Tamás Prileszky *Chemical Engineering*

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Education

University of Delaware — Newark, Delaware
PhD, Chemical Engineering — *2013 August – 2018 December*
GPA: 4.0/4.0

Colorado School of Mines — Golden, Colorado
BS, Chemical Engineering — *2010 August – 2013 May*
summa cum laude
GPA: 3.954/4.0

Research experience

University of California, Santa Barbara — Santa Barbara, California
Post-doctoral scholar — *2019 January – Present*
Studying the formation of multiple nanoemulsions using co-surfactant pairs to stabilize.

University of Delaware — Newark, Delaware
PhD student — *2013 November – 2018 December*
Studied the formation of non-spherical structured emulsions in microfluidic devices, with focus on the assembly of hierarchical superstructures from individual anisotropic droplet building blocks and modified emulsion droplets with surface-adsorbed and bulk particles. Research focused on the behavior of colloidal materials and liquid interfaces. Mentored undergraduate students working on this and other projects.

University of New South Wales — Sydney, Australia
Visiting junior research fellow — *2017 February – 2017 May*
Developed new aerosol droplets capable of holding non-spherical shapes and designed and tested equipment to generate the droplets in an international collaboration between University of Delaware and University of New South Wales. Fabricated complete setup including heat transfer units and aerosolization devices. Mentored an undergraduate student studying the adsorption characteristics of non-spherical emulsions.

Teaching experience

University of New South Wales — Sydney, Australia
Teaching assistant — *2017 April– 2017 May*
Developed assignments, exam materials, and tutorial content for "Process Modelling and Analysis" and "Complex Fluid Microstructure and Rheology" courses. Taught tutorial lectures involving demonstrations and review materials.

University of Delaware — Newark, Delaware
Teaching assistant — *2014 August – 2014 December*
Teaching assistant for 92 students in Process Control and Dynamics course. Planned and led weekly lectures in computer lab sections. Graded homework and lab assignments from lecture and computer lab. Held independent office hours.

Gymnastika — Arvada, Colorado
Gymnastics coach — *2010 November – 2013 June*
Coached recreational boys' gymnastics for students 5 – 12 years old. Trained students with no prior gymnastics experience and intermediate skills with a focus on developing fundamentals and strength.

The Sundance Studio — Monument, Colorado
Gymnastics coach — *2006 September – 2010 May*
Coached level 4, 5, and 6 team boys—intermediate, competitive levels— and recreational students in gymnastics and developed team skills. Trained students of varying mental and physical ability, including handicapped students.

- 2009: level 4 boys won 1st in USA Gymnastics (USAG)—governing body for gymnastics in the United States—state competition, level 5 boys placed 3rd.
- 2010: level 4 boys won 3rd USAG state competition.

Honors and awards

International Summit of the MRS University Chapters on Sustainability and Nanotechnology poster session poster award ..... *2017 November*
Langmuir student poster award, 91st ACS Colloid and Surface Science Symposium ..... *2017 July*
Langmuir student poster award, 90th ACS Colloid and Surface Science Symposium ..... *2016 June*
87th Society of Rheology annual meeting poster competition, 3rd ..... *2015 October*
University of Delaware: Robert L. Pigford teaching assistant award ..... *2015 May*
Colorado School of Mines: Outstanding Graduating Senior, chemical engineering ..... *2013 May*
Colorado School of Mines: Anton Pegis scholarship ..... *2010 August*
Colorado School of Mines: President's scholarship ..... *2010 August*

Publications

7. **T. A. Prileszky** and E. M. Furst. "Shape-mediated reversible deposition of reconfigurable colloids," *Advanced Functional Materials*, (in preparation), (2019). DOI: .

6. **T. A. Prileszky**, P. T. Spicer, and E. M. Furst. "Colloidal deposition," *Langmuir*, (in preparation), (2019). DOI: .

5. **T. A. Prileszky** and E. M. Furst. "Magnetite nanoparticles program the assembly, response, and reconfiguration of structured emulsions," *Soft Matter*, *15*(7), 1529–1538 (2019). DOI: 10.1039/C8SM01931B.

4. A. V. Bayles*, **T. A. Prileszky***, P. T. Spicer, and E. M. Furst. "Model of structured emulsion droplet stability and reconfigurability," *Langmuir*, *34*(13), 4116–4121 (2018). DOI: 10.1021/acs.langmuir.8b00469.

3. **T. A. Prileszky** and E. M. Furst. "Fluid networks assembled from endoskeletal droplets," *Chem. Mater.*, *28*(11), 3734–3740 (2016). DOI: 10.1021/acs.chemmater.6b00497.

2. **T. A. Prileszky** and E. M. Furst. "Crystallization kinetics of partially crystalline emulsion droplets in a microfluidic device," *Langmuir*, *32*(20), 5141–5146 (2016). DOI: 10.1021/acs.langmuir.6b00420.

1. **T. A. Prileszky**, B. A. Ogunnaike, and E. M. Furst. "Statistics of droplet sizes generated by a microfluidic device," *AIChE J.*, *62*(8), 2923–2928 (2016). DOI: 10.1002/aic.15246.

