

John D. Atkinson

Associate Professor

Director of Graduate Studies: Environ and Water Resources Eng, Engineering Sustainability

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My educational efforts are driven by a desire to more sustainably produce and consume, achieved through overlapping research paths. First, I develop adsorbent production methods that rely on low-impact techniques and/or waste-based precursors. Prepared materials are applied for pollution control, transforming environmental waste into pollution prevention products. This materials work spawned a second research theme: municipal solid waste minimization. The US waste management industry is reactive, demanding sustainability modeling to predict trends. To that end, my work quantifies the implications of waste management decisions. All told, my contributions, to date, have impact within the fields of environmental engineering, sustainability, waste management, adsorption, and materials science/engineering.

EDUCATION

University of Illinois at Urbana-Champaign (UIUC), 2003 – 2013

Ph.D. in Environmental Engineering in Civil Engineering (CEE), May 2013

Advisor: Dr. Mark J. Rood

Certificate in Energy and Sustainability Engineering

Certificate in Foundations of Teaching

M.S. in Environmental Engineering in Civil Engineering, May 2009

Co-Advisors: Dr. Mark J. Rood and Dr. Massoud Rostam-Abadi

B.S. in Chemistry, *cum laude*, May 2007

American Chemical Society (ACS) Certified Degree

Minor in Mathematics, May 2007

WORK & RESEARCH EXPERIENCE

1. Associate Professor, University at Buffalo (UB), CSEE, Sept 2020 – Present
2. Assistant Professor, University at Buffalo (UB), CSEE, Aug 2014 – Aug 2020
3. Post-Doctoral Research Fellow, University of Alberta (Canada), CEE, 2013 – 2014
4. Post-Doctoral Researcher, UIUC, CEE, Summer 2013
5. Graduate Research and Teaching Assistant and Fellow, UIUC, CEE, 2007 – 2013
6. Research Assistant, Illinois State Geological Survey, 2006
7. Undergraduate Research and Teaching Assistant, UIUC, Chemistry, 2005 – 2006

HONORS & AWARDS

Awards:

- Life Raft Award Winner, Engineering Sustainability, UB Honor's College Annual Faculty Competition (2021)
- Best Young Professional Paper in "Sustainability, Climate Change, Resource Conservation, and Waste Management," Air & Waste Management Meeting (2019)
- UB Experiential Learning Network Faculty Fellow (2018-2019)
- UB School of Engineering and Applied Science Early Career Teacher of the Year (2017)
- Best Paper in "Adsorbent Materials" Session at AIChE Annual Meeting (2017)
- Outstanding Director – Air & Waste Management Association, Niagara Frontier Section (2016-2017)
- Best Undergraduate Mentor – UB LSAMP Program's "Mister Miyagi Award" (2015)
- Association of Environmental Engineering and Science Professors – National Science Foundation CAREER Workshop Travel Award (2015)
- Air & Waste Management Association Ph.D. Dissertation Award – 2nd Place (2014)
- UIUC List of Teachers Ranked as Excellent by their Students (2010, CEE 446)
- American Carbon Society Mrozowski Oral Presentation Award – Finalist (2010)
- Air & Waste Management Association M.S. Thesis Award – 1st Place (2010)
- Air & Waste Management Association Poster Presentation Award – 1st Place (2009)
- UIUC Environmental Engineering Esmilla Scientific Writing Award – 1st Place (2008)
- UIUC Arthur R. Matheson Undergraduate Excellence in Chemistry Award (2006)

Fellowships and Scholarships:

- University of Illinois Environmental Engineering Engelbrecht Fellowship (2012)
- University of Illinois College of Engineering Mavis Future Faculty Fellowship (2011)
- Air & Waste Management Association Air Quality Research Fellowship (2008)
- Pfizer Corporation Outstanding Young Researcher Scholarship (2006)

GRANTS AND FUNDING PROPOSALS

1. Atkinson, J.D. (PI) and Shelly, M. (Co-PI), Xcel Energy Inc., "Equivalent Greenhouse Gas Emissions from Three Waste to Energy Facilities in Minnesota, Compared to Landfilling," Amount Requested: \$78,500. *Pending; In Review.*
2. Yang, Y.E., Atkinson, J.D. (Co-PI), Hoellein, T., Li, H., Marsh, J.K., et al. National Science Foundation, "Focused CoPe: A Comprehensive Evaluation of Plastic Pollution Impacts on the Great Lakes' Coastlines," Amount Requested: \$4,887,378. *Pending; In Review.*
3. Alexandridis, P., Atkinson, J.D. (Co-PI), Tsianou, M., Shelly, M., et al. REMADE Institute, "Delamination as a Key Enabler for the Recycling of Polymer-Based Multilayer Packaging," Amount Approved: \$500,000 + \$500,000 Cost Share. Fall 2021 start, pending final approval.

4. Goyal, A., Atkinson, J.D. (Co-PI), Vedantam, A., Shelly, M., and Li, X. New York State Department of Environmental Conservation, "Tire Recycling Market Proposal," Amount Funded: \$249,000. Ongoing.
5. Goyal, A., Atkinson, J.D. (Co-PI), Alexandridis, P., Vedantam, A., and Shelly, M. New York State Department of Environmental Conservation, "Plastics Recycling Market Proposal," Amount Funded: \$745,000. Ongoing.
6. Alexandridis, P., et al., Atkinson, J.D. (Senior Personnel). National Science Foundation – EFRI, "EFRI E3P: Valorization of Plastic Waste via Advanced Separation and Processing," Amount Funded: \$1,999,998. Ongoing.
7. Atkinson, J.D. (PI), Trabold, T., et al. New York State Pollution Prevention Institute, "Biochar Production from Mixed Food and Coffee Waste as a Composting Alternative," Amount Funded: \$40,000. Ongoing.
8. Atkinson, J.D. (PI) and Rabideau, A.J. National Science Foundation – EEC, "REU Site: Environmental Engineering Solutions for Pollution Prevention," Amount Funded: \$359,825, Ongoing.
9. Pfeifer, B.A., Atkinson, J.D. (Co-PI), and Dupuis, M. UB Blue Sky Initiative Seed Funding, "Analysis of a Unique Metal Separation Process," Amount Funded: \$45,000 in Direct Costs. Completed.
10. Atkinson, J.D. (PI), Sassoubre, L., and Dai, N. Water Research Foundation, "Identification of Optimal Water Quality Management Practices for Golf Courses," Amount Funded: \$40,000 + \$17,789 Cost-Share. Completed.
11. Atkinson, J.D. (PI) New York State Pollution Prevention Institute, "Development of Carbon Evaluation Tool to Prevent Excess Production Carbon Waste," Amount Funded: \$25,874. Completed.
12. Atkinson, J.D. (PI) and Shelly, M. Covanta, Inc., "Proposal to Conduct a Life-Cycle, Full Cost Comparison of Covanta's Niagara Falls Waste-to-Energy Facility and Landfilling," Amount Funded: \$99,996. Completed.
13. Atkinson, J.D. (Co-PI), Bagchi-Sen, S., Hewner, S., McLean, E., Ravenscroft, J., and Schindel, A. UB Community for Global Health Equity, "Multi-Scalar Analysis of Household Fuel Transitions: Developing an Evidence-Based Framework," Amount Funded: \$50,000 in Direct Costs. Completed.
14. Sassoubre, L., Atkinson, J.D., and Dai, N. New York State Pollution Prevention Institute Direct Assistance Program, "Implementation of Recovery System for Equipment Cleaning Washwater," Amount Funded: \$15,078. Completed.
15. Dai, N., Sassoubre, L., Atkinson, J.D. (Co-PI), and Pfeifer, B.A. New York State Pollution Prevention Institute, "Innovative Applications of Peracetic Acid for Wastewater Recycling," Amount Funded \$299,858 + \$300,386 of Cost-Share. Completed.
16. Atkinson, J.D. (PI) and Rabideau, A.J. National Science Foundation – EEC, "REU Site: Environmental Engineering Solutions for Pollution Prevention," Amount Funded \$300,138. Completed.
 Atkinson, J.D. (PI) and Rabideau, A.J. Research Experiences for Teachers Supplement, Amount Funded \$20,000 (Supplement to #1559989). Completed.

