JILLIAN L. GOLDFARB, PH.D.
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EDUCATION

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

ACADEMIC APPOINTMENTS AT CORNELL UNIVERSITY

Associate Professor	Smith School of Chemical & Biomolecular Engineering (July 2023 – Present)
	Cornell Institute of Archaeology & Material Studies (Jan. 2024 – Present)
Associate Dean's Fellow	College of Engineering Undergraduate Programs (July 2023 – Present)
Graduate Field Faculty	Dept. of Biological and Environmental Engineering (June 2023 – Present)
Associate Professor	Dept. of Biological and Environmental Engineering (Nov. 2021 – June 2023)
Assistant Professor	Dept. of Biological and Environmental Engineering (July 2018 – Oct. 2021)
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)
Faculty Affiliate	Cornell Center for Social Sciences (2023 – Present)
	Cornell Brooks Public Policy School Tech Policy Institute (2022 – Present)
Courses	BEE 2220: Sustainable Engineering Thermodynamics
	BEE/ENGRD 2510: Engineering Processes for Environmental Sustainability
	BEE 4940: Investigating Reappearance of Lead at Ithaca Gun Superfund Site
	BEE 4940: Public Facing Science: Design, Analysis and Communication
	BEE 6940: Engineering Effective Technical Communication

AWARDS AND RECOGNITION

2023 Fellow of the American Chemical Society
2022 U.S. National Academies of Science Delegate to 1st U.S.-Africa Frontiers of Science Symposium
2022 National Science Foundation CAREER Award
2022 Cornell University College of Engineering James and Mary Tien Excellence in Teaching Award
2022 Visiting Professor of Excellence, University of Trento, Italy
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*

94. Karod, M., S. Rubin*, **J.L. Goldfarb**. "Synergistic Improvements in Energy Recovery and Bio-oil Quality through Integrated Thermochemical Valorization of Agro-industrial Waste of Varying Moisture Content." *Bioresource Technology.* ***2024,*** 394, 130173. https://doi.org/10.1016/j.biortech.2023.130173
93. Pollard, Z.A., M. Karod, A. Schmitz, B. Pian, B. Barstow, **J.L. Goldfarb**. "ZnO Precursor's Ability to Catalyze Formation of Reactive Oxygen Species to Degrade Aqueous Organic Pollutants" *Chemical Engineering Journal.* ***2024,*** 480, 147499. https://doi.org/10.1016/j.cej.2023.147499
92. Darzi, R., Y. Dubowski, **J.L. Goldfarb**, M. Karod, D. Sills, R. Posmanik. "Hydrothermal processing of multilayer plastic film for cascaded valorization of non-recyclable waste" *ACS Sustainable Chemistry and Engineering.* ***2023,*** 11, 18021-18028. https://10.1021/acssuschemeng.3c06003
91. Pecchi, M., M. Baratieri, A.R. Maag, **J.L. Goldfarb.** "Uncovering the transition between hydrothermal carbonization and liquefaction via secondary char extraction: A case study using food waste." *Waste Management.* ***2023,*** 168, 281-289. https://doi.org/10.1016/j.wasman.2023.06.009
90. Adair, J.L., M. Karod, **J.L. Goldfarb**. "Addition of *in situ* clay catalysts at different process points in a cascaded hydrothermal carbonization-pyrolysis process for agro-industrial waste valorization" *Bioresource Technology;* ***2023***, 372, 128649. https://doi.org/10.1016/j.biortech.2023.129724
89. Ryan, E.M., A. Roshandelpoor, Z. Pollard, **J.L. Goldfarb**, P. Vakili. "Prospective on Methods of Design of Experiments for Limited Data Scenarios in Materials Design and Engineering." *MRS Communications.* ***2023.*** https://doi.org/10.1557/s43579-023-00478-4
88. Hubble, A.H., B.A. Childs, M. Pecchi, H. Sudibyo, J.W. Tester, **J.L. Goldfarb** "Role of *in situ* (in contact with biomass) and *ex situ* (in contact with pyrolysis vapors) transition metal catalysts on pyrolysis of cherry pits." *Fuel.* ***2023,*** 352, 129062. https://doi.org/10.1016/j.fuel.2023.129062
87. Motiei, P. M. Pecchi, J.L. Adair, **J.L. Goldfarb,** J. O'Connor "Pairing Combustion Experiments and Thermogravimetric Analysis to Uncover Timescales Controlling Cellulose Ignition and Burnout in a Hencken Burner" *Combustion and Flame.* ***2023,*** 258 (2), 113092. https://doi.org/10.1016/j.combustflame.2023.113092
86. Ischia, G., A. Miotello, **J.L. Goldfarb,** L. Fiori. "Green solvents to enhance hydrochar quality and clarify effects of secondary char" *Bioresource Technology.* ***2023,*** 388, 129724. https://doi.org/10.1016/j.biortech.2023.129724
85. Pollard, Z.A., A. Roshandelpoor, P. Vakili, E.M. Ryan, **J.L. Goldfarb**. "Towards Tunable Polymer Foam Fabrication: A Case Study to Advance Green Materials Development in Limited Data Scenarios" *AIChE Journal.* ***2023.*** 69 (4). https://doi.org/ 10.1002/aic.17984
84. Kassem, N., M. Pecchi, A.R. Maag, M. Baratieri, J.W. Tester, **J.L. Goldfarb.** "Developing Decision-Making Tools for Food Waste Management via Spatially Explicit Integration of Experimental Hydrothermal Carbonization Data and Computational Models using New York as a Case Study." *ACS Sustainable Chemistry & Engineering.* ***2022.*** 10, 16578-16587. https://doi.org/10.1021/acssuschemeng.2c04188

