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EDUCATION

Ph.D.	Brown University, Providence, RI, Chemical Engineering	2008
Sc.M.	Brown University, Providence, RI, Engineering	2005
B.S.	Northeastern University, Boston, MA, Chemical Engineering	2004

ACADEMIC APPOINTMENTS

Cornell University, Dept. of Biological and Environmental Engineering
Assistant Professor (July 2018 – Present)
Faculty Fellow: Atkinson Center for a Sustainable Future (2019 – Present)
Cornell Institute of Politics and Global Affairs (2019 – Present)
Cornell Dairy Center of Excellence (2018 – Present)
Faculty Expert: Cornell Energy Systems Institute (2019 – Present)
Courses: BEE/ENGRD 2510: Engineering Processes for Environmental Sustainability
BEE 6940: Engineering Effective Technical Communication
BEE 4940: Investigating the Reappearance of Lead at Ithaca Gun Superfund Site

The Pennsylvania State University, Dept. of Energy & Mineral Engineering
Assistant Professor (January – June 2018)
Faculty Associate: Earth and Mineral Sciences Energy Institute
Co-funded Faculty: Institutes of Energy and the Environment; Materials Research Institute
Course: Heat and Mass Transfer

Boston University, Dept. of Mechanical Engineering, Division of Materials Science and Engineering
Assistant Professor (January – December 2017)
Research Assistant Professor (August 2013 – December 2016)
Faculty Affiliate: Initiative on Cities; Institute for Sustainable Energy
Faculty Fellow: Pardee Center for the Study of the Longer-Range Future
Courses: Heat Transfer; Introduction to Environmental Engineering; Materials Science; Graduate Teaching Practicum; Introduction to Engineering; Biomass and Bioenergy (at Univ. of Trento, Spring 2017)

University of New Hampshire, Dept. of Chemical Engineering
Assistant Professor (August 2010 – July 2013)
Courses: Air Pollution: Its Origin and Control; Separations Processes; Fossil Fuels and Renewable Energies; Introduction to Chemical Engineering II (Energy Balances); Graduate Thermodynamics

AWARDS AND RECOGNITION

2019 International Union of Pure and Applied Chemistry (IUPAC) Young Observer
2018 Miller Faculty Fellow for Exceptional Creativity in Research, College of Earth & Mineral Sciences, The Pennsylvania State University
2017 Fulbright Scholar, Research and Teaching at the University of Trento, Italy
2017 American Chemical Society Green Chemistry Institute GreenX: Rising Star Award
2016 NSF Travel Award to present work at the AIChE International Congress on Sustainability

Science and Engineering, Xuzhou, China
2015, 2016 Nominated by the American Chemical Society (ACS) for NSF Waterman Award
2015 Finalist, TECO Green Technology International Competition, Taiwan
2015 BU Center for Excellence and Innovation in Teaching Course Innovation Award
2014 ACS Innovative Project Grant for Divisional Programming at National Level
2014 ACS Project SEED Grant to Mentor High School Students
2014 ACS Younger Chemists Committee Leadership Development Award
2014 1st Prize Materials Research Society University Chapter's "Sustainability@My School"
2007 ACS Division of Environmental Chemistry Certificate of Merit
2007 NSF Travel Award to present work at the 10th International Congress on Combustion By-Products and their Health Effects, Ischia, Italy
2005-2008 Graduate student fellowship supported by NIEHS Superfund Research Program
2004-2005 Brown University Engineering Dean's Fellow
1999-2004 Northeastern University College of Engineering Dean's Scholar
2003 Northeastern University Chemical Engineering Jeffrey R. Pierce Service Award
2003 Calvin Cronan Award for Excellence in Chemical Engineering Communication
2000 Northeastern University Women in Engineering Achievement Award

PEER-REVIEWED PUBLICATIONS

** Undergraduate Researcher; ** High School Researcher*

59. Ashman, C., L. Gao, **J.L. Goldfarb** "Silver Nitrate *in situ* Upgrades Pyrolysis Biofuels from Brewer's Spent Grain via Biotemplating." *Journal of Analytical and Applied Pyrolysis.* ***2020,*** 146, 104729
58. Wang, K., Q. Ma, K. Burns, H. Sudibyo, D.L. Sills, **J.L. Goldfarb**, J.W. Tester. "Impact of Feed Injection and Batch Processing Methods in Hydrothermal Liquefaction." *Journal of Supercritical Fluids.* ***2020,*** 164, 104887
57. Sciarria, T.P., M.A. Costa de Oliveira, B. Mecheri, A.D'Epifanio, **J.L. Goldfarb**, F. Adani. "Metal-free activated biochar as an oxygen reduction reaction catalyst in single chamber microbial fuel cells." *Journal of Power Sources.* ***2020***, 228183
56. Yıldız, A., **J.L. Goldfarb**, S. Ceylan. "Sustainable Hydrocarbon Fuels via "One-Pot" Catalytic Deoxygenation of Waste Cooking Oil using Inexpensive, Unsupported Metal Oxide Catalysts." *Fuel.* ***2020,*** 263, 116750
55. Merzari, F., **J.L. Goldfarb,** G. Andreottola, T. Mimmo, M. Volpe, L. Fiori. "Hydrothermal Carbonization as a Strategy for Sewage Sludge Management: Influence of Process Withdrawl Point on Hydrochar Properties." *Energies.* ***2020,*** 13, 2890
54. Ryan, E.M., A. Manderlink*, **J.L. Goldfarb**. "Manipulating Dendritic Growth: An Undergraduate Laboratory Experience in the Interplay between Mass Transport, Supersaturated Solutions, and Dendrite Structure." *Journal of Chemical Education.* ***2020,*** 97, 503-508 ***Cover Article.***
53. Gao, L. and **J.L. Goldfarb.** "Solid Waste to Biofuels and Heterogeneous Sorbents via Pyrolysis of Wheat Straw in the Presence of Fly Ash as an *in situ* Catalyst." *Journal of Analytical and Applied Pyrolysis.* ***2019,*** 137, 96-105
52. Gao, L. and **J.L. Goldfarb.** "Heterogeneous Biochars from Agricultural Residues and Coal Fly Ash for the Removal of Heavy Metals from Coking Wastewater." *RSC Advances.* ***2019,*** 9, 16018-16027
51. Ryan, E.M., Z. Pollard, Q.-T. Ha, A. Roshandelpoor, P. Vakili, **J.L. Goldfarb.** "Designing Heterogeneous Hierarchical Material Systems: A Holistic Approach to Structural and Materials Design" *MRS Communications;* ***2019,*** 9, 628-636 *Invited Manuscript*
50. Dupre, K., A. Vyas*, **J.L. Goldfarb,** E.M. Ryan. "Investigation of Computational Upscaling of Adsorption of SO_2 and CO_2 in Fixed Bed Columns" *Adsorption,* ***2019,*** 25, 773

49. Tahir, M.T., G. Çakman, **J.L. Goldfarb**, Y. Topcu, S.R. Naqvi, S. Ceylan. "Demonstrating the Suitability of Canola Residue Biomass to Biofuel Conversion via Pyrolysis through Reaction Kinetics, Thermodynamics, and Evolved Gas Analysis." *Bioresource Technology*. ***2019,*** 279, 67-73
48. Johnson, C.A., M. Chern, T. Nguyen, A.M. Dennis, **J.L. Goldfarb.** "Ligands and media impact interactions between engineered nanomaterials and clay minerals" *NanoImpact*. ***2019***, 13, 112-122
47. Nguyen, M., **J.L. Goldfarb**, A.F. Plante, W.C. Hockaday, B.L.T. Lau. "Sorption Temperature and the Stability of Iron-Bound Soil Organic Matter." *Geoderma.* ***2019,*** 341, 93-99
46. Glick, D.M., **J.L Goldfarb**, W. Heiger-Bernays and D.L. Kriner. "Public Knowledge, Contaminant Concerns and Support for Recycled Water in the United States." *Resources Conservation and Recycling.* ***2019,*** 150, 104419
45. Gao, L., M. Volpe, M. Lucian, L. Fiori, **J.L. Goldfarb.** "Does Hydrothermal Carbonization as a Biomass Pretreatment Reduce Fuel Segregation of Coal-Biomass Blends During Oxidation?" *Energy Conversion and Management.* ***2019,*** 181, 93-104
44. Berger, M., J. Ford*, **J.L. Goldfarb.** "Modeling Aqueous Contaminant Removal due to Combined Hydrolysis and Adsorption: Oxytetracycline in the Presence of Biomass-Based Activated Carbons." *Separation Science and Technology.* ***2019,*** 54, 705-721
43. Lucian, M., M. Volpe, L. Gao, G. Piro, **J.L. Goldfarb**, L. Fiori. "Impact of Hydrothermal Carbonization Conditions on the Formation of Hydrochars and Secondary Chars from the Organic Fraction of Municipal Solid Waste." *Fuel.* ***2018,*** 233, 257-268
42. Xue, J. and **J.L. Goldfarb**. "Enhanced Devolatilization During Torrefaction of Blended Biomass Streams Results in Additive Heating Values and Synergistic Oxidation Behavior of Solid Fuels." *Energy.* ***2018,*** 152, 1-12
41. Gopu, C.*, L. Gao, M. Volpe, L. Fiori, **J.L. Goldfarb**. "Valorizing Municipal Solid Waste: Waste to Energy and Activated Carbons for Water Treatment via Pyrolysis." *Journal of Analytical and Applied Pyrolysis.* ***2018,*** 133, 48-58
40. Volpe, M., **J.L. Goldfarb**, L. Fiori. "Hydrothermal Carbonization of *Opuntia ficus-indica* Cladodes: Role of Process Parameters on Hydrochar Properties." *Bioresource Technology.* ***2018,*** 247, 310-318
39. Xue, J., T. Chellappa, S. Ceylan. **J.L. Goldfarb**. "Enhancing Biomass + Coal Co-firing Scenarios via Biomass Torrefaction and Carbonization: Case Study of Avocado Pit Biomass and Illinois No. 6 Coal." *Renewable Energy.* ***2018,*** 122, 152-162
38. Berger, M., Karod, M.*, **J.L. Goldfarb.** "Invasive Species or Sustainable Water Filters? A Student-Led Laboratory Investigation into Locally Sourced Biomass-Based Adsorbents for Sustainable Water Treatment." Accepted for Publication in *Green Chemistry Education: Recent Developments*, edited by M.A. Benvenuto. De Gruyter Press. Pre-published in *Physical Science Reviews,* ***2018***, 20180073
37. Dupre, K., E.M. Ryan, A. Suleimenov, **J.L. Goldfarb.** "Experimental and computational demonstration of a low-temperature waste to by-product conversion of U.S. oil shale semicoke to a flue gas sorbent" *Energies.* ***2018,*** 11, 3195
36. Aslan, D.I., P. Parthasarath, **J.L. Goldfarb**, S. Ceylan. "Pyrolysis Reaction Models of Waste Tires: Application of Master-Plots method for Energy Conversion via Devolatilization." *Waste Management.* ***2017,*** 68, 405-411
35. Berger, M. and **J.L. Goldfarb.** "Understanding our Energy Footprint: Undergraduate Chemistry Laboratory Investigation of Environmental Impacts of Solid Fossil Fuel Wastes." *Journal of Chemical Education.* ***2017,*** 94, 1124-1128
34. Xue, J., G. Dou, E. Ziade, **J.L. Goldfarb**. "Integrating Sustainable Biofuel and Silver Nanomaterial Production for *in situ* Upgrading of Cellulosic Biomass Pyrolysis." *Energy Conversion & Management*. ***2017,*** 142, 143-252
33. **Goldfarb, J.L,** G. Dou, M. Salari, M.W. Grinstaff. "Biomass-Based Fuels and Activated Carbon Electrode Materials: An Integrated Approach to Green Energy Systems*." ACS Sustainable Chemistry & Engineering.* ***2017,*** 5, 3046-3054

