

Curriculum Vitae

Matt F. Simcik

Professor, Environmental Chemistry
Division of Environmental, School of Public Health
University of Minnesota
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Education

Doctor of Philosophy, Environmental Science, Rutgers University, January 1998

Master of Science, Civil Engineering, University of Minnesota, December 1994

Bachelor of Science, Chemistry, Michigan State University, June 1992

Professional Experience

July 2020 – Present	Professor, Division of Environmental Health Sciences, School of Public Health, University of Minnesota
July 2006 – July 2020	Associate Professor, Division of Environmental Health Sciences, School of Public Health, University of Minnesota
August 1999 – June 2006	Assistant Professor, Division of Environmental and Occupational Health, School of Public Health, University of Minnesota
August 1999 – Present	Full Member of the Graduate Faculty of the Water Resources Sciences Program, University of Minnesota
January 2005 – Present	Affiliate Member of the Graduate Faculty, Civil Engineering, University of Minnesota
October 1997 – August 1999	Post-Doctoral Fellow, School of Public and Environmental Affairs and Department of Chemistry, Indiana University
September 1996 – October 1997	Research Assistant, Environmental Science Department, Rutgers University
January 1996 – September 1996	Teaching Assistant, Environmental Science Department, Rutgers University

September 1995 – December 1995 Research Assistant, Environmental Science
Department, Rutgers University

July 1992 – August 1995 Research Assistant, University of Minnesota

Honors and Awards

2018 – Editorial Board, Environmental Toxicology and Chemistry
2013 – Editorial Board, Journal of Pollution Effects and Control
2006 Member, Delta Omega Honorary Society in Public Health
2006 - 2007 President, International Association for Great Lakes Research
2005 - 2006 Vice President, International Association of Great Lakes Research
2004 - Member, Board of Directors, International Association of Great Lakes
Research
2003 - 2006 Member, Board of Directors, Midwest Chapter of Society of
Environmental Toxicology and Chemistry
2003 Excellence in Review Award, *Environmental Science & Technology*
June 1998 Camille and Henry Dreyfus Post-Doctoral Fellowship, Indiana
University
Oct. 1997 Student Travel Award, American Association for Aerosol Research
May 1997 International Association for Great Lakes Research/HydroLab Best
Student Presentation Award

Professional Associations

American Association for Aerosol Research
American Chemical Society
Delta Omega Honorary Society in Public Health
International Association for Great Lakes Research
Sigma Xi
Society for Environmental Toxicology and Chemistry

Journal Articles (h-factor = 23)

Rushing, J. R., Schmokel, C., Brooks, B. W., Simcik, M.F. Occurrence of PFAS Contamination of Food Sources and Aquaculture Organisms Used in Aquatic Laboratory Experiments. *Environmental Toxicology and Chemistry*. **In press**

Stevens, J., Dorman, R., Brunson, E., Kunz, J., Pulster, E., Burket, S., Stroski, K., Sims, J., Simcik, M., Brooks, B. W. Laboratory derived bioaccumulation kinetic parameters for four per- and polyfluoroalkyl substances in freshwater mussels *Environmental Toxicology and Chemistry*. **In press**

Yao, B., Sun, R., Alinezhad, A., Kubatova, A., Simcik, M., Guan, X., Xiao, F., The first quantitative investigation of compounds generated from PFAS, PFAS-containing aqueous film forming foams and commercial fluorosurfactants in pyrolytic processes. *Journal of Hazardous Materials* **2022**. 436, 129313
<https://doi.org/10.1016/j.jhazmat.2022.129313>

Sims, J. L., Stroski, K. M., Kim, S., Killeen, G., Ehalt, R., Simcik, M. F., Brooks, B. W. Global occurrence and probabilistic environmental health hazard assessment of per- and polyfluoroalkyl substances (PFASs) in groundwater and surface waters. *Science of the Total Environment* **2022**. 816, 151535.
<https://doi.org/10.1016/j.scitotenv.2021.151535>

Bursian, S. J., Roberts, J., Harr, K., Link, J.E., McCarty, M., Simcik, M.F. Dietary Exposure of Japanese Quail (*Coturnix japonica*) to Perfluorooctane Sulfonate (PFOS) and a Legacy Aqueous Film Forming Foam Containing PFOS: Effects on Reproduction and Chick Survivability and Growth. *Environmental Toxicology and Chemistry* **2021** <https://doi.org/10.1002/etc.5138>.

