Andrea D. Pickel

Assistant Professor
Department of Mechanical Engineering
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Education

May 2019	**University of California, Berkeley**	Berkeley, CA
	Ph.D. in Mechanical Engineering Advisor: Prof. Chris Dames Major: Heat transfer. Minors: Materials science, solid state physics. Thesis: "Far-Field Optical Thermometry Techniques for Challenging Environments"	
May 2014	**Carnegie Mellon University**	Pittsburgh, PA
	B.S. in Mechanical Engineering with University and College Honors	

Professional Appointments

07/19 – present	Assistant Professor, Department of Mechanical Engineering, University of Rochester Assistant Professor, Materials Science Program (Secondary), University of Rochester Assistant Professor, Institute of Optics (Secondary), University of Rochester
08/14 – 05/19	Graduate Researcher, Nano/Energy Lab, UC Berkeley
01/12 – 05/14	Undergraduate Researcher, McHenry Group, Carnegie Mellon University
05/14 – 08/14 05/13 – 08/13	Analog Packaging Intern, Texas Instruments, Dallas, TX

Honors and Awards

2024	Scialog Fellow for Automating Chemical Laboratories
2023	G. Graydon Curtis '58 and Jane W. Curtis Award for Non-Tenured Faculty Teaching
2022	NSF CAREER Award
2021	University of Rochester Furth Fund Award
2020	American Chemical Society Petroleum Research Fund (ACS PRF) Doctoral New Investigator Award
2018	Selected to attend Rising Stars in Mechanical Engineering workshop at MIT
2018	Semifinalist, UC Berkeley Grad Slam ("three-minute thesis" speech competition)
2018	2nd place poster award, Advanced Imaging Methods Workshop, Berkeley, CA
2016 – 2019	National Science Foundation (NSF) Graduate Research Fellowship
2014 – 2016	UC Berkeley Chancellor's Fellowship (2 years of full funding)
2012 – 2014	Semiconductor Research Corporation Undergraduate Research Opportunities Scholar (5 semesters plus 1 summer of research support)
2014	2nd place, Carnegie Mellon College of Engineering Honors Research Poster Contest
	Tau Beta Pi Engineering Honor Society
	Pi Tau Sigma Mechanical Engineering Honor Society

Refereed Journal Publications

[†]Denotes corresponding author. [‡]Denotes Pickel lab graduate student. [#]Denotes Pickel lab undergraduate student.

17. B. Harrington[‡], C. Zhang[#], X. Liu[#], A. Guldbrandsen[#], and **A.D. Pickel[†],** "Leveraging Ronchi Rulings as Reconfigurable Microscale Joule Heaters," *Advanced Engineering Materials* 2402918 (2025).

16. Z. Ye[‡], L. Signor[‡], M. Cohan[#], and **A.D. Pickel[†],** "Metal Surface Effects on Single Upconverting Nanoparticle Luminescence and Thermometry Signals," *Journal of Materials Chemistry C* **13,** 116-124 (2025).

15. Z. Ye[‡], B. Harrington[‡], and **A.D. Pickel[†],** "Optical Super-Resolution Nanothermometry via Stimulated Emission Depletion Imaging of Upconverting Nanoparticles," *Science Advances* **10,** eado6268 (2024).

    Selected media coverage:
    - American Society of Mechanical Engineers (ASME): Uncovering Hotspots in Electronics at Nanoscale
    - Optics & Photonics News (membership magazine of Optica, formerly the Optical Society of America): Lasers Turn Nanoparticles Into Tiny Thermometers
    - Semiconductor Engineering: Mapping Heat Transfer
    - EurekAlert! *(picked up by 10 other media outlets)*: New technique pinpoints nanoscale 'hot spots' in electronics to improve their longevity

14. B. Harrington*[‡], Z. Ye*[‡], L. Signor[‡], and **A.D. Pickel[†],** "Luminescence Thermometry Beyond the Biological Realm," *ACS Nanoscience Au* **4,** 30-61 (2024). (Invited review article)
    ***** *denotes equal contribution to this work*
    - Selected as an ACS Editors' Choice Article

13. D.R. Luntz-Martin, D.K. Bommidi[‡], K. Zhang, **A.D. Pickel,** and A.N. Vamivakas, "Nanothermometry in Rarefied Gas using Optically Levitated Nanodiamonds," *Optics Express* **31,** 36219-36227 (2023).

