

Name: Bradley S. Lokitz
Center for Nanophase Materials Sciences
Oak Ridge National Laboratory
1 Bethel Valley Rd., Oak Ridge, TN 37831

Position Title: User Program Director
(865) 574-9573
(865) 574-1753 FAX
lokitzbs@ornl.gov

Education:

Millsaps College B.S. *Magna Cum Laude* 2002 Chemistry
University of Southern Mississippi Ph.D. 2007 Polymer Science and Engineering
University of Tennessee MBA 2014 Business Administration

Professional Experience:

2018–present User Program Director, Center For Nanophase Materials Sciences
2015–2017 User Program Staff, Center For Nanophase Materials Sciences
2014–2015 Intern, Technology Transfer, Science and Technology Partnerships
2010–present Technical Staff Consultant, Macromolecular Nanomaterials Group, Center for Nanophase Materials Sciences, ORNL
2007–2010 Post-Doctoral Researcher, Spallation Neutron Source, ORNL

Professional Activities, Honors, Awards:

2021 UT-Battelle Award for Operation Performance; Society for Science at User Research Facilities Board of Directors; University of Southern Mississippi Polymer Science NSF EPSCOR Advisory Board; ORNL Soft Matter Council; SNS-HFIR User Group (SHUG) Executive Committee Member (2013-2015); Active in scientific outreach – Oak Ridge High School Honors Thesis Mentor and ORNL Science Fair Volunteer; TN Achieve Mentor; CNMS User Meeting Organizer; American Physical Society Symposium Organizer; American Chemical Society Symposium Organizer; Invited reviewer for Australian Journal of Chemistry, Macromolecules, Langmuir, and Polymer Chemistry; Robert M. Hearin Fellowship Award

Professional Memberships:

American Chemical Society, Neutron Scattering Society of America, Materials Research Society, Minerals, Metals, and Materials Society, American Physical Society, Society for Science at User Research Facilities

Invited Presentations:

1. Neutrons in Structural Biology at ORNL, “Bioinspired Block Copolymers base on PVDMA,” June 24, 2010.
2. Ecole Polytechnique Federale de Lausanne, “Reactive Block Copolymers Based on PVDMA,” Nov 5, 2010.
3. Rice University, “Neutron Reflectivity Investigation of Reactive Block Copolymers” February 5, 2016.
4. Virginia Tech MII Plenary talk, “Nanoscale Resolution of Electric-Field Induced Motion in Ionic Copolymer Films,” April 16, 2018.
5. University of Oregon, “Responsive Block Copolymers,” July 23, 2018.
6. Rice University, “Soft Matter Research at the CNMS,” September 19, 2018.
7. University of Houston, “Soft Matter Research at the CNMS,” September 20, 2018.
8. ORNL Physical Sciences Directory, “Probing Nanoscale Responses of Ionic Polymers to Applied Electric Fields,” September 25, 2019.
9. University of Southern Mississippi, “Environmentally Sustainable Polymer Research at ORNL,” April 23, 2020.
10. University of Tennessee, Virginia Tech, University of Wisconsin, UT Austin, Northwestern, Stanford, Texas A&M and GA Tech polymer science graduate students “Ionic Block Copolymers,” October 20, 2020.
11. Triangle Hard Matter Workshop, “User Research Capabilities at the Center for Nanophase Materials Sciences,” December 8th, 2020.
12. University of Florida Poly PMSE Student Chapter, “Working at a National Laboratory,” April 6th, 2020.
13. University of Oregon, “Polymer Research at CNMS” July 6, 2021.
14. Supporting Minority Serving Institutions in the Creation of a Diverse, Quantum-Ready Workforce NSF Workshop, “Quantum Capabilities and Research Opportunities at the CNMS,” April 8, 2022.
15. University of Oregon, “Working at a DOE User Facility,” July , 2022.
16. Alabama A&M, Dean’s Speaker Series, “ Collaborating with the Center for Nanophase Materials Sciences at Oak Ridge National Laboratory,” February, 27, 2024.