Kim, Sujin; Stroski, K. M.; Killeen, G.; Smitherman, C.; **Simcik, M. F.**; Brooks, B. W. 8:8 perfluoroalkyl phosphinic acid affects neurobehavioral development, thyroid disruption, and DNA methylation in developing zebrafish. *Science of the Total Environment* **2020** <https://doi.org/10.1016/j.scitotenv.2020.139600>

Liu, Chen; Hatton, J.; Arnold, W. A.; Simcik, M.F.; Pennell, K. D.; In Situ Sequestration of Perfluoroalkyl Substances Using Polymer-Stabilized Powdered Activated Carbon. *Environmental Science and Technology*. **2020**
[doi:https://dx.doi.org/10.1021/acs.est.0c00155](https://dx.doi.org/10.1021/acs.est.0c00155)

Bursian, S. J., Link, J.E., McCarty, M., Simcik, M.F. The Subacute Toxicity of PFOS and/or PFOA and Legacy Aqueous Film Forming Foams to Japanese Quail (*Coturnix japonica*) chicks. *Environmental Toxicology and Chemistry*. **2020**
[doi:10.1002/etc.4684](https://doi.org/10.1002/etc.4684)

Aly, Yousof H.; McInnis, D. P.; Lombardo, S. P.; Arnold, W. A.; Pennell, K. D.; Hatton, J.; **Simcik, M. F.** Enhanced Adsorption of Perfluoro Alkyl Substances for In situ Remediation. *Environmental Science: Water Research and Technology*. **2019** 5(11): 1867-1875

Fitzgerald, Nicole J.M.; Temme, H.; **Simcik, Matt F.**; Novak, Paige J. Aqueous film forming foam and associated perfluoroalkyl substances inhibit methane production and Co-contaminant degradation in an anaerobic microbial community. *Environmental Science: Process and Impacts*. **2019** 21(11): 1915-1925
DOI:10.1039/c9em00241c

Anderson, Evan L.; Mousavi, Maral P. S.; Aly, Yousof; Chen, Xin V.; Simcik, Matt F.; Buhlmann, Phillippe. Remediation of Perfluorooctylsulfonate Contamination by In Situ Sequestration: Direct Monitoring of PFOS Binding to Polyquaternium Polymers. *ACS Omega* **2019** 4(1):1068-1076

Fitzgerald, Nicole J.M.; Wargenau, A.; Sorenson, C.; Pederson, J.; Tufenkji, N.; Novak, P. J.; Simcik, M. F. Partitioning and Accumulation of Perfluoroalkyl

Substances in Model Lipid Bilayers and Bacteria. *Environmental Science & Technology* **2018** 52(18): 10433-10440.

Aly, Yousof H.; Liu, Chen; McInnis, D. P.; Lyon, B. A.; Hatton, J.; McCarty, M.; Arnold, W. A.; Pennell, K. D.; Simcik, M. F. Enhanced Sorption of Perfluoro-alkyl Substances (PFAS) onto Ottawa Sand, Development of a Novel *In-situ* Remediation Method. *Journal of Environmental Engineering* **2018** 144(9).

Fitzgerald, Nicole J.M.; Simcik, Matt F.; Novak, Paige J. Perfluoroalkyl Substances (PFAS) Increase Membrane Permeability and Quorum Sensing. *Environmental Science & Technology Letters*. **2018** 5(1), 26-31.

Guo, R; Megson, D; Myers, AL; Helm, PA; Marvin, C; Crozier, P; Mabury, S; Bhaysar, SP; Tomy, G; Simcik, M; McCarry, B; Reiner, EJ. Application of a comprehensive extraction technique for the determination of poly- and perfluoroalkyl substances (PFASs) in Great Lakes Region sediments. *Chemosphere* 164:535-546 **2016**.

Tang, Weihua, Kuehn, T. H., Simcik, M. F. Effects of Temperature, Humidity and Air Flow on Fungal Growth on Loaded Ventilation Filters. *Journal of Occupational and Environmental Hygiene* **2015**.

Xiao, Feng; Simcik, Matt F.; Halbach, Thomas R.; Gulliver, John S. Perfluorooctane sulfonate (PFOS) and perfluorooctanoate (PFOA) in soils and groundwater of a U.S. metropolitan area: Migration and implications for human exposure. *Water Research* **2014**.

Xiao, Feng; Gulliver, John S.; Simcik, Matt. Perfluorooctane sulfonate (PFOS) contamination of fish in urban lakes: A prioritization methodology for lake management. *Water Research* 47(20), 7264-7272 **2013**.

