

# Christina Keenan Remucal, Ph.D.

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Associate Professor | DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

University of Wisconsin, Madison | 141 Water Science and Engineering Laboratory | 660 N. Park St.,  
Madison, WI 53706, USA

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## EDUCATION

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University of California, Berkeley	<b>Ph.D. in Civil and Environmental Engineering</b> Dissertation advisor: Prof. David L. Sedlak Dissertation title: Reactive oxidant generation by nanoparticulate zero-valent iron: Contaminant oxidation and toxicity Minors: Material Science and Engineering, Public Health	2009
University of California, Berkeley	<b>M.S. in Civil and Environmental Engineering</b>	2004
Massachusetts Institute of Technology	<b>B.S. in Environmental Engineering Science</b> Thesis advisor: Prof. Bettina M. Voelker Thesis title: The effect of additional hydrogen peroxide on solar water disinfection	2003
Cambridge University	<b>Junior year in Department of Engineering</b> Participant in the Cambridge-MIT Institute exchange program	2001-2002

## APPOINTMENTS

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ETH – SWISS FEDERAL INSTITUTE OF TECHNOLOGY   Zürich, Switzerland	<b>Visiting Professor</b>   Institute of Biogeochemistry and Pollutant Dynamics	2018-2019
EAWAG AQUATIC RESEARCH CENTER   Dübendorf, Switzerland	<b>Visiting Professor</b>   Department of Water Resources and Drinking Water	2018-2019
UNIVERSITY OF WISCONSIN, MADISON   Madison, WI	<b>Associate Professor</b>   Department of Civil and Environmental Engineering; Environmental Chemistry and Technology Program; Limnology and Marine Science Program; Molecular and Environmental Toxicology Center	2018-present
	<b>Director</b>   Water Science and Engineering Laboratory	2018-present
	<b>Assistant Professor</b>   Department of Civil and Environmental Engineering; Environmental Chemistry and Technology Program; Limnology and Marine Science Program; Molecular and Environmental Toxicology Center	2012-2018
ETH – SWISS FEDERAL INSTITUTE OF TECHNOLOGY   Zürich, Switzerland	<b>Postdoctoral Associate</b>   Institute of Biogeochemistry and Pollutant Dynamics • Prof. Kristopher McNeill research group	2009–12

## PROFESSIONAL EXPERIENCE

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- PARSONS | Walnut Creek, CA  
**Associate Environmental Engineer** 2004-2005
- LOS ALAMOS NATIONAL LABORATORY | Los Alamos, NM  
**Environmental Generalist** | Dynamic Experimental Division 2002

## ADDITIONAL RESEARCH EXPERIENCE

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- CAMBRIDGE UNIVERSITY | Cambridge, UK  
**Undergraduate Researcher** | Department of Engineering 2001-2002
- Research: Solidification and stabilization of heavy metals in mine tailings
- MASSACHUSETTS INSTITUTE OF TECHNOLOGY | Cambridge, MA  
**Undergraduate Researcher** | Department of Earth, Air and Planetary Science 2001
- Research: Water chemistry of the large rivers of Tibet and China
- LOS ALAMOS NATIONAL LABORATORY | Los Alamos, NM  
**Undergraduate Researcher** | Biosciences Division 2000
- Research: Single nucleotide polymorphism detection using flow cytometry

## PUBLICATIONS

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### Peer-Reviewed Journal Articles

- Hawkes J.A., D'Andrilli J., Sleighter R.L., Chen H., Hatcher P.G., Ijaz A., Khaksari M., Schum S., Mazzoleni L., Chu R., Tolic N., Kew W., Hess N., Lv J., Zhang S., He C., Shi Q., Hutchins R.H.S., Lozano D.C.P., Gavard R., Jones H.E., Thomas M.J., Barrow M.P., Osterholz H., Dittmar T., Simon C., Gleixner G., Berg S.M., **Remucal C.K.**, Catalán N., Cole R.B., Noriega-Ortega B., Singer G., Radoman N., Schmitt N.D., Stubbins A., Agar J.N., Zito P., and Podgorski D.C (2020). An international laboratory comparison of dissolved organic matter composition by high resolution mass spectrometry: Are we getting the same answer? *Limnology and Oceanography: Methods*. DOI: 10.1002/lom3.10364.
- Trainer E.L., Ginder-Vogel M., and **Remucal C.K.** (2020) Organic structure and solid characteristics determine reactivity of phenolic compounds with synthetic and reclaimed manganese oxides *Environmental Science: Water Research and Technology*. 6, 540-553.  
  
Selected as one of the top 10% of papers published in *Environmental Science: Water Research & Technology*.
- Lennox R., Bravener G., Lin H., Madenjjan C., **Remucal C.K.**, Robinson K., Rous A., Siefkes M., Wilkie M., and Cooke S. (2019) Potential changes and challenges to the biology and management of invasive sea lamprey *Petromyzon marinus* in the Laurentian Great Lakes confronting climate change. *Global Change Bio*. 26, 3, 1118-1137.
- Berg S., Whiting Q., Herli J., Winkels R., Wammer K., and **Remucal C.K.** (2019) The role of dissolved organic matter composition in determining photochemical reactivity at the molecular level. *Environmental Science and Technology*, 53, 20, 11725-11734.
- Remucal C.K.** (2019) Spatial and temporal variability of perfluoroalkyl substances in the Laurentian Great Lakes, *Environmental Science: Processes and Impacts*, 21, 1816 – 1834.  
  
Included in the *Environmental Science: Processes & Impacts* [Themed Issue](#) on per- and polyfluoroalkyl substances (PFAS).

26. Ostrem-Loss E.M., Lee M., Wu M., Martien J., Chen W., Amador-Noguez D., Jefcoate C. **Remucal C.K.**, Jung S., Kim S., Yu J. (2019) Cytochrome P450 monooxygenase mediated metabolic utilization of benzo(a)pyrene by fungi. *mBio*, 10 (3), 10.1128/mBio.00558-19.
25. Bulman D., Mezyk S., and **Remucal C.K.** (2019) The impact of pH and irradiation wavelength on the production of reactive oxidants during chlorine photolysis. *Environ. Sci. Technol.* 53 (8), 4450 – 4459.
24. Balgooyen S., Campagnola G., **Remucal C.K.**, and Ginder-Vogel M. (2019) Impact of bisphenol A influent concentration and reaction time on MnO<sub>2</sub> transformation in a stirred flow reactor. *Environ. Sci. Processes Impacts*. 21, 19-27.  
Selected as one of the top 10% of papers published in *Environmental Science: Processes & Impacts*.
23. Barazesh J.M., Prasse C., Wenk J., Berg S., **Remucal C.K.**, Sedlak D.L. (2018) Trace element removal in distributed drinking water treatment systems by cathodic H<sub>2</sub>O<sub>2</sub> production and UV photolysis. *Environ. Sci. Technol.* 52, 195 – 204.
22. Golub M., Desai A.R., **Remucal C.K.**, McKinley G.A., Stanley E.H. (2017) Large uncertainty in estimating pCO<sub>2</sub> from carbonate equilibria in lakes. *J. Geophys. Res. B.* 122 (11), 2909 – 2924.
21. Maizel, A., Li, J., **Remucal C.K.** (2017) Relationships between dissolved organic matter composition and photochemistry in lakes of diverse trophic status. *Environ. Sci. Technol.* 51 (17), 9642 – 9632. Included in the *ES&T* and *ES&T Letters* Virtual Issue on Early Career Scientists
20. Maizel, A., **Remucal C.K.** (2017) The effect of probe choice and solution conditions on the apparent photoreactivity of dissolved organic matter. *Environ. Sci. Processes Impacts*. 19, 1040 – 1050. Included in the Natural Organic Matter Showcase Collection.
19. McConville, M., Mezyk, S.P., **Remucal C.K.** (2017) Indirect photodegradation of the lampricides TFM and niclosamide. *Environ. Sci. Processes Impacts*. 19, 1028 – 1039.
18. Maizel, A., **Remucal C.K.** (2017) The effect of advanced secondary municipal wastewater treatment on the molecular composition of dissolved organic matter. *Water Res.* 122, 42-52.
17. McConville, M., Cohen, N., Lantz, S., Nowicki, S., Hixson, J. Ward, A.S., **Remucal C.K.** (2017) A field analysis of lampricide photodegradation in Great Lakes tributaries. *Environ. Sci. Processes Impacts*. 19, 891 – 900.  
Included in the Royal Society of Chemistry themed [collection](#) entitled “Celebrating excellence in research: 100 women of chemistry.”
16. Balgooyen, S.B., Alaimo, P.J., **Remucal C.K.**, Ginder-Vogel M. (2017) Mineralogical transformation of MnO<sub>2</sub> during the oxidation of bisphenol A. *Environ. Sci. Technol.* 51, 6053-6062.
15. Jane S.F., Winslow L.A., **Remucal C.K.**, Rose K.C. (2017) Long-term trends and synchrony in dissolved organic matter characteristics in Wisconsin, USA lakes. *J. Geophys. Res. B.* 122, 546-561.
14. Maizel A., **Remucal C.K.** (2017) Photochemical reactivity and molecular composition of size-fractionated dissolved organic matter. *Environ. Sci. Technol.* 51 (4), 2113-2123.
13. Li W., Jain T., Ishida K., **Remucal C.K.**, Liu H. (2016) A mechanistic understanding of the degradation of trace organic contaminants by UV/hydrogen peroxide, UV/persulfate and UV/free chlorine for water reuse. *Environ. Sci. Water Res. Tech.* 3, 128-138.
12. McConville M., Hubert T.D., **Remucal C.K.** (2016) Direct photolysis rates and transformation pathways of the lampricides TFM and niclosamide in simulated sunlight. *Environ. Sci. Technol.* 50, 9998-10006.
11. **Remucal C.K.**, Manley, D. (2016) The efficacy of chlorine photolysis as an advanced oxidation process for drinking water treatment. *Environ. Sci. Water Res. Tech.* 2, 565-579.  
Invited for a special issue on *The Drinking Water Exposome* and featured on the issue’s cover. Also included in the *Emerging Investigator Series*.
10. Chu C., Lundeen R.A., **Remucal C.K.**, Sander M., *McNeill K.* (2015) Enhanced indirect photochemical transformation of histidine and histamine through association with chromophoric dissolved organic matter. *Environ. Sci. Technol.* 49 (9), 5511–5519.
9. **Remucal C.K.**, Ginder-Vogel M. (2014) A critical review of the reactivity of manganese oxides with organic contaminants. *Environ. Sci. Process. Impacts*. 16 (6), 1247 – 1266.