Peer-Reviewed Publications:

<https://orcid.org/0000-0002-1229-6078>

1. Hu, B; Carrillo, JM; Collins, L; Silmore, KS; Keum, J; Bonnesen, B; Wang, Y; Retterer, S; Kumar, R; Lokitz, BS; "Modular approach for the synthesis of bottlebrush diblock copolymers from poly(glycidyl methacrylate)-block-poly(vinylidimethyl azlactone) backbones" *Macromolecules*, 55, (2022).
2. Borani, K; Shah, P; Barkakaty, B; Chen, J; Lokitz, BS; Mays, J; Kilbey, SM; "Role of tunable polymer flexibility in controlling wetting behavior and thermal properties of poly (1, 3-cyclohexadiene)-silica nanocomposites" *SPE Polymers*, 3 (2022).
3. Kumar, R; Liu, Z; Lokitz, BS; Chen, J; Carrilli, JM; Jakowski, J; Collier, CP; Retterer, S; Advincula, R; "Harnessing autocatalytic reactions in polymerization and depolymerization" *MRS Communications*, 11, (2021).
4. Scott, PJ; Spiering, GA; Wang, Y; Seibers, ZD; Moore, RB; Kumar, R; Lokitz, BS; Long, TE; "Phosphonium-based polyzwitterions: influence of ionic structure and association on mechanical properties" *Macromolecules*, 53, (2020).
5. Street, Dayton P; Mah, Adeline Huizhen; Ledford, William K; Patterson, Steven; Bergman, James A; Lokitz, Bradley S; Pickel, Deanna L; Messman, Jamie M; Stein, Gila E; Kilbey, S Michael; "Tailoring interfacial interactions via polymer-grafted nanoparticles improves performance of parts created by 3D printing" *ACS Applied Polymer Materials*, 2, (2020).
6. Mapesa, Emmanuel U; Chen, Mingtao; Heres, Maximilian F; Harris, Matthew A; Kinsey, Thomas; Wang, Yangyang; Long, Timothy E; Lokitz, Bradley S; Sangoro, Joshua R; "Charge Transport in Imidazolium-Based Homo-and Triblock Poly (ionic liquid) s" *Macromolecules*, 52, (2019).
7. Masigol, Mohammadali; Fattahi, Niloufar; Barua, Niloy; Lokitz, Bradley S; Retterer, Scott T; Platt, Thomas G; Hansen, Ryan R; "Identification of critical surface parameters driving Lectin-mediated capture of bacteria from solution" *Biomacromolecules*, 20, (2019).
8. Street, Dayton P; Ledford, William K; Allison, Abigail A; Patterson, Steven; Pickel, Deanna L; Lokitz, Bradley S; Messman, Jamie M; Kilbey, S Michael; "Self-Complementary Multiple Hydrogen-Bonding Additives Enhance Thermomechanical Properties of 3D-Printed PMMA Structures" *Macromolecules*, 52, (2019).
9. Li, Wei; Lokitz, Brad; Sumpter, Bobby; Kumar, Rajeev; "Effects of Dipolar Interactions on Microphase Separation in Diblock Copolymer Melts" *APS*, 2018, (2018).
10. Kumar, Deepak; Russell, Thomas; Davidovitch, Benjamin; Menon, Narayanan; "Tension in a Floating film" *APS*, 2018, (2018).
11. Li, Wei; Lokitz, Brad; Sumpter, Bobby; Kumar, Rajeev; "Molecular Dynamics of Ionic Block Copolymers in Thin Films under Electric Fields" *APS*, 2018, (2018).
12. Dugger, Jason; Li, Wei; Mahalik, Jyoti; Chen, Mingtao; Browning, Jim; Kumar, Rajeev; Long, Timothy; Lokitz, Brad; "Nanoscale Resolution of Electric-Field Induced Motion in Ionic Copolymer Films" *APS*, 2018, (2018).
13. Gates, Christopher H; Perfect, Edmund; Lokitz, Bradley S; Brabazon, Jared W; McKay, Larry D; Tyner, JS; "Transient analysis of advancing contact angle measurements on polished rock surfaces" *Advances in Water Resources*, 119, (2018).
14. Chen, Mingtao; Dugger, Jason W; Li, Xiuli; Wang, Yangyang; Kumar, Rajeev; Meek, Kelly M; Uhrig, David W; Browning, James F; Madsen, Louis A; Long, Timothy E; "Polymerized ionic liquids: Effects of counter-anions on ion conduction and polymerization kinetics" *Journal of Polymer Science Part A: Polymer Chemistry*, 56, (2018).
15. Pandian, Amaresh Samuthira; Chen, X Chelsea; Chen, Jihua; Lokitz, Bradley S; Ruther, Rose E; Yang, Guang; Lou, Kun; Nanda, Jagjit; Delnick, Frank M; Dudney, Nancy J; "Facile and scalable fabrication of polymer-ceramic composite electrolyte with high ceramic loadings" *Journal of Power Sources*, 390, (2018).
16. Aden, Bethany; Street, Dayton P; Hopkins, Benjamin W; Lokitz, Bradley S; Kilbey, S Michael; "Tailoring Surface Properties through in Situ Functionality Gradients in Reactively Modified Poly (2-vinyl-4, 4-dimethyl azlactone) Thin Films" *Langmuir*, 34, (2018).