83. Pecchi, M., **J.L. Goldfarb**, M. Baratieri. "Hydrothermal carbonization enthalpy using differential scanning calorimetry: assessing the accuracy of the exhaust sample method." *Thermochimica Acta.* ***2022***. 718, 179388. https://doi.org/10.1016/j.tca.2022.179388
82. Karod, M., A.H. Hubble, A.R. Maag, Z.P. Pollard, **J.L. Goldfarb**. "Clay-Catalyzed *in situ* Pyrolysis of Cherry Pits for Upgraded Biofuels and Heterogeneous Adsorbents as Recoverable By-Products." *Biomass Conversion and Biorefinery.* ***2022***. 1-13. https://doi.org/10.1007/s13399-022-02921-3.
81. Mariuzza, D*., J.-C. Lin, M. Volpe, L. Fiori, S. Ceylan, **J.L. Goldfarb**. "Impact of Co-Hydrothermal Carbonization of Animal and Agricultural Waste on Hydrochars' Soil Amendment and Solid Fuel Properties." *Biomass and Bioenergy*. ***2022,*** 157, 106329 https://doi.org/10.1016/j.biombioe.2021.106329
80. Ma, L., **J.L. Goldfarb**, J. Song, C. Chang, Q. Ma. "Enhancing Cleaner Biomass-Coal Co-Combustion by Pretreatment of Wheat Straw via Washing Versus Hydrothermal Carbonization." *Journal of Cleaner Production.* ***2022,*** 366, 132991 https://doi.org/10.1016/j.jclepro.2022.132991
79. Pollard, Z., A. Cannon, E. Ryan, **J.L. Goldfarb**. "Capturing the Effects of Particle Heterogeneity on Adsorption in a Fixed Bed." *AIChE Journal.* ***2022,*** e17618. ***Cover Article, Featured in CEP***. https://doi.org/10.1002/aic.17618
78. Hoang, A.T., A.M. Foley, E. Lichtfouse, M. Kumar, L. Xiao, **J.L. Goldfarb**, S.F. Ahmed, Z. Said, R. Luque, V.G. Bui. "Production of Biochar from Crop Residues and its Application for Anaerobic Digestion." *Bioresource Technology.* ***2022,*** *363, 127970.* https://doi.org/10.1016/j.biortech.2022.127970
77. Pecchi, M., A. Cascioli, A.R. Maag, **J.L. Goldfarb**, M. Baratieri. "Uncovering the Transition between Hydrothermal Carbonization and Liquefaction Using Differential Scanning Calorimetry. *Fuel Processing Technology.* ***2022***, 235, 107349. https://doi.org/10.1016/j.fuproc.2022.107349
76. **Goldfarb, J.L.**, A.H. Hubble, Q. Ma, M. Volpe, G. Severini, G. Andreottola, L. Fiori. "Valorization of cow manure via hydrothermal carbonization for phosphorus recovery and adsorbents for water treatment." *Journal of Environmental Management.* ***2022***, 308, 114561. https://doi.org/10.1016/j.jenvman.2022.114561
75. Pecchi, M., M. Baratieri, **J.L. Goldfarb**, A.R. Maag. "Effect of Solvent and Feedstock Selection on Primary and Secondary Chars Produced via Hydrothermal Carbonization of Food Wastes." *Bioresource Technology.* ***2022,*** 126799. https://doi.org/10.1016/j.biortech.2022.126799
74. Karod, M., Z. Pollard, Z., M.T. Ahmad, G. Dou, L. Gao, **J.L. Goldfarb**. "Impact of Bentonite Clay on *in situ* Pyrolysis vs. Hydrothermal Carbonization of Avocado Pit Biomass." *Catalysts.* ***2022***, 12, 655*, Invited Manuscript.* https://doi.org/10.3390/catal12060655
73. Ma., L., **J.L. Goldfarb**, Q. Ma. "Enabling Lower Temperature Pyrolysis with Aqueous Ionic Liquid Pretreatment as a Sustainable Approach to Rice Husk Conversion to Biofuels." *Renewable Energy.* ***2022,*** 198, 712-722. https://doi.org/10.1016/j.renene.2022.08.077
72. Hubble, A.H., E.M. Ryan, **J.L. Goldfarb.** "Enhancing pyrolysis gas and bio-oil formation through transition metals as in situ catalysts." *Fuel, **2022,*** 308, 121900 https://doi.org/10.1016/j.fuel.2021.121900
71. Hubble, A.H. and **J.L. Goldfarb.** "Bio-based Solid Fuels." Chapter 10 in *Renewable Fuels: Sources, Conversion and Utilization.* Edited by J. O'Connor, B. Noble, T. Lieuwen. Cambridge University Press. ***2022.*** https://doi.org/10.1017/9781009072366
70. Pollard, Z., M. Karod, **J.L. Goldfarb.** "Metal Leaching from Antimicrobial Cloth Face Masks Intended to Slow the Spread of COVID-19." *Scientific Reports.* ***2021***, 11, 19216. https://doi.org/10.1038/s41598-021-98577-6
69. Ma, Q., K. Wang, H. Sudibyo, J.W. Tester, G. Huang, L. Han, **J.L. Goldfarb.** "Production of Upgraded Biocrude from Hydrothermal Liquefaction using Clays as *in situ* Catalysts." *Energy Conversion and Management.* ***2021,*** 247, 114764 https://doi.org/10.1016/j.enconman.2021.114764
68. **Goldfarb, J.L.,** S.E. Kreps, J.S. Brownstein, D.L. Kriner. "Beyond the First Dose – Covid-19 Vaccine Follow-through and Continued Protective Measures." *New England Journal of*

Medicine. ***2021,*** 385, 101-103 https://doi.org/10.1056/NEJMp2104527 ***Discussed by Dr. Anthony Fauci at White House Press Briefing***

67. Ischia, G., L. Fiori, L. Gao, **J.L. Goldfarb.** "Valorizing Municipal Solid Waste via Integrating Hydrothermal Carbonization and Downstream Extraction for Biofuel Production." *Journal of Cleaner Production.* ***2021***, 289, 125781 https://doi.org/10.1016/j.jclepro.2021.125781
66. L. Gao and **J.L. Goldfarb.** "Characterization and Adsorption Applications of Composite Biochars of Clay Minerals and Biomass." *Environmental Science and Pollution Research.* ***2021***, 28, 44277-44287 https://doi.org/10.1007/s11356-021-13858-x
65. A.H. Hubble and **J.L. Goldfarb.** "Synergistic Effects of Biomass Building Blocks on Pyrolysis Gas and Bio-Oil Formation." *Journal of Analytical and Applied Pyrolysis*. ***2021,*** 156, 105100 https://doi.org/10.1016/j.jaap.2021.105100
64. Lin, J.-C., D. Mariuzza*, M. Volpe, L. Fiori, S. Ceylan, **J.L. Goldfarb.** "Integrated Thermochemical Conversion Process for Valorizing Mixed Agricultural and Dairy Waste to Nutrient-Enriched Biochars and Biofuels." *Bioresource Technology.* ***2021,*** 328, 124765 https://doi.org/10.1016/j.biortech.2021.124765
63. Kreps, S.E., **J.L. Goldfarb,** J.S. Brownstein, D.L. Kriner. "The Relationship between US Adults' Misconceptions about COVID-19 Vaccines and Vaccination Preferences." *Vaccines.* ***2021***, 9(8), 901 https://doi.org/10.3390/vaccines9080901
62. Pollard, Z. and **J.L. Goldfarb**. "Valorization of Cherry Pits: Great Lakes Agro-Industrial Waste to Mediate Great Lakes Water Quality." *Environmental Pollution.* ***2021,*** *116073 https://doi.org/10.1016/j.envpol.2020.116073*
61. **Goldfarb, J.L.** and D.L. Kriner. "U.S. Public Support for Biofuels Tax Credits: Cost Frames, Local Fuel Prices, and the Moderating Influence of Partisanship." *Energy Policy*. ***2021,*** 149, 112098 https://doi.org/10.1016/j.enpol.2020.112098
60. Kassem, N., J. Hockey, S. Heyers, C. Lopez, **J.L. Goldfarb**, L.T. Angenent, J.W. Tester. "Sustainable District Energy Integrating Biomass Peaking with Geothermal Baseload Heating: A Case Study of Decarbonizing Cornell's Energy System." *Journal of Renewable and Sustainable Energy.* ***2020,*** 066302 https://doi.org/10.1063/5.0024841
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 https://doi.org/10.1016/j.jaap.2019.104729
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 https://doi.org/10.1016/j.supflu.2020.104887
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 https://doi.org/10.1016/j.jpowsour.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 https://doi.org/10.1016/j.fuel.2019.116750
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 Withdrawal Point on Hydrochar Properties." *Energies.* ***2020,*** 13, 2890 https://doi.org/10.3390/en13112890
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.*** https://doi.org/10.1021/acs.jchemed.8b00962
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 https://doi.org/10.1016/j.jaap.2018.11.014