12. Z. Ye[‡], D.K. Bommidi[‡], and **A.D. Pickel[†],** "Dual-Mode Operando Raman Spectroscopy and Upconversion Thermometry for Probing Thermal Contributions to Plasmonic Photocatalysis," *Advanced Optical Materials* **11,** 2300824 (2023).

11. C. Jian[#], Z. Ye[‡], and **A.D. Pickel[†],** "Laser heating with doughnut-shaped beams," *Journal of Applied Physics* **132,** 245104 (2022).

10. D.K. Bommidi[‡] and **A.D. Pickel[†],** "Temperature-dependent excited state lifetimes of nitrogen vacancy centers in individual nanodiamonds," *Applied Physics Letters* **119,** 254103 (2021).
    - Selected as a Featured Article and for a Scilight ("science highlight") perspective article

9. **A.D. Pickel[†]** and C. Dames, "Size and shape effects on the measured peak temperatures of nanoscale hotspots," *Journal of Applied Physics* **128,** 045103 (2020).

8. **A.D. Pickel,** A. Teitelboim, E.M. Chan, N.J. Borys, P.J. Schuck, and C. Dames, "Apparent self-heating of individual upconverting nanoparticle thermometers," *Nature Communications* **9,** 4907 (2018).

7. G. Wehmeyer, **A.D. Pickel,** and C. Dames, "Onsager reciprocity relation for ballistic phonon heat transport in anisotropic thin films of arbitrary orientation," *Physical Review B* **98,** 014304 (2018).

6. T. Li, **A.D. Pickel,** Y. Yao, Y. Chen, Y. Zeng, S.D. Lacey, Y. Li, Y. Wang, J. Dai, Y. Wang, B. Yang, M.S. Fuhrer, A. Marconnet, C. Dames, D.H. Drew, and L. Hu, "Thermoelectric properties and

performance of flexible reduced graphene oxide films up to 3000 K," *Nature Energy* **3,** 148-156 (2018).

- *News and Views:* Bring on the heat

5. J.D. Kilbane, E.M. Chan, C. Monachon, N.J. Borys, E.S. Levy, **A.D. Pickel,** J.J. Urban, P.J. Schuck, and C. Dames, "Far-field optical nanothermometry using individual sub-50 nm upconverting nanoparticles," *Nanoscale* **8,** 11611 (2016).
4. W. Bao*, **A.D. Pickel*,** Q. Zhang*, Y. Chen*, Y. Yao*, J. Wan, K. Fu, Y. Wang, J. Dai, H. Zhu, D. Drew, M. Fuhrer, C. Dames, and L. Hu, "Flexible, High Temperature, Planar Lighting with Large Scale Printable Nanocarbon Paper," *Advanced Materials* **28,** 4684-4691 (2016).
***** *denotes equal contribution to this work*
3. S. Xu, A.H. Habib, **A.D. Pickel,** and M.E. McHenry, "Magnetic Nanoparticle-based Solder Composites for Electronic Packaging Applications," *Progress in Materials Science* **67,** 95-160 (2015).
2. S. Xu, A. Prasitthipayong, **A.D. Pickel,** A.H. Habib, and M.E. McHenry, "Mechanical Properties of FeCo Magnetic Particles-based Sn-Ag-Cu Solder Composites," *Applied Physics Letters* **102,** 251909 (2013).
1. S. Xu, **A.D. Pickel,** A. Prasitthipayong, A.H. Habib, and M.E. McHenry, "Modeling of Localized Reflow in Solder/Magnetic Nanocomposites for Area-Array Packaging," *Journal of Applied Physics* **113**, 17A305 (2013).