Invited for the *Emerging Investigator* special issue.

8. **Remucal C.K.** (2014) The role of indirect photochemical degradation in the environmental fate of pesticides: A review. *Environ. Sci. Process. Impacts*. 16 (4), 628 – 653.  
Invited for a special issue on *Environmental Photochemistry*.
7. **Remucal C.K.**, Cory R. M., Sander M. and McNeill K. (2012) Low molecular weight components in an aquatic humic substance as characterized by membrane dialysis and Orbitrap mass spectrometry. *Environ. Sci. Technol.* 46 (17), 9350-9359.
6. **Remucal C.K.** and McNeill K. (2011) Photosensitized amino acid degradation in the presence of riboflavin and its derivatives. *Environ. Sci. Technol.* 45 (12), 5230-5237.
5. **Keenan C.R.**, Goth-Goldstein R., Lucas D. and Sedlak D.L. (2009) Oxidative stress induced by zero-valent iron nanoparticles and Fe(II) in human bronchial epithelial cells. *Environ. Sci. Technol.* 43 (12), 4555-4560.
4. **Keenan C.R.** and Sedlak D.L. (2008b) Ligand-enhanced reactive oxidant generation by nanoparticulate zero-valent iron and oxygen. *Environ. Sci. Technol.*, 42 (18), 6936-6941.
3. Lee C., **Keenan C.R.** and Sedlak D. L. (2008) Polyoxometalate-enhanced oxidation of organic compounds by nanoparticulate zero-valent iron and ferrous iron. *Environ. Sci. Technol.*, 42 (13), 4921-4926.
2. **Keenan C.R.** and Sedlak D.L. (2008a) Factors affecting the yield of oxidants from the reaction of nanoparticulate zero-valent iron. *Environ. Sci. Technol.*, 42 (4), 1262-1267.
1. Fisher M.B., **Keenan C.R.**, Nelson K.L. and Voelker B.M. (2008) Speeding up solar disinfection (SODIS): Effects of hydrogen peroxide, temperature, pH, and copper plus ascorbate on the photoinactivation of *E. Coli*. *J. Water Health*, 6 (1), 35-51.

#### Invited Book Chapter

1. **Remucal C.K.** and Sedlak D.L. (2011) The role of iron coordination in the production of reactive oxidants from ferrous iron oxidation by oxygen and hydrogen peroxide. In P. Tratnyek, T. Grundl, S. Haderlein (Eds.), *Aquatic Redox Chemistry*. (Vol. 1071, pp. 177-197). Washington, DC: American Chemical Society.

#### Peer-Reviewed Conference Proceedings

1. Peters D., Darbeheshti M., Ma G., Vernaza K.M., Rihana-Abdallah A., **Remucal C.K.**, and Wettstein S. How students view the role of faculty advisors in the SWE organization, 2020 ASEE Annual Conference & Exposition, Montreal, Canada (virtual), June 22, 2020.
2. Darbeheshti M., Vernaza K.M., Wettstein S., Ma G., Peters D., Rihana-Abdallah A., and **Remucal C.K.** How faculty advisors and counselors view their role in the SWE organization, 2019 ASEE Annual Conference & Exposition, Tampa, FL, June 12, 2019.

#### Non-Peer Reviewed Articles, Press Releases, Videos, and Popular Press

44. Holloway A. "Tracing lampricides through Great Lakes tributaries." *UW-Madison College of Engineering News*. March 26, 2020. <https://www.engr.wisc.edu/news/tracing-lampricides-through-great-lakes-tributaries/>
43. Dahdah J. "Researchers use Marinette contamination to learn more about PFAS." *Spectrum News 1*. Aired March 10, 2020. <https://spectrumnews1.com/wi/madison/news/2020/03/10/researchers-use-marinette-contamination-to-learn-more-about-pfas-contamination#>
42. Jones S. "PFAS in Wisconsin." *WSUM 91.7 EarthSpeak Radio*. Live interview on February 24, 2020.
41. College of Engineering "College honors eight outstanding faculty and staff." *UW-Madison College of Engineering News*. February 18, 2020. <https://www.engr.wisc.edu/news/college-honors-eight-outstanding-faculty-and-staff/>

40. Kothari A. "New legislation to restrict use of PFAS, funding for research testing." *Badger Herald*. February 11, 2020. <https://badgerherald.com/news/2020/02/11/new-legislation-to-restrict-use-of-pfas-funding-for-research-testing/>
39. Willison B. "What are PFAS and how do they move in the environment?" Video by *Wisconsin Sea Grant*. Posted on February 4, 2020. <https://www.youtube.com/watch?v=oRoGq-JQ0S0>
38. Gretzinger E. "UW, Madison Water Utility work to address tensions from PFAS." *Badger Herald*. February 4, 2020. <https://badgerherald.com/news/2020/02/04/uw-madison-water-utility-work-to-address-tensions-from-pfas/>
37. Vasquez R. "PFAS 'forever chemicals' explained" *Wisconsin Public Radio: Central Time*. Interview aired January 22, 2020. <https://www.wpr.org/pfas-forever-chemicals-explained>
36. Sperling H. "In the field with forever chemicals" *WisContext Newsletter*. January 17, 2020.
35. **Remucal C.K.** "What are PFAS and why are they a problem?." *WisContext*. January 14, 2020. <https://www.wiscontext.org/what-are-pfas-and-why-are-they-problem>
34. Bergquist L. "Pollution cases involving 'forever' chemicals are growing across Wisconsin." *Milwaukee Journal Sentinel*. December 19, 2019. <https://www.jsonline.com/story/news/2019/12/30/discoveries-forever-chemicals-growing-across-wisconsin/2742023001/>
33. Dahdah J. "Madison switches to PFAS-free firefighting foam." *Spectrum News 1*. Aired December 17, 2019. <https://spectrumnews1.com/wi/madison/news/2019/12/17/madison-switches-to-pfas-free-firefighting-foam>
32. Soman S. "Dr. Christy Remucal on PFAS Chemicals." WORT 89.9 News. Aired December 4, 2019. <https://www.wortfm.org/dr-christy-remucal-on-pfas-chemicals/>
31. "Madison Water Utility: UW-Madison researcher launches new PFAS study in Wisconsin." *University of Wisconsin College of Engineering News*. December 3, 2019. <https://www.engr.wisc.edu/madison-water-utility-uw-madison-researcher-launches-new-pfas-study-wisconsin/>
30. Barrilleaux A. "'We'll be doing this forever.' Understanding the impact of PFAS." *City of Madison – Madison Water Utility*. December 3, 2019. <https://www.cityofmadison.com/water/insidemwu/well-be-doing-this-forever-understanding-the-impact-of-pfas>
29. Zhuikov M. "Tea and sunlight." *Wisconsin Sea Grant Water News Podcast*. November 19, 2019. <https://www.seagrant.wisc.edu/audio/wisconsin-water-news/>
28. Zhuikov M. "Tea and sunlight: Exploring how nature breaks down pollution in the St. Louis River." *Wisconsin Sea Grant Blog*. November 14, 2019. <https://www.seagrant.wisc.edu/news/new-keillor-fellow-to-study-movement-of-firefighting-chemicals-in-watershed/>
27. Zhuikov M. "New Keillor Fellow to study movement of firefighting chemicals in watershed." *Wisconsin Sea Grant Blog*. November 11, 2019. <https://www.seagrant.wisc.edu/news/tea-and-sunlight-exploring-how-nature-breaks-down-pollution-in-the-st-louis-river/>
26. Smith J. "UW-Madison embarks on new partnership with EPA to train next generation of scientists." *Wisconsin Sea Grant Blog*. October 29, 2019. <https://www.seagrant.wisc.edu/news/uw-madison-embarks-on-new-partnership-with-environmental-protection-agency-to-train-next-generation-of-scientists/>
25. Dahdah J. "DNR finds two PFAS contamination sites, working on identifying more." *Spectrum News 1*. Aired October 17, 2019. <https://spectrumnews1.com/wi/madison/news/2019/10/17/dnr-finds-two-pfas-contamination-sites--working-on-identifying-more>
24. Hinterthuer A. "Assessing how long chemicals linger in lakes." *UW-Madison Center for Limnology Blog*. July 3, 2019. <http://blog.limnology.wisc.edu/assessing-how-long-chemicals-linger-in-lakes/>
23. Smith J.A. "UW changes lives: Study looks at drinking water safety in Wisconsin." *University of Wisconsin News*. April 4, 2019. <https://news.wisc.edu/study-examines-groundwater-chemistry-drinking-water-safety-in-wisconsin/>

