polymers via Lithium Salt Addition Matthew Irwin , Robert Hickey , Frank Bates , Timothy Lodge
12:39PM - 12:51PM	B42.00008: Characterization of Lithium Polysulfide Salts in Homopolymers and Block Copolymers Dunyang Wang , Kevin Wujcik , Nitash Balsara
12:51PM - 1:03PM	B42.00009: Congruent Lamellar-to-Disorder Phase Transitions in Diblock Copolymer-Homopolymer Ternary Blends Robert Hickey , Timothy Gillard , Matthew Irwin , Timothy Lodge , Frank Bates
1:03PM - 1:15PM	B42.00010: Unbinding Transition of the alpha-BN Phase of BABCB Tetrablock Terpolymers Ashkan Dehghan , Hurmiz Shamana , Chris Gubbels , An-Chang Shi
1:15PM - 1:27PM	B42.00011: Simulation of free energies of bicontinuous morphologies formed through block copolymer/homopolymer self-assembly Poornima Padmanabhan , Francisco Martinez-Veracoechea , Fernando Escobedo

1:27PM - 1:39PM	B42.00012: Sequence-Specific Copolymer Compatibilizers designed via a Genetic Algorithm Venkatesh Meenakshisundaram , Tarak Patra , Jui-Hsiang Hung , David Simmons
1:39PM - 1:51PM	B42.00013: Effect of the Degree of Hydrogen Bonding on Asymmetric Lamellar Phase Transformation in Binary Block Copolymer Blends Jongheon Kwak , Sung Hyun Han , Hong Chul Moon , Victor Pryamitsyn , Venkat Ganesan , Jin Kon Kim
1:51PM - 2:03PM	B42.00014: Microphase-separated structures within randomly end-linked copolymer networks Di Zeng , Ryan Hayward
2:03PM - 2:15PM	B42.00015: Effects of Blockiness on the phase behavior of random copolymers Gordon Vanderwoude , An-Chang Shi

Additional *B* Sessions of Potential Interest

Session B1 Invited Session: Condensed Matter Physics at NSF/DMR and DOE/BES: Challenges and Opportunities

Sponsoring Units: DCMP
Chair: Tomasz Durakiewicz, Jim Horwitz, NSF/DMR, DOE/BES
Room: *Ballroom I*

Session B35 Focus Session: The Physics of Cellular Organization

Sponsoring Units: DBIO
Chair: Michael Gramlich, Ali Tabei, Washington University, University of Northern Iowa
Room: *338*

Session B36 Focus Session: Active Matter II

Sponsoring Units: GSOFT DBIO GSNP/DFD
Chair: Robin Selinger, Kent University
Room: *339*

Monday, March 14, 2016 2:30pm-5:30pm

Session C4 Invited Session: Bridging Time and Length Scales -From Nano Assemblies to Bio-Polymers

Sponsoring Units: DCOMP DPOLY FIAP
Chair: Mark Stevens, Sandia Natl Labs
Room: *Ballroom IV*

2:30PM - 3:06PM	C4.00001: Going up in time and length scales in modeling polymers **Invited Speaker**: Gary S. Grest
3:06PM - 3:42PM	C4.00002: Multi-scale modelling and dynamics **Invited Speaker**: Florian Müller-Plathe
3:42PM - 4:18PM	C4.00003: Role of Ionic Clusters in Dynamics of Ionomer Melts: From Atomistic to Coarse Grained Simulations **Invited Speaker**: Anupriya Agrawal
4:18PM - 4:54PM	C4.00004: Protein free energy landscapes from long equilibrium simulations **Invited Speaker**: Stefano Piana-Agostinetti
4:54PM - 5:30PM	C4.00005: Electrostatic Interactions and Self-Assembly in Polymeric Systems **Invited Speaker**: Andrey Dobrynin

Monday, March 14, 2016 2:30pm-5:30pm

Session C33 Focus: Polymers in Batteries and Electrochemical Capacitors

Sponsoring Units: DPOLY
Chair: David Hallinan, Florida State University
Room: *336*

2:30PM - 2:42PM	C33.00001: Exploring Strategies for High Dielectric Constant and Low Loss Polymer Dielectrics Lei Zhu
2:42PM - 2:54PM	C33.00002: Energy conversion in polyelectrolyte hydrogels Monica Olvera de la Cruz , Aykut Erbas
2:54PM - 3:06PM	C33.00003: Sulfone-Containing Dipolar Glass Polymers with High Dielectric Constant and Low Loss Property Yufeng Zhu , Zhongbo Zhang , Morton Litt , Lei Zhu
3:06PM - 3:18PM	C33.00004: Generalized Ferroelectricity in the Mesomorphic Phase of Nylon Polymers Zhongbo Zhang , Lei Zhu , Morton Litt
3:18PM - 3:30PM	C33.00005: Nanostructure and free volume effects in enhancing the dielectric response of strongly dipolar polymers Rui Dong , Yash Thakur , Vivek Ranjan , Marco Buongiorno Nardelli , Qiming Zhang , Jerry Bernholc
3:30PM - 3:42PM	C33.00006: Azobenzene Modified Polymer Electrolyte Membrane for Ion Gating Camilo Piedrahita , Mireille Mballa , Ruixuan He , Thein Kyu
3:42PM - 3:54PM	C33.00007: Molecular Dynamics Simulation of Ion Solvation in Polymer Melts: Effects of Dielectric Inhomogeneity and Chain Connectivity on Solvation Energy of Ions Lijun Liu , Issei Nakamura
3:54PM - 4:06PM	C33.00008: A new lattice Monte Carlo method for simulating dielectric inhomogeneity Xiaozheng Duan , Zhen-Gang Wang , Issei Nakamura
4:06PM - 4:18PM	C33.00009: Effect of Eutectic Concentration on Conductivity in PEO:LiX Based Solid Polymer Electrolytes Pengfei Zhan , Lalitha Ganapatibhotla , Janna Maranas
4:18PM - 4:54PM	C33.00010: Status of Li-polymer batteries for vehicle applications **Invited Speaker**: Venkat Srinivasan
4:54PM - 5:06PM	C33.00011: Pendant Dynamics of Ethylene-Oxide Containing Polymers with Diverse Backbones Joshua Bartels , Jing-Han Helen Wang , Quan Chen , James Runt , Ralph Colby
5:06PM - 5:18PM	C33.00012: Understanding self-assembly of charged--neutral block copolymer (BCP) and surfactant complexes using molecular dynamics (MD) simulation Monojoy Goswami , Bobby Sumpter , Michael Kilbey
5:18PM - 5:30PM	C33.00013: Charge transport and structural dynamics in nanoscale confined ionic liquids: role of the dimensionality of confinement Joshua Sangoro , Maximilian Heres , Tyler Cosby

Monday, March 14, 2016 2:30pm-5:30pm

Session C34 Focuse Session: The Physics of Confined Structured Fluids I

Sponsoring Units: DPOLY
Chair: Jaroslaw Majewski, LANL
Room: *337*

2:30PM - 2:42PM	C34.00001: Pattern Formation in Polymer Blend Thin Films Nigel Clarke , Sam Coveney
2:42PM - 2:54PM	C34.00002: Intricacies of Polymer Dewetting: Nanoscaled Architectures for the Tailored Control of Polystyrene Thin Film Stability Justin Cheung , Mani Sen , Zhizhao Chen , Naisheng Jiang , Maya Endoh , Tadanori Koga , Sushil Satija
2:54PM - 3:06PM	C34.00003: Two-dimensional directed polymers anchored at curved edges Benjamin Loewe , Paul M. Goldbart
3:06PM - 3:42PM	C34.00004: Role of Corners in Fracture of Polymeric Adhesives **Invited Speaker**: Mark Stevens
3:42PM - 3:54PM	C34.00005: Confinement Effects on Polymer Morphology and Properties Spiros H. Anastasiadis , Kiriaki Chrissopoulou , Elena Perivolari , Hellen Papananou
3:54PM - 4:06PM	C34.00006: Conjugated polymelectrolyte assembly at water-oil interfaces. Feng Liu , Caili Huang , Russell Thomas
4:06PM - 4:18PM	C34.00007: Neutron reflectivity as a tool to study the interdigitation of grafted polymer chains and its dynamics. Liliane Leger , Frédéric Restagno , Fabrice Cousin , François Boue , Alexis Chenneviere
4:18PM - 4:30PM	C34.00008: Controlling Valence of DNA-Coated Emulsion Droplets with Multiple Flavors of DNA Angus McMullen , Dylan Bargteil , David Pine , Jasna Brujic
4:30PM - 4:42PM	C34.00009: Unraveling the dynamics of aminopolymer/silica composites Jan-Michael Carrillo , Miles Sakwa-Novak , Adam Holewinski , Matthew Potter , Gernot Rother , Christopher Jones , Bobby Sumpter
4:42PM - 4:54PM	C34.00010: A new, non-destructive, real-time measurement technique of the surface area of aerogel during synthesis Yang Shen , Jeongseop A. Lee , W. P. Halperin
4:54PM - 5:06PM	C34.00011: PEE-PEO block copolymer exchange rate between micelles is detergent and temperature activated Allen Schantz , Patrick Saboe , Hee-Young Lee , Ian Sines , Paul Butler , Kyle Bishop , Janna Maranas , Manish Kumar
5:06PM - 5:18PM	C34.00012: Electrically Responsive Soft Photonic BCP Films Atsushi Noro , Maho Ohno , Yushu Matsushita
5:18PM - 5:30PM	C34.00013: Face-on and Edge-on Orientation Transition and Self-epitaxial Crystallization of All-conjugated Diblock Copolymer Hua Yang , Yanchun Han

Monday, March 14, 2016 2:30pm-5:30pm

Session C36 Focus: Soft Colloids - From Single Particle Properties to Bulk Phase Behavior and Dynamics

Sponsoring Units: GSOFT DPOLY
Chair: Alberto Fernandez-Nieves, Georgia Institute of Technology
Room: *339*

2:30PM - 2:42PM	C36.00001: Superresolution Microscopy of the Volume Phase Transition of pNIPAM Microgels Gaurasundar Marc Conley , Sofi Nöjd , Marco Braibanti , Peter Schurtenberger , Frank Scheffold
2:42PM - 2:54PM	C36.00002: Swelling of Superabsorbent Poly(Sodium-Acrylate Acrylamide) Hydrogels and Influence of Chemical Structure on Internally Cured Mortar Matthew J. Krafcik , Kendra A. Erk
2:54PM - 3:06PM	C36.00003: Dynamics and filtration of microgel suspensions Gerhard Naegele , Rafael Roa , Jonas Riest
3:06PM - 3:42PM	C36.00004: Soft particles with anisotropic interactions **Invited Speaker**: Peter Schurtenberger
3:42PM - 3:54PM	C36.00005: Glass transition and jamming in soft microgel suspensions: Relationship between alpha relaxation times and elastic energy scales John Hyatt , Xiaobo Hu , L. Andrew Lyon , Alberto Fernandez-Nieves
3:54PM - 4:06PM	C36.00006: Swelling, Compressibility, and Phase Behavior of Soft Ionic Microgels Alan Denton
4:06PM - 4:18PM	C36.00007: Structure and Hydration of Highly Branched, Monodisperse Phytoglycogen Nanoparticles John Atkinson , Jonathan Nickels , Christopher Stanley , Souleymane Diallo , John Katsaras , John Dutcher
4:18PM - 4:30PM	C36.00008: High Deformability and Particle Size Distribution of Monodisperse Phytoglycogen Nanoparticles Revealed By Atomic Force Microscopy Imaging Benjamin Baylis , John Dutcher
4:30PM - 4:42PM	C36.00009: Rheology of Dilute Aqueous Dispersions of Monodisperse Phytoglycogen Nanoparticles Hurmiz Shamana , John Dutcher
4:42PM - 4:54PM	C36.00010: Ligand-Driven Phase Separation in Binary Particle Brush Materials Michael Bockstaller , Michael Schmitt , Jianan Zhang , Jiajun Yan , Krzysztof Matyjaszewski
4:54PM - 5:06PM	C36.00011: Colloidal models for anisotropic particles Martin Girard , Monica Olvera de la Cruz
5:06PM - 5:18PM	C36.00012: Mesoscale simulation of asphaltene aggregation Jiang Wang , Andrew Ferguson
5:18PM - 5:30PM	C36.00013: Optical Characterization of Temperature- and Composition-Dependent Microstructure in Asphalt Binders Adam Ramm , Sakib Nazmus , Amit Bhasin , Michael Downer

Monday, March 14, 2016 2:30pm-5:30pm

Session C37 Physics of Bioinspired Materials I

Sponsoring Units: GSOFT DBIO DPOLY
Chair: Qiming Wang, University of Southern California
Room: *340*

2:30PM - 2:42PM	C37.00001: Condensation on Slippery Asymmetric Bumps Kyoo-Chul Park , Philseok Kim , Joanna Aizenberg
2:42PM - 2:54PM	C37.00002: Long-lived Multifunctional Superhydrophobic Heterostructure via Molecular Self-supply; Yongfeng Huang , Sheng Meng
2:54PM - 3:06PM	C37.00003: Biphilic Surfaces for Enhanced Water Collection from Humid Air Jason Benkoski , Konstantinos Gerasopoulos , William Luedeman
3:06PM - 3:18PM	C37.00004: Transition dynamics from macro- to micro-phase separation in asymmetric lipid bilayers Shunsuke Shimobayashi , Masatoshi Ichikawa , Takashi Taniguchi
3:18PM - 3:30PM	C37.00005: Bio-inspired design of geometrically interlocked 3D printed joints. S Kumar , Noel Oliva
3:30PM - 3:42PM	C37.00006: Multiobjective topology optimization of trabecular Bone Structure in the spine and the femur: Implications for biomimcry Ahmed Elbanna , Darin Peetz
3:42PM - 3:54PM	C37.00007: Dynamics of spider glue adhesion: effect of surface energy and contact area Gaurav Amarpuri , Yizhou Chen , Todd Blackledge , Ali Dhinojwala
3:54PM - 4:06PM	C37.00008: Understanding Cell Shape Phenotypes Associated with Stem Cell Differentiation Induced by Topographical Cues of Nanofiber Microenvironment. Desu Chen , Sumona Sarkar , Wolfgang Losert
4:06PM - 4:18PM	C37.00009: Exploring elasticity and energy dissipation in mussel-inspired hydrogel transient networks Scott Grindy , Robert Learsch , Niels Holten-Andersen
4:18PM - 4:30PM	C37.00010: Toughening elastomers using mussel-inspired catechol-metal coordination complexes Emmanouela Filippidi , Thomas Christiani , Megan Valentine , J. Herbert Waite , Jacob Israelachvili , Kollbe Ahn
4:30PM - 4:42PM	C37.00011: Bacterial Flagella as a Model Rigid Rod of Tunable Shape Walter Schwenger , Sevim Yardimci , Thomas Gibaud , Henry Snow , Jeff Urbach , Zvonimir Dogic
4:42PM - 4:54PM	C37.00012: Bio-Inspired Micromechanical Directional Acoustic Sensor William Swan , Fabio Alves , Gamani Karunasiri
4:54PM - 5:06PM	C37.00013: Design of Catch-and-release System by Utilizing Thermo-responsive Gel-Hairpin Composites. Ya Liu , Olga Kuksenok , Ximin He , Anna Balazs
5:06PM - 5:18PM	C37.00014: tunable allosteric behavior in random spring networks Jason W. Rocks , Nidhi Pashine , Irmgard Bischofberger , Carl P. Goodrich , Sidney R. Nagel , Andrea J. Liu
5:18PM - 5:30PM	C37.00015: Mechanisms of branching reactions in melanin formation -- Ab initio quantum engineering approach -- Hideaki Kasai , Ryo Kishida

Monday, March 14, 2016 2:30pm-5:30pm

Session C38 Focus Session: Assembly of Soft Nanoparticles and Colloids in Solution

Sponsoring Units: DPOLY GSOFT
Chair: Du Yeol Ryu, Yonsei University
Room: *341*

2:30PM - 2:42PM	C38.00001: Self-assembly of Iron Oxide Nanoparticles on Liquid Surfaces by Using Miscible Solvent Pairs Jiayang Hu , Datong Zhang , Kathleen M. Kennedy , Irving P. Herman
2:42PM - 2:54PM	C38.00002: The effects of surfactant dynamics on deposition patterns in evaporating colloidal drops Narina Jung , Haewon Seo , Pilwon Kim , Chun Sang Yoo
2:54PM - 3:06PM	C38.00003: Non-equilibrium colloidal assembly pathways via synergistic dipolar, depletion, and hydrodynamic interactions Anna Coughlan , Michael Bevan
3:06PM - 3:18PM	C38.00004: Criterion for noise-induced synchronization: application to colloidal alignment Jonah Eaton , Thomas A Witten , Brian Moths
3:18PM - 3:30PM	C38.00005: Characterization of hyperuniformity in colloidal suspensions through small angle static light scattering. Coline Bretz , Tim Still , Denis Bartolo , Jean Baudry , Arjun Yodh , Remi Dreyfus
3:30PM - 3:42PM	C38.00006: Nanoparticle interactions in electrolyte solutions: A classical density functional theory and molecular dynamics study K. Michael Salerno , Amalie L. Frischknecht , Mark Stevens
3:42PM - 4:18PM	C38.00007: Self-Assembly of DNA-coated colloids **Invited Speaker**: David Pine
4:18PM - 4:30PM	C38.00008: Hierarchical assembly of anisotropic particles in AC electric fields. Isaac Torres Diaz , Bradley Rupp , Xiaoqing Hua , Yuguang Yang , Michael A. Bevan
4:30PM - 4:42PM	C38.00009: Quantitative Characterization of Surface Self-Assembly Imaging Using Shapelets Nasser Mohieddin Abukhdeir , Robert Suderman , Daniel J. Lizotte
4:42PM - 4:54PM	C38.00010: Micro-evaporators: a powerful tool to control the growth of dense organized colloidal materials Celine Burel , Jacques Leng , Bertrand Donnio , Remi Dreyfus , Jean-Baptiste Salmon
4:54PM - 5:06PM	C38.00011: Prediction of Binary Nanoparticle Superlattices from Soft Potentials Nathan Horst , Alex Travesset
5:06PM - 5:18PM	C38.00012: Meniscus height controlled convective self-assembly Satyan Choudhary , Alfred Crosby
5:18PM - 5:30PM	C38.00013: Strain-Temperature-Transformation (STT) Diagram for Soft Solids Shoubo Li , Wentao Xiong , Xiaorong Wang

Monday, March 14, 2016 2:30pm-5:30pm

Session C41 Focus Session: Biopolymers in Confinement I

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Kevin Dorfman, University of Minnesota - Minneapolis
Room: *344*

2:30PM - 2:42PM	C41.00001: Flory theory or the two state cooperativity model: What describes backfolding of DNA in nanotubes? Kevin Dorfman , Abhiram Muraldihar
2:42PM - 2:54PM	C41.00002: Pore translocation of polymer chains with physical knots Antonio Suma , Angelo Rosa , Cristian Micheletti
2:54PM - 3:06PM	C41.00003: Intramolecular Fluctuation of DNA in Nanochannels via High-throughput Video Microscopy Julian Sheats , Jeffrey G. Reifenberger , Han Cao , Kevin D. Dorfman
3:06PM - 3:18PM	C41.00004: Non-Equilibrium Dynamics of Nano-channel Confined DNA: A Brownian Dynamics Simulation Study Aniket Bhattacharya , Aiqun Huang , Walter Reisner
3:18PM - 3:30PM	C41.00005: Dynamics of topological events within single molecules of DNA confined in nanochannels. Jeffrey Reifenberger , Kevin Dorfman , Han Cao
3:30PM - 3:42PM	C41.00006: Adsorption of annealed branched polymers on curved surfaces Jef Wagner , Gonca Erdemci-Tandogan , Roya Zandi
3:42PM - 3:54PM	C41.00007: Depletion forces in collapsing a flexible chain molecule in a confined or free space Chanil Jeon , Bae-Yeun Ha
3:54PM - 4:06PM	C41.00008: Detection of ATP hydrolysis through motion of nanoconfined DNA Maedeh Roushan , Gideon Livshits , Zubair Azad , Hong Wang , Robert Riehn
4:06PM - 4:18PM	C41.00009: Stochastic resonance during a polymer translocation process Debasish Mondal , Murugappan Muthukumar
4:18PM - 4:54PM	C41.00010: Strongly Non-equilibrium Dynamics of Nanochannel Confined DNA **Invited Speaker**: Walter Reisner
4:54PM - 5:06PM	C41.00011: Role of small ion dynamics in driven translocation of polyelectrolytes through nanopores Harshwardhan Katkar , Murugappan Muthukumar
5:06PM - 5:18PM	C41.00012: Free Energy of a Polymer in Slit-Like Confinement across the Odijk, moderate confinement, and Bulk Regimes Albert Kamanzi , Jason S. Leith , David Sean , Daniel Berard , Andrew C. Guthrie , Christopher M.J. McFaul , Gary W. Slater , Hendrick W. de Haan , Sabrina R. Leslie
5:18PM - 5:30PM	C41.00013: Do Ions Flow Freely Through Confined DNA? Zubair Azad , Robert Riehn

Monday, March 14, 2016 2:30pm-5:30pm

Session C42: Physics of Copolymers II- Bulk and Thin Films

Sponsoring Units: DPOLY
Chair: Steve Hudson, NIST
Room: *345*

2:30PM - 2:42PM	C42.00001: Fluids Density Functional Theory of Diblock Copolymers for Electrolyte Applications Jonathan R. Brown , Lisa M. Hall
2:42PM - 2:54PM	C42.00002: Unguided discovery of BCP self-assembly: challenges and outlook Carol Tsai , Kris Delaney , Glenn Fredrickson
2:54PM - 3:06PM	C42.00003: Orientational control of block copolymer microdomains by sub-tesla magnetic fields Manesh Gopinadhan , Youngwoo Choo , Xunda Feng , Kohsuke Kawabata , Xiaojun Di , Chinedum Osuji
3:06PM - 3:18PM	C42.00004: Morphology of diblock copolymers under confinement David Ackerman , Baskar Ganapathysubramanian
3:18PM - 3:30PM	C42.00005: Selective Stabilization of the Fddd Diblock Copolymer Microphase in an Applied Electric Field Jonathan Martin , Wei Li , Kris Delaney , Glenn Fredrickson
3:30PM - 3:42PM	C42.00006: Process-directed self-assembly of copolymers Marcus Muller , Jiuzhou Tang
3:42PM - 3:54PM	C42.00007: Morphology Control of Multicomponent Polymeric Surfactants Using Pressure Junhan Cho
3:54PM - 4:06PM	C42.00008: Analysis of Relaxation Spectra and Influence of Molecular Weight on the Dynamics of Block Copolymers Vaidyanathan Sethuraman , Venkat Ganesan
4:06PM - 4:18PM	C42.00009: Rouse--Bueche Theory and The Calculation of The Monomeric Friction Coefficient in a Filled System. Luca Martinetti , Christopher Macosko , Frank Bates
4:18PM - 4:30PM	C42.00010: Acoustic and ultrasonic characterization constraints of self-healing (ethylene-co-methacrylic acid) copolymers Kenneth Pestka II , Jonathan Buckley , Stephen Kalista , Nicholas Bowers
4:30PM - 4:42PM	C42.00011: The role of symmetry of chain extender in controlling the morphology of thermoplastic polyurethanes Onyenkachi Wamuo , Cheng Song , Shaw Ling Hsu
4:42PM - 4:54PM	C42.00012: Phase diagram of rod-coil diblock copolymer melts by self-consistent field theory Dadong Yan , Jiuzhou Tang , Ying Jiang , Xinghua Zhang , Jeff Chen
4:54PM - 5:06PM	C42.00013: Temperature effects on the interfacial properties of semifluorinated diblock copolymer thin films. Umesh Shrestha , Stephen Clarson , Dvora Perahia
5:06PM - 5:18PM	C42.00014: Evaluation of the end-to-end distance of chains solubilized in a polymer Langmuir monolayer by atomic force microscopy Jiro Kumaki
5:18PM - 5:30PM	C42.00015: Block copolymer adsorbed layers on solids. Mani Sen , Naisheng Jiang , Bhoje Gowd , Maya Endoh , Tadanori Koga

Aditional C Sessions of Potential Interest

Session C35 Focus Session: Active Matter Collective Phenomena in Living Systems II

Sponsoring Units: DBIO GSOFT GSNP
Chair: Yuhai Tu, IBM Research
Room: *338*

Tuesday, March 15, 2016 8:00am-11:00am

Session E4 Invited Session: Polymer Physics Prize

Sponsoring Units: DPOLY
Chair: Stephen Cheng, Univ of Akron
Room: *Ballroom IV*

8:00AM - 8:36AM	E4.00001: Polymer Physics Prize: Designing "Materials that Compute": Exploiting the Properties of Self-oscillating Polymer Gels **Invited Speaker**: Anna Balazs
8:36AM - 9:12AM	E4.00002: Reaction-Diffusion Patterns in Structured Media **Invited Speaker**: Irving Epstein
9:12AM - 9:48AM	E4.00003: Modeling Anisotropic Self-Assembly of Isotropic Objects: from Hairy Nanoparticles to Methylcellulose Fibrils **Invited Speaker**: Valeriy Ginzburg
9:48AM - 10:24AM	E4.00004: Functional, Responsive Materials Assembled from Recombinant Oleosin. **Invited Speaker**: Daniel Hammer
10:24AM - 11:00AM	E4.00005: Moving HAIRS: Towards adaptive, homeostatic materials **Invited Speaker**: Joanna Aizenberg

Tuesday, March 15, 2016 8:36am-11:00am

Session E33 Polymer Glass Formation and Stability

Sponsoring Units: DPOLY
Chair: Connie Roth, Emory University
Room: *336*

8:00AM - 8:36AM	E33.00001: DPOLY SESSION BREAK
8:36AM - 8:48AM	E33.00002: Theoretical Insights from Facile Microsecond Simulation of the Glass Transition Jui-Hsiang Hung , Tarak Patra , David Simmons
8:48AM - 9:00AM	E33.00003: Will it form a stable glass? How the stability of vapor deposited glasses depends on molecular structure Michael Tylinski , Madeleine Beasley , Yeong Zen Chua , Christoph Schick , Mark Ediger
9:00AM - 9:12AM	E33.00004: Kinetics of Dewetting of Ultra-Thin Films of Organic Glasses Zahra Fakhraai , Yue Zhang , Robert Riggleman
9:12AM - 9:24AM	E33.00005: Dynamics of Vapor-Deposited Polymer Glasses from Simulation Wengang Zhang , Francis Starr , Jack Douglas
9:24AM - 9:36AM	E33.00006: Molecular Orientation in Two Component Vapor-Deposited Glasses: Effect of Substrate Temperature and Molecular Shape Charles Powell , Jing Jiang , Diane Walters , Mark Ediger
9:36AM - 9:48AM	E33.00007: Measuring Surface Diffusion of Organic Glasses Using Tobacco Mosaic Virus as Probe Nanoparticles Yue Zhang , Richard Potter , Zahra Fakhraai
9:48AM - 10:00AM	E33.00008: Relationship between Fragility and Tg Changes on Confinement for Three Cyanurates Evelyn Lopez , Sindee L. Simon
10:00AM - 10:12AM	E33.00009: Liquid and Glassy Specific Volume Variations in Thin Supported Polystyrene Films Xinru Huang , Connie Roth
10:12AM - 10:24AM	E33.00010: Polymer thin films as a route to access low energy glassy states Daniele Cangialosi , Virginie M Boucher , Angel Alegria , Juan Colmenero
10:24AM - 10:36AM	E33.00011: Are polymers glassier upon confinement? Simone Napolitano , Jean Spiece , Daniel E. Martinez-Tong , Michele Sferrazza , Aurora Nogales
10:36AM - 10:48AM	E33.00012: Engineering the Crystalline Morphology of Polymer Thin Films via Physical Vapor Deposition Hyuncheol Jeong , Craig Arnold , Rodney Priestley
10:48AM - 11:00AM	E33.00013: Comparing the Bending Stiffness Measurements of Brittle Paper Andrea Hall , Molly McGath , Patricia McGuiggan

Tuesday, March 15, 2016 8:00am-11:00am

Session E37 Self and Directed Assembly (Equilibrium and Non-Equilibrium)

Sponsoring Units: GSOFT DPOLY
Chair: Kazem Edmond, Oxford University
Room: *340*

8:00AM - 8:12AM	E37.00001: Phase Behavior of Thermodynamically Small Clusters of Colloidal Particles Raghuram Thyagarajan , Dimitrios Maroudas , David Ford
8:12AM - 8:24AM	E37.00002: Two-dimensional self-assembly of DNA-functionalized gold nanoparticles Wenjie Wang , Honghu Zhang , Noah Hagen , Ivan Kuzmenko , Mufit Akinc, Alex Travesset , Surya Mallapragada , David Vaknin
8:24AM - 8:36AM	E37.00003: Novel liquid crystal phase transition of linear defects in an epitaxial layer of DNA-nanoparticle superlattices Saijie Pan , Niels Boon , Monica Olvera de la Cruz
8:36AM - 8:48AM	E37.00004: Transformations and Reconstructions of DNA-directed colloidal crystals John Crocker , Yifan Wang , Ian Jenkins , Talid Sinno
8:48AM - 9:00AM	E37.00005: Bioinspired Composites with Spatial and Orientational Control of Reinforcement Ahmet Demiroers , Andre Studart
9:00AM - 9:12AM	E37.00006: Harmonic and Anharmonic Free Energies in Superlattices of Soft Particle Systems Alex Travesset , Carles Calero , Chris Knorowski
9:12AM - 9:24AM	E37.00007: Designing self-assembling 3D structures of microcapsules Like Li , Henry Shum , Oleg Shklyaev , Victor Yashin , Anna Balazs
9:24AM - 9:36AM	E37.00008: Stripes or Checkerboards: Distinguishing Patterns of Self-Assembled Water Drops to Chiral Structures Laura Adams , Sam Ocko , David Weitz
9:36AM - 9:48AM	E37.00009: Bias-free simulation of diffusion-limited aggregation on a square lattice Yen Lee Loh
9:48AM - 10:00AM	E37.00010: The role of symmetry for the orientational ordering of hard regular polygons Wenbo Shen , Michael Engel , Joshua A. Anderson , James A. Antonaglia , Sharon C. Glotzer
10:00AM - 10:12AM	E37.00011: Shape Allophiles Improve Entropic Assembly Eric Harper , Ryan Marson , Joshua Anderson , Greg van Anders , Sharon Glotzer
10:12AM - 10:24AM	E37.00012: Molecular Dynamics Investigation of the Products of Alkoxysilane Condensation: Bulk Gels and Surface Coatings Roland Faller , Joshua Deetz

10:24AM - 10:36AM	E37.00013: Multiscale Self-Assembly of Quantum-Dots into an Anisotropic Three-Dimensional Random Network Serim Ilday , Fatih Ilday , Rene Hübner , Ty Prosa , Isabelle Martin , Gizem Nogay , Ismail Kabacelik , Zoltan Mics , Mischa Bonn , Dmitry Turchinovich, Hande Üstünel , Daniele Toffoli , David Friedrich , Bernd Schmidt , Karl-Heinz Heinig , Rasit Turan
10:36AM - 10:48AM	E37.00014: Experimental Investigations of Ionic Self-Assembly of Silica Nanoparticles Gillenhaal Beck , Sabin Nshimyumukiza , Mohammad Abudayyeh , Rebecca Melkerson , Estevan Hall-Mejia , Irina Mazilu , Dan Mazilu
10:48AM - 11:00AM	E37.00015: Programmable concatenation of conductively linked gold nanorods using molecular assembly and femtosecond irradiation Jake Fontana , Steve Flom , Jawad Naciri , Banahalli Ratna

Tuesday, March 15, 2016 8:00am-11:00am

Session E42 Bi-Component Systems: Composites and Blends

Sponsoring Units: DPOLY
Chair: Debra Audus, NIST
Room: *345*

8:00AM - 8:36AM	E42.00001: DPOLY SESSION BREAK
8:36AM - 8:48AM	E42.00002: Broader Understanding of Multiple Component Dynamic Processes in Miscible Polymer/Polymer Blends Ravi Sharma , Hengxi Yang , Peter Green
8:48AM - 9:00AM	E42.00003: Thermal and Mechanical Properties of Poly(methyl methacrylate)/Poly(vinylidene fluoride-r-hexafluoro propylene) Blends Steven Lee , Maeve Conway , Deniz Rende , Rahmi Ozisik
9:00AM - 9:12AM	E42.00004: Engineering thermal conductivity in polymer blends Vahid Rashidi , Eleanor Coyle , John Kieffer , Kevin Pipe
9:12AM - 9:24AM	E42.00005: Field-theoretic study on colloidal interaction in solutions of adsorbing homopolymers Wei Li , Kris Delaney , Glenn Fredrickson
9:24AM - 9:36AM	E42.00006: Entanglement Length in Miscible Blends of *cis*-Polyisoprene and Poly *ptert*-butylstyrene) Hiroshi Watanabe , Yumi Matsumiya
9:36AM - 9:48AM	E42.00007: Effect of twist-orientation on mechanical properties of self-reinforced poly(lactic acid) screws in simulated body environment Masato Sakaguchi , Satoshi Kobayashi
9:48AM - 10:00AM	E42.00008: PVC-OH Functionalized SWCNT Nanocomposites Andres Salgado , Robert Jones , Samantha Ramirez , Ibrahim Elamin , James Hinthorne , Mircea Chipara
10:00AM - 10:12AM	E42.00009: Bottlebrush Polymer Additives for Binary Polymer Blends Hui Zhen Mah , Pantea Afzali , Hanh Phan , Luqing Qi , Stacy Pesek , Rafael Verduzco , Gila Stein
10:12AM - 10:24AM	E42.00010: Molecular Dynamics Simulations of Nanoparticles Coated with Charged Polymers Chengyuan Wen , Shengfeng Cheng
10:24AM - 10:36AM	E42.00011: Raman Investigations of PVDF-$BaTiO_3$ Nanocomposites Julio Cantu , Cristian Chipara , Pullickel Ajayan , James Hinthorne , Mircea Chipara
10:36AM - 10:48AM	E42.00012: Coarse-grained explicit solvent simulation of the translational and rotational diffusion of a spherical particle in a polymer solution Victor Pryamitsyn , Venkat Ganesan
10:48AM - 11:00AM	E42.00013: Characterization of the crosslinking reaction in high performance phenolic resins Jigneshkumar Patel , Guo Xiang Zou , Shaw Ling Hsu