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 https://doi.org/10.1039/C9RA02459J
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*** *https://doi.org/10.1557/mrc.2019.60*
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 https://doi.org/10.1007/s10450-019-00050-4
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 https://doi.org/10.1016/j.biortech.2019.01.106
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 https://doi.org/10.1016/j.impact.2019.01.004
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 https://doi.org/10.1016/j.geoderma.2019.01.040
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 https://doi.org/10.1016/j.resconrec.2019.104419
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 https://doi.org/10.1016/j.enconman.2018.12.009
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 https://doi.org/10.1080/01496395.2018.1520721
43. 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." Green Chemistry Education: Recent Developments, edited by M.A. Benvenuto. De Gruyter Press. Pre-published in *Physical Science Reviews*, **2019**, 20180073 https://doi.org/10.1515/psr-2018-0073
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 https://doi.org/10.1016/j.energy.2018.03.037
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 https://doi.org/10.1016/j.jaap.2018.05.002
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 https://doi.org/10.1016/j.biortech.2017.09.072
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 https://doi.org/10.1016/j.renene.2018.01.066
38. 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 https://doi.org/10.1016/j.fuel.2018.06.060

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 https://doi.org/10.3390/en11113195
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 https://doi.org/10.1016/j.wasman.2017.06.006
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 https://doi.org/10.1021/acs.jchemed.7b00104
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 https://doi.org/10.1016/j.enconman.2017.03.001
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 https://doi.org/10.1021/acssuschemeng.6b02735
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 https://doi.org/10.1016/j.biortech.2017.03.015
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 https://doi.org/10.1016/j.enpol.2017.03.002
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 https://doi.org/10.1016/j.jaap.2017.02.018
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 https://doi.org/10.1016/j.fuel.2017.01.052
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 https://doi.org/10.1021/acssuschemeng.6b02202
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 https://doi.org/10.1016/j.energy.2016.11.146
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 https://doi.org/10.1177/1075547016688325
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 https://doi.org/10.1016/j.enconman.2016.09.031
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 https://doi.org/10.1039/C6RA21663C
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 https://doi.org/10.1016/j.enpol.2016.03.029

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 https://doi.org/10.1021/acs.energyfuels.5b02244
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
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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 https://doi.org/10.1016/j.fuproc.2014.08.004
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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 https://doi.org/10.1016/j.jaap.2012.03.008
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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 https://doi.org/10.1089/ees.2007.0195
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 https://doi.org/10.1897/07-486.1
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 https://doi.org/10.1016/j.jct.2007.09.006
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 https://doi.org/10.1021/je7005133

WORKS IN PROGRESS AND UNDER REVIEW

8. "Spatially Informed Multi-Objective Decision-Making Tool for Retrofitting Municipal Wastewater Treatment Plans (WWTPS) in New York State" with J. Yu, C. Julian-Kowng, N. Kassem, F. Vanek, J. Tester, R. Richardson. *In Progress.*
7. "Open-source Python tool to automate GC-MS data analysis developed in the context of bio-oil analyses with inclusion of derivatized samples" with M. Pecchi. *Under Review*
6. "From hydrothermal carbonization to liquefaction: chemistry and kinetics along the hydrothermal biomass reaction spectrum in batch systems" with G. Ischia, H. Sudibyo, J.W. Tester, A. Miotello, L. Fiori. *Revisions Under Review.*
5. "Impact of Upscaling on Pyrolysis Biochar Yield and Characteristics Using Rice Husk as a Case Study" with A.H. Iswardi, A.H. Hubble, J. Lehmann. *In Progress*
4. "Secondary Char Separation to Enhance Energetic Applications of Apple Pomace Hydrochars" with M. Karod. *Revisions Under Review*
3. "Evaluating the Potential for Improving Class A Biosolids Nutrients Ration and Applications through Vivianite Recovery" with P. Guo, Y. Yan, K.N. Ngo, C. Peot, M. Bollmeyer, S. Yi, M. Baldwin, K. Lancaster, M. Reid, H. De Clippeleir and A. Gu. *Under Review*
2. "Beyond R^2: Hypothesis-Driven Meta-Review of Hydrothermal Carbonization" with M. Pecchi, D. Kriner, A. Maag, M. Baratieri. *In Progress*
1. "Sustainable Treatment of Naturally Occurring Heavy Metals in Sicilian Water via Hydrothermal Carbonization, Secondary Biofuel Extraction, and Activation of *Opuntia ficus indica*" with M. Volpe, J.A. Adair, L. Gao, L. Fiori. *In Progress.*

INVITED LECTURES AND PANELS

58. Cornell University, Ezra's Round Table Systems Seminar Series, February 16, 2024
57. The PhD Pack, Pursuing Academic Career Pathways, Virtual Seminar, December 5, 2023
56. Scholarship Notice Board, Nigeria, Gaining MS & PhD Admissions into US Universities - The Myths, Facts, and Everything You Need to Know! Virtual Seminar, August 27, 2023
55. Newe Ya'ar Agricultural Research Organization, Volcani Institute, Symposium of Waste Management at the Model Farm for Sustainable Agriculture, June 27, 2023.
54. University of Miami College of Engineering and School of Architecture Joint Seminar, March 23, 2023