Atkinson, J.D. (PI) and Rabideau, A.J. National Science Foundation – EEC, No Cost Extension. Completed.

17. Atkinson, J.D. (PI) New York State Pollution Prevention Institute, “Improved Solvent Recovery and Carbon Adsorption Life,” Amount Funded \$2,195. Completed.

Atkinson, J.D. (PI, 100%) Extension Funded Additional \$2,941. Completed.

18. Atkinson, J.D. and Rood, M.J. National Science Foundation Doctoral Dissertation Enhancement Proposal (DDEP), request for funds to travel to complete collaborative dissertation research in Taipei, Taiwan, Amount Funded \$11,231. Completed.

Pipe Scale Materials Characterization Testing:

Provide metal testing services for companies/agencies throughout the United States interested in physiochemical characterization of pipe scales accumulated in drinking water service lines:

Clients to Date: Buffalo Sewer Authority, NYC Department of Environmental Protection, Hazen & Sawyer

Funding Received to Date: \$4,500

Funding Pending: \$2,000

Other Successful Funding Endeavors:

19. Atkinson, J.D. University at Buffalo International Education Office – Travel Support for Sustainability-Themed Study Abroad Scouting Trip to Iceland, Amount Funded: \$2,500.

20. Atkinson, J.D. University at Buffalo Community for Global Health Equity and Dept of Civil, Structural, and Environmental Engineering – Travel Support for Collaborative Sustainability Research/Education Trip in India, Amount Funded: \$5,000.

21. Atkinson, J.D. UB Experiential Learning Network Faculty Fellow, “Using the #365challenge to Improve Sustainability Education,” Amount Funded: \$5,000.

22. Atkinson, J.D. University at Buffalo Office of International Education Travel Support for Sustainability Study Abroad Incubator in Costa Rica, Amount Funded: \$3,000.

23. Atkinson, J.D. (PI) EvaluateUR *Phase 1* Pilot for SUNY Buffalo State NSF WIDER Project Using PI’s On Going NSF EESPP-REU Site. Amount Funded \$7,350.

24. Ghafari, M., Sabbaghi, M., and Atkinson, J.D. New York State Pollution Prevention Institute Annual Student Sustainability Competition, “Catalytic NO Oxidation with Liquid Absorption Using Polymeric Catalysts: Sustainable and Cost-Effective NO_x Control,” Amount Funded: \$1,250.

RESEARCH PRODUCTS

Paper Summary:

39 Accepted; 1 Submitted & In Review; 1 In Progress (to Submit in < 3 months)

Google Scholar Metrics (as of May 5, 2021): 899 citations; h-index = 19; i10-index = 26

Accepted Peer Reviewed Publications:

(Advised UB Graduate Students are listed in **bold**)

(Atkinson, J.D. is underlined when listed as that paper's corresponding author)

1. Hsu, C.J., Cheng, Y.H., Huang, Y.P., Atkinson, J.D., and Hsi, H.C. (2021) A Novel Synthesis of Sulfurized Magnetic Biochar for Aqueous Hg(II) Capture as a Potential Method for Environmental Remediation in Water. *Science of the Total Environment*; 784:147240 (Impact Factor = 6.551, Citations = 0).
2. Kirtane, A., Atkinson, J.D., and Sassoubre, L. (2020) Design and Validation of Passive Environmental DNA Samplers Using Granular Activated Carbon and Montmorillonite Clay. *Environmental Science & Technology*; 54(19):11961-11970 (Impact Factor = 7.864, Citations = 2).
3. Niknaddaf, S., Atkinson, J.D., Gholidoust, A., Fayaz, M., Awad, R., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2020) Influence of Purge Gas Flow and Heating Rates on Volatile Organic Compound Decomposition during Regeneration of an Activated Carbon Fiber Cloth. *Industrial & Engineering Chemistry Research*; 59(8):3521-3530 (Impact Factor = 3.573, Citations = 3).
4. McLean, E.V., Bagchi-Sen, S., Atkinson, J.D. and Schindel, A. (2019) Household Dependence on Solid Cooking Fuels in Peru: An Analysis of Environmental and Socioeconomic Conditions. *Global Environmental Change*; 58:101961 (Impact Factor = 10.466, Citations = 2).
5. **Cui, Y.** and Atkinson, J.D. (2019) Glycerol-Derived Magnetic Mesoporous Fe/Cs for Cr(VI) Removal, Prepared via Acid-Assisted One-Pot Pyrolysis. *Chemosphere*; 228:694-701 (Impact Factor = 5.778, Citations = 10).
6. **Cui, Y.**, Masud, A., Aich, N., and Atkinson, J.D. (2019) Phenol and Cr(VI) Removal Using Materials Derived from Harmful Algal Bloom Biomass: Characterization and Performance Assessment for a Biosorbent, Porous Carbon, and Fe/C Composites. *Journal of Hazardous Materials*; 368:477-486 (Impact Factor = 9.038, Citations = 29).
7. **Ghafari, M.**, **Ghamkar, R.**, and Atkinson, J.D. (2019) Assessing NO Oxidation Activity as a Function of Temperature and Moisture Concentration Using Tailored Porous Polymers. *Fuel*; 241:564-570 (Impact Factor = 5.578, Citations = 2).
8. **Cui, Y.**, **He, H.**, and Atkinson, J.D. (2018) Iron/Carbon Composites for Cr(VI) Removal Prepared from Harmful Algal Bloom Biomass via Metal Bioaccumulation or Biosorption. *ACS Sustainable Chemistry & Engineering*; 7(1):1279-1288 (Impact Factor = 7.632, Citations = 14).
9. McLean, E.V., Bagchi-Sen, S., Atkinson, J.D., Hewner, S., Ravenscroft, J., and Schindel, A. (2019) Country-Level Analysis of Household Fuel Transitions. *World Development*; 114:267-280 (Impact Factor = 3.869, Citations = 8).

