CURRICULUM VITAE

Rose M. Cory

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EDUCATION

Ph.D., Environmental Engineering, University of Colorado, Boulder 2006
M.S., Environmental Engineering Science, Michigan Technological University 2001
B.S., Chemistry, Michigan State University 1998

PROFESSIONAL POSITIONS

Associate Professor, 2017 to present, Department of Earth & Environmental Sciences, University of Michigan
Assistant Professor, 2013 to 2017, Department of Earth & Environmental Sciences, University of Michigan
Assistant Professor, 2009 to 2013, Department of Environmental Sciences & Engineering, University of North Carolina Chapel Hill
Director's Postdoctoral Fellow, 2008 to 2009, Los Alamos National Laboratory,
Postdoctoral Fellow, 2006 to 2007, Departments of Chemistry and Ecology, Evolution and Biology, University of Minnesota Twin Cities

EDITORIAL POSITIONS

Editor, Geophysical Research Letters 2018 – present
Guest Editor, Environmental Sciences: Processes & Impacts 2019 – 2020
Associate Editor, Geophysical Research Letters 2016 – 2017

AWARDS

NSF Faculty Early Career Development Award (CAREER) 2014
Excellence in Reviewing award for *Biogeochemistry* 2013
Camille & Henry Dreyfus Foundation Postdoctoral Mentor in Environmental Chemistry 2012
Director's Postdoctoral Fellowship Award, Los Alamos National Laboratory, NM 2008
National Science Foundation IGERT Fellowship, Carbon, Climate and Society Initiative, 2003

GRANTS ($1.8M)

Current:

University of Michigan, Associate Professor Support Fund. "Sunlight oxidation of methane in freshwaters"; $71K to Cory, 2020-2022.

NSF – DEB 1753731. " Collaborative Research - Coupled biological and photochemical degradation of dissolved organic carbon in the Arctic "; Co-PI with B. Crump, G. W, Kling, $1.1M ($285K to Co-PI Cory), 2018-2021.

NSF - OCE 1736629. "The role of heterotrophic bacteria in protecting cyanobacteria from hydrogen peroxide in coastal ecosystems"; Co-PI with G. Dick, G. W. Kling, $876K ($330 to Co-PI Cory), 2018-2021.

NSF - CAREER 1255060, "Iron and reactive oxygen species in the oxidation and fate of dissolved organic matter". $596K to PI Cory, 2015-2021.

Past:

NSF- EAR 1451372, "Collaborative Research: Coupled Geochemical and Geobiological Characterization of Dissolved Organic Matter Oxidation to Carbon Dioxide". Co-PI with P. A. Hatcher and L.A. Kaplan. ($155K to Co-PI Cory) 2015-2019.

NSF - ARC 1023270. "Collaborative Research: Turning on the lights - Photochemical and microbial processing of newly exposed carbon in arctic ecosystems"; $536K ($258K to PI Cory) with G.W. Kling co-PI. 2010-2013

Camille & Henry Dreyfus Foundation Postdoctoral Mentor in Environmental Chemistry. "Dark oxidation of dissolved organic matter: implications for arctic carbon cycling." $120K to PI Cory. 2014-2016.

University of Michigan Water Center, "Building capacity for freshwater science: Integrating microbial genomics, environmental chemistry, and ecosystem processes to understand harmful algal blooms", PI G. J. Dick, Co-PIs T. H. Johengen, V. J. Denef, Additional Team Members: D. H. Sherman, R. M. Cory, M. Duhaime, G. W. Kling, G. L. Fahnenstiel, S. A. Ruberg, T. James, T. Davis. $250K ($15K to Cory). 2014-2015.

University of Michigan Water Center, "Advancing student learning in freshwater science: curriculum development and research experiences for undergraduates in aquatic geochemistry" $33K to Cory (PI). 2014-2015.

UNC University Research Council $2K to Cory. 2013-2014.

UNC Jr. Faculty Development Award: "Controls on new carbon inputs to the atmosphere – the role of reactive oxygen", $7.5K to Cory. 2011.

Grants for instrument time:

EMSL Science Theme Proposal award for 50 hours of ultra-high resolution mass spectrometry (FTICR MS) and 500 hours of advanced NMR at Environmental Molecular Sciences Laboratory, Pacific Northwest National Laboratory. "Interactions of iron and organic matter as controls on the fate of permafrost carbon in the Arctic". Estimated value of support provided to this project is approximately $45,883 to Cory (PI). 2016-2018

DOE JGI-EMSL Collaborative Science Proposal (with PI Byron Crump, OSU, Co PIs Cory and Kling) award for metatranscriptomic sequencing and mass spec analysis. "Decoding DOM degradation: how does carbon source and sunlight exposure alter microbial metabolism and expression of genome-encoded metabolic degradation of permafrost organic matter?" 2014-2016

EMSL Science Theme Proposal award for 600 hours of ultra-high resolution mass spectrometry (FTICR MS) and ^{13}C NMR at Environmental Molecular Sciences Laboratory, Pacific Northwest National Laboratory. “The fate of newly exposed carbon in the Arctic – controls on release to the atmosphere and transport to the ocean” to Cory (PI) 2013-2016

National High Field Magnetic Laboratory: 40 hours of ultra-high resolution mass spectrometry (FTICR MS) at. “Partial oxidation of dissolved organic matter by singlet oxygen” to Cory (PI) 2007

PUBLICATIONS

Google Scholar Citation Summary (May 2021)

Total Citations	H-index	i-10 index
6671	40	62

(*Student author, $^{\beta}$Post-doc author, $^{\delta}$K-12 teacher author)

Submitted for review or revision

Smith, D. J., M. A. Berry, R. M. Cory, V. J. Denef, M. B. Duhaime, T. H. Johengen, G. W. Kling, K. A. Meyer, T. W. Davis, and G. J. Dick. Genomic and transcriptomic evidence for bacterial protection of bloom forming cyanobacteria from hydrogen peroxide. *In Revision, August 2018*

Published, in press, or in review in peer-reviewed journals

64. Jutaporn, P., R.M. Cory, P.A. Singer, O. Coronell. (2021). Efficacy of selected pretreatment processes in the mitigation of low-pressure membrane fouling and its correlation to their removal of microbial DOM. *Chemosphere.* doi: 10.1016/j.chemosphere.2021.130284
Impact factor = 5.778

63. Bowen*, J.C., C.P. Ward, G.W. Kling, R. M. Cory. (2020). Arctic amplification of global warming strengthened by sunlight oxidation of permafrost carbon to CO_2. *Geophysical Research Letters.* doi: 10.1029/2020GL087085
Impact factor = 4.58

- ***Pickup by 15 news outlets including original stories by GRIST and Eos***
- ***Featured as the journal cover art for July, 2020***

62. Nalven, S.G., C. P. Ward$^{\beta}$, R. M. Cory, G. W. Kling, T. J. Sharpton, C. M. Sullivan, B. C. Crump. (2020). Experimental metatranscriptomics reveals costs and benefits of dissolved organic matter photo-alteration for freshwater microbes in the Arctic. *Environmental Microbiology*. doi: 10.1111/1462-2920.15121
Impact factor = 4.993

61. Ward$^{\beta}$, C.P., R.M. Cory. (2020). Assessing the prevalence, products, and pathways of dissolved organic matter partial photo-oxidation in arctic surface waters. *Environ. Sci.: Processes Impacts*, doi: 10.1039/C9EM00504H
Impact factor = 3.489

60. Barnes, P.W., C. E. Williamson, R. M. Lucas, S.A. Robinson. S. Madronich, N. D. Paul, J. F. Bornman, A. F. Bais, B.Sulzberger, S. R. Wilson, A. L. Andrady, R. L. McKenzie, P. J. Neale, A. T. Austin, G. H. Bernhard, K. R. Solomon, R. E. Neale, P. J. Young, M. Norval, L. E. Rhodes, S.