32. Uzun, H., Z. Yildiz, **J.L. Goldfarb**, S. Ceylan. "Improved Prediction of Higher Heating Value of Biomass Using an Artificial Neural Network Model Based on Proximate Analysis." *Bioresource Technology.* ***2017,*** 234, 122-130
31. Christenson, D.P., **J.L. Goldfarb** and D.L. Kriner "Costs, Benefits, and the Malleability of Public Support for 'Fracking'." *Energy Policy.* ***2017,*** 105, 407-417
30. Vyas, A*. T. Chellappa, and **J.L. Goldfarb**. "Porosity Development and Reactivity Changes of Coal-Biomass Blends During Co-Pyrolysis at Various Temperatures." *Journal of Analytical and Applied Pyrolysis.* ***2017,*** 124, 79-88
29. Dou, G. and **J.L. Goldfarb.** "In situ Upgrading of Pyrolysis Biofuels by Bentonite Clay with Simultaneous Production of Heterogeneous Adsorbents for Water Treatment." *Fuel.* ***2017,*** 195, 273-283
28. **Goldfarb, J.L.**, L. Buessing, E. Gunn, M. Lever*, A. Billias*, E. Casoliba, A. Schievano, F. Adani. "Novel Integrated Biorefinery for Olive Mill Waste Management: Utilization of Secondary Waste for Water Treatment." *ACS Sustainable Chemistry & Engineering.* ***2017,*** 5, 876-884
27. N. Söyler*, **J.L. Goldfarb**, S. Ceylan, M.T. Saçan. "Renewable Fuels from Pyrolysis of *Dunaliella tertiolecta*: An Alternative Approach to Lipid Extraction and Transesterification of Microalgae." *Energy.* ***2017,*** 120, 907-914
26. **Goldfarb, J.L.** and D.L. Kriner. "Building Public Support for Science Spending: Misinformation, Motivated Reasoning, and the Power of Correction." *Science Communication.* ***2017,*** 39, 77-100
25. Işıtan, S., S. Ceylan, Y. Topcu, C. Hintz, J. Tefft*, T. Chellappa, J. Guo and **J.L. Goldfarb**. "Product Quality Optimization in an Integrated Biorefinery: Conversion of Pistachio Nutshell Biomass to Biofuels and Activated Biochars via Pyrolysis." *Energy Conversion & Management.* ***2016,*** 127, 576-588
24. Upneja, A.**, G. Dou, C. Gopu*, C.A. Johnson, A. Newman, A. Suleimenov and **J.L. Goldfarb.** "Sustainable waste mitigation: biotemplated nanostructured ZnO for photocatalytic water treatment via extraction of biofuels from hydrothermal carbonization of banana stalk." *RSC Advances* ***2016,*** 6, 92813
23. **Goldfarb, J.L.**, M. Buessing and D.L. Kriner. "Geographic Proximity to Coal Plants and U.S. Public Support for Extending the Production Tax Credit." *Energy Policy.* ***2016,*** 99, 299-307
22. Vyas, A.*, J. Xue and **J.L. Goldfarb.** "Improving the Environmental and Economic Viability of U.S. Oil Shale via Waste-to-Byproduct Conversion of Semicoke to Sorbents." *Energy & Fuels.* ***2016,*** 30, 188-195
21. Patnaik, A. and **J.L. Goldfarb**. "Continuous Activation Energy Representation of the Arrhenius Equation for the Pyrolysis of Cellulosic Materials: Feed Corn Stover and Cocoa Shell Biomass." *Cellulose Chemistry and Technology.* ***2016,*** 50, 311-320
20. Xue, J., S. Ceylan and **J.L. Goldfarb** "Synergism Among Biomass Building Blocks? Evolved Gas and Kinetics Analysis of Starch and Cellulose Co-Pyrolysis." *Thermochimica Acta.* ***2015,*** 618, 36-47
19. Schievano, A., F. Adani, L. Buessing, A. Botto, E.N. Casoliba, M. Rossoni, and **J.L. Goldfarb.** "An Integrated Biorefinery Concept for Olive Mill Waste Management: Supercritical CO_2 Extraction and Energy Recovery." *Green Chemistry.* ***2015,*** 17, 2874-2887
18. **Goldfarb, J.L.** and S. Ceylan. "Second-Generation Sustainability: Application of the Distributed Activation Energy Model to the Pyrolysis of Locally Sourced Biomass-Coal Blends for use in Co-firing Scenarios." *Fuel.* ***2015,*** 160, 297-308
17. Ceylan, S. and **J.L. Goldfarb**. "Green Tide to Green Fuels: TG-FTIR Analysis and Kinetic Study of *Ulva prolifera* Pyrolysis." *Energy Conversion & Management.* ***2015,*** 101, 263-270
16. Celaya, A.M., A.T. Lade* and **J.L. Goldfarb**. "Co-Combustion of Brewer's Spent Grains and Illinois No. 6 Coal: Impact of blend ratio on global rates of pyrolysis and oxidation versus compound evolution." *Fuel Processing Technology.* ***2015,*** 129, 39-51

15. Yangali, P. *, A.M. Celaya, and **J.L. Goldfarb** "Co-Pyrolysis Reaction Rates and Activation Energies of West Virginia Coal and Cherry Pit Blends." *Journal of Analytical & Applied Pyrolysis.* ***2014,*** 108, 203-211
14. Celaya, A.M. and **J.L. Goldfarb**. "Models and Mechanisms to Explore the Global Oxidation Kinetics of Blends of Feed Corn Stover and Illinois No. 6 Coal." *Journal of Thermodynamics and Catalysis.* ***2014,*** 5, 136
13. **Goldfarb, J.L**. and C. Liu. "Impact of Blend Ratio on the Co-firing of Torrefied Wood and Coal via Analysis of Oxidation Kinetics." *Bioresource Technology*. ***2013,*** 149, 208-215
12. **Goldfarb, J.L.**, A. D'Amico*, C. Culin*, E.M. Suuberg and I. Külaots. "Oxidation Kinetics of Oil Shale Semicokes: Reactivity as a Function of Pyrolysis Temperature and Shale Origin." *Energy & Fuels.* ***2013,*** 27, 666-672
11. **Goldfarb, J.L.** "Review of Sublimation Thermodynamics of Polycyclic Aromatic Compounds and Heterocycles." *Journal of Heterocyclic Chemistry.* ***2013,*** 50, 1243-1263
10. Buessing, L. and **J.L. Goldfarb** "Energy Along Interstate 95: Pyrolysis Kinetics of Floridian Cabbage Palm." *Journal of Analytical & Applied Pyrolysis.* ***2013,*** 96, 78-85
9. Datangel, B.* and **J.L. Goldfarb** "Heavy Metals in Colorado and Chinese Oil Shale Semicoke: Disposal Issues, Impediments to Byproduct Conversion." *Energy & Fuels.* ***2011,*** 25, 3522-3529
8. **Goldfarb, J.L.** and I. Külaots "Melting Points and Enthalpies of Fusion of Anthracene and its Heteroatomic Counterparts." *Journal of Thermal Analysis and Calorimetry*. ***2010,*** 102, 1063-1070
7. Külaots, I., **J.L. Goldfarb** and E.M. Suuberg. "Characterization of Chinese, American and Estonian Oil Shale Semicokes and their Sorptive Potential." *Fuel*. ***2010,*** 89, 3300-3306
6. **Goldfarb, J.L**. and E.M. Suuberg. "Deviations from Ideal Sublimation Vapor Pressure Behavior in Mixtures of Polycyclic Aromatic Compounds with Interacting Heteroatoms." *Journal of Chemical Thermodynamics.* ***2010,*** 42, 1009-1015
5. **Goldfarb, J.L**. and E.M. Suuberg. "Vapor Pressures and Sublimation Enthalpies of Seven Heteroatomic Aromatic Compounds Measured via the Knudsen Effusion Technique." *Journal of Chemical Thermodynamics.* ***2010,*** 42, 781-786
4. **Goldfarb, J.L**. and E.M. Suuberg. "Raoult's Law and its Application to Sublimation Vapor Pressures of Mixtures of Polycyclic Aromatic Hydrocarbons." *Environmental Engineering Science.* ***2008,*** 25, 1429 –1438
3. **Goldfarb, J.L**. and E.M. Suuberg. "Vapor Pressures and Thermodynamics of Oxygen-Containing Polycyclic Aromatic Hydrocarbons Measured via Knudsen Effusion." *Environmental Toxicology and Chemistry.* ***2008,*** 27, 1244 – 1249
2. **Goldfarb, J.L**. and E.M. Suuberg. "The Effects of Halogen Heteroatoms on the Vapor Pressures and Thermodynamics of Polycyclic Aromatic Compounds Measured via the Knudsen Effusion Technique." *Journal of Chemical Thermodynamics.* ***2008,*** 40, 460 – 466
1. **Goldfarb, J.L.** and E.M. Suuberg. "Vapor Pressures and Enthalpies of Sublimation of Ten Polycyclic Aromatic Hydrocarbons Determined via the Knudsen Effusion Method." *Journal of Chemical and Engineering Data.* ***2008,*** 53, 670 – 676