22. Smith J.A. "Remucal's research furthers knowledge about drinking water safety, particularly from groundwater." *Aquatic Sciences Chronicle*. Volume 2, 2019. <https://www.wri.wisc.edu/news/remucals-research-furthers-knowledge-about-drinking-water-safety-particularly-from-groundwater/>
21. Sedlak D.L. "Environmental Science & Technology and Environmental Science & Technology Letters Virtual Issue: Early Career Scientists" <http://acspubs.co/WrwE30o9HhL>
20. Carrington S. "Outstanding reviewers for *Environmental Science: Processes & Impacts* in 2018" *RSC Publishing Blog*. March 20, 2019. <http://blogs.rsc.org/em/2019/03/20/outstanding-reviewers-for-environmental-science-processes-impacts-in-2018/>
19. Ziemer T. "Swiss sabbatical opens new opportunities." *University of Wisconsin College of Engineering News*. March 12, 2019. <https://www.engr.wisc.edu/swiss-sabbatical-opens-new-opportunities/>
18. McNeill K., Neil S., and Darby C. (2019) Outstanding reviewers for *Environmental Science: Processes & Impacts* in 2018. *Environmental Science: Processes & Impacts*, 21, 780.
17. Zhuikov M. "New projects address Wisconsin groundwater resources." *Aquatic Sciences Chronicle*. Volume 3, 2018. <https://aqua.wisc.edu/chronicle/Default.aspx?tabid=687>
16. Logan B.E. (2018) *Environmental Science & Technology Letters* presents the 2018 excellence in review awards. *Environmental Science & Technology Letters*, 5, 621-621. DOI: 10.1021/acs.estlett.8b00532.
15. **Remucal C.K.** "Congratulations to GRC Environmental Sciences: Water poster winners." *Association of Environmental Engineering and Science Professors Newsletter*. October 2018. 53(3), 20.
14. Andrews M. "Announcing a themed collection – Celebrating excellence in research: 100 women of chemistry." *RSC Publishing Blog*. August 24, 2018. [http://blogs.rsc.org/rscpublishing/2018/08/24/announcing-a-themed-collection-celebrating-excellence-in-research-100-women-of-chemistry/?doing\\_wp\\_cron=1541679244.0001211166381835937500](http://blogs.rsc.org/rscpublishing/2018/08/24/announcing-a-themed-collection-celebrating-excellence-in-research-100-women-of-chemistry/?doing_wp_cron=1541679244.0001211166381835937500)
13. Barrilleaux A. "Widely used chemicals detected in two Madison wells." *City of Madison – Madison Water Utility Press Release*. July 27, 2018. <https://www.cityofmadison.com/water/insidemwu/widely-used-chemicals-detected-in-two-madison-wells>
12. Harrington M. "Wisconsin Sea Grant announces \$2.8 million to fund Great Lakes research, including eight projects at UW-Madison." *University of Wisconsin Sea Grant Institute Press Release*. March 29, 2018. <http://seagrant.wisc.edu/home/Default.aspx?tabid=561&PostID=2652&Mode=View>
11. Cushman W. "Glass half full: Improving the world's water." *Perspective*. Spring 2017: 10-15. Print.
10. Sedlak D.L. (2016) *Environmental Science and Technology* presents the 2016 reviewer awards. *Environ. Sci. Technol.* 50, 11433-11434.
9. Bowley L. "Emerging investigator series: Christy Remucal." *Environmental Science: Water Research & Technology Blog*. June 6, 2016. <http://blogs.rsc.org/ew/2016/06/07/emerging-investigator-series-christy-remucal/>
8. Harrington M. "Wisconsin Sea Grant announces \$3.9 million to fund Great Lakes research, including six projects at UW-Madison." *University of Wisconsin Sea Grant Institute Press Release*. February 22, 2016. <http://www.seagrant.wisc.edu/Home/AboutUsSection/PressRoom/Details.aspx?PostID=2275>
7. Lepisto M. "Water research helps manage critical resource in ever-changing world." *In Common*. Spring/Summer 2015. <http://nelson.wisc.edu/news/in-common/spring-summer2015/story.php?s=1492>
6. Gordon S. "Christy Remucal receives NSF CAREER Award." *University of Wisconsin Engineering Newsnotes*. January 30, 2015. <http://www.engr.wisc.edu/news/archive/2015/jan03-remucal-career-award.html>
5. Zhuikov M. "Turning a Water Nuisance into a Water Cleanser: Water Resources Institute Project Looks at Manganese in the Madison Water System." *Water Resources Institute Newsletter*. January 23, 2015. <http://www.wri.wisc.edu/pressroom/Details.aspx?PostID=1200>

4. Delgado-Saborit J. M., Park, H.-D., and Cwiertny D. M. (2014) Emerging investigators: profiles of the contributors. *Environ. Sci. Process. Impacts*. 16, 1171-1181, DOI: 10.1039/C4EM90019G.
3. McNeill K. (2014) Themed issue on aquatic photochemistry. *Environ. Sci. Process. Impacts*. 16, 626-627, DOI: 10.1039/C4EM90009J.
2. **Remucal, C.K.** "A new perspective: Applying aquatic chemistry to solve our water quality problems." *Perspective*. Spring 2013: 34-25. Print.
1. Meiller, R. "Focus on new faculty: Christy Remucal, optimizing ways to remove contaminants from water." *University of Wisconsin Engineering Newsnotes*. April 30, 2013. <http://www.engr.wisc.edu/news/archive/2013/Apr30.html>.

## HONORS AND AWARDS

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ESWRT HOT Article; Among top 10 percent of papers in 2020	2020
Trainer E.L., Ginder-Vogel M., and <b>Remucal C.K.</b> (2020) Organic structure and solid characteristics determine reactivity of phenolic compounds with synthetic and reclaimed manganese oxides <i>Environmental Science: Water Research and Technology</i> . 6, 540-553.	
Benjamin Smith Reynolds Award for Excellence in Teaching	2020
ES&T and ES&T Letters Young Investigator	2019
<i>Environmental Science: Processes &amp; Impacts</i> Outstanding Reviewer	2019
ESPI HOT Article; Among top 10 percent of papers in 2018	2018
Balgooyen S., Campagnola G., <b>Remucal C.K.</b> , and Ginder-Vogel M. (2019) Impact of bisphenol A influent concentration and reaction time on MnO <sub>2</sub> transformation in a stirred flow reactor. <i>Environ. Sci. Processes Impacts</i> . 21, 19-27.	
<i>Environmental Science and Technology Letters</i> Excellence in Review Award	2018
Royal Society of Chemistry collection – Celebrating excellence in research: 100 years of chemistry	2018
McConville, M., Cohen, N., Lantz, S., Nowicki, S., Hixson, J. Ward, A.S., <b>Remucal C.K.</b> (2017) A field analysis of lampricide photodegradation in Great Lakes tributaries. <i>Environ. Sci. Processes Impacts</i> . 19, 891 – 900.	
ESPI HOT Article; Among top 10 percent of papers in 2017	2017
McConville, M., Cohen, N., Lantz, S., Nowicki, S., Hixson, J. Ward, A.S., <b>Remucal C.K.</b> (2017) A field analysis of lampricide photodegradation in Great Lakes tributaries. <i>Environ. Sci. Processes Impacts</i> . 19, 891 – 900.	
<i>Environmental Science and Technology</i> Excellence in Review Award	2016
<i>Environmental Sciences: Processes and Impacts</i> Top 10 Reviewer Award	2016
University Honored Instructor	2016
NSF CAREER Award	2015
ESPI HOT Article; Among top 20 most downloaded articles in 2014	2014
<b>Remucal C.K.</b> , The role of indirect photochemical degradation in the environmental fate of pesticides: A review. 2014. <i>Environ. Sci. Process. Impacts</i> . 16 (4), 628 – 653.	
ETH Postdoctoral Fellowship	2010
Project: Enhancement of visible-light solar water disinfection with riboflavin and its derivatives	
U. C. Berkeley Outstanding Graduate Student Instructor Award	2008
American Chemical Society Division of Environmental Chemistry Graduate Student Paper Award	2008
Paper: Factors affecting the yield of oxidants from the reaction of nanoparticulate zero-valent iron and oxygen	
National Science Foundation Graduate Research Fellowship	2003

## RESEARCH GRANTS AND FUNDING

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<b>Extramural Research Grants Funded</b>	(total at University of Wisconsin, Madison = \$4,979,448)
17. National Science Foundation   2020	\$335,118
<i>Impact of dissolved organic matter on phenolic contaminant oxidation by manganese oxides (PI: Ginder-Vogel, Remucal)</i>	
16. Wisconsin Sea Grant   2019	\$270,786

*Sources and fate of per- and polyfluoroalkyl substances (PFAS) in Green Bay and Lake Michigan (PI: Remucal)*

15. Great Lakes Fishery Commission | 2018 \$299,371  
*The role of hyporheic exchange in the environmental fate of lampricides (PI: Remucal, Ward).*
14. National Science Foundation – Environmental Engineering | 2017 \$330,014  
*Linking dissolved organic matter composition to photochemical reactivity (PI: Remucal, Wammer)*
13. US Environmental Protection Agency | 2018 \$1,999,990\*  
*Training the Next Generation of Scientists to Protect Human Health and the Environment: A Collaboration of UW-Madison and EPA MED (PIs: Hurley, Remucal, McIntyre, Hauxwell; Co-PIs: Block, Carpenter, Dugan, Ginder-Vogel, Hanson, Loheide, McMahon, Pedersen, Stanley, VanderZanden).*
12. Wisconsin Department of Natural Resources | 2018 \$252,428  
*The role of microbes and sunlight in the fate of 2,4-D during Eurasian watermilfoil whole-lake treatments (PI: Remucal, McMahon).*
11. Wisconsin Groundwater Coordinating Council | 2018 \$109,357  
*The impact of dissolved organic matter composition on the formation of disinfection by-products in groundwater (PI: Remucal)*
10. Wisconsin Sea Grant | 2016 \$230,562  
*The role of indirect photolysis in the environmental fate of pesticides and pharmaceuticals in the St. Louis River Estuary (PI: Remucal, Wammer)*
9. National Science Foundation – Environmental Engineering | 2015 \$328,059  
*Applying surface chemical approaches to elucidate the oxidation mechanisms of organic pollutants by manganese oxides (PI: Ginder-Vogel, Remucal), Award No. 1509879.*
8. National Science Foundation – CAREER | 2015 \$500,064  
*CAREER: An adaptive approach to oxidize emerging contaminants in our drinking water (PI: Remucal), Award No. 1451932.*
7. Great Lakes Fishery Commission | 2015 \$117,896  
*Demonstration of the photodegradation of lampricides to form benign products during in situ dosing (PI: Remucal, Hubert)*
6. National Science Foundation | 2014 \$4,012,651\*  
*ILTER: Comparative study of a suite of lakes in Wisconsin (PI: Stanley; Remucal is one of 20+ co-PIs)*
5. Great Lakes Fishery Commission | 2014 \$50,069  
*The aqueous photolysis of niclosamide (PI: Remucal, Hubert)*
4. Wisconsin Groundwater Coordinating Council | 2013 \$105,734  
*Effect of source chemistry on Mn-bearing solid dissolution and reactivity (PI: Ginder-Vogel, Remucal)*
3. Wisconsin Sea Grant | Development Grant | 2011 \$50,000  
*The role of indirect photochemical degradation in the environmental fate of lampricides (PI: Remucal)*
2. ETH Zürich | Postdoctoral Fellowship | 2010 \$300,000
1. National Science Foundation | Graduate Research Fellowship | 2003 \$119,000

\*The LTER funding and EPA training grants are not included in award total.