Tuesday, March 15, 2016 11:15am-2:15pm

Session F4 Invited Session: Polymer Architecture Effects on Structure Dynamics

Sponsoring Units: DPOLY
Chair: Michael Rubinstein, Univ of NC - Chapel Hill
Room: *Ballroom IV*

11:15AM - 11:51AM	F4.00001: Topology Matters: Structure and dynamics of ring polymers **Invited Speaker**: Dieter Richter
11:51AM - 12:27PM	F4.00002: From chromosome crumpling to the interacting randomly branched polymers **Invited Speaker**: Ralf Everaers
12:27PM - 1:03PM	F4.00003: Self-Similar Conformations and Dynamics of Non-Concatenated Entangled Ring Polymers **Invited Speaker**: Ting Ge
1:03PM - 1:39PM	F4.00004: Polymer Crystallization under Confinement **Invited Speaker**: George Floudas
1:39PM - 2:15PM	F4.00005: Rheology of Rings: Current Status and Future Challenges **Invited Speaker**: Gregory McKenna

Tuesday, March 15, 2016 11:15am-2:15pm

Session F33 Focus Session: The Physics of Confined Structural Fluids II

Sponsoring Units: DPOLY
Chair: Erik Watkins, UC - Davis
Room: *336*

11:15AM - 11:51AM	F33.00001: Coherent X-ray Scattering from Liquid-Air Interfaces **Invited Speaker**: Oleg Shpyrko
11:51AM - 12:03PM	F33.00002: A particle-in-mesh method for Brownian Dynamics simulation of many-particle systems with hydrodynamics interactions in a confined geometry Xujun Zhao , Juan Hernandez-Ortiz , Dmitry Karpeyev , Juan de Pablo , Barry Smith
12:03PM - 12:15PM	F33.00003: Structural and dynamical properties of water on chemically modified surfaces: The role of the instantaneous surface Selemon Bekele , Mesfin Tsige
12:15PM - 12:27PM	F33.00004: Ion transport and dehydration in sub-nanoscale pores Subin Sahu , Massimiliano Di Ventra , Michael Zwolak
12:27PM - 12:39PM	F33.00005: Coordinated Water Under Confinement Eases Sliding Friction Adrian Defante , Nishad Dhopotkar , Ali Dhinojwala
12:39PM - 1:15PM	F33.00006: Understanding dynamic changes in live cell adhesion with neutron reflectometry **Invited Speaker**: Ann Junghans
1:15PM - 1:27PM	F33.00007: Adsorption of CO_2 in hydrated MCM-41 Studied by SANS Bo Wang , Garfield T. Warren , Matthew Bryan , Paul E. Sokol
1:27PM - 1:39PM	F33.00008: Probing the Hydrodynamic Boundary Condition from Surface Perturbations in Thin Liquid Films Oliver Baeumchen , Paul Fowler , Thomas Salez , Michael Benzaquen , Mark Ilton , Joshua McGraw , Elie Raphael , Kari Dalnoki-Veress
1:39PM - 1:51PM	F33.00009: Dynamic arrest of colloids in quenched-disordered nanofiber networks Anh Phan , Kenneth Schweizer
1:51PM - 2:03PM	F33.00010: Effect of confinement on ionic liquid molecules in porous polymeric network Prasad Raut , Shichen Yuan , Dr. Toshikazu Miyoshi , Dr. Sadhan Jana

Tuesday, March 15, 2016 11:15am-2:15pm

Session F36 Focus Undergraduate Session: Physics of Bioinspired Materials

Sponsoring Units: GSOFT BIO DPOLY
Chair: Francis Starr
Room: *339*

11:15AM - 11:27AM	F36.00001: The Effect of Water Molecules on Mechanical Properties of Bamboo Microfibrils Nima Rahbar
11:27AM - 11:39AM	F36.00002: Water-Floating Giant Nanosheets from Helical Peptide Pentamers. Jaehun Lee , Ki Tae Nam
11:39AM - 11:51AM	F36.00003: DNA-linked NanoParticle Lattices with Diamond Symmetry: Stability and Shape Hamed Emamy , Alexei Tkachenko , Oleg Gang , Francis Starr
11:51AM - 12:03PM	F36.00004: Multifunctional Memprocessor Device with DNA-Guided Nickel Ions Chain Chia-Ching Chang , Wen-Bin Jian , Yu-Chang Chen , Yun-Liang Soo , Chiun-Jye Yuan , Massimiliano Di Ventra
12:03PM - 12:15PM	F36.00005: Elastic Properties of Lysozyme Confined in Nanoporous Polymer Films Haoyu Wang , Pinar Akcora
12:15PM - 12:27PM	F36.00006: Bioinspired Non-iridescent Structural Color from Polymer Blend Thin Films Asritha Nallapaneni , Matthew Shawkey , Alamgir Karim
12:27PM - 1:03PM	F36.00007: Colloidal-based additive manufacturing of bio-inspired composites **Invited Speaker**: Andre R Studart
1:03PM - 1:15PM	F36.00008: Mesh Size Control of Friction Angela Pitenis , Juan Manuel Uruena , Kyle D. Schulze , Andrew C. Cooper , Thomas E. Angelini , W. Gregory Sawyer

Tuesday, March 15, 2016 11:15am-2:15pm

Session F38 Padden Award Symposium

Sponsoring Units: DPOLY
Chair: Wesley Burghardt, Northwestern University
Room: *341*

11:15AM - 11:27AM	F38.00001: Dispersion-Aggregation and Wetting-Dewetting Phase Transitions in Mixtures of Polymer Grafted Nanoparticles and a Chemically Dissimilar Polymer Matrix Tyler Martin , Katrina Mongcopa , Rana Ashkar , Paul Butler , Ramanan Krishnamoorti , Arthi Jayaraman
11:27AM - 11:39AM	F38.00002: Dynamics of associating networks Shengchang Tang , Axel Habicht , Muzhou Wang , Shuaili Li , Sebastian Seiffert , Bradley Olsen
11:39AM - 11:51AM	F38.00003: Tuning the Assembly of Spherical Nanoparticles in Semicrystalline Polymers Dan Zhao , Jacques Jestin , Longxi Zhao , Sanat K. Kumar , Mohammad Mohammadkhani , Brian C. Benicewicz
11:51AM - 12:03PM	F38.00004: Direct measurement of the critical pore size in a polymer membrane Mark Ilton , Christian DiMaria , Kari Dalnoki-Veress
12:03PM - 12:15PM	F38.00005: Pinpointing the onset of mechanical rejuvenation in a polymer glass by monitoring segmental dynamics before and after a constant strain rate pulse Kelly Hebert , Josh Ricci , Kelly Suralik , M.D. Ediger
12:15PM - 12:27PM	F38.00006: High resolution imaging of the dynamics of nanoparticles in/on liquids Paul Kim , Alexander Ribbe , Thomas Russell , David Hoagland
12:27PM - 12:39PM	F38.00007: Predicting Themomechanical Responses of Polymer Thin Films and Nanocomposites via an Innovative Coarse-grained Approach Wenjie Xia , David Hsu , Sinan Keten
12:39PM - 12:51PM	F38.00008: Nanoparticle Order through Entropic Confinement Ren Zhang , Bongjoon Lee , Christopher Stafford , Jack Douglas , Michael Bockstaller , Alamgir Karim
12:51PM - 1:03PM	F38.00009: Design of Bicontinuous Donor/Acceptor Morphologies for Use as Organic Solar Cell Active Layers Dylan Kipp , Jorge Mok , Rafael Verduzco , Venkat Ganesan
1:03PM - 1:15PM	F38.00010: Predicting the Phase Behavior of Polymer Nanocomposites using Field-Based Simulations Jason Koski , Robert Riggleman

Tuesday, March 15, 2016 11:15am-2:15pm

Session F42 Polymer Assembly I

Sponsoring Units: DPOLY
Chair: Sangwoo Lee, Rensselaer Polytechnic Institute
Room: *345*

11:15AM - 11:27AM	F42.00001: Chain exchange kinetics of block copolymer micelles in ionic liquids Yuanchi Ma , Timothy Lodge
11:27AM - 11:39AM	F42.00002: Self-assembly of Coordination Macroions --- the Effect of Small Polymer Chains Hui Li , Tianbo Liu , Alex Zhukhovitskiy , Jeremiah Johnson
11:39AM - 11:51AM	F42.00003: Simulation and Numerical Modeling of the Self-assembly of an Optoelectronic Peptide Rachael Mansbach , Andrew Ferguson
11:51AM - 12:03PM	F42.00004: Complexation Between Cationic Diblock Copolymers and Plasmid DNA Seyoung Jung , Theresa Reineke , Timothy Lodge
12:03PM - 12:15PM	F42.00005: Complexation of AB^+, AB^+C, ACB^+, and $A(B^+$-stat-C) block copolymer micelles with poly(styrene sulfonate) as models for tunable gene delivery vectors Jennifer Laaser , Yaming Jiang , Elise Lohmann , Theresa Reineke , Timothy Lodge
12:15PM - 12:27PM	F42.00006: Computational Insight into Solvent Effects on Conformation and Assembly of Structured Ionic Polymer Manjula Senanayake , Dipak Aryal , Dvora Perahia , Gary Grest
12:27PM - 12:39PM	F42.00007: Continuous monitoring of structural dynamics in polymer assemblies. Jose Rafael Guzman Sepulveda , Jinan Deng , Jiyu Fang , Aristide Dogariu
12:39PM - 12:51PM	F42.00008: Inclusion Kinetics of Polyrotaxanes Hideaki Yokoyama , Shoko Takahashi , Kohzo Ito , Norifumi Yamada
12:51PM - 1:03PM	F42.00009: Crystallization in Micellar Cores: confinement effects and dynamics Reidar Lund , Thomas Zinn , Lutz Willner
1:03PM - 1:15PM	F42.00010: Assembly, Conformation, and Thermodynamics of Star-Branched Poly(N-isopropylacrylamide) (PNIPAM) in Solution Michael J. A. Hore , Xiaolong Lang , William R. Lenart
1:15PM - 1:27PM	F42.00011: Monodisperse Block Copolymer Particles with Controllable Size, Shape, and Nanostructure. Jae Man Shin , Yongjoo Kim , Bumjoon Kim
1:27PM - 1:39PM	F42.00012: Shape-designed single-polymer micelles: a proof-of-concept simulation Brian Moths , Thomas A. Witten
1:39PM - 1:51PM	F42.00013: Mechanism of polymer nanoparticle formation by nanoprecipitation Chen Zhao , Tingting Li , Edward Van Keuren
1:51PM - 2:03PM	F42.00014: Assembly and Structural Evolution of Micelleplexes Yaming Jiang , Dustin Sprouse , Jennifer Laaser , Theresa Reineke , Timothy Lodge

2:03PM - 2:15PM	F42.00015: Soft Patchy Particles of Block Copolymers from Interface-Engineered Emulsions YongJoo Km , Kang Hee Ku , Gi-Ra Yi , Yeon Sik Jung , Bumjoon J. Kim

Aditional *F* Sessions of Potential Interest

Session F34 Focus Session: Active Matter IV

Sponsoring Units: GSOFT DBIO GSNP/DFD
Room: *337*

Session F55 Invited Session Brain Morphology and Mechanics: From Cortex Folding to Neuronal Growth to Compression Stiffening

Sponsoring Units: DBIO GSOFT
Chair: Jennifer Schwartz, Syracuse University
Room: *Hilton Baltimore Holiday Ballroom 6*

Tuesday, March 15, 2016 2:30pm-5:30pm

Session H4 Focus Session: Dillon Medal Symposium

Sponsoring Units: DPOLY

Chair: Darrin Pochan, University of Delaware

Room: *Ballroom IV*

2:30PM - 3:06PM	H4.00001: John H. Dillon Medal: Tapered Block Copolymers: Tuning Self-Assembly and Properties by Manipulating Monomer Segment Distributions **Invited Speaker**: Thomas Epps
3:06PM - 3:18PM	H4.00002: Dodecagonal Quasicrystal Phase in a Diblock Copolymer Melt Frank Bates , Timothy Gillard , Sangwoo Lee
3:18PM - 3:30PM	H4.00003: A Cool Way to Form High-Conductivity Two-Dimensional Polymers Using Ice Moon Jeong Park
3:30PM - 3:42PM	H4.00004: Molecular transport into and out of ionic-liquid filled block copolymer vesicles in water Timothy Lodge , Letitia Yao , Soonyong So
3:42PM - 3:54PM	H4.00005: Influencing the structure of block copolymer micelles with small molecule additives Megan Robertson , Avantika Singh , Tyler Cooksey , Bryce Kidd , Rachele Piemonte , Shu Wang , Kim Mai Le , Louis Madsen
3:54PM - 4:06PM	H4.00006: Computationally Guided Design of Polymer Electrolytes for Battery Applications Zhen-Gang Wang , Michael Webb , Brett Savoie , Thomas Miller
4:06PM - 4:18PM	H4.00007: Theory and Simulations of Tapered Diblock Polymers Lisa M. Hall , Youngmi Seo , Jonathan R. Brown
4:18PM - 4:30PM	H4.00008: High-Tg Polynorbornene-Based Block and Random Copolymers for Butanol Pervaporation Membranes Richard A. Register , Dong-Gyun Kim , Tamami Takigawa , Tomomasa Kashino , Oleksandr Burtovyy , Andrew Bell
4:30PM - 4:42PM	H4.00009: Glassy Structural Trapping in Soft Multi-Face Colloids Rodney Priestley
4:42PM - 4:54PM	H4.00010: Effect of Protein Supercharging on Interaction with Polyelectrolytes Bradley Olsen , Allie Obermeyer , Carolyn Mills , Xuehui Dong
4:54PM - 5:06PM	H4.00011: Self-assembly of Open-Shell-containing Block Polymer Thin Films Bryan Boudouris , Lizbeth Rostro , Aditya Baradwaj , Jennifer Laster
5:06PM - 5:18PM	H4.00012: Direct Immersion Annealing of Block Copolymer Thin Films Alamgir Karim
5:18PM - 5:30PM	H4.00013: Functional Thin Films from Aligned Block Copolymers and Blends Bryan Vogt , Zhe Qiang , Kevin Cavicchi

Tuesday, March 15, 2016 2:30pm-5:30pm

Session H33 Focus Session: Where Simulation, Theory, and Experiment Meet Across Time Scales

Sponsoring Units: DPOLY FIAP DCOMP
Chair: K. Michael Salerno, Sandia National Laboratory
Room: *336*

2:30PM - 2:42PM	H33.00001: Simulation of chain diffusion in diblock copolymer microstructures using dynamical self-consistent mean-field theory Douglas Grzetic , Robert Wickham
2:42PM - 2:54PM	H33.00002: Effects of Structured Ionomer Interfaces on Water Diffusion: Molecular Dynamics Simulation Insight Dipak Aryal , Dvora Perahia , Gary Grest
2:54PM - 3:06PM	H33.00003: Towards a Modeling Framework for Thermodynamics and Transport Coefficients in Polyelectrolyte Assemblies Ronald Larson , Ali Salehi
3:06PM - 3:18PM	H33.00004: Topological Constraints in Directed Polymer Melts Adam Nahum , Pablo Serna , Guy Bunin
3:18PM - 3:30PM	H33.00005: Scaling of viscosity with rate, pressure, and temperature: Linking simulations to experiments; Vikram Jadhao , Mark Robbins
3:30PM - 3:42PM	H33.00006: Unified force-level theory of multiscale transient localization and emergent elasticity in polymer solutions and melts Zachary E. Dell , Kenneth S. Schweizer
3:42PM - 3:54PM	H33.00007: Failure of Tube Models to Predict the Linear Rheology of Star/Linear Blends Ryan Hall , Priyanka Desai , Beomgoo Kang , Maria Katzarova , Qifan Huang, Sanghoon Lee , Taihyun Chang , David Venerus , Jimmy Mays , Jay Schieber , Ronald Larson
3:54PM - 4:06PM	H33.00008: Challenging Slip-Link Models: Predicting the Linear Rheology of 1,4-Polybutadiene Blends of Well-Characterized Star and Linear 1,4-Polybutadienes; Maria Katzarova , Priyanka Desai , Beomgoo Kang , Ryan Hall , Qifan Huang, Sanghoon Lee , Taihyun Chang , David Venerus , Jimmy Mays , Jay Schieber , Ronald Larson
4:06PM - 4:18PM	H33.00009: Multiscale simulations of polymer melt flow in an abrupt contraction and expansion channel; Takashi Taniguchi , Kohei Harada
4:18PM - 4:30PM	H33.00010: Modeling Structure Property Relations and Failure Mechanisms of PPTA Fibers using Reactive Molecular Dynamics; Dundar Yilmaz
4:30PM - 4:42PM	H33.00011: Chain Ends and the Ultimate Tensile Strength of Polyethylene Fibers Thomas C. O'Connor , Mark O. Robbins
4:42PM - 4:54PM	H33.00012: Microscopic deformation mechanisms in model thermoplastic elastomers by molecular dynamics simulation Amanda Parker , Jörg Rottler
4:54PM - 5:06PM	H33.00013: Computer-Aided Design of Photocured Polymer Networks Swarnavo Sarkar , Sheng Lin-Gibson , Martin Chiang
5:06PM - 5:18PM	H33.00014: Molecular Description of Yield in Densely Crosslinked Epoxy Thermosets Sandipan Chattaraj , Prita Pant , Dnyanesh Pawaskar , Hemant Nanavati
5:18PM - 5:30PM	H33.00015: Toward a predictive model for elastomer seals. Nicola Molinari , Musab Khawaja , Adrian Sutton , Arash Mostofi

Tuesday, March 15, 2016 2:30pm-5:30pm

Session H38 Polymer Nanocomposites: Dynamics

Sponsoring Units: DPOLY FIAP
Chair: Laura Clarke, NC State University
Room: *341*

2:30PM - 2:42PM	H38.00001: Dynamics in Polymer Melts and Nanocomposites Gerald Schneider
2:42PM - 2:54PM	H38.00002: Phase Stability and Dynamics of nanoparticles in Polymer Nanocomposites Rahul Mangal , Samanvaya Srivastava , Lynden Archer
2:54PM - 3:06PM	H38.00003: Nanoparticle effect on polymer chain dynamics and entanglement network Ying Li , Martin Kroger
3:06PM - 3:18PM	H38.00004: Thermally induced infiltration of polymer into nanoparticle packings; Jyo Lyn Hor , Daeyeon Lee
3:18PM - 3:30PM	H38.00005: The effect of chain rigidity on the interfacial layer thickness and dynamics of polymer nanocomposites. Shiwang Cheng , Jan-Michael Y. Carrillo , Bobby Carroll , Bobby G. Sumpter, Alexei P. Sokolov
3:30PM - 3:42PM	H38.00006: Fragility-Controllable Polymer Grafted Nanoparticles. Makoto Asai , Sanat Kumar , Angelo Cacciuto
3:42PM - 3:54PM	H38.00007: Activated Dynamics in Dense Model Nanocomposites Shijie Xie , Kenneth Schweizer
3:54PM - 4:06PM	H38.00008: Effect of polymer-nanoparticle interactions on the capillary rise infiltration of polymers into nanoporous media David Ring , Amit Shavit , Rob Riggleman , Daeyeon Lee
4:06PM - 4:18PM	H38.00009: Effects of Attractive Interactions on Nanoparticle Diffusion in Entangled Polymer Melts Philip Griffin , Nigel Clarke , Russell Composto , Karen Winey
4:18PM - 4:30PM	H38.00010: Understanding the interfacial layer dynamics of polymer nanocomposites from broadband dielectric spectroscopy Robert Carroll , Shiwang Cheng , Alexei Sokolov
4:30PM - 4:42PM	H38.00011: Interfacial Effect on Confined Crystallization of Poly(ethylene oxide)/Silica Composites Yunlan Su , Weiwei Zhao , Xia Gao , Jianjun Xu , Dujin Wang
4:42PM - 4:54PM	H38.00012: Molecular Dynamics Simulations of Silica-Filled Copolymers with Variable Sequence for Applications in Tire Treads Alex J. Trazkovich , Lisa M. Hall
4:54PM - 5:06PM	H38.00013: Distortion of chain conformation and reduced entanglement in polymer-graphene oxide nanocomposites Michael Weir , Stephen Boothroyd , David Johnson , Richard Thompson , Karl Coleman , Nigel Clarke
5:06PM - 5:18PM	H38.00014: Thin Film Deformation Behavior of Polystyrene Grafted Nanoparticle Assemblies Yang Jiao , Ming-Siao Hsiao , Lawrence Drummy , Richard Vaia
5:18PM - 5:30PM	H38.00015: Tuning mechanical properties of polymer-grafted nanoparticle networks by using biomimetic catch bonds Badel L. Mbanga , Balaji V. S. Iyer , Victor V. Yashin , Anna C. Balazs

Tuesday, March 15, 2016 2:30pm-5:30pm

Session H41 Focus Session: Biopolymers in Confinement II

Sponsoring Units: DBIO DPOLY
Chair: Kevin Dorfman, University of Minnesota - Minneapolis
Room: *344*

2:30PM - 2:42PM	H41.00001: Zero-Mode Waveguide detection of biomolecules transport through artificial nanopores and nuclear pore complexes Thomas Auger , Loic Auvray , Fabien Montel
2:42PM - 2:54PM	H41.00002: A Nanopore with an Internal Cavity to Selectively Translocate Polymers of a Specific Length Hendrick W. de Haan , Martin Magill
2:54PM - 3:06PM	H41.00003: Effect of excluded volume on the force-extension of wormlike chains in slit confinement Xiaolan Li , Kevin Dorfman
3:06PM - 3:18PM	H41.00004: Visualizing Chemical Interaction Dynamics of Confined DNA Molecules Gilead Henkin , Daniel Berard , Frank Stabile , Sabrina Leslie
3:18PM - 3:30PM	H41.00005: Relaxation dynamics of internal segments of DNA chains in nanochannels Aashish Jain , Abhiram Muralidhar , Kevin Dorfman
3:30PM - 3:42PM	H41.00006: Controlling the Motion of Knotted Polymers through Nanopores Vivek Narsimhan , C. Benjamin Renner , Patrick Doyle
3:42PM - 4:18PM	H41.00007: Confined polymers in the extended de Gennes regime **Invited Speaker**: Bernhard Mehlig
4:18PM - 4:30PM	H41.00008: From stripe to slab confinement for DNA linearization in nanochannels Peter Cifra , Zuzana Benkova , Pavol Namer
4:30PM - 4:42PM	H41.00009: Knotted DNA in Nanofluidic Confinement Alexander Klotz , Patrick Doyle
4:42PM - 4:54PM	H41.00010: DNA Partitioning in Confining Nanofluidic Slits Madeline Greenier , Stephen Levy
4:54PM - 5:06PM	H41.00011: To Knot or Not-That is the Question: A Nanofluidic Knot Factory based on Compression of Single DNA Molecules against Slit Barriers in Nanochannels Susan Amin , Ahmed Khorshid , Lili Zeng , Philip Zimny , Walter Reisner
5:06PM - 5:18PM	H41.00012: Polymer translocation from a confining tube: the effect of a finite tube length David Sean , Gary W Slater
5:18PM - 5:30PM	H41.00013: Experimental Evidence of Weak Excluded Volume Effects for Nanochannel Confined DNA Damini Gupta , Jeremy J. Miller , Abhiram Muralidhar , Sara Mahshid , Walter Reisner , Kevin D. Dorfman

Tuesday, March 15, 2016 2:30pm-5:30pm

Session H42 Polymer Assembly II

Sponsoring Units: DPOLY
Chair: Boualem Hammouda, NIST
Room: *345*

2:30PM - 2:42PM	H42.00001: Phase Behavior and Micellar Packing of Impurity-Free Pluronic Block Copolymers in Water Chang Yeol Ryu , Hanjin Park
2:42PM - 2:54PM	H42.00002: Controlled Solution Self-Assembly of a Midblock-Sulfonated Pentablock Copolymer Kenneth Mineart , Michael Gradzielski , Richard Spontak
2:54PM - 3:06PM	H42.00003: Self-Assembly of Soft Colloids with Multi-scale Phase-Separated Structures Chris Sosa , Robert K. Prud'homme , Rodney D. Priestley
3:06PM - 3:18PM	H42.00004: Solution assembly behaviors of 3-hexylthiophene polymer based rod-coil graft copolymer Youngkwon Kim , Jin-Sung Kim , Hyeong Jun Kim , Bumjoon Kim
3:18PM - 3:30PM	H42.00005: Tuning nanoscale viscoelasticity of polyelectrolyte complexes with multiple types of cross-links Tianzhu Ma , Biao Han , Daeyeon Lee , Lin Han
3:30PM - 3:42PM	H42.00006: Coarse-grained Simulation of Complexation between Small Interfering RNA and Polycations Zonghui Wei , Yong Ren , John-Michael Williford , Hai-Quan Mao , Erik Luijten
3:42PM - 3:54PM	H42.00007: Mesoscale Lattices Assembled from Charge-Tunable Block Copolymer Blends in Selective Solvents Seyoung Kim , Jewon Choi , Soo-Hyung Choi , Kookheon Char
3:54PM - 4:06PM	H42.00008: The Sheet Trapped in a Plumber's Nightmare Christopher O'Bryan , Tapomoy Bhattacharjee , W. Gregory Sawyer , Thomas Angelini
4:06PM - 4:18PM	H42.00009: Structural transformation of peptide amphiphile self-assembly induced by headgroup charge and size regulation Changrui Gao , Michael Bedzyk , Monica Olvera , Sumit Kewalramani , Liam Palmer
4:18PM - 4:30PM	H42.00010: Multibody Interactions, Phase Behavior and Clustering in Nanoparticle-Polyelectrolyte Mixtures Venkatraghavan Ganesan , Gunja Pandav , Victor Pryamitsyn , Jeffrey Errington
4:30PM - 4:42PM	H42.00011: Early Stage Kinetics in Polyelectrolyte Complexation Studied in a Stopped-Flow Configuration Xiaoqing Liu , Marie Haddou , Joanna Giermanska , Christophe Schatz , Jean-Paul Chapel
4:42PM - 4:54PM	H42.00012: Supramolecular Assemblies of Poly(propyleneimine) Dendrimers Driven by Simple Monovalent Counterions Seyed Ali Eghtesadi , Fadi Haso , Marjan Alsadat Kashfipour , Dr. Robert Lillard , Dr. Tianbo Liu

4:54PM - 5:06PM	H42.00013: Self-Assembly of Polyoxometalate and Polyelectrolyte Macroions into Mechanically Strong Supramolecular Hydrogels Benxin Jing , Y. Elaine Zhu
5:06PM - 5:18PM	H42.00014: Polyelectrolyte Complex Hydrogels: Self-assembly and the Influence of Charged and Neutral Blocks Samanvaya Srivastava , David Goldfeld , Adam Levi , Jun Mao , Wei Chen , Matthew Tirrell
5:18PM - 5:30PM	H42.00015: Thermo-reversible morphology and conductivity of a conjugated polymer network embedded in polymeric self-assembly. Youngkyu Han , Jan-Michael Y. Carrillo , Zhe Zhang , Yunchao Li , Kunlun Hong , Bobby G. Sumpter , Michael Ohl , Mariappan Parans Paranthaman , Gregory S. Smith , Changwoo Do

Aditional *H* Sessions of Potential Interest

Session H34 Focus Session: Active Matter V

Sponsoring Units: GSOFT DBIO GSNP/DFD
Chair: Erik Luijten, Northwestern University
Room: *337*

Session H36 Focus Session: Soft Matter at Interfaces (Surfactants)

Sponsoring Units: GSOFT
Chair: Jonathan Whitmer, Notre Dame
Room: *339*

Tuesday, March 15, 2016 5:45pm-6:45pm
Session J33: DPOLY Business Meeting
Sponsoring Units: DPOLY
Room: *336*

Tuesday, March 15, 2016 6:45-7:30pm
Session J33: DPOLY NSF Question and answers session.
Dr. Andrew Lovinger, DMR, NSF
Sponsoring Units: DPOLY
Room: *336*

Wednesday, March 16, 2016 8:00am-11:00am

Session K4 Invited Session: From Nano to Meso: Assembly, Structure and Dynamics of Polymers and Polymer Nanocomposite Thin Films I - Industry Day

Sponsoring Units: DPOLY FIAP

Chair: Sanat Kumar, Columbia University

Room: *Ballroom IV*

8:00AM - 8:36AM	K4.00001: Directed Assembly of Nanofilled Polymer Thin Films **Invited Speaker**: Alamgir Karim
8:36AM - 9:12AM	K4.00002: Photothermal heating at the nano and meso scales within polymer nanocomposites **Invited Speaker**: Laura Clarke
9:12AM - 9:48AM	K4.00003: Evaporation-induced Nanoparticle Self-Assembly in a Polymer Matrix **Invited Speaker**: Shengfeng Cheng
9:48AM - 10:24AM	K4.00004: Influence of microstructure and environment on nanoparticle membrane and superlattice mechanical properties **Invited Speaker**: K. Michael Salerno
10:24AM - 11:00AM	K4.00005: Polymer Melt Diffusion inside Nanoscale Cylindrical Pores. **Invited Speaker**: Karen Winey

Wednesday, March 16, 2016 8:00am-11:00am

Session K33 Focus Session: Polymers for Solar Energy Conversion

Sponsoring Units: DPOLY FIAP
Chair: Miriam Rafailovich, State University of New York, Stony Brook
Room: *336*

8:00AM - 8:36AM	K33.00001: Dynamic Covalent Functionalization as a route to Controlling Self Assembly of Organic Molecules **Invited Speaker**: Emily Pentzer
8:36AM - 8:48AM	K33.00002: Control of Crystallization to Promote Microphase Separation in Fully Conjugated Block Copolymers Youngmin Lee , Thinh P. Le , Zach Seibers , S. Michael Kilbey, II , Qing Wang , Enrique D. Gomez
8:48AM - 9:00AM	K33.00003: Spectral analysis of resonant scattering to quantify phase behavior in organic blends Thomas Ferron , Jon Downing , Dean DeLongchamp , Brian Collins
9:00AM - 9:12AM	K33.00004: Ternary blend polymer solar cells with self-assembled structure for enhancing power conversion efficiency Zhenhua Yang , Hongfei Li , Chang-Yong Nam , Kim Kisslinger , Sushil Satija , Miriam Rafailovich
9:12AM - 9:48AM	K33.00005: Enhancing efficiency in polymer-blend solar cells: Structural insights through scattering **Invited Speaker**: Vikram Kuppa
9:48AM - 10:00AM	K33.00006: Magnetic field effects in a polymer/fullerene blend photovoltaic cell Hyuk-Jae Jang , James I. Basham , David J. Gundlach , Curt A. Richter
10:00AM - 10:12AM	K33.00007: Conductivity Scaling Relationships of Nanostructured Membranes based on Hydrated Protic Polymerized Ionic Liquids: Effect of Domain Spacing Gabriel Sanoja , Bhooshan Popere , Bryan Beckingham , Christopher Evans , Nathaniel Lynd , Rachel Segalman
10:12AM - 10:24AM	K33.00008: Electronic structure properties as signatures of morphological motifs in organic photovoltaics Matthew Goldey , Giulia Galli
10:24AM - 10:36AM	K33.00009: Enhancing the performance of BHJ solar cell via self-assembly templates in active layer Ying Liu , Hongfei Li , Zhenhua Yang , Chang-Yong Nam , Sushil Satija , Miriam Rafailovich
10:36AM - 10:48AM	K33.00010: Electroabsorption spectroscopy of bulk heterojunction solar cells Marian Tzolov , Zane Cohick , Christopher Green

Wednesday, March 16, 2016 8:00am-11:00am

Session K36 Focus Session: Coarse-graining, Advanced Sampling and Multiscale Methods in Soft Matter

Sponsoring Units: GSOFT DPOLY DCOMP
Chair: Gopinath Subramanian, University of Southern Mississippi
Room: *339*

8:00AM - 8:36AM	K36.00001: Long-time atomistic simulations with the Parallel Replica Dynamics method **Invited Speaker**: Danny Perez
8:36AM - 8:48AM	K36.00002: Investigating the impact of representation upon coarse-grained models Thomas Foley , M Scott Shell , William Noid
8:48AM - 9:00AM	K36.00003: Non-Markovian coarse-grained modeling of polymeric fluids based on the Mori-Zwanzig formalism Zhen Li , Xin Bian , Xiantao Li , George Karniadakis
9:00AM - 9:12AM	K36.00004: A new graph-matching-based algorithm to study dynamical processes Fausto Martelli , Hsin-Yu Ko , Roberto Car
9:12AM - 9:24AM	K36.00005: Homogenous Nucleation and Crystal Growth in a Model Liquid from Direct Energy Landscape Sampling Simulation Nathan Walter , Yang Zhang
9:24AM – 9:36AM	K36.00006: Dynamical Density Functional Theory and Hydrodynamic Interactions in Confined Systems Benjamin Goddard , Serafim Kalliadasis , Andreas Nold
9:36AM - 9:48AM	K36.00007: Nondecaying hydrodynamic interactions along narrow channels Karolis Misiunas , Stefano Pagliara , Eric Lauga , John R Lister , Ulrich Keyser
9:48AM - 10:00AM	K36.00008: Topological properties and edge mode effects in classical thermal transport Chihchun Chien , Kirill Velizhanin , Yonatan Dubi , Micael Zwolak
10:00AM - 10:12AM	K36.00009: Durability of Long Equipartition Times In Anharmonic Oscillator Chains Christopher Watenpool , Donald Priour
10:12AM - 10:24AM	K36.00010: Coarse-grained description of polymer blends as chains of interacting soft particles Kevin Walton , Marina Guenza
10:24AM - 10:36AM	K36.00011: Langevin Equation for DNA Dynamics David Grych , Jeremy Copperman , Marina Guenza
10:36AM - 10:48AM	K36.00012: Improving the kinetics from molecular simulations using biased Markov state models Joseph F Rudzinski , Kurt Kremer , Tristan Bereau
10:48AM - 11:00AM	K36.00013: Multiscale Modeling of the Electrocaloric Effect in PVDF-based Polymers Alan McGaughey , Ying-Ju Yu