WORKS IN PROGRESS AND UNDER REVIEW

18. "Public Support for Biofuels Tax Credits: Cost Frames, Local Fuel Prices, and the Moderating Influence of Partisanship." With D. Kriner. *Under Review*
17. "Tunable Polymer Foam Synthesis Using Statistically Informed Experimentation for Greener Fabrication" with Z.A. Pollard, A. Roshandelpoor, M. Karod, P. Vakili, E.M. Ryan. *Under Review*
16. "Design and Analysis of Experiments in a High Data-Limited Environment" with Z.A. Pollard, A. Roshandelpoor, P. Vakili, E.M. Ryan. *In Preparation*

15. "Waste-to-Byproduct Conversion of Cherry Pits: Great Lakes Waste Source Mediates Great Lakes Water Quality" with Z.A. Pollard. *In Preparation*
14. "Integrated Thermochemical Conversion Processes for Upgrading Agricultural Waste to Nutrient-Enriched Soil Amendments and Biofuels" with J.-C. Lin, D. Mariuzza, M. Volpe, L. Fiori, S. Ceylan. *In Preparation*
13. "Impact of Co-Hydrothermal Carbonization of Animal and Agricultural Waste on Hydrochar Soil Amendment and Solid Fuel Properties." with D. Mariuzza, J.-C. Lin, M. Volpe, L. Fiori, S. Ceylan. *In Preparation*
12. "Addressing the Role of Municipal Solid Waste in a Circular Economy: Integrated Thermochemical Conversion Processes for Solid and Liquid Biofuel Production" with G. Ischia, L. Gao, L. Fiori. *Under Review*
11. "Hydrothermal Liquefaction of Clay-Biomass Mixtures for Production of Upgraded Biofuels" with Q. Ma, K. Wang, H. Sudibyo, J.W. Tester, G. Huang, L. Han. *In Preparation*
10. "Sustainable District Energy Integrating Biomass Peaking with Geothermal Baseload Heating: A Case Study of Decarbonizing Cornell's Energy System." With N. Kassem, J. Hockey, S. Beyers, C. Lopez, L.T. Angenent, J.W. Tester. *Under Review*
9. "Enhancing biomass-coal co-combustion by pretreatment of wheat straw via washing versus hydrothermal carbonization" with Q. Ma, L. Han and G. Huang. *Under Review*
8. "Thermokinetics of animal fat pyrolysis: a first step in gauging the potential for thermochemical alternatives to transesterification" with G. Çakman, A. Yıldız and S. Ceylan. *Under Review*
7. "Sustainable Water Treatment through Hydrothermal Carbonization, Secondary Biofuel Extraction, and Activation of *Opuntia ficus indica* for the Removal of Naturally Occurring Heavy Metals in Sicily" with M. Volpe, L. Fiori, L. Gao. *In Preparation*
6. "Synergistic Effects of Biomass Building Blocks on Pyrolysis Gas and Bio-Oil Formation" with A.H. Hubble. *Under Review.*
5. "*In situ* Upgrading of Pyrolysis Biofuels by Inorganic Incorporation: Mechanocatalytic and Chemical Catalytic Effects" with L. Gao. *In Preparation*
4. "Coal Fly Ash as an *in situ* catalyst for Hydrothermal Biofuel Upgrading" with L. Gao, A. Perlin. *In Preparation*
3. "Metal leaching from quantum dot polymer nanocomposites in simulated end-of-life landfill scenarios" with C.A. Johnson, A.M. Dennis. *In Preparation*
2. "Valorization of cow manure via hydrothermal carbonization for phosphorus recovery" with M. Volpe, G. Severini, G. Andreottola, L. Fiori, Q. Ma, A. Hubble. *In Preparation*
1. "Impact of Fuller's Earth on *in situ* Upgrading of Pyrolysis and Hydrothermal Biofuels and Biochars" with Z. Pollard, G. Dou., M. Volpe, L. Gao and L. Fiori. *In Preparation*

INVITED LECTURES AND PANELS

38. Cornell Dairy Center of Excellence, Spring Seminar Series Kick-Off, February 17, 2020
37. Sapienza Università di Roma, Department of Civil, Structural and Environmental Engineering, Rome, Italy, May 30, 2019
36. Baylor University, Department of Environmental Science, Waco, TX, April 12, 2019
35. Libera Università di Bolzano and Università degli Studi di Trento Joint Energy Engineering Program, Trento, Italy. March 6, 2019
34. Università degli Studi di Trento, Department of Civil, Environmental and Mechanical Engineering, Trento, Italy. March 5, 2019
33. Biochar and Torrefied Biomass Short Course Instructor, Penn State Bioenergy Center and Penn State Extension, State College, PA. October 24-25, 2018
32. Cornell University, Department of Biological and Environmental Engineering, Ithaca, NY. Apr. 24, 2018
31. Penn State Millennium Science Café, State College, PA. April 17, 2018

30. Simmons College, Chemistry & Physics Seminar Series, Boston, MA. Nov. 13, 2017
29. Pardee Center for the Study of the Longer-Range Future, Boston, MA. Oct. 25, 2017
28. GreenX Plenary, (a TEDx – style event), 21st Annual Green Chemistry & Engineering Conference, Reston, VA. June 13, 2017
27. Università degli Studi di Trento, Facoltà di Ingegneria, Trento, Italy. May 31, 2017
26. Penn State, Energy & Mineral Engineering Department, State College, PA. Mar. 13, 2017
25. Virginia Tech, Department of Chemical Engineering, Blacksburg, VA. Feb 9, 2017
24. UMass Lowell, Department of Environmental Engineering, Lowell, MA. Feb 3, 2017
23. Miami University, Department of Mechanical Engineering, Oxford, OH. Jan, 30, 2017
22. Tsinghua University, Department of Thermal Engineering, Beijing, China. Oct. 28, 2016
21. China Agricultural University, College of Engineering, Beijing, China. Oct. 28, 2016
20. Boston University, Department of Chemistry, Boston, MA. Oct. 12, 2016
19. University of Arizona, School of Sustainable Engineering and the Built Environment, Tempe, AZ. Dec. 1, 2015
18. Museum of Science, Boston, MA. Nov. 21, 2015
17. Università degli Studi "G. d'Annunzio," Chieti-Pescara. Pescara, Italy. Nov. 12, 2015
16. Università degli Studi di Milano, Department of Agriculture & Environmental Science, Milan, Italy. Nov. 10, 2015
15. Superfund Research Program Graduate Fellows Workshop, Brown University, Providence, RI. Oct. 2, 2015
14. Boston University "Rhett Talks" (TEDx –style event), Sept. 7, 2015
13. Keynote Speaker, American Institute of Chemical Engineers Northeast Regional Conference, Boston, MA. Mar. 8, 2015
12. Panelist, "Global Efforts in Converting Waste to Energy," Boston University International Education Week, Boston, MA. Nov. 18, 2014
11. UMass Lowell, Department of Chemical Engineering, Lowell, MA. Oct. 16, 2014
10. UMass Amherst, Civil & Environmental Engineering, Amherst, MA. Sept. 26, 2014
9. American Chemical Society Florida Section, Environmental Division. Tampa, FL. May 9, 2014
8. Panelist, "Sparking Innovation," Saint Gobain University Days, Boston, MA. Dec. 13, 2013
7. Simmons College, Department of Chemistry, Boston, MA. Nov. 11, 2013
6. Boston University Department of Mechanical Engineering, Boston, MA. Apr. 18, 2013
5. University of Missouri, Department of Chemical Engineering, Columbia, MO. Jan. 31, 2013
4. University of Maine, Department of Chemical and Biological Engineering, Orono, ME. Nov. 30, 2012
3. Aerodyne Research, Inc., Billerica, MA. Oct. 18, 2012
2. Florida Gulf Coast University, Department of Environmental & Civil Engineering, Fort Myers, FL. Feb. 3, 2012
1. University of New Hampshire, Department of Chemical Engineering, Durham, NH. Mar. 2010

REFEREED CONFERENCE PRESENTATIONS

*Italics indicate presenting author(s); * Undergraduate Researcher*

45. *Goldfarb, J.L.,* Z. Pollard, A. Roshandelpoor, P. Vakili, E.M. Ryan. "Collaborative Approach to Systemic Design of Green Materials in Limited Data Environments: Insights to Advance Research in Light of COVID-19 Restrictions" 24th Annual ACS Green Chemistry & Engineering Conference. June 2020. *Keynote Address*
44. *Goldfarb, J.L.,* A.H. Hubble, F. Wang, L. Gao. "Upstream Approaches to Biomass Pyrolysis via *in situ* Upgrading with Inexpensive Catalytic Materials." New Horizons in Biotechnology. Thiruvananthapuram, India. Nov. 2019. *Invited Presentation*