Xiao, Feng; Matt F. Simcik, John S. Gulliver. Mechanisms for removal of perfluorooctane sulfonate (PFOS) and perfluorooctanoate (PFOA) from drinking water by conventional and enhanced coagulation. *Water Research* 47(1), 49-56, **2013**.

Xiao, Feng; Gulliver, John S.; Simcik, Matt F. Predicting aqueous solubility of environmentally relevant compounds from molecular features: A simple but highly effective four-dimensional model based on Project to Latent Structures *Water Research* 47(14), 5362-5370, **2013**.

Xiao, Feng; Thomas R. Halbach, Matt F. Simcik, John S. Gulliver. Input characterization of perfluoroalkyl substances in wastewater treatment plants: Source discrimination by exploratory data analysis. *Water Research* 46(9), 3101-3109, **2012**.

Xiao, Feng; Matt F. Simcik, John S. Gulliver. Partitioning Characteristics of Perfluorooctane Sulfonate Between Water and Foods. *Archives of Environmental Contamination and Toxicology* 62(1), 42-48, **2012**.

Xiao, Feng; Matt F. Simcik, John S. Gulliver. Perfluoroalkyl acids in urban stormwater runoff: Influence of land use. *Water Research* 46(20), 6601-6608, **2012**.

Xiao, Feng; Xingru Zhang, Lee Penn, John S. Gulliver, Matt F. Simcik. Effects of Monovalent Cations on the Competitive Adsorption of Perfluoroalkyl Acids by Kaolinite: Experimental Studies and Modeling. *Environmental Science and Technology* 45(23), 10028-10035, **2011**.

Chang, Feng-chih; Matt F. Simcik, Paul D. Capel. Occurrence and fate of the herbicide glyphosate and its degradate aminomethylphosphonic acid in the atmosphere. *Environmental Toxicology and Chemistry* 30(3), 548-555, **2011**.

Mari E. Titcombe and Matt Simcik. Personal and Indoor Exposure to PM2.5 and Polycyclic Aromatic Hydrocarbons in the Southern Highlands of Tanzania: A Pilot-Scale Study. *Environmental Monitoring and Assessment Science* 180(1-4), 461-476, **2010**.

Peter C. Raynor, Andrea Barteková, J. Girard Griggs, Matt F. Simcik and John L. Adgate. Airborne Diazinon Concentrations During and After Outdoor Spray Application. *Journal of Occupational and Environmental Hygiene* 7(9):506-515 **2010**

Jeffrey D. Jeremiason, Linda A. Kanne, Tara A. Lacoé, Melissa Hulting and Matt F. Simcik. A Comparison of Mercury Cycling in Lakes Michigan and Superior. *Journal of Great Lakes Research* 35(3):329-336 **2009**

Ramona L. Johnson, Amy J. Anschutz, Jean M. Smolen, Matt F. Simcik, and R. Lee Penn. The Adsorption of Perfluorooctane Sulfonate onto Sand, Clay, and Iron Oxide *Journal of Chemical and Engineering Data*. Surfaces 52:1165-1170 **2007**

Summer S. Streets, Scott A. Henderson, Amber D. Stoner, Daniel L. Carlson, Matt F. Simcik and Deborah L. Swackhamer, Partitioning and Bioaccumulation of PBDEs and PCBs in Lake Michigan, *Environmental Science and Technology* 40:7263-7269 **2006**.

Steve Diamond, David Mount, Vincent Mattson, Larry Heinis, Terry Highland, Andy Adams and Matt Simcik, Photoactivated Polycyclic Aromatic Hydrocarbon Toxicity in Medaka Embryos: Relevance to Environmental Risk in Contaminated Sites, *Environmental Toxicology and Chemistry* 25:3015-3023 **2006**.

Matt F. Simcik and Kelly J. Dorweiler, A Ratio of Perfluorochemical Concentrations as a Tracer of Atmospheric Deposition to Surface Waters, *Environmental Science & Technology* 39:8678-8683 **2005**.

Matt F. Simcik, Global Transport and Fate of Perfluorochemicals, *Journal of Environmental Monitoring* 7:759-763 **2005**.

Matt F. Simcik and Kelly J. Dorweiler, Atmospheric Deposition of Perfluorochemicals to Surface Waters, *Organohalogen Compounds* 67:794-796 **2005**.

John Offenberg, Matt Simcik, Joel Baker and Steven J. Eisenreich. The Impact of Urban Areas on the Deposition of Air Toxics to Adjacent Surface Waters: A Mass Budget of PCBs in Lake Michigan in 1994. *Aquatic Sciences* 67:79-85 **2005**.