Wednesday, March 16, 2016 8:00am-11:00am

Session K38 Focus Session: Glasses Altered by Interfaces I

Sponsoring Units: DPOLY GSOFT
Chair: Andrew Croll, North Dakota State University
Room: *341*

8:00AM - 8:12AM	K38.00001: Nanorheology of confined polymer films Paul Fowler , Mark Ilton , Joshua D. McGraw , Kari Dalnoki-Veress
8:12AM - 8:24AM	K38.00002: Understanding the relationship between different measures of nanoconfinement effects on segmental dynamics and the glass transition. David Simmons , Jayachandra Hari Mangalara , Weston Merling
8:24AM - 8:36AM	K38.00003: Length Scales of Local Glass Transition Temperature Gradients Near Soft and Hard Polymer-Polymer Interfaces Roman Baglay , Connie Roth
8:36AM - 9:12AM	K38.00004: Glassy Dynamics Altered by a Free Surface **Invited Speaker**: Ophelia Tsui
9:12AM - 9:24AM	K38.00005: Understanding and characterizing the effect of nanoscale confinement on glass transition temperature and film dewetting of macrocylic polystyrene Lanhe Zhang , Ravinder Elupula , Scott Grayson , John Torkelson
9:24AM - 9:36AM	K38.00006: The local segmental dynamics of polymer thin films. C.M. Roland , Riccardo Casalini , Daniele Prevosto , Massimiliano Labardi , Lei Zhu , Eric Baer
9:36AM - 9:48AM	K38.00007: Synthesis and Characterization of Fluorescently Labeled Diblock Copolymers for Location-Specific Measurements of The Glass Transition Temperature Dane Christie , Richard Register , Rodney Priestley
9:48AM - 10:00AM	K38.00008: Glass Transition of Polystyrene Thin Films on Silicon Wafer Measured by Dynamic Mechanical Analysis and Ellipsometry Catheryn Jackson , Tian Lan , Stefan Caporale , John Torkelson
10:00AM - 10:12AM	K38.00009: Effects of Interfaces and Interactions on Stiffness-Confinement Behavior in Polymer Films: Characterization via Fluorescence and Nanoindentation Shadid Askar , Min Zhang , L Brinson , John Torkelson
10:12AM - 10:24AM	K38.00010: Sidechain Dynamics Explain Dissimilar Strength of Nanoconfinement Effect in Polystyrene and Poly(methyl methacrylate) Free Standing Thin Films David Hsu , Wenjie Xia , Jake Song , Sinan Keten
10:24AM - 10:36AM	K38.00011: Tg-Confinement Effects in Polymer Thin Films, Nanotubes, and Nanospheres as Measured by DSC, Ellipsometry and Fluorescence John Torkelson , Anthony Tan , Lawrence Chen
10:36AM - 10:48AM	K38.00012: Mechanophore activation in a crosslinked polymer matrix via instrumented indentation Chelsea Davis , Aaron Forster , Jeremiah Woodcock , Muzhou Wang , Jeffrey Gilman
10:48AM - 11:00AM	K38.00013: Why the Mechanical Properties of Cross-linked Polydimethylsiloxane Surface Enhance? -- A First Principles Study Zhifan Wang , Mengting Jin , Yanning Zhang

Wednesday, March 16, 2016 8:00AM-11:00AM

Session K41 Focus Session: Physics of Proteins; Protein-Protein Interactions

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Wei Wong, Nanjing University
Room: *344*

8:00AM - 8:36AM	K41.00001: Random close packing in protein cores **Invited Speaker**: Corey OHern
8:36AM - 8:48AM	K41.00002: Predicting protein-peptide interactions from scratch Chengfei Yan , Xianjin Xu , Xiaoqin Zou
8:48AM - 9:00AM	K41.00003: Computational Studies of Protein-Protein Interface Designs Jennifer Gaines , Corey O'Hern , Lynne Regan
9:00AM - 9:12AM	K41.00004: Characterizing the statistical properties of protein surfaces Ji Hyun Bak , Anne-Florence Bitbol , William Bialek
9:12AM - 9:24AM	K41.00005: Difference in aggregation between functional and toxic amyloids studied by atomistic simulations Martin Carballo Pacheco , Ahmed E. Ismail , Birgit Strodel
9:24AM - 9:36AM	K41.00006: Oligomer stability of Amyloid-β (Aβ) 25-35 : A Dissipative Particle Dynamics study Igor Pivkin , Emanuel Peter
9:36AM - 9:48AM	K41.00007: A thermodynamic study of Abeta (16-21) dissociation from a fibril using computer simulations. Cristiano Dias , Farbod Mahmoudinobar , Zhaoqian Su
9:48AM - 10:00AM	K41.00008: Role of mutation on fibril formation in small peptides by REMD Farbod Mahmoudinobar , Cristiano Dias
10:00AM - 10:12AM	K41.00009: Oligomerization of the protein tau in the Alzheimer's disease Luca Larini
10:12AM - 10:24AM	K41.00010: Stability of ALS-related Superoxide Dismutase Protein variants Daniel Lusebrink , Steven Plotkin
10:24AM - 10:36AM	K41.00011: Nuclear magnetic resonance studies of bovine γB-crystallin George Thurston , Jeffrey Mills , Lea Michel , Kaylee Mathews , John Zanet , Angel Payan , Keith Van Nostrand , Michael Kotlarchyk , David Ross , Christopher Wahle , John Hamilton
10:36AM - 10:48AM	K41.00012: Membrane Pore Formation by Amyloid beta (25-35) Peptide Nabin Kandel , Suren Tatulian
10:48AM - 11:00AM	K41.00013: Holographic characterization of protein aggregates Chen Wang , Xiao Zhong , David Ruffner , Alexandra Stutt , Laura Philips , Michael Ward , David Grier

Wednesday, March 16, 2016 8:00AM-11:00AM

Session K42 Focus Session: Polymer Dynamics - Insight from In-Situ Scattering

Sponsoring Units: DPOLY
Chair: Lilin He, Oak Ridge National Laboratory
Room: *345*

8:00AM - 8:12AM	K42.00001: Local Dynamics of Acid- and Ion-containing Copolymer Melts. Karen Winey , Robert Middleton , Jacob Tarver , Madhusudan Tyagi , Christopher Soles , Amalie Frischknecht
8:12AM - 8:24AM	K42.00002: Effect of Increasing Molecular Weight on the A and B blocks of a Single-ion-conducting Block Copolymer Electrolyte for Lithium Batteries Adriana Rojas , Sebnem Inceoglu , Kanav Thakker , Nikolaus Mackay , Nitash Balsara
8:24AM - 8:36AM	K42.00003: Supercooled Water in Supramolecular Hydrogels Clinton Wiener , Bryan Vogt , R.A. Weiss
8:36AM - 8:48AM	K42.00004: Segmental chain dynamics of ABA triblock copolymer micelles in aqueous solution Vivek Prabhu , Guangmin Wei , Michihiro Nagao , Shrinivas Venkataraman , Yi Yan Yang , James Hedrick
8:48AM - 9:00AM	K42.00005: Viscoelastic hydrodynamic interactions and anomalous CM diffusion in polymer melts Hendrik Meyer
9:00AM - 9:12AM	K42.00006: Nanostructures and dynamics \quad of macromolecules bound to attractive filler surfaces Tad Koga , Deborah Barkley , Naisheng Jiang , Maya Endoh , Tomomi Masui, Hiroyuki Kishimoto , Michihiro Nagao , Sushil Satija , Takashi Taniguchi
9:12AM - 9:24AM	K42.00007: SAXS/WAXS studies of shear-induced crystallization of poly(1-butene) Mu Sung Kweon , Binbin Luo , Wesley Burghardt
9:24AM - 9:36AM	K42.00008: Leveraging intrinsic chain anisotropy to align coil-coil block copolymers with magnetic fields Yekaterina Rokhlenko , Kai Zhang , Manesh Gopinadhan , Steve Larson , Pawel Majewski , Kevin Yager , Padma Gopalan , Corey O'Hern , Chinedum Osuji
9:36AM - 9:48AM	K42.00009: Elucidating the Molecular Deformation Mechanism of Entangled Polymers in Fast Flow by Small Angle Neutron Scattering Yangyang Wang , Luis Sanchez-Diaz , Shiwang Cheng , Kunlun Hong , Wei-Ren Chen , Jianning Liu , Panpan Lin , Shi-Qing Wang

9:48AM - 10:24AM	K42.00010: Insights into the Dynamics of Polymers and Nanocomposites via Quasi-elastic Neutron Scattering **Invited Speaker**: Madhu Sudan Tyagi
10:24AM - 10:36AM	K42.00011: SAXS studies of the structure of a BCC-ordered block copolymer melt subjected to uniaxial extensional flow Wesley Burghardt , Erica McCready
10:36AM - 10:48AM	K42.00012: Neutron Reflectivity Measurement for Polymer Dynamics near Graphene Oxide Monolayers. Jaseung Koo

Wednesday, March 16, 2016 8:00am-11:00am

Session K52 Nanostructured Photovoltaics

Sponsoring Units: GERA DPOLY
Room: *Hilton Baltimore Holiday Ballroom 3*

8:00AM - 8:12AM	K52.00001: Ligand engineering of lead chalcogenide nanoparticle solar cells Marton Voros , Nicholas Brawand , Giulia Galli
8:12AM - 8:24AM	K52.00002: Verifying field-effect passivation of a SiN_x layer on a silicon nanopillar array using surface photovoltage characterization Eunah Kim , Yunae Cho , Ahrum Sohn , Dong-Wook Kim , Hyeong-Ho Park, Joondong Kim
8:24AM - 8:36AM	K52.00003: Ultra-dense silicon nanowire array solar cells by nanoimprint lithography Peng Zhang , Pei Liu , Stylianos Siontas , Alexander Zaslavsky , Domenico Pacifici , Jong-yoon Ha , Sergiy Krylyuk , Albert Davydov
8:36AM - 8:48AM	K52.00004: High Efficiency InP Solar Cells Through Nanostructuring Daniel Goldman , Joseph Murray , Jeremy Munday
8:48AM - 9:00AM	K52.00005: Roles of SiNx layers in light trapping and carrier collection of nanostructured crystalline Si solar cells Yunae Cho , Eunah Kim , Minji Gwon , Dong-Wook Kim , Hyeong-Ho Park , Joondong Kim
9:00AM - 9:12AM	K52.00006: Gold Nanoparticles Assisted Photocurrent Enhancement in Hybrid Nanostructures Based Heterojunction Solar Cell Device Gen Long , Michael Beattie , Huizhong Xu , Mostafa Sadoqi
9:12AM - 9:24AM	K52.00007: Dielectric micro-resonator arrays for optical coupling to solar cells Dongheon Ha , Chen Gong , Marina S. Leite , Jeremy N. Munday
9:24AM - 9:36AM	K52.00008: Importance of Depletion Width on Charge Transport and Interfacial Recombination in Extremely Thin Absorber Solar Cells Michael Edley , Treavor Jones , Jason Baxter
9:36AM - 9:48AM	K52.00009: Enhancement of bulk photovoltaic effect in band inversion topological phase transitions Liang Tan , Andrew Rappe
9:48AM - 10:00AM	K52.00010: Exciton Transfer in Carbon Nanotube Aggregates for Energy Harvesting Applications Amirhossein Davoody , Farhad Karimi , Irena Knezevic
10:00AM - 10:12AM	K52.00011: Ultrafast Spectroscopy Reveals Frenkel-CT Mixed Excitonic States in Copper Phthalocyanine Robert Younts , Terry McAfee , Bhoj Gautam , Daniel Dougherty , Harald Ade , Kenan Gundogdu
10:12AM - 10:24AM	K52.00012: Investigation of transport properties of ZnO/PbS heterojunction solar cells Yang Cheng , Michael D. C. Whitaker , Vincent R. Whiteside , Lloyd A. Bumm , Ian R. Sellers
10:24AM - 10:36AM	K52.00013: Limits of Plasmonic Nanoparticle Enhancement in Solution-Processed Solar Cells Ebuka Arinze , Botong Qiu , Gabrielle Nyirjesy , Susanna Thon

Aditional *K* Sessions of Potential Interest

Session K37 Focus Session: Soft Matter at Interfaces (Particles)

Sponsoring Units: GSOFT
Chair: Michael Rubenstein, Univ. North Carolina
Room: *340*

Session K54: Tutorial for Authors and Referees

Sponsoring Units: APS
Room: *Hilton Baltimore Holiday Ballroom 5*

Wednesday, March 16, 2016 11:15AM-2:15PM

Session L12 Invited Session: From Nano to Meso; Assembly Structure and Dynamics of Polymers and Polymer Nanocomposite Thin Films II - Industry Day

Sponsoring Units: DPOLY FIAP
Chair: Jack Douglas, NIST
Room: *308*

11:15AM - 11:51AM	L12.00001: Nanoparticles in Polymers: Assembly, Rheology and Properties **Invited Speaker**: YuanQiao Rao
11:51AM - 12:27PM	L12.00002: Pressure-Directed Assembly: Nanostructures Made Easy **Invited Speaker**: Hongyou Fan
12:27PM - 1:03PM	L12.00003: X-ray Studies of Nano Composites **Invited Speaker**: Alexander Hexemer
1:03PM - 1:39PM	L12.00004: Swelling and viscoelasticity in photoresist thin films **Invited Speaker**: Praveen Agarwal
1:39PM - 2:15PM	L12.00005: Patterning Multicomponent Polymer Thin Films via Dynamic Thermal Processing **Invited Speaker**: Gurpreet Singh

Wednesday, March 16, 2016 11:15am-2:15pm

Session L53 Flow of Complex Fluids, Polymers, Gels

Sponsoring Units: DFD GSOFT DPOLY
Room: *Hilton Inner Harbor Holiday Ballroom IV*

11:15AM - 11:27AM	L53.00001: Anomalous response of nematic platelets under LAOStress and Strain revealed by 3D RheoSAXS O. Korculanin , H. Hirsemann , B. Struth , G. Portale , M. P. Lettinga
11:27AM - 11:39AM	L53.00002: Distinctive viscoelastic and viscoplastic nanomechanics of ionically cross-linked polyelectrolyte complexes under intermittent relaxation and creep Biao Han , Tianzhu Ma , Daeyeon Lee , Vivek Shenoy , Lin Han
11:39AM - 11:51AM	L53.00003: Non-equilibrium Stokes-Einstein relation via active microrheology of hydrodynamically interacting suspensions Henry Chu , Roseanna Zia
11:51AM - 12:03PM	L53.00004: Sticky-probe active microrheology Derek Huang , Roseanna Zia
12:03PM - 12:15PM	L53.00005: Stress diffusion in models for shear banding Elian Masnada , Peter Olmsted
12:15PM - 12:27PM	L53.00006: Strength of self-pinning in coffee drops. Andrzej Latka , Kimberly Kawczinski , Sidney Nagel
12:27PM - 12:39PM	L53.00007: Microfluidics of soft granular gels Ryan Nixon , Tapomoy Bhattacharjee , W. Gregory Sawyer , Thomas E. Angelini
12:39PM - 12:51PM	L53.00008: Lift-enhanced Electrical Pinched Flow Fractionation for Particle and Cell Separation. Cory Thomas , Andrew Todd , Xinyu Lu , Xiangchun Xuan
12:51PM - 1:03PM	L53.00009: Particle Size Effect on Wetting Kinetics of a Nanosuspension Drop: MD Simulations Baiou Shi , Edmund Webb
1:03PM - 1:15PM	L53.00010: Numerical Computation of Mass Transport in Low Reynolds Number Flows and the Concentration Boundary Layer Nicholas A. Licata , Nathaniel J. Fuller
1:15PM - 1:27PM	L53.00011: Cell mechanics through analysis of cell trajectories in microfluidic channel Samuel Bowie , Alexander Alexeev , Todd Sulchek
1:27PM - 1:39PM	L53.00012: The Effects of Vortex on Circulating Tumor Cell Microfiltration Xiaolong Zhang , Zhifeng Zhang , Xiaolin Chen
1:39PM - 1:51PM	L53.00013: Effect of droplet shape on ring stains from dried liquid Melvin Santiago , Katherine Brown , Harsh Mathur
1:51PM - 2:03PM	L53.00014: Lie Algebraic Analysis of Thin Film Marangoni Flows: Multiplicity of Self-Similar Solutions Zachary Nicolaou , Sandra Troian
2:03PM - 2:15PM	L53.00015: Convective flows generated by evaporation: experiments, linear stability analysis and numerical simulations Jocelyn Dunstan , Kyoung Jin Lee , Simon Park , Raymond E. Goldstein

Wednesday, March 16, 2016 11:30 am - 2:30 pm

Session M1 Poster Session II

Polymer Physics:	1-161
Fluids Dynamics:	162-169
Soft Condensed Matter:	170-228
Statistical and Nonlinear Physics:	229-254
Biological Physics:	255-322
Energy Research and Applications	323-371

Poster Awards 2:00PM
Room: *Exhibit Hall A*

M1.00001: POLYMER PHYSICS

M1.00002: Morphology Evolution and Dynamic Viscoelastic Behavior of Ternary Elastomer Blends under Shear
Xia Dong, Xianggui Liu, Charles C Han, Dujin Wang

M1.00003: Selective crystallization of regioregularity controlled polythiophene for enhancing mechanical stability and electronic performance
Hyeong Jun Kim, Hojeong Yu, Jae-Han Kim, Jin-Sung Kim, Taek Soo Kim, Joon Hak Oh, Bumjoon Kim

M1.00004: Development of flash nanoprecipitation as a scalable platform for production of hybrid polymer-inorganic Janus particles
Victoria E. Lee, Robert K. Prud'homme, Rodney D. Priestley

M1.00005: Control of dynamical self-assembly of strongly Brownian nanoparticles through convective forces induced by ultrafast laser.
Serim Ilday, Gursoy B. Akguc, Onur Tokel, Ghaith Makey, Ozgun Yavuz, Koray Yavuz, Ihor Pavlov, F. Omer Ilday, Oguz Gulseren

M1.00006: Amphiphilic Soft Janus Particles as Interfacial Stabilizers
Wenda Wang, Sunny Niu, Chris Sosa, Robert Prud'homme, Rodney Priestley

M1.00007: Time-resolved SANS studies on block copolymer micelles with varying core-solvent interactions
Tyler Cooksey, Avantika Singh, Maria Marquez, Megan Robertson

M1.00008: Spectroscopic Analysis of 10MAG/LDAO Reverse Micelles to Determine Characteristic Properties and Behavioral Extrema .
Joshua Berg, Cara Mawson, Zach Norris, Nathaniel Nucci

M1.00009: Photolithography and Fluorescence Correlation Spectroscopy used to examine the rates of exchange in reverse micelle systems
Zach Norris, Cara Mawson, Kyron Johnson, Sarah Kessler, Anne Rebecca, Nathan Wolf, Michael Lim, Nathaniel Nucci

M1.00010: Self-assembly of mixed lipids into bicelles and vesicles: molecular dynamics simulations.
Hari Sharma, Zilu Wang, Elena Dormidontova

M1.00011: Directed Assembly of Gold Nanoparticles via Polymer Single Crystals
Shan Mei, Hao Qi, Tian Zhou, Christopher Li

M1.00012: Synthesis of Poly (N-isopropylacrylamide) Microcapsules for Drug Delivery Applications via UV Aerosol Photopolymerization.
Nicole Roberson, Daniel Denmark, Sarath Witanachchi

M1.00013: Tertiary phase diagram of cellulose, ionic liquid and organic solvent
Xin Zhang, Doug Henderson, Madhusudan Tyagi, Yimin Mao, Robert M. Briber, Howard Wang

M1.00014: Thin blend films of cellulose and polyacrylonitrile
Rui Lu, Xin Zhang, Yimin Mao, Robert Briber, Howard Wang

M1.00015: Process Dependence of Cellulose Nanofiber Fabrication
Doug Henderson, Xin Zhang, Yimin Mao, Soo-Hwan Jang, Liangbing Hu, Robert Briber, Howard Wang

M1.00016: Multi-scale Characterization of Cellulose TEMPO-Nanofiber Suspension
Yimin Mao, Kai Liu, Benjamin Hsiao

M1.00017: Controlling the structure and rheology of TEMPO-oxidized cellulose in zinc chloride aqueous suspensions for fabricating advanced nanopaper
Sha Wang, Xin Zhang, Liangbing Hu, Robert Briber, Howard Wang, Linxin Zhong

M1.00018: All-or-none folding of a polymer in confinement
Mark Taylor

M1.00019: Exploring the existence of two Tgs in thin, supported polymer films
Eric Chen, Ethan Glor, Gabriel Angrand, Zahra Fakhraai

M1.00020: Limits of single-molecule super-resolution microscopy in thin polymer films
Muzhou Wang, Marcelo Davanco, James M. Marr, J. Alexander Liddle, Jeffrey W. Gilman

M1.00021: Phase separated microstructure and dynamics of polyurethane elastomers under strain
Ciprian Iacob, Ajay Padsalgikar, James Runt

M1.00022: Phase behavior of the thermoresponsive polymer Poly(N-isopropyl acrylamide) at variable pressure
Alfons Schulte, Kora-Lee Claude, Simon Pinzek, Peter Müller-Buschbaum, Christine Papadakis

M1.00023: Complex Cure Kinetics of the Hydroxyl-Epoxide Reaction in DGEBA Epoxy Hardened with Diethanolamine
Windy Ancipink, John McCoy, Jamie Kropka, Mathias Celina

M1.00024: Relaxation Characteristics of 828 DGEBA Epoxy Over Long Time Periods
Jasmine Hoo, Riley C. Reprogle, Brian Wisler, Gabriel K. Arechederra, John D. McCoy, Jamie M. Kropka, Kevin N. Long

M1.00025: Effect of Structure on Charge Mobility in Partially Ordered Polymeric Systems
Waylon Luo, Kiran Khanal, Jutta Luettmer-Strathmann

M1.00026: Improved electrospinning processing of PU/PEDOT:PSS for electronic textile applications
Erin Evke, Aaron Clippinger, Clayson Spackman, Johnson Samuel, Rahmi Ozisik

M1.00027: Monte-Carlo simulations of a coarse-grained model for α-oligothiophenes
Amani Almutairi, Jutta Luettmer-Strathmann

M1.00028: Conductance Thin Film Model of Flexible Organic Thin Film Device using COMSOL Multiphysics
Carolyn Carradero-Santiago, Josee Vedrine-Pauléus

M1.00029: Photopatterned surface relief gratings in azobenzene-amorphous polycarbonate thin films
Morten Vollmann, Peter Getek, Kellie Olear, Cody Combs, Benjamin Campos, Edmund Witkowski, Erin Cain, David McGee

M1.00030: Morphology of conjugated polymer/insulating polymer blends from inkjet printing and its correlation to the function of field-effect transistors
Huipeng Chen, Guochen Zheng, Liqin Hu, huihuang Yang, Tailiang Guo

M1.00031: Solvent-vapor concentration imparts selectivity on the propagation front during polymorphic transformation in molecular-semiconductor thin films
Geoffrey Purdum, Thomas Gessner, R. Thomas Weitz, Yueh-Lin Loo

M1.00032: Charge conduction in partially fluorinated discotic liquid crystals
Mitchell Powers, Zhe Li, Robert Twieg, Brett Ellman

M1.00033: Gated Seebeck Using Polymerized Ionic Liquid Gate Dielectrics
Elayne Thomas, Bhooshan Popere, Haiyu Fang, Michael Chabinyc, Rachel Segalman

M1.00034: Electrospun Composite Nanofibers of Semiconductive Polymers for Coaxial PN Junctions
William Serrano, Sylvia Thomas

M1.00035: A novel Graphene Oxide film: Synthesis and Dielectric properties
Betul Canimkurbey, Sait Eren San, Muhammad Yasin, Muhammet Erkan Köse

M1.00036: Synthesis and Characterization of Plant based Polythiophene Copolymers for Light Harvesting Applications
Udari Kodithuwakku, Prashantha Malavi Arachchi, Dilru Ratnaweera

M1.00037: Synthesis and Photoelectrochemistry Characterization of Polymer based on 4,7-Di(thiophen-2-yl)-benzo[c][1,2,5]thiadiazole, (DTBT).
Luz Maria Lazo Jimenez, Bernardo Antonio Frontana-Uribe

M1.00038: Electrospinning Nanofiber Based Organic Solar Cell
Zhenhua Yang, Ying Liu, Maria Moffa, Chang-Yong Nam, Dario Pisignano, Miriam Rafailovich

M1.00039: Asymmetric Zinc Phthalocyanines as Dye-Sensitized Solar Cells.
Gulenay Tunc, Yunus Yavuz, Aysegul Gurek, Betul Canimkurbey, Arif Kosemen, Sait Eren San, Vefa Ahsen

M1.00040: Highly conductive polymer electrolyte membranes modified with polyethylene glycol-bis-carbamate
Guopeng Fu, Janel Dempsey, Thein Kyu

M1.00041: Neutron Vibrational Spectroscopy and modeling of polymer/dopant interactions
Adam Moule, Thomas Harrelson, Yongqiang Cheng, Anibal Ramirez-Cuesta, Roland Faller, David Huang

M1.00042: Single- and Multilayered Nanostructures via Laser-Induced Block Copolymer Self-Assembly
Pawel Majewski, Kevin Yager, Atikur Rahman, Charles Black

M1.00043: Temperature dependent structural, elastic, and polar properties of ferroelectric polyvinylidene fluoride (PVDF) and trifluoroethylene (TrFE) copolymers
Fu-Chang Sun, Avinash Dongare, Alexandru Asandei, Pamir Alpay, Serge Nakhmanson

M1.00044: Understanding Nonlinear Dielectric Properties in a Biaxially Oriented Poly(vinylidene fluoride) Film at Both Low and High Electric Fields
Yue Li, Lei Zhu

M1.00045: Correlating Thin-Film Radical Density with Charge Transport in Open-Shell Conducting Macromolecules
Martha Hay, Elizabeth Jergens, Bryan Boudouris

M1.00046: Polyvinylidene fluoride molecules in nanofibers, imaged at atomic scale by aberration corrected electron microscopy
Darrell Reneker, Joseph Gorse, Dinesh Lolla, Christian Kisielowski, Jiayuan Miao, Philip Taylor, George Chase

M1.00047: Design of Free-Standing Microstructured Conducting Polymer Films for Enhanced Particle Removal from Non-uniform Surfaces
Jennifer Laster, Nicholas Deom, Bryan Boudouris, Stephen Beaudoin

M1.00048: Out-of-plane Block Copolymer Microdomains in High Aspect-Ratio Templates
Karim Gadelrab, Wubin Bai, Alfredo Alexander-Katz, Caroline Ross

M1.00049: Vertically Aligned Nanoplate Particles Directed by Block Copolymer Domains for Anisotropic Properties
Nadia Krook, Jeffrey Meth, Christopher Murray, Robert Riggleman, Russell Composto

M1.00050: The role of ultra-fast solvent evaporation on the directed self-assembly of block polymer thin films
Chloe Drapes, G. Nelson, M. Grant, J. Wong, A. Baruth

M1.00051: Towards ultra-fast solvent evaporation, the development of a computer controlled solvent vapor annealing chamber
Gunnar Nelson, J. Wong, C. Drapes, M. Grant, A. Baruth

M1.00052: Directed Self-Assembly of Block Copolymers in Thin Films on Polymer Nano-Stripes
Dong-Eun Lee, Ho-Jong Kang, Dong Hyun Lee

M1.00053: Perpendicular Orientation of Nanodomains on Versatile Substrates through Self-Neutralization Induced by Star-Shaped Block Copolymers
Mooseong Kim, Sangshin Jang, Kyu Seong Lee, Hong Chul Moon, Jongheon Kwak, Jicheol Park, Gumhye Jeon, Jin Kon Kim

M1.00054: The morphology of A2B mikotoarm polymer in thin film
Hyeyoung Kim, Beom-goo Kang, Zhiwei Sun, Jaewon Choi, Thomas Russell

M1.00055: Simple, generalizable route to highly aligned block copolymer thin films
Zhe Qiang, Kevin Cavicchi, Bryan Vogt

M1.00056: Sulfation effect on levan polysaccharide chains structure with molecular dynamics simulations
Binnaz Coskunkan, Deniz Turgut, Deniz Rende, Seyda Malta, Nihat Baysal, Rahmi Ozisik, Ebru Toksoy-Oner

M1.00057: The Effects of pH and Temperature on the Nanostructure of Chitosan Films
Ramona Luna, Ahmed Touhami

M1.00058: Characterization of Nanoparticle Aggregation in Biologically Relevant Fluids
Kathleen McEnnis, Joerg Lahann

M1.00059: Ring Structure of Center of Spacetime, DNA, and Extraterrestrial Being
Dayong Cao

M1.00060: Coacervate Core Micelles for the Dispersion and Stabilization of Organophosphate Hydrolase in Organic Solvents.
Carolyn Mills, Allie Obermeyer, Xuehui Dong, Bradley D. Olsen

M1.00061: Fluorescence Recovery after Photobleaching in Confined Polymer Thin Films
Laura A. G. Gray, Clifford P. Brangwynne, Rodney D. Priestley

M1.00062: Using Atomistic Molecular Dynamics Simulations to Guide Development of Coarse-Grained Models of Polyethylene glycol (PEG), Elastic-like peptides (ELP) and Collagen-like peptides (CMP) For Biomaterial Design
Francesca Stanzione, Arthi Jayaraman

M1.00063: The influence of ionic strength on DNA diffusion in gel networks
Yuanxi Fu, Ah-Young Jee, Hyeong-Ju Kim, Steve Granick

M1.00064: Active microrheology of entangled blends of DNA and Actin link polymer flexibility to induced molecular deformations and stress propagation
Robert Fitzpatrick, Rae Robertson-Anderson

M1.00065: Deep image analysis of entangled ring-shaped DNA
HyeongJu Kim, Ah-Young Jee, Steve Granick

M1.00066: Quantifying the effects of cyclic defects on the mechanical properties of polymer gels
Rui Wang, Mingjiang Zhong, Ken Kawamoto, Jeremiah Johnson, Bradley Olsen

M1.00067: Degrafting of polymer brushes from substrates enables insight about the brush structure and facilitates surface patterning.
Rohan Patil, Salomon Turgman-Cohen, Jiri Srogl, Douglas Kiserow, Jan Genzer

M1.00068: Driving Organic Molecule Crystalliztion with Surface Reconstructions
Jessica Bickel, Gianfranco Trovato

M1.00069: The Study of Interpenetration Length between dPS Films and PS-grafted Layers
Hoyeon Lee, Seongjun Jo, Toyoaki Hirata, Norifumi L. Yamada, Keiji Tanaka, Du Yeol Ryu

M1.00070: Glass transition dynamics and charge carrier mobility in conjugated polyfluorene thin films
Hui Qin, Dan Liu, Tao Wang

M1.00071: Bending and Fracture in Thin Polymer Films during Capillary Origami Assembly.
Timothy Twohig, Andrew Croll

M1.00072: Confinement Effect on the Effective Viscosity of Plasticized Polymer Films
Fei Chen, D. Peng, Y. Ogata, K. Tanaka, Z. Yang, Y. Fujii, N. L. Yamada, C. H. Lam, Ophelia K. C. Tsui

M1.00073: Adhesion and Wetting in Soft Polymeric Systems
Andrey Dobrynin, Zhen Cao, Mark Stevens

M1.00074: Novel adhesion properties of irreversibly adsorbed polymer chains
zhizhao Chen, Mani Sen, Justin Cheung, Deborah Barkley, Naisheng Jiang, Wenduo Zeng, Maya K. Endoh, Tadanori Koga

M1.00075: Entropic Segregation of Short Polymers to the Surface of a Polydisperse Blend
Pendar Mahmoudi, Mark Matsen

M1.00076: Effect of tacticity on the structure and glass transition temperature of polystyrene thin films
Yergou Tatek, Solomon Negash, Mesfin Tsige

M1.00077: Capillary wrinkling of thin bilayer polymeric sheets
Jooyoung Chang, Narayanan Menon, Thomas Russell

M1.00078: Role of monomer sequence and backbone structure in polypeptoid and polypeptide polymers for anti-fouling applications
Anastasia Patterson, Georgios Rizis, Brandon Wenning, John Finlay, Christopher Ober, Rachel Segalman

M1.00079: Conformation and hydration of surface grafted and free polyethylene oxide chains in solutions.
Udaya Dahal, Zilu Wang, Elena Dormidontova

M1.00080: Charge transport and structural dynamics in ultra-thin films of polymerized ionic liquids
Maximilian Heres, Tyler Cosby, Stefan Berdzinski, Veronica Strehmel, Roberto Benson, Joshua Sangoro

M1.00081: Molecular dynamics simulations and morphology analysis of TEM imaged PVDF nanofibers
Jiayuan Miao, Darrell Reneker, Mesfin Tsige, Philip Taylor

M1.00082: Processing and characterization of natural fiber reinforced thermoplastic composites using micro-braiding technique
Satoshi Kobayashi, Shinji Ogihara

M1.00083: Deformation Behavior during Processing in Carbon Fiber Reinforced Plastics
Shinji Ogihara, Satoshi Kobayashi

M1.00084: Localized Memory Effect of Elastomers Filled with Nanoparticles
Shoubo Li, Xiaorong Wang

M1.00085: Mechanical Properties of Cellulose Microfiber Reinforced Polyolefin
Satoshi Kobayashi, Hiroyuki Yamada

M1.00086: Soft composites with the twisted plywood microstructure, a lesson from nature.
Yongjin Kim, Alfred Crosby

M1.00087: Modeling heterogeneous polymer-grafted nanoparticle networks having biomimetic core-shell structure
Badel L. Mbanga, Victor V. Yashin, Niels Holten-Andersen, Anna C. Balazs