10. Hu, M.-M., Zhang, Z., Atkinson, J.D., Rood, M.J., Song, L., and Zhang, Z. (2019) Porous Materials for Steady-State NO Conversion: Comparisons of Metal-Organic Frameworks, Zeolites, and Activated Carbon Fibers. *Chemical Engineering Journal*; 360:89-96 (Impact Factor = 10.652, Citations = 11).
11. Ghafari, M., Cui, Y., AlAli, A., and Atkinson, J.D. (2019) Phenol Adsorption and Desorption with Physically and Chemically Tailored Porous Polymers: Mechanistic Variability Associated with Hyper-Cross-Linking and Amination. *Journal of Hazardous Materials*; 361:162-168 (Impact Factor = 9.038, Citations = 29).
12. Shariaty, P., Atkinson, J.D., and Hashisho, Z. (2018) Tailoring the Electrical Resistivity of Zeolite Y by Carbon Addition to Allow Resistive Heating. *Journal of Materials Chemistry A*; 6:12082-12090 (Impact Factor = 11.301, Citations = 1).
13. Masud, A., Cui, Y., Atkinson, J.D., and Aich, N. (2018) Shape Matters: Cr(VI) Removal Using Iron Nanoparticle Impregnated 1-D vs 2-D Carbon Nanohybrids Prepared with Ultrasonic Spray Pyrolysis. *Journal of Nanoparticle Research*; 20:64 (Impact Factor = 2.009, Citations = 13).
14. Ghafari, M. and Atkinson, J.D. (2018) Impact of Styrenic Polymer Hyper-Cross-Linking on Volatile Organic Compound Adsorption and Desorption Performance. *Journal of Hazardous Materials*; 351:117-123 (Impact Factor = 9.038, Citations = 20).
15. Cui, Y. and Atkinson, J.D. (2019) Ultrasonic Spray Pyrolysis Synthesis of Nitrogen-Doped Porous Fe/C Composites from Glycerol for Hexavalent Chromium Removal. *Materials Chemistry and Physics*; 221:29-33 (Impact Factor = 3.408, Citations = 8).
16. Ghafari, M. and Atkinson, J.D. (2018) Tailoring the Pore Size Distribution of Self-Cross-Linked 4,4'-Bis(Chloromethyl)-1,1'-Biphenyl Polymers Using Reactive and Non-Reactive Co-Solvents. *Polymer*; 143:331-335 (Impact Factor = 4.231, Citations = 3).
17. Ghafari, M. and Atkinson, J.D. (2017) One-Step Hyper-Cross-Linking of Styrenic Polymers Using Dichloroalkane Cross-Linkers to Maintain Hydrophobicity. *Polymer*; 116:278-286 (Impact Factor = 4.231, Citations = 22).
18. Cui, Y. and Atkinson, J.D. (2017) Tailored Activated from Glycerol: Role of Acid Dehydrator on Physiochemical Characteristics and Adsorption Performance. *Journal of Materials Chemistry A*; 5:16812-16821 (Impact Factor = 11.301, Citations = 15).
19. Ji, D., Song, H., Chen, B., Yang, F., Cheney, A., Zhang, N., Atkinson, J.D., Zhou, C., Cartwright, A.N., and Gan, Q. (2017) Frozen "Tofu" Effect: Engineered Pore of Hydrophilic Nanoporous Materials. *ACS Omega*; 2(8):4838-4844 (Impact Factor = 2.87, Citations = 6).
20. Kamravaei, S., Shariaty, P., Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2017) Effect of Beaded Activated Carbon Fluidization on Adsorption of Volatile Organic Compounds. *Industrial & Engineering Chemistry Research*; 56(5):1297-1305 (Impact Factor = 3.573, Citations = 23).
21. Gholidoust, A., Atkinson, J.D., and Hashisho, Z. (2017) Enhancing CO₂ Adsorption via Amine Impregnated Activated Carbon from Oil Sands Coke. *Energy & Fuels*; 31(2):1756-1763 (Impact Factor = 3.421, Citations = 46).
22. Ahmadi, M.K., Ghafari, M., Atkinson, J.D., and Pfeifer, B.A. (2016) A Copper Removal Process for Water based upon Biosynthesis of Yersiniabaction, a Metal-Binding Natural Product. *Chemical Engineering Journal*; 306:772-776 (Impact Factor = 10.652, Citations = 11).

23. **Ghafari, M.** and **Atkinson, J.D.** (2016) Catalytic NO Oxidation in the Presence of Moisture Using Porous Polymers and Activated Carbon. *Environmental Science & Technology*; 50(10):5189-5196 (Impact Factor = 7.864, Citations = 25).
24. Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2016) The Role of Beaded Activated Carbon's Pore Size Distribution on Heel Formation during Cyclic Adsorption/Desorption of Organic Vapors. *Journal of Hazardous Materials*; 315:42-51 (Impact Factor = 9.038, Citations = 48).
25. Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2016) The Role of Beaded Activated Carbon's Surface Oxygen Groups on Irreversible Adsorption of Organic Vapors. *Journal of Hazardous Materials*; 317:284-294 (Impact Factor = 9.038, Citations = 31).
26. Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., Nichols, M., and Misovski, T. (2016) Effect of Desorption Purge Gas Oxygen Impurity on Irreversible Adsorption of Organic Vapors. *Carbon*; 99:310-317 (Impact Factor = 8.821, Citations = 24).
27. Niknaddaf, S., Atkinson, J.D., Shariaty, P., Jahandar-Lashaki, M., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2016) Heel Formation during Volatile Organic Compound Desorption from Activated Carbon Fiber Cloth Using Resistive Heating. *Carbon*; 96:131-138 (Impact Factor = 8.821, Citations = 36).
28. Fayaz, M., Shariaty, P., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2015) Using Microwave Energy to Improve the Desorption Efficiency of High Molecular Weight VOCs from Beaded Activated Carbon. *Environmental Science & Technology*; 49(7):4536-4542. (Impact Factor = 7.864, Citations = 47).
29. Guigard, S.E., Shariaty, P., Niknaddaf, S., Jahandar Lashaki, M., Atkinson, J.D., Hashisho, Z. (2015) Automotive Wastes Review Paper. *Water Environment Research*; 87(10):1286-1311 (Impact Factor = 2.369, Citations = 1).
30. Atkinson, J.D., Hung, P.C., Zhang, Z., Chang, M.B., Yan, Z., and Rood, M.J. (2015) Adsorption and Destruction of PCDD/Fs using Surface Functionalized Activated Carbon. *Chemosphere*; 118:136-142 (Impact Factor = 5.778, Citations = 32).
31. Zhang, Z., Atkinson, J.D., Jiang, B., Rood, M.J., and Yan, Z. (2014) NO Oxidation by Microporous Zeolites: Isolating the Impact of Pore Structure to Predict Conversion Efficiency. *Applied Catalysis B: Environmental*; 163:573-583 (Impact Factor = 16.683, Citations = 26).
32. Guigard, S.E., Gee, K., Zhang, L., Atkinson, J.D., Hashisho, Z. (2014) Automotive Wastes Review Paper. *Water Environment Research*; 86(10):1416-1446 (Impact Factor = 1.369, Citations = 1).
33. Zhang, Z., Atkinson, J.D., Jiang, B., Rood, M.J., and Yan, Z. (2014) Nitric Oxide Oxidation Catalyzed by Microporous Activated Carbon: An Updated Reaction Mechanism. *Applied Catalysis B: Environmental*; 148-149:573-581 (Impact Factor = 16.683, Citations = 43).
34. Atkinson, J.D., Zhang, Z., Yan, Z., and Rood, M.J. (2013) Evolution and Impact of Acidic Oxygen Functional Groups on Activated Carbon Fiber Cloth During NO Oxidation. *Carbon*; 54:444-53 (Impact Factor = 8.821, Citations = 42).
35. Atkinson, J.D. and Rood, M.J. (2012) Preparing Microporous Carbon from Solid Organic Salt Precursors Using In Situ Templating and a Fixed-Bed Reactor. *Microporous and Mesoporous Materials*; 160:174-81 (Impact Factor = 4.551, Citations = 23).