Preprints and Non-Refereed Publications

3. 19 authors including **A.D. Pickel,** "Report on the Tenth US-Japan Joint Seminar on Nanoscale Transport Phenomena," *Nanoscale and Microscale Thermophysical Engineering* **28,** 176-193 (2024).
2. 36 authors including **A.D. Pickel,** "35 challenges in materials science being tackled by PIs under 35(ish) in 2021," *Matter* **4,** 3804-3810 (2021).
1. C.D. Aiello, **A.D. Pickel,** E. Barnard, R.B. Wai, C. Monachon, E. Wong, S. Aloni, F. Ogletree, C. Dames, and N. Ginsberg, "Cathodoluminescence-based nanoscopic thermometry in a lanthanide-doped phosphor," arXiv:1810.07581 [cond-mat.mes-hall].

Presentations

Invited Presentations, Seminars, and Panels

23. Title TBD. *UPCON: 5th Conference on Properties, Design, and Applications of Upconversion Nanomaterials.* Brno, Czech Republic. April 13-17, 2026.
22. Title TBD. *SHIFT 2025 (Spectral Shaping for Biomedical and Energy Applications).* Tenerife, Canary Islands, Spain. October 13-17, 2025. Invited keynote speaker.
21. "Optical Super-Resolution Nanothermometry via Stimulated Emission Depletion Imaging," *ASME Summer Heat Transfer Conference.* Westminster, CO. July 8-10, 2025.
20. Title TBD. *Telluride Science Research Center Workshop on Thermal Transport at the Nanoscale.* Telluride, CO. June 24-28, 2025.

19. "Taking Luminescence Thermometry to Extremes for Device, Energy, and Catalysis Applications," Rochester Institute of Technology Mechanical Engineering Seminar Series. March 6, 2025.

18. "Taking Luminescence Thermometry to Extremes for Device, Energy, and Catalysis Applications," University of Arizona/Arizona State University MateriAlZ Seminar Series. February 7, 2025.

17. "Taking Luminescence Thermometry to Extremes for Device, Energy, and Catalysis Applications," Walker Department of Mechanical Engineering, The University of Texas at Austin. February 3, 2025.

16. "Taking Luminescence Thermometry to Extremes for Device, Energy, and Catalysis Applications," George W. Woodruff School of Mechanical Engineering, Georgia Institute of Technology. November 7, 2024.

15. "Taking Luminescence Thermometry to Extremes for Device, Energy, and Catalysis Applications," Thermal Transport Café Webinar Series. October 30, 2024.

14. "Optical Thermometry Beyond the Diffraction Limit," Princeton University Department of Mechanical and Aerospace Engineering Seminar Series. October 6, 2023.

13. "Optical Thermometry Beyond the Diffraction Limit," *The 10th US-Japan Joint Seminar on Nanoscale Thermal Transport Phenomena*. Coronado, CA. July 16-19, 2023.

12. "UCNP Thermometry Beyond the Diffraction Limit," *Upconverting Nanoparticles Gordon Research Conference.* Waterville Valley, NH. June 18-23, 2023.

11. "Time-Resolved Nanothermometry via Excited State Lifetimes of Nitrogen Vacancy Centers in Individual Nanodiamonds," *Park Systems NanoScientific Symposium.* September 29, 2022.

10. "Far-Field Optical Nanothermometry in Challenging Environments: Super-Resolution and Single-Particle Approaches," Columbia University Mechanical Engineering Seminar Series. September 23, 2022.

9. "Far-Field Optical Nanothermometry in Challenging Environments: Super-Resolution and Single-Particle Approaches," *Telluride Science Research Center Workshop on Thermal Transport at the Nanoscale.* Telluride, CO. June 20-25, 2022.

8. "Far-Field Optical Nanothermometry via Individual Luminescent Nanoparticles," Andor Technology Webinar Series. October 20, 2021.