43. *Wang, K.,* Q. Ma, H. Sudiybo, J.L. Goldfarb, J.W. Tester. "Wet Biomass Waste Valorization through Hydrothermal Liquefaction and Integrated Post-Treatment Measures. AIChE Annual Meeting. Nov. 2019
42. *Hubble, A.H.* and J.L. Goldfarb. "Promoting deoxygenation in lignocellulosic biomass: Co-pyrolysis with *in situ* catalysts." ACS Division of Energy and Fuels. Aug. 2019
41. *Kriner, D.L.* and J.L. Goldfarb. "Overcoming the Yuck Factor: How Public Understanding, Politics and Framing Mediate Support for Recycled Water Policies" ACS ENVR. Aug. 2019
40. *Pollard, Z.*, Q.-T. Ha, A. Roshandelpoor, P. Vakili, E.M. Ryan, J.L. Goldfarb. "Designing activated biochars: Impacts of porosity and particle size on adsorption" ACS ENVR. Aug. 2019
39. *Goldfarb, J.L.*, L. Fiori, M. Volpe, M. Lucian, L. Gao, Z. Pollard, A. Hubble. "Integrated Thermochemical Conversion Processes for Biofuels and Bio-products." International Union of Pure and Applied Chemistry. Paris, France. July 2019
38. *Goldfarb, J.L.,* L. Fiori, M. Volpe, L. Gao, M. Lucian, G. Ischia, G. Severini. "Looking Beyond Routine Characterization to Understand Opportunities and Limitations of HTC for Carbon-Based Products and Applications." 2nd International Symposium on Hydrothermal Carbonization, DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH. Berlin, Germany. May 2019
37. Gao, L. and *J.L. Goldfarb*. "Thermochemical Conversions of Mixed Waste Streams to Engineer Sustainable Biofuels and Water Treatment Materials." ACS ENVR. Apr. 2019.
36. *Kriner, D*. and J.L. Goldfarb. "Climate Change – A "Third Rail" of American Politics?" ACS ENVR. Apr. 2019. *Invited Presentation*
35. *Kriner, D*. and J.L. Goldfarb. "Bridging Science and Policy: Raising Public Support for Renewable Energy by Increasing Public Understanding." ACS ENVR. Apr. 2019
34. Ha, Q., A. Roshandelpoor, P. Vakili, J.L. Goldfarb, *E. Ryan*. "Computational design and optimization of porous heterogeneous hierarchical materials." ACS ENVR. Aug. 2018
33. *Volpe, M.*, L. Fiori, L. Gao, J.L. Goldfarb. "Production of Sustainable Biofuels and Advanced Carbon Materials from the Hydrothermal Carbonization of *Agave Americana*." ACS ENVR. Aug. 2018
32. Perlin, *A.*, D. Glick, W. Heiger-Bernays, D.L. Kriner, *J.L. Goldfarb*. "Hierarchical Polymer Foams for Photocatalyzed Water Treatment of Emerging Contaminants: Science, Technology, Policy Implications." ACS ENVR. Aug. 2018
31. Johnson, C.A., A.L. Dennis, *J.L. Goldfarb*. "Effects of Metal Leaching from Quantum Dot Polymer Nanocomposites by Simulated Landfill Conditions." ACS ENVR. Aug. 2018
30. *Kriner, D.* and J.L. Goldfarb. "Activating Public Support for Science: Educating Citizens for Science." ACS ENVR. Aug. 2018
29. Del Bianco, S., L. Fiori, L. Gao, J.L. Goldfarb, G. Ischia, M. Lucian, *M. Volpe.* "Multiple Thermochemical Pathways for Municipal Solid Waste Valorization to Biofuels and Bioproducts." ACS ENVR. Aug. 2018
29. *Goldfarb, J.L.,* L. Gao, L. Fiori, M. Volpe. "Sustainable Water Treatment Materials via Hydrothermal Carbonization, Secondary Biofuel Extraction, and Activation of Prickly Pear Cactus." ACS ENVR. Mar. 2018
27. *Berger. M.,* R. Gurney, L. Lobel, J.L. Goldfarb. "Integration of Environmental Research into the Teaching Laboratory." ACS Division of Chemical Education. Aug. 2017
26. *Goldfarb, J.L.* G. Dou, J. Xue and C. Ashman. "Re-engineering the Integrated Biorefinery: A Materials Approach to *in situ* Biofuel Upgrading." 21st Annual ACS Green Chemistry & Engineering Conference. June 2017. *Keynote Address*
25. *Goldfarb, J.L.* and G. Dou. "Impact of Bentonite clay on *in situ* upgrading of hydrothermal carbonization and pyrolysis biofuels and biochars for renewable fuel and sustainable material production." 1st International Symposium on Hydrothermal Carbonization, Queen Mary University of London. London, England. Apr. 2017

24. *Gopu, C.** and J.L. Goldfarb. "Integrated Municipal Solid Waste Management: Renewable Energy and Activated Carbons for Leachate Treatment." ACS ENVR. Apr. 2017
23. *Goldfarb, J.L.* G. Dou, J. Xue. "Re-Engineering the Integrated Biorefinery: A Materials Approach to *in situ* Biofuel Upgrading." AIChE International Congress on Sustainability Science and Engineering. Suzhou, China. Oct. 2016
22. *Dou, G.,* and J.L. Goldfarb. "Exploiting the catalytic activity of clay minerals on *in situ* upgrading of pyrolysis biofuels with simultaneous production of heterogeneous adsorbents for water treatment" ACS ENVR, Aug. 2016
21. *Suleimenov, A.,* and J.L. Goldfarb. "Demineralization Pathways for Oil Shale Semicoke Byproduct Conversion to a Sorbent Material." ACS Energy and Fuels. Aug. 2016
20. *Goldfarb, J.L.*, S. Emenyonu* and J. Xue. "Integrated Processes for Waste Management, Energy Recovery, and the Production of Materials for Environmental Applications." ACS ENVR. Mar. 2016
19. Goldfarb, J.L., E.M.Ryan, *A. Vyas*, L. Barroso-Luque**. "Alternatives to Waste for Alternative Fossil Fuels: Improving Oil Shale's Viability via Conversion of Semicoke to Flue Gas Adsorbents and Zeolite Precursors." 2015 TECO Green Tech, Taiwan. Aug. 2015
18. *Xue, J.*, E. Ziade and J.L. Goldfarb. "Integrated Biofuel and Nanomaterial Production via Pyrolysis of Silver Nitrate Impregnated Biomass." ACS Energy and Fuels. Aug. 2015
17. *Vyas, A.* * and J.L. Goldfarb. "Waste-to-byproduct Conversion of Oil Shale Semicoke and Ash to Sorbent and Zeolite Precursors." ACS Energy and Fuels. Aug. 2015
16. Goldfarb, J.L. and *D.L. Kriner*. "Enticing the American Public to Pay for Renewable Energy: The Mediating Roles of the Scientist and Environmental vs. Political Policy Goals." ACS ENVR, Aug. 2014
15. *Ford, J. *, M. Berger*, J.L. Goldfarb "Fabrication of Activated Biochars from Avocado Pits and Their Adsorption Capacity for Oxytetracycline from Wastewater." ACS ENVR, Aug. 2014
14. *Hintz, C.* and J.L. Goldfarb "Fabrication of Bio-based Activated Carbons for Removal of Aqueous Pharmaceuticals." ACS ENVR, Mar. 2014
13. *Goldfarb, J.L.* and L. Buessing. "Multiple Byproduct Pathways for Olive Mill Waste Mitigation: Pyrolysis and Combustion of Supercritical CO_2 Extracted Biomass." ACS ENVR, Apr. 2013
12. *Celaya, A.M.* and J. L. Goldfarb. "Pyrolysis Kinetics of Domestic and Non-domestic Coal, Locally Sourced Biomass Waste, and Their Blends." ACS Energy & Fuels. April 2013
11. *Buessing, L.* and J.L. Goldfarb. "Energy Along I-95: Pyrolysis Kinetics of Floridian Cabbage Palm." ACS Division of Petroleum Chemistry, Mar. 2012
10. *Celaya, A.M.*, A.T. Lade* and J.L. Goldfarb. "Barley, Hops and Coal: Pyrolysis Kinetics of Locally Sourced Coal-Biomass Blends." ACS Fuel Division, Mar. 2012
9. *Goldfarb, J.L.,* B. Datangel* and I. Külaots. "Oil Shale Semicoke as a Carbon Source: Sorbent Capacity, Reactivity and Entrained Compounds as Functions of Pyrolysis Temperature and Shale Origin." ACS ENVR. Aug. 2010
8. *Goldfarb, J.L.*, I. Külaots and E.M. Suuberg. "Characterization, Kinetics and Potential Utilization of Oil Shale Semicoke." ACS Fuel Division. Aug. 2009
7. Külaots, I., J. Goldfarb and *E.M. Suuberg*. "Properties of Carbon from Oil Shale Semicokes." Oil Shale Symposium. June 2009
6. *Külaots, I.*, J. Goldfarb and E.M. Suuberg. "Properties and Potential Applications of Carbon Byproduct from Oil Shale Semicokes." Carbon. June 2009
5. *Goldfarb, J.L.* and E.M. Suuberg. "Application of Raoult's Law to Model Contaminant Mixtures of Polycyclic Aromatic Hydrocarbons." ACS Fuel Division. Mar. 2009
4. *Goldfarb, J.L.* and E.M. Suuberg. "Investigation of the Thermodynamic Ideality of Mixtures of Polycyclic Aromatic Hydrocarbons." ACS Fuel Division. Apr. 2008
3. *Goldfarb, J.L.* and E.M. Suuberg. "Vapor Pressures and Thermodynamics of Model Mixtures of Polycyclic Aromatic Compounds Compared to Raoult's Law Predictions." ACS ENVR. Aug. 2007

2. *Goldfarb, J.L.* and E.M. Suuberg. "The Thermodynamic Effects of Adding Heteroatoms to Anthracene as Measured by the Knudsen Effusion Technique." ACS Fuel Division. Aug. 2007
1. *Goldfarb, J.L.* and E.M. Suuberg. "Vapor Pressures and Enthalpies of Sublimation of Several Polycyclic Aromatic Compounds as Determined via the Knudsen Effusion Method." ACS Fuel Division. Mar. 2007

POSTER PRESENTATIONS AND NON-REFEREED CONFERENCE PRESENTATIONS
*Italics indicate presenting author(s); * Undergraduate Researcher*