**Intramural Research Grants Funded** (total at University of Wisconsin, Madison = \$792,796)

20. University of Wisconsin, Madison Graduate School | Travel Award | 2020 \$1,000  
*ACS Conference, March 2020, Philadelphia, PA*
19. University of Wisconsin, Madison Graduate School | Fall Competition | 2020 \$41,878  
*Predicting carbon emissions from freshwater lakes due to photo- and biodegradation of dissolved organic matter (PI: Remucal)*
18. University of Wisconsin-Madison UW2020 Initiative | 2018 \$498,620  
*Building excellence in water analysis (PI: Ginder-Vogel, Hurley, Remucal)*



17. University of Wisconsin, Madison | Anna Grant Birge Award | 2019 \$2,000  
*Sampling campaign for 2,4-D fate experiments (White)*
16. University of Wisconsin, Madison | Anna Grant Birge Award | 2019 \$1,956  
*Sampling campaign for DOM photochemical experiments (Berg)*
15. University of Wisconsin, Madison Graduate School | Fall Competition | 2017 \$42,170  
*The role of dissolved organic matter composition in the formation of disinfection by-products during chlorination (PI: Remucal)*  
(This award was insurance against a Wisconsin Groundwater Coordinating Council proposal and was declined.)
14. University of Wisconsin, Madison Graduate School | Travel Award | 2017 \$1,000  
*ACS Conference, March 2018, New Orleans, LA*
13. University of Wisconsin, Madison | Hilldale Undergraduate Research Fellowship | 2017 \$1,000  
*Degradation of bisphenol A by manganese oxides (Campagnola)*
12. University of Wisconsin, Madison | Anna Grant Birge Award | 2017 \$1,191  
*Sampling campaign for DOM photochemical experiments (Berg)*
11. University of Wisconsin, Madison Graduate School | Fall Competition | 2015 \$38,823  
*Molecular composition and photochemical reactivity of dissolved organic matter in the St. Louis River Estuary (PI: Remucal)*
10. University of Wisconsin, Madison | Anna Grant Birge Award | 2015 \$1,000  
*Sampling campaign for lampricide photochemical experiments (McConville)*
9. University of Wisconsin, Madison Graduate School | Travel Award | 2015 \$1,000  
*AEESP Conference, June 2015, New Haven, Connecticut*
8. University of Wisconsin, Madison Graduate School | Fall Competition | 2014 \$39,424  
*An adaptive approach to oxidize emerging contaminants in our drinking water (PI: Remucal)*  
(This award was insurance against an NSF CAREER proposal and was declined.)
7. University of Wisconsin, Madison | Anna Grant Birge Award | 2014 \$1,179  
*Sampling campaign for DOM photochemical experiments (Maizel)*
6. University of Wisconsin, Madison Graduate School | Fall Competition | 2013 \$33,844  
*The effect of water chemistry on the photodegradation of pesticides and pharmaceuticals (PI: Remucal)*
5. Sustainability Innovation in Research and Teaching (SIRE) | 2013 \$50,000  
*Water, sustainability and green infrastructure: A model 21<sup>st</sup> century campus by 2025 (PI: LaGro, Co-PIs: Ginder-Vogel, Harrington, Likos, Loheide, Remucal)*
4. University of Wisconsin, Madison | Holstrom Environmental Scholarship | 2013 \$1,000  
*Photodegradation of 3-trifluoromethyl-4-nitrophenol and 5-chloro-N-(2-chloro-4-nitrophenyl)-2-hydroxy-benzamide (Linde)*
3. University of Wisconsin, Madison | Anna Grant Birge Award | 2013 \$790  
*Sampling campaign for lampricide photochemical experiments (McConville)*
2. University of Wisconsin, Madison Graduate School | Travel Award | 2013 \$1,000  
*American Chemical Society Spring Meeting, April 2013, New Orleans, Louisiana*
1. University of Wisconsin, Madison Graduate School | Fall Competition | 2012 \$34,112  
*The photochemical behavior of dialysis-isolated size fractions of dissolved organic matter in natural waters*

## PRESENTATIONS

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### Invited Research Seminars

<u>Location</u>	<u>Department</u>	<u>Seminar Date</u>
1. University of Wisconsin-Madison	Wisconsin Idea Seminar	May 21, 2013
2. University of St. Thomas	Chemistry Department	Oct. 11, 2013
3. University of Wisconsin-Milwaukee	School of Freshwater Sciences	Apr. 3, 2014
4. Marquette University	Environmental Engineering	Apr. 15, 2015
5. Gustavus Adolphus College	Department of Chemistry	May 8, 2015
6. Northwestern University	Environmental Engineering	May 29, 2015
7. University of Wisconsin-Madison	Chemistry Department	Oct. 13, 2016
8. University of Iowa	Environmental Engineering	Oct. 21, 2016
9. University of Michigan	Environmental Engineering	Oct. 28, 2016
10. University of Minnesota	Civil, Environmental, and Geo- Engineering	Nov. 11, 2016
11. US Geological Survey	Middleton, WI	Dec. 5, 2016
12. Stanford University	Environmental Engineering	Apr. 6, 2017
13. University of Wisconsin-Madison	Water@UW-Madison Symposium	May 9, 2017
14. University of Wisconsin-Madison	Grainger Institute	Feb. 22, 2018
15. University of Wisconsin-Madison	Wednesday Nite @ the Lab	Apr. 18, 2018
14. ETH Zürich	Biogeochemistry & Pollutant Dynamics	Nov. 16, 2018
15. Université de Lausanne	Earth Surface Dynamics	Dec. 5, 2018
16. Eawag	Institute Seminar	Mar. 22, 2019
17. EPFL	Environmental Engineering Institute	Mar. 26, 2019
18. ETH Zürich	Biogeochemistry & Pollutant Dynamics	May 21, 2019
19. Universität Tübingen	Center for Applied Geoscience	May 24, 2019
20. University of Wisconsin-Madison	WISE Seminar	Nov. 19, 2019
21. University of Wisconsin-Madison	Water@UW-Madison Symposium, Keynote	Nov. 20, 2019
22. Yahara Lakes 101 Science Café	Women in Water & Sustainability	Feb. 3, 2020
23. Northwestern University	Environmental Engineering	Mar. 13, 2020 <sup>‡</sup>
24. University of Wisconsin-Madison	Water@UW-Madison Symposium	May 5, 2020
25. WI Department of Natural Resources	PFAS Workgroup	May 20, 2020

<sup>‡</sup> Canceled due to COVID-19

### Invited Webinars

<u>Topic</u>	<u>Organization</u>	<u>Webinar Date</u>
1. Emerging Contaminants	Great Lakes Sea Grant	Jan. 10, 2019
2. PFAS in Wisconsin	Water Action Volunteers	Jan. 22, 2020

### Conference Presentations

(\* denotes the presenting author, Remucal advisees are underlined, <sup>‡</sup> denotes conferences/meetings that were canceled due to COVID-19)

58. **Remucal C.K.\*** and Milstead R. | *The impact of dissolved organic matter composition on the formation of disinfection by-products in groundwater* | International Humic Substances Society Conference | Estes Park, CO | August 18, 2020.<sup>‡</sup>
57. Wammer K.H.\*, **Remucal C.K.**, Berg S.M., Herrli J.A., Winkels R., Beer K.E., and Risch A.B. | *Linking dissolved organic matter composition to photochemical reactivity and contaminant transformation* | International Humic Substances Society Conference | Estes Park, CO | August 18, 2020.<sup>‡</sup>
56. Balqooyen S.\* and **Remucal C.K.** | *Sources and fate of PFAS in Green Bay and Lake Michigan* | Green Bay Conservation Roundtable | Green Bay, WI | April 23, 2020. (virtual)
55. Milstead R.\* and **Remucal C.K.** | *Impact of dissolved organic matter composition on the formation of regulated and novel disinfection byproducts during chlorination* | American Chemical Society National Meeting | Philadelphia, PA | March 25, 2020.<sup>‡</sup>

54. **Remucal C.K.\*** and **Bulman D.M.** | *Impact of halogen radicals on dissolved organic matter transformation during chlorine photolysis* | American Chemical Society National Meeting | Philadelphia, PA | March 25, 2020.<sup>‡</sup>
53. **White A.\***, McMahon K.D., and **Remucal C.K.** | *New insights to the degradation of 2,4-dichlorophenoxyacetic acid when applied whole-lake treatments* | American Chemical Society National Meeting | Philadelphia, PA | March 24, 2020.<sup>‡</sup>
52. **Remucal C.K.\***, **Berg S.M.**, Herrli J., Winkels R., and Wammer K.H. | *Dissolved organic matter composition and electron-donating capacity determine photochemical reactivity of diverse waters* | American Chemical Society National Meeting | Philadelphia, PA | March 24, 2020.<sup>‡</sup>
51. **Trainer E.L.\***, Ginder-Vogel M., and **Remucal C.K.** | *Influence of phenolic structure on contaminant oxidation by manganese oxides in complex matrices* | American Chemical Society National Meeting | Philadelphia, PA | March 23, 2020.<sup>‡</sup>
50. **Trainer E.L.\***, Ginder-Vogel M., and **Remucal C.K.** | *Mechanistic interactions of phenolic contaminants with manganese oxides* | Soil Science Society of America International Annual Meeting | San Antonio, TX | November 13, 2019.  
\*This presentation received an “Oral Presentation Award” at the conference.
49. **White A.M.**, **Remucal C.K.**, and McMahon K.D | *Using citizen science to increase herbicide monitoring data across the state of Wisconsin* | SETAC North America | Toronto, Canada | November 4, 2019.
48. Ginder-Vogel M., **Balگوoyen S.**, and **Remucal C.K.** | *Phenolic contaminant interactions with Mn(III/IV) oxides* | Soil Science Society of America International Annual Meeting | San Antonio, TX | November 13, 2019.
47. **White A.M.**, **Remucal C.K.**, and McMahon K.D | *Microbial and photodegradation of 2,4-D* | Science in the Northwoods | Boulder Junction, WI | October 10, 2019.
46. **Trainer E.L.\***, Ginder-Vogel M., and **Remucal C.K.** | *Kinetics and mechanisms of phenolic contaminant oxidation by environmentally-relevant manganese oxides* | American Chemical Society National Meeting | Orlando, FL | April 1, 2019.
45. **Bulman D.\*** and **Remucal C.K.** | *Impact of pH and wavelength on the production of reactive oxidants during chlorine photolysis* | American Chemical Society National Meeting | Orlando, FL | March 31, 2019.
44. **Berg S.M.\***, **Whiting Q.T.**, Herrli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *Photochemical reactivity of dissolved organic matter in the St. Louis River and implications for contaminant fate* | American Chemical Society National Meeting | Orlando, FL | March 31, 2019.
43. **McConville M.\***, **Berg S.M.**, Mooney R.J., McIntyre P.B., and **Remucal C.K.** | *Temporal and spatial variability in organic carbon concentration in tributaries* | State of Lake Superior Conference – International Association for Great Lakes Research | Houghton, MI | October 10, 2018.
42. **McConville M.\***, **Berg S.M.**, Mooney R.J., McIntyre P.B., and **Remucal C.K.** | *Temporal and spatial variability in organic carbon concentration in tributaries* | State of Lake Superior Conference – International Association for Great Lakes Research | Houghton, MI | October 10, 2018.
41. **White A.\***, McMahon K.D., and **Remucal C.K.** | *The role of microbes and sunlight in the fate of 2,4-D during Eurasian watermilfoil whole lake treatments* | Wisconsin Lake Partnership | Madison, WI | August 16, 2018.
40. **Trainer E.L.\***, Ginder-Vogel M., and **Remucal C.K.** | *Transformation of phenolic contaminants by environmentally relevant manganese oxides* | Goldschmidt | Boston, MA | August 13, 2018.
39. **Balگوoyen S.\***, **Remucal C.K.**, and Ginder-Vogel M. | *Effect of solution conditions on bisphenol A oxidation by manganese oxides* | Goldschmidt | Boston, MA | August 13, 2018.
38. **Remucal C.K.** | *Shining light on dissolved organic matter: Applying both old and new tools to resolve composition and reactivity* | Gordon Research Conference on Environmental Sciences: Water, Holderness, NH | June 26, 2018.  
\* Invited oral presentation
37. **Berg S.\***, Whiting Q.T., Herrli J.A., Breuckman K.C., Wammer K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and*

