

FALL 2022 POSTER SYMPOSIUM

Tuesday October 11th, 3:30-5PM

No.	Presenter(s)	Author(s)	Poster Title	Advisor(s)	Presenter Email(s)
A1	Muhammad Ali	Jason Gulbinski, Wei Fan, Muhammad Ali	Phosphorous Based Zeolites for Biomass Conversion	Fan	muhashah@umass.edu
A2	Claire Senger	Claire Senger, Xiao Fan, James Nicolas Pagaduan, Xiaoyu Zhang, Jinglei Ping, Reika Katsumata	Defect Healing in Graphene via Rapid Thermal Annealing with Polymeric "Nanobandage"	Katsumata	csenger@umass.edu
A3	Demi Moed	Demi E. Moed, Alfred J. Crosby	Mesoscale Polymer Ribbon Arrays: Biofilm-Inspired, Flexible, Fibrillar Adhesives	Crosby	dmoed@umass.edu
A4	Roshni John Chethalen	Roshni John Chethalen, Eli Fastow, Karen I. Winey, E. Bryan Coughlin	Functionalization of C=C Through Thiolene Click Chemistry: Progress Towards Polyolefin Upcycling	Coughlin	rchethalen@umass.edu
A5	Ying Zhou	Ying Zhou, Alan Lesser	Aspects of the Melt Explosion and Sintering Behavior of UHMWPE	Lesser	yinzhou@umass.edu
A6	John Daguerre-Bradford	John Daguerre-Bradford, Petr Lepcio, Alan J. Lesser, Anna Mueller-Cristadoro, Markus Schuette	High Performance Nanocomposite Foams Generated via Frontal Polymerization	Lesser	jdaguerrebra@umass.edu
A7	Mingqiu Hu	Mingqiu Hu, Xindi Li, Hong-Gyu Seong, Javid Rzayev, Todd Emrick, Wim Bras, William Heller, Weiguo Hu, Thomas P. Russell*	Characterization of the self-assembled morphologies of linear and bottlebrush copolymers in bulk phase and thin films	Russell	mingqiu@umass.edu
A8	Pankaj Kumar Pandey	Pankaj Pandey, Arvind Sathyavageeswaran, Nickolas Holmlund, Sarah L. Perry	Complex coacervation between DEAE Dextran and Carbon quantum dots	Perry	pankajkumar@umass.edu
A9	Christopher Cueto	Christopher Cueto, Weiguo Hu, Alexander Ribbe, Kimberly Bolduc, Todd Emrick	Tuning Color of Perovskite Nanocrystals with Polymer Ligands	Emrick	ccueto@umass.edu
A10	Brandon Clarke	Brandon R. Clarke, Hyemin Kim, Carolyn Watkins, Mark Ilton, James J. Watkins, Alfred J. Crosby, and Gregory N. Tew	Controlling the Mechanical Properties of Bottlebrush Networks via Constitutional Isomerism	Tew	bclarke@mail.pse.umass.edu
A11	Sarthak Saha	Sarthak Saha, Yaozu Chen, Can Özden, Margaret Stratton, Sarah L. Perry	Polymer Microfluidics and X-ray Crystallography	Perry	ssaha@umass.edu
A12	Meredith Taghon	Meredith M. Taghon, Alfred J. Crosby	Soft adhesive latches to control the kinematic response of a recoiling elastic spring	Crosby	mtaghon@umass.edu
A13	Deborah Snyder	Deborah Snyder, Jing Zhao, Zhefei Yang, James Nicolas Pagaduan, Zehao Pan, Abraham Waldman, Alfred J. Crosby, Howard A. Stone and Todd Emrick	Nature Inspired Materials Design: Functional Zwitterions and Smart Droplets	Emrick	djsnyder@umass.edu
A14	Xianci Zeng	Xianci Zeng, Pratik Joshi, Caryn Heldt, and Sarah L. Perry	Exploring the Effects of "Sugars" on Complex Coacervation	Perry	xiancizeng@umass.edu
A15	Bachir Messikh	M Bachir Messikh, Kenneth Carter	Process Towards Grafting Semi-Conducting Polymers Onto CNCs Via Click Chemistry	Carter	mmessikh@umass.edu
A16	Siao-Fong Li	Siao-Fong Li and Murugappan Muthukumar	Thermoreversible Gelation in Polyzwitterion Systems	Muthukumar	siaofongli@umass.edu
A17	Zhefei Yang	Zhefei Yang, Deborah Snyder, James Nicolas Pagaduan, Abraham Waldman, Alfred J. Crosby, Todd Emrick	Mesoscale Polymer Surfactants: Photolithographic Production and Localization at Droplet Interfaces	Emrick	yangzhef@umass.edu
A18	Kyle Sullivan	Kyle T. Sullivan, Nabila Tanjeem, Douglas M. Hall, Ryan C. Hayward, Gregory M. Grason	Effect of Non-Conformal Contact in the Self-Limiting Assembly of Curved Particles	Grason	kytsullivan@umass.edu