Matt F. Simcik, Air monitoring of persistent organic pollutants in the Great Lakes: IADN vs. AEOLUS. *Environmental Monitoring and Assessment*, 100:201-216 **2005**.

Judith Perlinger, Matt F. Simcik, Deborah L. Swackhamer. Synthetic Organic Toxicants in Lake Superior. *Aquatic Ecosystem Health and Management* 7:491-505 **2004**.

Jonathan W. Martin, Kannan Karunthachalam, Urs Berger, Pim de Voogt, Jennifer Fields, James Franklin, John P. Giesy, Tom Harner, Kevin C. Jones, Scott A. Mabury, Derek C.G. Muir, Matt Simcik and Bert van Bavel. Advancements in Perfluoroalkyl Research Hampered by Analytical Challenges. *Environmental Science & Technology* 38(13):249A-255A **2004**.

Matt F. Simcik, The importance of surface adsorption on the washout of semivolatile organic compounds by rain. *Atmospheric Environment*, 38(3):491-501 **2004**.

Matt F. Simcik, Jeff D. Jeremiason, Elizabeth Lipiatou, Steven J. Eisenreich, Enhanced Removal of Hydrophobic Organic Contaminants by Settling Sediments in Western Lake Superior. *Journal of Great Lakes Research*, 29(1):41-53 **2003**.

Matt F. Simcik, Raymond M. Hoff, William M. J. Strachan, Clyde W. Sweet, Ilora Basu, Ronald A. Hites, Temporal Trends in Semi-volatile Organic Contaminant Concentrations in Great Lakes Precipitation. *Environmental Science & Technology*, 34: 361-367, **2000**.

Matt F. Simcik, Thomas P. Franz, Huixiang Zhang, Paul J. Liroy, Steven J. Eisenreich, Source/Sink Relationships of PAHs and PCBs in the Chicago Atmosphere and Lake Michigan. *Atmospheric Environment*, 33: 5071-5079, **1999**.

A. G. Carlton, B. J. Turpin, W. Johnson, B. Buckley, M. Simcik, S. Eisenreich, R. Porcja, Micro-Analytical Methods for Characterization of Personal Aerosol Exposures. *Aerosol Science and Technology*, 31, pp. 66-80 **1999**.

Matt F. Simcik, Ilora Basu, Clyde W. Sweet, Ronald A. Hites, Temperature Dependence and Temporal Trends of Polychlorinated Biphenyl Congeners in the Great Lakes Atmosphere. *Environmental Science & Technology*, **33**, pp. 1991-1995 **1999**.

Barbara R. Hillery, Matt F. Simcik, Ilora Basu, Raymond M. Hoff, Angela Bandemehr, William M. J. Strachan, C. H. Chan, Clyde W. Sweet, Ronald A. Hites, Atmospheric Deposition of Toxic Pollutants to the Great Lakes as Measured by the Integrated Atmospheric Deposition Network *Environmental Science & Technology* **32**, pp. 2216-2221 **1998**

Matt F. Simcik, Huixiang Zhang, Steven J. Eisenreich, Thomas P. Franz, Gas-Particle Partitioning of PCBs and PAHs in the Chicago Urban and Adjacent Coastal Atmosphere: States of Equilibrium *Environmental Science & Technology* **32**, pp. 251-257 **1998**

Matt F. Simcik, Ilora Basu, Clyde W. Sweet, Ronald A. Hites, Temporal and spatial trends of gas phase polychlorinated biphenyls in the Great Lakes atmosphere. *Organohalogen Compounds* 39:71-75 **1998**.

Matt F. Simcik, Huixiang Zhang, Steven J. Eisenreich, Thomas P. Franz, Urban Contamination of the Chicago/Coastal Lake Michigan Atmosphere by PCBs and PAHs during AEOLOS *Environmental Science & Technology* **31**, pp. 2141-2147 **1997**

Matt F. Simcik, Thomas P. Franz, Huixiang Zhang, Steven J. Eisenreich, Gas-Particle Partitioning of PCBs and PAHs in the Chicago Urban and Adjacent Coastal Atmosphere: States of Equilibrium. *Organohalogen Compounds* 32:251-257 **1997**.