7. "In luminescence thermometry we trust. Can we?" NanoTBTech Webinar Series (a project of the European Union's Horizon 2020 FET Open Programme). Invited panelist. June 4, 2021.

6. "Far-Field Optical Nanothermometry via Luminescent Nanomaterials," Rice University Mechanical Engineering Seminar Series. February 10, 2021.

5. "Far-Field Optical Nanothermometry via Luminescent Nanomaterials," Rochester Institute of Technology Physics Colloquium. October 28, 2020.

4. "Far-Field Optical Nanothermometry via Luminescent Nanomaterials," University of Rochester Institute of Optics Colloquium. October 12, 2020.

3. "Far-Field Optical Nanothermometry via Luminescent Nanomaterials," University of Rochester Department of Physics and Astronomy Colloquium. August 28, 2019.

2. "Extending Thermoelectricity to 3,000 K via Reduced Graphene Oxide Films." *WE-Heraeus-Seminar on System-oriented approach to thermoelectrics: Materials – Interfaces – Devices.* Bad Honnef, Germany. April 9-11, 2018.

1. "Investigating Apparent Self-Heating of Individual Luminescent Nanoparticle Thermometers," *The 9th US-Japan Joint Seminar on Nanoscale Thermal Transport Phenomena.* Tokyo, Japan. July 2-5, 2017. Invited poster presentation.

Contributed Presentations

16. Z. Ye and A.D. Pickel, "Optical Super-Resolution Nanothermometry via Stimulated Emission Depletion Imaging," *MRS Spring Meeting.* Seattle, WA. April 7-11, 2025. Contributed talk.

15. Z. Ye, B. Harrington, D.K. Bommidi, and A.D. Pickel, "Levitated Nanoparticles and Super-Resolution Spectroscopy as Tools for Optical Nanothermometry," *IMECE.* Portland, OR. November 17 – 21, 2024. Contributed talk.

14. Z. Ye, B. Harrington, and A.D. Pickel, "Optical Super-Resolution Nanothermometry via Stimulated Emission Depletion Imaging," *7th ASME Micro/Nanoscale Heat and Mass Transfer International Conference*. Nottingham, United Kingdom. August 5-7, 2024. Contributed talk. (Best Presentation Award)

13. Z. Ye, B. Harrington, and A.D. Pickel, "Optical Super-Resolution Nanothermometry via Stimulated Emission Depletion Imaging of Upconverting Nanoparticles," *UPCON: 4th Conference on Properties, Design, and Applications of Upconversion Nanomaterials.* Montréal, Canada. April 7-12, 2024. Contributed talk.

12. Z. Ye, D.K. Bommidi, and A.D. Pickel, "Dual-Mode Operando Thermometry and Reaction Monitoring for Probing Thermal Contributions to Plasmonic Photocatalysis," *IMECE.* New Orleans, LA. October 29 – November 2, 2023. Contributed talk.

11. Z. Ye and A.D. Pickel, "Combining Ratiometric Thermometry and Super-Resolution Imaging of Upconverting Nanoparticles," *MRS Spring Meeting.* San Francisco, CA. April 10-14, 2023. Contributed talk.

10. D.K. Bommidi and A.D. Pickel, "Temperature-dependent excited state lifetimes of nitrogen vacancy centers in individual nanodiamonds." *ASME Summer Heat Transfer Conference.* Philadelphia, PA, July 11-13, 2022. Contributed talk.

9. D.K. Bommidi and A.D. Pickel, "Temperature-dependent excited state lifetimes of nitrogen vacancy centers in individual nanodiamonds." *APS March Meeting.* Chicago, IL, March 14-18, 2022. Contributed talk.

8. D.K. Bommidi and A.D. Pickel, "Temperature-dependent excited state lifetimes of nitrogen vacancy centers in individual nanodiamonds." *MRS Fall Meeting.* Boston, MA, November 29-December 2, 2021. Poster presentation.