M1.00088: Effects of Dimensionality and Flexibility of Conductive Fillers in Nanocomposites on Percolating Network Formation and Electrical Conductivity
Seulki Kwon, Hyun Woo Cho, Bong June Sung

M1.00089: Structure, Nanomechanics and Dynamics of Dispersed Surfactant-Free Clay Nanocomposite Films
Xiao Zhang, Jing Zhao, Chad Snyder, Alamgir Karim

M1.00090: Influence of Surface Coating of Magnetic Nanoparticles on Mechanical Properties of Polymer Nanocomposites
Ecem Yarar, Gizem Karakas, Deniz Rende, Rahmi Ozisik, Seyda Malta

M1.00091: Wide Angle X-Ray Scattering Investigations on Irradiated iPP-VGCNF Nanocomposites.
Arnold Fonseca, Dorina Chipara, Karen Lozano, Mircea Chipara

M1.00092: Designing a gel--fiber composite to extract nanoparticles from solution
Ya Liu, Olga Kuksenok, Anna Balazs

M1.00093: Synthesis and Application of a Biopolymer/CNT Composite as a Flexible Humidity Sensor
Manuel Rivera, Rafael Velazquez, Eric Li, Peter Feng

M1.00094: Viscoelastic Analysis of Thermally Stiffening Polymer Nanocomposites
Andrew Ehlers, Deniz Rende, Erkan Senses, Pinar Akcora, Rahmi Ozisik

M1.00095: Controlling the Degradation of Bioresorbable Polymers
Istvan Moritz, Brian Crowley, Elizabeth Brundage, Deniz Rende, Rahmi Ozisik

M1.00096: Interfacial slip in nano filled polymer blends
John Mikhail, Di Xu, Joseph Ortiz, Dilip Gersappe

M1.00097: Nanocellulose Composite Materials Synthesizes with Ultrasonic Agitation
Timothy Kidd, Andrew Folken, Byron Fritch, Derek Bradley

M1.00098: Predicting *X* for polymers with stiffness mismatch from simulations
Daniel Kozuch, Wenlin Zhang, Enrique Gomez, Scott Milner

M1.00099: Comparative Study of Silk-Silk Alloy Materials
Ye Xue, Dave Jao, Wenbing Hu, Nathan Wolf, Eva-Marie Rocks, Xiao Hu

M1.00100: Compatibility and Impact Resistance of Biodegradable Polymer Blends Using Clays and Natural Nanotubes
Yichen Guo, Xue Yuan, Xianghao Zuo, Miriam Rafailovich

M1.00101: Hybrid Simulation Strategy for Simulating Self-Assembled Morphologies at the Atomistic Length Scales
Vaidyanathan Sethuraman, Venkat Ganesan

M1.00102: Controlling Miscibility in Polyethylene-Polynorbornene Block Copolymers via Side-Group Chemistry.
William Mulhearn, Richard Register

M1.00103: Influence of Homopolymers on the Microdomain Behavior of Block Copolymers in 2D Confinement
Youngkeol Kim, Sungyoul Hwang, Guiduk Yu, Kookheon Char

M1.00104: Tunable Surface Energy Interlayer Coating to Control the Phase Behavior of Block Copolymers in 2D Confinement
Sungyoul Hwang, Youngkeol Kim, Dokyeong Kwon, Kookheon Char

M1.00105: Bottlebrush Copolymer Morphology Transition: Influence of Side Chain Length and Block Volume Fraction
Yue Gai, Dong-Po Song, James Watkins

M1.00106: Microwave Irradiation on Graphene Dispersed Within Polymeric Matrices.
Jorge Cisneros, Brian Yust, Mircea Chipara

M1.00107: Acoustic and Ultrasonic Spectral Evolution in Pre- and Post-Damage Self-Healing Poly (Ethylene Co-Methacrylic Acid) Ionomer Samples
Jonathan Buckley, Kenneth Pestka II, Stephen Kalista

M1.00108: Effect of charge density in chain extension reactions involving complexes of 4, 4'-diaminodiphenylmethane and various alkali metal salts
Subrajeet Deshmukh, Katherine Carrasquillo, Fang Chang Tsai, Lina Wu, Shaw Ling Hsu

M1.00109: Structural dynamics in polystyrene-b-polyisoprene copolymers with varying molecular architectures
Thomas Kinsey, Maximilian Heres, Jimmy Mays, Roberto Benson, Joshua Sangoro

M1.00110: How to Improve Ion Transport in Polymer Nanocomposites? Insights from Atomistic Simulations
Santhosh Mogurampally, Venkat Ganesan

M1.00111: Structure of Anion-Conducting Polymers From Waxs and MD Simulations
Barbara Frisken, Sepehr Tahmasebi, Eric Schibli, Steven Holdcroft

M1.00112: Charge Transport and Dynamics in Confined Phosphonium-based Ionic Liquids
Tyler Cosby, Katsuhiko Tsunashima, Joshua Sangoro

M1.00113: Charge Transport and Dynamics in Confined Ammonium and Phosphonium-based Ionic Liquids
Matthew Harris, Tyler Cosby, Katsuhiko Tsunashima, Joshua Sangoro

M1.00114: Amphiphilic Zwitterionic Coatings for Marine Anti-Biofouling Applications.
Edwin Walker Jr, C. K. Pandiyarajan, Kirill Efimenko, Jan Genzer

M1.00115: How does the molecular network structure influence PDMS elastomer wettability?
Matthew Melillo, Jan Genzer

M1.00116: The effects of elastocapillary length on the surface creasing instability of hydrogels
Tetsu Ouchi, Qihan Liu, Zhigang Suo, Ryan Hayward

M1.00117: Computer Simulations of Bottlebrush Melts and Soft Networks
Zhen Cao, Jan-Michael Carrillo, Sergei Sheiko, Andrey Dobrynin

M1.00118: Modeling polymer gel that strengthen under tension
Santidan Biswas, Victor V. Yashin, Anna C. Balazs

M1.00119: Modeling thermal-mechanical behavior of networks with reconfigurable crosslinks
Jeh-Chang Yang, Yuan Meng, Mitchell Anthamatten

M1.00120: Imparting large macroscopic changes with small changes in polypeptide composition
Michelle Sing, Gareth McKinley, Bradley Olsen

M1.00121: Effect of Temperature and Strain on a Self--assembled Gel
Satish Mishra, Santanu Kundu

M1.00122: Rubber Elasticity for percolation network consisting of Gaussian Chains
Kengo Nishi, Mitsuhiro Shibayama, Takamasa Sakai

M1.00123: Nonlinear Stress Relaxation of “Quasi-monodisperse” Miscible Blends of *cis*-Polyisoprene and Poly(*ptert*-butylstyrene)
Hiroshi Watanabe, Yumi Matsumiya

M1.00124: Bidirectional Control of Flow in Thin Polymer Films by Photochemically Manipulating Surface Tension
Chae Bin Kim, Dustin Janes, Sunshine Zhou, Austin Dulaney, Christopher Ellison

M1.00125: Dynamics of associating polymers and the sticky Rouse model: a study by combined dielectric and dynamic mechanical techniques
Yangyang Wang, Tyler Cosby, Joshua Sangoro

M1.00126: Evolution of Yield Stress during Structural Relaxation for the Epoxy 828DEA
Gabriel Arechederra, John McCoy, Jamie Kropka

M1.00127: Can Stress Relaxation Experiments be Used to Assess Deformation Induced Mobility in Glassy Polymers?
Jamie Kropka, Kevin Long

M1.00128: Chain networking revealed by molecular dynamics simulation
Yexin Zheng, Mesfin Tsige, Shi-Qing Wang

M1.00129: How plasticizer makes a ductile polymer glass brittle?
Yue Zhao, Xiaoxiao Li, Shi-Qing Wang

M1.00130: Surface diffusion of molecular glasses: Material dependence and impact on physical stability
Shigang Ruan, Wei Zhang, Lian Yu

M1.00131: Liquid Crystalline Phases of Polymer Brushes
Kiana Amini, Nasser Abukhdeir, Mark Matsen

M1.00132: Thermal Characterization of Thermotropic Nematic Liquid-Crystalline Elastomers
David Thomas, Matt Cardarelli, Antoni Sanchez-Ferrer, Badel L. Mbanga, Timothy J. Atherton, Peggy Cebe

M1.00133: Crystal Growth Theory for Random Copolymers of Crystallizable and Non-crystallizable Units
Herve Marand, Hadi Mohammadi

M1.00134: Flow-induced Crystallization of Long Chain Aliphatic Polyamides under a Complex Flow Field
Xia Dong, Yunyun Gao, Lili Wang, Dujin Wang

M1.00135: Effects of mechanical strain and heat on the strain-induced crystalline β to α structural transition of syndiotactic polystyrene.
Fuyuaki Endo, Atsushi Hotta

M1.00136: Tracing Poly(ethylene-oxide) Crystallization using Atomic Force Microscopy
Xavier Capaldi, Samuel Amanuel

M1.00137: Viscoelastic Properties of Fluorinated Ethylene-Propylene (FEP) Random Copolymers
Megan Curtin, Benjamin Wright, Rahmi Ozisik

M1.00138: Thermal Properties of Trogamid by Conventional and Fast Scanning Calorimetry
Peggy Cebe, John Merfeld, Bin Mao, Andreas Wurm, Evgeny Zhuravlev, Christoph Schick

M1.00139: Polymer crystallization in thin films: morphology and physical properties
Giovanni Kelly, Julie Albert

M1.00140: Morphological Evolution During Tensile Deformation in Semi-Crystalline Precise Functional Copolymers via Fitting of *In Situ* X-ray Scattering
Edward B. Trigg, L. Robert Middleton, Brian S. Aitken, Jason Azoulay, Dustin Murtagh, Kenneth B. Wagener, Joseph Cordaro, Karen I. Winey

M1.00141: Probing polyethylene crystallization via simultaneous Raman scattering, rheology and microscopy
Kalman Migler, Anthony Kotula, Angela Hight Walker

M1.00142: Molecular simulations of the formation of semi-crystalline structure from supercooled polyethylene melt
Peng Yi

M1.00143: Engineering Multi-scale Electrospun Structure for Integration into Architected 3-D Nanofibers for Cimex Annihilation: Fabrication and Mechanism Study.
Shan He, Linxi Zhang, Ying Liu, Miriam Rafailovich

M1.00144: From Non-equilibrium to Equilibrium: Micellar Kinetics seen by Time-resolved Small-angle Scattering
Reidar Lund

M1.00145: Characterization and Molecular Simulation of Poly (p-phenylene/m-phenylene) Copolymers.
Robert Bubeck, Steven Keinath

M1.00146: Thermal Conductivity behavior of MWCNT based PMMA and PC composites
Girija Dubey, Prashant Jindal, Rajiv Bhandari, Neha Dhiman, Chetan Bajaj, Vijay Jindal

M1.00147: Rheological Properties of a Polybutadiene/Clay Nano-Composite Crosslinked via Thiol-ene Click Chemistry
Vijesh Tanna, H. Henning Winter

M1.00148: Quantum Molecular Dynamics Validation of Nanocarbon Synthesis by High-Temperature Oxidation of Nanoparticles
Chunyang Sheng, Kenichi Nomura, Rajiv Kalia, Aiichiro Nakano, Kohei Shimamura, Fuyuki Shimojo, Priya Vashishta

M1.00149: Role of Entropic Barriers in Controlling Polymer Diffusion in Polystyrene Nanocomposites
Philip Griffin, Wei-Shao Tung, Jeffrey Meth, Nigel Clarke, Russell Composto, Karen Winey

M1.00150: Morphology and Transport Properties of Novel Polymer Nanocomposites Resulted from Melt Processing of Polyvinylacetate Substrates Coated with Layer-by-Layer Assemblies
Iman Soltani, Richard Spontak

M1.00151: Polymer Dynamics by Dielectric Spectroscopy
Jennifer Zehner, Karin Bichler, Gerald Schneider

M1.00152: Polymer Dynamics in Blends
Karin Bichler, Jennifer Zehner, Gerald Schneider

M1.00153: Nonadiabatic Dynamical Studies of Lead Chalcogenide Quantum Dots ($Pb_{16}X_{16}$; X = S, Se, Te) Passivated with thin Cadmium Chalcogenide Shells
Patrick Tamukong, Svetlana Kilina

M1.00154: Emergent Magnetism in Mesoporous Materials
Sher Alam, Ajayan Vinu

M1.00155: Using Self-Similarity to Simulate Meniscus Evolution Around TMV Due to Surface Diffusion
Richard Potter, Yue Zhang, Zahra Fakhraai

M1.00156: Interfacial damping properties of polymeric composites: Effect of interfacial strength
Yaping Huang

M1.00157: Equilibrium flattening process of irreversibly adsorbed polymer chains on a solid
Mani Sen, Naisheng Jiang, Maya Endoh, Tadanori Koga, Daisuke Kawaguchi, Keiji Tanaka

M1.00158: Phase Transitions of 2-Decanol in Nano Pores
Samuel Amanuel, Jason Turner, Caleb Novins, Alexander Clain

M1.00159: Heat of fusion of primary alcohol confined in Nano pores.
Harrisonn Griffin, Samuel Amanue

M1.00160: Structure and Dynamics of Polymers in Cylindrical Nanoconfinement: A Molecular Dynamics Study
James Pressly, Robert Riggleman, Karen Winey

M1.00161: Man-made Earthquakes & Multifractals in Neutral Fluid Turbulence/Injection
WH- Maksoed

M1.00162: FLUIDS

M1.00163: Chemically generated convective transport in microfluidic system
Oleg Shklyaev, Sambeeta Das, Alicia Altemose, Henry Shum, Anna Balazs, Ayusman Sen

M1.00164: Flow reversal in enzymatic microfluidic pumps
Henry Shum, Isamar Ortiz-Rivera, Arjun Agrawal, Ayusman Sen, Anna Balazs

M1.00165: Phase transitions analogy for cavity flows.
Petru Fodor, Miron Kaufman

M1.00166: A Statistical investigation of sloshing parameters for multiphase offshore separators
Md Mahmud, Rafiqul Khan, Qiang Xu

M1.00167: Efficient Combustion Simulation via the Adaptive Wavelet Collocation Method
Kevin Lung, Eric Brown-Dymkoski, Victor Guerrero, Eric Doran, Ken Museth, Jo Balme, Bob Urberger, Andre Kessler, Stephen Jones, Billy Moses, Anthony Crognale

M1.00168: Time dependent behavior of impact angle in turbulent pipe flows experiencing erosion
Amador Guzman, Diego Oyarzun, Magdalena Walczak, Javiera Aguirre

M1.00169: Dual-Mode Measurement and Theoretical Analysis of Evaporation Kinetics of Binary Mixtures
Hanyu Song, Chi-Ruei He, Carl Basdeo, Ji-Qin Li, Dezhuang Ye, Devendra Kalonia, Si-Yu Li, Tai-Hsi Fan

M1.00170: SOFT CONDENSED MATTER

M1.00171: Spin-resolved conductance of Dirac electrons through multibarrier arrays
Dipendra Dahal, Godfrey Gumbs, Andrii Iurov

M1.00172: Dielectric Screening Response of a Plasmonic "Sandwich"
N.J.M. Horing, Godfrey Gumbs, Dipendra Dahal, Andrii Iurov

M1.00173: EM Wave Transmission through a Nano-hole in a Plasmonic Layer
Desire Desire Miessein, Norman J. Morgenstern Horing, Harry Lenzing, Godfrey Gumbs

M1.00174: Modeling heterogeneous polymer-grafted nanoparticle networks
Tao Zhang, Badel Mbanga, Victor Yashin, Anna Balazs

M1.00175: Adhesion of Particulate Materials to Mesostructured Polypyrrole
Darby Hoss, Robert Knepper, Peter Hotchkiss, Alexander Tappan, Bryan Boudouris, Stephen Beaudoin

M1.00176: Droplet Dynamics of a Flowing Emulsion System
Olivia Cypull, Klebert Feitosa

M1.00177: Self-assembly in Dipolar Fluids
Michela Ronti, Sofia Kantorovich

M1.00178: Deconvolution of the role of metal and pH in metal coordinating polymers.
Seth Cazzell, Niels Holten-Andersen

M1.00179: Optically induced thermal response of Chlorophyll for biomedical applications
ChiaWei Tu, Sadat Md Ehsan, Yuan Zhao, Donglu Shi, David Mast

M1.00180: Directed percolation identified as equilibrium pre-transition towards non-equilibrium arrested gel states
Marco Laurati, Ronja Capellmann, Matthias Kohl, Stefan Egelhaaf, Michael Schmiedeberg

M1.00181: Novel coarse-graining approach for Star polymer and linear Homopolymer mixtures
Emanuele Locatelli, Christos Likos

M1.00182: A simple depth-averaged model for dry granular flow
Chi-Yao Hung, Colin P. Stark, Herve Capart

M1.00183: A Computational Study of the Growth of Hexagonal Ice.
Maxwell Fulford, Matteo Salvalaglio, Michele Parrinello, Carla Molteni

M1.00184: The mystery of Coulomb friction in sediment transport
Thomas Pähtz, Orencio Duran

M1.00185: Core formation by porous flow allowed by hysteresis in melt network topology
Soheil Ghanbarzadeh, Marc Hesse, Masha Prodanovic

M1.00186: Spontaneous Pattern Formation of Surface Nanodroplets from Competitive Growth
Detlef Lohse, Shuhua Peng, Xuehua Zhang

M1.00187: Decoupling between Diffusivity and Effective Viscosity in Poly(isobutyl methacrylate) Films with a Thickness-Independent Glass Transition
Kun Geng, Reika Katsumata, Xuanji Yu, Heonjoo Ha, Austin R. Dulaney, Christopher J. Ellison, Ophelia K.C. Tsui

M1.00188: Interfacial Bubble Deformations
Brian Seymour, Parvis Shabane, Olivia Cypull, Shengfeng Cheng, Klebert Feitosa

M1.00189: Temperature-dependent neutron diffraction measurements from D_2O hydrating single-supported lipid bilayers of DMPC
Z. N. Buck, J. Torres, A. Mazza, H. Kaiser, H. Taub, F. Y. Hansen, A. Miskowiec, M. Tyagi

M1.00190: Elasticity and Extensibility Determine Printability and Spinnability of Polymer Solutions
Jelena Dinic, Leidy Jimenez, Vivek Sharma

M1.00191: Patterns, Instabilities, Colors, and Flows in Vertical Foam Films
Subinuer Yilixiati, Yiran Zhang, Ewelina Wojcik, Vivek Sharma

M1.00192: Effects of aspect ratio on the phase diagram of spheroidal particles
Songul Kutlu, Jason Haaga, Jeffrey Rickman, James Gunton

M1.00193: Coarse-grained simulation of dynamin-mediated fission
Marcus Muller, Guojie Zhang, Marc Fuhrmans

M1.00194: Coarse grained modeling of transport properties in monoclonal antibody solution
James Swan, Gang Wang

M1.00195: Hierarchical Cluster Formation in Concentrated Monoclonal Antibody Formulations
P. Douglas Godfrin, Jonathan Zarzar, Isidro (Dan) Zarraga, Lionel Porcar, Peter Falus, Norman Wagner, Yun Liu

M1.00196: Probing matrix and tumor mechanics with *in situ* calibrated optical trap based active microrheology
Jack Rory Staunton, Wilfred Vieira, Kandice Tanner

M1.00197: Dynamics of Micropipette Vibration During Piezo-assisted Microinjection
Mehdi Karzar-Jeddi, Nejat Olgac, Tai-Hsi Fan

M1.00198: Characterizing the mechanical behavior of the zebrafish germ layers
David Kealhofer, Friedhelm Serwane, Alessandro Mongera, Payam Rowghanian, Adam Lucio, Otger Campás

M1.00199: A finite element study of the stability of spontaneous curling of thin shells
Xiaomin Han, Qiaohang Guo, Kevin Chu, Ian Trase, Nan Hu, Zi Chen

M1.00200: Osmotic pressure of ionic microgel suspensions
Miguel Pelaez-Fernandez, Andrew Lyon, Alberto Fernandez-Nieves

M1.00201: Diffusion of micrometer-sized soft particles in confinement
Benjamin Jordan, Kevin Aptowicz

M1.00202: Electric Double Layer electrostatics of spherical polyelectrolyte brushes with pH-dependent charge density
Hao Li, Guang Chen, Shayandev Sinha, Siddhartha Das

M1.00203: Unraveling the Nanostructure and Chain Conformation of Peptide-polymer Conjugates in Solution using Small-angle X-ray Scattering
Reidar Lund, Ting Xu, He Dong

M1.00204: Geometric Frustration Selects Morphology in Chiral Filament Bundles
Douglas Hall, Isaac Bruss, Justin Barone, Gregory Grason

M1.00205: Controlling the Size and Shape of the Elastin-Like Polypeptide based Micelles
Kiril Streletzky, Hannah Shuman, Adam Maraschky, Nolan Holland

M1.00206: Directed Assembly of Hierarchically Ordered Clusters from Anisotropic Microparticles
Koohee Han, Bhuvnesh Bharti, C. Wyatt Shields IV, Gabriel P. Lopez, Orlin D. Velev

M1.00207: Aging and nonlinear rheology of thermoreversible colloidal gels
Norman Wagner, Melissa Gordon, Christopher kloxin

M1.00208: Dissolution of a Colloidal Particle in an Oscillatory Fluid Medium
Dezhuang Ye, Ji-Qin Li, Robin Bogner, Tai-Hsi Fan

M1.00209: Effective temperatures and the breakdown of the Stokes-Einstein relation for particle suspensions
Carlos Mendoza, Ivan Santamaría-Holek, Agustín Pérez-Madrid

M1.00210: Hydrodynamic interactions in colloidal systems confined to linear geometries with a singular corner.
Binhua Lin, Ryan Zarcone, Stuart A. Rice

M1.00211: Effect of Salts on Drainage of Foam
Soumyadip Sett, Stoyan Karakashev, Stoyan Smoukov, Alexander Yarin

M1.00212: The role of the anchoring conditions in the electro rheological behavior of a nematic constrained by two coaxial cylinders and submitted by a pressure drop
Daniel Martínez Sánchez, Juan Adrián Reyes Cervantes

M1.00213: Colloidal particles embedded in liquid crystal droplets
Drew Melchert, Monirosadat Sadati, Ye Zhou, Juan J. de Pablo

M1.00214: Coarse-Grained Molecular Monte Carlo Simulations of Liquid Crystal-Nanoparticle Mixtures
Ryan Neufeld, Grigoriy Kimaev, Fred Fu, Nasser M. Abukhdeir

M1.00215: Optical and electrical investigations of graphene oxide flakes in multi-phases samples.
Ji Hyun Park, Stephane Campidelli, Giusy Scalia

M1.00216: Magnetic domains and defects in ferromagnetic liquid crystal colloids realized with optical patterning
Andrew Hess, Qingkun Liu, Ivan Smalyukh

M1.00217: Conformation of charged vesicles: the Debye Huckel and the low curvature limit
Kumari Priti Sinha, Prof. Rochish M Thaokar

M1.00218: Emergence of DNA-encapsulating liposomes from a DNA-lipid blend film
Shunsuke Shimobayashi, Mafumi Hishida, Tomo Kurimura, Masatoshi Ichikawa

M1.00219: Lipid transfer energetics between free-standing and solid supported membranes: reconciling discrepancies.
Benny Wah, Joseph Adams, Jeffrey Breidigan, Li Ge, Piotr Horbal, Lionel Porcar, Sumit Garg, Ursula Perez-Salas

M1.00220: Photo-Regeneration of Severed Gel Using Photo-Controlled Radical Polymerization
Awaneesh Singh, Olga Kuksenok, Jeremiah A. Johnson, Anna C. Balazs

M1.00221: Frictional Properties of UV illuminated ZnO Thin Films Grown by Pulsed Laser Deposition
Hsiang-Chih Chiu, Huan-Pu Chang, Fang-Yu Lo, Yu-Ting Yeh

M1.00222: Fracture of molecular glasses under tension and fracture-induced crystallization
Yinshan Chen, Travis Powell, Lian Yu

M1.00223: Supramolecular Hydrogels from Self-Assembly of di-Fmoc-L-lysine
Seyed Meysam Hashemnejad, Kinsey Naas, Santanu Kundu

M1.00224: Predicting out-of-Equilibrium Phase Behavior in the Dynamic Self-Assembly of Colloidal Crystals
James Swan, Zachary Sherman

M1.00225: Achieving synchronization with active hybrid materials: Coupling self-oscillating gels and piezoelectric films.
Victor V. Yashin, Steven P. Levitan, Anna C. Balazs

M1.00226: Rheological Characterization of Bioinspired Mineralization in Hydrogels
Abigail Regitsky, Niels Holten-Andersen

M1.00227: Hardening and yielding in colloidal gels
Emanuela Del Gado, Jader Colombo, Mehdi Bouzid

M1.00228: Agglomerate Breakdown in Shear Thickening Fluids by Large Amplitude Oscillatory Shear (LAOS)
Ran Tao, Kirk D. Rice, Gale A. Holmes

M1.00229: STATISTICAL AND NONLINEAR PHYSICS

M1.00230: Three Dimensional Observations of Quantum Vortex Dynamics in Superfluid Helium
Peter Megson, Daniel Lathrop

M1.00231: Tension-induced tunable corrugation in bio-inspired two-phase soft composite materials: mechanisms and implications
Ahmed Elbanna, Qianli Chen

M1.00232: Phase correlation in the eigenfunctions of a class of quantum chaotic systems
Jiaozi Wang, Wenge Wang

M1.00233: Harnessing geometric and magnetic nonlinearities in phononic meta-plates
Osama Bilal, Andre Foehr, Chiara Daraio

M1.00234: Propagation of mechanical waves through a stochastic medium with spherical symmetry
Carlos Avendano, Adrian Reyes

M1.00235: A network model of human aging: Limits, errors, and information
Spencer Farrell, Arnold Mitnitski, Kenneth Rockwood, Andrew Rutenberg

M1.00236: Changes in the Distribution of Avalanches on a Conical Bead Pile with Cohesion
Justine Walker, Susan Lehman, Karin Dahmen, Michael LeBlanc, Jonathan Uhl

M1.00237: Improving detection of avalanches on a conical bead pile
Avi Vajpeyi, Susan Lehman, Karin Dahmen, Michael LeBlanc, Jonathan Uhl

M1.00238: Effects of sudden density changes in disordered superconductors and semiconductors
Hiba Assi, Harshwardhan Chaturvedi, Michel Pleimling, Uwe Täuber

M1.00239: Autonomous Brownian motors driven by nonadiabatic variation of internal parameters
Alex Plyukhin

M1.00240: Modeling the Earth: Climate on an Icosphere
Stephanie Fouts, L. Jonathan Cook

M1.00241: Directed Nanopatterning with Nonlinear Laser Lithography
Onur Tokel, Ozgun Yavuz, Emre Ergecen, Ihor Pavlov, Ghaith Makey, Fatih Omer Ilday

M1.00242: purohit@seas.upenn.edu
Xiaojun Liang, Prashant Purohit

M1.00243: Back-and-forth micromotion of aqueous droplets in a dc electric field
Tomo Kurimura, Masatoshi Ichikawa, Masahiro Takinoue, Kenichi Yoshikawa

M1.00244: Phase Transitions in a Model of Y-Molecules Abstract
Danielle Holz, Donovan Ruth, Raul Toral, James Gunton

M1.00245: Estimating topological properties of weighted networks from limited information
Andrea Gabrielli, Giulio Cimini, Diego Garlaschelli, Angelo Squartini

M1.00246: Social Network Influence and Personal Financial Status
Shaojun Luo, Flaviano Morone, Carlos Sarraute, Hernan Makse

M1.00247: Statistical Mechanics of Japanese Labor Markets
He Chen

M1.00248: Agitated granular rod monolayers: Tetratic or uniaxial nematic?
Thomas Mueller, Daniel de las Heras, Ingo Rehberg, Kai Huang

M1.00249: Buckling of Patterned Top Films
Dokyeong Kwon, Hyo Seon Suh, Kookheon Char

M1.00250: Triggered Snap-Through of Bistable Shells
Yijie Cai, Shicheng Huang, Ian Trase, Nan hu, Zi Chen

M1.00251: Cook-Levin Theorem Algorithmic-Reducibility/Completeness = Wilson Renormalization-(Semi)-Group Fixed-Points; "Noise"-Induced Phase-Transitions (NITs) to Accelerate Algorithmics ("NIT-Picking") Replacing Crutches!!!: Models: Turing-machine, finite-state-models, finite-automata.
Frederic Young, Edward Siegel

M1.00252: Thermodynamics and Phase Transitions of Ising Model on Inhomogeneous Stochastic Recursive Lattice
Ran Huang

M1.00253: Nonlinear dynamics of Bohmian trajectories in a double-well potential
O. F. de Alcantara Bonfim, Joao Florencio

M1.00254: Nematic-columnar phase transition in oriented hard rectangles
Trisha Nath, Deepak Dhar, R. Rajesh

M1.00255: BIOLOGICAL PHYSICS

M1.00256: Single-molecule studies of collagen mechanics
Nancy Forde, Naghmeh Rezaei, Michael Kirkness

M1.00257: Population Dynamics of Viral Inactivation
Krista Freeman, Dong Li, Manja Behrens, Kiril Streletzky, Ulf Olsson, Alex Evilevitch

M1.00258: Theory of sequence-dependent scaling and confinement of viral RNA molecules
Joshua Kelly

M1.00259: Convex Lens-induced Confinement to Visualize Biopolymers and Interaction Parameters
Frank Stabile, Daniel Berard, Gil Henkin, Marjan Shayegan, François Michaud, Sabrina Leslie

M1.00260: Slow Domain Motions of an Oligomeric Protein from Deep-Sea Hyperthermophile probed by Neutron Spin Echo
Debsindhu Bhowmik, Utsab Shrestha, Gurpreet Dhindsa, Melissa Sharp, Laura R. Stingaciu, Xiang-QiangChu

M1.00261: Replica-exchange Wang-Landau simulations of the H0P lattice protein model
Guangjie Shi, Thomas Wúst, Ying Wai Li, David P. Landau

M1.00262: Identifying paths of allosteric communication in the protein BirA through simulations
Gregory Custer, Dorothy Beckett, Silvina Matysiak

M1.00263: Mechanical Properties of Silver Coated Electro-Spun composite Scaffolds for Antibacterial Applications
Parvathalu Kalakonda

M1.00264: Modeling Hand-Over-Hand and Inchworm Steps in Myosin VI
Amanda Jack, Ian Lowe, Riina Tehver

M1.00265: Synchrotron radiation circular dichroism spectroscopy study of recombinant Tβ4 folding
Yung-Chin Huang, Hsueh-Liang Chu, Peng-Jen Chen, Chia-Ching Chang

M1.00266: Structural Properties of Human CaMKII Ca2 + /Calmodulin-Dependent Protein Kinase II using X-ray Crystallography
Yumeng Melody Cao, Ethan McSpadden, John Kuriyan

M1.00267: Nanomechanics of Protein Unfolding outside Protease Nanopores
Binquan Luan, Ruhong Zhou

M1.00268: Coarse Graining to Investigate Membrane Induced Peptide Folding of Anticancer Peptides
Sai Ganesan, Hongcheng Xu, Silvina Matysiak

M1.00269: Group transfer theory of single molecule imaging experiments in the F-ATPase biomolecular motor
Sandor Volkan-Kacso, Rudolph Marcus

M1.00270: Molecular Dynamics Simulation and Statistics Analysis Reveals the Defense Response Mechanism in Plants
Zhichao Liu, Yunjie Zhao, Chen Zeng

M1.00271: Multiscale modeling of three-dimensional genome
Bin Zhang, Peter Wolynes

M1.00272: Quantifying the DNA binding characteristics of ruthenium based threading intercalator λ λ-P with optical tweezers
Nicholas Bryden, Micah McCauley, Fredrik Westerlund, Per Lincoln, Ioulia Rouzina, Mark Williams, Thayaparan Paramanathan

M1.00273: Temperature Dependent Rotational Correlation in Lipids
Christina Othon, Neda Dadashvand, Eduardo Vega Lozada

M1.00274: A study of the eigenvectors of low frequency vibrational modes in crystalline cytidine via high pressure infrared absorption and molecular dynamics simulations.
Carl Starkey, Kristina Woods, Scott Lee

M1.00275: Computational Study of Pseudo-phosphorylation of the Microtubule associated Protein Tau
Dmitriy Prokopovich, Luca Larini

M1.00276: Quantum Computational Calculations of the Ionization Energies of Acidic and Basic Amino Acids: Aspartate, Glutamate, Arginine, Lysine, and Histidine.
C. P. De Guzman, M. Andrianarijaona, Y. S. Lee, V. Andrianarijaona

M1.00277: Aggregation propensity of critical regions of the protein Tau
Micaiah Muthee, Azka Ahmed, Luca Larini

M1.00278: A Novel Approach for Computing Cross-Sections in Ion-Mobility Measurements
Luca Larini, Oscar Marin

M1.00279: Single molecule fluorescence studies of transition paths in DNA hairpin folding
Katherine Truex, Hoi Sung Chung, John Louis, William Eaton

M1.00280: Electrical Heart Defibrillation with Ion Channel Blockers
Erin Feeney, Courtney Clark, Steffan Puwal

M1.00281: Dynamics of driven transitions between minima of a complex energy landscapes
Sai Teja Pusuluri, Alex H Lang, Pankaj Mehta, Horacio E Castillo

M1.00282: Anomalous motor mediated cargo transport in microtubule networks
Steven Vandal, Daniel MacVeigh-Fierro, Zhiyuan Shen, Kyle Lemoi, Luis Vidali, Jennifer Ross, Erkan Tuzel

M1.00283: Water - Based TiO_2 Suspensions: A Raman Study
Roberto Rangel, Dorina Chipara, Brian Yust, Desiree Padilla, Mircea Chipara

M1.00284: The broadcasting mechanism of master regulator NFκβ switches.
Davit Potoyan

M1.00285: Processing oscillatory signals by incoherent feedforward loops
Carolyn Zhang, Feilun Wu, Ryan Tsoi, Igor Shats, Lingchong You