53. Brown University School of Engineering, Chemical-Environmental Engineering Seminar, March 21, 2023
52. Dartmouth College, Thayer School of Engineering, Biological & Chemical Engineering Seminar, March 1, 2023
51. Cornell University, Department of Chemical Engineering, Spring Seminar Series, February 8, 2023
50. The Scholars Table: Mastering the PhD Application and Interview Process Virtual Seminar via LinkedIn. January 11, 2023
49. American Chemical Society Putting Chemistry to Work for Zero Hunger Summit, "Impacts of Agriculture on Climate: Mitigation of Greenhouse Gases" Virtual Panel. December 5, 2022
48. Career Enhancement Forum for Creating Opportunities for African Scientists Virtual Seminar via LinkedIn. December 3, 2022
47. Grow-NY Symposium. Innovation in the Biomaterials Sector for Farming and Food Panel. Syracuse, NY. November 16, 2022
46. Boston University Institute for Global Sustainability Webinar on Bioenergy Pathways, October 21, 2022
45. Cornell University Becker House Cafe Series, Ithaca, NY. August 31, 2022
44. SUNY Buffalo, Department of Chemistry Seminar Series, Buffalo, NY. April 21, 2022
43. Auburn University, Environmental and Ecological Engineering Virtual Seminar, October 18, 2021
42. Panelist, "Rescuing from the Past, Saving for the Future: An Archaeological Science Perspective on Collaborative Data," Cornell Day of Data (Virtual). January 27, 2021
41. Instructor, Biochar Webinar Series "The Science Behind Biochar," Cornell Cooperative Extension of Suffolk County (Virtual). November 12, 2020
40. Panelist, Thermochemical Conversion & Biochar Workshop, Rochester Institute of Technology (Virtual), October 29, 2020
39. Missouri S&T, Department of Chemical Engineering, Virtual Seminar Series, October 19, 2020
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. Instructor, Biochar and Torrefied Biomass Short Course, 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, "Meet a Scientist" 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*

73. *Goldfarb, J.L.* "ChatGPT Could Write a PhD Statement of Purpose… But Not Yours." ACS Spring 2024 National Meeting SOCED Division. March 2024. *Invited Speaker.*
72. Karod, M., M. Pecchi, *D.L. Kriner*, *J.L. Goldfarb.* "Converging science and public understanding to enable sustainable upcycling of agricultural wastes." ACS Fall 2023 National Meeting AGRO Division. August 2023. *Invited Speaker.*
71. *Pecchi, M*., J.L. Goldfarb. "Sample preparation impacts chromatographic analysis of solvent-extracted secondary char resulting from hydrothermal carbonization." ACS Fall 2023 National Meeting ENFL Division. August 2023.
70. *Karod, M.*, S. Rubin,* J.L. Goldfarb. "Synergistic improvements in energy recovery and bio-oil quality through integrated thermochemical valorization of agro-industrial waste" ACS Fall 2023 National Meeting AGRO Division. August 2023.
69. *Karod, M*., J.L. Goldfarb. "Biomass valorization schemes to produce biofuels and sustainable carbon for environmental applications." 27th Annual Green Chemistry & Engineering Conference. June 2023. *Invited Presentation as CIBA Travel Award Winner.*
68. Karod, M., S. Rubin*, M.Pecchi, *J.L. Goldfarb.* "Beyond Solid Fuels: Cascaded Conversion Processes for Valorizing Biorefinery Residuals." 4th International Conference on Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability. May 2023. *Plenary Speaker*
67. Karod, M., *J.L. Goldfarb.* "Does Secondary Char Constrain Energy and Environmental Applications of Hydrothermally Carbonized Biomass Waste?" International Conference on Biotechnology, Sustainable Bioresources and Bioeconomy. December 2022. *Invited Speaker*

66. Karod, M., J. Adair, *J.L. Goldfarb.* "Clay Catalysts in the Sequential Thermochemical Processing of Agro-Industrial Waste: Where, When and Why?" 10th International Conference on Industrial Bioprocesses. October 2022. *Invited Speaker*
65. *Rubin, S.**, M. Karod. J.L. Goldfarb. "Cascaded Thermochemical Processing of Wet and Dry Agricultural Biomass Waste for Upgraded Fuels and Solid Products." ACS Fall 2022 National Meeting AGRO Division. August 2022.
64. *Pecchi, M.,* N. Kassem, A. Maag, J.W. Tester, M. Baratieri, J.L. Goldfarb. "Hydrothermal Carbonization and Liquefaction of Food Waste: From Fundamentals to Strategic Planning." ACS Fall 2022 National Meeting ENFL Division. August 2022
63. *Karod, M.* and J. L. Goldfarb. "Can (Semi)Volatile Organics Present in Agro-Industrial Waste Hydrochars Limit Potential Environmental Applications?" ACS AGFD. August 2022
62. *Ahmad, M.* and J.L. Goldfarb. "Impact of Biomass Constituents and Hydrothermal Carbonization Conditions on the Formation, Composition, and Reactivity of Secondary Char." ACS Fall 2022 National Meeting ENFL Division. August 2022
61. *Pollard, Z.,* B. Pian, B. Barstow, J.L. Goldfarb. "Polymer Scaffold for Photocatalytic Degradation of Emerging and Persistent Contamination in Drinking Water." ACS Fall 2022 National Meeting ENVR Division. August 2022
60. *M. Bourgeois, E. Fox,* C. Hunt, C. Maxwell, P. Smith, E. Brush, J.L. Goldfarb, J. Wissinger. "Sustainability, Environmental Justice and ACS Policy Statements: The Role of the ACS Committee on Environmental Improvement. ACS Fall 2022 National Meeting ENVR Division. August 2022
59. *Gerdes, R.F.,* S.W. Manning, J.M. Regenstein, J.L. Goldfarb. "Investigating the Early History of Olive Oil Using Environmentally Relevant Replica Experiments Inspired by Biofuels Research." ACS Fall 2022 National Meeting AGFD Division. August 2022
58. *Motiei, P., M. Ahmad.*, J.L. Goldfarb, J.A. O'Connor. "Pairing Combustion Studies and Thermogravimetric Analysis to Explore Biomass Utilization." ACS Fall 2022 National Meeting ENFL Division. August 2022
57. *Gerdes, R.F.,* J.M. Regenstein, J.L. Goldfarb, S.W. Manning. "Implementing Archaeological Lipid Residue Analysis in a New Laboratory Setting: Analytical Lessons and Challenges." Middle Atlantic Regional Meeting of the American Chemical Society (MARM) June 2022
56. Karod, M., *S. Rubin**, J.L. Goldfarb. "Cascaded Thermochemical Processing of Wet and Dry Agricultural Biomass Waste for Upgraded Fuels and Solid Products". MARM June 2022
55. Ischia, G., H. Sudibyo, A. Miotello, J. Tester, L. Fiori, *J.L. Goldfarb*. "From hydrothermal carbonization to liquefaction: The chemistry and kinetics along the hydrothermal biomass reaction spectrum." ACS Spring 2022 National Meeting ENFL Division. March 2022
54. *Z. Pollard,* J.L. Goldfarb. "Immobilized ZnO-SiO_2-Ag Nanocomposite for the Degradation of Emerging Contaminants." ACS Spring 2022 National Meeting ENVR Division. March 2022
53. *P. Motiei,* M. Ahmad, J.L. Goldfarb, J. O'Connor. "Ignition and Combustion of Microcrystalline Cellulose in a Hencken Burner." Eastern States Section of the Combustion Institute. March 2022
52. *M. Karod,* J.L. Goldfarb. "Extracting value-added compounds and improving water treatment capabilities of hydrochar through secondary char separation." ACS Fall 2021 National Meeting ENVR Division. Aug. 2021
51. *K. Wang,* H. Sudibyo, A. Hubble, Z. Pollard, J.L. Goldfarb, J.W. Tester. "Hydrothermal co-liquefaction of poultry litter and sewage sludge digestate." ACS Green Chemistry & Engineering Conference. June 2021
50. *A. Maag*, J.L. Goldfarb. "Enhancing Remote Learning During the COVID-19 Pandemic via Blended Asynchronous Content Reinforced with Synchronous Active Learning Strategies" ACS Green Chemistry & Engineering Conference. June 2021
49. *A. Maag,* M. Pecchi, M. Baratieri, D.L. Kriner, J.L. Goldfarb. "Meta-analysis on hydrothermal carbonization: Influence of process conditions on product yields and composition" ACS Spring 2021 National Meeting ENVR Division. April 2021

