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APPOINTMENTS

Carol A. Fierke Collegiate Professor, UM	2020–present
Arthur F. Thurnau Professor, UM	2016–present
Associate Professor, UM	2013–2016
Assistant Professor, UM	2007–2013

EDUCATION

L'Oreal Postdoctoral Fellow, MIT (advisor: Tim Swager)	2005–2007
Ph.D. in Chemistry, Cornell University (advisor: Dave Collum)	1999–2005
B.S. in Chemistry, *summa cum laude,* College of William and Mary (adviser: Rob Hinkle)	1995–1999

AWARDS

Edward W. Morley Award	2026
Energy Reduction Champion Award (UM)	2025
Akron Award	2021
Harold R. Johnson Diversity Service Award (UM)	2020
Claudia Joan Alexander Trailblazer Award (UM)	2019
Guggenheim Fellow	2019
AAAS Fellow	2017
Faculty Recognition Award (UM)	2016
Howard Hughes Medical Institute Professor	2014
Provost's Teaching Innovation Prize (UM)	2014
Arthur F. Thurnau Professorship (UM)	2014
Class of 1923 Memorial Teaching Award (UM)	2013
Camille and Henry Dreyfus Foundation Teacher-Scholar Award	2012
Alfred P. Sloan Research Fellow	2011
LSA Excellence in Education Award (UM)	2011
Army Research Office – Presidential Early Career Award in Science and Engineering	2010
NSF CAREER Award	2010
Office of Naval Research – Young Investigator Award	2009
Arnold and Mabel Beckman Young Investigator Award	2009
Thieme Journal Award, *Synthesis* and *Synlett*	2009
3M Nontenured Faculty Research Award	2009
Seyhan N. Eğe Junior Faculty Award	2009

RESEARCH PUBLICATIONS

86. Jha, R. K.; Thurber, H. E.; Neyhouse, B. J.; VanZile, Q. L.; McNeil, A. J. Achieving near-complete dechlorination of poly(vinyl chloride) via electrochemical reduction. *ChemSusChem* **2026**, *in revision*.
85. Clough, M. E.; Ochoa Rivera, E.; Ayala, A. M.; Parham, R. L.; Pennacchio, J.; Thurber, H. E.; Ault, A. P.; Tewari, A.; McNeil, A. J. Microplastic overestimation from gloves: Identifying and salvaging contaminated vibrational datasets. *Anal. Meth.* **2026**, *18*, 2914–2926. DOI: 10.1039/d5ay01801c

