

Texas Soft Matter Meeting Schedule

Texas A&M University

August 12, 2013

<http://txsoftmatter.chee.uh.edu>

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8:00-9:00	Breakfast and Check-In
9:00-9:45	Invited Speaker: Dr. Megan Robertson University of Houston <i>Thermoplastic elastomers and thermosets derived from vegetable oils</i>
9:45-10:30	Jaime Hutchison University of Texas at Austin <i>Using optical tweezers to examine the development of structure in bacterial biofilms</i>
	Chris Rodesney University of Texas at Austin <i>Single-cell control of structure in co-culture biofilms</i>
	Anupam Aich University of Houston <i>Autocatalytic release of Heme in normal and sickle erythrocytes</i>
	Madeleine Bartel University of Houston <i>The solubility of RNase A in presence and absence of ethanol</i>
	Thomas Bessy University Of Houston <i>Influence of crystal size on seeded hematin crystallization</i>
	Megan Brooks Texas A&M University <i>Fabricating poly-HIPE microspheres for targeted drug release</i>
	Sahar Farmanesh University of Houston <i>Design of biomimetic crystal modifiers of calcium biominerals</i>
	Min-Chi Hsieh Texas A&M University <i>Use of layer by layer self-assembly to create vaccine formulations</i>
	Karishma S Kaushik University of Texas at Austin <i>The impact of population structure on the spread of antibiotic resistance</i>
	Megan Ketchum University of Houston <i>Solubility of hematin in physiological conditions</i>
	Jinsu Kim University of Houston <i>Sensitive, rapid, amplification-free immunoassay using labeled bacteriophage, magnetic capture beads and image processing technique</i>
	Pauline Luong Texas A & M University <i>Chronic wound dressing based on degradable hydrogel microspheres</i>

	Jun Kyun Oh	Texas A&M University
	<i>Inhibition of bacterial adhesion and attachment using silica aerogels</i>	
	Katy Olafson	University of Houston
	<i>Mechanisms of beta-hematin crystal growth by in situ AFM</i>	
	Kevin Pollack	Texas A&M University
	<i>Novel designs in anti-biofouling coatings using crosslinked terpolymer networks</i>	
10:30-10:50	Break	
10:50-11:15	Kellie Seetho	Texas A&M University
	<i>Amphiphilic zwitterionic polymer systems for anti-Biofouling applications</i>	
	Sumedha Sharma	University of Houston
	<i>Study of bacterial adhesion on engineered surfaces using single bacterium tracking</i>	
	Maria Vorontsova	University of Houston
	<i>Partial protein unfolding in formation of the dense liquid clusters in protein solutions</i>	
	Shu Wang	University of Houston
	<i>Development of soybean oil-based toughening agents for polylactide</i>	
	Vivek Yadav	University of Houston
	<i>Synthesis of pH & temperature responsive polymer for bacterial adhesion studies</i>	
	Ming Zhang	Texas A&M University
	<i>Adsorption and removal dynamics of polymeric micellar nanocarriers loaded with therapeutic agents on silica surfaces</i>	
	Jing Zhou	Texas A&M University
	<i>Thermo-responsive layer-by-layer assemblies for nanoparticle-based drug delivery</i>	
	Pantea Afzali	University of Houston
	<i>Phase separation of PS-PMMA blends</i>	
11:15-12:00	Invited Speaker: Dr. Karen Wooley	Texas A&M University
	<i>The importance of chemical control to afford functionally-sophisticated and biologically-active nanoscopic macromolecules as discrete objects and supramolecular assemblies</i>	
12:00-1:00	Lunch	
1:00-1:45	Invited Speaker: Dr. Kenneth Balkus	University of Texas, Dallas
	<i>Novel mixed matrix membranes for gas separations</i>	
1:45-3:00	Saeed Ahmadi Vaselabadi	University of Houston
	<i>Structure-property Studies in p-conjugated Polymers</i>	
	Stacy Cereceres	Texas A&M University
	<i>Characterization of the in vivo degradation mechanisms of PEGDA hydrogels</i>	
	Kai Gong	Rice University
	<i>Phase behavior of "smart" polymer brushes</i>	

Tyler Guin Texas A&M University
Intumescent all-polymer multilayer nanocoating capable of extinguishing flame on cotton fabric

David Hagen Texas A&M University
Super oxygen barrier of polymer-clay nanobrick wall thin films