*venlafaxine in the St. Louis River Estuary* | Emerging Contaminants in the Aquatic Environment Conference | Champaign, IL | June 5, 2018.

\*This presentation received the “Best Student Oral Presentation Award” at the conference.

36. **Remucal C.K.\***, Berg S., Mooney R.J., McConville M.B., and McIntyre P. | *Temporal and spatial variability in organic carbon concentration and composition in Lake Michigan tributaries* | Society for Freshwater Science Annual Meeting | Detroit, MI | May 21, 2018.
35. Leverich E.T.\*, Sreenivasan K., Ginder-Vogel M., and **Remucal C.K.** | *Transformation of phenolic contaminants by environmentally-relevant manganese oxides* | SETAC Young Environmental Scientists Meeting | Madison, WI | March 27, 2018.
34. Balگوoyen S.J.\*, Campagnola G., **Remucal C.K.**, and Ginder-Vogel M. | *Changes in bisphenol A oxidation mechanism in the presence of manganese oxide* | American Chemical Society National Meeting | New Orleans, LA | March 21, 2018.
33. **Remucal C.K.\***, Leverich E.T., and Ginder-Vogel M. | *Transformation of phenolic contaminants by environmentally-relevant manganese oxides* | American Chemical Society National Meeting | New Orleans, LA | March 21, 2018.
32. Wammer K.H.\*, Whiting Q.T., Herrli J.A., Berg S., and **Remucal C.K.** | *Impact of dissolved organic matter composition variability on indirect photolysis of contaminants in the St. Louis River* | American Chemical Society National Meeting | New Orleans, LA | March 18, 2018.
31. Berg S.\*, Wammer K.H., and **Remucal C.K.** | *Impact of dissolved organic matter composition on the production of photochemically-produced reactive intermediates in the St. Louis River* | American Chemical Society National Meeting | New Orleans, LA | March 18, 2018.
30. **Remucal C.K.\*** and Bulman D.M. | *Effect of pH and wavelength on reactive oxidant production during chlorine photolysis* | American Chemical Society National Meeting | New Orleans, LA | March 18, 2018.
29. Wammer K.H.\*, Whiting Q., Berg S., and **Remucal C.K.** | *The role of indirect photolysis in the environmental fate of pesticides and pharmaceuticals in the St. Louis River* | St. Louis River Summit | Superior, WI | March 14, 2018.
28. Mooney R.J.\*, McKinley G.A., Gloeger L., **Remucal C.K.**, McConville M., and McIntyre P.B. | *Extensive spatiotemporal variation in nutrient concentrations of Lake Michigan's tributaries* | Society of Freshwater Science National Meeting | Raleigh, NC | June 7, 2017.
27. **Remucal C.K.\***, McConville M., and Ward A. | *Photochemical fate of lampricides in tributaries of the Great Lakes* | American Chemical Society National Meeting | San Francisco, CA | April 5, 2017.
26. Balگوoyen S.\*, **Remucal C.K.**, and Ginder-Vogel M. | *Mineralogical transformation of MnO<sub>2</sub> during redox reactions with organic contaminants* | American Chemical Society National Meeting | San Francisco, CA | April 3, 2017.
25. **Remucal C.K.\***, Maizel A., and Berg S. | *Characterization of dissolved organic matter during municipal wastewater treatment* | American Chemical Society National Meeting | San Francisco, CA | April 3, 2017.
24. Manley D.\* and **Remucal C.K.** | *Effect of solution conditions on reactive oxidant production during chlorine photolysis* | American Chemical Society National Meeting | San Francisco, CA | April 2, 2017.
23. Balگوoyen S.\*, Ginder-Vogel M.\*, and **Remucal C.K.** | *Characterization and use of manganese in Madison's drinking water aquifers* | American Water Works Association (Wisconsin Section) | Madison, WI | September 15, 2016.
22. Ginder-Vogel M.\*, Balگوoyen S., and **Remucal C.K.** | *Mechanisms and products of BPA oxidation by Mn(IV) oxide* | American Chemical Society National Meeting | Philadelphia, PA | August 23, 2016.
21. Chu C.\*, Lundeen R.A., **Remucal C.K.**, Sander M., and McNeill K. | *Enhanced indirect photochemistry of dissolved free and combined histidine through association with chromophoric dissolved organic matter* | American Chemical Society National Meeting | San Diego, CA | March 17, 2016.
20. Maizel A.\* and **Remucal C.K.** | *Effect of experimental parameters on the apparent photochemical properties of dissolved organic matter* | American Chemical Society National Meeting | San Diego, CA | March 16, 2016.

19. **Remucal C.K.\*** and Maizel A. | *Photochemical formation of reactive oxidants by size-fractionated dissolved organic matter* | American Chemical Society National Meeting | San Diego, CA | March 16, 2016.
18. Balگوoyen S.\*, Chhouk B., Ginder-Vogel M., and **Remucal C.K.** | *Oxidative transformation of bisphenol A in the presence of synthetic  $\delta$ -MnO<sub>2</sub>* | American Chemical Society National Meeting | San Diego, CA | March 16, 2016.  
This presentation received a Certificate of Merit for the presentation of an oral paper from the ENVR division of ACS.
17. Balگوoyen S.\*, Chhouk B., Ginder-Vogel M., and **Remucal C.K.** | *Mineral surface modification of  $\delta$ -MnO<sub>2</sub> decreases bisphenol A oxidation rate* | Soil Science Society of America | Minneapolis, MN | November 17, 2015.
16. Ginder-Vogel M.\*, Balگوoyen S., Chhouk B., and **Remucal C.K.** | *Mechanisms and kinetics of organic contaminant transformation by Mn(IV) oxides* | Goldschmidt | Prague, Czech Republic | August 21, 2015. (Invited)
15. **Remucal C.K.\*** and Maizel A. | *Photochemical formation of reactive oxidants by size-fractionated dissolved organic matter* | Goldschmidt | Prague, Czech Republic | August 21, 2015.
14. Chu C.\*, Lundeen R.A., **Remucal C.K.**, Sander M., and McNeill K. | *Enhanced indirect photochemistry of dissolved free and combined histidine through association with chromophoric dissolved organic matter* | American Chemical Society National Meeting | Boston, MA | August 20, 2015.
13. McConville M. and **Remucal C.K.\*** | *Balancing the use of pesticides with protecting commercial fisheries: The role of photolysis in the fate of lampricides in the Great Lakes.* | Association of Environmental Engineering and Science Professors Meeting | New Haven, CT | June 16, 2015.
12. Golub M.\*, Desai A. R., **Remucal C.K.**, McKinley G. A., and Stanley E. H. | *The effect of random parameter errors on predictability of long-term change in freshwater pCO<sub>2</sub> calculated from thermodynamic equilibria* | Society for Freshwater Science Meeting | Milwaukee, WI | May 2015.
11. Maizel M.\*, Kamp W., and **Remucal C.K.** | *Comparing triplet reaction mechanisms for DOM characterization* | American Chemical Society National Meeting | Denver, CO | March 24, 2015.
10. McConville M.\* and **Remucal C.K.** | *Characterizing lampricide photoproduct formation under laboratory based and field based conditions* | American Chemical Society National Meeting | Denver, CO | March 22, 2015.
9. McConville M. and **Remucal C.K.\*** | *Assessing direct & indirect photochemical pathways impacting fate & transport of lampricides in tributaries of the Great Lakes* | Emerging Contaminants (EmCon) | Iowa City, IA | August 20, 2014.
8. Golub M.\*, Desai A.R., McKinley G.A., **Remucal C.K.**, Stanley E.H. | *Random measurement uncertainties effect on CO<sub>2</sub> emissions from north temperate lakes.* | Joint Aquatic Sciences Meeting | Portland, OR | May 2014.
7. McConville M.\* and **Remucal C.K.** | *Assessing the role of natural organic matter in the photochemical degradation of lampricides.* | American Chemical Society National Meeting | Indianapolis, IN | September 12, 2013.
6. McConville M. and **Remucal C.K.\*** | *Photochemical degradation of lampricides in the presence and absence of dissolved organic matter.* | Association of Environmental Engineering and Science Professors Meeting | Golden, CO | July 16, 2013.
5. McConville M. and **Remucal C.K.\*** | *UV photolysis of lampricides in the presence and absence of dissolved organic matter.* | American Chemical Society National Meeting | New Orleans, LA | April 9, 2013.
4. **Remucal C.K.\***, Cory R.M., Sander, S. and McNeill K. | *Low molecular weight components in an aquatic humic substance as characterized by membrane dialysis and Orbitrap mass spectrometry.* | American Chemical Society National Meeting | New Orleans, LA | April 9, 2013.
3. **Remucal C. K.\*** and McNeill K. | *Enhancement of visible-light solar water disinfection with riboflavin and its derivatives.* | American Chemical Society National Meeting | Anaheim, CA | March 29, 2011.