M1.00286: Shock wave irradiations avoiding fluid flow evoke intracellular Ca2+ signaling
Toru Takahashi, Akira Tsukamoto, Shigeru Tada

M1.00287: Dynamics of phenotypic reversibility of bacterial cells with oscillating hydrostatic pressure
Sudip Nepal, Pradeep Kumar

M1.00288: Chiral pattern formation in compact microbial colonies
Kirill Korolev, Ashish Bino George

M1.00289: Adhesion of Mycobacterium smegmatis to Charged Surfaces and Diagnostics Implications.
Diane Gorse, Ali Dhinojwala, Francisco Moore

M1.00290: Cell motility and antibiotic tolerance of bacterial swarms
Wenlong Zuo

M1.00291: The Effect of Graphene Oxide/Reduced Graphene Oxide Functionalized with Metal Nanoparticles on Dermal, Bacterial, and Cancerous/Non-Cancerous Epithelial Cells
Arthur Chen, Miriam Rafailovich, Marcia Simon, Rebecca Isseroff, Stephen Walker, Jae Hee Cho, John Jerome

M1.00292: The functional consequences of non-genetic diversity in cellular navigation
Thierry Emonet, Adam J Waite, Nicholas W Frankel, Yann Dufour, Jessica F Johnston

M1.00293: Allosteric Small-Molecule Inhibitors of the AKT Kinase
D. S. Dalafave

M1.00294: Effects of Chemotherapy-Induced Alterations in Cell Mechanical Properties on Cancer Metastasis
Sruti Prathivadhi, Andrew Ekpenyong, Michael Nichols, Carolyn Taylor, Jianhao Ning

M1.00295: Collective motion in Proteus mirabilis swarms
Xu Haoran

M1.00296: Swimming and transport of bacteria in time-periodic flows
Rebecca Winter, Alison Patteson, David Gagnon, Paulo Arratia

M1.00297: Emergence of collective motion in bacterial suspensions
Liu Song

M1.00298: Effect of microemulsions on cell viability of human dermal fibroblasts
Juyi Li, Tatsiana Mironava, Marcia Simon, Miriam Rafailovich, Nissim Garti

M1.00299: Experimental evolution of E. coli
Mengshi Zhang

M1.00300: Centrosome Positioning in 1D Cell Migration
Katrina Adlerz, Helim Aranda-Espinoza

M1.00301: Active microrheology reveals molecular-level variations in the viscoelastic properties of *Chaetopterus* mucus
William Weigand, Ashley Messmore, Rae Anderson

M1.00302: Regulation of muscle contraction by Drebrin-like protein 1 probed by atomic force microscopy.
Renata Garces, Eugenia Butkevich, Mitja Platen, Christoph F. Schmidt

M1.00303: Quantifying Microtentacle Dynamics for Non-adherent Tumor Cells
Eleanor Ory, Desu Chen, Kristi Chakrabarti, Stuart Martin, Wolfgang Losert

M1.00304: Measuring shear force transmission across a biomimetic glycocalyx
Isabel Bray, Dylan Young, Jan Scrimgeour

M1.00305: Micro-mechanical model for the tension-stabilized enzymatic degradation of collagen tissues
Thao Nguyen, Jeffery Ruberti

M1.00306: Mechanical model of kinesin moving on microtubule
Kiwing To, Ya-Chang Chou, Yi-Feng Hsiao, Kuan-Hua Chen

M1.00307: Food category consumption and obesity prevalence across countries: an application of Machine Learning method to big data analysis.
Jocelyn Dunstan, Saeideh Fallah-Fini, Claudia Nau, Thomas Glass

M1.00308: An analytically tractable model for community ecology with many species
Benjamin Dickens, Charles Fisher, Pankaj Mehta

M1.00309: Speeding up evolution
Wouter Hoff

M1.00310: Population heterogeneity promotes a preference for blind cooperation
Alfonso Perez-Escudero, Jonathan Friedman, Jeff Gore

M1.00311: Complex sound stimuli representation by small neural groups in subcortical auditory structure
Dominika Lyzwa

M1.00312: A phylogenetic study of the section moduli of the humerus in bipedal theropod dinosaurs.
Scott Lee, Zachary Richards

M1.00313: Physics of the Brain: Interaction of the Optical-Fiber-Guided Multi-Ultraviolet-Photon Beams with the Epilepsy Topion, (the Seizure Onset Area)
V. Alexander Stefan

M1.00314: Asynchronous electrical activity in epileptic seizures
Katherine Holman, Eugene Lim, Stephen Gliske, William Stacey, Christian Fink

M1.00315: Columnar organization of orientation domains in V1
Joscha Liedtke, Fred Wolf

M1.00316: A Topological Perspective of Neural Network Structure
Ann Sizemore, Chad Giusti, Matthew Cieslak, Scott Grafton, Danielle Bassett

M1.00317: Automated Region of Interest Detection of Fluorescent Neurons for Optogenetic Stimulation
Jonathan Mishler, Dietmar Plenz

M1.00318: An in vivo analysis of facial muscle change treated with botulinum toxin type A using digital image speckle correlation
yan Xu, samantha palmaccio palmaccio, Duc Bui, Alexander Dagum, Miriam Rafailovich

M1.00319: Learning physical biology via modeling and simulation: A new course and textbook for science and engineering undergraduates
Philip Nelson

M1.00320: Light, Imaging, Vision: An interdisciplinary undergraduate course
Philip Nelson

M1.00321: A Comparative Study Environmental and Radiological Causes Of Cancer In River Nile State, Sudan
Eyad Hamid, Hatim Khair

M1.00322: Dissociative Electron Attachment
Esmeralda Arreola

M1.00323: ENERGY RESEARCH AND APPLICATIONS

M1.00324: Photocurrent Enhancement in the ICG Dye Sensitized ZnO Nanowire Device
Gen Long, Michael Beattie, Huizhong Xu, Mostafa Sadoqi

M1.00325: DFT+U Modeling of Hole Polarons in Organic Lead Halide Perovskites
Eric Welch, Paul Erhart, Luisa Scolfaro, Alex Zakhidov

M1.00326: Photovoltaic conversion via hot electron induced thermionic emission from quantum dots
Andrei Sergeev, Kimberly Sablon

M1.00327: Strain-induced tuning of surface energetics, electron conductivity and reduction drive in spinel $LiMn_2O_4$ cathodes
Ivan Scivetti, Gilberto Teobaldi

M1.00328: Defect physics vis-á-vis electrochemical performance in layered mixed-metal oxide cathode materials
Khang Hoang, Michelle Johannes

M1.00329: Modified Graphene Oxide for Long Cycle Sodium-Ion Batteries
Muhamed Shareef, Harrison Gunn, Victoria Voigt, Gurpreet Singh

M1.00330: Use of TiO_2 nano particles in Sulfur electrodes to enhance cyclability of Li-S batteries
Ruchira Dharmasena, Gamini Sumanasekera, Jacek Jasinski, Arjun Thapa, Mahendra Sunkara

M1.00331: Incorporation of Platinum and Gold Partially Reduced Graphene Oxide in Polymer

Electrolyte Membrane Fuel Cells for Increased Carbon Monoxide Tolerance
Lee Blackburn, Rebecca Isseroff, Miriam Rafailovich, Jaymo Kang, Hongfei Li, Molly Gentleman, Qaio Qaio

M1.00332: Harvesting Energy from the Flow-Induced Flutter of a `Piezoleaf'
Andre Ruas, Santiago Orrego, Kyle Doran, Aaron Rips, Kourosh Shoele, Sung Hoon Kang, Rajat Mittal

M1.00333: High Temperature Concentrated Solar Power Using Liquid Metal; nAsegun Henry

M1.00334: Cadmium Telluride Solar Cells with PEDOT:PSS Back Contact
Michael Mount, Fernanda Duarte, Naba Paudel, Yanfa Yan, Weining Wang

M1.00335: Interface Conductance Modal Analysis
Asegun Henry

M1.00336: Transport and thermoelectric properties of hot-pressed $SnSe_2$
Nguyen Van Quang, Nguyen Thi Minh Hai, Duong Anh Tuan, Duong Van Thiet, Cho Sunglae, Song Jae Yong, Park Hyunmin

M1.00337: Correlation between dimensional crossover and thermoelectric performance in conducting polymer
Junhyeon Jo, In-Seon Oh, Mi-Jin Jin, Jung-Woo Yoo

M1.00338: Hydrogen Concentration and Strain Fields Near Fatigue Cracks in Pipeline Steel Measured Via Neutron Imaging
Matthew Connolly, Andrew Slifka, Elizabeth Drexler

M1.00339: Structural And Magnetic Properties In Off-Stoichiometric MnNiGe Based Thin Film And Bulk Compounds
Anil Aryal, Abdiel Quetz, Sudip Pandey, Igor Rodionov, Valerii Prudnikov, Tapas Samanta, Alexander Granovsky, Andrei Sokolov, Igor Dubenko, Shane Stadler, Naushad Ali

M1.00340: Efficiency, Power and Period of a model quantum heat engine working in a finite time
Mulugeta Bekele, Tolasa A Dima, Mekuannent Alemye, Warga Chegeno

M1.00341: Enhancing photovoltaic efficiency through radiative cooling of solar cells below ambient temperature.
Taqiyyah Safi, Jeremy Munday

M1.00342: Li-air, rechargeable, solid-state batteries using graphene and boron nitride aerogel matrices.
Onur Ergen, Thang thoan pham, Sally Demaio-turner, Alex Zettl

M1.00343: Experimental characterization of a small custom-built double-acting gamma-type stirling engine.
Peter Intsiful, Francis Mensah, Arthur Thorpe

M1.00344: Effects of pH on the characteristics of ZnS thin films grown by using the CBD method
Heejin Ahn, Dongchan Lee, Sujung Park, Youngho Um

M1.00345: Silicon and phosphorus dual doped graphene as the promising metal-free catalysts for oxygen reduction reaction
Zhansheng Lu, Shuo Li, Zongxian Yang, Ruqian Wu

M1.00346: Lattice-Boltzmann-based Simulations of Diffusiophoresis
Joshua Castigliego, Jennifer Kreft Pearce

M1.00347: Electro-responsive supramolecular graphene oxide hydrogels for active bacteria adsorption and removal
Bin Xue, Yi Cao, Wei Wang

M1.00348: From Compartmentalized to Agent-based Models of Epidemics
Charles Macal

M1.00349: Analytical vacuum force, atmospheric pressure dispute; Han Yongquan

M1.00350: Observation of anomalous dielectric properties in low-dimensional spin 1/2 α-$Cu_2V_2O_7$

magnetic system; Yu-Jen Chen, Kakarla-Devi Chandrasekhar, Ko-Jung Fan, Jiunn-Yuan Lin, Jenn-Min Lee, Jin-Ming Chen, Hung-Duen Yang

M1.00351: Quantum antiferromagnetic Heisenberg half-odd integer spin model as the entanglement Hamiltonian of the Affleck-Kennedy-Lieb-Tasaki valence bond solid states; Guang-Ming Zhang

M1.00352: The flexibility of Daubechies wavelets for Linear Scaling DFT calculations
Luigi Genovese, Stephan Mohr, Laura Elisabeth Ratcliff, Damien Caliste, Thierry Deutsch, Stefan Goedecker

M1.00353: Interdependent Lattice Networks in High Dimensions
Steven Lowinger, Gabriel Cwilich, Sergey Buldyrev

M1.00354: Behavioral analysis of the escape response in larval zebrafish
Ruopei Feng, Kiran Girdhar, Yann Chemla, Martin Gruebele

M1.00355: Synchronization modulation of Na/K pumps on Xenopus oocytes
Pengfei Liang, Jason Mast, Wei Chen

M1.00356: Kinetic inductance parametric up-converter
Aditya Kher, Peter Day, Byeong Ho Eom, Jonas Zmuidzinas, H. G. Leduc

M1.00357: Atomistic study on the generation and gliding properties of pyramidal dislocations in magnesium; Hideo Kaburaki, Mitsuhiro Itakura, Masatake Yamaguchi

M1.00358: Outdoor concert hall sound design: idea and possible solutions
Yang-Hann Kim, Jung-Min Lee, Wanjung Kim, Hwan Kim, Jung-Woo Choi, Semyung Wang

M1.00359: Multiscale modeling of nanostructured ZnO based devices for optoelectronic applications: Dynamically-coupled structural fields, charge, and thermal transport processes.
Abdulmuin Abdullah, Saad Alqahtani, Md Rezaul Karim Nishat, Shaikh Ahmed

M1.00360: ZnO nanowire-based CO sensor
Mon-Shu Ho, Wei-Hao Chen, Yu-Lin Chen, Meng-Fan Chang

M1.00361: Neutron Imaging Studies of In Situ Growth of Neutron and Gamma Detector Materials
Nicholas Strange, Christopher Crain, Fatema Wahida, Zach Stroupe, J.Z. Larese

M1.00362: Investigation of Natural *Bombyx mori* Silk Fibroin Proteins Using INS
Christopher Crain, Nicholas Strange, J.Z. Larese

M1.00363: Study of the nanosurface properties by analyzing its absorption and scattering cross-section.
Irina Bariakhtar

M1.00364: Controlling Spin State of Magnetic Molecules by Oxygen Binding Studied Using Scanning Tunneling Microscopy
Soon-Hyeong Lee, Yun Hee Chang, Howon Kim, Kyung Min Kim, Yong-Hyun Kim, Se-Jong Kahng

M1.00365: Spotting the Gel Point of Photopolymers by Examining NMR Relaxation
Jack Lee, Gretchen Hofmeister, Martha-Elizabeth Baylor

M1.00366: Observation of Voltage Oscillations in VO_2 with Negative Differential Resistance
Dae-Joon Kang, Hyoung Woo Yang, Garam Bae

M1.00367: Cloisite 30B as Nanoclay Compatibilizer for Polysulfone/Polyimide Blend Films.
Ali Ammar, Ahmed Elzatahry, Mariam Al-Maadeed, Abdullah Alenizi, Karim Alamgir

M1.00368: Electronic state modulation of iron selenide by intercalating copper
Kaya Kobayashi, Y Ito, F Nagai, S Matsumoto, T Kambe, Y Benino, T Namba

M1.00369: Boson Sampling with Trapped Ions
Katherine Collins, Kenneth Wright, Christopher Rickerd, Christopher Monroe

M1.00370: Block Copolymer-Based Supramolecular Elastomers with High Extensibility and Large Stress Generation Capability; Atsushi Noro, Mikihiro Hayashi

M1.00371: Continued Growth on Graphene Edges
Zhengtang Luo

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P12 Invited Session: Bridging Time and Length Scales in Polymers and Soft Materials: Computational Pathways to Accelerate the Lab to Fab Transition - Industry Day

Sponsoring Units: DPOLY DCOMP FIAP
Chair: Dvora Perahia, Clemson University
Room: *308*

2:30PM - 3:06PM	P12.00001: Spanning From Atoms to Micrometers in Simulations of Contact, Adhesion and Friction **Invited Speaker**: Mark Robbins
3:06PM - 3:42PM	P12.00002: Multiscale realistic approach to modeling soft materials in industry **Invited Speaker**: Pieter in 't Veld
3:42PM - 4:18PM	P12.00003: Complex Suspension Rheology Using High Performance Computing **Invited Speaker**: David Heine
4:18PM - 4:54PM	P12.00004: Conduction and Narrow Escape in Dense, Disordered, Particulate-based Heterogeneous Materials **Invited Speaker**: Jeremy Lechman
4:54PM - 5:30PM	P12.00005: Coarse-graining to the meso and continuum scales with molecular-dynamics-like models **Invited Speaker**: Steve Plimpton

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P33 Organic Electronics and Photonics - Structure-Property Relationships

Sponsoring Units: DPOLY
Chair: Diru Ratnaweera, University of Sri Jayewardenepura, Sri Lanka
Room: *336*

2:30PM - 2:42PM	P33.00001: Molecular dynamics simulations for the study of optical properties in conjugated semiconducting molecules Jack Wildman , Jean-Christophe Denis , Peter Repiŝĉák , Martin J. Paterson , Ian Galbraith
2:42PM - 2:54PM	P33.00002: Directed self-assembly of π -conjugated oligopeptides for supramolecular electronics. Bo Li , Songsong Li , Yuecheng Zhou , John Tovar , William Wilson , Charles Schroeder
2:54PM - 3:06PM	P33.00003: In-situ observation of dynamic processes during organic semiconductor thin film deposition and strain-stabilization of metastable states Yang Li , Jing Wan , Detlef-M. Smilgies , Nicole Bouffard , Richard Sun , Randall Headrick
3:06PM - 3:18PM	P33.00004: Transient phases during crystallization of solution-processed organic thin films Jing Wan , Yang Li , Jeffery Ulbrandt , Detlef-M Smilgies , Jonathan Hollin , Adam Whalley , Randall Headrick
3:18PM - 3:30PM	P33.00005: Critical Role of Processing on the Thermoelectric Performance of Doped Semiconducting Polymers Shrayesh Patel , Anne Glaudell , Michael Chabinyc
3:30PM - 3:42PM	P33.00006: Influence of Molecular Shape on Molecular Orientation and Stability of Vapor-Deposited Organic Semiconductors Diane M. Walters , Noah D. Johnson , M. D. Ediger
3:42PM - 3:54PM	P33.00007: Selective crystallization of conjugated polymers into nanowires from graphene coated surfaces. Daniel Acevedo-Cartagena , Jiaxin Zhu , Elvira Trabanino , Emily Pentzer , Todd Emrick , Alejandro Briseño , Stephen Nonnenmann , Ryan Hayward
3:54PM - 4:06PM	P33.00008: Surface induced alignment for semiflexible polymers Wenlin Zhang , Enrique Gomez , Scott Milner
4:06PM - 4:18PM	P33.00009: Revealing molecular order inside and between PBTTT nanoribbons through the polarized X-ray scattering Brian Collins , Dean Delongchamp
4:18PM - 4:30PM	P33.00010: Charge Transport in Conjugated Block Copolymers Brandon Smith , Thinh Le , Youngmin Lee , Enrique Gomez
4:30PM - 4:42PM	P33.00011: Selective crystallization of regioregularity controlled polythiophene for enhancing mechanical stability and electronic performance. Hyeong Jun Kim , Hojeong Yu , Jae Han Kim , Jin-Sung Kim , Taek Soo Kim, Joon Hak Oh , Bumjoon Kim
4:42PM - 4:54PM	P33.00012: Regio regularity effects on chain mobility and entanglement for poly(3-hexylthiophene) Renxuan Xie , Enrique Gomez , Ralph Colby

4:54PM - 5:06PM	P33.00013: Controlling the out-of-plane orientation of solution-processed organic semiconductor crystals Xiaoshen Bai , Megan Hand , Jack Ly , Alejandro Briseno , Stephanie Lee
5:06PM - 5:18PM	P33.00014: Birefringence and Enhanced Stability in Stable Organic Glasses Tianyi Liu , Annemarie Exarhos , Kevin Cheng , Tiezheng Jia , Patrick Walsh, Jay Kikkawa , Zahra Fakhraai
5:18PM - 5:30PM	P33.00015: Traversing the polymorphic landscape through tuning molecule-molecule, molecule-substrate and molecule-solvent interactions Geoffrey Purdum , Thomas Gessner , R. Thomas Weitz , Yueh-Lin Loo

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P34 Focus Session: Biopolymers and Biohybrid Polymers - Assembly and Thermodynamics

Sponsoring Units: DPOLY
Chair: Muzhou Wang, NIST
Room: *337*

2:30PM - 2:42PM	P34.00001: Thermodynamics, morphology, and kinetics of early- stage self-assembly of pi-conjugated oligopeptides Bryce Thurston , John Tovar , Andrew Ferguson
2:42PM - 2:54PM	P34.00002: Bridging Length Scales to Study Self-Assembly and Self-Organization Bryan Kaye
2:54PM - 3:06PM	P34.00003: Creating Ordered Antibody Arrays with Antibody-Polymer Conjugates. Xuehui Dong , Allie Obermeyer , Bradley Olsen
3:06PM - 3:18PM	P34.00004: Self-assembly of Artificial Actin Filaments Christopher Grosenick , Shengfeng Cheng
3:18PM - 3:30PM	P34.00005: Intermediate-filaments: from disordered building blocks to well-ordered cells. Micha Kornreich , Eti Malka-Gibor , Adi Laser-Azogui , Ofer Doron , Ram Avinery , Harald Herrmann , Roy Beck
3:30PM - 3:42PM	P34.00006: The effect of local melting of DNA on DNA loop formation Jiyoun Jeong , Harold Kim
3:42PM - 3:54PM	P34.00007: Effect of Backbone Design on Hybridization Thermodynamics of Oligo-nucleic Acids: A Coarse-Grained Molecular Dynamics Simulation Study Ahmadreza F. Ghobadi , Arthi Jayaraman
3:54PM - 4:06PM	P34.00008: Pore Diameter Dependence and Segmental Dynamics of Poly-Z-L-lysine and Poly-L-alanine Confined in 1D Nanocylindrical Geometry Eylul tuncel , Yasuhito Suzuki , Agathaggelos Iossifidis , Martin Steinhart , Hans-Jurgen Butt , George Floudas , Hatice Duran
4:06PM - 4:18PM	P34.00009: Effects of spermine binding on Taxol-stabilized microtubules Shengfeng Cheng , Chola Regmi
4:18PM - 4:54PM	P34.00010: Tuning the entropic spring to dictate order and functionality in polymer conjugated peptide biomaterials **Invited Speaker**: Sinan Keten
4:54PM - 5:06PM	P34.00011: Thermal Properties of Silk Fibroin Using Fast Scanning Calorimetry Peggy Cebe , Benjamin Partlow , David Kaplan , Andreas Wurm , Evgeny Zhuravlev , Christoph Schick
5:06PM - 5:18PM	P34.00012: Long-term Controlled Drug Release from bi-component Electrospun Fibers Shanshan Xu , Zixin Zhang , Qinghua Xia , Charles Han
5:18PM - 5:30PM	P34.00013: Correlation Between Chain Architecture and Hydration Water Structure in Polysaccharides Michael Grossutti , John Dutcher

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P37 Soft Matter Interfaces: Bio-, Dielectrics, Transport and Other Phenomena

Sponsoring Units: GSOFT DPOLY
Chair: Silvina Matysiak, University of Maryland, College Park
Room: *340*

2:30PM - 2:42PM	P37.00001: Nonlinear transport of soft droplets in pore networks Franck Vernerey , Eduard Benet Cerda , Kanghyeon Koo
2:42PM - 2:54PM	P37.00002: Simulation of non-ionic surfactant micelle formation across a range of temperature and pressure Gregory Custer , Payel Das , Silvina Matysiak
2:54PM - 3:06PM	P37.00003: On the pH of Aqueous Attoliter-Volume Droplets Kieran P. Ramos , Samson S. Velpula , Trevor B. Demille , Ryan Pajela , Lori S. Goldner
3:06PM - 3:18PM	P37.00004: Electrolyte-mediated adsorption to neutral and dielectric interfaces Jos Zwanikken , Yufei Jing , Vikram Jadhao , Monica Olvera de la Cruz
3:18PM - 3:30PM	P37.00005: Dipolar fluids near a dielectric surface Ziwei Wang , Erik Luijten
3:30PM - 3:42PM	P37.00006: Dielectric effects on the ion distribution near a Janus colloid Huanxin Wu , Ming Han , Erik Luijten
3:42PM - 3:54PM	P37.00007: Preventing Oxide Adhesion of Liquid Metal Alloys to Enable Actuation in Microfluidic Systems Ishan Joshipura , Alexander Johnson , Hudson Ayers , Michael Dickey
3:54PM - 4:06PM	P37.00008: Confining capillary waves to control aerosol droplet size from surface acoustic wave nebulisation Elijah Nazarzadeh , Julien Reboud , Rab Wilson , Jonathan M. Cooper
4:06PM - 4:18PM	P37.00009: Scaling Laws for liquid and ion transport in nanochannels grafted with polyelectrolyte brushes Guang Chen , Shayandev Sinha , Siddhartha Das
4:18PM - 4:30PM	P37.00010: Entropic changes in liquid gallium clusters: understanding the anomalous melting temperatures Nicola Gaston , Krista Steenbergen
4:30PM - 4:42PM	P37.00011: Thermocapillary Technique for Shaping and Fabricating Optical Ribbon Waveguides Kevin Fiedler , Sandra Troian
4:42PM - 4:54PM	P37.00012: Relaxations of star-shaped polystyrene melts approaching the colloidal limit Kyle Johnson , Emmanouil Glynos , Georgios Sakellariou , Peter Green
4:54PM - 5:06PM	P37.00013: The origin of star-shaped oscillations of Leidenfrost drops Xiaolei Ma , Justin C. Burton
5:06PM - 5:18PM	P37.00014: The intrinsic structure of liquid interfaces Marcello Sega , Pal Jedlovszky , Balazs Fabian , George Horvai
5:18PM - 5:30PM	P37.00015: Out of equilibrium GigaPa Young modulus of water nanobridge probed by Force Feedback Microscopy Simon Carpentier , Mario S.Rodrigues , Miguel Vitorino , Luca Costa , Elisabeth Charlaix , Joel Chevrier

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P38 Focus Session: Glasses Altered by Interfaces II

Sponsoring Units: DPOLY GSOFT
Chair: Mesfin Tsige, University of Akron
Room: *341*

2:30PM - 2:42PM	P38.00001: In Situ Analysis of the Glass Transition Temperature of Irreversibly Adsorbed Polymer Nanolayers Mary Burroughs , Rodney Priestley
2:42PM - 2:54PM	P38.00002: Tailoring Glassy Dynamics on the Nanoscale: Covalent Bonding versus Physical Adsorption in Polymer-based Nanocomposites Adam Holt , Vera Bocharova , Shiwang Cheng , Alexander Kisliuk , Adam Imel , Thusithia Etampawala , Tyler White , Tomonori Saito , Nicole Sikes , Mark Dadmun , Alexei Sokolov
2:54PM - 3:06PM	P38.00003: Polymer Dynamics Effects on Solute Transport in Hairy Nanoparticle Membranes Eileen Buenning , Connor Bilchak , Christopher Durning , Brian Benicewicz , Alexei Sokolov , Sanat Kumar
3:06PM - 3:42PM	P38.00004: Effect of Molecular Architecture on Polymer Melt Surface Dynamics **Invited Speaker**: Mark Foster
3:42PM - 3:54PM	P38.00005: Relaxation processes and glass transition in confined 1,4-polybutadiene films: A Molecular Dynamics study Wolfgang Paul , Mathieu Solar
3:54PM - 4:06PM	P38.00006: Unusual Molecular Weight Dependence to the Physical Aging of Thin Polystyrene Films; Michael Thees , Connie Roth
4:06PM - 4:18PM	P38.00007: Effects of molecular weight and tacticity on the Tg of poly(methyl methacrylate) films supported by silica Kun Geng , Fei Chen , Ophelia Tsui
4:18PM - 4:30PM	P38.00008: Chain conformation near the substrate interface in nanoparticle stabilized polymer thin films Deborah Barkley , Mani Sen , Naisheng Jiang , Maya Endoh , Tadanori Koga, Guangcui Yuan , Sushil Satija , Yugang Zhang , Oleg Gang , Alamgir Karim
4:30PM - 4:42PM	P38.00009: The Effect of Acid-Base Interactions on Conformation of Adsorbed Polymer Chains Nishad Dhopatkar , He Zhu , Ali Dhinojwala
4:42PM - 4:54PM	P38.00010: Surfactants at Single-Walled Carbon Nanotube-Water Interface: Physics of Surfactants, Counter-Ions, and Hydration Shell Ketan S. Khare , Frederick R. Phelan Jr.
4:54PM - 5:06PM	P38.00011: Polyethylene oxide hydration in grafted layers. Elena Dormidontova , Zilu Wang
5:06PM - 5:18PM	P38.00012: The Unusual Conformational Behavior of Polyzwitterionic Brushes in Aqueous Solutions Jun Mao , Wei Chen , Guangcui Yuan , Jing Yu , Matthew Tirrell
5:18PM - 5:30PM	P38.00013: Homopolymer Adsorption on Hexagonal Surfaces: A Replica-Exchange Monte Carlo Study Benjamin Liewehr , Michael Bachmann

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P41 Focus Session: Physics of Proteins: Structure and Dynamics I

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Corey O'Hern, Yale University
Room: *344*

2:30PM - 3:06PM	P41.00001: Infrared Structural Biology: Detect Functionally Important Structural Motions of Proteins **Invited Speaker**: Aihua Xie
3:06PM - 3:18PM	P41.00002: Quantifying the Energy Landscape Statistics in Proteins - a Relaxation Mode Analysis Zhikun Cai , Yang Zhang
3:18PM - 3:30PM	P41.00003: The Onset of Collective Structural Vibrations at the Protein Dynamical Transition Mengyang Xu , Katherine A. Niessen , Yanting Deng , Nigel S. Michki , Edward H. Snell , Andrea G. Markelz
3:30PM - 3:42PM	P41.00004: Structural and Dynamic Analysis on IDPs by Modified AWSEM-MD Hao Wu , Garegin Papoian
3:42PM - 3:54PM	P41.00005: Capturing high temperature protein conformations for low-temperature study using ultra-fast cooling David Moreau , Hakan Atakisi , Robert Thorne
3:54PM - 4:06PM	P41.00006: Protein Conformational Entropy is Independent of Solvent Nathaniel Nucci , Veronica Moorman , John Gledhill , Kathleen Valentine , A. Joshua Wand
4:06PM - 4:18PM	P41.00007: Moving in the Right Direction: Evolution of Protein Structural Vibrations with Functional State and Mutation Katherine Niessen , Mengyang Xu , Edward Snell , Andrea Markelz
4:18PM - 4:30PM	P41.00008: The Molecular Dynamics Study of the Structural Conversions in the Transformer Protein RfaH Jeevan GC , Bernard Gerstman , Prem Chapagain
4:30PM - 4:42PM	P41.00009: Motional displacements in proteins incorporating dynamical diversity Derya Vural , Jeremy Smith , Henry Glyde
4:42PM - 4:54PM	P41.00010: Microsecond dynamics of mismatch repair proteins Freddie Salsbury , William Thompson
4:54PM - 5:06PM	P41.00011: Intermediate State Dependence of Intramolecular Vibrations in Photoactive Yellow Protein Yanting Deng , Mengyang Xu , Katherine Niessen , Marius Schmidt , Andrea Markelz
5:06PM - 5:18PM	P41.00012: Structure and dynamics of Ebola virus matrix protein VP40 by a coarse-grained Monte Carlo simulation Ras Pandey , Barry Farmer
5:18PM - 5:30PM	P41.00013: Effects of pressure on the dynamics of a hyperthermophilic protein revealed by quasielastic neutron scattering U. R. Shrestha , D. Bhowmik , J. R. D. Copley , M. Tyagi , J. B. Leao , X.-Q. Chu

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P42 Focus Session: Small Molecule Transport in Polymers and Polymer Nanocomposites I

Sponsoring Units: DPOLY, FIAP
Chair: Praveen Agarwal, Dow Chemical Company
Room: *345*

2:30PM - 2:42PM	P42.00001: Chemical and Temperature Effects on Diffusion in a Model Polymer/Nanoparticle Composite Dustin Janes , Christopher Durning
2:42PM - 2:54PM	P42.00002: Controlling Free Volume for Permeability enhancement in Polymer-Grafted Nanocomposites Connor Bilchak , Eileen Buenning , Sanat Kumar , Christopher Durning , Brian Benicewicz
2:54PM - 3:06PM	P42.00003: Gas Transport in Polymer-Grafted Nanoparticles Kai Zhang , Sanat Kumar
3:06PM - 3:42PM	P42.00004: Understanding transport in model water desalination membranes **Invited Speaker**: Edwin Chan
3:42PM - 3:54PM	P42.00005: Salt transport properties of model reverse osmosis membranes using electrochemical impedance spectroscopy Kathleen Feldman , Edwin Chan , Gery Stafford , Christopher Stafford
3:54PM - 4:06PM	P42.00006: Using Indentation to Characterize Water Transport and Structure in Nafion Thin Films Eric Davis , Nichole Nadermann , Kirt Page , Christopher Stafford , Edwin Chan
4:06PM - 4:18PM	P42.00007: Water and polymer dynamics in highly crosslinked polyamide membranes Bradley Frieberg , Edwin Chan , Madhu Tyagi , Christopher Stafford , Christopher Soles
4:18PM - 4:30PM	P42.00008: CO_2 adsorption in a hierarchically structured carbon by SANS Lilin He , Jitendra Bahadur , Yuri Melnichenko , Cristian Contescu , Nidia Gallego
4:30PM - 4:42PM	P42.00009: Characterization of nanoscale spatial distribution of small molecules in amorphous polymer matrices Ralm Ricarte , Marc Hillmyer , Timothy Lodge
4:42PM - 4:54PM	P42.00010: Quantitative monitoring of membrane permeation via in-situ ATR FT-IR spectroscopy Bryan Beckingham , Daniel Miller
4:54PM - 5:06PM	P42.00011: Transport of Water in Semicrystalline Block Copolymer Membranes Daniel Hallinan , Onyekachi Oparaji
5:06PM - 5:18PM	P42.00012: Elasticity dominated surface segregation of small molecules in polymer mixtures Salvatore Croce , Jaroslaw Krawczyk , Tom McLeish , Buddhapriya Chakrabarti
5:18PM - 5:30PM	P42.00013: Anomalous Diffusion of Water in Lamellar Membranes Formed by Pluronic Polymers Zhe Zhang , Michael Ohl , Youngkyu Han , Gregory Smith , Changwoo Do