Matt F. Simcik, Katherine A. Golden, Shi-Ping Liu, Steven J. Eisenreich, Elizabeth Liptatou, Deborah L. Swackhamer, David T. Long, Atmospheric Loading of Polycyclic Aromatic Hydrocarbons to Lake Michigan as Recorded in the Sediments *Environmental Science & Technology*, **30** pp. 3039-3046 **1996**

Book Chapters

Matt F. Simcik, John H. Offenber, "Polycyclic Aromatic Hydrocarbons in the Great Lakes" In: The Handbook of Environmental Chemistry, Volume 5: The Great Lakes

Matt F. Simcik "Atmospheric Fate and Behaviour" In: *Persistent Organic Pollutants: Environmental Behaviour and Pathways to Human Exposure*. S. J. Harrad Editor, Kluwer Publishers, **2001**

Grants Awarded

Project Title: Development of Toxicity Reference Values (TRVs) for Birds Exposed to PFOS, PFOA and Associated Mixtures of Fluorinated Compounds

Source of Support: **SERDP**

Total Award Period Covered: **9/30/16 – 9/29/19**

Statement of purpose: The overall objective of this project is to develop avian ecotoxicity information for compounds associated with AFFF in birds. Specifically, this project aims to determine the acute toxicity of PFOS and PFOA separately and in combination in an avian species recognized as a surrogate for wild avian species, the Japanese quail (*Coturnix japonica*). This project also aims to determine the acute toxicity of other perfluoroalkyl substances relative to PFOS in Japanese quail using two historic formulations of AFFF. Finally, this project will develop toxicity reference values (TRVs) for PFOS and PFOA in Japanese quail based on chronic feeding studies.

Role: PI

Project Title: Estimating the Exposure of the Hmong Community to Perfluorochemicals from Their Food Baskets

Source of Support: **UofM Medical School – Program in Health Disparities**

Total Award Period Covered: **August 1, 2014 – July 31, 2015**

Statement of purpose: The primary purpose of this research is to determine the increased exposure, and health outcomes, if any, to PFCs through farming and fishing in the East Metro by non-resident Hmong community members.

Project Title: Protecting bacteria from contaminants to preserve water quality

Source of Support: **LCCMR**

Total Award Period Covered: **03/01/14 – 2/28/17**

Statement of purpose: The primary purpose of this research is to determine how perfluorinated compounds and co-contaminants impact the bacteria that we depend on to protect water quality. In particular we will investigate the increased transport of contaminants in the presence of perfluorinated compounds

Role: Co-PI

Project Title: Development of a Novel Approach to In Situ Remediation of PFC Contaminated Groundwater Systems

Source of Support: **SERDP**

Total Award Period Covered: **6/1/14 – 5/31/17**

Statement of purpose: The primary purpose of this research is to use coagulants to sequester perfluorinated compounds to the solid phase in groundwater systems where fire training activity has been conducted by the military, and resulted in extensive contamination of the groundwater.

Role: PI

Project Title: Urban Stormwater Inputs of Perfluorochemicals

Source of Support: **USGS - WRS**

Total Award Period Covered: **03/01/09 – 6/1/10**

Statement of purpose: The primary purpose of this research is to quantify PFC loadings from urban stormwater, identify unique land-use characteristics that lead to PFC contamination, and determine efficacy of suspended sediment removal on PFC removal

Project Title: Foodweb Dynamics and Source/Sink Interactions of Perfluorochemicals in a PFC Impaired Minnesota Lake

Source of Support: **MPCA**

Total Award Period Covered: **07/01/08 – 10/31/09**

Statement of purpose: The primary purpose of this research is to complete a mass balance of PFCs in the foodweb of a lake contaminated by PFCS. Additional goals are to identify major sources and describe foodweb interactions including biomagnifications and historical loadings as recorded the sediments.

Project Title: Hydrophobic Organic Contaminants in Lake Michigan Water

Source of Support: **USEPA**

Total Award Period Covered: **09/01/03 – 8/31/06**

Statement of purpose: The primary purpose of this research is to produce a coherent data set on hydrophobic organic contaminants in Lake Michigan waters consistent with measurements currently being made in the air and fish of the Great Lakes. For some of the compounds (PBDEs and PFOS/PFOA) this data will represent the first such measurements of the water column of the Great Lakes, providing baseline information on water concentrations of these emerging contaminants.

Role of Candidate: Dr. Simcik is the PI supervising one graduate student in year one, and two graduate students in years two and three.

Project Title: Chemical Inventory and Database Development for Recycled Material Substitutes

Source of Support: **University of Minnesota, Center for Transportation Studies**

Total Award Period Covered: **09/01/03 – 8/31/05**

Statement of Purpose: The purpose of this research is to determine the levels of hazardous chemicals in recycled materials often employed in paving mixes. The output will be concentrations of hazardous chemicals in various materials, leaching properties of the materials and an interactive model to be used by MnDOT in determining safe levels of recycled materials that can be incorporated into aggregates.

