

Publications

- **Tibbits, A.C.;** Mumper, L.E.; Yan, Y.S.; Kloxin, C.J. “Spectroscopic Investigation of Allylic Ionic Liquid and Thiol Reaction Kinetics and Mechanism.” *In Preparation*. (Estimated completion: **2017**)
- **Tibbits, A.C.;** El-Zaatari, B.; Kattekola, S.; Yan, Y.S.; Kloxin, C.J. “Photo-Induced Copper-Catalyzed Azide-Alkyne Reaction of Propargyl-Functionalized Ionic Liquid Monomers for Poly (Ionic Liquid) Networks.” *In Preparation*. (Estimated completion: **2016**)
- **Tibbits, A.C.;** Yan, Y.S.; Kloxin, C.J. “Incorporation of Pendant Ammonium Moieties in Ion Conductive Thiol-Ene Networks.” *In Preparation*. (Estimated completion: **2016**)
- **Tibbits, A.C.;** Mumper, L.E.; Kloxin, C.J.; Yan, Y.S. “A Single-Step Monomeric Photo-Polymerization and Crosslinking via Thiol-Ene Reaction for Hydroxide Exchange Membrane Fabrication.” *Journal of The Electrochemical Society*, **2015**, 162 (10) F1206-F1211.

Selected Presentations

- Tibbits, A.; Kloxin, C.; Yan, Y. “Allylic Ionic Liquids as Building Blocks for Ion Conductive Thiol-Ene Polymer Networks.” Gordon Research Seminar in Ionic Liquids: Newry, ME. August 13 - 18, 2016. (**Invited Talk** and Poster)
- Tibbits, A.; Kloxin, C.; Yan, Y. “Design of Photo-Crosslinked Ion Conductive Networks via the Thiol-Ene Reaction of Charged Allylic Species.” Material Research Society Fall Meeting and Exhibit: Boston, MA. November 30, 2015. (Talk)
- Tibbits, A.; Kloxin, C.; Yan, Y. “Charged Thiol-Ene Chemistry: Hydroxide Exchange Membranes by Photo-Initiated Crosslinking Polymerization.” Gordon Research Seminar in Fuel Cells: Smithfield, RI. August 2 - 7, 2014. (**Invited Talk** and Poster)
- Tibbits, A.; Lam, S.; Velev, O. D. “Engineering of Biopolymer Particles for Foam Stabilization” AIChE Regional Conference: Clemson, SC. April 1, 2012. (Poster)
- Tibbits, A.; Lam, S.; Velev, O. D. “Engineering of Biopolymer Particles for Foam Stabilization” AIChE National Conference: Minneapolis, MN. October 17, 2011. (Poster)

Technical Skills

- **Synthesis:** synthesis and purification of organic monomers and functionalized ionic liquids; fabrication of thin film crosslinked polymer networks (primarily via UV-initiated free-radical polymerization). Limited experience with fuel cell anode fabrication.
- **Characterization:** TGA, DSC, DMA, SEM, SAXS, AC Impedance Spectroscopy, NMR, FTIR, Raman Spectroscopy, and rheometry. Limited experience with Cyclic Voltammetry, TEM, UV-Vis, and GC.
- **Computer:** MATLAB, Origin, Microsoft Office (Word, Excel, Powerpoint), Visual Basic, Material Studio, ASPEN, Illustrator (limited experience).

Service, Leadership, and Professional Affiliations

- American Chemical Society Member (July 2016 – Present)
- Colburn Club President (Sept. 2014 – Sept. 2015)
 - Coordinated graduate recruitment efforts and served as the primary graduate student liaison for chemical engineering graduate student concerns at the University of Delaware.
- Chris Kloxin Group Lab Manager (February 2013 – Present)
 - In charge of enforcing lab safety and general housekeeping.
- Omega Chi Epsilon (inducted 2010)
- North Carolina Science Olympiad Volunteer and Event Leader (Spring 2009 – Spring 2012)
- Tau Beta Pi (inducted 2009)