48. *M. Pecchi,* A. Maag, M. Baratieri, J.L. Goldfarb. "Hydrothermal Carbonization and Liquefaction of Food Waste: The Role of Secondary Char." ACS Spring 2021 National Meeting ENFL Division. April 2021
47. *A.H. Hubble* and J.L. Goldfarb. "Enhancing pyrolysis gas and bio-oil formation through transition metal catalysts." ACS Spring 2021 National Meeting ENFL Division. April 2021
46. *Z. Pollard* and J.L. Goldfarb. "Activated Agro-Industrial Waste Biochars for Heavy Metal Remediation and Nutrient Management." MRS Spring Annual Meeting. April 2021
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 Speaker*
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 Fall 2019 National Meeting ENFL Division. 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 Fall 2019 National Meeting ENVR Division. 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 Fall 2019 National Meeting ENVR Division. 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 Spring 2019 National Meeting ENVR Division. Apr. 2019. *Invited Speaker*
35. *Kriner, D*. and J.L. Goldfarb. "Bridging Science and Policy: Raising Public Support for Renewable Energy by Increasing Public Understanding." ACS Spring 2019 National Meeting ENVR Division. Apr. 2019
34. Ha, Q., A. Roshandelpoor, P. Vakili, J.L. Goldfarb, *E. Ryan*. "Computational design and optimization of porous heterogeneous hierarchical materials." ACS Fall 2018 National Meeting ENVR Division. 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 Fall 2018 National Meeting ENVR Division. 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 Fall 2018 National Meeting ENVR Division. 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 Fall 2018 National Meeting ENVR Division. Aug. 2018

30. *Kriner, D.* and J.L. Goldfarb. "Activating Public Support for Science: Educating Citizens for Science." ACS Fall 2018 National Meeting ENVR Division. 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 Fall 2018 National Meeting ENVR Division. Aug. 2018
28. *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 Spring 2018 National Meeting ENVR Division. Mar. 2018
27. *Berger. M.,* R. Gurney, L. Lobel, J.L. Goldfarb. "Integration of Environmental Research into the Teaching Laboratory." ACS Fall 2017 National Meeting Chemical Education Division. 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 Spring 2017 National Meeting ENVR Division. 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 Fall 2016 National Meeting ENVR Division Aug. 2016
21. *Suleimenov, A.,* and J.L. Goldfarb. "Demineralization Pathways for Oil Shale Semicoke Byproduct Conversion to a Sorbent Material." ACS Fall 2016 National Meeting ENFL Division 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 Spring 2016 National Meeting ENVR Division 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 Fall 2015 National Meeting ENFL Division. 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 Fall 2015 National Meeting ENFL Division. 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 Fall 2014 National Meeting ENVR Division. 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 Fall 2014 National Meeting ENVR Division. Aug 2014
14. *Hintz, C.* and J.L. Goldfarb "Fabrication of Bio-based Activated Carbons for Removal of Aqueous Pharmaceuticals." ACS Spring 2014 National Meeting ENVR Division. Aug 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 Spring 2013 National Meeting ENVR Division 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 Spring 2013 National Meeting ENFL Division April 2013
11. *Buessing, L.* and J.L. Goldfarb. "Energy Along I-95: Pyrolysis Kinetics of Floridian Cabbage Palm." ACS Spring 2012 National Meeting 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 Spring 2012 National Meeting 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 Fall 2012 National Meeting ENVR Division. Aug. 2010
8. *Goldfarb, J.L.*, I. Külaots and E.M. Suuberg. "Characterization, Kinetics and Potential Utilization of Oil Shale Semicoke." ACS Fall 2009 National Meeting 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 Spring 2009 National Meeting FUEL Division. Mar. 2009
4. *Goldfarb, J.L.* and E.M. Suuberg. "Investigation of the Thermodynamic Ideality of Mixtures of Polycyclic Aromatic Hydrocarbons." ACS Spring 2008 National Meeting 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 Fall 2007 National Meeting ENVR Division. 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 Fall 2007 National Meeting 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 Spring 2007 National Meeting FUEL Division. Mar. 2007

POSTER PRESENTATIONS AND NON-REFEREED CONFERENCE PRESENTATIONS

46. *Pecchi, M.,* N. Kassem, A. Maag, M. Baratieri, J.W. Tester, J.L. Goldfarb. 4th International Conference on Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability. May 2023
45. *Goldfarb, J.L.* National Academies US-Africa Frontiers of Science Symposium. October 2022
44. *Iswardi, A.H.,* A.H. Hubble, J.L. Goldfarb. ACS ENFL. August 2022
43. *Adair, J.**,* M. Karod, J.L. Goldfarb. ACS ENFL. August 2022
42. *Pollard, Z.,* A. Roshandelpoor, P. Vakili, E.M. Ryan, J.L. Goldfarb. ACS POLY. August 2022
41. *Kassem, N.*, M. Pecchi, A. Maag, M. Baratieri, J.W. Tester, J.L. Goldfarb. ACS ENVR. March 2022
40. *Kassem, N.*, M. Pecchi, A. Maag, M. Baratieri, J.L. Goldfarb. ACS GC&E. June 2021
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 ***11/2023 – 6/2025***
Cornell Center for Social Sciences *Total Award: $8,000*
"AI, Rulemaking, and Threats to Scientific Policy"