FALL 2022 POSTER SYMPOSIUM

Wednesday October 12th, 1:30-3PM

No.	Presenter(s)	Author(s)	Poster Title	Advisor(s)	Presenter Email(s)
B1	Shao-Hsiang (Joe) Hung	Shao-Hsiang (Joe) Hung, Jessica D. Schiffman	Development of Fouling Resistant Polyelectrolyte Coacervate Membranes via Aqueous Phase Separation	Schiffman	shaohsianghu@umass.edu
B2	Hao Wan	Hao Wan, Geunwoong Jeon, Weiyue Xin, Gregory Grason, Maria Santore	Solid Domain Patterns on Giant Lipid Vesicles: Vesicle size controls domain shape at fixed composition	Santore	hwan@umass.edu
B3	Autumn Mineo	Autumn Mineo, Dupyo Jeon, Connor MacFarlane, and Reika Katsumata	Universal Additives for Reprocessable Thermoplastics and Thermosets (1)	Katsumata	amineo@umass.edu
B4	Dupyo Jeon	Dupyo Jeon, Autumn Mineo, Connor MacFarlane, and Reika Katsumata	Universal Additives for Reprocessable Thermoplastics and Thermosets (2)	Katsumata	dupyojeon@umass.edu
B5	Hyemin Kim	Hyemin Kim, Takumi Uchiyama, Alfred Crosby, and James Watkins	Mechanical Properties of PDMS Bottlebrush Elastomers with Movable Crosslinks	Watkins and Crosby	hyeminkim@umass.edu
B6	Michael Dimitriyev	Michael S. Dimitriyev and Gregory M. Grason	Theory of Nodal Polymorphism in Block Copolymer Networks	Grason	mdimitriyev@mail.pse.umass.edu
B7	Anne Radzanowski	Anne N. Radzanowski, E. Bryan Coughlin	Partially hydrogenated poly(cyclooctenamer): A model substrate for routes to chemically upcycled polyethylenes	Coughlin	aradzanowski@umass.edu
B8	Ching-Hsien Ho	Ching-Hsien Ho, Kenneth Carter	Investigating Properties of a CNC Antifogging Solution	Carter	chinghsienho@umass.edu
B9	Morgan Smith	Morgan Smith, Maria Santore, Sloan Siegrist	Manipulating Bacterial Adhesion to Hydrogels through Depletion Forces	Santore	mornsmith@umass.edu
B10	Júlia Sabadini	Watson Loh and Sarah Perry	From spherical to elongated objects: how PEO-C3Ms behave with temperature	Perry	jbonessoaba@umass.edu
B11	Kuo Chen	Kuo Chen and Murugappan Muthukumar	Substantial slowing of electrophoretic translocation of DNA through a nanopore using coherent multiple entropic traps	Muthukumar	kuochen@umass.edu
B12	Arvind Sathyavageeswaran	Arvind Sathyavageeswaran, Shannon McIntosh, Sarah L. Perry	Sequence Control of Peptide-Based Complex Coacervates	Perry	asathyavagee@umass.edu
B13	Nolan Miller	Nolan A. Miller, Laura C. Bradley, Alfred J. Crosby	Repeatable Power Amplified Actuation of Confined Polymer Gels	Crosby	nolanmiller@umass.edu
B14	Diwakaran Rathinam Palaniswamy	Diwakaran Rathinam Palaniswamy, Dr.Sarah.L.Perry	High Throughput Screening of Coacervate Phase Behavior	Perry	drathinampal@umass.edu
B15	Benjamin Greenvall	Benjamin R. Greenvall, Michael S. Dimitriyev, Gregory M. Grason	Modeling Hot Spot Filling in Block Copolymer Networks	Grason	bgreenvall@umass.edu
B16	Minglun Li	Minglun Li, Murugappan Muthukumar	Dynamical Properties of Polyelectrolyte under Confinement	Muthukumar	minglunli@umass.edu
B17	Yu-Lin Wang	Yu-Lin Wang and Murugappan Muthukumar	Band Movement within Hydrogel Coacervates	Muthukumar	yulwang@umass.edu
B18	Shota Fujii	Shota Fujii	Zwitterionic amino acid polymers toward cancer therapy	McCarthy	sfujii@umass.edu
B19	Wei Fan	Wei Fan, Jason Gulbinski, Vivek Vattipalli, Jonathan Delaney, Qiyu Liu	Heterogeneous catalysts for production of petroleum chemicals and polymers from lignocellulosic biomass	Fan	wfan@umass.edu