7. A.D. Pickel and C. Dames, "Size and Shape Effects on the Measured Peak Temperatures of Nanoscale Hotspots." *IMECE*. Virtual conference, November 16-19, 2020. Contributed talk.

6. A.D. Pickel, A. Teitelboim, E.M. Chan, N.J. Borys, J.Y. Wu, P.J. Schuck, and C. Dames, "Measuring Nanoscale Hotspots with Individual Luminescent Nanoparticles." *MRS Spring Meeting.* Phoenix, AZ, April 22-26, 2019. Contributed talk.

5. A.D. Pickel, E.M. Chan, C. Aiello, N.J. Borys, N.S. Ginsberg, P.J. Schuck, and C. Dames, "Far-Field Optical Nanothermometry via Individual Upconverting Nanoparticles," *Advanced Imaging Methods Workshop*. Berkeley, CA. January 25, 2018. Poster presentation. (2nd Place Poster Award)

4. A.D. Pickel, J.D. Kilbane, E.M. Chan, C. Monachon, N.J. Borys, E.S. Levy, J.J. Urban, P.J. Schuck, and C. Dames, "Investigating Apparent Self-Heating of Individual Luminescent Nanoparticle Thermometers," *Molecular Foundry User Meeting*. Berkeley, CA. August 17-18, 2017. Poster presentation.

3. A.D. Pickel, J.D. Kilbane, E.M. Chan, N.J. Borys, J.J. Urban, P.J. Schuck, and C. Dames. "Excitation Intensity Effects in Far-Field Optical Nanothermometry Using Individual Upconverting Nanoparticles." *ASME Summer Heat Transfer Conference*. Bellevue, WA, July 9-12, 2017. Contributed talk.

2. A.D. Pickel, J.D. Kilbane, E.M. Chan, C. Monachon, N.J. Borys, E.S. Levy, J.J. Urban, P.J. Schuck, and C. Dames, "Individual Upconverting Nanoparticles as Nanoscale Heaters and Thermometers." *MRS Spring Meeting*. Phoenix, AZ, April 17-21, 2017. Contributed talk.

1. A.D. Pickel, J.D. Kilbane, E.M. Chan, C. Monachon, N.J. Borys, E.S. Levy, J.J. Urban, P.J. Schuck, and C. Dames, "Far-Field Optical Nanothermometry Using Individual Upconverting Nanoparticles," *Molecular Foundry User Meeting*. Berkeley, CA. August 11-12, 2016. Poster presentation.

Supervision

PhD Students

Junyi Lin (Mechanical Engineering)	2025 – present
Qiwen Xiao (Materials Science)	2024 – present
Laura Kowalski (Optics)	2023 – present
• Recipient of a Department of Education Graduate Assistance in Areas of National Need (GAANN) Fellowship	
Benjamin Harrington (Materials Science)	2021 – present
Ziyang Ye (Materials Science)	2019 – present
• Recipient of best poster prize at UPCON 2024	
Dinesh Bommidi (Mechanical Engineering)	2019 – 2024
• *Next position:* Optical Production Engineer at ASML	

Undergraduates

Chi (Steven) Zhang, UR Mechanical Engineering Class of 2027	Summer 2024 – present
Molly Cohan, College of Wooster Physics Class of 2026	Summer 2024
• Participant in the NSF REU in Nanophotonics, Quantum Photonics, and Vision/Biomedical Optics at UR	
Asa Guldbrandsen, UR Mechanical Engineering Class of 2026	Fall 2023 – present
Gustavo Rivera Soto, UR Mechanical Engineering Class of 2025	Spring 2023 – present
Xiaoshan (Jennifer) Liu, UR Electrical and Computer Engineering Class of 2024	Fall 2022 – Spring 2024

- *Next position:* MS student in Electrical and Computer Engineering at Northwestern University

Melanie Earle, UR Mechanical Engineering Class of 2023 — Fall 2019 – Spring 2023

- *Next position:* PhD student in Mechanical Engineering at UC Berkeley
- Recipient of the G. Harold Hook Prize
- Selected to attend Gulf Coast Undergraduate Research Symposium at Rice University