39. *Ma, L.* and J.L. Goldfarb. ACS ENVR. Aug 2019
38. *Hubble, A.H.*, J.L. Goldfarb ACS. Sci-Mix. Aug 2019
37. *Ma, Q.,* K. Wang, J.W. Tester, J.L. Goldfarb. ACS FUEL. Aug 2019
36. *Wang, F.,* A. Hubble, L. Gao, J.L. Goldfarb ACS Sci-Mix. Aug 2019
35. *Wang, F.,* A. Hubble, L. Gao, J.L. Goldfarb ACS ENVR. Aug 2019
34. *Pollard, Z.,* Ha, Q., A. Roshandelpoor, P. Vakili, E.M. Ryan, J.L. Goldfarb. Cabot Corp. Student Materials Research Forum, May 2019
33. *Karod, M.*,* A. Perlin, M.N. Ismail, M. Berger, J.L. Goldfarb. ACS CHED. Apr. 2019
32. *Dupree. K.,* E.M. Ryan, J.L Goldfarb. ACS Sci-Mix. Aug. 2018
31. *Dupree. K.,* E.M. Ryan, J.L. Goldfarb. ACS ENVR. Aug. 2018
30. *Ha, Q.*, A. Roshandelpoor, P. Vakili, J.L. Goldfarb, E.M. Ryan. ACS ENVR. Aug. 2018
29. *Ha, Q.*, A. Roshandelpoor, P. Vakili, J.L. Goldfarb, E.M. Ryan. ACS Sci-Mix. Aug. 2018
28. *Volpe, M.*, L. Fiori, L. Gao, J.L. Goldfarb. ACS Sci-Mix. Aug. 2018
27. *Karod, M.*, M. Berger*, C. Johnson, J.L. Goldfarb. ACS Sci-Mix. Aug. 2017
26. *Karod, M.*, M. Berger*, C. Johnson, J.L. Goldfarb. ACS ENVR. Aug. 2017
25. *Gao, L.*, J.L. Goldfarb. New England Energy Research Forum. June 2017
24. *Suleimenov, A.* J.L. Goldfarb. Cabot Corp. Student Materials Research Forum, June 2016
23. *Vyas. A.,*,* J.L. Goldfarb. Gulf Coast Research Symposium. Oct. 2015. 1st Place, Energy Category, Materials Science Division.
22. *Quinn*, P., A.Vyas*, J.L.Goldfarb. Colorado School of Mines Oil Shale Symposium. Oct. 2015
21. *Vyas, A.**, J.L. Goldfarb. ACS Division of Chemical Education (CHED). Aug. 2015
20. *Xiang, L.*,* E. Gunn, J.L. Goldfarb. ACS CHED. Aug. 2015
19. *Su, S., Y. Jiang,* A. Patnaik, J.L. Goldfarb, U. Pal, S. Basu. Materials Research Society University Chapter's "Sustainability @ My School" Contest (1st prize) Nov. 2014
18. *Goldfarb, J.L.* 14th EuCheMS International Conference on Chemistry and the Environment. June 2013, Barcelona, Spain
17. *Miller, K.L.*,* A.M. Celaya, J.L. Goldfarb. ACS CHED. Apr. 2013
16. *Yangali, P.**, A.M. Celaya, J.L. Goldfarb. ACS CHED. Apr. 2013
15. *Cicilio, P.** A.M Celaya, J.L. Goldfarb. ACS CHED. Aug. 2012
14. *D'Amico, A.**, J.L. Goldfarb, I. Kulaots, E.M. Suuberg. ACS CHED. Aug. 2012
13. *Pappas, L.E.**, A.M Celaya, J.L. Goldfarb. ACS CHED. Aug. 2012
12. *Celaya, A.M.*, *A.T. Lade**, J.L. Goldfarb. ACS Sci-Mix, Mar. 2012
11. *Lade, A.T.*,* L. Buessing, M. Berger, J.L. Goldfarb. ACS CHED. Mar. 2012
10. *Datangel, B.**, J.L. Goldfarb, I. Kulaots. 9th Annual Undergraduate Symposium on Sustainability and the Environment. Bridgewater State University. Nov. 2010
9. *Datangel, B.**, J.L. Goldfarb, I. Kulaots. ACS CHED. Aug. 2010
8. *Thomas, K.*,* Goldfarb, J.L. and E.M. Suuberg. ACS CHED. August 2009
7. Goldfarb, J.L. and *E.M. Suuberg*. Superfund Research Program Annual Meeting, Dec. 2008
6. *Goldfarb, J.L.* and E.M. Suuberg. Superfund Research Program Annual Meeting, Dec. 2007
5. *Goldfarb, J.L.* and E.M. Suuberg. 10th International Congress on Combustion By-Products and Their Health Effects, June 2007, Ischia, Italy
4. *Goldfarb, J.L.* and E.M. Suuberg. ACS Sci-Mix. Mar. 2007

3. Goldfarb, J.L. and *E.M. Suuberg.* Superfund Research Program Annual Meeting, Dec. 2006
2. *Goldfarb, J.L.* and E.M. Suuberg. Brownfields Annual Conference, Nov. 2006
1. *Goldfarb, J.L.* and E.M. Suuberg. Superfund Research Program Annual Meeting, Jan. 2006

FUNDING

Principal Investigator ***9/2020 – 8/2023***
National Science Foundation CBET *Total Award: $550,832, PI Share: $279,523*
"Collaborative Research: Combustion Behavior of Hydrochars from Wet Biomass" (Co-PI: Jacqueline O'Connor, Penn State University Mechanical Engineering)

Co-Principal Investigator ***9/2020 – 8/2023***
Binational Agricultural Research & Development Fund *Total Award: $310,000, Co-PI Share: $136,660*
"Thermochemical Processing of Agricultural Plastic Waste for Resource Recovery and Sustainable Development." (PI: Roy Posmanik, Volcani Center; Co-PI: Deborah Sills, Bucknell University; Co-PI: Yael Dubowski, Technion)

Co-Principal Investigator ***6/2020 – 5/2021***
National Science Foundation CMMI *Total Award: $70,000; Co-PI Share: $55,000*
"INTERN: Characterization of Polymer Electrolytes for Elucidating Structure-Property Relationships"
Supplement to "Systemic Design of Porous Heterogeneous Hierarchical Materials and Structures to Optimize Reactive Transport Processes" (PI: Emily Ryan, Boston University Mechanical Engineering)

Co-Principal Investigator ***6/2020 – 9/2020***
National Science Foundation CMMI *Total Award: $16,000*
"REU: Systematic Design of Porous Heterogeneous Hierarchical Materials and Structures to Optimize Reactive Transport Processes in Microbial Fuel Cells"
Supplement to "Systemic Design of Porous Heterogeneous Hierarchical Materials and Structures to Optimize Reactive Transport Processes" (PI: Emily Ryan, Boston University Mechanical Engineering)

Principal Investigator ***03/2020 – 03/2021***
Koppers International *Total Award: $53,066*
"Upcycling Residual Wood"

Co-Principal Investigator ***01/2020 – 07/2020***
New York State Energy Research and Development Authority *Total Award: $60,000*
"On-Farm Pyrolysis of Waste Biomass to Advance Agricultural Energy Technologies, Phase 1"
(PI: Johannes Lehmann, Soil & Crop Sciences; Co-PIs: Fengqi You, Chemical Engineering and Elizabeth Fisher, Mechanical Engineering, Cornell University)

Principal Investigator ***9/2019 – 8/2022***
National Science Foundation CBET *Total Award: $384,245; PI Share: $274,858*
"Collaborative Research: Integrated Biorefinery for Pyrolysis Biofuels and Biotemplated Nanomaterials"
(co-PI: Emily Ryan, Boston University Mechanical Engineering)

Principal Investigator ***11/2019 – 10/2022***
USDA National Institute for Food & Agriculture *Total Award: $104,579*
"Integrated Biorefinery for Conversion of Agriculture & Dairy Waste to Biofuels and Biochars to Protect NYS Water Quality"
(co-PI: Johannes Lehmann, Soil & Crop Sciences, Cornell University)

Principal Investigator ***7/2019 – 6/2020***
President's Council of Cornell Women Affinito-Stewart Grant *Total Award: $10,000*
"Engineering at the Food-Energy-Water Nexus: *in situ* Upgraded Biofuels and Water Treatment Materials from the Integrated Biorefinery"

Principal Investigator ***3/2019 – 2/2020***
Toward Sustainability Foundation *Total Award: $10,500*
"Biofuels and Slow Release Fertilizers for Sustainable Farm & Food Production Waste Management"
(Co-Is: Luca Fiori, Università degli Studi di Trento and Selim Ceylan, Ondokuz Mayis University)

Co-Principal Investigator ***4/2019 – 3/2020***
Penn State Extension Regional Impact Grant (Extension Multistate Grant) *Total Award: $24,465*
"Using Biochar to Enhance Regional Water Quality"
(PI: Daniel Ciolkosz, Dept. of Agricultural and Biological Engineering, Penn State; Co-PIs: Jennifer Fetter, Penn State Extension Water Team, Dauphin County; Edward Johnstonbaugh, Economic and Community Development Team, Westmoreland County Extension)

Co-Principal Investigator ***2/2019 – 8/2022***
Cornell University Active Learning Initiative *Total Award: $375,552*
"Improving Problem Solving Abilities through Cohesive Active Learning Across the Biological Engineering Curriculum" (PI: John March (Chair); Co-PIs: Ashim Datta and Sunny Jung, Cornell University Biological and Environmental Engineering Department)

Co-Principal Investigator ***9/2017 – 8/2021***
National Science Foundation CMMI *Total Award: $586,000; co-PI Share: $284,000*
"Systemic Design of Porous Heterogeneous Hierarchical Materials and Structures to Optimize Reactive Transport Processes" (PI: Emily Ryan, Co-PI: Pirooz Vakili, Boston University Mechanical Engineering)

Principal Investigator ***7/2017 – 12/2019***
Eppley Foundation *Total Award: $26,473*
"Sustainable Engineering at the Food-Energy-Water Nexus: Simultaneous Production of Upgraded Biofuels and Water Treatment Materials"

Principal Investigator ***03/2018***
Shimadzu Mass Spec Equipment Grant Program *Total Award: $52,500*
"Designing Biomass-Based Activated Carbons for Clean Water and Sustainable Fuels"
(Declined Award upon move to Cornell University)

Principal Investigator ***9/2016 – 8/2019***
Pardee Center for the Study of the Longer-Range Future, Boston University *Total Award: $30,000*
"Integrating Science, Health and Policy to Engineer Global Sustainable Water Access"
(co-PIs: Wendy Heiger-Bernays, BU School of Public Health; David Glick, BU Political Science)

Principal Investigator ***01/2016***
Agilent Technologies Academic Award *Total Award: $22,428*

Principal Investigator ***8/2015 – 7/2017***
National Science Foundation CBET *Total Award: $106,104*
"EAGER: Development of a Mechanistic Framework Correlating Quantum Dot Surface Chemistry and Subsurface Environmental Fate and Transport" (co-PI: Allison Dennis, BU Biomedical Engineering)

Principal Investigator ***7/2015 – 12/2017***
Initiative on Cities, Boston University *Total Award: $9,502*
"Integrated Process for Landfill and Leachate Management: Experimentally Informed Design of Waste-to-Energy Conversions for Municipal Solid Waste Mitigation"

Principal Investigator ***6/2014 – 2/2015***
Proctor & Gamble Zero Waste to Landfill Corporate Sustainability Grant *Total Award: $43,711*
"Byproduct Conversions of P&G Waste Streams."

Co-Principal Investigator ***6/2014 – 5/2015***
Boston University Engineering Dean's Catalyst Award *Total Award: $20,000*
"Impact of Surface Chemistry on Environmental Fate of Semiconductor Quantum Dots."
(PI: Allison Dennis, BU Biomedical Engineering)

Principal Investigator ***9/2011 – 8/2014***
National Science Foundation CBET *Total Award: $174,440*
"BRIGE: Second Generation Sustainability: Pyrolysis and Combustion of Locally-Sourced Biomass-Coal Blends."