2. **Keenan C.R.\*** and Sedlak D.L. *Factors affecting the yield of oxidants from the reaction of nanoparticulate zero-valent iron and oxygen.* | American Chemical Society National Meeting | Philadelphia, PA | August 19, 2008.
1. **Keenan C.R.\***, Duesterberg C., Waite T.D. and Sedlak D.L. *Hydroxyl radical production by the reaction of zero-valent iron and oxygen.* | American Chemical Society National Meeting | Chicago, IL | March 24, 2007.

### Conference Poster Presentations

57. Maul M., Mooney R., Berg S.M., **Remucal C.K.**, McIntyre P, and Tiegs S.D. | *Carbon quality, quantity and processing rants in 71 Lake Michigan Tributaries* | Society for Freshwater Science National Meeting | Madison, WI | June 9, 2020. (virtual)
56. Cole R.B., Hawkes J.A., D'Andrilli J., Sleighter R.L., Chen H., Hatcher P.G., Ijaz A., Khaksari M., Schum S., Mazzoleni L., Chu R., Tolic N., Kew W., Hess N., Lv J., Zhang S., He C., Shi Q., Hutchins R.H.S., Lozano D.C.P., Gavard R., Jones H.E., Thomas M.J., Barrow M.P., Osterholz H., Dittmar T., Simon C., Gleixner G., Berg S.M., **Remucal CK**, Catalán N., Noriega-Ortega B., Singer G., Radoman N., Schmitt N.D., Stubbins A., Agar J.N., Zito P., and Podgorski D.C | *An international laboratory comparison of dissolved organic matter composition by high resolution mass spectrometry: Are we getting the same answer?* | American Society for Mass Spectrometry Conference | Houston, TX | June 4, 2020. (virtual)
55. Staehtly S.P., Berg S.M., and **Remucal C.K.** | *Dissolved organic matter composition and concentration controls efficiency of photochemically produced reactive intermediate in surface waters* | Virtual Chemistry Undergraduate Poster Symposium | Madison, WI | April 23, 2020. (virtual)
54. Herli J., Winkels R., Beer K.E., Risch A.B., Berg S.M., **Remucal C.K.**, and Wammer K.H. | *Linking dissolved organic matter composition to photolysis of contaminants* | American Chemical Society National Meeting | Philadelphia, PA | March 23, 2020.†
53. Balگوoyen S., Bulman D.M., Trainer E.L., Berg S.M., Milstead R., White A., Helgemoe B., and **Remucal C.K.** | *Aquatic Chemistry at UW-Madison: Fate and transformation of organic contaminants* | American Institute of Professional Geologists Wisconsin PFAS Symposium | Madison, WI | February 27, 2020.
52. White A., McMahon K., and **Remucal C.K.** | *Lab and field-based determination of microbial and photodegradation rates of 2,4-dichlorophenoxyacetic acid* | SETAC North America | Toronto, Canada | November 4, 2019.
51. Herli J.A., Whiting Q.T., Winkels R.I., Berg S.M., **Remucal C.K.**, and Wammer K.H. | *Contaminant transformation in the St. Louis River: The role of indirect photolysis* | AEESP Poster Session in Honor of Diane McKnight | Minneapolis, MN | November 1, 2019.
50. White A., McMahon K., and **Remucal C.K.** | *The role of sunlight and microbes in the degradation of 2,4-dichlorophenoxyacetic acid* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2019.
49. Trainer E.L., Ginder-Vogel M., and **Remucal C.K.** | *Reactivity of phenolic compounds with synthetic and reclaimed manganese oxides determined by organic and solid phase structural properties* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2019.
48. Manley D.M. and **Remucal C.K.** | *Dissolved organic matter transformation and halogenated product formation during chlorine photolysis* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2019.
47. Milstead R. and **Remucal C.K.** | *Identifying disinfection byproducts in groundwater using ultrahigh-resolution mass spectrometry* | North American Mass Spectrometry Summer School | Madison, WI | July 23, 2019.
46. Berg S.M., Whiting Q.T., Herli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and venlafaxine in the St. Louis River Estuary* | AEESP Distinguished Lecture Series Poster Session | Madison, WI | April 24, 2019.
45. White A., **Remucal C.K.**, and McMahon K. | *The role of sunlight and microbes in the degradation of a common herbicide* | AEESP Distinguished Lecture Series Poster Session | Madison, WI | April 24, 2019.

44. White A., **Remucal C.K.**, and McMahon K. | *The role of sunlight and microbes in the degradation of a common herbicide* | Wisconsin Lakes Association Annual Convention | Stevens Point, WI | April 11, 2019.
43. Herrli J.A., Whiting Q.T., Winkels R.I., Berg S.M., **Remucal C.K.**, and Wammer, K.H. | *Contaminant transformation in the St. Louis River: The role of indirect photolysis* | American Chemical Society National Meeting | Orlando, FL | March 31, 2019.
42. White A., **Remucal C.K.**, and McMahon K. | *The role of sunlight and microbes in the degradation of a common herbicide* | Midwest SETAC Annual Meeting | La Crosse, WI | March 22, 2019.
41. Balگوoyen S., **Remucal C.K.**, and Ginder-Vogel M. | *Organic contaminant degradation by manganese oxides* | American Water Resources Association Wisconsin Section Annual Meeting | Delavan, WI | February 28, 2019.
40. Berg S.M., Whiting Q.T., Herrli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and venlafaxine in the St. Louis River Estuary* | National Estuarine Research Reserve Association National Meeting | Duluth, MN | November 6, 2018.
39. Balگوoyen S., Campagnola G., **Remucal C.K.**, and Ginder-Vogel M. | *Impact of bisphenol A influent concentration and reaction time on MnO<sub>2</sub> transformation in a stirred flow reactor* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
38. Berg S.M., Whiting Q.T., Herrli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and venlafaxine in the St. Louis River Estuary* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
37. Trainer E.L., Manley D.M., Balگوoyen S., Berg S.M., Milstead R.P., White A.M., and **Remucal C.K.** | *Degradation of organic contaminants in natural and engineered aquatic systems* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
36. Manley D.M., Balگوoyen S., Trainer E.L., Berg S.M., Milstead R.P., White A.M., and **Remucal C.K.** | *Degradation of organic contaminants in natural and engineered aquatic systems* | Water@UW Fall Poster Session | Madison, WI | October 16, 2018.
35. Berg S.M., Whiting Q.T., Herrli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and venlafaxine in the St. Louis River Estuary* | National Estuarine Research Reserve Association National Meeting | Duluth, MN | November 6, 2018.
34. Balگوoyen S., Campagnola G., **Remucal C.K.**, and Ginder-Vogel M. | *Impact of bisphenol A influent concentration and reaction time on MnO<sub>2</sub> transformation in a stirred flow reactor* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
33. Berg S.M., Whiting Q.T., Herrli J.A., Breuckman K.C., Wammer, K.H., and **Remucal C.K.** | *The impact of dissolved organic matter on the photodegradation of atorvastatin, carbamazepine, DEET, and venlafaxine in the St. Louis River Estuary* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
32. Trainer E.L., Bulman D.M., Balگوoyen S., Berg S.M., Milstead R.P., White A.M., and **Remucal C.K.** | *Degradation of organic contaminants in natural and engineered aquatic systems* | AEESP Emerging Contaminants Short Course | Milwaukee, WI | October 23, 2018.
31. Bulman D.M., Balگوoyen S., Trainer E.L., Berg S.M., Milstead R.P., White A.M., and **Remucal C.K.** | *Degradation of organic contaminants in natural and engineered aquatic systems* | Water@UW Fall Poster Session | Madison, WI | October 16, 2018.
30. Berg S. and **Remucal C.K.** | *Fourier transform-ion cyclotron resonance mass spectrometry to characterize dissolved organic matter and describe observed photoreactivity at the molecular level* | North American Mass Spectrometry Summer School | Madison, WI | August 8, 2018.
29. Bulman D. M. and **Remucal C.K.** | *The effect of solution and irradiation conditions on the production of reactive oxidants during chlorine photolysis* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 26, 2018.