Principal Investigator ***6/2023 – 7/2024***
National Science Foundation CBET *Total Award: $54,772*
"INTERN: Role of Secondary Char on Pyrolysis Behavior of Hydrocar" Supplement to "Collaborative Research: Combustion Behavior of Hydrochars from Wet Biomass" (Co-PI: Jacqueline O'Connor, Penn State University Mechanical Engineering)

Principal Investigator ***6/2023 – 5/2025***
Cornell Atkinson Center Academic Venture Fund *Total Award: $149,931*
"Advancing Equitable Integrated Biorefineries for Sustainable Food and Fuel Systems" (Co-PIs: Jefferson Tester, Cornell Chemical Engineering; Douglas Kriner, Cornell Government)

Principal Investigator ***5/2023 – 5/2025***
National Science Foundation Engines Program *Total Award: $1,000,000*
"NSF Engines Development Award: Building a climate-smart bioeconomy in upstate New York (NY)" (Co-PIs: Hadaz Kress-Gazit, Cornell Mechanical Engineering; Yiqi Luo, Cornell Soil Science; Tom Schryver, Cornell Johnson School; Tristan Brown, SUNY College of Environmental Science & Forestry)

Principal Investigator ***9/2022 – 9/2023***
Cornell MRI Facility Pilot Award *Total Award: $19,500*
"Engineering Environmentally Benign Biomass-Based Soil Amendments via MRI"

Principal Investigator ***6/2022 – 5/2026***
National Science Foundation CBET *Total Award: $554,939*
"CAREER: Manipulating Polarity to Enhance Hydrothermal Liquefaction of Biomass for Biofuels"

Principal Investigator ***5/2021 – 9/2021***
Born Global *Total Award: $9,000*
"Evaluation of Born Global Biochars for Use as Soil Amendments"

Principal Investigator ***9/2020 – 8/2024***
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 – 5/2024***
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 – 12/2021***
National Science Foundation CMMI *Total Award: $70,000; Co-PI Share: $48,500*
"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 – 09/2022***
Koppers International *Total Award: $53,066*
"Upcycling Residual Wood"

Co-Principal Investigator ***01/2020 – 09/2024***
New York State Energy Research and Development Authority *Total Award: $1,000,000*
"On-Farm Pyrolysis of Waste Biomass to Advance Agricultural Energy Technologies, Phase I & II"
(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 – 10/2023***
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 – 12/2021***
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" (Declined upon move to Cornell)

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 AND BOARD MEMBERSHIP

American Chemical Society (ACS) Division of Environmental Chemistry

Chair, Membership Committee (August 2023 – Present)
Redesign services, award eligibility and benefits for Division members

Councilor (January 2023 – Present)
Elected by Division Members to serve on ACS Governing Council (2022)
Participated in ENVR Strategic Planning (2023)

Alternate Councilor (January 2018 – December 2022)
Elected by Division Members to Executive Committee (2017, 2019)
Assumed Councilor Role for Spring 2018, Spring 2019 National Meetings

Fall National Meeting Program Chair (August 2016 – 2020)
Responsible for Annual Fall National Meeting Division Programming (>500 papers, 30 symposia per meeting); Co-chair of Division Programming Committee

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

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; Organized and hosted inaugural EnvrWISE (Women in Science & Engineering) Symposium

American Chemical Society (ACS)
***Fall 2022 National Meeting Theme Organizer*, "Sustainability in a Changing World"**
Served as lead organizer for National Meeting, (October 2019 – August 2022)
Responsible for coordinating thematic elements including technical programming, public outreach, publicity, meeting-wide sustainability, industrial partnerships

ACS Green Chemistry Institute
Co-Chair, 2021 Green Chemistry & Engineering Conference (August 2020 – June 2021)
Coordinated theme "Sustainable Production to Advance the Circular Economy"
Set overall tone of conference including developing symposia, recruiting organizers, identifying keynote speakers, designing accompanying events

ACS Committee on Environment & Sustainability (formerly Environmental Improvement, CEI)
Member (January 2019 – Present)
Appointed by ACS President and Board of Directors (2019, reappointed 2023)
Executive Policy Committee Member (January 2021 – Present)
Assist in developing policy teams, highlighting ACS policy roles, horizon scanning
Policy Statement Team Member (April – September 2022)
Member of team to redraft ACS Chemical Risk Assessment and Regulatory Decision-Making Policy Statement
Policy Statement Lead (May 2019 – August 2020)
Lead team to redraft ACS Sustainability and the Chemical Enterprise Policy Statement
Technical Programming Coordinator for Fall 2019 National Meeting (2018 –2019)
Coordinated Technical Programming "Chemistry of Water" National Meeting Theme
Associate Appointed by ACS President and Board of Directors (January 2018 – 2019)

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)

University of Miami School of Architecture M.S. Program Advisory Board
Member (August 2023 – Present)

PROFESSIONAL SERVICE ACTIVITIES: PUBLICATION & PEER-REVIEWING ACTIVITIES

Principal Editor
Fuel, Elsevier (January 2022 – October 2023)

Associate Principal Editor
Fuel, Elsevier (January – December 2021)

Editorial Board Member
Bioresource Technology (2022 – 2023)
Journal of Supercritical Fluids, Elsevier (2020 – 2023)
Bioresource Technology Reports, Elsevier (2018 – 2023)

Special Issue Guest Editor
Energies: Thermofluid Biomass Conversions (with L. Fiori, 2018)
Resource Efficient Technologies: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
Biomass Conversion and Biorefinery
Bioresource Technology
Bioresource Technology Letters
Chemical Engineering Journal
Chemical Papers
Chemosphere
Energies
Energy
Energy & Environmental Science
Energy & Fuels
Energy Conversion & Management
Energy Policy
Environmental Geochemistry and Health
Environmental Science & Technology
Environmental Toxicology & Chemistry
Fluid Phase Equilibria
Fuel
Fuel Processing Technology
Green Chemistry
Industrial & Engineering Chemistry Research
Industrial Crops & Products
Journal of the Air and Waste Management Association
Journal of Applied & Analytical Pyrolysis
Journal of Chemical & Engineering Data
Journal of Chemical Thermodynamics
Journal of Cleaner Production
Journal of Environmental Management
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
Renewable Energy
Resources, Conservation and Recycling
RSC Advances
Science of the Total Environment
Thermochimica Acta
Waste Management