Hylander, K. C. Rose, J. Longstreth, P.J. Aucamp, C. L. Ballaré, R. M. Cory, S. D. Flint, F. R. de Gruijl, D. Haeder, A. M. Heikkilä, M. AK. Jansen, K. K. Pandey, T. M.Robson, C. A .Sinclair, S. Wängberg, R. C. Worrest, S. Yazar, A.R Young, R. G. Zepp. (2019). Ozone depletion, ultraviolet radiation, climate change and prospects for a sustainable future. *Nat. Sustain.* doi: 10.1038/s41893-019-0314-2
Impact factor = 12.08

59. Whitty, S.D., D. C. Waggoner, R. M. Cory, L. A. Kaplan, P. G. Hatcher. (2019) Direct non-invasive ^{1}H NMR analysis of stream water DOM. *Magnetic Resonance in Chemistry*, doi: *10.1002/mrc.4935*
Impact factor = 2.035

58. Bowen*, J.C., L. A. Kaplan, R. M. Cory. (2019) Photodegradation disproportionately impacts biodegradation of semi-labile DOM in streams. *Limnology & Oceanography, doi: 10.1002/lno.11244*
Impact factor = 3.778

57. Sulzberger, B., A.T. Austin, R.M. Cory, R.G. Zepp, N.D. Paul. (2019) Solar UV radiation in a changing world: roles of cryosphere–land–water–atmosphere interfaces in global biogeochemical cycles. *Photochem. Photobiol. Sci.*, doi: 10.1039/C8PP90063A
Impact factor = 2.902

56. Li, Angang, A. F. Aubeneau, T. King, R. M. Cory, B. T. Neilson, D. Bolster, A. I. Packman. (2019) Effects of vertical hydrodynamic mixing on photomineralization of dissolved organic carbon in arctic surface waters. *Environ. Sci.: Processes Impacts.* doi:10.1039/C8EM00455B
Impact factor = 3.489

55. Trusiak*, A. Treibergs, L.A. Kling, G.W. Cory, R.M. (2019) The controls of iron and oxygen on hydroxyl radical (•OH) production in soils. *Soil Syst. 3*, 1.

54. Hassett, B.A., E. B. Sudduth, K. A. Somers, D. L. Urban, C. R. Violin, S. Wang, J. P. Wright, R. M. Cory, E. S. Bernhardt. (2018) Pulling apart the urbanization axis: patterns of physiochemical degradation and biological response across stream ecosystems. *Freshwater Science*, doi.org/10.1086/699387
Impact factor = 3.07

53. Cory, R.M., G. W. Kling. (2018) Interactions between sunlight and microorganisms influence DOM degradation along the aquatic continuum. *Limnology and Oceanography Letters*, doi.org/10.1002/lol2.10060
Impact factor = 5.242

52. Trusiak*, A., L. A. Treibergs, G. W. Kling, R. M. Cory. (2018) The role of iron and reactive oxygen species in the production of CO_2 in arctic soil waters, *Geochimica et Cosmochimica Acta,* doi.org/10.1016/j.gca.2017.12.022
Impact factor = 4.250

51. Ward*, C. P., S.A. Nalven, B.C. Crump, G.W. Kling, R.M. Cory. Ward, C. P., S.A. Nalven, B.C. Crump, G.W. Kling, R.M. Cory. (2017) Photochemical alteration of dissolved organic carbon draining permafrost soils shifts microbial metabolic pathways and stimulates respiration. *Nature Communications,* doi:10.1038/s41467-017-00759-2
Impact factor = 12.353

50. Environmental effects of ozone depletion and its interactions with climate change: Progress Report, 2016. (2017) United Nations Environmental Programme, Environmental Effects Assessment Panel. *Photochem. Photobiol. Sci.*, doi: 10.1039/C7PP90001E
Impact factor = 2.235
R.M. Cory is a contributing author on this report

49. Waggoner, D.C., A. S. Wozniak, R. M. Cory, P. G. Hatcher. (2017) The role of reactive oxygen species in the degradation of lignin derived dissolved organic matter. *Geochimica et Cosmochimica Acta,* doi.org/10.1016/j.gca.2017.03.036
Impact factor = 4.315

48. Taterka$^{\delta}$, B., R.M. Cory. (2016) Students learn firsthand how thawing permafrost adds to global warming. *The Science Teacher.*
This journal does not report an impact factor

47. Berry, M.A., R. M. Cory, T. W. Davis, M. B. Duhaime, T. H. Johengen, G. W. Kling, J. A. Marino, P. A. Den Uyl, D. C. Gossiaux, G. J. Dick, V. J. Denef. (2016) Cyanobacterial harmful algal blooms are a biological disturbance to western Lake Erie bacterial communities. *Environmental Microbiology*, doi: 10.1111/1462-2920.13640
Impact factor = 5.932

46. Cory, R.M., T. W. Davis, G. J. Dick, T. H. Johengen, V. J. Denef, M. A. Berry, S.E. Page$^{\beta}$, S. B. Watson, K. Yuhas, G. W. Kling. (2016) Seasonal dynamics in dissolved organic matter, hydrogen peroxide, and cyanobacterial blooms in Lake Erie. *Frontiers in Marine Science,* doi: 10.3389/fmars.2016.00054
Journal does not yet have an impact factor

45. Panitan, J., P. C. Singer, R. M. Cory, O. Coronell. (2016) Minimization of low-pressure membrane fouling using a magnetic ion exchange (Miex®) resin. *Water Research,* doi:10.1016/j.watres.2016.04.007
Impact factor = 5.528

44. Ward*, C. P., R.M. Cory. (2016) Complete and partial photo-oxidation of DOM draining permafrost soils. *Environ. Sci. Technol.,* doi:10.1021/acs.est.5b05354
Impact factor = 5.330

43. Vonk, J. E., S. E. Tank, W. B. Bowden, I. Laurion, W. F. Vincent, P. Alekseychik, M. Amyot, M. F. Billet, J. Canário, R. M. Cory, B. N. Deshpande, M. Helbig, M. Jammet, J. Karlsson, J. Larouche, G. MacMillan, M. Rautio, K. M. Walter Anthony, and K. P. Wickland. (2015) Reviews and Syntheses: Effects of permafrost thaw on arctic aquatic ecosystems. *Biogeosciences*, doi: 10.5194/bg-12-7129-2015
Impact factor = 3.978