* *indicates equal contribution.*

Presentations

9. **T. A. Prileszky** and E. M. Furst. "Reversible deposition of shaped emulsion droplets," *Mid-Atlantic Soft Matter Workshop 20*, 2018 August 3, Washington, D.C..

8. **T. A. Prileszky** and E. M. Furst. "Reversible deposition of responsive colloids," *92nd ACS Colloid and Surface Science Symposium*, 2018 June 12, State College, PA.

7. **T. A. Prileszky**, D. Traini, P. Young, P. T. Spicer, and E. M. Furst. "Shaped aerosol droplets with single-crystal internal structures," *Gordon Research Seminar: Colloidal, Macromolecular, and Polyelectrolyte Solutions*, 2018 February 3, Ventura, CA.

6. **T. A. Prileszky** and E. M. Furst. "Designing functional emulsions with internal structure," *91st ACS Colloid and Surface Science Symposium*, 2017 July 11, New York, NY.

5. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplets as anisotropic interfaces," *Mid-Atlantic Soft Matter Workshop 17*, 2017 February 3, Newark, DE.

4. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplets as anisotropic interfaces," *University of Delaware Chemical Engineering Winter Research Review*, 2017 January 25, Newark, DE.

3. **T. A. Prileszky** and E. M. Furst. "Hierarchical emulsion networks from endoskeletal droplets," *90th ACS Colloid and Surface Science Symposium*, 2017 June 8, Cambridge, MA.

2. **T. A. Prileszky** and E. M. Furst. "Assembling anisotropic interfacial structures from endoskeletal droplets," *Gordon Research Seminar: Colloidal, Macromolecular, and Polyelectrolyte Solutions*, 2016 February 6, Ventura, CA.

1. **T. A. Prileszky** and E. M. Furst. "Microfluidic fabrication of endoskeletal droplets," *89th ACS Colloid and Surface Science Symposium*, 2015 June 15, Pittsburgh, PA.

Posters

11. **T. A. Prileszky** and E. M. Furst. "Reversible deposition of responsive colloids," *92nd ACS Colloid and Surface Science Symposium*, 2018 June 10–13, State College, PA.

10. **T. A. Prileszky**, D. Traini, P. Young, P. T. Spicer, and E. M. Furst. "Shaped aerosol droplets with single-crystal internal structures," *Gordon Research Conference: Colloidal, Macromolecular, and Polyelectrolyte Solutions*, 2018 February 4–9, Ventura, CA.

9. **T. A. Prileszky** and E. M. Furst. "Modifying shaped emulsions with magnetic nanoparticles," *2017 MRS Fall meeting*, 2017 November 26–December 1, Boston, MA.†

8. **T. A. Prileszky**, D. Traini, P. Young, P. T. Spicer, and E. M. Furst. "Non-spherical aerosol droplets with internal structure," *91st ACS Colloid and Surface Science Symposium*, 2017 July 9–12, New York, NY.†

7. **T. A. Prileszky** and E. M. Furst. "Magnetically functionalized endoskeletal droplets," *90th ACS Colloid and Surface Science Symposium*, 2017 June 5–8, Cambridge, MA.†

6. **T. A. Prileszky** and E. M. Furst. "Assembling anisotropic interfacial structures from endoskeletal droplets," *Gordon Research Conference: Colloidal, Macromolecular, and Polyelectrolyte Solutions*, 2016 February 7–12, Ventura, CA.

5. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplets as anisotropic interfaces," *University of Delaware Chemical Engineering Winter Research Review*, 2017 January 25, Newark, DE.

4. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplets: controlling assembly, rheology, and response," *87th Society of Rheology Annual Meeting*, 2015 October 11–15, Baltimore, MD.†

3. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplets: controlling assembly, rheology, and response," *Chemical Heritage Foundation Innovation Day*, 2015 October 5–6, Philadelphia, PA.

2. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplet generation in microfluidic devices," *Start Talking Science*, 2015 September 29, Philadelphia, PA.

1. **T. A. Prileszky** and E. M. Furst. "Endoskeletal droplet generation in microfluidic devices," *Tiger-Hen-Hawk Rheology Symposium*, 2015 May 9, Bethlehem, PA.

† *indicates poster award received.*

Professional affiliations

Materials Research Society (MRS) ..... *2017 November–Present*
American Chemical Society (ACS) ..... *2015 January–Present*
Society of Rheology (SoR) ..... *2014 October–Present*
Tau Beta Pi (TBΠ) engineering honor society ..... *2011 October–Present*

Broader impact activities

Collaborated with students and faculty at University of New South Wales ..... *2017 February–2017 May*
Demonstrated physics principles to several classes at Delaware Children's Museum ..... *2016 May*
Performed rheology demonstrations at Maryland Science Center ..... *2015 October*
Presented research at Start Talking Science ..... *2015 September*
University of Delaware Engineering summer camp ..... *2015 July*
Demonstrated shear-thickening behavior at Franklin Institute in Philadelphia ..... *2014 October*
University of Delaware Engineering summer camp ..... *2014 July*
Judged LEGO FIRST competition at Colorado School of Mines ..... *2012 November*

Leadership roles

Colburn Club vice president ..... *2015 September–2016 September*
Colburn Club second-year representative ..... *2014 September–2015 September*
Colburn Club first-year representative ..... *2013 September–2014 September*