28. Campagnola G., Balگوoyen S., Ginder-Vogel M., and **Remucal C.K.** | *Transformation of MnO<sub>2</sub> during oxidation of bisphenol A* | UW-Madison Undergraduate Research Symposium | Madison, WI | April 13, 2018.
27. Manley D. and **Remucal C.K.** | *Effect of solution conditions on reactive oxidant production during chlorine photolysis* | AEESP Distinguished Lecture Series Poster Session | Madison, WI | April 4, 2018.
26. Balگوoyen S., Campagnola G., Ginder-Vogel M., and **Remucal C.K.** | *Mechanism and products of bisphenol A oxidation by manganese oxide* | AEESP Distinguished Lecture Series Poster Session | Madison, WI | April 4, 2018.
25. Balگوoyen S., Campagnola G., Ginder-Vogel M., and **Remucal C.K.** | *Mechanism and products of bisphenol A oxidation by manganese oxide* | SETAC Young Environmental Scientists Meeting | Madison, WI | March 27, 2018.
24. Whiting Q.T., Herrli J.A., Berg S., **Remucal C.K.**, and Wammer K.H. | *Investigation of the impacts of indirect photolysis on select contaminants along the St. Louis River* | American Chemical Society National Meeting | New Orleans, LA | March 19, 2018.
23. Manley D. and **Remucal C.K.** | *Effect of solution conditions on reactive oxidant production during chlorine photolysis* | Water@UW-Madison Poster Session | Madison, WI | October 24, 2017.
22. Regan C., Leverich E., Ginder-Vogel M., and **Remucal C.K.** | *Oxidation of phenolic compounds by iron-containing manganese oxides* | University of Wisconsin SURE-REU Poster Session | Madison, WI | August 2, 2017.
21. **Remucal C.K.** and Manley D. | *Effect of solution conditions on reactive oxidant production during chlorine photolysis* | Association of Environmental Engineering and Science Professors Meeting | Ann Arbor, MI | June 21, 2017.
20. Hixson J.L., Ward A.S., Schmadel N.M., McConville M., and **Remucal C.K.** | *Interaction of physical and chemical processes controlling the environmental fate and transport of lampricides through stream-hyporheic systems* | American Geophysical Union National Meeting | San Francisco, CA | December 14, 2016.
19. Balگوoyen S., Alaimo P.J., **Remucal C.K.**, and Ginder-Vogel M. | *Transformation of manganese oxides during bisphenol A oxidation* | Water@UW-Madison Poster Session | Oct. 28, 2016.
18. McConville M., Hubert T., Ward A., and **Remucal C.K.** | *Photochemical fate of lampricides in tributaries of the Great Lakes* | Water@UW-Madison Poster Session | Oct. 28, 2016.
17. Maizel A. and **Remucal C.K.** | *Photochemistry of size-fractionated dissolved organic matter* | Water@UW-Madison Poster Session | Oct. 28, 2016.
16. **Remucal C.K.**, Balگوoyen S., Alaimo P.J., and Ginder-Vogel M. | *Transformation of manganese oxides during bisphenol A oxidation* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 29, 2016.
15. McConville M., Hubert T., Ward A., and **Remucal C.K.** | *Photochemical fate of lampricides in tributaries of the Great Lakes* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 28, 2016.  
\*This poster received the "Best Student Poster Presentation Award" at the GRC.
14. Maizel A. and **Remucal C.K.** | *Photochemistry of size-fractionated dissolved organic matter* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 27, 2016.
13. Chu C., Lundeen R. A., **Remucal C. K.**, Sander M., and McNeill K. | *Enhanced indirect photochemistry of dissolved free and combined histidine through association with chromophoric dissolved organic matter* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 27, 2016.
12. **Remucal C.K.**, McConville M. and Ward A. | *Evidence of lampricide photodegradation during field applications to tributaries of the Great Lakes* | American Chemical Society National Conference | San Diego, CA | March 16, 2016.
11. McConville M., Ward A. and **Remucal C.K.** | *Evidence of lampricide photodegradation during field applications to tributaries of the Great Lakes* | Midwest Regional SETAC Chapter Meeting | Madison, WI | March 15, 2016.



10. **Maizel A., Kamp W. and Remucal C.K.** *Photochemical production of reactive species by low molecular weight components of Suwannee River fulvic acid* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 24, 2014.
9. **Linde L., McConville M. and Remucal C.K.** *Indirect photodegradation of lampricides.* | University of Wisconsin-Madison Undergraduate Research Symposium | Madison, WI | May 16, 2014.
8. **Chhouk B., Mejia J., Ginder-Vogel M. and Remucal C.K.** *Kinetics of bisphenol A and 17 $\beta$ -estradiol oxidation by manganese(IV) oxides.* | SACNAS National Conference | San Antonio, TX | October 5, 2013.
7. **Linde L., McConville M. and Remucal C.K.** *Photodegradation dependence of 3-trifluoro-4-nitrophenol and 5-chloro-N-(2-chloro-4-nitrophenyl)-2-hydroxybenzamide on pH.* | WI Earth and Water Student Conference | Whitewater, WI | September 20, 2013.
6. **Remucal C. K., Cory R. M., Sander M. and McNeill K.** *Low molecular weight components in an aquatic humic substance as characterized by membrane dialysis and Orbitrap mass spectrometry.* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 27, 2012.
5. **Remucal C. K. and McNeill K.** *Enhancement of visible light solar water disinfection with riboflavin and its derivatives.* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 22, 2010.
4. **Keenan C.R. and Sedlak D.L.** *Ligand-enhanced reactive oxidant generation by nanoparticulate zero-valent iron and oxygen.* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 24, 2008.
3. **Keenan C.R., Lee C. and Sedlak D.L.** *Generation of oxidants from the reaction of nanoparticulate zero-valent iron for the use in contaminant remediation.* | American Geophysical Union National Meeting | San Francisco, CA | December 11, 2007.
2. **Keenan C.R., Duesterberg C.K., Waite T.D. and Sedlak D.L.** *Use of oxidants produced by nanoparticulate zero-valent iron in contaminant remediation.* | Superfund Basic Research Program Annual Meeting | San Diego, CA | December 11-12, 2006.
1. **Keenan C.R. and Sedlak D.L.** *Contaminant oxidation by zero-valent iron nanoparticles.* | Gordon Research Conference on Environmental Sciences: Water | Holderness, NH | June 28, 2006.

## CONFERENCES ATTENDED

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### Professional Conferences Attended

Environmental Health in Wisconsin	March 2020
Gordon Research Conference on Environmental Sciences: Water, Holderness, NH	June 2018
LTER Science Council, Madison, WI	May 2018
Society of Freshwater Sciences, Detroit, MI	May 2018
ACS National Meeting, New Orleans, LA	Mar. 2018
AEESP Meeting, Ann Arbor, MI	June 2017
ACS National Meeting, San Francisco, CA	Mar. 2017
Gordon Research Conference on Environmental Sciences: Water, Holderness, NH	June 2016
ACS National Meeting, San Diego, CA	Mar. 2016
AEESP Meeting, New Haven, CT	June 2015
ACS National Meeting, Denver, CO	Mar. 2015
EmCon, Iowa City IA	Aug. 2014
AEESP Meeting, Golden, CO	July 2013
ACS National Meeting, New Orleans, LA	April 2013
Gordon Research Conference on Environmental Sciences: Water, Holderness, NH	June 2012
ACS National Meeting, Anaheim, CA	Mar. 2011
Gordon Research Conference on Environmental Sciences: Water, Holderness, NH	June 2010
ACS National Meeting, Philadelphia, PA	Aug. 2008
Gordon Research Conference on Environmental Sciences: Water, Holderness, NH	June 2008
AGU National Meeting, San Francisco, CA	Dec. 2007
ACS National Meeting, Chicago, IL	Mar. 2007

Superfund Basic Research Program Annual Meeting, San Diego, CA Dec. 2006  
 Gordon Research Conference on Environmental Sciences: Water, Holderness, NH June 2006

## EXTERNAL PROFESSIONAL SERVICE

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### Grant Proposal Reviewer

National Institutes for Water Resource & U. S. Geological Survey (3)  
 Innovational Research Incentives Scheme Veni (2)  
 National Science Foundation (3 panels, 2 ad hoc)  
 Natural Sciences and Engineering Research Council of Canada (1 ad hoc)  
 Innovation and Technology Commission Hong Kong Special Admin. Region (1)  
 UW-Madison 2020 Competition (3)

### Manuscript Reviewer

2009–present

*Biogeochemistry; Chemical Engineering Journal; Chemosphere; Environmental Engineering Science; Environmental Science & Technology; Environmental Science & Technology Letters; Environmental Sciences: Process & Impacts; Environmental Science: Water Research & Technology; Journal of Agricultural and Food Chemistry; Organic Geochemistry; Pedosphere; Science of the Total Environment; Water Research*

### Conference Organizer

Poster Chair, Gordon Research Conference on Environmental Sciences: Water June 2012  
 Poster Judge, AEESP Conference July 2013  
 Session co-chair with Michael Sander and Christopher Gorski. Session: Environmental Redox and Reactive Oxygen Species Chemistry. Goldschmidt, Prague, Czech Republic August 2015  
 Session Leader, Water@UW-Madison Symposium May 2017  
 Session Moderator. Session: Fate and Presence of Environmental Contaminants in Communities. AEESP Conference, Ann Arbor, MI. June 2017

### Service to Professional Societies

Liaison between the Association of Environmental Engineering and Science Professors (AEESP) and the Gordon Research Conferences 2017 – present

### Service to Journals

*Environmental Science: Processes and Impacts*, Advisory Board Member 2019 – present

### Public Service

UW System Representative on the Wisconsin PFAS Action Council (WisPAC) 2019 – present

## INTERNAL PROFESSIONAL SERVICE

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### Campus Service

Mentor committee for Nelson Institute Assistant Professor Grace Bulltail 2019-present

### College Service

John Brady Memorial Workshop planning committee 2020  
 College of Engineering Strategic Planning Committee on Research 2020  
 Society of Women Engineers faculty advisor 2013-present  
 College of Engineering Graduate Engineering Research Scholars review committee 2018  
 SWE Abroad Application Review Panel 2018, 2019

**Departmental Service**

Mentor committee for CEE Assistant Professor Haoran Wei	2020-present
Admitted Student Preview Day Academic Experience faculty panel	2020
EC&T Academic Planning committee member	2019-present
CEE Graduate Program Chair and Operations Committee member	2019-present
Environmental Engineering M.Eng. executive committee member	2019-present
Mentor committee for CEE Assistant Professor Bu Wang	2018-present
Mentor committee for CEE Assistant Professor Hannah Blum	2018-present
WSEL laboratory manager search & screen committee chair	2018
EC&T Academic Planning committee chair	2017-2018
CEE accountant search & screen committee member	2017
Byron Bird Award for Excellence in a Research Publication selection committee	2017
CEE search & screen committee member (CEM search)	2016, 2017
Water@UW-Madison ad hoc committee member	2016-2017
EC&T Academic Planning committee member	2015-2017
CEE search & screen committee member (CEM search)	2015-2016
Robyn Ryan Scholarship Award committee member   UW Madison	2015, 2019, 2020
EC&T safety committee	2014-present
CEE qualifying exam organizer	2014
CEE Panelist for Pre-Engineering (EGR) undergraduates	2013
Celebrating Women in Engineering Event   CEE representative	2013, 2015
CEE Panelist for the Day on Campus Event hosted by the Society of Women Engineers	2013, 2015
CEE Alternate Senator to Faculty Senate   UW Madison	2013-2016
Anna Grant Birge Award committee member   UW Madison	2013, 2020
CEE Faculty Search Committee   Graduate Student Panel Member   UC Berkeley	2008
Environmental Engineering Friday Seminar Series   Organizer   UC Berkeley	2007