PROFESSIONAL SERVICE ACTIVITIES: LEADERSHIP IN PROFESSIONAL SOCIETIES

American Chemical Society (ACS)

National Meeting Theme Organizer (January 2020 – Present)
- Designed and proposed Fall 2022 National ACS Meeting Theme of "Chemistry's Role in a Sustainable Future" to ACS Board of Directors
- Serve as lead organizer for National Meeting, representing Division of Environmental Chemistry and Committee on Environmental Improvement
- Responsible for coordinating thematic elements, including: technical programming, member engagement, public outreach, publicity, meeting-wide sustainability, industrial partnerships and sponsorship

Division of Environmental Chemistry, American Chemical Society

Fall National Meeting Program Chair (August 2016 – Present)
- Responsible for Annual Fall National Meeting Division Programming (>500 papers, 30 symposia per meeting); Co-chair of Division Programming Committee

Alternate Councilor (September 2017 – Present)
- Elected by Division Members to Executive Committee (2017, 2019)
- Assumed Councilor Role for Spring 2018, Spring 2019 National Meetings

Member-at-Large (September 2014 – August 2017)
- Elected by Division Members to Executive Committee (2014, 2015, 2016, 2017)

Chair, Social Committee (September 2014 – September 2018)
- Organized networking events for Division members

Chair, Publicity and Publications Committee (September 2012 – September 2017)
- Edited EnvirofACS, quarterly newsletter of Division

Co-Chair, Centennial Celebration Committee (April 2013 – September 2014)
- Coordinated thematic programming for Division's Centennial Celebration across two ACS National Conferences; Coordinated "Emerging Leaders" Award

Committee on Environmental Improvement (CEI), American Chemical Society

Member (January 2019 – Present)
Appointed by ACS President and Board of Directors

Executive Committee Member (January 2019 – Present)
Goal Lead and Coordinator for CEI Policy Statements

Policy Statement Lead (May 2019 – Present)
Lead team to redraft ACS Sustainability and the Chemical Enterprise Policy Statement

Technical Programming Coordinator (March 2018 – August 2019)
Coordinated Technical Programming for CEI Initiative for Fall 2019 "Chemistry of Water" National Meeting Theme

Associate Appointed by ACS President and Board of Directors (January 2018 – 2019)
Liaison to Illinois Heartland Local Section for Sustainability Activity Grant

New England Institute of Chemists, Division of American Institute of Chemists

Advance Chemists and Chemical Engineers through recognition of outstanding achievement in secondary education, at the graduate and undergraduate levels, and an annual Distinguished Chemist

President (May 2014 – December 2016)
President-Elect (September 2012 – April 2014)
Executive Board Member (September 2011 – December 2016)
Co-chair, Secondary School Awards Committee (September 2011 – 2016)

PROFESSIONAL SERVICE ACTIVITIES: PUBLICATION & PEER-REVIEWING ACTIVITIES

Editorial Board Member

Journal of Supercritical Fluids, Elsevier (2020 – Present)
Bioresource Technology Reports, Elsevier (2018 – Present)

Guest Editor

Journal of Supercritical Fluids Special Issue on Hydrothermal Carbonization (with A. Kruse, M. Titrici, 2020).

Energies Special Issue on Thermofluid Biomass Conversions (with L. Fiori, 2018)

Resource Efficient Technologies Special Issue on Nano-Enabled Technologies for Environmental Applications (with K. Hristovski, B. Meyer, O. Khasanov, E. Yurtov, 2017)

Reviewer for Peer-Refereed Journals

ACS Sustainable Chemistry & Engineering
Applied Sciences
BioEnergy Research
Biomass & Bioenergy
Biomass, Bioproducts and Biorefining
Bioresource Technology
Chemical Papers
Chemosphere
Energies
Energy
Energy & Environmental Science
Energy & Fuels
Energy Conversion & Management
Environmental Geochemistry and Health
Fuel Processing Technology
Green Chemistry
Industrial & Engineering Chemistry Research
Journal of the Air and Waste Management Association
Journal of Applied & Analytical Pyrolysis
Journal of Chemical Thermodynamics
Journal of Hazardous Materials
Journal of Hazardous Waste Management
Journal of Petroleum Technology & Alternative Fuels
Journal of Physical Chemistry
Journal of the Taiwan Institute of Chemical Engineers
Journal of Thermal Analysis and Calorimetry
Proceedings of the Combustion Institute
Resources, Conservation and Recycling

Environmental Science & Technology
Environmental Toxicology & Chemistry
Fluid Phase Equilibria
Fuel
RSC Advances
Science of the Total Environment
Thermochimica Acta
Waste Management

Reviewer for Funding Agencies - *Domestic*
National Science Foundation: Chemical, Bioengineering, Environmental and Transport Systems
U.S. Department of Energy: Basic Energy Sciences
U.S. Department of Energy: Graduate Research Fellowships
National Energy Technology Laboratory University Coalition for Fossil Energy Research
American Chemical Society Petroleum Research Fund

Reviewer for Funding Agencies - *International*
Canada Foundation for Innovation: John. R. Evans Leaders Fund
Mistra Bioeconomy, The Swedish Foundation for Strategic Environmental Research

Reviewer for Scholarship and Student Awards
Tau Beta Pi National Scholarship Review Board
ACS Division of Environmental Chemistry Certificate of Merit

PROFESSIONAL SERVICE ACTIVITIES: SYMPOSIUM & WORKSHOP ORGANIZATION

National Conference Symposia Organized

Co-Chair (with C.P. Huang, R. Doong, H. Kim and C. Dong): Chemistry at Solid-Water Interfaces, ACS Fall Meeting 2020

Co-Chair (with E. Ryan and D. Kriner): Re-envisioning Chemistry's Role in Environmental Sustainability: Critical Perspectives on Progress and Future Directions, ACS Spring Meeting 2020

Co-Chair (with A. Shah, N. Berge and R. Volpe): Biochar and Hydrochar for Energy, Environmental and Agricultural Applications, ACS Fall Meeting 2019

Co-Chair (with M. Verbyla): Current Advances in Water Analysis: From Citizen Scientists to Laboratory Breakthroughs, ACS Fall Meeting 2019

Chair: Division of Environmental Chemistry Poster Session, ACS Fall Meeting 2019

Co-Chair (with D. Kriner): Transdisciplinary Approaches to Sustainable Solutions at the Food-Energy-Water Nexus, ACS Spring Meeting 2019

Chair: Division of Environmental Chemistry Poster Session, ACS Fall Meeting 2018

Co-Chair (with G. Chen, L. Fiori, P. He, F. Li, M. Timko, M. Volpe, R. Volpe, M. Zhao): Thermochemical & Biochemical Conversions of Biomass to Biofuels & Biomaterials for Energy & Environmental Applications, ACS Fall Meeting 2018

Chair: Division of Environmental Chemistry Poster Session, ACS Fall Meeting 2017

Co-Chair (with W.Y. Chen, R.A. Doong, M.H. Fan, C.P. Huang, J. Leszczynski): Surface Chemistry of Biochar and Its Applications in Environmental and Related Systems, ACS Fall Meeting 2017

Co-Chair (with K. Hristovski and K. Doudrick): Nano-enabled Environmental Technologies. Division of Environmental Chemistry, ACS Fall Meeting 2015

Co-Chair (with D. D. Dionysiou and E. Carraway, A.Gu, J. Hill, S. Simonich, R. Brennan, I. Escobar, H. Hsu-Kim, C. Lee, S. Richardson): Women in Environmental Science and Engineering. Division of Environmental Chemistry, ACS Fall Meeting 2014

Co-Chair (with M. Nimios and F. Zhao): Biomass and Biotechnologies for Energy. Energy and Fuels Division, ACS Fall Meeting 2013

Co-Chair (with J. Rice): Addressing the Complex Site: Chemistry, Toxicology, and Fate of Mixed Pollutants Across Media, Division of Environmental Chemistry, ACS Fall Meeting 2012

Chair: Roadblocks to Alternative Clean Fossil Fuels, Transport and Energy Division, American Institute of Chemical Engineers Spring National Meeting 2012

2nd International Symposium on Hydrothermal Carbonization, May 14-16, 2019
Poster Session Award Committee

2nd International Conference on Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability, Sept. 16-19, 2018
Technical Program Reviewer

1st International Workshop on Near-Limit Flames, July 29-30, 2017
Organizing Committee Member and On-Site Coordinator

PROFESSIONAL DEVELOPMENT ACTIVITIES

2019 ABET Advanced Program Assessment Workshop, Dallas, TX
2018 ABET Fundamentals of Program Assessment Workshop, State College, PA
2016 Metrolab Water and Green Infrastructure Workshop, Washington, DC
2016 Granta Materials Intelligence Software Design Workshop, Boston, MA
2014 American Chemical Society Leadership Development Course, Dallas, TX
2013 National Science Foundation BRIGE Grantees Workshop, Arlington, VA
2013 Industry-Academic Partnerships Workshop, Saint Gobain University Days, Boston, MA
2013 University of New Hampshire Workshop on Implicit Bias, Durham, NH
2012 AIChE Young Professionals Separation Technologies Workshop, Houston, TX
2011 AIChE New Faculty Workshop, Minneapolis, MN
2010 AIChE Student Chapter Faculty Advisor's Workshop, Salt Lake City, UT

TECHNICAL AND ACADEMIC SOCIETIES

American Chemical Society
National Member, 2007 – present
Member, Fuel Division, 2007 – present
Member, Division of Environmental Chemistry, 2007 – present
New England Regional Section Member, 2008 – 2018

American Institute of Chemical Engineers
National Member, 2001 – 2016
Boston Local Section Member, 2004 – 2018

Omega Chi Epsilon
Chemical engineering honors society (inducted Fall 2003); Chapter President, 2003, 2004

Tau Beta Pi, MA-E Chapter
Engineering honors society (inducted Spring 2003)

Alpha Epsilon, Iota Chapter
Agricultural, Food and Biological Engineering honors society (honorary member inducted Fall 2018)

COURTESY AND PRIOR APPOINTMENTS

Università di Trento, Department of Civil, Environmental and Mechanical Engineering, Trento, Italy (Fulbright Fellow)
Visiting Assistant Professor (January – June 2017; February – March 2019)
Course: Bioenergy (co-taught with Luca Fiori)

Worcester Polytechnic Institute, Chemical Engineering Department, Worcester, MA
Visiting Assistant Professor (August 2013 – 2015)