42. Cory, R.M., K. H. Harrold*, B.T. Neilson, G. W. Kling. (2015) Controls on dissolved organic matter (DOM) degradation in a headwater stream: the influence of photochemical and hydrological conditions in determining light-limitation or substrate-limitation of photo-degradation. *Biogeosciences,* doi: 10.5194/bg-12-6669-2015
Impact factor = 3.978

41. Ward*, C.P., R.M. Cory. (2015) Chemical composition of dissolved organic matter draining permafrost soils. *Geochimica et Cosmochimica Acta*, doi: 10.1016/j.gca.2015.07.001
Impact factor = 4.331

40. Helton, A. M., M. S. Wright, E. S. Bernhardt, G. C. Poole, R.M. Cory, J. A. Stanford. (2015) Dissolved organic carbon lability increases with water residence time in the alluvial aquifer of a river-floodplain ecosystem. *J. Geophys. Res, Biogeosciences,* doi: 10.1002/2014JG002832
Impact factor = 3.426

39. Brezonik, P.L., P. R. Bloom, R. L. Sleighter, R. M. Cory, A. R. Khwaja, P.G. Hatcher. (2015) Chemical differences of aquatic humic substances extracted by XAD-8 and DEAE-Cellulose. *J.Environ.Chem. Engin.,* doi:10.1016/j.jece.2015.03.004
Source Normalized Impact per Paper = 1.054 (1 Citations)

38. Amado, A.M., J. B. Cotner, Cory, R.M., B. L. Edhlund, K. McNeill. (2014) Disentangling the interactions between photochemical and bacterial degradation of dissolved organic matter: amino acids play a central role. *Microbial Ecology*, doi: 10.1007/s00248-014-0512-4
Impact factor = 2.973

37. Cory, R.M., C. P. Ward*, B. C. Crump, G. W. Kling. (2014) Sunlight controls water column processing of carbon in arctic freshwaters**.** *Science*, doi: 10.1126/science.1253119
Impact Factor = 33.611 (104 Citations)

- ***Pickup by over 20 news outlets and is in the top 5% (99th percentile) of all research outputs ever tracked by Altmetric***
- ***Adapted by AAAS for "Science in the Classroom" collection of annotated research papers and accompanying teaching materials http://scienceintheclassroom.org/research-papers/midnight-sun-contributing-global-warming/university***

36. Sleighter, R.L., R. M. Cory, L. A. Kaplan, H. A.N. Abdulla, P. G. Hatcher. (2014) A coupled geochemical and biogeochemical approach to characterize bio-reactivity of dissolved organic

matter from a headwater stream. *J. Geophys. Res, Biogeosciences*, doi: 10.1002/2013JG002600
Impact factor = 3.426

35. *Ward, C.P., R.L. Sleighter, P.G. Hatcher, R. M. Cory. (2014) Insights into the complete and partial photooxidation of black carbon in surface waters. *Environ. Sci.: Processes Impacts*, doi: 10.1039/c3em00597f
Impact factor = 2.171 ***Featured on journal cover, March 2014***

34. $^{\beta}$Page, S.E. J. R. Logan, R. M. Cory, K. McNeill. (2014) Evidence for dissolved organic matter as the primary source and sink of photochemically produced hydroxyl radical in arctic surface waters. *Environ. Sci.: Processes Impacts*, doi: 10.1039/c3em00596h
Impact factor = 2.171

33. Lyon, B. A., R. M. Cory, H. S. Weinberg. (2014) Changes in dissolved organic matter fluorescence and disinfection byproduct formation from UV and subsequent chlorination/chloramination. *J. Haz. Mat.,* doi:10.1016/j.jhazmat.2013.10.065
Impact factor = 4.529

32. $^{\beta}$Page, S. E., G. W. Kling, M. Sander, K. H. Harrold*, R. Logan, K. McNeill, R.M. Cory. (2013) Dark formation of hydroxyl radical in arctic soil and surface waters. *Environ. Sci. Technol.,* doi: 10.1021/es4033265
Impact factor = 5.330

31. Cawley, K., D.M. McKnight, P.L. Miller, R.M. Cory, R. Fimmen, J. Geurard, M. Dieser, C. Jaros, Y.P. Chin, C. F. Foreman. (2013) Characterization of fulvic acid fractions of dissolved organic matter during ice-out in a hyper-eutrophic, coastal pond in Antarctica. *Environ. Res. Lett*., doi: 10.1088/1748-9326/8/4/045015
Impact factor = 3.906

30. Foreman, M. C., R.M. Cory, C. E. Morris, M. D. SanCelements, H. J. Smith, J. T. Lisle, P. L. Miller, Y. P. Chin, D.M. McKnight. (2013) Microbial growth under humic-free conditions in a supraglcial stream system on the Cotton Glacier, Antarctica. *Environ. Res. Lett*., doi: 10.1088/1748-9326/8/3/035022
Impact factor = 3.906

29. Shields, J.G., A. Wang*, R. M. Cory, J. R. Stewart. (2013) Determination of specific types and relative levels of QPCR inhibitors in environmental water samples using excitation–emission matrix spectroscopy and PARAFAC. *Wat. Res*., doi: 10.1016/j.watres.2013.03.049
Impact factor = 5.528

28. Cory, R.M., B. C. Crump, J. A. Dobkowski, G.W. Kling. (2013) Surface exposure to sunlight stimulates CO_2 release from permafrost soil carbon in the Arctic. *Proc. Nat. Acad. Sci.*, doi: 10.1073/pnas.1214104110

Impact factor = 9.674
Pickup by over 20 news outlets

27. Remucal, C.K., R.M. Cory, M. Sander, K. McNeill. (2012) Low molecular weight components in an aquatic humic substance as characterized by membrane dialysis and orbitrap mass spectrometry. *Environ. Sci. Technol.*, doi: 10.1021/es302468q
Impact factor = 5.330

26. Cory, R.M., L.A. Kaplan. (2012) Biological lability of streamwater fluorescent dissolved organic matter. *Limnol. Oceanogr.*, doi: 10.4319/lo.2012.57.5.1347
Impact factor = 3.794

> *An erratum was submitted for this publication to correct a mathematical error in the data processing that did not alter conclusions of the paper:* Cory, R.M., L.A. Kaplan. (2013) *Erratum: Biological lability of streamwater fluorescent dissolved organic matter. Limnol. Oceanogr.*, doi: 10.4319/lo.2013.58.1.0428

25. Peterson, B.M., A.M. McNally, R. M. Cory, J. D. Thoemke, J. B. Cotner, K. McNeill. (2012) Spatial and temporal distribution of singlet oxygen in Lake Superior. *Environ. Sci. Technol.*, doi: 10.1021/es301105e
Impact factor = 5.330