17. Wang, Xu; Davis, Jesse L; Aden, Bethany M; Lokitz, Bradley S; Kilbey, S Michael; "Versatile synthesis of amine-reactive microgels by self-assembly of azlactone-containing block copolymers" *Macromolecules*, 51, (2018).
18. Masigol, Mohammadali; Barua, Niloy; Lokitz, Bradley S; Hansen, Ryan R; "Fabricating reactive surfaces with brush-like and crosslinked films of Azlactone-functionalized block co-Polymers" *JoVE (Journal of Visualized Experiments)*, , (2018).
19. Dugger, Jason W; Li, Wei; Chen, Mingtao; Long, Timothy E; Welbourn, Rebecca JL; Skoda, Maximilian WA; Browning, James F; Kumar, Rajeev; Lokitz, Bradley S; "Nanoscale Resolution of Electric-field Induced Motion in Ionic Diblock Copolymer Thin Films" *ACS applied materials & interfaces*, 10, (2018).
20. Dugger, Jason W; Collins, Liam; Welbourn, Rebecca JL; Skoda, Maximilian WA; Balke, Nina; Lokitz, Bradley S; Browning, James F; "Ion movement in thin Nafion films under an applied electric field" *Applied Physics Letters*, 113, (2018).
21. Kumar, Rajeev; Lokitz, Bradley; Long, Timothy E; Sumpter, Bobby G; "Enhanced scattering induced by electrostatic correlations in concentrated solutions of salt-free dipolar and ionic polymers" *The Journal of chemical physics*, 149, (2018).
22. Barkakaty, Balaka; Sumpter, Bobby G; Ivanov, Ilia N; Potter, Matthew E; Jones, Christopher W; Lokitz, Bradley S; "Emerging materials for lowering atmospheric carbon" *Environmental Technology & Innovation*, 7, (2017).
23. Aden, Bethany; Kite, Camille M; Hopkins, Benjamin W; Zetterberg, Anna; Lokitz, Bradley S; Ankner, John F; Kilbey, S Michael; "Assessing chemical transformation of reactive, interfacial thin films made of end-tethered poly (2-vinyl-4, 4-dimethyl azlactone)(PVDMA) chains" *Macromolecules*, 50, (2017).
24. Dugger, Jason; Chen, Mingtao; Long, Timothy; Fu, Yao; Kumar, Rajeev; Lokitz, Bradley; Browning, James; "Probing the Electromechanical Response Mechanism of Ionic Block Copolymers" *APS*, 2017, (2017).
25. Ahn, Suk-kyun; Carrillo, Jan-Michael Y; Keum, Jong K; Chen, Jihua; Uhrig, David; Lokitz, Bradley S; Sumpter, Bobby G; Kilbey, S Michael; "Nanoporous poly (3-hexylthiophene) thin film structures from self-organization of a tunable molecular bottlebrush scaffold" *Nanoscale*, 9, (2017).
26. Cao, Peng-Fei; Wojnarowska, Zaneta; Hong, Tao; Carroll, Bobby; Li, Bingrui; Feng, Hongbo; Parsons, Leo; Wang, Weiyu; Lokitz, Bradley S; Cheng, Shiwang; "A star-shaped single lithium-ion conducting copolymer by grafting a POSS nanoparticle" *Polymer*, 124, (2017).
27. Masigol, Mohammadali; Barua, Niloy; Retterer, Scott T; Lokitz, Bradley S; Hansen, Ryan R; "Chemical copatterning strategies using azlactone-based block copolymers" *Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena*, 35, (2017).
28. Guo, Wei; Reese, Cassandra M; Xiong, Li; Logan, Phillip K; Thompson, Brittany J; Stafford, Christopher M; Ievlev, Anton V; Lokitz, Bradley S; Ovchinnikova, Olga S; Patton, Derek L; "Buckling instabilities in polymer brush surfaces via postpolymerization modification" *Macromolecules*, 50, (2017).
29. Perfect, Edmund; Gates, Christopher Hallett; Brabazon, Jared William; Santodonato, Louis Joseph; Dhiman, Indu; Bilheux, Hassina; Bilheux, Jean-Christophe; Lokitz, Bradley S; "Complex Contact Angles Calculated from Capillary Rise Measurements on Rock Fracture Faces" *AGUFM*, 2017, (2017).
30. Voylov, Dmitry; Saito, Tomonori; Lokitz, Bradley; Uhrig, David; Wang, Yangyang; Agapov, Alexander; Holt, Adam; Bocharova, Vera; Kisliuk, Alexander; Sokolov, Alexei P; "Graphene oxide as a radical initiator: Free radical and controlled radical polymerization of sodium 4-vinylbenzenesulfonate with graphene oxide" *ACS Macro Letters*, 5, (2016).
31. Barkakaty, Balaka; Browning, Katie L; Sumpter, Bobby; Uhrig, David; Karpisova, Ivana; Harman, Kevin W; Ivanov, Ilia; Hensley, Dale K; Messman, Jamie M; Kilbey, S Michael; "Amidine-Functionalized Poly (2-vinyl-4, 4-dimethylazlactone) for Selective and Efficient CO₂ Fixing" *Macromolecules*, 49, (2016).