FALL 2022 POSTER SYMPOSIUM

Wednesday October 12th, 3:15-4:45PM

No.	Presenter(s)	Author(s)	Poster Title	Advisor(s)	Presenter Email(s)
C1	Rushabh Shah	Rushabh M. Shah, Aydin Cihanoğlu, Madelyn G. Bennett, Justin Hardcastle, Caitlin Howell and Jessica D. Schiffman	Chlorine Stability and Fouling Resistance of Bioinspired Liquid-Infused Membranes	Schiffman	rmshah@umass.edu
C2	Jerred Wassgren	Jerred Wassgren, Kenneth R. Carter	Nanocellulose Aerogels for Carbon Capture	Carter	jwassgren@umass.edu
C3	Alex McGlasson	Alex McGlasson and Thomas P. Russell	Self-Assembly of Amphiphilic Janus Particles at Hard and Soft Interfaces	Russell	amcglason@umass.edu
C4	Hung Pham	Hung Pham, Zhiyun Zhang, Dingkui Qin, Jiakai Lu, David Julian McClements	Next-generation Edible Inks for 3D Printing: Protein Colloidal Hydrogels via pH-Temperature Route	McClements	hpham@umass.edu
C5	Zhan Chen	Zhan Chen, Christian Steinmetz, Mingqiu Hu, Jan-Michael Carrilo, E. Bryan Coughlin, Thomas P. Russell	Reconfiguration of star block copolymer at homopolymer interfaces	Russell	zhanchen@umass.edu
C6	Michael Wang	Michael Wang, Isaac Spivak, Doug Hall, Greg Grason	Geometrically frustrated assembly of trapezoidal-shaped particles: size control and morphologies	Grason	michaelwang@umass.edu
C7	Weiyue Xin	Weiyue Xin, Hao Wu, Gregory Grason, Maria Santore	Elastically Controlling the Positions of Solid Micro-plates on Curved 2D Fluids	Santore	wxin@umass.edu
C8	Hong-Gyu Seong	Hong-Gyu Seong, Zhan Chen, Todd Emrick, Thomas P. Russell	Unique Properties of Bottlebrush Polymers at Fluid Interfaces	Emrick / Russell	hseong@mail.pse.umass.edu
C9	Sam Hoover	Samuel C. Hoover, Khatcher O. Margossian, Murugappan Muthukumar	Theory and quantitative assessment of pH-responsive polyzwitterion-polyelectrolyte complexation	Muthukumar	samuelhoover@umass.edu
C10	Anyang Wang	Anyang Wang, Yingjie Hang, Weirui Tan and Nianqiang Wu	Microfluidic Devices for Point-of-Care Testing	Nianqiang Wu	anyangwang@umass.edu
C11	Xianggeng Liu	Xianggeng Liu, Alan J. Lesser, and E. Bryan Coughlin	Thermoset Upcycling: Challenges and Opportunities	Coughlin and Lesser	liuxianggeng@mail.pse.umass.edu
C12	Yuhui Du	Yuhui Du, Yifeng Du, Stefano Lazzari, Tom Reimers, Rupert Konradi, Thomas W. Holcombe, E. Bryan Coughlin	Mechanistic Investigation of Cyclic Ketene Acetal Radical Ring-Opening Homo- and Co-Polymerization and Preparation of PEO Graft Copolymers With Tunable Composition	Coughlin	yuhuidu@umass.edu
C13	Jianxun Cui	Jianxun Cui, Christopher Cueto, Caitlin Bien, Dorin Preda, David Gamliel, Todd Emrick	Robust polymer foams from 2-hydroxyethyl cellulose: Fabrication, stability, and chemical functionalization	Emrick	Jianxuncui@mail.pse.umass.edu
C14	Xuhong Chen	Xuhong Chen, Murugappan Muthukumar	Regulation of Collagen II Fibrillization in Solutions and Hyaluronan Networks	Muthukumar	xuhongchen@umass.edu
C15	Takumi Uchiyama	Takumi Uchiyama, Yong-Guen Yu, and James Watkins	Stretchable Photonic Crystals Based on PEO-b-PDMS Bottlebrush Polymer	Watkins	tuchiyama@umass.edu
C16	Brian Jun	Brian M. Jun, Thomas J. McCarthy	Silylated polyols as polydimethylsiloxane crosslinkers	McCarthy	bmjun@mail.pse.umass.edu
C17	Evon Petek	Evon Petek, Reika Katsumata	Thickness Dependence of Contact Angles in Multilayered Ultrathin Polymer Films	Katsumata	epetek@umass.edu
C18	Geunwoong Jeon	Geunwoong Jeon, Gregory M. Grason	Elasticity and Morphology of Flexible Solid Domains in Lipid Vesicles	Grason	gjeon@umass.edu
C19	Kaivalya Gawande	Kaivalya Gawande, Wei Fan, William Curtis Conner Jr	Studying the Synthesis of Hierarchical Zeolites by Post-Synthetic Surfactant Templating	Fan	kgawande@umass.edu
C20	Donpon Wannasin	Donpon Wannasin and David Julian McClements	Natural Colorants in Soft Matter Foods: Impact of Colorant and Droplet Characteristics on Optical Properties of Oil-in-Water Emulsion Model	McClements	dwannasin@umass.edu