Lingyun Huang, UR Mechanical Engineering Class of 2023 — Summer 2022 – Fall 2022

- *Next position:* MS student in Mechanical Engineering at the University of Pennsylvania

Chenhao Jian, UR Mechanical Engineering Class of 2022

- *Next position:* MS student in Mechanical Engineering at UCLA — Fall 2021 – Summer 2022

Weihan Wang, UR Mechanical Engineering Class of 2022

- *Next position:* MSE student in Mechanical Engineering at the University of Michigan — Fall 2021 – Spring 2022

Yisheng Zhong, UR Mechanical Engineering Class of 2022 — Fall 2021

Carol Jerotich, UR Mechanical Engineering Class of 2022 — Spring 2020 – Spring 2021

Stella Kombo, UR Mechanical Engineering Class of 2022 — Spring 2020 – Spring 2021

Kelly Jean, UR Mechanical Engineering Class of 2021 — Spring 2020 – Spring 2021

Linh Vu, UR Mechanical Engineering Class of 2023 — Spring 2020

Caiden Larsen, UR Mechanical Engineering Class of 2023 — Spring 2020

Professional Activities and Service

Proposal Review

- NSF: Division of Chemical, Bioengineering, Environmental, and Transport Systems (CBET); Division of Chemistry
- Army Research Office
- American Chemical Society Petroleum Research Fund (ACS PRF)
- Agence Nationale de la Recherche (French National Research Agency)
- University of Rochester University Research Awards Program
- University of Rochester PumpPrimer II Program

Journal Article Review

ACS Nano
ACS Applied Electronic Materials
ACS Applied Materials & Interfaces
Advanced Functional Materials
Advanced Optical Materials
Cell Biochemistry and Biophysics
Chemistry–Methods
Journal of Heat Transfer
Light: Science and Applications
Nano Letters
Nanoscale and Microscale Thermophysical Engineering
Nature Communications
Nature Materials
Optics Express

International Journal of Thermal Sciences	Physical Review Letters
International Journal of Thermophysics	Review of Scientific Instruments
Journal of Applied Physics	Science Advances

Professional Activities

- External Thesis Reviewer and Defense Committee Member for Sander Vonk, University of Utrecht
- Session Chair for 2024 IMECE, Sessions 11-07-01 and 11-07-02: Transport Properties of Energy Carriers, November 21, 2024, Portland, OR
- Session Chair for 7th ASME Micro/Nanoscale Heat and Mass Transfer International Conference, Session 10-01: Heat and Mass Transfer in Small Scale, August 5, 2024, Nottingham, United Kingdom
- Session Chair for 2023 IMECE, Session 11-58-01: Nanoscale Thermal Transport, November 1, 2023, New Orleans, LA
- Session Chair for the 10th US-Japan Joint Seminar on Nanoscale Thermal Transport Phenomena, Session VII (Magnetism/Phonon), July 19, 2023, Coronado, CA
- Session Chair for 2023 MRS Spring Meeting, Session SF03.17: Nanoscale Microscopy, April 14, 2023, San Francisco, CA
- Session Chair for 2022 APS March Meeting, Session Q68: Thermal and Electrical Transport in Nanomaterials, March 16, 2022, Chicago, IL
- Member of ASME Heat Transfer Division K-9 Committee on Nanoscale Thermal Transport
- Member of ASME, MRS, and SWE

Departmental and University Service

11/2024 – present	UR Mechanical Engineering Ad Hoc Space Committee
08/2024 – present	UR Mechanical Engineering Undergraduate Advisor to Class of 2028 Students
12/2022 – 08/2023	New Science and Engineering Building Planning Committee
09/2022 – present	URnano (Nanofabrication Facility) User Steering Committee
08/2021 – present	Faculty Advisor to UR Society of Women Engineers (SWE) Chapter
02/2022	Sproull and Provost Fellowship Review Panels (Materials Science representative)
Summer/Fall 2021	UR Mechanical Engineering Faculty Search Committee Member
08/2020 – 05/2024	UR Mechanical Engineering Undergraduate Advisor to Class of 2024 Students
08/2020 – present	UR Mechanical Engineering MS Student Advisor
01/2020 – 05/2021; 01/2023 – present	UR Materials Science Graduate Admissions Committee
08/2019 – present	UR Mechanical Engineering Graduate Admissions Committee
08/2019 – present	UR Materials Science MS Student Advisor