84. Parham, R. L.; Rivera, E. O.; Ayala, A. M.; Clough, M. E.; Patel, Y.; McNeil, A. J.; Tewari, A.; Ault, A. P. Improved microplastic identification from simultaneously collected photothermal infrared and Raman spectra using multi-view conformal prediction. *ACS Meas. Sci. Au* **2026**, *in revision*.
83. Jugovic, T. M. E.; Thurber, H. E.; Robo, M. T.; Ji, W.; Clough, M. E.; McNeil, A. J.; Zimmerman, P. M. Predicting polyacrylate-microplastic interactions with atomistic simulation. *Phys. Chem. Chem. Phys.* **2026**, *28*, 790-797. DOI: 10.1039/D5CP03631C
82. Parham, R. L.; Ayala, A. M.; Meagher, L.; Clough, M. E.; Ochoa Rivera, E.; Shi, J.; Tewari, A.; McNeil, A. J.; Ault, A. P. Identifying microplastics in laboratory and atmospheric aerosol mixtures via optical photothermal infrared and Raman microspectroscopy. *Anal. Chem.* **2025**, *97,* 18136–18143. DOI: 10.1021/acs.analchem.5c02968
81. Neyhouse, B. J.; Cook, G. E.; Jha, R. K.; McNeil, A. J. Electrochemical generation of chlorine and hydrogen from waste poly(vinyl chloride). *ACS Sust. Chem. Eng.* **2025**, *13*, 13042–13050. DOI: 10.1021/acssuschemeng.5c04559
80. Singh, S.; Tami, J. L.; Gruich, C.; Gatz, A. J.; Dong, J.; Nguyen, B. H.; Smith, J. A.; Goldsmith, B. R.; McNeil, A. J.; Kwabi, D. G. Sulfonated Benzo[c]cinnolines for alkaline redox-flow batteries. *ACS Appl. Energy Mater.* **2025**, *8*, 7904–7911. DOI: 10.1021/acsaem.4c02861
79. Clough, M. E.; Ochoa Rivera, E.; Parham, R. L.; Ault, A. P.; Zimmerman, P. M.; McNeil, A. J.; Tewari, A. Enhancing confidence in microplastic spectral identification via conformal prediction. *Environ. Sci. Technol.* **2024**, *58*, 21740–21749. DOI: 10.1021/acs.est.4c05167
78. Asserghine, A.; Kim, S.; Vaid, T. P.; Santiago-Carboney, A.; McNeil, A. J.; Rodriguez-Lopez, J. Ionic strength impacts charge capacity in a redox-matched flow battery: From single-particle interrogation to battery cycling. *ACS Energy Lett*. **2024**, *9*, 2826–2831. DOI: 10.1021/acsenergylett.4c00819
77. Tami, J. L.; Mazumder, M. D. M.; Cook, G. E.; Minteer, S.; McNeil, A. J. Protocol for evaluating anion exchange membranes for nonaqueous redox flow batters. *ACS Appl. Mater. Interfaces* **2024**, *16*, 53643–53651. DOI: 10.1021/acsami.4c07026
76. Jha, R. K.; Neyhouse, B. J.; Young, M. S.; Fagnani, D. E.; McNeil, A. J. Revisiting poly(vinyl chloride) reactivity in the context of chemical recycling. *Chem. Sci*. **2024**, *15,* 5802–5813. DOI: 10.1039/d3sc06758k
75. Ramkumar, M.; Ji, W.; Thurber, H. E.; Clough, M. E.; Chirdon, S.; McNeil, A. J. Enhancing microplastic capture efficiencies with adhesive coatings on stainless-steel filters. *RSC Appl. Polym*. **2024**, *2*, 456–460. DOI: 10.1039/d3lp00282a
74. Milne, S.; Ramkumar, M.; Rieland, J.; Thurber, H. E.; Love, B. J.; McNeil, A. J. Informing the Public about Microplastics through a University and Museum Partnership. *J. Chem. Educ.* **2024**, *101*, 97–103. DOI: 10.1021/acs.jchemed.3c01017
73. Modak, S.; Pert, D.; Tami, J.; Shen, W.; Huan, X.; McNeil, A. J., Goldsmith, B.; Kwabi, D. Substituent Impact on Quinoxaline Performance and Degradation in Redox Flow Batteries. *J. Am. Chem. Soc.* **2024**, *146*, 5173–5185. DOI: 10.1021/jacs.3c10454
72. Fagnani, D. E.; Kim, D.; Camarero, S. I.; Alfaro, J. F.; McNeil, A. J. Using Waste Poly(vinyl chloride) to Synthesize Chloroarenes by Plasticizer-mediated Electro(de)chlorination. *Nature Chem.* **2023**, *15*, 222–229. DOI: 10.1038/s41557-022-01078-w
    - Highlighted by Helms in *Nature Synthesis*
    - Highlighted by Chemistry World
    - Listen to this interview on NPR Stateside
    - Highlighted in the UM Record
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71. Vaid, T. P.; Cook, M. E.; Scott, J. D.; Carazo, M. B.; Ruchti, J.; Minteer, S. D.; Sigman, M. S.; McNeil, A. J.; Sanford, M. S. Theoretical and Experimental Investigation of Functionalized Cyanopyridines Yield an Anolyte with an Extremely Low Reduction Potential for Nonaqueous Redox Flow Batteries. *Chem. Eur. J.* **2022**, *28*, e202202147. DOI: 10.1002/chem.202202147
70. Hannigan, M. D.; Zimmerman, P. M.; McNeil, A. J. Rethinking Catalyst Trapping in Ni-catalyzed Thienothiophene Polymerization. *Macromolecules* **2022**, *55*, 10821–10830. DOI: 10.1021/acs.macromol.2c01521
69. Coates, G. W.; Korley, L. T. J.; McNeil, A. J. Challenges and Opportunities in Sustainable Polymers. *Acc. Chem. Res.* **2022**, 55, 2543–2544. (editorial) DOI: 10.1021/acs.accounts.2c00534