36. Sullivan, P.D., Moate, J., Stone, B., Atkinson, J.D., Hashisho, Z., and Rood, M.J. (2012) Physical and Chemical Properties of PAN-derived Electrospun Activated Carbon Nanofibers and Their Potential for Use as an Adsorbent for Toxic Industrial Chemicals. *Adsorption*; 18:265-74 (Impact Factor = 1.949, Citations = 41).
37. Zhang, Z., Wang, K., Yan, X., Atkinson, J.D., Li, X., Rood, M.J., and Yan, Z. (2012) Sustainable and Hierarchical Porous Enteromorpha Prolifera Based Carbon for CO₂ Capture. *Journal of Hazardous Materials*; 229-230:183-91 (Impact Factor = 9.038, Citations = 107).
38. Atkinson, J.D., Fortunato, M.E., Dastgheib, S.A., Rostam-Abadi, M., Rood, M.J., and Suslick, K.S. (2011) Synthesis and Characterization of Iron-Impregnated Porous Carbon Spheres Prepared by Ultrasonic Spray Pyrolysis. *Carbon*; 49:587-98 (Impact Factor = 8.821, Citations = 95).
39. Yang, Q., Khvostichenko, D., Atkinson, J.D., and Boulatov, R. (2008) Simple Dimer Containing Dissociatively Mono-Imidazole Ligated Ferrohemes. *Chemical Communications*, 963-965 (Impact Factor = 5.996, Citations = 6).

Peer Reviewed Publications in Review:

40. Hsu, C.J., Atkinson, J.D., Chung, A., and Hsi, H.C. (2021) Mercury Re-Emission from Wet Flue Gas Desulfurization Solution: A Review. Submitted to *Journal of Hazardous Materials* and In Review (Submitted in May 2021, Impact Factor = 9.038).

Publications in Preparation:

(Advised UB Graduate Students are listed in **BOLD**)

(Atkinson, J.D. is underlined when listed as that paper's corresponding author)

41. **Meert, J., Izzo, A., and Atkinson, J.D.** (2021) Impact of Plastic “Bag Bans” on Retail Return Film Contamination Rates and Speciation. To Submit to *Waste Management* (Anticipate Submission in June 2021, Impact Factor = 5.448).

Conference Presentations:

(Advised UB Graduate Students are listed in **BOLD**, # = Advised Undergraduate Student):

1. Atkinson, J.D., **Ghafari, M.**, and Shelly, M.A. (2020) Greenhouse Gas Emissions Savings Associated with the Use of Waste-to-Energy Facilities, Compared to Landfilling. Oral Presentation at *NYS Waste Federation Conference*, Virtual.
2. Atkinson, J.D., Alexandridis, P., Vedantam, A., and Yang, J. (2020) Evolving Plastic Recycling Markets: A Holistic Academic Research Approach. Oral Presentation at the *Association for Plastic Recyclers Stakeholder Meeting*, Virtual Mini Technical Forum.
3. Atkinson, J.D., **Ghafari, M.**, and Shelly, M.A. (2019) Greenhouse Gas Emissions Savings Associated with the Use of Waste-to-Energy Facilities, Compared to Landfilling. Oral Presentation at *AWMA's 112th Annual Conference*, Quebec City, Quebec, Canada.
4. Atkinson, J.D., **Ghafari, M.**, and Shelly, M.A. (2019) Greenhouse Gas Emissions Savings Associated with the Use of Waste-to-Energy Facilities, Compared to Landfilling. *AEESP Research and Education Conference*. Poster Presentation.

5. Bartelt-Hunt, S. and Atkinson, J.D. (2019) Using Environmental Engineering-Themed Undergraduate Research Programs to Enhance Student Engagement in Research. *AEESP Research and Education Conference*. Half-Day Workshop Presentation.
6. **Ghafari, M.** and Atkinson, J.D. (2019) Hyper-Cross-Linking Styrenic Polymers with Dichloroalkanes for Improved Adsorption of Pollutants. *Spring National Meeting & Exposition for the American Chemical Society*. April 2019 Oral Presentation.
7. **Cui, Y.** and Atkinson, J.D. (2019) Cr(VI) Removal with Porous Fe/C Microspheres Prepared from Glycerol via Ultrasonic Spray Pyrolysis. *Spring National Meeting & Exposition for the American Chemical Society*. April 2019 Poster Presentation.
8. Atkinson, J.D., **Ghafari, M.**, and Shelly, M. (2019) Greenhouse Gas Emissions Savings Associated with Waste-to-Energy Facilities, Compared to Landfilling. *Science for Decisions-Making in a Warmer World*, New York, NY. March 2019 Poster Presentation.
9. Santibanez, A.[#], **Ghafari, M.**, and Atkinson, J.D. (2018) The Overall Impact of Compost on Net Greenhouse Gas Emissions Associated with Food Waste Disposal. *CUR NSF Research Experiences for Undergraduates Symposium*, Alexandria, VA. October 2018.
10. **Cui, Y.** and Atkinson, J.D. (2018) Porous Carbon from Harmful Algal Bloom Biomass, *New England Graduate Student Water Symposium*, Amherst, MA. September 2018.
11. McLean, E.V., Ravenscroft, J., Hewner, S., Bagchi-Sen, S., Schindel, A., and Atkinson, J.D. (presenter) (2018) Assessing Determinants of Sustained Fuel Transitions. *International Society for Environmental Epidemiology Annual Meeting*, Poster Presentation, Ottawa, Ontario, Canada, August 2018.
12. **Masud, A.**, **Cui, Y.**, Atkinson, J.D., and Aich, N. (2018) Shape Matters: Cr(VI) Removal Using Iron Nanoparticle Impregnated 1-D vs 2-D Carbon Nanohybrids Prepared with Ultrasonic Spray Pyrolysis. *2018 American Chemical Society Annual Meeting*, Boston, MA. August 2018.
13. **Masud, A.**, **Cui, Y.**, Atkinson, J.D., and Aich, N. (2018) Shape Matters: Cr(VI) Removal Using Iron Nanoparticle Impregnated 1-D vs 2-D Carbon Nanohybrids Prepared with Ultrasonic Spray Pyrolysis. Abstract accepted for *2018 American Institute of Chemical Engineers Annual Meeting*, Pittsburgh, PA. October 2018.
14. **Cui, Y.** and Atkinson, J.D. (2018) Magnetic Fe⁰/C Microspheres Prepared from Glycerol via Ultrasonic Spray Pyrolysis for Cr(VI) Removal. *AWMA's 111th Annual Conference*, Poster Presentation, Hartford, CT.
15. Granata, R.[#], **Cui, Y.**, and Atkinson, J.D. (2017) Synthesis of Fe/C Composite Materials from Spent Coffee Grinds and Ferric Ammonium Citrate. *CUR NSF Research Experiences for Undergraduates Symposium*, Alexandria, VA. October 2018.
16. Granata, R.[#], **Cui, Y.**, and Atkinson, J.D. (2017) Synthesis of Fe/C Composite Materials from Spent Coffee Grinds and Ferric Ammonium Citrate. *AIChE Student Conference Poster*, Minneapolis, MN. October 2017.
17. **Masud, A.**, Atkinson, J.D., and Aich, N. (2017), Iron Nanoparticle Impregnated 1-D and 2-D Carbon Nanohybrids Prepared with Ultrasonic Spray Pyrolysis for Cr(VI) Removal, *Sustainable Nanotechnology Organization's 2017 Annual Conference*, Los Angeles, CA, Podium Presentation.