24. Bone, A. J., B. P. Colman, A. P. Gondikas, K. M. Newton, K. H. Harrold*, R. M. Cory, J. M. Unrine, S. J. Klaine, C. W. Matson, R. T. Di Giulio. (2012) Biotic and abiotic interactions in aquatic microcosms determine fate and toxicity of Ag nanoparticles: Part 2 –Toxicity and Ag speciation. *Environ. Sci. Technol.*, doi: 10.1021/es204683m
Impact factor = 5.330

23. Grannas, A. M., R. M. Cory, P. L. Miller, Y. Chin, D. M. McKnight. (2012) The role of dissolved organic matter in arctic surface waters in the photolysis of hexachlorobenzene and lindane. *J. Geophys. Res, Biogeosciences*, doi: 10.1029/2010JG001518
Impact factor = 3.426

22. Lutz, B. D., E. S. Bernhardt, B. J. Roberts, R. M. Cory, P. J. Mulholland. (2012) Distinguishing dynamics of dissolved organic matter components in a forested stream using kinetic enrichments. *Limnol. Oceanogr.*, doi: 10.4319/lo.2012.57.1.0076
Impact factor = 3.794

21. Maie, N., Y. Yamashita, R. M. Cory, J. N. Boyer, R. Jaffe. (2012) Application of excitation emission matrix fluorescence monitoring in the assessment of spatial and seasonal drivers of dissolved organic matter composition: Sources and physical disturbance controls. *Appl. Geochem.*, doi: 10.1016/j.apgeochem.2011.12.021
Impact factor = 2.268

20. Merck, M.F., B.T. Neilson, R.M. Cory, G.W. Kling. (2012) Variability of in-stream and riparian storage in a beaded arctic stream. *Hydrol. Proc.*, doi: 10.1002/hyp.8323
Impact factor = 2.677

19. Fang, X., J. Mao, R. M. Cory, D. M. McKnight, K. Schmidt-Rohr. (2011) 15N and 13C{14N} NMR investigation of the major nitrogen-containing segment in an aquatic fulvic acid: Evidence for a hydantoin derivative. *Magn. Reson. Chem*., doi: 10.1002/mrc.2816
Impact factor = 1.179

18. Foreman, C.M, M. Dieser, M. Greenwood, R.M. Cory, J. Laybourn-Parry, J.T. Lisle, C. Jaros, P.L. Miller, Y.P. Chin, D.M. McKnight. (2011) When a habitat freezes solid: microorganisms over-winter within the ice column of a coastal Antarctic. *FEMS Mircrobiol. Ecol*., doi: 10.1111/j.1574-6941.2011.01061.x
Impact factor = 2.973

17. Cory, R.M., K. McNeill, J.B. Cotner, A.M. Amado, J. Purcell, A. Marshall. (2010) Singlet oxygen in the coupled photo and biochemical processing of dissolved organic matter. *Environ. Sci. Technol.,* doi: 10.1021/es902989y
Impact factor = 5.330

16. Miller, M.P., B. E. Simone, D. M. McKnight, R.M. Cory, M. W. Williams, E. W. Boyer. (2010) New light on a dark subject: comment. *Aquatic Sciences,* doi: 10.1007/s00027-010-0130-2
Impact factor = 2.706

15. Yamashita, Y., R. M. Cory, J. Nishioka, K. Kuma, E. Tanoue, R. Jaffé. (2010) Fluorescence characteristics of dissolved organic matter in the deep waters of the Okhotsk Sea and the northwestern North Pacific Ocean. *Deep Sea Research Part II: Topics in Oceanography*, doi: 10.1016/j.dsr2.2010.02.016
Impact factor = 2.190

14. Cory, R.M., M.P. Miller, J. Guerard, D.M. McKnight, P. L. Miller. (2010) Effect of instrument-specific response on the analysis of fulvic acid fluorescence spectra. *Limnol. Oceanogr*., doi: 10.4319/lom.2010.8.67
Impact factor = 3.794

13. Fellman, J.B., M.P. Miller, R.M. Cory, D.V. D'Amore, D. White. (2009) Characterizing dissolved organic matter using PARAFAC modeling of fluorescence spectroscopy: A comparison of two models. *Environ. Sci. Technol*., doi: 10.1021/es900143g
Impact factor = 5.330

12. Cory, R.M., J.B. Cotner, K. McNeill. (2009) Quantifying interactions between singlet oxygen and aquatic fulvic acids. *Environ. Sci. Technol*., doi: 10.1021/es801847g
Impact factor = 5.330

11. Jaffé, R., D. M. McKnight, N. Maie, R.M. Cory, W.H. McDowell, J.L. Campbell. (2008) Spatial and temporal variations in DOM composition in ecosystems: The importance of long-term monitoring of optical properties. *J. Geophys. Res, Biogeosciences,* doi: 10.1029/2008JG000683
Impact factor = 3.426

10. Cory, R.M., D.M. McKnight, Y. Chin, P. Miller, C. Jaros. (2007) Chemical characteristics of fulvic acids from Arctic surface waters: Microbial contributions and photochemical transformations. *J. Geophys. Res. Biogeosciences*, doi: 10.1029/2006JG000343
Impact factor = 3.426

9. Mladenov, N., D.M. McKnight, S.A. Macko, M. Norris, R.M. Cory, L. Ramberg. (2007) Chemical characterization of DOM in channels of a seasonal wetland. *Aquatic Sciences,* doi: 10.1007/s00027-007-0905-2
Impact factor = 2.706

8. Fimmen, R.L., R.M. Cory, Y.P. Chin, T. D. Trouts, D. M. McKnight. (2007) Probing the oxidation-reduction properties of terrestrially and microbially derived dissolved organic matter. *Geochemica Acta*, doi: 10.1016/j.gca.2007.04.009
Impact factor = 4.331

7. Mao, J.D., R. M. Cory, D. M. McKnight, K. Schmidt-Rohr. (2007) Characterization of a nitrogen-rich fulvic acid and its precursor algae from solid state NMR. *Organic Geochemistry*, doi: 10.1007/s00027-007-0905-2
Impact factor = 3.072

6. Williams, M.W. , M. Knauf, R. Cory, N. Caine, F. Liu. **(**2007) Nitrate content and potential microbial signature of rock glacier outflow, Colorado Front Range. *Earth Surface Processes and Landforms*, doi: 10.1002/esp.1455
Impact factor = 2.845

5. Bade, D.L., S. R. Carpenter, J. J. Cole, M. L. Pace, E. Kritzberg, M. C. Van de Bogert, R. M. Cory, D. M. McKnight. (2007) Sources and fates of dissolved organic carbon in lakes as determined by whole-lake carbon isotope additions. *Biogeochemistry,* doi: 10.1007/s10533-006-9013-y
Impact factor = 3.488

4. Miller, M., D.M. McKnight, R. M. Cory, M. Williams, R. Runkel. (2006) Hyporheic exchange and fulvic acid redox reactions in an alpine stream/wetland ecosystem, Colorado Front Range. *Environ. Sci. Technol*., doi: 10.1021/es060635j
Impact factor = 5.330

3. Cory, R.M., D.M. McKnight. (2005) Fluorescence spectroscopy reveals ubiquitous presence of oxidized and reduced quinones in dissolved organic matter. *Environ. Sci. Technol*., doi: 10.1021/es0506962
Impact factor = 5.330

2. Cory, R.M., S.A. Green, K.S. Pregitzer. (2004) Dissolved organic matter concentration and composition in the forests and streams of Olympic National Park, WA. *Biogeochemistry*, doi: 10.1023/B:BIOG.0000015785.71785.20
Impact factor = 3.488

1. Fulton, J.R., D. M. McKnight, C. Foreman, R.M. Cory, C. Stedmon, E. Blunt. (2004) Changes in fulvic acid redox state through the oxycline of a permanently ice-covered Antarctic Lake. *Aquatic Sciences,* doi: 10.1007/s00027-003-0691-4
Impact factor = 2.706

EDITED BOOK CHAPTERS (3)

3. Kaplan, L.A., R.M. Cory. 2016. Dissolved organic matter in stream ecosystems: forms, functions, and fluxes of watershed tea. In: Jones, J. Stanley E. (Eds.), *Streams in a Changing Environment*. Elsevier.