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66. Fagnani, D. E.; Jehanno, C.; Sardon, H.; McNeil, A. J. Sustainable Green Polymerizations and End-of-Life Treatment of Polymers. *Macro. Rapid Commun.* **2022**, *43*, 2200446. (editorial) DOI: 10.1002/marc.202200446
65. Kim, D.; Sanford, M. S.; Vaid, T. P.; McNeil, A. J. A Nonaqueous Redox-Matched Flow Battery with Charge Storage in Insoluble Polymer Beads. *Chem. Eur. J.* **2022**, 28, e202200149. DOI: 10.1002/chem.202200149
64. Harris, J. T.; Devlin, A. M.; McNeil, A. J. Rapid Removal of Poly- and Perfluoroalkyl Substances with Quarternized Wood Pulp. *ACS EST Water* **2022**, *2*, 349–356. DOI: 10.1021/acsestwater.1c00396
63. Chazovachii, P. T.; Rieland, J. M.; Sheffey, V. V.; Jugovic, T. M. E.; Zimmerman, P. M.; Eniola-Adefeso, O.; Love, B. J.; McNeil, A. J. Using Adhesives to Capture Microplastics from Water. *ACS ES&T Engg.* **2021**, *12*, 1698–1704. DOI: 10.1021/acsestengg.1c00272
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61. Kim, D.; Mueller, E. A.; Yang, D. S.; Fagnani, D. E.; Kim, J.; McNeil, A. J. A Fullerene-functionalized Poly(3-hexylthiophene) Additive Stabilizes Conjugated Polymer-fullerene Blend Morphologies. *ACS Appl. Polym. Mater.* **2021,** *3*, 4861–4868. DOI: 10.1021/acsapm.1c00566
60. Chazovachii, P. T.; Somers, M.; Robo, M. T.; Collias, D. I.; James, M. I.; Marsh, E. N. G.; Zimmerman, P. M.; Alfaro, J.; McNeil, A. J. Giving Superabsorbent Polymers a Second Life as Pressure-sensitive Adhesives. *Nature Commun.* **2021**, *12*, 4524. DOI: 10.1038/s41467-021-24488-9
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59. Fagnani, D. E.; Tami, J. L.; Copley, G.; Clemons, M. N.; Getzler, Y. D. Y. L.; McNeil, A. J. 100th Anniversary of Macromolecular Science Viewpoint: Redefining Sustainable Polymers. *ACS Macro Lett.* **2021**, *10*, 41–53. DOI: 10.1021/acsmacrolett.0c00789.
58. Kubo, T.; Young, M. S.; Souther, K. D.; Hannigan, M. D.; McNeil, A. J. Air-Tolerant Poly(3-hexylthiophene) Synthesis via Catalyst-Transfer Polymerization. *J. Polym. Sci.* **2021**, *59*, 268–273. DOI: 10.1002/pol.20200788
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55. Kumar, V.; Harris, J. T.; Ribbe, A.; Franc, M.; Bae, Y.; McNeil, A. J.; Thayumanavan, S. Construction from Destruction: Hydrogel Formation from Triggered Depolymerization-based Release of an Enzymatic Catalyst. *ACS Macro Lett*. **2020**, *9*, 377–381. DOI: 10.1021/acsmacrolett.0c00023
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50. Wu, N.; Hall, A. O.; Phadke, S.; Zurcher, D. M.; Wallace, R. L.; Castaneda, C. A.; McNeil, A. J. Adapting Meaningful Learning Strategies for an Introductory Laboratory Course: Using Thin-Layer Chromatography to Monitor Reaction Progress. *J. Chem. Educ.* **2019**, 96, 1873–1880. DOI: 10.1021/acs.jchemed.9b00256