18. **Masud, A.**, Atkinson, J.D., and Aich, N. (2017), Iron Nanoparticle Impregnated Carbon Nanohybrids Prepared with Ultrasonic Spray Pyrolysis for Cr(VI) Removal, *Pan American Nano 2017*, Rio de Janeiro, Brazil, Abstract Submitted for Podium Presentation.
19. Atkinson, J.D. (2017) Tweeting @Sustainability: The #447challenge as an Active Teaching Tool, *AASHE's Annual Conference & Expo*, San Antonio, TX, 30 min Platform Session.
20. Atkinson, J.D., Bartelt-Hunt, S., Sangster, J., and Jarchow, M.E. (2017) Using Sustainability-Themed Undergraduate Research Programs to Enhance Student Engagement in Research, *AASHE's Annual Conference & Expo*, San Antonio, TX, 60 min Platform Session.
21. Ji, D., Song, H., Chen, B., Yang, F., Cheney, A.R., Zhang, F., Zhang, N., Zeng, X., Atkinson, J.D., Zhou, C., Cartwright, A.N., and Gan, Q. (2017) Engineered Pores of Hydrophilic Nanoporous Materials Using Wet-Drying and Freeze-Drying, *Conference on Lasers and Electro-Optics: Science and Innovations*, San Jose, CA.
22. **Ghafari, M.** and Atkinson, J.D. (2017), Exploiting Unique Properties of Porous Polymers for Air Pollution Control, *2017 American Institute of Chemical Engineers Annual Meeting*, Podium Presentation, Minneapolis, MN.
 - a. Best Paper in "Adsorbent Materials" Session
23. **Ghafari, M.** and Atkinson, J.D. (2017), Tailoring Porous Polymers for Adsorption and Catalytic Applications, *2017 American Institute of Chemical Engineers Annual Meeting*, Poster Presentation, Minneapolis, MN.
24. **Ghafari, M.** and Atkinson, J.D. (2017), Exploiting Unique Properties of Porous Polymers for Air Pollution Control, *AEESP Research and Education Conference*, Podium Presentation, Ann Arbor, MI.
25. **Ghafari, M.** and Atkinson, J.D. (2017) Catalytic Oxidation of NO Using Hydrophobic Styrenic Porous Polymers Hyper-Cross-Linked with 1,2-Dichloroalkane, *AWMA's Annual Conference*, Platform Presentation (Peer Reviewed), Pittsburgh, PA.
 - a. 1st Place Student Paper Award Winner
26. **Cui, Y., He, H.**, and Atkinson, J.D. (2017) Preparation of Activated Carbon Supported Nano Zero-Valent Iron from Harmful Algal Bloom Biomass, *AWMA's Annual Conference*, Platform Presentation (Peer Reviewed), Pittsburgh, PA.
27. **Ghafari, M.** and Atkinson, J.D. (2017) Adsorption of Volatile Organic Compounds (VOCs) on Porous Polymers Hyper-Cross-Linked with Variable Length Dichloroalkanes, *AWMA's Annual Conference*, Poster Presentation, Pittsburgh, PA.
28. **Cui, Y.** and Atkinson, J.D. (2017) Magnetic Mesoporous Carbon Prepared from Waste Glycerol via One-Pot Synthesis with Carbothermal Reduction, *AWMA's Annual Conference*, Poster Presentation, Pittsburgh, PA.
29. TenHuisen, S.[#], **AlAli, A.**, and Atkinson, J.D. (2016) Adsorption Properties of Plastic Microbeads and Other Soap Additives, *New England Graduate Student Water Symposium*, Amherst, MA. September 2016.
30. Sun, A., Moscatello, N., Atkinson, J.D., and Pfeifer, B.A. (2016) Study of Copper Removal from Water Using Yersiniabactin on Activated Carbon. *NSF Research Experiences for Undergraduates Symposium*, Arlington, VA. October 2016.

31. Rosa, S.[#], **Ghafari, M.**, and Atkinson, J.D. (2016), Friedel-Crafts Reaction Impacts on Physical and Chemical Properties of Styrene-Divinylbenzene Copolymers, *22nd Annual UB Undergraduate Research Conference*, Niagara Falls, NY.
32. **Ghafari, M.** and Atkinson, J.D. (2016), Modeling Adsorption and Desorption of Volatile Organic Compounds on Crosslinked Porous Polymers, *AWMA's Annual Conference* (Peer Reviewed), Platform Presentation, New Orleans, LA.
 - a. 1st Place Student Paper Award Winner
33. **Cui, Y.** and Atkinson, J.D. (2016), Tailored Activated Carbon Adsorbents with High Surface Area Prepared via Acid-Mediated Dehydration of Glycerol, *Annual World Conference on Carbon*, Penn State University, PA.
34. Jahandar-Lashaki, M., Hashemi, S.M., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., Nichols, M., and Misovski, T. (2016), Effect of Desorption Purge Gas Impurity on Irreversible Adsorption of Organic Vapors, *Annual World Conference on Carbon*, Penn State University, PA.
35. Niknaddaf, S., Alam, M., Gholidoust, A., Fayaz, M., Hashisho, Z., Atkinson, J.D., Phillips, J.H., Anderson, J.E., and Nichols, M. (2016), Effect of Desorption Conditions and Adsorbate Properties on Heel Formation During Regeneration of Activated Carbon Fiber Cloth, *Annual World Conference on Carbon*, Penn State University, PA.
36. Kamravaei, S., Shariaty, P., Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Phillips, J.H., Anderson, J.E., and Nichols, M. (2016), Effect of Beaded Activated Carbon Fluidization on Adsorption of Volatile Organic Compounds, *AIChE's Annual Meeting*, San Fransisco, CA. November 2016.
37. Djigal, F.[#], **Ghafari, M.**, and Atkinson, J.D. (2016), Impact of Swelling on Polymeric Adsorbents, *UB's Celebration of Student Academic Excellence*, Buffalo, NY. Poster Presentation.
38. Djigal, F.[#], **Ghafari, M.**, and Atkinson, J.D. (2015), Impact of Swelling on Polymeric Adsorbents, *NSF Research Experiences for Undergraduates Symposium*, Arlington, VA. Poster Presentation.
39. Djigal, F.[#], **Ghafari, M.**, and Atkinson, J.D. (2015), Swelling of Polymeric Adsorbents to Improve Pollution Prevention, *21st Annual UB Undergraduate Research Conference*, Niagara Falls, NY.
40. **Ghafari, M.** and Atkinson, J.D. (2015), Hydrophobic Polymers as Adsorbents and NO Oxidation Catalysts, *AEESP Research and Education Conference*, Poster Presentation, New Haven, CT.
41. Kamravaei, S., Shariaty, P., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2015), Effect of Operations Parameters on the Performance of a Multistage Fluidized Bed Adsorber, *AIChE's Annual Meeting*, Salt Lake City, UT.
42. Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2015) Impact of Activated Carbon's Pore Size Distribution on Heel Formation during Adsorption of Organic Vapors, *AIChE's Annual Meeting*, Salt Lake City, UT.
43. Jahandar-Lashaki, M., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2015) The Effect of Regeneration Pure Gas Impurity on Irreversible Adsorption of Organic Vapors, *AIChE's Annual Meeting*, Salt Lake City, UT.