Wednesday, March 16, 2016 2:30pm-5:30pm

Session P54 Organic Systems for Photovoltaics, Including Perovskites

Sponsoring Units: GERA DPOLY FIAP
Room: *Hilton Baltimore Holiday Ballroom 5*

2:30PM - 2:42PM	P54.00001: The role of molecular layer mixing on the thermal conductance of organic-inorganic heterojunctions Shubhaditya Majumdar , Alan J.H. McGaughey , Jonathan A. Malen
2:42PM - 2:54PM	P54.00002: Understanding the growth of organic semiconductors on semiconducting surfaces Mina Yoon , Changwon Park , Bing Huang , Sean R. Wagner , Pengpeng Zhang
2:54PM - 3:06PM	P54.00003: Switchable Solar Window Devices Based on Polymer Dispersed Liquid Crystals Joseph Murray , Dakang Ma , Jeremy Munday
3:06PM - 3:18PM	P54.00004: Discovery of Novel Perovskites for Solar Thermochemical Water Splitting from High-Throughput First-Principles Calculations Antoine Emery , Chris Wolverton
3:18PM - 3:30PM	P54.00005: Super-ion inspired colorful hybrid perovskite solar cells. Hong Fang , Puru Jena
3:30PM - 3:42PM	P54.00006: High efficiency graded band gap perovskite solar cells Onur Ergen , Sally Demaio-turner , Thang thoan pham , Mark Tian Zhi Tan , Jongmin Yuk , Alex Zettl
3:42PM - 3:54PM	P54.00007: Efficient organic-inorganic hybrid perovskites and doped metal oxide heterojunction solar cells. Xiaojuan Fan
3:54PM - 4:06PM	P54.00008: Modeling morphology dependence of the power generation in bulk heterojunction organic photovoltaics Timothy Schlittenhardt , Selman Hershfield
4:06PM - 4:18PM	P54.00009: Reliable thermal processing of organic perovskite films deposited on ZnO Alex Zakhidov , Chris Manspeaker , Dmitry Lyashenko
4:18PM - 4:30PM	P54.00010: Charge Generation Dynamics in Efficient All-Polymer Solar Cells: Influence of Polymer Packing and Morphology Bhoj Gautam , Changyeon Lee , Robert Younts , Wonho Lee , Evgeny Danilov , Bumjoon Kim , Kenan Gundogdu
4:30PM - 4:42PM	P54.00011: Phonon Mode Transformation across the Orthohombic-Tetragonal Phase Transition in a Lead-Iodide Perovskite $CH_3NH_3PbI_3$: a Terahertz Time-Domain Spectroscopy Approach Elbert E. M. Chia , Chan La-o-vorakiat , Jeannette Kadro , Teddy Salim , Daming Zhao , Towfiq Ahmed , Yeng Ming Lam , Jian-Xin Zhu , Rudolph Marcus , Maria-Elisabeth Michel-Beyerle

Thursday, March 17, 2016 8:00am-11:00am

Session R4 Invited Session: Where Electrostatics Counts: Assembly and Dynamics of Ionic Polymers

Sponsoring Units: DPOLY
Chair: Svetlana Sukhishvili, Stevens Institute of Technology
Room: *Ballroom IV*

8:00AM - 8:36AM	R4.00001: Funny and Functional Physics: PEC Nanoparticles **Invited Speaker**: Martien Cohen Stuart
8:36AM - 9:12AM	R4.00002: Quantifying Contributions to Transport in Ionic Polymers Across Multiple Length Scales **Invited Speaker**: Louis Madsen
9:12AM - 9:48AM	R4.00003: Nonequilibrium Simulations of Ion Dynamics in Ionomer Melts **Invited Speaker**: Amalie Frischknecht
9:48AM - 10:24AM	R4.00004: Electrostatic Assembly of Polymers and Nanoparticles at Liquid-Liquid Interfaces. **Invited Speaker**: David Hoagland
10:24AM - 11:00AM	R4.00005: Polymerized Ionic Liquids: Promising Class of Polymer Electrolytes **Invited Speaker**: Alexei Sokolov

Thursday, March 17, 2016 8:00am-11:00am

Session R33 Focus Session: Organic Electronics and Photonics - Organic Photovoltaics

Sponsoring Units: DPOLY
Chair: Daniel Sinkovits, University of Wisconsin, Stout
Room: *336*

8:00AM - 8:36AM	R33.00001: Microwave absorption of free carriers in doped conjugated polymer films **Invited Speaker**: Garry Rumbles
8:36AM - 8:48AM	R33.00002: Multiple Charge Transfer States at Ordered and Disordered Donor/Acceptor Interfaces Michael Fusella , Bregt Verreet , YunHui Lin , Alyssa Brigeman , Geoffrey Purdum , Yueh-Lin Loo , Noel Giebink , Barry Rand
8:48AM - 9:00AM	R33.00003: Charge Photogeneration in Organic Photovoltaics: Role of Hot versus Cold Charge Transfer Excitons Kenan Gundogdu , Bhoj Gautam , Robert Younts , liang yan , Robert Younts , Harald Ade , Wei You
9:00AM - 9:12AM	R33.00004: Fully conjugated donor-acceptor block copolymers as model systems for studies of charge transfer Melissa Aplan , Youngmin Lee , Christopher Gray , Thomas Mallouk , Enrique Gomez
9:12AM - 9:48AM	R33.00005: Morphology-insensitive Performance Facilitates Transition from Spin-Coating to Roll-to-Roll Coating For High-Performance, Solution-Processed Solar Cells **Invited Speaker**: Dean DeLongchamp
9:48AM - 10:00AM	R33.00006: Contorted hexabenzocoronene derivatives enable fullerene-free, semi-transparent solar cells with record-breaking single-junction photovoltage Nicholas Davy , Melda Sezen , Yueh-Lin Loo
10:00AM - 10:12AM	R33.00007: Layer-by-layer fabrication of supramolecular dyes on TiO_2 surfaces for optoelectronic applications Xiaoqing Kong , Shawn Maguire , Diane Lye , Marcus Weck , Stephanie Lee
10:12AM - 10:24AM	R33.00008: Surprising increase in photostability of organic amorphous materials by efficient molecular packing Yue Qiu , Lucas Antony , Juan de Pablo , Mark Ediger
10:24AM - 10:36AM	R33.00009: Fixed Junction Photovoltaic Devices Based On Polymerizable Ionic Liquids Austin Limanek , Dr. Janelle Leger
10:36AM - 10:48AM	R33.00010: Physical and electrical models for interpreting AC and DC transport measurements in polymer solar cells Max McIntyre , Marian Tzolov , Raquel Cossel , Seth Peeler
10:48AM - 11:00AM	R33.00011: Dye-Sensitized Carbon Nano-Yarn Based Photovoltaic Cells with Enhanced Electron-Hole Separation and Barrier Characteristics H. Justin Moore , Miguel Leal , Glenn Grissom , Tarek Trad , Nazmul Islam , Ahmed Touhami , M. Jasim Uddin

Thursday, March 17, 2016 8:00am-11:00am

Session R34 Polymer Glasses

Sponsoring Units: DPOLY
Chair: Rob Hoy, University of South Florida
Room: *337*

8:00AM - 8:12AM	R34.00001: Elastic yielding after γ-irradiation of cold-drawn polymer glasses Panpan Lin , Quan Xu , Abraham Joy , Shi-Qing Wang
8:12AM - 8:24AM	R34.00002: To explore the nature of mechanical stress of polymeric glass by stress relaxation tests Xiaoxiao Li , Jianning Liu , Panpan Lin , Shi-Qing Wang
8:24AM - 8:36AM	R34.00003: Role of dynamical heterogeneities on the viscoelastic spectrum of polymers: a stochastic continuum mechanics model Robin Masurel , Sabine Cantournet , Alain Dequidt , Didier Long , Helène Montes , François Lequeux
8:36AM - 8:48AM	R34.00004: Recovery from nonlinear creep provides a window into physics of polymer glasses; James Caruthers , Grigori Medvedev
8:48AM - 9:00AM	R34.00005: Multi-step deformations -- a stringent test for constitutive models for polymer glasses; Grigori Medvedev , James Caruthers
9:00AM - 9:12AM	R34.00006: Brittle-ductile transition under compression of glassy polymers Jianning Liu , Xiaoxiao Li , Panpan Lin , Shiwang Cheng , Weiyu Wang , Jimmy Mays , Shi-Qing Wang
9:12AM - 9:24AM	R34.00007: Incorporating the effect of orientation hardening in an effective temperature nonequilibrium theory for glassy polymers Jingkai Guo , Rui Xiao , Thao Nguyen
9:24AM - 9:36AM	R34.00008: An effective temperature theory coupling structural evolution and viscoplastic deformation of glassy polymers; Thao Nguyen , Rui Xiao
9:36AM - 9:48AM	R34.00009: Entropy Theory of Polymer Glass-Formation in Variable Spatial Dimension. Wen-Sheng Xu , Jack Douglas , Karl Freed
9:48AM - 10:00AM	R34.00010: Free Volume, Energy, and Entropy at the Polymer Glass Transition: New Results and Connections with Widely Used Treatments Ronald White , Jane Lipson
10:00AM - 10:12AM	R34.00011: The Effects of Pressure, Local Packing, and Chain Stiffness on the Polymer Glass Transition; ane Lipson , Ronald White
10:12AM - 10:24AM	R34.00012: Design rules for rational control of polymer glass formation behavior and mechanical properties with small molecular additives Jayachandra Hari Mangalara , David Simmons
10:24AM - 10:36AM	R34.00013: Molecular dynamics simulation of a model polystyrene glass Zhuonan Liu , Shiqing Wang , Mesfin Tsige
10:36AM - 10:48AM	R34.00014: Molecular dynamics as observed with probes of different dimensions in thin polymer films Jiang Zhao , Hao Zhang , Jingfa Yang , Fuyi Wang , Di Liu
10:48AM - 11:00AM	R34.00015: Preparation of a series of model poly(n-alkyl styrene)s and their viscoelasticity and glass transition temperatures Satoru Matsushima , Atsushi Takano , Yoshiaki Takahashi , Yushu Matsushita

Thursday, March 17, 2016 8:00am-11:00am

Session R38 Focus Session: Biopolymers and Biohybrid Polymers: Networks and Hydrogels

Sponsoring Units: DPOLY DBIO GSOFT
Chair: Bradley Olsen, MIT
Room: *341*

8:00AM - 8:12AM	R38.00001: Self-Healing Nanocomposite Hydrogel with Well-Controlled Dynamic Mechanics Qiaochu Li , Sumeet Mishra , Pangkuan Chen , Joseph Tracy , Niels Holten-Andersen
8:12AM - 8:24AM	R38.00002: Polymer-induced compression of biological hydrogels Sujit Datta , Asher Preska Steinberg , Rustem Ismagilov
8:24AM - 8:36AM	R38.00003: Thermal-induced ageing of agar solutions: impact on the structural and mechanical properties of agar gels Bosi Mao , Ahmed Bentaleb , Frédéric Louerat , Thibaut Divoux , Patrick Snabre
8:36AM - 8:48AM	R38.00004: Nonlinear elasticity of alginate gels Seyed Meysam Hashemnejad , Santanu Kundu
8:48AM - 9:00AM	R38.00005: Cryo-imaging and modeling of the super molecular structure of cross-linked gelatin and its applications. Clement Marmorat , Arkadi Arinstein , Naama Koifman , Yeshayahu Talmon, Eyal Zussman , Miriam Rafailovich
9:00AM - 9:12AM	R38.00006: Encoding Mechano-Memories in Actin Networks Louis Foucard , Sayantan majumdar , Alex Levine , Margaret Gardel
9:12AM - 9:24AM	R38.00007: Fibril Formation and Phase Separation in Aqueous Cellulose Ethers Amanda Maxwell , Peter Schmidt , John McAllister , Joseph Lott , Frank Bates , Timothy Lodge
9:24AM - 9:36AM	R38.00008: Simulation of Polymer Physical Gel With Platelet Fillers Di Xu , Dilip Gerssape
9:36AM - 9:48AM	R38.00009: A Coarse-Grained Model for Simulating Chitosan Hydrogels Hongcheng Xu , Silvina Matysiak
9:48AM - 10:24AM	R38.00010: Bio-Inspired Metal-Coordination Dynamics: A Unique Tool for Engineering Soft Matter Mechanics **Invited Speaker**: Niels Holten-Andersen
10:24AM - 10:36AM	R38.00011: A Molecular Framework for Tunable Functional Response of Programmable Polyesters Kshitij C. Jha , Abraham Joy , Mesfin Tsige
10:36AM - 10:48AM	R38.00012: Effects of Crowder Structure and Salt on DNA Mobility and Conformation in Crowded Environments Stephanie M. Gorczyca , Rae M. Robertson-Anderson
10:48AM - 11:00AM	R38.00013: Altered Sputum Microstructure as a Marker of Airway Obstruction in Cystic Fibrosis Patients Gregg Duncan , James Jung , Natalie West , Michael Boyle , Jung Soo Suk , Justin Hanes

Thursday, March 17, 2016 8:00am-11:00am

Session R39 Focus Session: Physics of Genome Organization: from DNA to Chromatin I

Sponsoring Units: DBIO DPOLY GSNP
Chair: John Marko, Northwestern University
Room: *342*

8:00AM - 8:36AM	R39.00001: New insights into chromatin folding and dynamics from multi-scale modeling **Invited Speaker**: Wilma Olson
8:36AM - 8:48AM	R39.00002: Mitotic chromosome compaction via active loop extrusion. Anton Goloborodko , Maxim Imakaev , John Marko , Leonid Mirny
8:48AM - 9:00AM	R39.00003: Multiscale modeling of three-dimensional genome Bin Zhang , Peter Wolynes
9:00AM - 9:12AM	R39.00004: The universality of nucleosome organization: from yeast to human Razvan Chereji
9:12AM - 9:24AM	R39.00005: Elucidate Chromatin Folding at the Mesoscale Xiangyun Qiu
9:24AM - 9:36AM	R39.00006: Formation of chromosomal domains in interphase by loop extrusion Geoffrey Fudenberg
9:36AM - 10:12AM	R39.00007: TBA **Invited Speaker**: Xiaowei Zhuang
10:12AM - 10:24AM	R39.00008: Predictive Computational Modeling of Chromatin Folding Miichele Di Pierro , Bin Zhang , Peter J. Wolynes , Jose N. Onuchic
10:24AM - 10:36AM	R39.00009: Robustness of nucleosome patterns in the presence of DNA sequence-specific free energy landscapes and active remodeling Johannes Nuebler , Benedikt Obermayer , Wolfram Möbius , Michael Wolff , Ulrich Gerland
10:36AM - 10:48AM	R39.00010: The role of Nucleosome Positions on Chromatin Structure: A multi-scale approach Joshua Lequieu , Andres Cordoba , Juan J. de Pablo
10:48AM - 11:00AM	R39.00011: Chromatin extrusion explains key features of loop and domain formation in wild-type and engineered genomes Adrian Sanborn , Suhas Rao , Su-Chen Huang , Neva Durand , Miriam Huntley , Andrew Jewett , Ivan Bochkov , Dharmaraj Chinnappan , Ashok Cutkosky , Jian Li , Kristopher Geeting , Doug McKenna , Elena Stamenova , Andreas Gnirke , Alexandre Melnikov , Eric Lander , Erez Aiden

Thursday, March 17, 2016 8:00am-11:00am

Session R42 Focus Session: Small Molecule Transport in Polymers and Polymer Nanocomposites II

Sponsoring Units: DPOLY
Chair: William Phillip, Unviersity of Notre Dame
Room: *345*

8:00AM - 8:12AM	R42.00001: Statistical Mechanical Theory of Penetrant Diffusion in Polymer Melts and Glasses Rui Zhang , Kenneth Schweizer
8:12AM - 8:24AM	R42.00002: Molecular Dynamics Simulations of Penetrants in Microphase Separated Tapered Diblock Copolymers Youngmi Seo , Jonathan R. Brown , Lisa M. Hall
8:24AM - 8:36AM	R42.00003: Mechanism of Concentration Dependence of Water Diffusivity in Polyacrylate Gels. Sriramvignesh Mani , Fardin Khabaz , Rajesh Khare
8:36AM - 9:12AM	R42.00004: Structure/property relationships in polymer membranes for water purification and energy applications **Invited Speaker**: Geoffrey Geise
9:12AM - 9:24AM	R42.00005: Ion transferring in polyelectrolyte networks in electric fields. Honghao Li , Aykut Erbas , Jos Zwanikken , Monica Olvera de la Cruz
9:24AM - 9:36AM	R42.00006: Thermodynamics of Ionic Transport through Functionalized Membranes Vikramjit Rathee , Siyi Qu , Theodore Dilenschneider , William A. Phillip , Jonathan K. Whitmer
9:36AM - 9:48AM	R42.00007: Theoretical model of Case-II diffusion based on molecular-dynamics study of methanol in PMMA Jiayuan Miao , Mesfin Tsige , Philip Taylor
9:48AM - 10:00AM	R42.00008: Multicomponent Diffusion of Penetrant Mixtures in Rubbery Polymers: A Molecular Dynamics Study Stefan Bringuier , Mark Varady , Craig Knox , Jerry Cabalo , Thomas Pearl , Brent Mantooth
10:00AM - 10:12AM	R42.00009: Cooperative Reformable Channel System with Unique Recognition of Small Gas Molecules in a two-dimensional ZIF-membrane Benyamin Motevalli , Neda Taherifar , Zhe Liu
10:12AM - 10:24AM	R42.00010: Predicting the solubility of gases in Nitrile Butadiene Rubber in extreme conditions using molecular simulation Musab Khawaja , Nicola Molinari , Adrian Sutton , Arash Mostofi
10:24AM - 10:36AM	R42.00011: Analysis of surface segregation in polymer mixtures: A combination of mean field and statistical associated fluid theories Jaroslaw Krawczyk , Salvatore Croce , Buddhapriya Chakrabarti , Jos Tasche
10:36AM - 10:48AM	R42.00012: Continuum Model for Decontamination of Chemical Warfare Agent from a Rubbery Polymer using the Maxwell-Stefan Formulation Mark Varady , Stefan Bringuier , Thomas Pearl , Shawn Stevenson , Brent Mantooth

Thursday, March 17, 2016 11:15am-2:15pm

Session S33 Ion Containing Polymer Membranes

Sponsoring Units: DPOLY
Chair: Phil Griffin, University of Pennsylvania
Room: *336*

11:15AM - 11:27AM	S33.00001: Proton conducting, high modulus polymer electrolyte membranes by polymerization-induced microphase separation Sujay Chopade , Marc Hillmyer , Timothy Lodge
11:27AM - 11:39AM	S33.00002: The role of tortuosity on ion conduction in block copolymer electrolyte thin films Yu Kambe , Christopher G. Arges , Paul F. Nealey
11:39AM - 11:51AM	S33.00003: Building non-tortuous ion-conduction pathways using self-assembled block copolymers Onnuri Kim , Moon Jeong Park
11:51AM - 12:03PM	S33.00004: Nanostructured anion conducting block copolymer electrolyte thin films Christopher Arges , Yu Kambe , Paul Nealey
12:03PM - 12:15PM	S33.00005: Surface Structure of Thin Films of Multifunctional Ionizable Copolymers Anuradhi Wickramasinghe , Dvora Perahia
12:15PM - 12:27PM	S33.00006: Effects of repeated wet/dry cycling on the structure and performance of sulfonated pentablock copolymer membranes. Phuc Truong , Gila Stein
12:27PM - 12:39PM	S33.00007: Influence of Substrate on PFSA Thin-Film Morphology Peter Dudenas , Ahmet Kusoglu , Singanallur Venkatakrishnan , Alexander Hexemer , Adam Weber
12:39PM - 12:51PM	S33.00008: Structure and Properties of a Semi-crystalline Cationic Polymer for Anion Exchange Membranes Frederick Beyer , Samuel Price , Alice Savage , Xiaoming Ren
12:51PM - 1:03PM	S33.00009: Exploring the Parameters Controlling the Crystallinity-Conductivity Correlation of PFSA Ionomers Ahmet Kusoglu , Shouwen Shi , Adam Weber
1:03PM - 1:15PM	S33.00010: Water's Role in the Relaxation of Polyelectrolyte Complexes and Multilayers Jodie Lutkenhaus , Yanpu Zhang , Dariya Reid , Hanne Antila , Erol Yildirim, Ran Zhang , Maria Sammalkorpi

1:15PM - 1:27PM	S33.00011: Probing the mechanism of non-linear growth of polyelectrolyte multilayers Victor Selin , John Ankner , Svetlana A. Sukhishvili
1:27PM - 1:39PM	S33.00012: Effect of Aggregation on the Mechanical Properties of Ionomers from MD Simulations Janani Sampath , Lisa M. Hall
1:39PM - 1:51PM	S33.00013: Structure and ionic conductivity of block copolymer electrolytes over a wide salt concentration range Mahati Chintapalli , Thao Le , Naveen Venkatesan , Jacob Thelen , Adriana Rojas , Nitash Balsara
1:51PM - 2:03PM	S33.00014: Role of Acid Functionality and Placement on Morphological Evolution and Strengthening of Acid Copolymers Luri Robert Middleton , Eric Schwartz , Karen Winey
2:03PM - 2:15PM	S33.00015: States of Salt Water in Polyampholyte Hydrogel Networks at Ice Forming Temperatures Hyun-Joong Chung , Xinda Li , Janet A.W. Elliott

Thursday, March 17, 2016 11:15am-2:15pm

Session S38 Focus Session: Mechanics of Biopolymers- Networks and Assemblies

Sponsoring Units: DPOLY DBIO
Chair: Louis Foucard, UCLA
Room: *341*

11:15AM - 11:51AM	S38.00001: Rheology and nonlinear mechanics of transiently cross linked semiflexible networks: Bundling, ripping, healing, and mechnomemory **Invited Speaker**: Alex Levine
11:51AM - 12:03PM	S38.00002: A coarse-grained model of microtubule self-assembly Chola Regmi , Shengfeng Cheng
12:03PM - 12:15PM	S38.00003: Molecular Simulations of Actomyosin Network Self-Assembly and Remodeling James Komianos , Konstantin Popov , Garegin Papoian
12:15PM - 12:27PM	S38.00004: Active mechanics in living oocytes reveal molecular-scale force kinetics Wylie Ahmed , Etienne Fodor , Maria Almonacid , Matthias Bussonnier , Marie-Helene Verlhac , Nir Gov , Paolo Visco , Frederic van Wijland , Timo Betz
12:27PM - 1:03PM	S38.00005: Biopolymer mechanics across the force regimes **Invited Speaker**: Omar Saleh
1:03PM - 1:15PM	S38.00006: Investigating collagen self-assembly with optical tweezers microrheology Nancy Forde , Marjan Shayegan , Tuba Altindal
1:15PM - 1:27PM	S38.00007: Nonlinear microrheology and molecular imaging to map microscale deformations of entangled DNA networks Tsai-Chin Wu , Rae Anderson
1:27PM - 1:39PM	S38.00008: Dual-feedback microrheology in cytoskeletal networks Natsuki Honda , Kenji Nishizawa , Takayuki Ariga , Daisuke Mizuno
1:39PM - 1:51PM	S38.00009: Coupled actin-lamin biopolymer networks and protecting DNA Tao Zhang , D. Zeb Rocklin , Xiaoming Mao , J. M. Schwarz
1:51PM - 2:03PM	S38.00010: The Effect of Crosslinking on the Microscale Stress Response and Molecular Deformations in Actin Networks Bekele Gurmessa , Robert Fitzpatrick , Jonathon Valdivia , Rae M. R. Anderson
2:03PM - 2:15PM	S38.00011: Mechanically tunable actin networks using programmable DNA based cross-linkers Joerg Schnauss , Jessica Lorenz , Carsten Schuldt , Josef Kaes , David Smith

Thursday, March 17, 2016 11:15am-2:15pm

Session S39 Focus Session: Physics of Genome Organization: from DNA to Chromatin II

Sponsoring Units: DBIO DPOLY GSNP
Chair: Leonid Mirny, MIT
Room: *342*

11:15AM - 11:27AM	S39.00001: Inferring the locations of DNA bound proteins from Hi-C data Pau Farre , Eldon Emberly
11:27AM - 11:39AM	S39.00002: Coalescence Model for Crumpled Globules Formed in Polymer Collapse Guy Bunin , Mehran Kardar
11:39AM - 11:51AM	S39.00003: Probing nuclear dynamics and architecture using single-walled carbon nanotubes Yoon Jung , Junang Li , Nikta Fakhri
11:51AM - 12:03PM	S39.00004: Fractionation of Exosomes and DNA using Size-Based Separation at the Nanoscale Benjamin Wunsch , Joshua Smith , Chao Wang , Stacey Gifford , Markus Brink , Robert Bruce , Gustavo Solovitzky , Robert Austin , Yann Astier
12:03PM - 12:15PM	S39.00005: The impact of non-uniform capsid charge density on virus assembly Siyu Li , Gonca Erdemci-Tandogan , Jef Wagner , Roya Zandi
12:15PM - 12:27PM	S39.00006: Single molecule fluorescence studies of transition paths in DNA hairpin folding Katherine Truex , Hoi Sung Chung , John Louis , William Eaton
12:27PM - 12:39PM	S39.00007: The Molecular Atlas Project Jesse Silverberg , Peng Yin
12:39PM - 12:51PM	S39.00008: simulation of the DNA force-extension curve Gregory Shinaberry , Ivan Mikhaylov , Alexander Balaeff
12:51PM - 1:03PM	S39.00009: Characterization of the full base pairing probability distribution in RNA secondary structure folding William Baez , Kay Wiese , Ralf Bundschuh
1:03PM - 1:39PM	S39.00010: Gene dosage imbalance during DNA replication controls bacterial cell-fate decision **Invited Speaker**: Oleg Igoshin
1:39PM - 1:51PM	S39.00011: Torque-induced buckling behavior in stretched intertwined DNAs Sumitabha Brahmachari , John F. Marko
1:51PM - 2:03PM	S39.00012: Sequence Heterogeneity Accelerates Protein Search for Targets on DNA Alexey Shvets , Anatoly Kolomeisky
2:03PM - 2:15PM	S39.00013: SA1 and TRF1 synergistically bind to telomeric DNA and promote DNA-DNA pairing Hong Wang , Jiangguo Lin , Preston Countryman , Hai Pan

Thursday, March 17, 2016 11:15am-2:15pm

Session S41 Focus Session: Physics of Proteins - Protein Structure and Interactions

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Aihua Xie, Oaklahoma State University
Room: *344*

11:15AM - 11:51AM	S41.00001: Dynamics and mechanism of ultrafast water-protein interactions **Invited Speaker**: Dongping Zhong
11:51AM - 12:03PM	S41.00002: Effect of protein crystal hydration on side chain conformational heterogeneity Hakan Atakisi , David Moreau , Jesse Hopkins , Robert Thorne
12:03PM - 12:15PM	S41.00003: Determination of Protein Surface Hydration by Systematic Charge Mutations. Jin Yang , Menghui Jia , Yangzhong Qin , Dihao Wang , Haifeng Pan , Lijuan Wang , Jianhua Xu , Dongping Zhong
12:15PM - 12:27PM	S41.00004: Biomolecular solvation study of proteins in liquid water by a wide range gigahertz-to-terahertz spectroscopy Ali Charkhesht , Deepu George , Vinh Nguyen
12:27PM - 12:39PM	S41.00005: Structure and conformation of peptides at air/aqueous interface and their impact on interfacial water structure. Kailash Chandra Jena , Deepak Tomar
12:39PM - 12:51PM	S41.00006: Roles of urea and TMAO on the interaction between extended non-polar peptides Zhaoqian Su , Cristiano Dias
12:51PM - 1:03PM	S41.00007: Theory Of Salt Effects On Protein Solubility Yuba Dahal , Jeremy Schmit
1:03PM - 1:15PM	S41.00008: Computational and Experimental Study of Neuroglobin and Mutants Lauren Nelson , Samuel Cho , Daniel Kim-Shaprio
1:15PM - 1:27PM	S41.00009: Analysis of Cavity Volumes in Proteins Using Percolation Theory Sheridan Green , Donald Jacobs , Jenny Farmer
1:27PM - 1:39PM	S41.00010: Characterization of DNA-protein interactions using high-throughput sequencing data from pulldown experiments Blythe Moreland , Kenji Oman , John Curfman , Pearlly Yan , Ralf Bundschuh
1:39PM - 1:51PM	S41.00011: Molecular stripping in the NFκB/Iκ B/DNA genetic regulatory network Davit Potoyan , Peter Wolynes
1:51PM - 2:03PM	S41.00012: Modeling Adsorption Kinetics (Bio-remediation of Heavy Metal Contaminated Water). Chris McCarthy

Thursday, March 17, 2016 11:15am-2:15pm

Session S42 Focus Session: Assembly of Nanoparticles

Sponsoring Units: DPOLY GSOFT
Chair: Chang Ryu, Rensselaer Polytechnic Institute
Room: *345*

11:15AM - 11:27AM	S42.00001: Polydots, Soft Nanoparticles, at Membrane Interfaces Sidath Wijesinghe , Dvora Perahia , Christoph Junghans , Gary Grest
11:27AM - 11:39AM	S42.00002: Surface-Engineered Graphene Quantum Dots for Shape Control of Block Copolymer Particles Hyunseung Yang , Kang Hee Ku , Jae Man Shin , Junhyuk Lee , Chan Ho Park , Han-Hee Cho , Se Gyu Jang , Bumjoon Kim
11:39AM - 11:51AM	S42.00003: Self-Assembled Soft Porous Particles with Tailored Nano-Porosity. Kang Hee Ku , Jaeman Shin , Daniel Klinger , Ryan C. Hayward , Se Gyu Jang , Craig J. Hawker , Bumjoon J. Kim
11:51AM - 12:03PM	S42.00004: Particle-Directed Assembly of Semiflexible Polymer Chains Michael McGovern , Kevin Dorfman , David Morse
12:03PM - 12:15PM	S42.00005: Structure and Entanglement Factors on Dynamics of Polymer Grafted Magnetic Nanoparticles Siqi Liu , Erkan Senses , Yang Jiao , Suresh Narayanan , Pinar Akcora
12:15PM - 12:27PM	S42.00006: Selective Permeability of Uranyl Peroxide Nanocages to Different Alkali Ions: Influences from Surface Pores and Hydration Shells Yunyi Gao , Jennifer Szymanowski , Peter Burns , Tianbo Liu
12:27PM - 1:03PM	S42.00007: Understanding of DNA directed nanoparticle superlattices in bulk and thin film **Invited Speaker**: Byeongdu Lee
1:03PM - 1:15PM	S42.00008: Modeling of water-borne coating: stress relaxation of suspensions of colloids linked by telechelic HEUR polymers Shihu Wang , Ronald G. Larson
1:15PM - 1:27PM	S42.00009: Anisotropic Packing of DNA-Mediated Colloidal Self-Assembly Thi Vo , Fang Lu , Yugang Zhang , Oleg Gang , Sanat Kumar
1:27PM - 1:39PM	S42.00010: Giant soft-memory in liquid crystal-nanocomposites Ravindra Kempaiah , Yijing Liu , Zhihong Nie , Rajratan Basu
1:39PM - 1:51PM	S42.00011: Temperature Effects on Soft Polymeric Nanoparticles: Molecular Dynamics Study; Sabina Maskey , Gary S. Grest , Dvora Perahia
1:51PM - 2:03PM	S42.00012: Spectroscopic Investigations on PVDF-MWCNTs Nanocomposites. Oscar Guerrero , Samantha Ramirez , Robert Jones , Brian Yust , James Hinthorne , Mircea Chipara
2:03PM - 2:15PM	S42.00013: Investigation of Molecular Interactions between AFM-Tip and Thiol Films Ahmed Touhami , Justin Moore , T. Randall Lee

Aditional *S* Sessions of Potential Interest

Session S36 Focus Session: Soft Matter at Interfaces - Wetting and Thin Films

Sponsoring Units: GSOFT
Chair: Justin Burton, Emory University
Room: *339*

Thursday, March 17, 2016 2:30pm-5:30pm

Session V4 Invited Session: Where Morphology Meets Functionality - Light and Electron Transporting Polymeric Complexes

Sponsoring Units: DPOLY
Chair: Enrique Gomez, Pennsylvania State University
Room: *Ballroom IV*

2:30PM - 3:06PM	V4.00001: From Morphology to Interfaces to Tandem Geometries: Enhancing the Performance of Perovskite/Polymer Solar Cells **Invited Speaker**: Thomas Russell
3:06PM - 3:42PM	V4.00002: Elucidating Intra- and Interspherulitic Charge Transport in Solution-Processed Organic Semiconductor Thin Films **Invited Speaker**: Yueh-Lin Loo
3:42PM - 4:18PM	V4.00003: Making Glasses Conduct: Electrochemical Doping of Redox-Active Polymer Thin Films **Invited Speaker**: Bryan Boudouris
4:18PM - 4:54PM	V4.00004: Reversible Optical Control of polymer doping: Mechanism and applications **Invited Speaker**: Adam Moule
4:54PM – 5:30 PM	V4.00005: Nanoparticle Polymer Hybrids for Solar Cells **Invited Speaker**: Michael Mackay