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45. Leone, A. K.; Goldberg, P. K.; McNeil, A. J. Ring-walking in Catalyst-Transfer Polymerization. *J. Am. Chem. Soc.* **2018**, *140*, 7846–7850. DOI: 10.1021/jacs.8b02469
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37. Li, Y; Flener Lovitt, C.; McNeil, A. J.; Shuyler, K. Improving Information Literacy through Wikipedia Editing in the Chemistry Classroom: Lessons Learned. In *Integrating Information Literacy into the Chemistry Curriculum;* Flener Lovitt, C., Shuyler, K., Li, Y., Eds.; ACS Symposium Series 1232; American Chemical Society: Washington, DC, 2016; pp 247–264.
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34. Veits, G. K.; Carter, K. K.; Cox, S. J.(undergraduate); McNeil, A. J. Developing a gel-based sensor using crystal morphology prediction. *J. Am. Chem. Soc.* **2016**, *138*, 12228–12233. DOI: 10.1021/jacs.6b06269
33. McNeil, A. J. My Maize and Blue Brick Road to Physical Organic Chemistry. *Beilstein J. Org. Chem*. **2016**, *12*, 229–238. DOI:10.3762/bjoc.12.24
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25. Berto, T.; Xu, N; Lee, S. R.; McNeil, A. J.; Alp, E.; Zhao, J.; Richter-Addo, G.; Lehnert, N. Characterization of the Bridged Hyponitrite Complex {[Fe(OEP)]2(mu-N2O2)}: Reactivity of Hyponitrite Complexes and Biological Relevance. *Inorg. Chem*. **2014**, *53*, 6398–6414. DOI: 10.1021/ic5002573
24. Carter, K. K.; Rycenga, H. B. (undergraduate); McNeil, A. J. Improving Hg-triggered Gelation via Structural Modifications. *Langmuir* **2014**, *30*, 3522–3527. DOI: 10.1021/la404567b
23. Palermo, E. F.; Darling, S. B.; McNeil, A. J. π-Conjugated Gradient Copolymers Suppress Phase Separation and Improve Stability in Bulk Heterojunction Solar Cells. *J. Mater. Chem. C* **2014***, 2,* 3401–3406. DOI: 10.1039/C3TC32512A
22. Bremmer, S. C.; McNeil, A. J.; Soellner, M. B. Enzyme-triggered Gelation: Targeting Proteases with Internal Cleavage Sites. *Chem. Commun*. **2014**, *50*, 1691–1693. DOI: 10.1039/C3CC48132H
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18. Lee, S. R.; McNeil, A. J. Accelerating Ni(II) Precatalyst Initiation using Reactive Ligands and its Impact on Chain-growth Polymerizations. *Dalton Trans.* **2013***, 42*, 4218–4222. DOI: 10.1039/C2DT32735J
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ENGAGING WITH THE PUBLIC

Major interviews

Interview for NPR's Here and Now (listen here)

Interview for LAist AirTalk (listen here)

Interview on Points North (Interlochen Public Radio) about microplastics capture (listen here)

Interview on Interlochen Public Radio about burning plastics as fuel at a local cement factory (listen here)

Interview on NPR's Stateside about PVC repurposing (listen here)

Interview on NPR's Stateside about plastics recycling (listen here)

Highlight on our work on microplastics in the LSA Magazine (read it here)

Featured on the Michigan Minds podcast (listen here)

Writing for the public

Wrote a piece for The Conversation on a proposed chemical recycling facility (read here)

Wrote a piece for The Conversation on overestimations in microplastics research (read here)

Lectures for the public

- "Microplastics are here, there, and everywhere" (evening session open to public); November 2024
  S. A. V. E. Alliance, Sylvania, OH
- "Microplastics are here, there, and everywhere"
  Grand Valley State University, Ott Lecturer (evening session open to public); April 2022
- "Microplastics are here, there, and everywhere"
  University of Akron, ACS Akron Award Lecture (evening session open to the public); November 2022
- "Waste Plastics & their Fates"
  Sigma IX Webinar (open to all members); June 2022

Museum exhibits

Partnered with the Dossin Great Lakes Museum to create an exhibit that informs the public on microplastics, focusing on what they are, how they are generated, where they are found, and how to minimize their release (e.g., drive less, laundry filters, etc). The temporary exhibit ran from April 2023–May 2024.

Partnered with the University of Michigan Museum of Natural History to create an exhibit on microplastics that is focused on actionable items rather than depressing statistics (opened Feb 2026 and will run for 1 year). The exhibit was made entirely from repurposed materials and paper-based products. Currently, I am doing a research project to determine whether visitors leave with hope and actionable goals or feel defeated, leading to inaction.