32. Mahalik, Jyoti P; Yang, Yubo; Deodhar, Chaitra; Ankner, John F; Lokitz, Bradley S; Kilbey, S Michael; Sumpter, Bobby G; Kumar, Rajeev; "Monomer volume fraction profiles in pH responsive planar polyelectrolyte brushes" *Journal of Polymer Science Part B: Polymer Physics*, 54, (2016).
33. Desseaux, Solenne; Hinestroza, Juan Pablo; Schüwer, Nicolas; Lokitz, Bradley S; Ankner, John F; Kilbey, S Michael; Voitchovsky, Kislou; Klok, Harm-Anton; "Swelling Behavior and Nanomechanical Properties of (Peptide-Modified) Poly (2-hydroxyethyl methacrylate) and Poly (poly (ethylene glycol) methacrylate) Brushes" *Macromolecules*, 49, (2016).
34. Ambaye, Haile; Petridis, Loukas; Jagadamma, Sindhu; Kilbey, Michael; Lauter, Valeria; Lokitz, Bradley; Mayes, Melanie; "Spatial Arrangement of Organic Compounds on a Model Mineral Surface: Implications for Soil Organic Matter Stabilization" *APS*, 2015, (2015).
35. Mitra, Indranil; Li, Xianyu; Pesek, Stacy L; Makarenko, Boris; Lokitz, Brad S; Uhrig, David; Ankner, John F; Verduzco, Rafael; Stein, Gila E; "Understanding Segregation Processes in Blends of Bottlebrush-Linear Polymer Thin Films" *APS*, 2015, (2015).
36. Kroning, Annika; Furchner, Andreas; Aulich, Dennis; Bittrich, Eva; Rauch, Sebastian; Uhlmann, Petra; Eichhorn, Klaus-Jochen; Seeber, Michael; Luzinov, Igor; Kilbey, S Michael; "In situ infrared ellipsometry for protein adsorption studies on ultrathin smart polymer brushes in aqueous environment" *ACS Applied Materials & Interfaces*, 7, (2015).
37. Kumar, Rajeev; Mahalik, Jyoti P; Strelcov, Evgheni; Tselev, Alexander; Lokitz, Bradley S; Kalinin, Sergei; Sumpter, Bobby G; "Microscopic theory for electrocaloric effects in planar double layer systems" *arXiv preprint arXiv:1503.09141*, , (2015).
38. Shen, Yong; Desseaux, Solenne; Aden, Bethany; Lokitz, Bradley S; Kilbey, S Michael; Li, Zhibo; Klok, Harm-Anton; "Shape-Persistent, Thermoresponsive Polypeptide Brushes Prepared by Vapor Deposition Surface-Initiated Ring-Opening Polymerization of α -Amino Acid N-Carboxyanhydrides" *Macromolecules*, 48, (2015).
39. Barkakaty, Balaka; Talukdar, Bandana; Lokitz, Bradley S; "Addition of CFC13 to Aromatic Aldehydes via in Situ Grignard Reaction" *Molecules*, 20, (2015).
40. Petridis, Loukas; Ambaye, Haile; Jagadamma, Sindhu; Kilbey, S Michael; Lokitz, Bradley S; Lauter, Valeria; Mayes, Melanie A; "Spatial arrangement of organic compounds on a model mineral surface: implications for soil organic matter stabilization" *Environmental science & technology*, 48, (2014).
41. Hansen, Ryan R; Shubert, Katherine R; Morrell-Falvey, Jennifer L; Lokitz, Bradley S; Doktycz, Mitchel J; Retterer, Scott T; "Microstructured block copolymer surfaces for control of microbe adhesion and aggregation" *Biosensors*, 4, (2014).
42. Mitra, Indranil; Li, Xianyu; Pesek, Stacy L; Makarenko, Boris; Lokitz, Brad S; Uhrig, David; Ankner, John F; Verduzco, Rafael; Stein, Gila E; "Thin film phase behavior of bottlebrush/linear polymer blends" *Macromolecules*, 47, (2014).
43. Seal, Katyayani; Sharoni, Amos; Messman, Jamie M; Lokitz, Bradley S; Shaw, Robert W; Schuller, Ivan K; Snijders, Paul C; Ward, Thomas Z; "Resolving transitions in the mesoscale domain configuration in VO 2 using laser speckle pattern analysis" *Scientific reports*, 4, (2014).
44. Deodhar, Chaitra; Soto-Cantu, Erick; Uhrig, David; Bonnesen, Peter; Lokitz, Bradley S; Ankner, John F; Kilbey, S Michael; "Hydration in weak polyelectrolyte brushes" *ACS Macro Letters*, 2, (2013).
45. Ramanathan, Muruganathan; Lokitz, Bradley S; Messman, Jamie M; Stafford, Christopher M; Kilbey II, S Michael; "Spontaneous wrinkling in azlactone-based functional polymer thin films in 2D and 3D geometries for guided nanopatterning" *Journal of Materials Chemistry C*, 1, (2013).
46. Hansen, Ryan R; Hinestroza, Juan Pablo; Shubert, Katherine R; Morrell-Falvey, Jennifer L; Pelletier, Dale A; Messman, Jamie M; Kilbey, S Michael; Lokitz, Bradley S; Retterer, Scott T; "Lectin-functionalized poly (glycidyl methacrylate)-block-poly (vinylidimethyl azlactone) surface scaffolds for high avidity microbial capture" *Biomacromolecules*, 14, (2013).
47. Chen, Jihua; Shao, Ming; Xiao, Kai; He, Zhengran; Li, Dawen; Lokitz, Bradley S; Hensley, Dale K; Kilbey, S Michael; Anthony, John E; Keum, Jong K; "Conjugated polymer-mediated polymorphism of a high performance, small-molecule organic semiconductor with tuned