**Invited Workshop Presentations**

Water@UW Madison Symposium	May 2015
Delta Workshop on "Developing an Excellent Education Plan for your CAREER Proposal: Ideas and Advice from Successful CAREER Awardees"	June 2015
College of Engineering CAREER Workshop Panelist	April 2018

**Outreach**

Science on Tap – PFAS in Wisconsin	Oct. 2019
Expanding Your Horizons workshop organizer	Nov. 2013, 2015, 2016, 2017
Women in Science and Engineering program seminar guest	Nov. 2013, 2015, 2016
Half-day: Wisconsin Louis Stokes Alliance for Minority Participation (WiscAMP) Excel program	June 2013
Episode on water purification for Blue Sky Science (partnership of the Morgridge Institute and Wisconsin State Journal). <a href="https://morgridge.org/question/how-do-we-purify-dirty-water/">https://morgridge.org/question/how-do-we-purify-dirty-water/</a>	July 2015
Science outreach at Midvale Elementary	May 2017, Dec. 2017
Invited presenter for the Institute for Chemical Education at UW-Madison	June 2017, 2018
Wednesday Nite @ the Lab presenter	April 2018
Wisconsin Public Television: <a href="#">University Place Program</a>	November 2018
Frozen Assets Group Poster	2019, 2020
Science outreach with Girl Scout Troop 8137	2020

**Graduate Student Examination Committee**

Masters Defense Committees: 5 total	2013-present
PhD Qualifying Exam Committees: 8 total	2013-present
PhD Preliminary Exam Committees: 15 total	2012-present
PhD Defense Committees: 16 total	2013-present

## TEACHING AND MENTORING EXPERIENCE

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### University of Wisconsin, Madison Courses

CEE 320   <i>Introduction to Environmental Engineering</i>	Spring 2014, 2016, 2017; Fall 2019
CEE 322   <i>Environmental Engineering Processes</i>	Fall 2017, Fall 2019
CEE 609-001   <i>Current Topics in Environmental Chemistry</i>	Fall 2014
CEE 700   <i>Chemistry of Natural Waters</i>	Fall 2012, 2013, 2016
CEE 704   <i>Environmental Chemical Kinetics</i>	Spring 2013, Fall 2015, Spring 2018, 2020
CEE 909   <i>Water Chemistry Seminar</i>	Spring 2015

### University of Wisconsin, Madison Guest Instructor

CEE 320   <i>Introduction to Environmental Engineering</i>	Fall 2013
MET 606   <i>Colloquium in Environmental Toxicology</i>	Spring 2014
CEE 631   <i>Toxicants in the Environment</i>	Spring 2015, 2016

### Non-University of Wisconsin, Madison Courses

<i>Case Studies in Environment and Health</i>   ETH-Zürich   lecturer	Spring 2011
<i>Semester Paper on a Scientific Topic</i>   ETH- Zürich   student mentor	Spring 2010
<i>Introduction to Environmental Organic Chemistry</i>   ETH- Zürich   guest lecturer	Fall 2010
<i>Environmental Analytical Chemistry</i>   UC Berkeley   guest lecturer	Spring 2008
<i>Environmental Chemical Kinetics</i>   UC Berkeley   guest lecturer	Spring 2008
<i>Water Chemistry</i>   UC Berkeley   graduate student instructor & guest lecturer	Fall 2007

### Current Postdoctoral Scholars

<b>Sarah Balgooyen</b>	2019-present
<ul style="list-style-type: none"> <li>• Research: PFAS in waters of Wisconsin</li> <li>• J. Philip Keillor Water Science Fellow</li> </ul>	

### Current Graduate Research Students

<b>Devon Manley Bulman</b>   Environmental Chemistry and Technology Program	2015-present
<ul style="list-style-type: none"> <li>• Research: Contaminant transformation and disinfection by-product formation during chlorine photolysis</li> <li>• NWRI Graduate Fellowship Award (\$10,000; 2016); Environmental Chemistry &amp; Technology Travel Award (\$250; 2018); Graduate School Student Research Travel Grant (\$600; 2019).</li> </ul>	
<b>Emma Leverich Trainer</b>   Environmental Chemistry and Technology Program	2016-present
<ul style="list-style-type: none"> <li>• Research: Oxidative properties of manganese oxides</li> <li>• Co-advised by Dr. Matthew Ginder-Vogel</li> <li>• Graduate School Student Research Travel Grant (\$600; 2019); Becker Travel Supplement (\$400; 2019).</li> </ul>	
<b>Stephanie Berg</b>   Environmental Chemistry and Technology Program	2016-present
<ul style="list-style-type: none"> <li>• Research: Photochemistry of dissolved organic matter in the Saint Louis River Estuary</li> <li>• Anna Grant Birge Award (\$1,911; 2017); Best Student Oral Presentation Award (Emerging Contaminants in the Aquatic Environment Conference; 2018); Graduate School Student Research Travel Grant (\$1,200; 2019); Anna Grant Birge Award (\$1,956; 2019); Becker Travel Supplement (\$400; 2019); ACS Graduate Student Awardee in Environmental Chemistry (\$100; 2019).</li> </ul>	
<b>Reid Milstead</b>   Environmental Chemistry and Technology Program	2018-present
<ul style="list-style-type: none"> <li>• Research: Disinfection byproduct formation in groundwater</li> </ul>	

**Amber White** | Environmental Chemistry and Technology Program 2018-present

- Research: Fate of 2,4-D in whole lake treatments
- Co-advised by Dr. Katherine McMahon
- NSF Graduate Research Fellowship Program Award (\$138,000; 2018); Anna Grant Birge Award (\$2,000; 2019); Becker Travel Supplement (\$400; 2019); Becker Travel Supplement (\$250; 2020).

**Bobbi Jo Helgemoe** | Civil and Environmental Engineering 2019-present

- Research: Fate of lampricides in tributaries of the Great Lakes

### Former Graduate Research Students

UNIVERSITY OF WISCONSIN, MADISON | Madison WI

**Sarah Balgooyen** | Environmental Chemistry and Technology Program 2014-2019

- Research: Oxidative properties of manganese oxides
- Co-advised by Dr. Matthew Ginder-Vogel
- NSF Graduate Research Fellowship Program Award (\$126,000; 2015); Becker Travel Supplement (\$250; 2016); UW Graduate School Travel Grant (\$600; 2016); Certificate of Merit for the presentation of an oral paper (ACS; Spring 2016); Becker Travel Supplement (\$200; 2018); Environmental Chemistry & Technology Travel Award (\$250; 2018).

**Erin Ostrem Loss** | Molecular and Environmental Toxicology Program 2013-2018

- Research: Biodegradation of PAHs by fungi
- Co-advised by Dr. Jae-Hyuk Yu (Bacteriology)
- EPA STAR Fellowship (\$132,000; 2016).

**Andrew Maizel** | Civil and Environmental Engineering 2013-2017

- Research: Characterization of dissolved organic matter by dialysis, mass spectrometry and photochemical behavior
- Becker Travel Supplement (\$200; 2014); Environmental Chemistry & Technology Travel Award (\$300; 2014); Anna Grant Birge Award (\$1,179; 2014); Becker Travel Supplement (\$300; 2015); Becker Travel Supplement (\$250; 2016); UW Graduate School Travel Grant (\$1,200; 2016).

**Megan McConville** | Environmental Chemistry and Technology Program 2012-2017

- Research: The role of indirect photochemical degradation in the environmental fate of lampricides
- Anna Grant Birge Award (\$790; 2013); NSF Graduate Research Fellowship Program Award (\$126,000; 2013); Becker Travel Supplement (\$250; 2013); Becker Travel Supplement (\$200; 2014); Environmental Chemistry & Technology Travel Award (\$300; 2014); Becker Travel Supplement (\$300; 2015), Anna Grant Birge Award (\$1,000; 2015), GRC on Environmental Sciences: Water "Best Student Poster Presentation Award" (2016).

### Former Undergraduate Research Students

UNIVERSITY OF WISCONSIN, MADISON | Madison WI

**Laura Linde** | Chemistry, Environmental Studies Oct. 2012 – Dec. 2014

- Chem 346 Research Project: Photochemical degradation of trifluoromethylphenol
- Holstrom Environmental Scholarship (\$4,000; 2013)

**Billionrosannae Chhouk** | Environmental Studies | San Diego State University Summer 2013

- Integrated Biological Sciences Summer Research Program
- Co-advised by M. Ginder-Vogel

<b>William Kamp</b>   Chemistry, Environmental Studies	Feb. 2014 – May 2015
<b>Sonia Chandra</b>   Chemical Engineering	Jan. 2015 – May 2015
<b>Jing (Juno) Li</b>   Civil and Environmental Engineering <ul style="list-style-type: none"> <li>• NSF REU fellow (\$5,000; 2015)</li> </ul>	Jan. 2015 – May 2016
<b>Taryn Davis</b>   Civil & Environmental Engineering	Jan. 2016 – May 2016
<b>Natan Cohen</b>   Civil & Environmental Engineering	June 2016 – Dec. 2016
<b>Owen Walcott</b>   Chemistry	June 2016 – Aug. 2017
<b>Joseph Brunner</b>   Civil & Environmental Engineering	Jan. 2017 – Dec. 2017
<b>Quinn Whiting</b>   Chemistry   University of St. Thomas	summer 2017
<b>Regan Cadena</b>   Chemistry   New Mexico State University <ul style="list-style-type: none"> <li>• SURE REU fellow</li> </ul>	summer 2017
<b>Gabrielle Campagnola</b>   Civil and Environmental Engineering	Sept. 2015 – May 2019
<b>Keerthana Sreenivasan</b>   Civil and Environmental Engineering	Sept. 2017-May 2018
<b>Ellie Kimlinger</b>   Civil Engineering	Jan. 2019-Dec. 2019
<b>Sofia Staehly</b>   Chemistry	Sept. 2019-May 2020
<b>Edward Paulson</b>   Chemistry	Sept. 2019-May 2020
<b>Sydney Van Frost</b>   Civil Engineering	Sept. 2019-Dec. 2019

## MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

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American Chemical Society  
 American Geophysical Union  
 Association of Environmental Engineering and Science Professors  
 Society of Freshwater Science  
 Society of Women Engineers