Reviewer for Funding Agencies - *Domestic*
American Chemical Society Petroleum Research Fund National Energy Technology Laboratory
University Coalition for Fossil Energy Research
National Science Foundation: Chemical, Bioengineering, Environmental and Transport Systems
National Science Foundation: Civil, Mechanical and Manufacturing Innovation
U.S. Environmental Protection Agency Green Chemistry Challenge Awards
U.S. Department of Energy: Basic Energy Sciences
U.S. Department of Energy: Graduate Research Fellowships

Reviewer for Funding Agencies - *International*
Canada Foundation for Innovation: John. R. Evans Leaders Fund
Mistra Bioeconomy, The Swedish Foundation for Strategic Environmental Research
U.S.-Egypt Science & Technology Joint Fund, National Academy of Sciences, Engineering and Medicine

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

External Thesis Examiner
Ben Gurion University, Beersheba, Israel
National Institute of Technology, Tiruchiarappalli, India
S V National Institute of Technology, Gujarat, India

PROFESSIONAL SERVICE ACTIVITIES: SYMPOSIUM & WORKSHOP ORGANIZATION & REVIEWING

National Conference Symposia Organized

Co-Chair (with T. Brown, D. Kriner, J. Suarez, J. Smith): Critical Innovations in Science, Education and Workforce Development to Galvanize a Sustainable Climate Smart Bioeconomy, ACS Fall Meeting 2024

Co-Chair (with F. Lopez-Linares, J. Nelson, E. Rogel): Advanced Analytical Tools for Energy Transition Initiatives: Challenges and Opportunities, ACS Fall Meeting 2023

Co-Chair (with E. Brush, J. Wissinger, G. Cobb, K. Aubrecht, A. Orlov): National Meeting Opening Keynote Session: Chemistry's Solutions to Sustainable Development, ACS Fall Meeting 2022

Co-Chair (with E. Brush, J. Wissinger): Environmental Justice: Achieving Global Equity through Green and Sustainable Chemistry, ACS Fall Meeting 2022

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

Chair: Division of Environmental Chemistry Poster Session, ACS Fall 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

International Conference on Wider-Uptake of Water Resource Recovery from Wastewater Treatment (ICWRR2024), June 18-21, 2024
Member of Scientific Committee

4th International Conference on Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability, May 14-17, 2023
Technical Program Reviewer
Session Chair on Bioproducts Recovery
Poster Session Award Committee

Frontiers in ArchSci 3: Rethinking the Paradigm, October 7-9, 2022
Academic Review Committee

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

2024 MIT Regional Entrepreneurship Acceleration Program Ecosystem Training II, Virtual
2023 MIT Regional Entrepreneurship Acceleration Program Ecosystem Training I, Virtual
2023 Publishing Ethics Workshop, Elsevier, Virtual
2022 Women Who Lead: Negotiating with Power Workshop, Cornell University, Ithaca, NY
2019 ABET Advanced Program Assessment Workshop, Dallas, TX
2019 It Depends on the Lens: Workshop for Faculty on Search Committees, Cornell, Ithaca, NY
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

PRIOR ACADEMIC APPOINTMENTS

Vin University, College of Engineering and Computers Science, Việt Nam
Engineering Accreditation Consultant February 2021 – July 2022

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 Asst. Prof. 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; Introduction to 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

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

Simmons College, Department of Chemistry, Boston, MA
Research Asst. Prof. September 2009 – August 2010
Lecturer Fall 2008; Fall 2009 – Spring 2010
Courses: General Chemistry Lab; Physical Chemistry Lab; Quantitative Analysis Lab

COURTESY APPOINTMENTS

Sapienza Università di Roma, Department of Civil, Structural and Environmental Engineering, Italy
Visiting Researcher (January – July 2023)

Università di Trento, Department of Civil, Environmental and Mechanical Engineering, Trento, Italy
Visiting Associate Professor of Excellence (February – May 2022)
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)

TECHNICAL AND ACADEMIC SOCIETIES

American Chemical Society
Fellow, American Chemical Society (Inducted 2023)
Member, American Chemical Society, 2007 – present
Member, Energy & Fuels Division, 2007 – present
Member, Division of Environmental Chemistry, 2007 – present
Member, ACS Cornell Local Section, 2018 – present
Member, ACS 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)

UNIVERSITY SERVICE

Cornell University (2018 –)
Co-Chair, College of Engineering Teaching Evaluation Redesign Committee (Sept 2023 – Present)
Cornell University Academic Freedom and Professional Status of the Faculty Committee Member (July 2023 – Present)
Cornell University Educational Policy Committee Member (July 2023 – Present)
College of Engineering Academic Integrity Hearing Board (July 2023 – Present)
College of Engineering Teaching Award Selection Committee Member (July 2023 – Present)
Director of Undergraduate Studies, Biological & Environmental Engineering (BEE) (August – Dec 2022)
Chair, BEE Committee on Academic Programs (August– Dec 2022); Member (2021 – 2022)
College of Agriculture and Life Sciences (CALS) Curriculum Committee Member (August – Dec 2022)
College of Engineering Curriculum Governing Board (CCGB) Member (August – Dec 2022)
Chair, BEE Cohort Faculty Hire in Inclusive Excellence Search Committee (2021 – 2022)
CALS Cohort Faculty Hire in Inclusive Excellence Search Committee Member (2021 – 2022)
Associate Director of Undergraduate Studies of BEE (June 2021 – June 2022)

Cornell University Cross-College Climate Highway Taskforce Member (2021)
BEE Covid-19 Lab Re-Activation Committee (2020 – 2021)
Lead, College of Engineering ABET Assessment Reform (2019 – Present)
Co-Chair College of Engineering Educational Assessment Committee (2019 – Present)
Facilitator, College of Engineering ABET Retreat: Developing Performance Indicators (2019)
BEE Engineering ABET Assessment Chair (2019 – 2022)
Cornell University Environmental Protection Agency (EPA) AgSTAR Coordinator (2019 – Present)
Environmental Engineering Undergraduate Program Committee Member (2019 – Present)
Institute of Politics and Global Affairs Fellow and Science-Policy Events Coordinator (2019 – Present)
BEE Undergraduate Academic Advisor (2019 – Present)
Cornell University Big Red Teaching Days Open Course Participant (Fall 2019, Fall 2022)
BEE Faculty Search Committee Member (2018 – 2019)
Guest Lecturer (Cornell):
- 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*
- BEE/ENGRI 1337: Intro. to Biological Engineering, "Biomass to Biofuels and Bio-Materials " *2020*
- CHEME 6661: Bioenergy and Biofuels, "Waste Valorization via Hydrothermal Carbonization" *2020*