Role of Candidate: Dr. Simcik is Co-PI and will oversee the analysis of materials for polycyclic aromatic hydrocarbons (PAHs) and development of the interactive model to be implemented by MnDOT.

Project Title: Development and Evaluation of Chemical Indicators for Monitoring Ecological Risk

Source of Support: **USEPA**

Total Award Period Covered: **02/01/01 – 1/31/05**

Statement of purpose: The primary purpose of this research is to develop easily measurable indicators of ecosystem health so that managers of the resources can evaluate such health. More specifically, the study is developing indicators of endocrine disruption in fish and of photoenhanced toxicity of polycyclic aromatic hydrocarbons in larval fish.

Role of Candidate: Dr. Simcik is the Co-PI in charge of the photoenhanced toxicity of polycyclic aromatic hydrocarbons, overseeing one graduate student in the completion of the project and performs a supporting role to the endocrine disruption portion of the project.

Project Title: **Occurrence of fluorochemicals in human breast milk**

Source of Support: **University of Minnesota, Grant-In-Aid**

Total Award Period Covered: **01/01/02 – 12/31/02**

Statement of Purpose: To develop a method for determining concentrations of perfluorochemicals in human breast milk and survey a limited number of samples for their occurrence

Role of Candidate: Dr. Simcik was PI of this project and oversaw one undergraduate technician and one graduate student in its completion.

Project Title: **Fluorochemicals in Minnesota Waters: An Emerging Environmental Issue**

Source of Support: **USGS/Water Resources Center**

Total Award Period Covered: **01/01/02 – 12/31/02**

Statement of Purpose: To develop a new method for the analysis of this emerging class of compounds and determine their concentrations from surface waters collected around the state of Minnesota.

Role of Candidate: Dr. Simcik was PI of this project and oversaw one graduate student in the sampling, analysis and data interpretation associated with it.

Project Title: **Using polycyclic aromatic hydrocarbons as tracers for mercury deposition**

Source of Support: **University of Minnesota, Grant-In-Aid**

Total Award Period Covered: **01/01/00 – 12/31/01**

Statement of Purpose: To use polycyclic aromatic hydrocarbons as tracers to apportion the relative importance of several combustion sources to mercury levels in the environment.

Role of Candidate: Dr. Simcik was PI of this project.

Project Title: **Atmospheric deposition of polycyclic aromatic hydrocarbon derivatives to surface waters and potential for uptake by fish**

Source of Support: **Minnesota Sea Grant**

Total Award Period Covered: **07/01/00 – 01/01/01**

Statement of Purpose: To acquire, measure and quantify PAH reaction products in the atmosphere and surface water as another route of exposure of carcinogenic compounds to aquatic organisms.

Role of Candidate: Dr. Simcik was PI of this project.

Students Trained

Kelly J. Dorweiler, M.S., 2003, Andy D. Adams M.S. 2005, Scott Henderson, M.S. 2006, Ramona Johnson M.S. 2006, Tom Higgins M.S. 2006, Ke Huang M.S. (Chemistry) 2008, Tim Chang Ph.D. 8/31/10, Ed Kasner MPH 8/31/10, Dabrina Dutcher, MPH 2007, Mari Titcombe MPH 2010, Jeff Lanners M.S. 9/30/10, Lorraine Keating-Klicka M.S. 2011, Emily Banerjee MPH 5/31/11, Feng Xiao Ph.D. (Civil Engineering) 7/31/12, Melissa Mueller MPH 8/31/12, Bezaleel Gebru (MacNair Fellow) summer 2012, Michelle Knabb M. S. 6/28/13, Kelsey Hohol M.S. 5/31/13, Chad Buskirk MPH 5/31/13, James Jansen MPH 5/31/13, Amber Koskey MPH 7/31/13, Jennifer Priebe M. S. 12/31/13, Dorian Kvale M. S. 12/31/13, Marlo Henry M. S. 8/29/14, Lindsey Englar M.S. 8/31/15, Michael Greene MPH 11/30/15, Yuan Gao M.S. 6/30/16, Alex Kim MPH 11/30/16, Baigalmaa Tsolmonbataar 12/15/17

Post-Doctoral Fellows Mentored

Daniel Carlson, 2006. Feng Xiao, 2012-2013. Daniel McInnis, 2015-2016. Chunkai Huang, 2016-2017

Presentations

Aly, Yousof; Simcik, Matt F. Novel approach to the enhancement of PFAS adsorption in groundwater systems. Abstracts of Papers, 253rd ACS National Meeting & Exposition, San Francisco, CA, United States, April 2-6, 2017