44. Shariaty, P., Atkinson, J.D., Hashisho, Z., Sawada, J., and Kuznicki, S. (2014) Tailoring Resistivity of Engelhard Titanosilicate (ETS-10) Molecular Sieve by Carbon Addition, *AIChE's Annual Meeting*, Atlanta, GA.
45. Atkinson, J.D., Jahandar Lashaki, M., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2014) Reactivation of Spent Beaded Activated Carbon for Decreasing Irreversible Adsorption, *A&WMA's Annual Conference* (Peer Reviewed), Long Beach, CA, #33031.
46. Jahandar Lashaki, M., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2014) Effect of Oxygen Functional Groups on the Irreversible Adsorption of Organic Vapors, *A&WMA's Annual Conference* (Peer Reviewed), Long Beach, CA, #33534.
47. Niknaddaf, S., Jahandar Lashaki, M., Shariaty, P., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2014) Investigating the Effect of Pore Size Distribution of Activated Carbon Fiber Cloth on Irreversible Adsorption of Organic Vapors, *A&WMA's Annual Conference* (Peer Reviewed), Long Beach, CA, #33597.
48. Fayaz, M., Shariaty, P., Atkinson, J.D., Hashisho, Z., Philips, J.H., Anderson, J.E., and Nichols, M. (2014) Effect of Microwave Heating on Regeneration of Activated Carbon and a Polymeric Adsorbent, *A&WMA's Annual Conference* (Peer Reviewed), Long Beach, CA, #33589.
49. Atkinson, J.D., Zhang, Z., Yan, Z., and Rood, M.J. (2013) New Discoveries for Carbon-Catalyzed NO Oxidation: Pore Size-Sensitive Activity and Surface-Dependent Kinetics, *The Annual World Conference on Carbon*, Rio de Janeiro, Brazil, Oral Presentation #64, 5 pg.
50. Atkinson, J.D., Hung, P.-C., Zhang, Z., Chang, M.-B., Yan, Z., and Rood, M.J. (2013) Adsorptive Destruction of Polychlorinated Dibenzo-p-Dioxins and Dibenzofurans using Functionalized Activated Carbon, *A&WMA's Annual Conference* (Peer Reviewed), Chicago, Illinois, #12466.
51. Zhang, Z., Atkinson, J.D., Rood, M.J., and Yan, Z. (2013) Catalytic NO Oxidation by Aluminosilicate Molecular Sieves, *A&WMA's Annual Conference* (Peer Reviewed), Chicago, Illinois, #12406.
52. Rood, M.J. and Atkinson, J.D. (2012) Understanding and Enhancing Multi-Pollutant Control Using Carbon-Based Materials, *National Science Foundation Annual CBET Grantee Conference*, Baltimore, MD, Featured Presentation and Poster.
53. Atkinson, J.D., Zhang, Z., and Rood, M.J. (2012) Impact of Carbon's Porosity and Surface Chemistry on NO Oxidation, *A&WMA's Annual Conference* (Peer Reviewed), San Antonio, Texas, #58.
54. Atkinson, J.D., Dastgheib, S.A., Rostam-Abadi, M., and Rood, M.J. (2010) One-Step Synthesis of Carbon Supported Iron Catalysts Using Ultrasonic Spray Pyrolysis, *The Annual World Conference on Carbon*, Clemson, South Carolina, Oral Presentation #266.
55. Atkinson, J.D., Dastgheib, S.A., Rostam-Abadi, M., and Rood, M.J. (2010) One-Step Synthesis of Carbon Supported Iron Catalysts and Their Potential for Use in Air Quality Applications, *A&WMA's Annual Conference* (Peer Reviewed), Calgary, Alberta, Canada, 4778-90.
56. Sullivan, P.D., Moate, J.R., Stone, B.R., Atkinson, J.D., Rood, M.J., and Hashisho, Z. (2010) Electrospun Activated Carbon Nanofibers (ACnF): Properties, Performance, and Proposed Applications in Air Purification, *10th International Conference on Fundamentals of Adsorption*, Awaji, Hyogo, Japan, #P24-93.

57. Dastgheib, S.A., Atkinson, J.D., Rostam-Abadi, M., and Rood, M.J. (2009) Synthesis and Characterization of Carbon Based Iron-Catalysts Prepared by Ultrasonic Spray Pyrolysis, *2009 American Institute of Chemical Engineers Annual Meeting*, Nashville, TN, No. 256c.
58. Atkinson, J.D., Chen, X., Chang, R., Rostam-Abadi, R., and Rood, M.J. (2008) Development of Nano-Engineered Carbon Adsorbents and Their Environmental Applications, *A&WMA's Annual Conference* (Peer Reviewed), Portland, OR, 130-40.
59. Khvostichenko, D., Yang, Q., Atkinson, J.D., and Boulatov, R. (2007) Metalloporphyrins as Molecular Activators Characterized Through Allosteric Ligation, *The 223rd American Chemical Society Annual Meeting*, Chicago, IL.

Invited Presentations:

1. Atkinson, J.D. “Waste Management: A Need for Proactive Updates” The 2021 Engineers for a Sustainable World Bi-Annual Conference, Invited Speaker, April 2021.
2. Atkinson, J.D. “Greenhouse Gas Emissions: Comparing Waste to Energy and Landfilling” UB’s Environment and Sustainability Department’s Spring Seminar Series, Invited Speaker, April 2021.
3. Atkinson, J.D. “Connect with Our Changemakers” UB SEAS’ Virtual Panel Series for Engineering Alumni, Invited Panelist, April 2021.
4. Atkinson, J.D. “Life Raft Debate – The Case for Engineering Sustainability” Annual Event Hosted by UB’s Honor’s College, Invited Contestant, February 2021.
 - a. [Video of Presentation](#)
 - b. <http://www.buffalo.edu/ubnow/briefs/2021/02/life-raft-debate.html>
 - c. <http://www.buffalo.edu/ubnow/stories/2021/03/life-raft-debate.html>
5. Atkinson, J.D. “Water, Materials, and the Environment” The 2019 Erich Bloch Symposium: Discovering Pathways for Innovation, Invited Panelist, June 2019.
6. Atkinson, J.D. “Greenhouse Gas Emissions: A Comparison of Waste-to-Energy and Landfilling” Air & Waste Management Association – Niagara Frontier Section, Monthly Dinner Meeting, Invited Speaker, April 2019.
7. Atkinson, J.D. “Sustainability Research and Education in the University at Buffalo Department of Civil, Structural, and Environmental Engineering” Invited Speaker, August 2018.
 - a. Center for Science and the Environment Main Office (New Delhi)
 - b. Center for Science and the Environment Research Laboratory (Alwar)
 - c. Amrita University Dept of Chemical Eng and Materials Sci (Coimbatore)
8. Atkinson, J.D. “Sustainability Forward” TEDxBuffalo, Invited Speaker, October 2017.
 - a. [Video of Presentation](#)
 - b. <http://www.ubspectrum.com/article/2017/09/tedxbuffalo-lineup-announced>
9. Atkinson, J.D. “Why Get a Ph.D.?” 23rd Annual Undergraduate Research Conference, Niagara Falls, NY, Invited Panelist, July 2017
10. Atkinson, J.D. “Air Pollution Control Earth Day Research Presentation” UB’s Student Chapter of the American Chemical Society, Earth Day Event, Invited Speaker, April 2017.