2. Stedmon, C.A., R.M. Cory. 2014. Biological origins and fate of fluorescent dissolved organic matter in aquatic environments. In: Coble, P.G., Lead, J.R., Baker, A, and Reynolds, D. (Eds.), *Fluorescence Applications in Aquatic Science*. Cambridge University Press, NY.

1. Cory, R.M., E.B. Boyer,D.M. McKnight. 2011. (Invited) Spectral methods to advance understanding of dissolved organic carbon dynamics in forested catchments. In: Levia, D.F., Carlyle-Moses, D.E. and Tanaka, T. (Eds.), *Forest Hydrology and Biogeochemistry: Synthesis of Past Research and Future Directions*. Ecological Studies Series, No. 216, Springer-Verlag, Heidelberg, Germany.

CONFERENCE ABSTRACTS

57. Walker, D., R.M. Cory, J. Dobkowski, G. W. Kling, B. C. Crump. 2020. Bringing the Arctic to the High School Classroom. Fall meeting, American Geophysical Union, December 1-17, 2020. Abstract ED029-0007. San Francisco, CA.

56. Neilson, B.T., M. B.Cardenas, M.O'Connor, T.King, M. T. Rasmussen, R. M. Cory, G. W Kling. (2019). The role of groundwater dynamics on carbon export from continuous permafrost watersheds. American Geophysical Union Fall National Meeting. San Francisco, CA.

55. Bowen*, J.C., C.P. Ward, G.W. Kling, R. M. Cory (2019). Sunlight and iron control the oxidation of DOC leached from permafrost soils. American Geophysical Union Fall National Meeting. San Francisco, CA.

54. Bowden, W. B., R. M. Cory, D. Emerson, A. E. Giblin, E. Herndon, G. W. Kling, A.B. Michaud, N. Record. (2019). The Fundamental Roles of Iron as a Mediator of Land-Water

Interactions in Arctic Catchments. American Geophysical Union Fall National Meeting. San Francisco, CA.

53. Cory, R.M., B. Taterka[δ], D. Walker[δ], G. W. Kling, B. C. Crump. (2019). Including K-12 teachers in field research: progress and lessons learned on communicating climate change science to a broader audience. American Geophysical Union Fall National Meeting. San Francisco, CA.

52. Cory, R.M., T. King, G.W. Kling, B. T. Neilson. (2018).Controls on Fluxes of Labile DOC from the Kuparuk River to the Arctic Ocean. POLAR2018, SCAR & IASC Conference, Davos, Switzerland.

51. Trusiak[*], A., L.A.Treibergs, G.W. Kling, J. Bargar, V. Noël, R.M. Cory. (2018). The role of iron complexation in the production of reactive oxygen species and CO_2 in arctic soil waters. Goldschmidt 2018, Boston, MA.

50. Cory, R.M., A. Trusiak[*], C.P. Ward, G.W., Kling, V. Noël, J. Bargar. (2018) (*Invited*) Role of iron in dissolved organic carbon degradation in the arctic. Goldschmidt 2018, Boston, MA.

49. Ward, C.P., C.M. Reddy, R. M. Cory. (2018) Evaluating the magnitude of partial photo-oxidation of organic carbon in sunlit surface waters. American Chemical Society National Meeting. New Orleans, LA.

48. Cory, R.M., B. Taterka, R. Brinker. (2017) Bringing the Tundra to Your Classroom: Hands-on, NGSS-Aligned Lessons and Lab Activities for Teaching Climate Change, Focusing on Thawing Permafrost and the Earth's Carbon Cycle. AGU-NESTA Geophysical Information for Teachers (GIFT) Workshop. American Geophysical Union Fall National Meeting. New Orleans, LA.

47. Cory, R.M., A. Trusiak, C. P. Ward, G. W. Kling, M. M. Tfaily, L. Pasa-Tolic, V. Noël, J. R. Bargar. (2018) Interactions between iron and organic matter may influence the fate of permafrost carbon in the Arctic. American Geophysical Union Fall National Meeting. New Orleans, LA.

46. R.M. Cory, C.P. Ward, J. C. Bowen, A. Trusiak, L. A. Treibergs. (2017) *invited.* Watershed tea in arctic lakes: comparing carbon chemistry and cycling in "red zinger" vs. "chamomile" waters. American Chemical Society National Meeting. San Francisco, CA.

45. R.M. Cory, C.P. Ward, B.C. Crump, G.W. Kling. (2016) Photodegradation of dissolved organic carbon in arctic inland waters. Society of International Limnology (SIL). Torino, Italy.

44. G.W. Kling, Neilson, B. T., Cardenas, B., R.M. Cory (2016) Controls on dissolved organic matter photodegradation in surface waters: residence time and the role of light vs substrate limitation. Association for the Sciences of Limnology and Oceanography (ASLO) Summer Meeting. Santa Fe, NM.

43. R.M. Cory, C.P. Ward, B.C. Crump, G.W. Kling. (2016) *invited*. Photodegradation of dissolved organic carbon in arctic inland waters. Association for the Sciences of Limnology and Oceanography (ASLO) Summer Meeting. Santa Fe, NM.

42. *Ward, C.P., R.M. Cory. (2015) Relating the chemical composition of DOM draining permafrost soils to its photochemical degradation in arctic surface waters. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

41. Brinker, R., R.M. Cory. (2014). From the field to classrooms: Scientists and educators collaborating to develop K-12 lessons on arctic carbon cycling and climate change that align with Next Generation Science Standards, and informal outreach programs that bring authentic data to informal audiences. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

40. Li, A., A. Aubeneau, T. King, R.M. Cory, B.T. Neilson, G. W. Kling, D. Bolster, A. Packman. (2014) Stochastic modeling of carbon photo-mineralization along arctic rivers following permafrost thaw. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

39. Cory, R.M., S.E. Page*, G.W. Kling, M. Sander, K.H. Harrold, K. McNeill. (2014) *invited*. Shedding “dark” on the oxidation of dissolved organic matter by hydroxyl radical in arctic soils and surface waters. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

38. Cory, R.M., C.P. Ward*, B.C. Crump, G.W. Kling. (2014) *invited*. Sunlight controls water column processing of carbon in arctic freshwaters. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

37. *Ward, C.P., R.M. Cory. (2014) Linking chemical composition of dissolved organic matter from arctic soils to its complete and partial photooxidation in surface waters. American Society of Limnology & Oceanography (ASLO), Portland, OR.