- intermolecular interactions, enhanced long-range order, and charge transport" *Chemistry of Materials*, 25, (2013).
48. Han, Tianyu; Hong, Yuning; Xie, Ni; Chen, Sijie; Zhao, Na; Zhao, Engui; Lam, Jacky WY; Sung, Herman HY; Dong, Yuping; Tong, Bin; "Defect-sensitive crystals based on diaminomaleonitrile-functionalized Schiff base with aggregation-enhanced emission" *Journal of Materials Chemistry C*, 1, (2013).
 49. Hansen, Ryan R; Shubert, Katherine R; Morrell-Falvey, Jennifer L; Lokitz, Bradley S; Retterer, Scott T; "Engineered Block Copolymer Surface Scaffolds for High Avidity, Lectin-Based Microbe Capture" *Biomacromolecules*, 14, (2013).
 50. Lokitz, Bradley S; Wei, Jifeng; Hinestrosa, Juan Pablo; Ivanov, Ilia; Browning, James F; Ankner, John F; Kilbey, S Michael; Messman, Jamie M; "Manipulating interfaces through surface confinement of poly (glycidyl methacrylate)-block-poly (vinylidimethylazlactone), a dually reactive block copolymer" *Macromolecules*, 45, (2012).
 51. Soto-Cantu, Erick; Lokitz, Bradley S; Hinestrosa, Juan Pablo; Deodhar, Chaitra; Messman, Jamie M; Ankner, John F; Kilbey II, S Michael; "Versatility of alkyne-modified poly (glycidyl methacrylate) layers for click reactions" *Langmuir*, 27, (2011).
 52. Ankner, John F; Browning, James F; Halbert, Candice E; Lokitz, Brad S; Carmichael, Justin R; Kilbey, S Michael; Rother, Gernot; Wesolowski, David J; "Neutron reflectivity sample cells for geochemically relevant environments" *GEOCHIMICA ET COSMOCHIMICA ACTA*, 74, (2010).
 53. Lokitz, Bradley S; Messman, Jamie M; Hinestrosa, Juan Pablo; Alonzo, Jose; Verduzco, Rafael; Brown, Rebecca H; Osa, Masashi; Ankner, John F; Kilbey, S Michael; "Dilute solution properties and surface attachment of RAFT polymerized 2-vinyl-4, 4-dimethyl azlactone (VDMA)" *Macromolecules*, 42, (2009).
 54. Messman, Jamie M; Lokitz, Bradley S; Pickel, Joseph M; Kilbey, S Michael; "Highly tailorable materials based on 2-vinyl-4, 4-dimethyl azlactone:(co) polymerization, synthetic manipulation and characterization" *Macromolecules*, 42, (2009).
 55. Lokitz, Bradley S; Messman, Jamie M; Hinestrosa Salazar, Juan Pablo; Alonzo Calderon, Jose E; Verduzco, Rafael; Brown, Rebecca H; Osa, Masashi; Ankner, John Francis; Kilbey, S; "Controlled RAFT Polymerization of 2-Vinyl-4, 4-Dimethylazlactone (VDMA): A Facile Route to Bio-Inspired Polymer Surfaces" *Macromolecules*, 42, (2009).
 56. McCormick, Charles L; Sumerlin, Brent S; Lokitz, Brad S; Stempka, Jonathan E; "RAFT-synthesized diblock and triblock copolymers: thermally-induced supramolecular assembly in aqueous media" *Soft Matter*, 4, (2008).
 57. Li, Yuting; Smith, Adam E; Lokitz, Brad S; McCormick, Charles L; "In situ formation of gold-“decorated” vesicles from a RAFT-synthesized, thermally responsive block copolymer" *Macromolecules*, 40, (2007).
 58. Lokitz, Brad S; York, Adam W; Stempka, Jonathan E; Treat, Neil D; Li, Yuting; Jarrett, William L; McCormick, Charles L; "Aqueous RAFT synthesis of micelle-forming amphiphilic block copolymers containing N-acryloylvaline. Dual mode, temperature/pH responsiveness, and “locking” of micelle structure through interpolyelectrolyte complexation" *Macromolecules*, 40, (2007).
 59. Lokitz, Brad S; Stempka, Jonathan E; York, Adam W; Li, Yuting; Goel, Hitesh K; Bishop, G Reid; McCormick, Charles L; "Water Soluble Polymers. Part 126. Chiroptical Properties of Homopolymers and Block Copolymers Synthesized from the Enantiomeric Monomers N-Acryloyl-L-alanine and N-Acryloyl-D-alanine Using Aqueous RAFT Polymerization." *ChemInform*, 38, (2007).
 60. Convertine, Anthony J; Lokitz, Brad S; Vasileva, Yuliya; Myrick, Leslie J; Scales, Charles W; Lowe, Andrew B; McCormick, Charles L; "Direct synthesis of thermally responsive DMA/NIPAM diblock and DMA/NIPAM/DMA triblock copolymers via aqueous, room temperature RAFT polymerization" *Macromolecules*, 39, (2006).
 61. Li, Yuting; Lokitz, Brad S; Armes, Steven P; McCormick, Charles L; "Synthesis of reversible shell cross-linked micelles for controlled release of bioactive agents" *Macromolecules*, 39, (2006).