Guest Lecturer (External University Courses)
- Boston University, EEK 225: Introduction to Energy Conversion and Environmental Engineering, "Environmental Engineering's Role in a Sustainable Future" *2020, 2021, 2022, 2023*
- Penn State, ME 530: Fundamentals of Combustion, "Future Role of Biofuels" *2020, 2021*
- Baylor University, ENV431C1: Environmental Capstone "Adsorption as a Critical Environmental Process" *2020*

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 (Boston University Courses and Programs):
- 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 and Visiting Scholars

8. Matteo Pecchi, Ph.D. in Energy Engineering (Postdoctoral Fellow: Nov. 2022 – Present)
   Post-Doctoral Scholar on NSF-funded projects on Pyrolysis & Hydrothermal Processing

7. Zul Ilham bin Zulkiflee Lubes, Ph.D. in Energy Science, Associate Professor of Environmental Science and Management, University of Malaysia (Visiting Scholar: Aug – Nov 2022)
   Fulbright Fellow studying Biomass Pretreatment and Biocrude Separation Techniques

6. Alex Maag♦, Ph.D. in Chemical Engineering (Postdoctoral Fellow: July 2019 – 2021)
   Cornell Active Learning Initiative Post-Doctoral Fellow, 50% teaching, 50% research

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)

30. Paola Giammattei, Ph.D. in Chemical & Biomolecular Engineering (Expected 2027)
    Thesis: *Integrating biological and thermochemical processes for local waste management*

29. Sriram Srinivasan, M.Eng. in Systems Engineering (Expected 2024)
Project: *Using LCA-TEA Modeling to Demonstrate Feasibility of Energy Recovery from Wet and Dry Wastes via Hydrothermal Processing, Combustion and Sustainable Aviation Fuels*

28. Demola Ogunnaike, M.S. in Civil & Environmental Engineering (Expected 2024)
Thesis: *Incorporating Laboratory Data, Spatio-Temporal Feedstock Availability and Public Willingness to Pay into an LCA-TEA Model for the Northeast Region*

27. James Adair, Ph.D. in Biological & Environmental Engineering (Expected 2026)
Thesis: *Conversion of Biomass to Fuels and Nanomaterials via Integrated Thermochemical and Biological Techniques*

26. San Lin Htun, Ph.D. in Biological & Environmental Engineering (Expected 2026)
Thesis: *Leveraging Thermodynamic Properties to Control Hydrothermal Liquefaction*

25. Madeline Karod, Ph.D. in Biological & Environmental Engineering (Expected 2024)
Thesis: *Mitigating Environmental Impacts of Agriculture and Food Production via Thermochemical Processing*
Award: *2022-2023 Ciba Travel Award in Green Chemistry to Present at the 27th Annual ACS Green Chemistry & Engineering (GC&E) Conference*
Award: *2023 ACS Summer School on Green Chemistry & Sustainable Energy Scholar*

24. Aditya Hutama Iswardi, M.Eng. in Biological & Environmental Engineering (May 2023)
Project: *Impact of Upscaling on Pyrolysis Biochar Yield and Characteristics*

23. Zoe Pollard, Ph.D. in Biological & Environmental Engineering (Dec 2022)
Thesis: *Porous Heterogeneous Hierarchical Materials for Environmental Applications*
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*

22. Andrew Hubble, Ph.D. in Biological & Environmental Engineering (May 2022)
Thesis: *Catalytic Upgrading of Pyrolysis Biofuels*
Award*: 2019 ACS Summer School on Green Chemistry & Sustainable Energy Scholar*

21. Nazih Kassem, Ph.D. in Biological & Environmental Engineering (May 2022)
Co-supervised with Jeff Tester, Chemical Engineering
Thesis: *Integration of Renewable Energy Processes via Experimentally Informed Computational Process Modeling*

20. Giulia Ischia, Ph.D. in BioEnergy Engineering from Universita degli Studi di Trento [jointly supervised] (May 2022)
Thesis: *Integrated Processes for Biomass to Biofuel Conversions*
Award: *2021 Fulbright Scholar (for study at Cornell University)*

19. Bridget Childs, M.Eng. in Environmental Engineering (Dec. 2021)
Project: *In situ upgrading of pyrolysis bio-oils from cherry pits via transition metal catalysts*

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

17. Liyang Ma♦, Ph.D. in Safety Science and Engineering from China University of Mining and Technology [jointly supervised] (May 2020)
Thesis: *Low Temperature Ionic Liquid Pretreatment of Biomass for Pyrolysis*

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

15. 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*

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 and 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 Conversion of MSW to Renewable Energy and Activated Carbons*

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)

38. Aaron Gordon-Vera, B.S. in Chemical & Biomolecular Engineering (Expected May 2027)
    Research Assistant: Partitioning of Phytotoxic Organics between Hydrochar and Soil

37. Lauren Servia, B.S. in Environmental Engineering (Expected May 2025)
    Research Assistant: Hydrothermal Processing for Sustainable Agriculture and Food Systems

36. Elizabeth Bunker, B.S. in Environmental Engineering (Expected May 2024)
    Research Assistant: Separation of Hydrothermal Liquefaction Process Water with Biochars

35. Son-Jay Vic Tyler Lake, B.S. in Environmental Engineering (Expected May 2024)
    Research Assistant: Analysis of Process Water and Secondary Char from Hydrochars

34. Stephan Wagner, B.S. in Environmental Engineering (Expected May 2024)
    Research Assistant: Partitioning of Secondary Char and Implications for the Use of Hydrochar as a Soil Amendment

33. Nathan Follett, B.S. in Environmental Engineering (May 2023)
    Research Assistant: Photocatalytic degradation of water contaminants through sustainable heterogeneous hierarchical materials

32. Samantha (Sam) Rubin, B.S. in Environmental Engineering (May 2023)
    Research Assistant: Integrated Thermochemical Processes for Agricultural Waste Management
    Co-author of manuscript in progress
    Presented paper at Spring 2022 Middle Atlantic Regional Meeting of the ACS
    Presented paper at Fall 2022 ACS National Meeting
    Independent Research Project: Recycling HTC Process Water to Improve Biomass Valorization
    Received Spring 2022 ELI Undergraduate Research Award

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

30. Luke Myer, B.S. in Engineering Physics (May 2022)
IOPGA Summer Research Fellow: Mediating Factors for Public Support for Biofuels
Co-author of manuscript in progress

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 of published manuscript, Co-author of published manuscript

(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 (Cover Article)

(Boston University; 2013 – 2017)

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

22. 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*

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 (2016) June – Aug. 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 (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/received 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