Thursday, March 17, 2016 2:30pm-5:30pm

Session V33 Focus Session: Block Copolymer Thin Films - Directed Self Assembly

Sponsoring Units: DPOLY
Chair: Gila Stein, University of Houston
Room: *336*

2:30PM - 2:42PM	V33.00001: Log-rolling block copolymers cylinders So Youn Kim , Ye Chan Kim , Dong Hyup Kim , Na Kyung Kwon , Richard A. Register
2:42PM - 2:54PM	V33.00002: Laser Zone Annealing - Accelerated Route to Self-Assembled Nanostructures Pawel Majewski , Kevin Yager , Atikur Rahman , Charles Black
2:54PM - 3:06PM	V33.00003: Block Copolymer Directed Self-Assembly Approaches for Doping Planar and Non-Planar Semiconductors. Bhooshan Popere , Boris Russ , Andrew Heitsch , Peter Trefonas , Rachel Segalman
3:06PM - 3:42PM	V33.00004: Directed Nanoscale Assembly of Graphene Based Materials **Invited Speaker**: Sang Ouk Kim
3:42PM - 3:54PM	V33.00005: Direct Immersion Solvent Annealing of Nano-filled Block Copolymer Films Melanie Longanecker , Arvind Modi , Guangcui Yuan , Sushil Satija , Joona Bang , Alamgir Karim
3:54PM - 4:06PM	V33.00006: Effects of ultra-fast solvent evaporation in solvent vapor annealed cylinder-forming block polymer thin films A. Baruth , G. Nelson , C. Drapes , J. Wong , M. Grant
4:06PM - 4:18PM	V33.00007: Fabrication of nanoporous block copolymer films using highly selective solvents and non-solvent extraction Changhuai Ye , Bryan Vogt
4:18PM - 4:30PM	V33.00008: Tracking Solvent Distribution in Block Polymer Thin Films with In Situ Solvent Vapor Annealing during Neutron Scattering Cameron Shelton , Ronald Jones , Joseph Dura , Thomas Epps
4:30PM - 4:42PM	V33.00009: Continuous and patterned deposition of functional block copolymer thin films using electrospray Kristof Toth , Hanqiong Hu , Myungwoong Kim , Padma Gopalan , Michael Loewenberg , Chinedum Osuji
4:42PM - 4:54PM	V33.00010: Formation of Lamellar Heterolattices in Block Copolymer Thin Films by Sequential Electrospray Deposition Youngwoo Choo , Hanqiong Hu , Kristof Toth , Chinedum Osuji
4:54PM - 5:06PM	V33.00011: Hierarchical assembled nanostructures of hydrogen-bonded supramolecular block copolymer thin films. Xiaofang Chen , Yongchen Cai
5:06PM - 5:18PM	V33.00012: Azobenzene photoswitching as a tool for controlling block copolymer self-assembly in dip-coated thin films Jaana Vapaavuori , Josué Grosrenaud , Kateryna Borozenko , Christian Pellerin , Geraldine Bazuin
5:18PM - 5:30PM	V33.00013: Crystallization induced block copolymer assembly at curved liquid-liquid interface Hao Qi , Tian Zhou , Hao Zhou , Christopher Li

Thursday, March 17, 2016 2:30pm-5:30pm

Session V34 Focus Session: Where Simulation, Theory, and Experiments Meet Across Length Scales II

Sponsoring Units: DPOLY DCOMP
Chair: David Simmons, University of Akron
Room: *337*

2:30PM - 2:42PM	V34.00001: What drives hydrophobic polymer collapse and re-entry transitions in miscible good solvents? Francisco Rodriguez Ropero , Timir Hajari , Nico F. A. van der Vegt
2:42PM - 2:54PM	V34.00002: Co-non-solvency: Depletion forces or preferential adsorption? Carlos Marques , Tiago Oliveira , Paulo Netz , Torsten Stuehn , Debashish Mukherji , Kurt Kremer
2:54PM - 3:06PM	V34.00003: Depleting depletion: Polymer swelling in poor solvent mixtures Debashish Mukherji , Carlos Marques , Torsten Stuehn , Kurt Kremer
3:06PM - 3:42PM	V34.00004: Effects of dipolar interactions in polymer brushes **Invited Speaker**: Rajeev Kumar
3:42PM - 3:54PM	V34.00005: Molecular dynamics simulations of poly (ethylene oxide) hydration and conformation in solutions. Udaya Dahal , Elena Dormidontova
3:54PM - 4:06PM	V34.00006: A Coarse-Grained Model for Thermoresponsive Poly(\textit{N}-isopropylacrylamide) Lauren J Abbott , Mark J Stevens
4:06PM - 4:18PM	V34.00007: A Coarse Grained Model for Methylcellulose: Spontaneous Ring Formation at Elevated Temperature Wenjun Huang , Ronald Larson
4:18PM - 4:30PM	V34.00008: Modeling helical polymer brushes using self-consistent field theory (SCFT) Jyoti Mahalik , Bobby Sumpter , Rajeev Kumar
4:30PM - 4:42PM	V34.00009: The effects of bonded interactions on the structural phase properties of flexible elastic homopolymer Kai Qi , Benjamin Liewehr , Tomas Koci , Busara Pattanasiri , Matthew Williams , Michael Bachmann
4:42PM - 4:54PM	V34.00010: Crystal Growth in Lennard-Jones Mixtures: A Model System to Study Generic Effects in Biomineralization Processes Marc Radu , Kurt Kremer
4:54PM - 5:06PM	V34.00011: Relating dynamics of model unentangled, crystallizable polymeric liquids to their local structure Hong T. Nguyen , Robert S. Hoy
5:06PM - 5:18PM	V34.00012: Thermodynamics of polymer nematics described with a worm-like chain model: particle-based simulations and SCF theory calculations Cristina Greco , Ying Yiang , Kurt Kremer , Jeff Chen , Kostas Daoulas
5:18PM - 5:30PM	V34.00013: Molecular Dynamics Modeling of Dielectric Polarization and Ferroelectricity in Poly(vinylidene fluoride) and Related Polymers Jeffrey Calame

Thursday, March 17, 2016 2:30pm-5:30pm

Session V38 Focus Session: Mechanics of Biopolymers - Single Polymer Dynamics

Sponsoring Units: DPOLY DBIO
Chair: Alex Levine, UCLA
Room: *341*

2:30PM - 2:42PM	V38.00001: Non-continuum correlated intermolecular dynamical displacements in entangled biopolymer solutions. Kenneth S. Schweizer , Zachary E. Dell , Boyce Tsang , Lingxiang Jiang , Steve Granick
2:42PM - 2:54PM	V38.00002: Force fluctuation in a semiflexible loop James Waters , Harold Kim
2:54PM - 3:06PM	V38.00003: Watching entangled circular DNA in real time with super-resolution Ah-Young Jee , HyeongJu Kim , Steve Granick
3:06PM - 3:18PM	V38.00004: Single Molecule Dynamics of Branched DNA Polymers Danielle Mai , Charles Sing , Charles Schroeder
3:18PM - 3:30PM	V38.00005: Single polymer dynamics of linear and architecturally complex chains in semi-dilute solutions Kaiwen Hsiao , Yanfei Li , Gregory McKenna , Charles Schroeder
3:30PM - 3:42PM	V38.00006: Study of mechanical properties of DNA in E. coli cells by fluorescence correlation spectroscopy Rudra Kafle , Molly Liebeskind , Jens-Christian Meiners
3:42PM - 3:54PM	V38.00007: Single Polymer Dynamics under Large Amplitude Oscillatory Extensional (LAOE) Flow Yuecheng Zhou , Charles M. Schroeder
3:54PM - 4:06PM	V38.00008: Large-scale structural transitions in supercoiled DNA revealed by coarse-grained simulations Brad Krajina , Andrew Spakowitz
4:06PM - 4:18PM	V38.00009: Jamming of Knots along a Tensioned Chain Patrick Doyle , Vivek Narsimhan , C. Benjamin Renner
4:18PM - 4:54PM	V38.00010: Activity induced phase separation in particles and (bio)polymers **Invited Speaker**: Alexander Grosberg
4:54PM - 5:06PM	V38.00011: Electrophoresis of semiflexible heteropolymers and the "hydrodynamic Kuhn length" Mykyta V. Chubynsky , Gary W. Slater
5:06PM - 5:18PM	V38.00012: Viscoelastic dynamics in a system of two actin filaments under stress Arjan Erik Boerma , Erik Van der Giessen , Stefanos Papanikolaou
5:18PM - 5:30PM	V38.00013: How to Concentrate Genomic Length DNA in a Microfabricated Array Yu Chen , Ezra Abrams , Christian Boles , Jonas Pedersen , Henrik Flyvbjerg, James Sturm , Robert Austin

Thursday, March 17, 2016 2:30pm-5:30pm

Session V41 Focus Session: Physics of Proteins - Mechanics and Forces

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Tom Chou, University of California, Los Angeles
Room: *344*

2:30PM - 3:06PM	V41.00001: Rationally designing the mechanical properties of protein hydrogels **Invited Speaker**: Yi Cao
3:06PM - 3:18PM	V41.00002: Nonlinear elasticity of disordered fiber networks Jingchen Feng , Herbert Levine , Xiaoming Mao , Leonard M. Sander
3:18PM - 3:30PM	V41.00003: Mechanosensing by tethered membrane channels Benedikt Sabass , Howard A. Stone
3:30PM - 3:42PM	V41.00004: Group transfer theory of single molecule imaging experiments in the F-ATPase biomolecular motor Sandor Volkan-Kacso , Rudolph Marcus
3:42PM - 3:54PM	V41.00005: Fluorescent ATP analog mant-ATP reports dynein activity in the isolated *Chlamydomonas* axoneme Maria Feofilova , Jonathon Howard
3:54PM - 4:06PM	V41.00006: Limiting Speed of the Bacterial Flagellar Motor Jasmine Nirody , Richard Berry , George Oster
4:06PM - 4:18PM	V41.00007: A mechanochemical model for myosin VI Riina Tehver , Amanda Jack , Ian Lowe
4:18PM - 4:30PM	V41.00008: Talin mediated force transmission and mechanosensing Jie Yan , Mingxi Yao , Benjamin Goult , Michael Sheetz
4:30PM - 4:42PM	V41.00009: Directly measuring single molecule heterogeneity in proteins and RNA using force spectroscopy Michael Hinczewski , Changbong Hyeon , Devarajan Thirumalai
4:42PM - 4:54PM	V41.00010: Bayesian Uncertainty Quantification for Bond Energies and Mobilities Using Path Integral Analysis Pak-Wing Fok , Joshua Chang , Tom Chou
4:54PM - 5:06PM	V41.00011: Base-by-Base Counting of Nucleotide Incorporations by DNA Polymerase Mackenzie W. Turvey , O. Tolga Gul , Kaitlin M. Pugliese , Denys O. Marushchak , Arith J. Rajapakse , Gregory A. Weiss , Phillip G. Collins
5:06PM - 5:18PM	V41.00012: Sequence and Structure Dependent DNA-DNA Interactions Benjamin Kopchick , Xiangyun Qiu
5:18PM - 5:30PM	V41.00013: *In vivo* Studies of VEGFR2 Interactions in the Presence and Absence of VEGF Christopher King , Dr. Kalina Hristova

Thursday, March 17, 2016 2:30pm-5:30pm

Session V42 Focus Session: Polymer Architecture, Control of Structure and Dynamics in Polyolefins

Sponsoring Units: DPOLY
Chair: Lin Wang, The Dow Chemical Company
Room: *345*

2:30PM - 3:06PM	V42.00001: Melt structure and self-nucleation of ethylene copolymers **Invited Speaker**: Rufina G Alamo
3:06PM - 3:18PM	V42.00002: Crystal Structures of Precise Functional Copolymers: Atomistic Molecular Dynamics Simulations and Comparisons with Experiments Edward B. Trigg , Mark J. Stevens , Karen I. Winey
3:18PM - 3:30PM	V42.00003: Modeling neutron scattering in disperse, nonuniformly labeled commercial polyolefins Brian Habersberger , Kyle Hart , David Gillespie , Tianzi Huang
3:30PM - 3:42PM	V42.00004: Time-resolved WAXD studies on the crystallization of semicrystalline/graphene nanocomposites Maya Endoh , Shotaro Nishitsuji , Tad Koga , mirian rafailovich
3:42PM - 4:18PM	V42.00005: Porous Polyolefin Films via Polymer Blends **Invited Speaker**: Chris Macosko
4:18PM - 4:30PM	V42.00006: Quantifying tie-molecule content in semicrystalline polymers Amanda McDermott , Chad Snyder , Paul DesLauriers , Ronald Jones
4:30PM - 4:42PM	V42.00007: Matrix Reorganization during Uniaxial Drawing of Polymer Single Crystal-Based Nanocomposites Eric D. Laird , Joseph L. Lenhart , Kenneth E. Strawhecker , Erich D. Bain , Daniel B. Knorr
4:42PM - 4:54PM	V42.00008: Understanding the Evolution in Meso/Nanostructure in UHMWPE Fibers Preston McDaniel , Joseph Deitzel , John Gillespie
4:54PM - 5:06PM	V42.00009: Unfolding of Isotactic Polypropylene under Uniaxial Stretching Jia Kang , Toshikazu Miyoshi
5:06PM - 5:18PM	V42.00010: Deformation across length scales in polyolefines: effect of the chain microstructure on the polymorphism, phase transitions and morphological changes. Finizia Auriemma , Claudio De Rosa , Rocco Di Girolamo , Anna Malafronte, Miriam Scoti
5:18PM - 5:30PM	V42.00011: Topological Constraints on Chain-Folding Structure of Semicrystalline Polymer as Studied by ^{13}C-^{13}C Double Quantum NMR Youlee Hong , Toshikazu Miyoshi

Thursday, March 17, 2016 2:30pm-5:30pm

Session V55 Invited Session: DNA Physics and Chromatin Organization

Sponsoring Units: DBIO GSNP DPOLY
Chair: Alexandre V. Morozov, Rutgers University
Room: *Hilton Baltimore Holiday Ballroom 6*

2:30PM - 3:06PM	V55.00001: Micromechanical study of protein-DNA interactions and chromosomes **Invited Speaker**: John Marko
3:06PM - 3:42PM	V55.00002: Polymer models of chromosome (re)organization **Invited Speaker**: Leonid Mirny
3:42PM - 4:18PM	V55.00003: Action at a Distance in the Cell's Nucleus **Invited Speaker**: Jane Kondev
4:18PM - 4:54PM	V55.00004: How, when, and where in pattern formation: Spying on embryonic development one molecule at a time. **Invited Speaker**: Hernan Garcia
4:54PM - 5:30PM	V55.00005: Energy Landscapes of Folding Chromosomes **Invited Speaker**: Bin Zhang

Aditional *V* Sessions of Potential Interest

Session V37 Focus Session: Soft Mechanics in Biological Systems

Sponsoring Units: GSOFT DBIO
Chair: Itai Cohen, Cornell University
Room: *340*

Friday, March 18, 2016 8:00am-11:00am

Session X4 Invited Session: From Polymer Topology to Performance Materials

Sponsoring Units: DPOLY
Chair: Chinedum, Osuji, Yale University
Room: *Ballroom IV*

8:00AM - 8:36AM	X4.00001: Continuous Liquid Interface Production (CLIP) **Invited Speaker**: John Tumbleston
8:36AM - 9:12AM	X4.00002: Polymer Grafted Nanoparticle Assemblies: From Optical to Mechanical Performance through Clusters, Monolayers and Monoliths **Invited Speaker**: Richard Vaia
9:12AM - 9:48AM	X4.00003: Translating polymer physics from the lab to the field **Invited Speaker**: Jan Genzer
9:48AM - 10:24AM	X4.00004: Using Polymer Confinement for Stem Cell Differentiation: 3D Printed vs Molded Scaffolds. **Invited Speaker**: Miriam Rafailovich
10:24AM - 11:00AM	X4.00005: Directed self-assembly of performance materials **Invited Speaker**: Paul Nealey

Friday, March 18, 2016 8:00am-11:00am

Session X33 Focus Session: Organic Electronics and Photonics - Organic Electronic Devices

Sponsoring Units: DPOLY FIAP
Chair: Lei Zhu, Case Western University
Room: *336*

8:00AM - 8:12AM	X33.00001: Charge Transport Properties in Polymer Brushes. Mark Moog , Frank Tsui , Ian VonWald , Wei You
8:12AM - 8:24AM	X33.00002: Hall effect and band-like carrier transport in high mobility polymer transistors Yu Yamashita , Felix Hinkel , Tomasz Marszalek , Wojciech Zajaczkowski , Wojciech Pisula , Martin Baumgarten , Hiroyuki Matsui , Klaus Müllen , Jun Takeya
8:24AM - 8:36AM	X33.00003: In operando characterization of ion gel gating in electrochemical polythiophene transistors Michael Brady , Michael Chabinyc , Alexander Hexemer , Cheng Wang
8:36AM - 8:48AM	X33.00004: Growth and characterization of organic ferroelectric croconic acid thin films Xuanyuan Jiang , Haidong Lu , Yuewei Yin , Axel Enders , Alexei Gruverman , Xiaoshan Xu
8:48AM - 9:00AM	X33.00005: Enhance the lifetime and bias stress reliability in organic vertical transistor by UV/Ozone treatment Hung-Cheng Lin , Ming-Yu Chang , Hsiao-Wen Zan , Hsin-Fei Meng , Yu-Chiang Chao
9:00AM - 9:12AM	X33.00006: Gate-controlled energy barrier at a graphene/molecular semiconductor junction S. Parui , L. Pietrobon , D. Ciudad , S. Velez , X. Sun , P. Stoliar , F. Casanova , L. E. Hueso
9:12AM - 9:24AM	X33.00007: Influence of Morphological Disorder on In- and Out-of-Plane Charge Transport in Conjugated Polymer Films Ban Dong , Anton Li , Peter Green
9:24AM - 9:36AM	X33.00008: Polarization-induced transport in TIPS-pentacene field-effect transistors Amrit Laudari , Suchi Guha
9:36AM - 9:48AM	X33.00009: Radical Polymer Utilization for Interfacial Improvement of Organic Field-Effect Transistors Seung Hyun Sung , Nikhil Bajaj , Jeffrey Rhoads , George Chiu , Bryan Boudouris
9:48AM - 10:00AM	X33.00010: Small Molecule Doping of Radical Polymers for Enhanced Electronic Performance Aditya Baradwaj , Si Hui Wong , Bryan Boudouris
10:00AM - 10:12AM	X33.00011: Enhanced charge transport in highly conducting PEDOT-PSS films after acid treatment V. Akshaya Shiva , Ravi Bhatia , Reghu Menon
10:12AM - 10:24AM	X33.00012: Stencil Nano Lithography Based on a Nanoscale Polymer Shadow Mask: Towards Organic Nanoelectronics Sang Wook Lee , Hoyeol Yun , Hakseong Kim , Kirstie McAllister , Dong Hoon Shin , Jun Sung Kim , Seungmoon Pyo , Wi Hyoung Lee , Eleanor Campbell

10:24AM - 10:36AM	X33.00013: Ab initio studies of the optoelectronic properties of biphenyl derivatives in OLEDs Hossein Hashemi , Avi Bregman , Jaehun Jung , Minsang Kwon , Jinsang Kim , John Kieffer
10:36AM - 10:48AM	X33.00014: A Comparison Between Magnetic Field Effects in Excitonic and Exciplex Organic Light-Emitting Diodes Kevser Sahin Tiras , Yifei Wang , Nicholas J Harmon , Markus Wohlgenannt, Michael E Flatte
10:48AM - 11:00AM	X33.00015: Tunable white light emission in Parallel Tandem OLEDs made with silver metal as interlayer Jorge Oliva , Alexios Papadimitratos , Anvar Zakhidov

Friday, March 18, 2016 8:00am-11:00am

Session X34 Emulsions, Foams, Gels, and Complex Fluids

Sponsoring Units: GSOFT DPOLY
Chair: Carlos Orellana, Emory University
Room: *337*

8:00AM - 8:12AM	X34.00001: Experimental measurement of the angle of repose of a pile of soft frictionless grains Klebert Feitosa , Daniel Shorts
8:12AM - 8:24AM	X34.00002: Rearrangements during slow compression of a jammed 2D emulsion Xin Du , Carlos Orellana , Xia Hong , Eric Weeks
8:24AM - 8:36AM	X34.00003: Self-Assembly of Emulsion Droplets into Polymer Chains Dylan Bargteil , Angus McMullen , Jasna Brujic
8:36AM - 8:48AM	X34.00004: Cellulose Nanocrystals as Water in Water Emulsion Stabilizers Karthik Reddy Peddireddy , Isabelle Capron , Taco Nicolai , Lazhar Benyahia
8:48AM - 9:00AM	X34.00005: Single droplet-level understanding of flow-induced phase inversion of emulsions Ankit Kumar , Shigeng Li , Chieh-Min Cheng , Daeyeon Lee
9:00AM - 9:12AM	X34.00006: Local Rearrangements of Droplets in a Dense Emulsion Under Shear Rearrangements Vishwas Venkatesh , Sudeep Dutta , Emanuela Del Gado , Daniel Blair
9:12AM - 9:24AM	X34.00007: Tuneable Rheological Properties of Fluorinated Pickering Emulsions Laura Andreina Chacon Orellana , Birte Riechers , Ouriel Caen , Jean-Christophe Baret
9:24AM - 9:36AM	X34.00008: A Computational Study of the Rheology and Structure of Surfactant Covered Droplets Joao Maia , Arman Boromand
9:36AM - 9:48AM	X34.00009: The origin of power-law rheology in foams Hyun Joo Hwang , Robert Riggleman , John Crocker
9:48AM - 10:00AM	X34.00010: Creep dynamics in soft matter Raffaela Cabriolu
10:00AM - 10:12AM	X34.00011: Modeling Discontinuous Phase Transitions in Gel Membranes: Focus on Hysteresis and Feedback Mechanisms Olga Kuksenok
10:12AM - 10:24AM	X34.00012: X-ray speckle measurements of concentrated nanoemulsions under shear Samy Abidib , Michael Rogers , Robert Leheny , Kui Chen , Thomas Mason , James Harden
10:24AM - 10:36AM	X34.00013: Dynamics of a DNA Gel Ramesh Adhikari , Aniket Bhattacharya , Aristide Dogariu
10:36AM - 10:48AM	X34.00014: Supramolecular Structural Forces in Stratifying Foam Films and Micelle Aggregation Number Subinuer Yilixiati , Yiran Zhang , Ewelina Wojcik , Rabees Rafiq , Vivek Sharma
10:48AM - 11:00AM	X34.00015: Microrheology using a custom-made AFM Sebastien Kosgodagan Acharige , Michael Benzaquen , Audrey Steinberger

Friday, March 18, 2016 8:00am-11:00am

Session X38 Focus Session: Block Copolymer Thin Films - Directed Assembly

Sponsoring Units: DPOLY
Chair: Ryan Hayward, U Mass Amherst
Room: *341*

8:00AM - 8:12AM	X38.00001: Out-of-plane Block Copolymer Microdomains in High Aspect-Ratio Templates Karim Gadelrab , Wubin Bai , Alfredo Alexander-Katz , Caroline Ross
8:12AM - 8:24AM	X38.00002: Characterizing the interfaces of block copolymers with high χ Daniel Sunday , Michael Maher , Gregory Blachut , Yusuke Asano , Summer Tein , C. Grant Willson , Christopher Ellison , R. Joseph Kline
8:24AM - 8:36AM	X38.00003: Reducing Line Edge Roughness of PS-b-PMMA pattern by inducing hydrogen bonding at the interface of the block copolymer microdomains Kyu Seong Lee , Sung Hyun Han , Sangshin Jang , Jicheol Park , Jongheon Kwak , Jin Kon Kim
8:36AM - 9:12AM	X38.00004: Photothermal assembly of block copolymers **Invited Speaker:** Kevin Yager
9:12AM - 9:24AM	X38.00005: Numerical Simulations of Directed Self-Assembly in Diblock Copolymer Films using Zone Annealing and Templating Techniques Joseph Hill , Paul Millett
9:24AM - 9:36AM	X38.00006: Rapid microwave annealing for perpendicular oriented cylinders in PS-b-PMMA thin films Zhe Qiang , Kevin Cavicchi , Bryan Vogt
9:36AM - 9:48AM	X38.00007: Directed Self-assembly of Block Copolymer with Sub-15 nm Domain Spacing Using Nanoimprinted Photoresist Templates Zhiwei Sun , Zhenbin Chen , Wenxu Zhang , E. Bryan Coughlin , Shuaigang Xiao , Thomas Russell
9:48AM - 10:00AM	X38.00008: Exploring the Use of Additives to Optimize the Directed Self-Assembly of Block Copolymers via Self-Consistent Field Theory Simulations Adam Hannon , Daniel Sunday , R. Joseph Kline
10:00AM - 10:12AM	X38.00009: Controlled Ordering of Long-range Perpendicular Lamellae by Block Copolymer Self-assembly Du Yeol Ryu , Kyunginn Kim , Sungmin Park , Yeongsik Kim
10:12AM - 10:24AM	X38.00010: Using chemically patterned substrates to suppress thermal placement errors in the directed self-assembly of block copolymer multi-cylinder linear arrays Corinne Carpenter , Kris Delaney , Glenn Fredrickson
10:24AM - 10:36AM	X38.00011: Minimal Topographic Patterns for Guiding Hexagonal Arrays of Cylindrical Microdomains in Block Copolymer Thin Films Jaewon Choi , Yinyong Li , Ilja Gunkel , Zhiwei Sun , Feng Liu , Kenneth Carter , Thomas Russell
10:36AM - 10:48AM	X38.00012: Polarized Resonant Critical Dimension Small Angle X-Ray Scattering for the Characterization of Polymer Patterns Christopher Liman , Daniel Sunday , Hyun Wook Ro , Lee Richter , Adam Hannon , R. Joseph Kline

Friday, March 18, 2016 8:00am-11:00am

Session X41 Focus Session: Physics of Proteins - Structure and Dynamics II

Sponsoring Units: DBIO DPOLY DCOMP
Chair: Yi Cao, Nanjing University
Room: *344*

8:00AM - 8:12AM	X41.00001: Dual-resolution modeling demonstrates greater conformational heterogeneity of CENP-A/H4 dimer than that of H3/H4 Haiqing Zhao
8:12AM - 8:24AM	X41.00002: Aggregation of alpha-synuclein by a coarse-grained Monte Carlo simulation; Barry Farmer , Ras Pandey
8:24AM - 8:36AM	X41.00003: Network Analysis Reveals the Recognition Mechanism for Mannose-binding Lectins; Yunjie Zhao , Yiren Jian , Chen Zeng
8:36AM - 8:48AM	X41.00004: Unliganded EphA3 dimerization promoted by the SAM domain Kalina Hristova , Deo Singh , Christopher King , Fozia Ahmed , Elena Pasquale
8:48AM - 9:00AM	X41.00005: Dissecting the active site of a photoreceptor protein Wouter Hoff , Miwa Hara , Jie Ren , Farzaneh Moghadam , Aihua Xie , Masato Kumauchi
9:00AM - 9:12AM	X41.00006: Statistical mechanics of hydrophobic amino acids in aqueous solution: A joint experimental scattering and computational study Lingshuang Song , Lin Yang , Wei Huang , Jie Meng , Sichun Yang
9:12AM - 9:24AM	X41.00007: Mapping the temperature-dependent conformational landscapes of the dynamic enzymes cyclophilin A and urease Robert Thorne , Daniel Keedy , Matthew Warkentin , James Fraser , David Moreau , Hakan Atakisi , Peter Rau
9:24AM - 9:36AM	X41.00008: Computational modeling of the side chain dihedral angle distributions of methionine using hard-sphere repulsive and short-range attractive interactions Alejandro Virrueta , Corey O'Hern , Lynne Regan
9:36AM - 9:48AM	X41.00009: Model comparison in X-ray crystallography David Sivak , Nathan Babcock , Daniel Keedy , James Fraser
9:48AM - 10:00AM	X41.00010: Small-Angle Neutron Scattering study of the NIST mAb reference material Maria Monica Castellanos , Yun Liu , Susan Krueger , Joseph Curtis
10:00AM - 10:12AM	X41.00011: Replica-exchange Wang-Landau simulations of the H0P lattice protein model Guangjie Shi , Thomas Wüst , Ying Wai Li , David P. Landau
10:12AM - 10:24AM	X41.00012: Experimental and Computational Study of Beta-Galactosidase Inhibition Anthony Cooper , Luca Larini
10:24AM - 10:36AM	X41.00013: Improved methods for determining the secondary structure of proteins using FTIR spectroscopy David Neto
10:36AM - 10:48AM	X41.00014: Dynamic switching mechanisms of a CC chemokine, CCL5 (RANTES). A simulation study; Emanuel Peter , Igor Pivkin
10:48AM - 11:00AM	X41.00015: Using Excel To Study The Relation Between Protein Dihedral Angle Omega And Backbone Length Samari Evans , Christopher Shew , Xiuping Tao

Friday, March 18, 2016 8:00am-11:00am

Session X42 Semicrystalline Polymers

Sponsoring Units: DPOLY
Chair: Ahmed Ismail, University of West Virginia
Room: *345*

8:00AM - 8:12AM	X42.00001: Crystallization of atactic polystyrene. Yu Chai , James Forrest
8:12AM - 8:24AM	X42.00002: Bisoxalamide Clarifiers to Improve Optical Performance of Polyethylene Resins Lin Wang , Martin Hill , Nestor Santos Jr , Andrew Banks , Jessica Huang , Ellen Keene , Rich Keaton
8:24AM - 8:36AM	X42.00003: Coincident Crystallization of PEO-*b*-PCL Copolymers with Similar Block Molecular Weights Ryan Van Horn , Natasha Brigham , Christopher Nardi
8:36AM - 8:48AM	X42.00004: Self Nucleation and Crystallization of Poly(vinyl alcohol) David Thomas , Peggy Cebe
8:48AM - 9:00AM	X42.00005: Folding of Polymer Chains in Early Stage of Crystallization Shichen Yuan , Toshikazu Miyoshi
9:00AM - 9:12AM	X42.00006: Flow-Induced Crystallization of Poly (ether ether ketone). Behzad Nazari , Alicyn Rhoades , Ralph Colby
9:12AM - 9:24AM	X42.00007: Fluoropolymer Microstructure and Dynamics: Influence of Molecular Orientation Induced by Uniaxial Drawing Daniel Miranda , Chaoqing Yin , James Runt
9:24AM - 9:36AM	X42.00008: Structure of Poly(3-(2'-ethyl)hexylthiophene) (P3EHT) Containing Diblock Copolymers Controlled via Thermal Processing Emily Davidson , Rachel Segalman
9:36AM - 9:48AM	X42.00009: Annealing effects on the crystalline structures of syndiotactic polystyrene after the crystalline β to α form structural transition induced by mechanical strain. Fuyuaki Endo , Atsushi Hotta
9:48AM - 10:00AM	X42.00010: Investigating the Equilibrium Melting Temperature of Polyethylene Using the Non-Linear Hoffman-Weeks Analysis: Effect of Molecular Weight Hadi Mohammadi , Herve Marand
10:00AM - 10:12AM	X42.00011: Free surfaces overcome superheating in simulated melting of isotactic polypropylene Qin Chen , Eric B. Sirota , Min Zhang , T.C. Mike Chung , Scott T. Milner
10:12AM - 10:24AM	X42.00012: Yield Stress Enhancement in Glassy-Polyethylene Block Copolymers. William Mulhearn , Richard Register
10:24AM - 10:36AM	X42.00013: On the structure and morphology of poly (vinylidene fluoride) nanoscrolls Gabriel Burks , Sarah Gleeson , Shan Mei , Hao Qi , Christopher Li
10:36AM - 10:48AM	X42.00014: Structure and Properties of Tactic Hydrogenated Polynorbornenes Adam B. Burns , Richard A. Register
10:48AM - 11:00AM	X42.00015: Crystallization and recrystallization behavior study on biopolymer composites with polymer grafted halloysite nanotubes Ya-Ting Hsieh , Ken Kojio , Atsushi Takahara

Friday, March 18, 2016 11:15am-2:15pm

Session Y38 Polymeric Elastomers and Gels

Sponsoring Units: DPOLY
Chair: Jan Genzer, North Carolina State University
Room: *341*

11:15AM - 11:27AM	Y38.00001: Covalent Fusion of layered Incompatible Gels in Immiscible Solvents; Santidan Biswas , Awaneesh Singh , Krzysztof Matyjaszewski , Anna C. Balazs
11:27AM - 11:39AM	Y38.00002: Cyclic topology in polymer networks Rui Wang , Alfredo Alexander-Katz , Jeremiah Johnson , Bradley Olsen
11:39AM - 11:51AM	Y38.00003: Capturing dissipation and adhesion using transient network theory Michelle Sing , Gareth McKinley , Bradley Olsen
11:51AM - 12:03PM	Y38.00004: Dynamics of Bottlebrush Networks: A Computational Study Andrey Dobrynin , Zhen Cao , Sergei Sheiko
12:03PM - 12:15PM	Y38.00005: Bottlebrush and comb-like elastomers as ultra-soft electrical and acoustically active materials William Daniel , Mohammad Vatankhah-Varnosfaderani , Ashish Pandya , Joanna Burdynska , Benjamin Morgan , Matthew Everhart , Krzysztof Matyjaszewski , Andrey Dobrynin , Michael Rubinstein , Sergei Sheiko
12:15PM - 12:27PM	Y38.00006: Controlling Phase Separation of Tough Interpenetrating Polymer Networks via Addition of Amphiphilic Block Copolymers. Brian Rohde , Ramanan Krishnamoorti , Megan Robertson
12:27PM - 12:39PM	Y38.00007: Weak hydrogen bonding yields rigid, tough, and elastic hydrogels Sergei Sheiko , Xiaobo Hu , Mohammad Vatankhah-Varnosfaderani , Jing Zhou , Qiaoxi Li , Andrey Dobrynin
12:39PM - 12:51PM	Y38.00008: Cavitation of a Physically Associating Gel Satish Mishra , Santanu Kundu
12:51PM - 1:03PM	Y38.00009: Tough Stretchable Physically-Crosslinked Hydrogel Fiber Mats from Electrospun Statistical Copolymers. Yiming Yang , R.A. Weiss , Bryan Vogt
1:03PM - 1:15PM	Y38.00010: Amphiphile-modified supramolecular hydrogels: optimized network structure and enhanced stiffness at "Goldilocks" amphiphile content Chao Wang , Byran Vogt , R.A. Weiss
1:15PM - 1:27PM	Y38.00011: Advancing Reversible Shape Memory by Tuning Network Architecture Qiaoxi Li , Jing Zhou , Mohammad Vatankhah Varnosfaderani , Dmytro Nykypanchuk , Oleg Gang , Sergei Sheiko
1:27PM - 1:39PM	Y38.00012: Increasing the Mechanical Strength of Block Polymer Ion Gels Through the Stepwise Self-Assembly of a Thermoresponsive ABC Triblock Terpolymer; Cecilia Hall , Can Zhou , Scott Danielsen , Timothy Lodge
1:39PM - 1:51PM	Y38.00013: Rheology and Relaxation Timescales of ABA Triblock Polymer Gels; Andrew Peters , Timothy Lodge
1:51PM - 2:03PM	Y38.00014: Non-continuum, anisotropic nanomechanics of random and aligned electrospun nanofiber matrices Daphney Chery , Biao Han , Robert Mauck , Vivek Shenoy , Lin Han