Aly, Yousof; McInnis, Daniel; Simcik, Matt. Enhanced sorption of perfluoro-alkyl substances. Abstracts of Papers, 252nd ACS National Meeting & Exposition, Philadelphia, PA, United States, August 21-25, 2016

McCarty, Michael; Simcik, Matt; Arnold, William. Development of a novel time-release mechanism for water treatment polymer to promote sorption of perfluoroalkyl substances in groundwater environments. Abstracts of Papers, 252nd ACS National Meeting & Exposition, Philadelphia, PA, United States, August 21-25, 2016

Matt F. Simcik. Fifty years of the International Association for Great Lakes Research. American Chemical Society National Meeting. March 25-29, 2007

Matt F. Simcik. Effects of degraded air-quality on precipitation and recharge quality. Minnesota Groundwater Association April 12, 2006

Matt F. Simcik, Andy Adams, Randy Lehr and Deborah L. Swackhamer. Indicator of Photo-enhanced Toxicity of PAHs to Larval Fish of the Coastal Great Lakes. International Association of Great Lakes Research Conference. May, 2006

Matt F. Simcik, Jean M. Smolen, Ramona L. Johnson, Amy Anschutz and R. Lee Penn. The Adsorption of Perfluorooctanesulfonate onto Sand, Clay, and Iron Oxide Surfaces.. Society of Environmental Toxicology and Chemistry North American Meeting, Baltimore, MD November 13-17, 2005

Matt F. Simcik, Deborah L. Swackhamer, Andy D. Adams, Randy A. Lehr, David R. Mound and Stephen A. Diamond Assessing Risk for Photo-enhanced Toxicity of PAHs in Larval Fish of the Coastal Great Lakes. Society of Environmental Toxicology and Chemistry North American Meeting, Baltimore, MD November 13-17, 2005

Matt F. Simcik and Kelly J. Dorweiler, Atmospheric Deposition of Perfluorochemicals to Surface Waters, 25th International Symposium on Halogenated Environmental Organic Pollutants and POPs, Toronto, Canada August 21-26, 2005.

Scott A. Henderson, Deborah L. Swackhamer, Matt F. Simcik, Trend in Dissolved Phase PCB Concentrations in Lake Michigan. International Association of Great Lakes Research Conference, Ann Arbor, MI May 23-27, 2005 (presented by Scott Henderson)

Andy D. Adams, Randy A. Lehr, Deborah L. Swackhamer, Stephen A. Diamond, David R. Mound and Matt F. Simcik, Sediment-Biota Accumulation Factors of PAHs in the Coastal Great Lakes, International Association of Great Lakes Research Conference, Ann Arbor, MI May 23-27, 2005 (presented by Andy Adams)

Scott A. Henderson, Deborah L. Swackhamer and Matt F. Simcik, Dissolved phase PCB concentrations in Lake Michigan, 13th Annual Meeting of the Midwest Regional Chapter of the Society of Environmental Toxicology and Chemistry, April, 5-6, 2005 (presented by Scott Henderson)

Randy A. Lehr, D. L. Swackhamer, M. F. Simcik, A. D. Adams, J. L. Erb, G. T. Ankley, N. Denslow Integrating and Interpreting Integrators of Sublethal Exposures to Environmental Estrogens. Society of Environmental Toxicology and Chemistry 25th Annual Meeting, Portland, OR November 14 – 18, 2004. (presented by Randy Lehr)

Randy A. Lehr, A. D. Adams, J. L. Erb, G. T. Ankley, M. F. Simcik, D. L. Swackhamer, Quantifying Environmental Estrogen Exposure in the Great Lakes. International Association of Great Lakes Research Conference, Waterloo, ON May 23 – 28, 2004. (presented by Randy Lehr)

Andy Adams, Randy Lehr, Steven A. Diamond, David R. Mound, Deborah L. Swackhamer, Matt F. Simcik. Photo-induced Toxicity in Larval Fish from the Coastal Great Lakes Sites. International Association of Great Lakes Research Conference, Waterloo, ON May 23 – 28, 2004. (presented by Andy Adams)

Matt F. Simcik and Deborah L. Swackhamer, Perfluorochemicals in Great Lakes Fish, International Association of Great Lakes Research Conference, Waterloo, ON May 23 – 28, 2004.