PhD Dissertation Committees: Leopoldo Mejia (Chemistry, committee chair); Krysta Boccuzzi (Optics, committee chair); Wriju Chowdhury (Earth and Environmental Sciences); Likun Cai (Materials Science); Danika Luntz-Martin (Physics); Tyler Howard (Optics); Wenhui Hou (Electrical and Computer Engineering, committee chair); Tara Peña (Electrical and Computer Engineering, committee chair); Xuchen Gong (Mechanical Engineering); Wesley Chiang (Biophysics, committee chair); Fei Hu (Chemical Engineering); Mitesh Amin (Optics, committee chair)

Teaching

At University of Rochester

Course	Level	Semester	Number of Responses	Overall Rating of Course	Overall Rating of Instructor
ME 433: Nanoscale Energy Transport and Conversion	Graduate elective	Fall 2019	8	4.9/5.0	5.0/5.0
ME 433: Nanoscale Energy Transport and Conversion	Graduate elective	Fall 2020	3	4.33/5.0	4.67/5.0
ME 223: Heat Transfer	Required undergraduate course	Spring 2021	24	4.30/5.0	4.57/5.0
ME 433: Nanoscale Energy Transport and Conversion	Graduate elective	Fall 2021	2	5.0/5.0	5.0/5.0
ME 223: Heat Transfer	Required undergraduate course	Spring 2022	19	4.74/5.0	4.79/5.0
ME 433: Nanoscale Energy Transport and Conversion	Graduate elective	Fall 2022	3	5.0/5.0	5.0/5.0
ME 223: Heat Transfer	Required undergraduate course	Spring 2023	9	4.78/5.0	4.56/5.0
ME 433: Nanoscale Energy Transport and Conversion	Graduate elective	Fall 2023	6	5.0/5.0	5.0/5.0

- Received a **2022 Wadsworth C. Sykes Engineering Faculty Award of $11,200** to develop a new laboratory activity on luminescence lifetime thermometry for ME 223 (undergraduate heat transfer)

Prior to University of Rochester

06/18 – 08/18 Graduate Student Instructor for ME 109: Heat Transfer, UC Berkeley

- Average student evaluation score: 4.7/5.0 (Department average: 4.19/5.0)

05/11 – 05/14 Peer Tutor, Carnegie Mellon University

- College Reading and Learning Association (CRLA) Level 1 Certified Tutor for physics, calculus, and engineering courses for six semesters

Outreach

07/22 – present: Partnership with Innova Girls Academy, Rochester, NY
- Established a partnership with a new all-girls STEM-focused public elementary school in the Rochester City School District
- Designed, constructed, and presented hands-on kits that introduce basic principles of light and luminescence to Innova Girls Academy students

08/14 – 05/19 Students for Environmental Energy Development, UC Berkeley
- Volunteer with outreach program focused on energy/water resources
- Served as Chair for the 2015-2016 academic year: designed lesson plans, recruited volunteers, and managed partnership with the elementary school

08/17 – 05/19 Events Chair, Graduate Women in Engineering, UC Berkeley
- Organized social/professional development events open to all graduate students

08/15 – 05/17 Speaker Series Co-Chair, Graduate Women in Engineering, UC Berkeley
- Invited speakers and coordinated logistics for series sponsored by Sandia National Lab

06/16 – 08/16 Research Mentor, Berkeley Engineering Research Experiences for Teachers, UC Berkeley
- Mentored a high school physics teacher and a UC Berkeley undergraduate student on summer research projects