11. Atkinson, J.D. “Improving Air Quality During the 1st 1000 Days: Air Pollution Control Research in 10 Years” UB Community of Excellence in Global Health Equity, Air Quality IDEAs Lab Scoping Workshop, December 2016.
12. Atkinson, J.D. “Addressing Water Quality Challenges with Materials: Adsorbents In, For, and From the Water” UB RENEW Freshwater Focus Area, November 2016.
13. Atkinson, J.D. “The Air Around You!” Science Teachers of New York State Science Congress – Buffalo, NY, June 2016.
14. Atkinson, J.D. “Opportunities for Decreasing Indoor Air Pollution Associated with Cookstoves” Community of Excellence in Global Health Equity, UB’s Global Health Day, April 2016.
15. Atkinson, J.D., *et al.* “Modifying Air Pollution Control Materials to Improve Efficiency and Decrease Hazardous Waste” New York State Society of Professional Engineers – WNY Chapter Engineers Week, February 2015.
16. Atkinson, J.D., *et al.* “Modifying Air Pollution Control Materials to Improve Efficiency & Decrease Hazardous Waste,” Clarkson University Civil and Environmental Engineering Seminar, November 2014.
17. Atkinson, J.D., *et al.* “Modifying Air Pollution Control Materials to Improve Efficiency and Decrease Hazardous Waste,” SUNY-Buffalo Air Pollution Workshop, September 2014.
18. Atkinson, J.D. “Preparation and Application of Catalytic Carbons for Pollution Prevention,” State University of New York, University at Buffalo, CSEE, Buffalo, NY, March 2014.
19. Atkinson, J.D. and Rood, M.J. “Introduction to Air Pollution,” Urbana High School, Urbana, IL, February 2013 (3-Part Lecture Series).
20. Atkinson, J.D. “Evolution and Impact of Acidic Oxygen Functional Groups on Activated Carbon During NO Oxidation,” 2012 Engelbrecht Fellowship Seminar, University of Illinois, September 2012.

TEACHING EXPERIENCE

1. Air Pollution

Fall 2014, CIE 461/563 (25 students): Teacher Rating = 4.75/5, Course Rating = 4.63/5
 Fall 2015, CIE 461/563 (40 students): Teacher Rating = 4.75/5, Course Rating = 4.41/5
 Spring 2017, CIE 461/563 (26 students): Teacher Rating = 4.7/5, Course Rating = 4.5/5
 Spring 2018, CIE 461/563 (29 students): Teacher Rating = 4.6/5, Course Rating = 4.6/5
 Spring 2019, CIE 461/563 (35 students): Teacher Rating = 4.9/5, Course Rating = 4.2/5
 Spring 2020, CIE 461/563 (26 students): Teacher Rating = N/A, Course Rating = 4.1/5
 Spring 2021, CIE 461/563 (38 students): In Progress

2. Sustainability

Spring 2015, CIE 447 (40 students): Teacher Rating = 4.72/5, Course Rating = 4.41/5
 Spring 2016, CIE 447 (66 students): Teacher Rating = 4.79/5, Course Rating = 4.34/5
 Spring 2017, CIE 447 (37 students): Teacher Rating = 4.7/5, Course Rating = 4.4/5
 Spring 2018, CIE 447 (45 students): Teacher Rating = 4.6/5, Course Rating = 4.4/5
 Spring 2019, CIE 447 (53 students): Teacher Rating = 4.6/5, Course Rating = 4.4/5

Spring 2020, CIE 447 (67 students): Teacher Rating = N/A, Course Rating = 4.4/5

Spring 2021, CIE 447 (68 students): In Progress

3. Sustainability in Latin American: A Case Study in Costa Rica

Winter 2018, CIE 464 (16 students): Teacher Rating: 5.0/5, Course Rating = 4.9/5

Winter 2019, CIE 464 (17 students): Teacher Rating: 5.0/5, Course Rating = 5.0/5

4. Adsorption Introduction: Theory and Application (Spring 15, 16, Fall 17, 18, Ind. Problem)

5. Activated Carbon Production, Characterization, and Application (Fall 2015, Ind. Problem)

6. Activated Carbon in Aqueous Phase Adsorption Applications (Fall 2016, Ind. Problem)

STUDENT MENTORING

Visiting Scholars:

1. Che-Jung Hsu, National Taiwan University (2020 – 2021)

Doctoral Students:

1. Dr. Mohsen Ghafari (May 2018)

“Opportunities to Improve Air Pollution Control by Exploiting Unique Properties of Porous Polymers”

Current Employer: Senior Process Engineer, BioAir Solutions

- a. Recipient of A&WMA 2nd Place Dissertation Award (2019)
- b. CSEE Excellence in Research Award (2018)
- c. Recipient of AIChE Best Paper in “Adsorbent Materials” Session (2017)
- d. Recipient of A&WMA 1st Place Platform Paper Award (2017)
- e. Recipient of NYSP2I 1st Place Student R&D Competition Award (2017)
- f. Recipient of A&WMA Milton Feldstein Memorial Scholarship (2017)
- g. Recipient of A&WMA Air Quality Research Fellowship (2016)
- h. Recipient of A&WMA 1st Place Platform Paper Award (2016)
- i. Recipient of NYSP2I 1st Place Student R&D Competition Award (2015)

2. Dr. Yanbin Cui (May 2019)

“De Novo Synthesis of Iron/Carbon Composites from Waste Precursors for Hexavalent Chromium Removal”

Current Employer: Post Doc, University of Wisconsin – Madison

- a. Recipient of A&WMA 1st Place Poster Competition Award (2018)
- b. Recipient of CSEE 3rd Place Poster Competition Award (2018)

Masters Students (MS Thesis/Project Title Included):

1. Dr. Mohsen Ghafari (Co-Advised with Dr. Berat Haznedaroglu; February 2015)

“Effects of Macro- and Micronutrients on Lipid Accumulation of Oleaginous Microalgae”

Current Employer: Senior Process Engineer, BioAir Solutions

2. Saidan Qi (February 2016)

“The Impact of Adsorbate Concentration on Irreversible Adsorption of Organic Vapors”

- Current Employer: Bronx River Alliance
3. Dr. Yanbin Cui (May 2016)
“High Surface Area Activated Carbon Prepared from Glycerol for VOC Adsorption”
Current Employer: Post Doc, University of Wisconsin – Madison