62. Li, Yuting; Lokitz, Brad S; McCormick, Charles L; "RAFT synthesis of a thermally responsive ABC triblock copolymer incorporating N-acryloxysuccinimide for facile in situ formation of shell cross-linked micelles in aqueous media" *Macromolecules*, 39, (2006).
63. Li, Yuting; Lokitz, Brad S; McCormick, Charles L; "Thermally responsive vesicles and their structural "locking" through polyelectrolyte complex formation" *Angewandte Chemie International Edition*, 45, (2006).
64. Lokitz, Brad S; Convertine, Anthony J; Ezell, Ryan G; Heidenreich, Andrew; Li, Yuting; McCormick, Charles L; "Responsive nanoassemblies via interpolyelectrolyte complexation of amphiphilic block copolymer micelles" *Macromolecules*, 39, (2006).
65. Lokitz, Brad S; Stempka, Jonathan E; York, Adam W; Li, Yuting; Goel, Hitesh K; Bishop, G Reid; McCormick, Charles L; "Chiroptical properties of homopolymers and block copolymers synthesized from the enantiomeric monomers N-acryloyl-l-alanine and N-acryloyl-d-alanine using aqueous RAFT polymerization" *Australian journal of chemistry*, 59, (2006).
66. Ezell, Ryan G; Gorman, Irene; Lokitz, Brad; Ayres, Neil; McCormick, Charles L; "Stimuli-responsive ampholytic terpolymers of N-acryloyl-valine, acrylamide, and (3-acrylamidopropyl) trimethylammonium chloride: Synthesis, characterization, and solution properties" *Journal of Polymer Science Part A: Polymer Chemistry*, 44, (2006).
67. Ezell, Ryan G; Gorman, Irene; Lokitz, Brad; Treat, Neil; McConaughy, Shawn D; McCormick, Charles L; "Polyampholyte terpolymers of amphoteric, amino acid-based monomers with acrylamide and (3-acrylamidopropyl) trimethyl ammonium chloride" *Journal of Polymer Science Part A: Polymer Chemistry*, 44, (2006).
68. Li, Y; Lokitz, BS; McCormick, CL; "Vesicles Formed Thermally and Cross-Linked Ionically" *Synfacts*, 2006, (2006).
69. Convertine, Anthony J; Lokitz, Brad S; Lowe, Andrew B; Scales, Charles W; Myrick, Leslie J; McCormick, Charles L; "Aqueous RAFT Polymerization of Acrylamide and N, N-Dimethylacrylamide at Room Temperature" *Macromolecular Rapid Communications*, 26, (2005).