Brown University, Division of Engineering, Providence, RI
Visiting Scholar (August 2008 – 2010)

Brown University, Division of Engineering, Providence, RI
Lecturer (Spring 2009)
Courses (Labs): Wastewater Treatment, Chemical Kinetics

Northeastern University, Department of Chemical Engineering, Boston, MA
Lecturer (Fall 2009 – Spring 2010)
Courses: Chemical Engineering Calculations; Thermodynamics II
Advisor: Senior Design Projects (Mentored two groups of five students each)

Simmons College, Department of Chemistry, Boston, MA
Research Assistant Professor (September 2009 – August 2010)
Lecturer (Fall 2008; Fall 2009 – Spring 2010)
Courses (Labs): General Chemistry; Physical Chemistry; Quantitative Analysis

UNIVERSITY SERVICE

Cornell University (2018 –)
Covid-19 Laboratory Re-Activation Committee, Dept. of Biological & Environmental Engineering (May 2020 – Present)
Lead, College of Engineering ABET Assessment Reform (2019 – Present)
Co-Chair, College of Engineering Educational Assessment Committee (2019 – Present)
Organizer/Facilitator, College of Engineering ABET Retreat: Developing Performance Indicators (2019)
ABET Assessment Workgroup, Dept. of Biological & Environmental Engineering (2019 – Present)

Environmental Protection Agency AgSTAR Coordinator (2019 – Present)
Environmental Engineering Program Committee (2019 – Present)
Fellow and Science-Policy Events Coordinator, Institute of Politics and Global Affairs (2019 – Present)
Undergraduate Academic Advisor for Biological and Environmental Engineering Majors (2019 – Present)
Big Red Teaching Days Open Course Participant (Fall 2019)
Faculty Search Committee, Dept. of Biological & Environmental Engineering (2018 – 2019)
Guest Lecturer:
- CHEME 6661: Bioenergy and Biofuels, "Principles of Pyrolysis" *2019*
- CHEME 5880: Energy Engineering Seminar Series, "Why I Love Your Trash: An Integrated Biorefinery Transforming Biomass to Biofuels" *2019*
- CEE 6020: Environmental Processes, "Engineering at the Food-Energy-Water Nexus: Biofuels and Water Treatment Materials from Carbonaceous Wastes" *2019*

Boston University (2013 – 2017)
Organizer/Facilitator, Mechanical Engineering Teaching Assistants' Boot Camp (2015 – 2017)
Member, Mechanical Engineering Undergraduate Laboratory Committee (2015 – 2017)
Member, Mechanical Engineering Graduate Admissions Committee (2015 – 2017)
Judge, Boston University Graduate Research Symposium (2016)
Mentor, Photonics NSF Research Experience for Undergraduates (Summer 2015)
Mentor, Photonics NSF Research Experience for Teachers (Summer 2015)
Mentor, Mechanical Engineering Senior Design Project in Renewable Energy (2014-2015)
Undergraduate Academic Advisor, Class of 2018
Graduate Student Academic Advisor (M.S., M.Eng. Students)
Summer Orientation Freshman Advisor (2014, 2015, 2016)
Faculty-in-Residence, Student Village (2014 – 2017)
Facilitator, Residence Life Workshop "Finding Summer Research Positions" (2014, 2015)
Organizer, Greater Boston Food Bank Food Drive @ BU Residence Life (2015, 2016)
Faculty Advisor, Myles Standish Hall Engineering Residents (2013 – 2017)
Faculty Advisor, Tau Beta Pi (2013 – 2017)
Fulbright Panelist, BU International Education Week (2017)
Mentor, Society of Women Engineers Career Networking Night (2014, 2015, 2016)
Guest Lecturer:
- ME533: Energy Conversion, "Environmental Impacts of Coal Technologies" *2013*
- WISE@Warren: Women in STEM, "Delivering Great Presentations" *2013 – 2016*
- MS782: Advanced Materials Characterization, "Thermal Analysis Techniques" *2014 – 2016*
- Summer Pathways: STEM for High School Students, "Careers in Engineering" *2014*
- ME533: Energy Conversion, "Unconventional Fossil Fuels" *2015*
- ME555: MEMS: Fabrication and Materials, "Materials for Energy & Environment" *2015*
- ME519: Advanced Heat Transfer, "Transport and Phase Changes" *2015*
- ME519: Advanced Heat Transfer, "Transient Heat Conduction" *2016*
- Greater Boston Area Research Opportunities for Young Women, "Presenting Yourself" *2017*

University of New Hampshire (2010 – 2013)
Founder, Engaging Your Future Seminar Series (2011 –2013)
Environmental Engineering Program Committee (2010–2013)
College to Career Planning Committee, UNH Women's Commission (2012–2013)
Judge, Graduate Research Exposition (2011, 2012)
Faculty Advisor, American Institute of Chemical Engineers Student Chapter (2010–2013)
Faculty Advisor and Founder, AIChE ChemECar Team (2010–2013)

ADVISING

♦ *Denotes students/post-doctoral researchers currently in faculty positions*
* *Denotes undergraduate students pursing/received graduate degrees*

Post-Doctoral Researchers

6. Alex Maag, Ph.D. in Chemical Engineering (Postdoctoral Fellow: July 2019 – Present)
   Cornell Active Learning Initiative Post-Doctoral Fellow, 50% teaching, 50% research
   Co-supervised with Prof. Sunny Jung

5. Fei Wang, Ph.D. in Safety Engineering (Postdoctoral Fellow: Dec. 2018 – Nov. 2019)
   China Scholarship Council Post-Doctoral Fellow studying Sustainable Adsorbents from Waste

4. Maurizio Volpe♦, Ph.D. in Environmental Engineering and Ph.D. in Chemical Engineering (Postdoctoral Fellow: Sept. – Dec. 2017)
   Visiting Post-Doctoral Researcher studying Upgrading of Biomass to Solid Products
   Co-advised with L. Fiori during Fulbright Fellowship Jan. – July 2017 at University of Trento

3. Carol Johnson, Ph.D., Geosciences (Postdoctoral Fellow: June 2016 – May 2017)
   Post-Doctoral Scholar on NSF-funded project on Quantum Dot Fate & Transport

2. Guolan Dou♦, Ph.D. in Organic Chemistry (Postdoctoral Fellow: Oct.2015 – Sept. 2016)
   China Scholarship Council Post-Doctoral Fellow studying Solid Fuel Pyrolysis

1. Thiago Chellappa♦, Ph.D. in Mechanical Engineering (Postdoctoral Fellow: May – Aug. 2015)
   CAPES Brazilian Post-Doctoral Fellow studying Biomass to Energy Conversions

Graduate Students

(Cornell University; 2018 – present)

23. Akio Enders, Ph.D. in Biological & Environmental Engineering (Expected 2023)
    Thesis*: *Integrating Thermochemical Conversion Techniques for Management of Agriculture & Dairy Waste to Protect NYS Water Quality

22. Zoe Pollard, Ph.D. in Biological & Environmental Engineering (Expected 2022)
    Thesis: *Designing Heterogeneous Hierarchical Materials*
    Award: *2019 Arthur Boller Research Award for "Cherry Waste Valorization: Soil Amendments and Water Treatment Materials"*
    Award: *2019 ACS Division of Environmental Chemistry Certificate of Merit*

21. Andrew Hubble, Ph.D. in Biological & Environmental Engineering (Expected 2022)
    Thesis: *Re-engineering the Integrated Biorefinery*
    Award*: 2019 ACS Summer School on Green Chemistry & Sustainable Energy Scholar*

20. Nazih Kassem, Ph.D. in Biological & Environmental Engineering (Expected 2022)
    Co-supervised with Jeff Tester, Chemical Engineering
    Thesis: *Innovating Thermochemical Biomass Conversion Processes via Experimentally Informed Computational Process Modeling*

19. Madeline Karod, M.S. in Biological & Environmental Engineering (Expected 2021)
    Thesis: *Heterogeneous Clay-Biomass Chars for Water Treatment*

18. Leshan Shen, M.Eng. in Biological & Environmental Engineering (Expected 2020)
    Project: *Impact of Lignocellulose Components and Clay Minerals on Pyrolysis Biofuels*

17. Matteo Pecchi, Ph.D. in Energy Engineering from Free University of Bozen-Bolzano [jointly supervised] (Expected 2021)
    Thesis: *Thermochemistry of Hydrothermal Carbonization beyond Solid Yields and HHV*

16. Gino Lin, M.S. in Biological & Environmental Engineering (May 2020)
    Thesis: *Integrated Thermochemical Conversion Processes for the Production of Soil Amendments and Biofuels from Agricultural Waste*

15. Liyang Ma, Ph.D. in Safety Science and Engineering from China University of Mining and Technology [jointly supervised] (Expected 2021)
    Thesis: *Low Temperature Ionic Liquid Pretreatment of Biomass for Pyrolysis*

14. Qiulin Ma, Ph.D. in Agricultural Engineering from China Agricultural University [jointly supervised] (May 2020)
    Thesis: *Hydrothermal Liquefaction of Lignocellulosic Biomass to Biofuels*

(Boston University; 2013 – 2017)

13. Lihui Gao♦, Ph.D. in Chemical Engineering from China University of Mining and Technology [jointly supervised] (May 2019)
    Thesis*: New Approaches to the Integrated Biorefinery via in situ catalysts*
    Award: *2018 Energies Journal Travel Award*

12. Giulia Ischia, M.S. in BioEnergy Engineering from Universita degli Studi di Trento [Jointly supervised with Luca Fiori] (March 2018)
    Thesis: *Biofuels Production from Organic Fraction of Municipal Solid Waste through Hydrothermal Carbonization Pyrolysis*
    Award: High Honors (110/110 Thesis Score)

11. Silvia Del Bianco, M.S. in Environmental Engineering from Universita degli Studi di Trento [Jointly supervised with Luca Fiori] (March 2018)
    Thesis: *Upgrading Municipal Solid Waste Hydrochars to Sorbent Materials with Secondary Energy Extraction Pathways*
    Award: High Honors (110/110 Thesis Score)

10. Giulia Severini, M.S. in Environmental Engineering from Universita degli Studi di Trento [Jointly supervised with Luca Fiori and G. Andreaottola] (October 2018)
    Thesis: *Extracting Phosphorous from Cow Manure Hydrochars and Producing Nutrient-Rich Soil Amendments and Water Treatment Materials*