36. Cory, R.M. (2014) The fate of carbon draining permafrost soils is controlled by photochemical reactions in addition to microbial degradation in arctic surface waters. THAW 2014 - Thermokarst Aquatic ecosystems Workshop**:** Freshwater ecosystems in changing permafrost landscapes. Quebec City, Canada.

35. Cory, R.M., S.E. Page*, G.W. Kling, M. Sander, K.H. Harrold, K. McNeill. (2013) *invited*. The role of iron and reactive oxygen in the degradation of dissolved organic matter draining permafrost soils. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

34. Cory, R.M. (2013) *invited*. Determining the interactions between photochemical and microbial oxidation of DOM. Finland Distinguished Professor Programme (FiDiPro) Workshop on Dissolved Organic Matter. Tvärminne Zoological Station, Finland.

33. Cory, R.M., S.E. Page*, G.W. Kling, M. Sander, K.H. Harrold, K. McNeill. (2013) *invited*. Going to the dark side: a new pathway for the oxidation of dissolved organic matter in arctic soil waters. Chapman Conference on AGU Chapman Conference on Soil-mediated Drivers of

Coupled Biogeochemical and Hydrological Processes Across Scales, Biosphere 2, University of Arizona, Oracle, AZ.

32. Cory, R.M. (2013) *invited*. Dissolved organic matter degradation and chemical composition: implications for carbon cycling. Workshop on Belowground Carbon Cycling Processes at the Molecular Scale. Pacific Northwest National Laboratory, Richland, WA.

31. Merck, M.F., B.T. Neilson, R.M. Cory, G.W. Kling. (2011) Combining natural tracers to identify flow paths in arctic beaded streams. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

30. Cory, R.M., *R.A. Polera. (2011) Fluorescence as a monitoring tool for recycled water: a case study at UNC. Water and Health: Where Science Meets Policy. UNC Institute for the Environment and UNC Water Institute. Chapel Hill, NC.

29. Cory, R.M., G.W. Kling. (2010) *invited*, Dynamics of photochemical and microbial processing of newly exposed terrestrial DOM in arctic surface waters. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

28. Lutz, B., E.S. Bernhardt, B. Roberts, R.M. Cory, P. Mulholland. (2010) What can a stream stand to lose? A new method for investigating DOM biogeochemistry. American Society of Limnology & Oceanography (ASLO), Santa Fe, NM.

27. Cotner, J.B. Cory, R.M., M. Jacobson K. McNeill, B.P. Peterson, A.M. Amado. (2010) Fluorescent dissolved organic matter helps unravel the mysterious carbon cycle in Earth's largest lake International Association for Great Lakes Research meeting, Toronto, ON, Canada.

26. *Dang, G.T., R. M. Cory, H. W. Paerl. (2010) Spatial and temporal variation in fluorescent DOM in the Neuse River Estuary. American Society of Limnology & Oceanography (ASLO), Santa Fe, NM.

25. Cory, R.M., A. Amado, B. Peterson, K. McNeill, J.B. Cotner. (2009) Fluorescent dissolved organic matter reveals dynamic catchment interactions in Lake Superior. Poster Highlight Session, Gordon Research Conference on Catchment Science: Interactions of Hydrology, Biology & Geochemistry. Andover, NH.

24. Gilmore, A., R.M.Cory. (2009) Enhanced measurements of chromophoric dissolved organic matter (CDOM) for water quality analysis using a new simultaneous absorbance and fluorescence instrument. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

23. McNeill, K. R.M. Cory, M. Grandbois, J. Cotner. (2009) Natural organic matter as a source and sink of singlet oxygen. Abstracts of Papers, 238th ACS National Meeting, Washington, DC.

22. *Polera, R.A., R.M. Cory. (2009) Distinguishing between reclaimed and potable water with fluorescence spectroscopy. North Carolina American Water Works Association Annual Meeting. Raleigh, NC.

21. Cory, R.M. A. Amado, B. Peterson, K. McNeill, J.B. Cotner. (2008) *invited*, Photochemical and biochemical cycling of dissolved organic matter: clues from organic matter fluorescence. Chapman Conference on Organic Matter Fluorescence, University of Birmingham, Birmingham, UK.

20. Cory, R.M., H. Powers, N. McDowell, T. Rhan. (2008) Photodegradation of leaf litter in semi-arid environments. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

19. McNeill, K., R.M. Cory, A. Amado, J.B. Cotner. (2008) Reaction of singlet oxygen with natural organic matter. Gordon Research Conference: Environmental Sciences: Water. Holderness, NH.

18. Cory, R.M., J. B. Cotner, K. McNeill. (2008) Singlet oxygen uptake by aquatic fulvic acids leads to production of hydrogen peroxide and oxidized organic compounds. American Society of Limnology & Oceanography (ASLO), St. John's, Newfoundland, Canada.

17. Cotner, J.B., R.M. Cory, K. McNeill, A.M. Amado, B. Edhlund. (2008) Reactive oxygen effects on dissolved organic matter and microbes. American Society of Limnology & Oceanography (ASLO) Ocean Sciences Meeting, Orlando, FL.

16. Miller, P.L., M. Dieser, C. M. Foreman, R. L. Fimmen, J.J. Guerard, R.M. Cory, Y.P. Chin, D.M. McKnight. (2008) Direct and indirect effects of UV radiation on bacterial abundance and community structure in Pony Lake, Antarctica. American Society of Limnology & Oceanography (ASLO) Ocean Sciences Meeting, Orlando, FL.

15. Cory, R.M., K. McNeill, J.B. Cotner. (2007) Reactions of singlet oxygen with the fulvic acid fraction of aquatic dissolved organic matter. American Chemical Society (ACS), Chicago, IL.

14. McKnight, D.M., R. M. Cory, R. Jaffe, N. Maie. (2007) Characterizing the quality of DOM with spectroscopic approaches to monitor response to climate and land-use change. Humic Science & Technology Conference X, Northeastern University, Boston, MA.

13. Cotner, J, B., A.M. Amado, R.M. Cory, B. Edhlund, K. McNeill. (2007) Superior Tales: The effects of microbes and photochemical processes on DOM in the Earth's largest lake. American Society of Limnology & Oceanography (ASLO), Santa Fe, NM.

12. McKnight, D.M., M. Appel, M. Brooks, R.M. Cory. (2007) Photolytic effects on spectral properties and Cu-binding by stream fulvic acids. American Society of Limnology & Oceanography (ASLO), Santa Fe, NM.

11. Fimmen, R.L., R.M. Cory, Y.P. Chin, D.M. McKnight. (2006) Contrasting redox and chemical properties of a microbially and terrestrially derived fulvic acid. American Society of Limnology & Oceanography (ASLO), Victoria, BC, Canada.