Kevin Holder Texas A&M University
Clay-chitosan nanobrick walls: A renewable flame retardant system for polyurethane foam

Hsiu-Chin Huang Texas A&M University
Tensile testing for polyelectrolyte multilayers containing polyethylene-based ionomers

Xiayun Huang Texas A&M University
Wettability modulation and omniphobic slippery coating based on polyelectrolyte multilayers

Samantha Kristufek Texas A&M University
Synthesis and characterization a novel, fluorescent polymer, tribenzylquercetin polycarbonate

Xianyu Li Rice University
The role of side-chain conformation on the solution phase behavior of PNIPAAm bottlebrush polymers

Nikhila Mahadevapuram University of Houston
Nanopatterning using thin films of block copolymers

Jared Mike Texas A&M University
Polythiophene block copolymers and vanadium pentoxide composite materials for electrochemical energy storage

Rahul Pandey University of Houston
Rheology and confined dynamics of mixtures of polymer and bidispersed colloids

Abhijit Patil University of Houston
Catalyst diffusion in reactive polymer films

Stacy L. Pesek Rice University
Poly(lactic acid)-b-Poly(ethylene glycol) (PLA-b-PEG) bottlebrush polymers

Joe Puhr Texas A&M University
Thermal analysis of later-by-layer films using quartz crystal microbalance with dissipation

Jeffery E. Raymond Texas A&M University
Tracking dynamic response in polymer systems by time resolved fluorescence

Dariya Reid Texas A&M University
Curvature directed crystallization of polymers

Lin Shao Texas A&M University
Polyaniline nanofiber/vanadium pentoxide sprayed layer-by-layer electrodes for energy storage

Stephanie Skiles Texas A&M University
Tunable properties of stimulus responsive PNIPAM/SiO₂ composite films

Choonghyun Sung Texas A&M University
A comparison of thermal transitions in dip- and spray- assisted layer-by-layer assemblies

Ping Tzeng Texas A&M University
Super gas barrier of all-polymer multilayer thin films

Qiqi Xiang Rice University
Thermal properties of linear and bottlebrush poly(lactic acid)

Yueyi Xu Texas Tech University
Brownian dynamics simulation of dispersed sheetlike macromolecules under flow

Guozhen Yang University of Houston
Synthesis of sustainable and degradable thermosetting polymers

3:00-3:20

Break

3:20-4:15

Ziniu Yu Texas Tech University
Thermal history and guest molecule effects in smectic polydomain networks

Fuwu Zhang Texas A&M University
Design and synthesis of degradable polymeric nanoparticles carrying silver-based antimicrobials as therapeutics for lung infections

Aditya Agrawal Rice University
Liquid crystal elastomers for functional materials

Firoozeh Babaye University of Houston
Nanoparticle dynamics in viscoelastic media

Deepti Ballal Rice University
Hydrophobic and hydrophilic interactions in aqueous mixtures of alcohols at a hydrophobic surface

Amram Bengio Rice University
Length measurement of long carbon nanotubes by cryogenic transmission electron microscopy

Sriya Das Texas Tech University
Graphene non-covalently tethered with magnetic nanoparticles

Logan Hatanaka Texas A&M University
Alpha-zirconium nanocomposites

Fahmida Irin Texas Tech University
Detection of carbon nanotubes in biological samples through microwave induced heating

Bennett Marshall Rice University
Thermodynamic perturbation theory for the self-assembly of patchy colloids

Ilse Nava Texas A&M University
Thermoresponsive janus nanoplates

Honglin Qu Lamar University
Coaxial electrospun nanostructures and their applications

Chinedu Umeasiegbu University of Houston
pH-responsive behavior of aqueous CTAB/NaSal solutions

Xuezhen Wang Texas A&M University
Wax disks fabricated via pickering emulsions

Xingru Yan Lamar University
Magnetic polystyrene nanocomposites reinforced with magnetite nanoparticles

Gina G. Paroline Anton Paar USA
New developments in RheoMicroscopy

Michael Byington University of Houston
Design of microfluidic heater for crystal nucleation rate studies

Duanduan Han Texas A&M University
Embedding crytallographically imprinted surface topographies in microchannels

Xi Zhang Lamar University
Polyaniline stabilized barium titanate nanoparticles reinforced epoxy nanocomposites

4:15-5:00 Invited Speaker: **Dr. Micah Green** Texas Tech University
Non-covalent functionalization, dispersion, and processing of pristine graphene