 4. Dr. Arvid Masud (Co-Advised with Dr. Nirupam Aich; May 2017)
“Iron Nanoparticle Impregnated 1-D and 2-D Carbon Nanostructures Prepared with Ultrasonic Spray Pyrolysis for Cr (VI) Removal”
Current Employer: Post Doc, Arizona State University
 - a. Recipient of CSEE 2nd Place Poster Competition Award (2017)
 5. Haoxin He (May 2017)
“Preparation of Activated Carbon Supported Iron Particles from Harmful Algal Bloom Biomass”
 6. Dr. Ramin Ghamkar (Sept 2018)
“Catalytic Oxidation of Nitric Oxide Using Hyper-Cross-Linked Porous Polymers: Impact of Physiochemical Properties on Conversion Efficiency”
Current Employer: University of Wisconsin – Madison, Ph.D. Graduate
 - a. Recipient of A&WMA 1st Place MS Thesis Award (2019)
 7. MaryKate Mooney (December 2019)
 8. Nuvia Rashid (December 2019)
“Effect of Moisture on Adsorption of Carbon Disulfide Using Polymeric Materials”
 9. Austin Izzo (September 2020)
Current Employer: National Grid
 10. Matt O’Brien (May 2021)
 11. Jenna Meert (May 2021)
“Impact of Plastic “Bag Bans” on Retail Return Film Contamination Rates and Speciation”
 - a. Recipient of SUNY-Buffalo Schomburg Fellowship (2019)

Undergraduate Research Students:

1. Dylan Koch (2019 NSF REU Student)
2. Heather Evangelista (2019 CSTEP Student)
3. Taylor Congdon (2018 – Present)
4. Breanna Dahn (2018 – 2019)
5. Ameyalli Santibanez (2018 NSF REU Student)
6. Gerardo Berarra Giron (2018 CSTEP Student, Fall 2018)
7. Rosanna Granata (2017 Summer NSF REU Student)
8. Sophia TenHuisen (2016 Summer NSF REU Student)
9. Sergio Rosa (2016 Summer NSF LSAMP Student)
10. Falliou Djigal (2015 Summer NSF REU Student, Spring 2016 – Spring 2017)

11. Tony Ye (Spring 2016 – Present)

High School Students:

1. Zoe Buck (Fall 2015)

Graduate Committee Member:

1. Zolal Ayazpour (TBD, Ph.D., University at Buffalo, Env. Eng.)
2. Arvid Masud (2020, Ph.D., University at Buffalo, Env. Eng.)
3. Dan Hamlin (2018, M.S., University at Buffalo, Env. Eng.)
4. Jiale Xu (2019, Ph.D., University at Buffalo, Env. Eng.)
5. Lei Su (2019, Ph.D., University at Buffalo, Env. Eng.)
6. Vignesh Peranamallur Rajan (2016, M.S., University at Buffalo, Env. Eng.)
7. Jonathan Brotsch (2017, M.S., University at Buffalo, Geology)
8. Kun Yu (2017, Ph.D., University at Buffalo, Env. Eng.)
9. Luke Scannell (2016, Ph.D., University at Buffalo, Env. Eng.)

UB APPOINTMENTS

1. Director of Graduate Studies, UB SEAS M.S. in Engineering Science with Focus in Engineering Sustainability (2019 – Present)
2. Director of Graduate Studies, UB CSEE M.S. and Ph.D. in Environmental and Water Resources Engineering (2019 – Present)
3. Advisory Committee Member, UB College of Arts and Sciences Asian Studies Program (2018 – Present)
4. Advisory Committee Member, UB CSEE Graduate Studies (2014 – Present)
5. Faculty Research, UB Center of Excellence in Materials Informatics
6. Faculty Affiliate, UB Research and Education in Energy, Environment, and Waste
7. Faculty Affiliate, UB Community of Excellence in Global Health Equity

PROFESSIONAL AND UNIVERSITY SERVICES

1. Panel Reviewer, National Science Foundation (Emerging Frontiers in Research and Innovation, 2020, 2021)
2. Moderator for Annual NY Waste Federations Conference, Session on NYS' Community Leadership and Climate Protection Act
3. UB Sustainability "Waste Not" Working Group for Campus Climate Action Plan (2020 – Present)
4. Guest Editor for Special Issue ("Hyper-Cross-Linked Polymers (HCPs)") of *Polymers* Journal (Impact Factor = 2.935)

5. UB College of Arts and Sciences Sustainability Initiative Director, Search Committee Member (Summer 2018 – Fall 2018)
6. Study Abroad Office Costa Rica Trip Provider Bid Review Team, UB (Nov 2017 – Present)
7. Community for Global Health Equity Education Advisory Council, Member, UB (Sept 2017 – Present)
8. Sustainability Advanced Graduate Certificate and MS Degree Committee, Member, UB (Sept 2017 – Present)
9. Panel Reviewer, Environmental Protection Agency (Phase II P3 Awards, 2017)
10. Graduate Fellowship and Scholarship Committee, Member, UB, SEAS (2016 – 2017)
11. Panel Reviewer, National Science Foundation (Research Experiences for Undergraduates, 2016, 2017, 2020)
12. Panel Reviewer, National Science Foundation (Graduate Research Fellowships, 2016)
13. Panel Reviewer, National Science Foundation (CBET – Environmental Engineering, 2015, 2018)
14. Ad Hoc Proposal Reviewer, US Department of Agriculture (National Institute of Food and Agriculture, 2015; SBIR Program, 2016; SBIR Program, 2017)
15. Faculty Advisor (and Founder) for UB Student Chapter of the Air & Waste Management Association (Nov 2014 – Present)
16. Contributed journal article reviews to *World Development*, *Journal of Hazardous Materials*, *Materials Letters*, *Nature Communications*, *Carbon*, *Aerosol Science & Technology*, *Energy & Fuels*, *Industrial & Engineering Chemistry Research*, *Chemosphere*, *Journal of the Air & Waste Management Association*, *Journal of Molecular Catalysis A*, *Atmospheric Environment*, *Environmental Science & Technology*, *Aerosol and Air Quality Research*, *Materials*, *Journal of Environmental Engineering and Ecological Science*, *Environmental Science and Pollution Research*, *International Journal of Coal Geology*, *Journal of Industrial and Engineering Chemistry*, and *Journal of Asian Earth Sciences*

PROFESSIONAL MEMBERSHIP

1. Air & Waste Management Association (A&WMA, International and Local Niagara Frontier Section) Member, 2007 – Present
 Niagara Frontier Section, Executive Board Member, 2015 – 2018
 Niagara Frontier Section, Education Chair, 2016 – 2018
2. American Society for Engineering Education (ASEE), 2012 – 2018
3. Association of Environmental Engineering and Science Professors (AEESP), 2013 – Present
4. Council on Undergraduate Research (CUR), 2016 – Present

PROFESSIONAL DEVELOPMENT & ACADEMIC TRAINING

1. Participant and Co-Lead in UB's Community of Global Health Equity 2018 Sustainability Collaboration Incubator Trip (India)
2. Participant in 2018 Holistic Review Institute for Graduate Admissions (Los Angeles, CA)
3. Participant in 2017 UB Study Abroad Incubator (Costa Rica)

4. Participant at 2015 UB SEAS Workshop: Cultural Competence for Faculty in the Academy
5. Attendee at 2012 ASEE Annual Conference (San Antonio, TX), including workshops on diversity in engineering classrooms and teaching communication skills to engineers
6. Completed collaborative research at National Central University (Taiwan, 2011 and 2012), Taipei Tech (Taiwan, 2011 and 2012), and China University of Petroleum (China, 2012)
7. Participated in Education Organization and Leadership (EOL) semester-long course on College Teaching and Academic Careers (UIUC, 2009 – EOL 585)