10. Geurard, J.J., R.L. Fimmen, P.L. Miller, Y.P. Chin, R.M. Cory, D.M. McKnight, C. Foreman. (2006) Changes in chemical properties and bioavailability during photolysis of Pony Lake

dissolved organic matter. American Society of Limnology & Oceanography (ASLO), Victoria, BC, Canada.

9. McKnight, D.M., R.M. Cory, P. Miller, Y.-P. Chin, C. Foreman. (2006) Chemical properties of a microbially-derived fulvic acid from a hypereutrophic coastal pond in Antarctica. Humic Science & Technology Conference IX, Northeastern University, Boston, MA.

8. Cory, R.M., A.M. Grannas, P.L. Miller, D.M. McKnight, Y.P. Chin. (2006) Photochemical reactivity & photosensitizing properties of fulvic acids in Arctic surface waters. Pacifichem Meeting, Honolulu, HI.

7. Cory, R.M., R.L. Fimmen, Y.P. Chin, D.M. McKnight. (2006) Effect of electrochemical reduction on fulvic acid fluorescence spectra. Gordon Research Conference: Environmental Sciences: Water. Plymouth, NH.

6. Cory, R.M., D.M. McKnight, Y. Chin, R. Fimmen, J. Priscu, C. Foreman, J. Mikucki. (2005) Understanding DOM redox reactivity and fluorescence: Lessons from saline lakes in Antarctica. American Society of Limnology & Oceanography (ASLO), Salt Lake City, UT.

5. Knauf, M., M. Williams, F. Lui, R.M. Cory, N. Caine. (2004) Microbial activity and nutrient concentrations from a North American rock glacier: An Antarctic analogue. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

4. Grannas, A.M. P.L. Miller, Y.P. Chin, R.M. Cory, D.M. McKnight. (2003) Selective degradation of persistent organic pollutants by Arctic dissolved organic matter. American Geophysical Union (AGU), Fall Meeting. San Francisco, CA.

3. Cory, R.M., D.M. McKnight, C. Stedmon. (2003) Evidence for microbially mediated ferric iron reduction in an alpine lake. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA.

2. Cory, R.M., S.A. Green, J. Perlinger, K. Pregitzer. (2002) Dissolved organic matter composition in the forests of Olympic National Park, WA. American Society of Limnology & Oceanography (ASLO), Victoria, BC, Canada.

1. Cory, R.M., S.A. Green. (2001) Dissolved organic matter export and composition throughout the forests and streams of Olympic National Park, WA. Gordon Research Conference: Forested Catchments: Hydro/Geo/Bio Processes. Andover, NH.

INVITED TALKS and SEMINARS

2021 Earth System Science, University of California, Irvine
2019 Department of Marine Science, University of Georgia
2019 Plenary talk at GRIL (Interuniversity Research Group in Limnology), Quebec, CA
2018 Keynote talk at Goldschmidt 2018, Boston, MA
2016 Plenary talk at Gordon Conference: Environmental Sciences: Water
American Society of Limnology & Oceanography summer meeting
2015 Earth and Environmental Sciences, University of Illinois at Chicago
Kellogg Biological Station, Michigan State University

Civil & Environmental Engineering & Earth Sciences, Notre Dame
2014 Chemistry & Geochemistry, Colorado School of Mines
Geological Sciences, Michigan State University
Chemistry, Eastern Michigan University
Civil & Environmental Engineering, University of Michigan
American Geophysical Union fall meeting
2013 Earth and Planetary Sciences, Northwestern University
Chemistry, Davidson College
American Geophysical Union fall meeting
2012 Institute for Biogeochemistry and Pollutant Dynamics, ETH, Zurich
Environmental Science and Forestry, Chemistry, SUNY
Chemistry, Michigan Technological University
FluoroFest Meeting, Horiba Scientific
2011 Environmental, Earth & Geospatial Sciences, North Carolina Central University
2010 Nicholas School of the Environment, Duke University
Invited speaker for "*Ice Counterpoint: Encounters in Antarctica and the Arctic Polar exploration*" University of North Carolina, Chapel Hill
2009 Environmental Sciences & Engineering, University of North Carolina, Chapel Hill

PROFESSIONAL SERVICE

Chair, User Executive Committee, Environmental Science Molecular Laboratory (EMSL), Pacific Northwest National Laboratory. 2020 - present.

Vice-Chair, User Executive Committee, Environmental Science Molecular Laboratory (EMSL), Pacific Northwest National Laboratory. 2019 - 2020.

Member, User Executive Committee, Environmental Science Molecular Laboratory (EMSL), Pacific Northwest National Laboratory. 2018 to 2019.

Co-author, United Nations Environmental Programme, Environmental Effects Assessment Panel. 2016 – 2018.

Proposal review panels

DOE Office of Biological and Environmental Research, Terrestrial Ecosystem Science proposal review panel, 2020
NSF Panelist, 2018
NSF Panelist (participated in two panels), EMSL Panelist, 2017
German Academic Exchange Service, Estonian, 2016
Research Council, Minnesota Environment and Natural Resources Trust Fund, North Carolina Sea Grant, 2016
EMSL/DOE Panelist, 2015
NASA/DOE Panelist, 2013
NSF Panelist (participated in 2 panels), 2011

Manuscript and proposal review

Science, PNAS, Nature Communications, Nature Geoscience, Nature Scientific Reports, Biogeochemistry, Environmental Science & Technology, JGR: Biogeosciences, EGU: Biogeosciences, Geophysical Research Letters, Global Biogeochemical Cycles, Limnology & Oceanography, Limnology & Oceanography: Methods, DOE, EMSL (Environmental Molecular

Science Laboratory/DOE), NSF (ANS, DEB, EAR, OCE, EASPI), German Academic Exchange Service, North Carolina Sea Grant, Ohio Sea Grant, Swiss National Science Foundation, French National Agency of Research, Organic Geochemistry, Applied Microbial Ecology, Applied Geochemistry, Aquatic Sciences, Arctic & Alpine Research, Journal of Great Lakes Research, Journal of Physical Chemistry, Marine Chemistry, Marine Science Pollution Bulletin, Microbial Ecology, Aquatic Geochemistry, Water Research, Water Resources Research, Science of the Total Environment, Soil Science Society of America Journal, EPA, US-Israel Binational Agricultural Research & Development Fund, Water Resources Center, St. Paul MN, Chemosphere, European Journal of Soil Science, Geomicrobiology.

Professional affiliations
American Geophysical Union; American Society for Limnology and Oceanography

WORKSHOPS

LTER Science Council attendee. Madison, WI, 2018

Biogeochemical Cycling of Metals, Radionuclides, and Associated Colloids within Earth's Critical Zone. *Co-chair and session organizer,* Goldschmidt, Boston, MA. 2018.

THAW Thermokarst Aquatic Ecosystems Workshop: Freshwater ecosystems in changing permafrost landscapes. *Invitee.* Quebec, Canada, 2014

Dissolved Organic Matter Symposium for the Finland Distinguished Professor Programme, Tvärminne Zoological Station. *Invitee.* Hanko, Finland, 2013.

