

Bradley Harris

1. Education

- Ph.D., Chemical and Biomolecular Engineering, University of Tennessee at Knoxville, 2014
- B.S., Chemical Engineering, University of Tennessee at Knoxville, 2008

2. Academic experience

- University of Tennessee at Chattanooga, Assistant Professor, 2015 - Present
- University of Tennessee at Knoxville, Research Assistant, 2010 - 2014

3. Non-academic experience

- Eastman Chemical Company, Chemical Engineer, oversaw pilot-scale experiments through an outside consultant for research and development of the acetylated wood process, 2008 - 2009
- Kimberly-Clark Corporation - Berkeley Mill, Co-Op, responsible for several process improvement projects including assessing pellet handling system capacity and conducting mill wide trial of extrusion spinning spray, 2007

4. Certifications or professional registrations

- Registered Engineer-in-Training (EIT)

5. Current membership in professional organizations

- American Institute of Chemical Engineers (AIChE)
- American Chemical Society (ACS)
- Tau Beta Pi Engineering Honors Society

6. Grants, honors and awards

- PI, Collaborative Research Initiative for Sponsored Programs (CRISP) Award, University of Tennessee at Chattanooga, 2016-2017 (**\$8,000**)
- Faculty Advisor, Provost Student Research Award, 2016-2017 (**\$1,000**)
- PI, Laboratory Equipment Grant for Chemical Engineering, Tennessee Board of Architectural and Engineering Examiners (TBAEE), 2016 (**\$27,000**)
- Department of Civil and Chemical Engineering Teaching Award, 2015 - 2016

7. Service activities

- Chemical Hygiene Officer, UTC College of Engineering and Computer Science, 2016 – Present: oversee procurement, storage, and disposal of hazardous chemicals; oversee laboratory hazard assessment reviews and safety inspections; ensure proper safety training of faculty, staff, and students
- Faculty Advisor, UTC AIChE Student Chapter, 2015 – Present: supervise Chem-E-Car student competition team; recruit faculty and industry speakers for monthly meetings; organize plant tours and fundraising activities

8. Publications and presentations

- Clavin, M., Ferrando, B., Irvin, B., Hills, P., Harris, B., and Giles, D. “Bacterial Utilization of Exogenous Lipids: The Effects of Various Fatty Acids on *Vibrio cholerae*.” UTC Research Dialogues, Chattanooga, TN, April 13th-14th, 2016.
- Harris, B., Cheng, X., and Frymier, P.D. “The Structure and Function of Photosystem I-[FeFe] Hydrogenase Protein Fusions: An All-Atom Molecular Dynamics Study.” *Journal of Physical Chemistry B*, 2016. 120 (4): p. 599-609.
- Harris, B., Cheng, X., and Frymier, P.D. “All-Atom Molecular Dynamics Simulation of a Photosystem I/Detergent Complex.” *Journal of Physical Chemistry B*, 2014. 118 (40): p. 11633-11645.
- Le, R., Harris B., Iwuchukwu I.J., Bruce, B., Cheng X., Qian, S., Heller, W.T., O’Neill, H., and Frymier, P.D. “Analysis of the Solution Structure of *Thermosynechococcus elongatus* Photosystem I in n-dodecyl- β -D-maltoside Detergent using Small-Angle Neutron Scattering and Molecular Dynamics Simulation.” *Archives of Biochemistry and Biophysics*, 2014. 550-551: p. 50-57.
- Harris, B., Le, R., and Frymier, P.D. “Studying the Effects of Protein-Detergent Interactions on the Solution Structure of Photosystem I from *Thermosynechococcus elongatus*.” American Conference on Neutron Scattering, Knoxville, TN, June 4th, 2014.
- Harris, B., Le, R., and Frymier, P.D. “Characterizing the Structure-Function Relationship that Governs Electron Transport in Redox Proteins.” ACS Annual Meeting, BIOT Division, Dallas, TX, March 19th, 2014.
- Harris, B., Le, R., and Frymier, P.D. “Photosystem I-Hydrogenase Protein Fusions via Sortase-Mediated Ligation: A Novel Approach to Improving Electron Transport for Photoinduced Hydrogen Production.” Best Poster Winner, TN-SCORE Annual Conference, Nashville, TN, June 10th, 2013.
- Harris, B., Frymier, P.D. “Harnessing Solar Energy through Enzyme-Mediated Protein Fusions.” ACS Annual Meeting, BIOT Division, New Orleans, LA, April 9th, 2013.
- Harris, B., Frymier, P.D. “Harnessing Solar Energy through Enzyme-Mediated Protein Fusions.” Best Poster Winner, TN-SCORE Annual Conference, Nashville, TN, June 15th, 2012.
- Harris, B., Frymier, P.D. “Engineering Protein Fusions for the Photobiological Production of Hydrogen from Light.” Eastern Regional Photosynthesis Conference, Woods Hole, MA, April 21st, 2012.