9. Lorenzo Rossi, M.S. in Agricultural Sciences from Universita degli Studi di Milano [Jointly supervised with Fabrizio Adani] (May 2018)
    Thesis: *Thermal Conversions of Municipal Solid Waste to Renewable Energy and Activated Carbons for Water Treatment and Microbial Fuel Cell Electrodes*

8. Handunge Tharanga Jayarathne, M.Eng. in Mechanical Engineering (May 2018)
   Project: *In situ Upgrading of Pyrolysis Biofuels with Copper Impregnation*

7. Allen Perlin, M.S. (non-thesis) in Mechanical Engineering (December 2017)
   Project: *Heterogeneous Hierarchical Photocatalysts for Recycled Water Treatment*

6. Cole Ashman, M.Eng. in Mechanical Engineering (September 2017)
   Project*: In situ upgrading of biofuels from Brewer's Spent Grain*

5. Junjie Xue♦, Ph.D. in Agricultural Engineering from China Agricultural University [jointly supervised] (June 2016)
   Thesis*: Reaction Synergies during Co-Pyrolysis of Blended Biomass Streams*

4. Anna Newman, M.S. (non-thesis) in Materials Science & Engineering (May 2016)
   Project*: Octanol-water partitioning of polycyclic aromatic hydrocarbon mixtures*

(University of New Hampshire; 2010-2014)

3. Chloe Hintz, M.S. in Chemical Engineering (May 2014)
   Thesis*: Accessing Active Sites of Biochars for Preferential Sorption of Pharmaceutical Compounds from Simulated Wastewater*

2. Ana Celaya, M.S. in Chemical Engineering (May 2013)
   Thesis*: Thermal Behavior of Coal, Locally Sourced Biomass, and their Blends via Pyrolysis and Oxidation*
   Award*: 2013 UNH Graduate School Travel Award*

1. Li Buessing, M.S. in Chemical Engineering (May 2012)
   Thesis*: Olive Mill Waste Mitigation: Exploring Waste-to-Byproduct Conversions of CO_2 Supercritical Fluid Extracted Olive Mill Waste*
   Award*: 2012 American Chemical Society Fuel Division Graduate Student Travel Award*

Undergraduate Students

(Cornell University; 2018 – Present)

31. Luker Myer, B.S. in Engineering Physics (Expected May 2022)
    IOPGA Summer Research Fellow: Mediating Factors for Public Support for Biofuels

30. Jennifer Muson, B.S. in Environmental Engineering (Expected May 2023)
    REU: Computational Modeling of Microbial Fuel Cells, co- supervised with Emily Ryan, Boston University

29. Dylan Mariuzza, B.S. in Biological Engineering (May 2020)
    Research Assistant: Production and Implementation of Biochars as Soil Amendments
    Independent Research Project: Developing Activated Carbon Cathodes for Microbial Fuel Cells
    Received Spring 2020 ELI Undergraduate Research Award
    Lead author and Co-author of 2 manuscripts in preparation

(The Pennsylvania State University; 2018)

28. Ian Miller, B.S. in Energy Engineering from Penn State (May 2019)
    Independent Research Project (EGEE 494): Validation of computational models for adsorption of VOCs to activated carbons using a Design of Experiments Approach

27. Aimee Manderlink, B.S. in Mechanical Engineering from Boston University (August 2018)
    Independent Research Project Conducted at Penn State (EGEE 494): Design of an Undergraduate Lab Experiment: Mass Transfer and Diffusion through Dendrites water
    Co-author of manuscript in Journal of Chemical Education

(Boston University; 2013 – 2017)

26. Madeline Karon*, B.S. in Chemistry, Simmons College (May 2019)
    Research Assistant: Sustainable production of biofuels and sorbents for heavy metal removal from drinking water
    Presented poster at 2017 Fall ACS National Meeting; Co-author of book chapter

25. Noah Bernays, B.S. in Mechanical Engineering (May 2018)
    Research Assistant: Biomass-based Sorbent Foams for Water Treatment
    Received Spring 2017 UROP Award

24. Chitanya Gopu*, B.S. in Mechanical Engineering (May 2017)
    Research Assistant: MSW to Energy; Deoxygenation of pyrolysis biofuels
    Received Spring 2016 UROP, Summer 2016 STARS, 2017 UROP Travel Awards
    Presented paper at 2017 Spring ACS National Meeting
    Co-author of RSC Advances and Journal of Analytical & Applied Pyrolysis articles

23. Ami Vyas, B.S. in Electrical Engineering (May 2017)
    Research Assistant: Functionalizing oil shale semicoke for flue gas scrubbing
    First Place, Materials Science, Gulf Coast Research Symposium Fall 2015
    Received 2014, 2015 STARS awards, Spring 2015 and Fall 2015 UROP Award
    Presented poster and oral paper at 2015 Fall ACS National Meeting
    Finalist at 2015 TECO Green Tech Challenge in Taiwan
    Co-author of articles in: Energy & Fuels, Journal of Analytical & Applied Pyrolysis, and *Adsorption*

22. Garrison Norton, B.S. in Mechanical Engineering (May 2017)
    Research Assistant: MSW to Energy Conversions

21. Longxian (Elizabeth) Zhang, B.S. in Chemistry (May 2017)
    Independent Study Project: Eutectic and solid solution behavior of PAHs
    Presented poster at 2015 Fall ACS National Meeting

20. Stephanie Emenyonu*, B.S. in Biomedical Engineering, Dartmouth College (May 2016)
    REU: *In situ* upgrading of biofuels via co-production of iron oxide nanoparticles
    Co-author on Spring 2016 ACS National Meeting Paper

19. Carolyn Nicolo, B.S. in Mechanical Engineering (May 2016)
    Research Assistant: Co-production of biofuels and nanoparticles

18. Jennette Chenevert*, B.S. in Chemistry, Simmons College (May 2015)
    Thesis: Octanol-Water Partitioning of Quantum Dots: Thermodynamics or Kinetics?

17. Alex Billias*, B.S. in Physics (December 2015)
    Independent Study Project: Surface Chemistry of Activated Carbons via FTIR
    Co-author of ACS Sustainable Chemistry & Engineering article

16. Tom Léger, B.S. in Thermal & Energy Sciences, University of Nantes, France (Oct. 2016)
    June – August 2015
    Internship: Construction of apparatus for measuring organic aerosols (co-supervised by J. Bird)

15. Mohamed (Simo) Yezrour, B.S. in Physical Measurement Sciences, Université Paul Sabatier (Dec. 2016) May – July 2014
    Internship: Installation and validation of scientific equipment

(University of New Hampshire; 2010 – 2014)

14. Nicholas Osadchy, B.S. in Chemical Engineering (May 2015)
    Research Assistant: Eutectic behavior of polycyclic aromatic hydrocarbon mixtures

13. Joel Ford, B.S. in Chemical Engineering (May 2015)
    McNair Scholars Program Fellow: Competitive adsorption of PCBs to biochars
    Presented paper at American Chemical Society Fall 2014 Meeting
    Co-author of article in Separation Science & Technology

12. Elizabeth Cardin, B.S. in Chemical Engineering (May 2014)
    Independent Study Project: Optimizing oil shale oil extraction

11. Anthony D'Amico*, B.S. in Chemical Engineering (May 2014)
    Independent Study Project: Reaction kinetics of oil shale semicokes
    Co-author of Energy & Fuels article
    Presented poster at American Chemical Society Fall 2012 Meeting
    Received UNH Hamel Center Undergraduate Research Presentation Award

10. Pablo Yangali*, B.S. in Chemical Engineering (May 2014)
    Research Assistant: Co-pyrolysis of cherry pits and coal analyzed by GC-MS
    Presented poster at American Chemical Society Spring 2013 Meeting
    Co-author of article in Journal of Applied & Analytical Pyrolysis

9. Kathleen Miller, B.S. in Chemical Engineering (May 2014)
    Research Assistant: Impact of particle size on thermal lag during pyrolysis
    Presented poster at American Chemical Society Spring 2013 Meeting

8. Amanda Lade*, B.S. in Chemical Engineering (May 2014)
    Research Experience and Apprenticeship Program (REAP); Research Assistant
    Presented poster at American Chemical Society Spring 2012 Meeting
    Received UNH Hamel Center Undergraduate Research Presentation Award
    Co-author of article in Fuel Processing Technology

7. Melissa Lever, B.S. in Chemistry, Simmons College (September 2013)
    Thesis: Chemical & Physical Activation of Olive Mill Waste for Activated Carbons
    Co-author of article in ACS Sustainable Chemistry & Engineering

6. Lauren Pappas, B.S. in Chemical Engineering (May 2013)
    Research Assistant: Co-pyrolysis of cocoa shell and coals

Presented posters at 2012 AIChE Student Conference, ACS Fall 2012 Meeting
Received UNH Hamel Center Undergraduate Research Presentation Award
Undergraduate Research Award (URA)
Project: Removal of Amoxicillin from Wastewater with Biochars

5. Phylicia Cicilio*, B.S. in Chemical Engineering (May 2013)
   Independent Project for University Honors, Spring 2013
   Thesis: Octanol-water Partitioning Coefficients of PCB Mixtures
   Research Assistant: Kinetics of locally sourced coal-biomass blending
   Received UNH Hamel Center Undergraduate Research Presentation Award

4. Daniel Morgan, B.S. in Chemical Engineering (May 2012)
   Independent Study Project: Biochar production from banana stalk

3. Bradley White*, B.S. in Chemical Engineering (May 2012)
   Independent Study Project: Indoor air quality at the University of New Hampshire

(Simmons College; 2008 – 2010)

2. Beatriz Datangel, B.S. in Chemistry Management (May 2010)
   Thesis: Oil shale Semicoke as a Carbon Source: Sorbent Capacity, Reactivity and Entrained Compounds as Functions of Pyrolysis Temperature and Shale Origin
   Co-author of article in Energy & Fuels
   Presented poster at 9th Annual Symposium on Sustainability & Environment, 2010
   Presented poster at American Chemical Society Fall 2010 Meeting

1. Katelyn Thomas*, B.S. in Chemistry (May 2009)
   Independent Study: Thermal analysis of oil shale pyrolysis
   Presented poster at American Chemical Society Fall 2009 Meeting

High School Students

°Denotes students pursing degrees in STEM fields

3. Ayush Upneja°, Research Intern, Summer 2016
   First author on paper published in RSC Advances
2. Safwa Ali°, ACS Project SEED Scholar, Summer 2014
1. Julia Dariu°, ACS Project SEED Scholar, Summer 2014