Friday, March 18, 2016, 11:15am-2:15pm

Session Y42 Focus Session: Renewable and Sustainable Polymers

Sponsoring Units: DPOLY
Chair: Megan Robertson, University of Houston
Room: *345*

11:15AM - 11:51AM	Y42.00001: Sustainable epoxy and oxetane thermosets from photo-initiated cationic polymerization. **Invited Speaker**: Chang Ryu
11:51AM - 12:03PM	Y42.00002: Structure and Dynamics of Cellulose Molecular Solutions Howard Wang , Xin Zhang , Madhusudan Tyagi , Yimin Mao , Robert Briber
12:03PM - 12:15PM	Y42.00003: Thermodynamics of coil-hyperbranched poly (styrene-b-acrylated epoxidized soybean oil) block copolymers. Fang-Yi Lin , Austin Hohmann , Nac\'u Hern\'andez , Eric Cochran
12:15PM - 12:27PM	Y42.00004: Mechanochemical modification of lignin and application of the modified lignin for thermoplastics and thermosets Xiaojie Guo , Jinwen Zhang , Junna Xin
12:27PM - 12:39PM	Y42.00005: Alignment of Fatty Acid-Derived Triblock Copolymers under Large Amplitude Oscillatory Shear Wenyue Ding , Shu Wang , Sameer Kesava , Enrique Gomez , Megan Robertson
12:39PM - 12:51PM	Y42.00006: PLA branching with anhydrides and tri-functional aziridine Liangliang Gu , Yuewen Xu , Rajasekhar Naredla , Thomas Hoye , Christopher Macosko
12:51PM - 1:03PM	Y42.00007: Wear Characteristics of Oleophobic Coatings in Aerospace Applications Hamza Shams , Bilal A. Siddiqui , Sajid Saleem
1:03PM - 1:15PM	Y42.00008: The influence of starch oxidization and aluminate coupling agent on interfacial interaction, rheological behavior, mechanical and thermal properties of poly(propylene carbonate)/starch blends Guo Jiang , Shui-Dong Zhang , Han-Xiong Huang

Friday, March 18, 2016 11:15am-2:15pm

Session Y55 Invited Session: Physics of Proteins: Pushing the Envelope on Understanding and Designing Function

Sponsoring Units: DBIO DCOMP DPOLY
Chair: Wouter Hoff, Oklahoma State University
Room: *Hilton Baltimore Holiday Ballroom 6*

11:15AM - 11:51AM	Y55.00001: Enhancing MD simulations of proteins using vague and combinatorics information **Invited Speaker**: Ken Dill
11:51AM - 12:27PM	Y55.00002: Molecular and cellular constraints on proteins **Invited Speaker**: Tanja Kortemme
12:27PM - 1:03PM	Y55.00003: Response of proteins to mechanical force **Invited Speaker**: Dave Thirumalai
1:03PM - 1:39PM	Y55.00004: Kinetic Cooperativity, Loop Dynamics, and Allostery from NMR and MD simulations **Invited Speaker**: Rafael Bruschweiler
1:39PM - 2:15PM	Y55.00005: Unraveling protein catalysis through neutron diffraction. **Invited Speaker**: Dean Myles

Aditional *Y* Sessions of Potential Interest

Session Y36 Focus Session: Soft Mechanics in Biological Systems
Sponsoring Units: GSOFT DBIO
Chair: Moumita Das, Rochester Institute of Technology
Room: *339*

Session Y37: Fracture, Friction, and Deformation
Sponsoring Units: GSOFT GSNP
Chair: Mark Robbins, John Hopkins University
Room: *340*

Disclaimer: *The information provided in this booklet is unofficial and is accurate as of 22.01.2016. For all official information please refer to the APS March Meeting Proceedings (http://meetings.aps.org/Meeting/MAR16). If there is any discrepancy between this booklet and the APS website, follow the APS website.*

Monday

Session	**A4**	**A33**	**A38**	**A39**	**A42**
Room	*Ballroom IV*	*336*	*341*	*342*	*345*
Chair	*Grest*	*Hall*	*Hore*	*Tuominen*	*Pye*
8:00 AM	**Doi**	Ghelichi	Grabowski	Austin	Fortais
8:12 AM		Leaf	Peng	Froberg	Chowdhury
8:24 AM		Yamamoto	Senses	Marushchak	Kim
8:36 AM	**Higgins**	Sikora	**Watkins**	Aslan	Singer
8:48 AM		Kwon		Adhikari	Patil
9:00 AM		Radhakrishna		Mishler	Lim
9:12 AM	**Freed**	Sing	Gorga	Jou	Katsumata
9:24 AM		Zhang	Zhou	Garley	Rajabibonab
9:36 AM		Chremos	Firestone	Raghavendra	Ledesma-Alonso
9:48 AM	**Muthukumar**	Perry	Garg	Le	Dalnoki-Veress
10:00 AM		Shojaei	Liang	Sarkar	Duranty
10:12 AM		Erbas	Singh	Duron	McIlroy
10:24 AM	**Klein**	Qu	Zhang	Ye	Migler
10:36 AM		Jung	Loeblein	Chaudhari	Biagioli
10:48 AM			Fengel	Yogurtcu	

Session	**B2**	**B4**	**B33**	**B34**	**B38**	**B42**
Room	*Ballroom II*	*Ballroom IV*	*336*	*337*	*341*	*345*
Chair	*Pincus*	*Balsara*	*Frieberg*	*Riggleman*	*Yang*	*Ullal*
11:15 AM	**Frenkel**	**Lodge**	Iacob	Prasad	Gimenez-Pinto	Mahanthappa
11:27 AM			Harry	Ghasimakbari	Ferrier	Chanpuriya
11:39 AM			Pan	Mysona	Rosch	Liu
11:51 AM	**Blumenfeld**	**Kumacheva**	**Greenbaum**	**Hall**	Lee	Arora
12:03 PM					Nam	Takano
12:15 PM					**Riggleman**	Li
12:27 PM	**Bouchaud**	**Kornfield**	Stacy	Tree		Irwin
12:39 PM			Pesko	Konigslow		Wang
12:51 PM			An	DeFelice	Glor	Hickey
1:03 PM	**Liverpool**	**Olsen**	He	Yang	Kang	Dehghan
1:15 PM			Mogurampelly	Spencer	Song	Padmanabhan
1:27 PM			Timachova	Gartner	Lindsay	Meenakshisund
1:39 PM	**Brujic**	**Cheng**	Lu	Khare	Soltani	Kwak
1:51 PM			Evans	Chen	Bai	Zeng
2:03 PM			Caldwell II	Stiff-Roberts		Vanderwoude

A04: Polymer Dynamics: An Honor Session for Sir Sam Edwards
A33: Charged & Ion-Containing Polymers
A38: Polymer Nanocomposites, Active Particles and Applications
A39: Physics of Proteins: Bio Meets Quantum
A42. Polymer Thin Films: Patterning and Flow

B02: The Edwards Statistical Mechanics
B04: Macromolecular Assemblies: Structure and Dynamics
B33: Polymers in Batteries
B34: Where Simulation, Theory, and Experiment Meet Across Length Scales I
B38: Nanocomposites from Nano to Meso
B42: Physics of Copolymers I

Monday

Session	**C4**	**C33**	**C34**	**C36**
Room	*Ballroom IV*	*336*	*337*	*339*
Chair	*Stevens*	*Hallinan*	*Majewski*	*Fernandez-Nieves*
2:30 PM	**Grest**	Zhu	Clarke	Conley
2:42 PM		Cruz	Cheung	Krafcik
2:54 PM		Zhu	Loewe	Naegele
3:06 PM	**Müller-Plathe**	Zhang	**Stevens**	**Schurtenberger**
3:18 PM		Zhang		
3:30 PM		Piedrahita		
3:42 PM	**Agrawal**	Liu	Anastasiadis	Hyatt
3:54 PM		Duan	Liu	Denton
4:06 PM		Zhan	Leger	Atkinson
4:18 PM	**Piana-Agostinetti**	**Srinivasan**	McMullen	Baylis
4:30 PM			Carrillo	Shamana
4:42 PM			Shen	Bockstaller
4:54 PM	**Dobrynin**	Bartels	Schantz	Girard
5:06 PM		Goswami	Noro	Wang
5:18 PM		Sangoro	Yang	Ramm

Session	**C37**	**C38**	**C41**	**C42**
Room	*340*	*341*	*344*	*345*
Chair	*Wang*	*Ryu*	*Dorfman*	*Hudson*
2:30 PM	Park	Hu	Dorfman	Brown
2:42 PM	Huang	Jung	Suma	Tsai
2:54 PM	Benkoski	Coughlan	Sheats	Gopinadhan
3:06 PM	Shimobayashi	Eaton	Bhattacharya	Ackerman
3:18 PM	Kumar	Bretz	Reifenberger	Martin
3:30 PM	Elbanna	Salerno	Wagner	Muller
3:42 PM	Amarpuri	**Pine**	Jeon	Cho
3:54 PM	Chen		Roushan	Sethuraman
4:06 PM	Grindy		Mondal	Martinetti
4:18 PM	Filippidi	Diaz	**Reisner**	Pestka II
4:30 PM	Schwenger	Abukhdeir		Wamuo
4:42 PM	Swan	Burel		Yan
4:54 PM	Liu	Horst	Katkar	Shrestha
5:06 PM	Rocks	Choudhary	Kamanzi	Kumaki
5:18 PM	Kasai	Li	Azad	Sen

C04: Bridging Time and Length Scales: From Nano Assemblies to Bio-Polymers
C33: Polymers in Batteries and Electrochemical Capacitors
C34: The Physics of Confined Structured Fluids I
C36: Soft Colloids: From Single Particle Properties to Bulk Phase Behavior and Dynamics
C37. Physics of Bioinspired Materials I
C38: Focus Session: Assembly of Soft Nanoparticles and Colloids in Solution
C41: Biopolymers in Confinement: I
C42: Physics of Copolymers II: Bulk and Thin Films

Tuesday

Session	**E4**	**E33**	**E37**	**E42**
Room	*Ballroom IV*	*336*	*340*	*345*
Chair	*Cheng*	*Roth*	*Edmond*	*Audus*
8:00 AM	**Balazs**	**Session Break**	Thyagarajan	**Session Break**
8:12 AM			Wang	
8:24 AM			Pan	
8:36 AM	**Epstein**	Hung	Crocker	Sharma
8:48 AM		Tylinski	Demiroers	Lee
9:00 AM		Fakhraai	Travesset	Rashidi
9:12 AM	**Ginzburg**	Zhang	Li	Li
9:24 AM		Powell	Adams	Watanabe
9:36 AM		Zhang	Loh	Sakaguchi
9:48 AM	**Hammer**	Lopez	Shen	Salgado
10:00 AM		Huang	Harper	Mah
10:12 AM		Cangialosi	Faller	Wen
10:24 AM	**Aizenberg**	Napolitano	Ilday	Cantu
10:36 AM		Jeong	Beck	Pryamitsyn
10:48 AM		Hall	Fontana	Patel

Session	**F4**	**F33**	**F36**	**F38**	**F42**
Room	*Ballroom IV*	*336*	*339*	*341*	*345*
Chair	*Rubinstein*	*Watkins*	*Starr*	*Burghardt*	*Lee*
11:15 AM	**Richter**	**Shpyrko**	Rahbar	Martin	Ma
11:27 AM			Lee	Tang	Li
11:39 AM			Emamy	Zhao	Mansbach
11:51 AM	**Everaers**	Zhao	Chang	Ilton	Jung
12:03 PM		Bekele	Wang	Hebert	Laaser
12:15 PM		Sahu	Nallapaneni	Kim	Senanayake
12:27 PM	**Ge**	Defante	**Studart**	Xia	Sepulveda
12:39 PM		**Junghans**		Zhang	Yokoyama
12:51 PM				Kipp	Lund
1:03 PM	**Floudas**		Pitenis	Koski	Hore
1:15 PM		Wang			Shin
1:27 PM		Baeumchen			Moths
1:39 PM	**McKenna**	Phan			Zhao
1:51 PM		Raut			Jiang
2:03 PM					Km

E04: Polymer Physics Prize
E33: Polymer Glass Formation and Stability
E37: Self and Directed Assembly (Equilibrium and Non-Equilibrium)
E42: Bi-Component Systems: Composites and Blends

F04: Polymer Architecture Effects on Structure Dynamics
F33: The Physics of Confined Structural Fluids II
F36: Physics of Bioinspired Materials
F38: Padden Award Symposium
F42: Polymer Assembly I

Session	**H4**	**H33**	**H38**	**H41**	**H42**
	Ballroom IV	*336*	*341*	*344*	*345*
Chair		*Salerno*	*Clarke*	*Dorfman*	*Hammouda*
2:30 PM	**Epps**	Grzetic	Schneider	Auger	Ryu
2:42 PM		Aryal	Mangal	de Haan	Mineart
2:54 PM		Larson	Li	Li	Sosa
3:06 PM	Bates	Nahum	Hor	Henkin	Kim
3:18 PM	Park	Jadhao	Cheng	Jain	Ma
3:30 PM	Lodge	Dell	Asai	Narsimhan	Wei
3:42 PM	Robertson	Hall	Xie	**Mehlig**	Kim
3:54 PM	Wang	Katzarova	Ring		O'Bryan
4:06 PM	Hall	Taniguchi	Griffin		Gao
4:18 PM	Register	Yilmaz	Carroll	Cifra	Ganesan
4:30 PM	Priestley	O'Connor	Su	Klotz	Liu
4:42 PM	Olsen	Parker	Trazkovich	Greenier	Eghtesadi
4:54 PM	Boudouris	Sarkar	Weir	Amin	Jing
5:06 PM	Karim	Chattaraj	Jiao	Sean	Srivastava
5:18 PM	Vogt	Molinari	Mbanga	Gupta	Han

H04: Dillon Medal Symposium
H33: Where Simulation, Theory, and Experiment Meet Across Time Scales
H38: Polymer Nanocomposites: Dynamics
H41: Biopolymers in Confinement II
H42: Polymer Assembly II

J33 DPOLY Business Meeting
J33A DPOLY NSF Question and Answer Session

Wednesday

Session	**K4**	**K33**	**K36**	**K38**	**K41**	**K42**	**K52**
Room	*Ballroom IV*	*336*	*339*	*341*	*344*	*345*	*Ballroom 3*
Chair		*Rafailovich*	*Subramanian*	*Croll*	*Wong*	*He*	
8:00 AM	**Karim**	**Pentzer**	**Perez**	Fowler	**OHern**	Winey	Voros
8:12 AM				Simmons		Rojas	Kim
8:24 AM				Baglay		Wiener	Zhang
8:36 AM	**Clarke**	Lee	Foley	**Tsui**	Yan	Prabhu	Goldman
8:48 AM		Ferron	Li		Gaines	Meyer	Cho
9:00 AM		Yang	Martelli		Bak	Koga	Long
9:12 AM	**Cheng**	**Kuppa**	Walter	Zhang	Pacheco	Kweon	Ha
9:24 AM			Goddard	Roland	Pivkin	Rokhlenko	Edley
9:36 AM			Misiunas	Christie	Dias	Wang	Tan
9:48 AM	**Salerno**	Jang	Chien	Jackson	Mahmoudinoba	**Tyagi**	Davoody
10:00 AM		Sanoja	Watenpool	Askar	Larini		Younts
10:12 AM		Goldey	Walton	Hsu	Lusebrink		Cheng
10:24 AM	**Winey**	Liu	Grych	Torkelson	Thurston	Burghardt	Arinze
10:36 AM		Tzolov	Rudzinski	Davis	Kandel	**Moule**	
10:48 AM			McGaughey	Wang	Wang	Koo	

Session	**L12**	**L53**
Room	*308*	*Ballroom IV*
Chair	*Douglas*	
11:15 AM	**Rao**	Korculanin
11:27 AM		Han
11:39 AM		Chu
11:51 AM	**Fan**	Huang
12:03 PM		Masnada
12:15 PM		Latka
12:27 PM	**Hexemer**	Nixon
12:39 PM		Thomas
12:51 PM		Shi
1:03 PM	**Agarwal**	Licata
1:15 PM		Bowie
1:27 PM		Zhang
1:39 PM	**Singh**	Santiago
1:51 PM		Nicolaou
2:03 PM		Dunstan

K04: From Nano to Meso: Assembly, Structure and Dynamics of Polymers and Polymer Nanocomposite Thin Films I - Industry Day
K33: Polymers for Solar Energy Conversion
K36: Coarse-graining, Advanced Sampling and Multiscale Methods in Soft Matter
K38: Glasses Altered by Interfaces I
K41: Physics of Proteins: Protein-Protein Interactions
K42: Polymer Dynamics - Insight from In-Situ Scattering
K52: Nanostructured Photovoltaics

L12: From Nano to Meso: Assembly Structure and Dynamics of Polymers and Polymer Nanocomposite Thin Films II - Industry Day
L53: Flow of Complex Fluids, Polymers, Gels

Wednesday

M1: Poster Session II – 11:30 AM – 2:30 PM			
Exhibit Hall A, DPOLY Posters 2-373			
02 Dong	48 Gadelrab	094 Ehlers	140 Trigg
03 Kim	49 Krook	095 Moritz	141 Migler
04 Lee	50 Drapes	096 Mikhail	142 Yi
05 Ilday	51 Nelson	097 Kidd	143 He
06 Wang	52 Lee	098 Kozuch	144 Lund
07 Cooksey	53 Kim	099 Xue	145 Bubeck
08 Berg	54 Kim	100 Guo	146 Dubey
09 Norris	55 Qiang	101 Sethuraman	147 Tanna
10 Sharma	56 Coskunkan	102 Mulhearn	148 Sheng
11 Mei	57 Luna	103 Kim	149 Griffin
12 Roberson	58 McEnnis	104 Hwang	150 Soltani
13 Zhang	59 Cao	105 Gai	151 Zehner
14 Lu	60 Mills	106 Cisneros	152 Bichler
15 Henderson	61 Gray	107 Buckley	153 Tamukong
16 Mao	62 Stanzione	108 Deshmukh	154 Alam
17 Wang	63 Fu	109 Kinsey	155 Potter
18 Taylor	64 Fitzpatrick	110 Mogurampally	156 Huang
19 Chen	65 Kim	111 Frisken	157 Sen
20 Wang	66 Wang	112 Cosby	158 Amanuel
21 Iacob	67 Patil	113 Harris	159 Griffin
22 Schulte	68 Bickel	114 Walker Jr	160 Pressly
23 Ancipink	69 Lee	115 Melillo	161 Maksoed
24 Hoo	70 Qin	116 Ouchi	163 Shklyaev
25 Luo	71 Twohig	117 Cao	164 Shum
26 Evke	72 Chen	118 Biswas	165 Fodor
27 Almutairi	73 Dobrynin	119 Yang	166 Mahmud
28 Carradero-Santiago	74 Chen	120 Sing	167 Lung
29 Vollmann	75 Mahmoudi	121 Mishra	168 Guzman
30 Chen	76 Tatek	122 Nishi	169 Song
31 Purdum	77 Chang	123 Watanabe	171 Dahal
32 Powers	78 Patterson	124 Kim	172 Horing
33 Thomas	79 Dahal	125 Wang	173 Miessein
34 Serrano	80 Heres	126 Arechederra	174 Zhang
35 Canimkurbey	81 Miao	127 Kropka	175 Hoss
36 Kodithuwakku	82 Kobayashi	128 Zheng	176 Cypull
37 Jimenez	83 Ogihara	129 Zhao	177 Ronti
38 Yang	84 Li	130 Ruan	178 Cazzell
39 Tunc	85 Kobayashi	131 Amini	179 Tu
40 Fu	86 Kim	132 Thomas	180 Laurati
41 Moule	87 Mbanga	133 Marand	181 Locatelli
42 Majewski	88 Kwon	134 Dong	182 Hung
43 Sun	89 Zhang	135 Endo	183 Fulford
44 Li	90 Yarar	136 Capaldi	184 Pähtz
45 Hay	91 Fonseca	137 Curtin	185 Ghanbarzadeh
46 Reneker	92 Liu	138 Cebe	186 Lohse
47 Laster	93 Rivera	139 Kelly	187 Geng

Wednesday

M1: Poster Session II – 11:30 AM – 2:30 PM			
Exhibit Hall A, DPOLY Posters 2-373			
188 Seymour	236 Walker	284 Potoyan	332 Ruas
189 Buck	237 Vajpeyi	285 Zhang	333 Henry
190 Dinic	238 Assi	286 Takahashi	334 Mount
191 Yilixiati	239 Plyukhin	287 Nepal	335 Henry
192 Kutlu	240 Fouts	288 Korolev	336 Van Quang
193 Muller	241 Tokel	289 Gorse	337 Jo
194 Swan	242 Liang	290 Zuo	338 Connolly
195 Godfrin	243 Kurimura	291 Chen	339 Aryal
196 Staunton	244 Holz	292 Emonet	340 Bekele
197 Karzar-Jeddi	245 Gabrielli	293 Dalafave	341 Safi
198 Kealhofer	246 Luo	294 Prathivadhi	342 Ergen
199 Han	247 Chen	295 Haoran	343 Intsiful
200 Pelaez-Fernandez	248 Mueller	296 Winter	344 Ahn
201 Jordan	249 Kwon	297 Song	345 Lu
202 Li	250 Cai	298 Li	346 Castigliego
203 Lund	251 Young	299 Zhang	347 Xue
204 Hall	252 Huang	300 Adlerz	348 Macal
205 Streletzky	253 Bonfim	301 Weigand	349 Yongquan
206 Han	254 Nath	302 Garces	350 Chen
207 Wagner	256 Forde	303 Ory	351 Zhang
208 Ye	257 Freeman	304 Bray	352 Genovese
209 Mendoza	258 Kelly	305 Nguyen	353 Lowinger
210 Lin	259 Stabile	306 To	354 Feng
211 Sett	260 Bhowmik	307 Dunstan	355 Liang
212 Sánchez	261 Shi	308 Dickens	356 Kher
213 Melchert	262 Custer	309 Hoff	357 Kaburaki
214 Neufeld	263 Kalakonda	310 Perez-Escudero	358 Kim
215 Park	264 Jack	311 Lyzwa	359 Abdullah
216 Hess	265 Huang	312 Lee	360 Ho
217 Sinha	266 Cao	313 Stefan	361 Strange
218 Shimobayashi	267 Luan	314 Holman	362 Crain
219 Wah	268 Ganesan	315 Liedtke	363 Bariakhtar
220 Singh	269 Volkan-Kacso	316 Sizemore	364 Lee
221 Chiu	270 Liu	317 Mishler	365 Lee
222 Chen	271 Zhang	318 Xu	366 Kang
223 Hashemnejad	272 Bryden	319 Nelsom	367 Ammar
224 Swan	273 Othon	320 Nelson	368 Kobayashi
225 Yashin	274 Starkey	321 Hamid	369 Collins
226 Regitsky	275 Prokopovich	322 Arreola	370 Noro
227 Del Gado	276 Guzman	324 Long	371 Luo
228 Tao	277 Muthee	325 Welch	
230 Megson	278 Larini	326 Sergeev	
231 Elbanna	279 Truex	327 Scivetti	
232 Wang	280 Feeney	328 Hoang	
233 Bilal	281 Pusuluri	329 Shareef	
234 Avendano	282 Vandal	330 Dharamasena	
235 Farrell	283 Rangel	331 Blackburn	

Wednesday

Session	**P12**	**P33**	**P34**	**P37**
Room	*308*	*336*	*337*	*340*
Chair	*Perahia*	*Ratnaweera*	*Wang*	*Matysiak*
2:30 PM	**Robbins**	Wildman	Thurston	Vernerey
2:42 PM		Li	Kaye	Custer
2:54 PM		Li	Dong	Ramos
3:06 PM	**Veld**	Wan	Grosenick	Zwanikken
3:18 PM		Patel	Kornreich	Wang
3:30 PM		Walters	Jeong	Wu
3:42 PM	**Heine**	Acevedo-Cartagena	Ghobadi	Joshipura
3:54 PM		Zhang	Butt	Nazarzadeh
4:06 PM		Collins	Cheng	Chen
4:18 PM	**Lechman**	Smith	**Keten**	Gaston
4:30 PM		Kim		Fiedler
4:42 PM		Xie		Johnson
4:54 PM	**Plimpton**	Bai	Cebe	Ma
5:06 PM		Liu	Xu	Sega
5:18 PM		Purdum	Grossutti	Carpentier

Session	**P38**	**P41**	**P42**	**P54**
Room	*341*	*344*	*345*	*Ballroom 5*
Chair	*Tsige*	*O'Heam*	*Agarwal*	
2:30 PM	Burroughs	**Xie**	Janes	Majumdar
2:42 PM	Holt		Bilchak	Yoon
2:54 PM	Buenning		Zhang	Murray
3:06 PM	**Foster**	Cai	**Chan**	Emery
3:18 PM		Xu		Fang
3:30 PM		Wu		Ergen
3:42 PM	Paul	Moreau	Feldman	Fan
3:54 PM	Thees	Nucci	Davis	Schlittenhardt
4:06 PM	Geng	Niessen	Frieberg	Zakhidov
4:18 PM	Barkley	GC	He	Gautam
4:30 PM	Dhopatkar	Vural	Ricarte	Chia
4:42 PM	Khare	Salsbury	Beckingham	
4:54 PM	Dormidontova	Deng	Hallinan	
5:06 PM	Mao	Pandey	Croce	
5:18 PM	Liewehr	Shrestha	Zhang	

P12: Bridging Time and Length Scales in Polymers and Soft Materials: Computational Pathways to Accelerate the Lab to Fab Transition - Industry Day
P33: Organic Electronics and Photonics - Structure-Property Relationships
P34: Biopolymers and Biohybrid Polymers - Assembly and Thermodynamics
P37. Soft Matter Interfaces: BIo-, Dielectrics, Transport and Other Phenomena
P38: Glasses Altered by Interfaces II
P41: Physics of Proteins: Structure and Dynamics I
P42: Small Molecule Transport in Polymers and Polymer Nanocomposites I
P54: Organic Systems for Photovoltaics, Including Perovskites

Thursday

Session	R4	R33	R34	R38	R39	R42
Room	*Ballroom IV*	*336*	*337*	*341*	*342*	*345*
Chair	*Sukhishvili*	*Sinkovitis*	*Hoy*	*Olsen*	*Marko*	*Phillip*
8:00 AM	**Stuart**	**Rumbles**	Lin	Li	**Olson**	Zhang
8:12 AM			Li	Datta		Seo
8:24 AM			Masurel	Mao		Mani
8:36 AM	**Madsen**	Fusella	Caruthers	Hashemnejad	Goloborodko	**Geise**
8:48 AM		Gundogdu	Medvedev	Marmorat	Zhang	
9:00 AM		Aplan	Liu	Foucard	Chereji	
9:12 AM	**Frischknecht**	**DeLongchamp**	Guo	Maxwell	Qui	Li
9:24 AM			Nguyen	Xu	Fudenberg	Rathee
9:36 AM			Xu	Xu	**Zhuang**	Miao
9:48 AM	**Hoagland**	Davy	White	**Holton-Andersen**		Bringuier
10:00 AM		Kong	Lipson			Motevalli
10:12 AM		Qiu	Mangalara		Di Pierro	Khawaja
10:24 AM	**Sokolov**	Limanek	Liu	Jha	Nuebler	Krawczyk
10:36 AM		McIntyre	Zhao	Gorczyca	Lequieu	Varady
10:48 AM		Moore	Matsushima	Duncan	Sanborn	

Session	S33	S38	S39	S41	S42
Room	*336*	*341*	*342*	*344*	*345*
Chair	*Griffin*	*Foucard*	*Mirny*	*Xie*	*Ryu*
11:15 AM	Chopade	**Levine**	Farre	**Zhong**	Wijesinghe
11:27 AM	Kambe		Bunin		Yang
11:39 AM	Kim		Jung		Ku
11:51 AM	Arges	Regmi	Wunsch	Atakisi	McGovern
12:03 PM	Wickramasingh	Komianos	Li	Yang	Liu
12:15 PM	Truong	Ahmed	Truex	Charkhesht	Gao
12:27 PM	Dudenas	**Saleh**	Silverberg	Jena	**Lee**
12:39 PM	Beyer		Shinaberry	Su	
12:51 PM	Kusoglu		Baez	Dahal	
1:03 PM	Lutkenhaus	Forde	**Igoshin**	Nelson	Wang
1:15 PM	Selin	Wu		Green	Vo
1:27 PM	Sampath	Honda		Moreland	Kempaiah
1:39 PM	Chintapalli	Zhang	Brahmachari	Potoyan	Maskey
1:51 PM	Middleton	Gurmessa	Shvets	McCarthy	Guerrero
2:03 PM	Chung	Schnauss	Wang		Touhami

R04: Where Electrostatics Counts: Assembly and Dynamics of Ionic Polymers
R33: Organic Electronics and Photonics - Organic Photovoltaics
R34: Polymer Glasses
R38: Biopolymers and Biohybrid Polymers: Networks and Hydrogels
R39: Physics of Genome Organization: from DNA to Chromatin I
R42: Small Molecule Transport in Polymers and Polymer Nanocomposites II

S33: Ion Containing Polymer Membranes
S38: Mechanics of Biopolymers: Networks and Assemblies
S39: Physics of Genome Organization: from DNA to Chromatin II
S41: Physics of Proteins: Protein Structure and Interactions
S42: Assembly of Nanoparticles

Thursday

Session	**V4**	**V33**	**V34**	**V38**	**V41**	**V42**	**V55**
Room	*Ballroom IV*	*336*	*337*	*341*	*344*	*345*	*Ballroom 6*
Chair	*Gomez*	*Stein*	*Simmons*	*Levine*	*Chou*	*Wang*	*Morozov*
2:30 PM	**Russell**	Kim	Ropero	Schweizer	**Cao**	**Alamo**	**Marko**
2:42 PM		Majewski	Marques	Waters			
2:54 PM		Popere	Mukherji	Jee			
3:06 PM	**Loo**	**Kim**	**Kumar**	Mai	Feng	Trigg	**Mirny**
3:18 PM				Hsiao	Sabass	Habersberger	
3:30 PM				Kafle	Volkan-Kacso	Endoh	
3:42 PM	**Boudouris**	Longanecker	Dahal	Zhou	Feofilova	**Macosko**	**Kondev**
3:54 PM		Baruth	Abbott	Krajina	Nirody		
4:06 PM		Ye	Huang	Doyle	Tehver		
4:18 PM	**Moule**	Shelton	Mahalik	**Grosberg**	Yan	McDermott	**Garcia**
4:30 PM		Toth	Qi		Hinczewski	Laird	
4:42 PM		Choo	Radu		Fok	McDaniel	
4:54 PM	**Mackay**	Chen	Nguyen	Chubynsky	Turvey	Kang	**Zhang**
5:06 PM		Vapaavuori	Greco	Boerma	Kopchick	Auriemma	
5:18 PM		Qi	Calame	Chen	King	Hong	

V04: Where Morphology Meets Functionality: Light and Electron Transporting Polymeric Complexes
V33: Block Copolymer Thin Films: Directed Self-Assembly
V34: Where Simulation, Theory, and Experiments Meet Across Length Scales II
V38: Mechanics of Biopolymers: Single Polymer Dynamics
V41: Physics of Proteins: Mechanics and Forces
V42: Polymer Architecture, Control of Structure and Dynamics in Polyolefins
V55: DNA Physics and Chromatin Organization

Friday

Session	X4	X33	X34	X38	X41	X42
Room	*Ballroom IV*	*336*	*337*	*341*	*344*	*345*
Chair	*Cheng*	*Zhu*	*Orellana*	*Hayward*	*Cao*	*Ismail*
8:00 AM	**Tumbleston**	Moog	Feitosa	Gadelrab	Zhao	Chai
8:12 AM		Yamashita	Du	Sunday	Farmer	Wang
8:24 AM		Brady	Bargteil	Lee	Zhao	Horn
8:36 AM	**Vaia**	Jiang	Peddireddy	**Yager**	Hristova	Thomas
8:48 AM		Lin	Kumar		Hoff	Yuan
9:00 AM		Parui	Venkatesh		Song	Nazari
9:12 AM	**Genzer**	Dong	Orellana	Hill	Thorne	Miranda
9:24 AM		Laudari	Maia	Qiang	Virrueta	Davidson
9:36 AM		Sung	Hwang	Sun	Sivak	Endo
9:48 AM	**Rafailovich**	Baradwaj	Cabriolu	Hannon	Castellanos	Mohammadi
10:00 AM		Shiva	Kuksenok	Ryu	Shi	Chen
10:12 AM		Lee	Abidib	Carpenter	Cooper	Mulhearn
10:24 AM	**Nealey**	Hashemi	Adhikari	Choi	Neto	Burks
10:36 AM		Tiras	Yilixiati	Liman	Peter	Burns
10:48 AM		Oliva	Acharige		Evans	Hsieh

Session	Y38	Y42	Y55
Room	*341*	*345*	*Ballroom 6*
Chair	*Genzer*	*Robertson*	*Hoff*
11:15 AM	Biswas	**Ryu**	**Dill**
11:27 AM	Wang		
11:39 AM	Sing		
11:51 AM	Dobrynin	Wang	**Kortemme**
12:03 PM	Daniel	Lin	
12:15 PM	Rohde	Guo	
12:27 PM	Sheiko	Ding	**Thirumalai**
12:39 PM	Mishra	Gu	
12:51 PM	Yang	Shams	
1:03 PM	Wang	Jiang	**Bruschweiler**
1:15 PM	Li		
1:27 PM	Hall		
1:39 PM	Peters		**Myles**
1:51 PM	Chery		
2:03 PM			

X04: From Polymer Topology to Performance Materials
X33: Organic Electronics and Photonics - Organic Electronic Devices
X34: Emulsions, Foams, Gels, and Complex Fluids
X38: Block Copolymer Thin Films: Directed Assembly
X41: Physics of Proteins: Structure and Dynamics II
X42. Semicrystalline Polymers

Y38: Polymeric Elastomers and Gels
Y42: Renewable and Sustainable Polymers
Y55: Physics of Proteins: Pushing the Envelope on Understanding and Designing Function