Patents

"Bioactive Compositions for High Avidity Cell Capture," Hansen, R.; Retterer, S.; Lokitz, B. S.; Morrell-Falvey, J.; Hinestrosa, J. P.; Messman, J. M.; Kilbey, S. M.; Ankner J. F. US 14/215,552, Issued November 11, 2018.

"Synthesis of Reversible Shell Crosslinked Nanostructures," McCormick, C. L.; Lokitz, B. S.; Li, Y. US 20080234391, Filed March 3, 2008.

Collaborators (previous 4 years):

T. Long, Virginia Tech
 M. Kilbey, University of Tennessee
 G. Stein, University of Houston
 R. Verduzco, Rice University
 I. Luzinov, Clemson University
 S. Morgan, University of Southern Mississippi
 J. Messman, Honeywell Federal Manufacturing
 R. Hansen, Kansas State University

H. A. Klok, Ecole Polytechnique Federale De Lausanne
 S. Saurez, City University of New York
 M. Wolff, Upsala University
 J.P. Hinestrosa, Biological Dynamics, INC
 S. Ahn, Pusan National University

Graduate and Postdoctoral Advisors:

PhD Advisor: Prof. C. L, McCormick, University of Southern Mississippi; John F. Ankner, Oak Ridge National Laboratory

Thesis Advisor and Postgraduate-Scholar Sponsor (previous 5 years):

J.P. Hinestrosa, Oak Ridge National Laboratory
 S. Ahn, Oak Ridge National Laboratory
 Balaka Barkakaty, Oak Ridge National Laboratory
 Bin Hu, Oak Ridge National Laboratory

Jason Dugger, Oak Ridge National Laboratory
 Yao Fu, Oak Ridge National Laboratory
 Mingtao Chen, Virginia Tech
 Phil Scott, Virginia Tech

Total Graduate Students Advised: 2

Total Postdoctoral Scholars Advised: 7