Participant, Belowground Carbon Cycling Processes at the Molecular Scale. *Invitee.* Pacific Northwest National Laboratory, Richland, WA, 2013

New developments in fluorescence spectroscopy to characterize dissolved organic matter. *Organizer.* Geological Society of America Meeting, Charlotte, NC. 2012

Frontiers in analytical chemistry as applied to natural organic matter. *Organize*r, ACS National Meeting, San Francisco, CA. 2010.

TEACHING

University of Michigan (2013 – present)
Earth and Environmental Chemistry, Fall 2020 – present
Introduction to Aquatic Geochemistry, Fall 2014 – present
Introduction to Environmental Science, Winter 2019
Introduction to Environmental Geology, Winter 2014 – 2017

University of North Carolina Chapel Hill (2009 – 2013)
Environmental Physical Organic Chemistry, Winter 2011 – 2013
Chemical Equilibria in Natural Waters, Fall 2011 – 2012
Chemistry of Natural Organic Matter, Fall 2010

Post-doctoral advisees
Dr. Collin Ward (2015 – 2016) Research Assistant Scientist, WHOI

Dr. Sarah Page (2013 – 2014) Drinking Water Manager, City of Ann Arbor

Ph.D. students
Emma Reib (started 2019)
Dhurba Pandey (started 2018)
Jennifer Bowen (started 2015)
Adrianna Trusiak (2020). Great Lakes Bioenergy Research Coordinator, Michigan State University
Collin P. Ward (2015). Assistant Scientist, Woods Hole Oceanographic Institution

M.S. students
Aislinn Deely (2018, University of Michigan) MI Department of Environmental Quality
Carrie Doyle (2013, University of North Carolina, Chapel Hill)
Katherine H. Harrold (2013, University of North Carolina, Chapel Hill) OWASA Drinking Water Quality Lab Manager
George T. Dang (2011, University of North Carolina, Chapel Hill)
Angela Wang (MSPH, 2011, University of North Carolina, Chapel Hill)
Rory A. Polera (MSEE, 2010, University of North Carolina, Chapel Hill), Tagup

Graduate student committee member
Derek Smith (PhD 2021 University of Michigan)
Aaron Kurz (PhD 2021 University of Michigan)
Will Bender (PhD 2018 University of Michigan)
Nicolas Walpen (PhD 2018 ETH Zurich)
Ben Gebarski (PhD 2018 University of Michigan)
Spencer Washburn (PhD 2018, University of Michigan
Zhong Qiao (PhD 2018, University of Michigan)
Sara Nedrich (PhD 2017, University of Michigan)
Panitan Jutaporn (PhD 2017, University of North Carolina, Chapel Hill)
Sarah Aarons (2016 University of Michigan)
Meghan Taylor (PhD 2015, University of Michigan)
Sandra Taylor (PhD 2015, University of Michigan)
Nicole Hagan (PhD 2014, University of North Carolina, Chapel Hill)
Anne Gaylean (PhD 2015, University of North Carolina, Chapel Hill)
Alex Gorzalski (MSEE 2013, University of North Carolina, Chapel Hill)
Britt Peterson (PhD 2012, ETH Zurich)
Abhinav Komandur (MSPH 2012, University of North Carolina, Chapel Hill)
Alyson Malone (MSPH 2012, University of North Carolina, Chapel Hill)
Bonnie Lyons (PhD 2012, University of North Carolina, Chapel Hill)
Kristen Bretz (MS 2012, University of North Carolina, Chapel Hill)
Gabe McGowan (MS 2012, University of North Carolina, Chapel Hill)
Riley Flowers (PhD 2012, University of North Carolina, Chapel Hill)
Ryan Gustafson (MSEE 2011, University of North Carolina, Chapel Hill)
Kevin Myers (MSPH 2011, University of North Carolina, Chapel Hill)

Jakob Rowny (MS 2011, University of North Carolina, Chapel Hill)
Ryan Kingsbury (MSEE 2010, University of North Carolina, Chapel Hill)

Undergraduate student advisees
Nathan Laframboise 2021
Caleb Jelsma-Cale 2021
Liam Pendleton 2020
Kate Yuhas 2013-2016
Noah Attal 2014 – 2015
Antonia Deller 2014
Oliver Harfield 2013 – 2014
Erin Eberhard 2014 – 2015
Grace Hilbert 2014 – 2015
Brittany Papworth 2009 – 2012
Yvonne Nguyen 2012
Kevin Chu 2011– 2012
Amanda Lucier 2011
Lauren Visser 2010
Ashley Mui 2010
Jaleesa Powell 2010 – 2011

TEACHING WORKSHOPS and LECTURES

2021	Attendee, Anti-racist Pedagogy
2020	Attendee, Inclusive Teaching in Remote Settings
2015	Attendee, LectureTools help session
2015	Attendee, “Rule the Room” lecture by Jason Tetak
2014	Attendee, “The Craft of the Lecture” by LS&A
2014	Lecturer, “Ethics in Research” Undergraduate Research Opportunities Program (UROP) in LS&A
2013	Attendee, New Faculty Teaching Academy, LS&A

SERVICE (University of Michigan)

Department

2019 –	Mentor, Presidential Postdoctoral Fellow (PPFP)
2020 – 2021	Member, PiTE executive committee
2020	Member, promotion committee
2018 – 2019	Member, EES executive committee
2018 –	Undergraduate adviser
2018	Chair, promotion committee
2017	Member, faculty search committee
2015 – 2018	Chair, Smith Lecture (seminar) committee
2015	Member, PiTE faculty search committee
2015	Member, PiTE science curriculum committee
2013 – 2016	Member, graduate admissions committee

University

2021 Member, promotion committee in SEAS
2020 – 2021 Member, PPFP mentoring committee in Civil & Environmental Engineering
2017 – Faculty advisor, Michigan Earth Science Women's Network

SELECTED SCIENTIFIC OUTREACH, PRESS COVERAGE

2013 to present Participated in NSF's PolarTREC Teacher award to bring a K-12 teacher to conduct field work in the Alaskan Arctic and develop K-12 through undergraduate curriculum.
2013 – 2014 Radio broadcast interviews(*CBC,* Ecoshock Radio), and 48+ articles in magazines and newspapers (*Science NOW*, *Scientific American, Climate Central, Climate Wire, New Scientist, Latinos Post, Neue Zürcher Zeitung*).
2011 – 2012 Climate Leadership and Energy Awareness Program for high school students, Environmental Resource Program, University of North Carolina, Chapel Hill
2011 NC Climate Fellows Program, NASA's Innovation in Climate Education Program for K-12 Teacher Development in Climate Change
2011 Neuse and Tar-Pamlico River Research Water Quality Institute, K-12 Teacher Development, University of North Carolina, Chapel Hill

EXPERT CONSULTATION

2012 Provided expert consultation to Raleigh-based FBSciences on analytical detection of natural plant growth modifiers.
2010 Provided expert consultation to Hazen and Sawyer, P.C. on applications of fluorescence to monitor drinking water quality.