Matt F. Simcik, Scott Henderson, Deborah L. Swackhamer and Jeff Jeremiason, Hydrophobic Organic Contaminants in Lake Michigan Water, International Association of Great Lakes Research Conference, Waterloo, ON May 23 – 28, 2004. (invited speaker)

Matt F. Simcik, Analysis of Perfluorochemicals and Implications for Environmental Chemistry. Carleton College, Departmental Seminar, Chemistry, April 4, 2004 (invited speaker)

Matt F. Simcik, Analysis of Minnesota surface water samples for fluorinated surfactants. Minnesota Water 2004 Conference, Minneapolis, MN March 23-24, 2004

Matt F. Simcik, Use of Single Quadrupole LC/MS in Perfluorochemical Analysis. University of Iowa, Department of Civil and Environmental Engineering and Center for Global and Regional Environmental Research, September 19, 2003. (invited speaker)

Andy Adams, Randy Lehr, Steven A. Diamond, David R. Mount, Deborah L. Swackhamer, Matt F. Simcik. Photo-induced Polycyclic Aromatic Hydrocarbon Toxic Potentials of Coastal Great Lakes Sites. International Association of Great Lakes Research Conference, Chicago, IL June 22 – 26, 2003. (presented by Andy Adams)

Amber D. Stoner, Kelly J. Dorweiler, Matt F. Simcik, Deborah L. Swackhamer. Great Lakes Fish: Identifying Emerging Contaminants. International Association of Great Lakes Research Conference, Chicago, IL June 22 – 26, 2003. (presented by Deborah Swackhamer)

Randy A. Lehr, Judith L. Erb, Andy Adams, Matt F. Simcik, Deborah L. Swackhamer. Assessing the Potential for Endocrine Disruption in the Great Lakes. International Association of Great Lakes Research Conference, Chicago, IL June 22 – 26, 2003. (presented by Randy Lehr)

Matt F. Simcik Use of Single Quadrupole LC/MS in Perfluorochemical Analysis. Workshop on Approaches to the analysis of PFOA and its salts in environmental matrices - problems and pitfalls. Hamburg, Germany, May 1-2, 2003. (invited speaker)

Matt F. Simcik, Environmental Chemistry of Perfluorochemicals: A Whole New World. Gustavus Adolphus College, Department of Chemistry, February 28, 2003. (invited speaker)

Matt F. Simcik, Andy D. Adams, Randy A. Lehr, Deborah L. Swackhamer, Steven A. Diamond, David R. Mount, Phototoxicity of polycyclic aromatic hydrocarbons in Great Lakes waters, American Society of Limnology and Oceanography: Aquatic Sciences Meeting, Salt Lake City, UT, February 8-14, 2003.

Matt F. Simcik, Air Monitoring: Long-Term Synoptic Studies vs. Short-Term Intensives, 4th International Symposium on Environmental Monitoring, Jeju, South Korea, December 4-6th, 2002. (invited speaker)

Matt F. Simcik and Kelly J. Dorweiler, Detection and Quantification of Perfluorochemicals in Environmental Samples, Society of Environmental Toxicology and Chemistry 23rd Annual Meeting, Salt Lake City, UT, November 16-20, 2002.

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Cari L. Gigliotti, Lisa A. Totten, Steven J. Eisenreich, Matt F. Simcik, John Offenberg, Joel E. Baker, Air-water Exchange Fluxes of PAHs in Green Bay and Southern Lake Michigan, International Association for Great Lakes Research 44th Conference on Great Lakes Research. Green Bay, WI. June 10-14, 2001. (Presented by Cari L. Gigliotti)

Elisabeth Galarneau, Celine V. Audette, Angela Bandemehr, Ilora Basu, Terry F. Bidleman, Kenneth A. Brice, Deborah A. Burniston, C. H. Chan, Frank Froude, Ronald A. Hites, Melissa L. Hulting, Melanie Neilson, Dan Orr, Matt F. Simcik, William M. J. Strachan, Raymond M. Hoff. Atmospheric Deposition of Toxic Substances to the Great Lakes: IADN Results to 1996. International Association for Great Lakes Research 43rd Conference on Great Lakes Research. Cornwall, ON. May 22-26, 2000. (Presented by Elisabeth Galarnau)

Matt F. Simcik, Clyde Sweet, Ray Hoff, Bill Strachan, Ron Hites, Spatial Distributions and Long Term Temporal Trends of Semivolatile Organic Contaminant Fluxes in Great Lakes Precipitation. International Association for Great Lakes

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Matt F. Simcik, Ilora Basu, Clyde Sweet, Ray Hoff, Ron Hites, Temporal and Spatial Trends of Gas Phase Polychlorinated Biphenyls in the Great Lakes Atmosphere. 18th Symposium on Halogenated Environmental Organic Pollutants. Stockholm, Sweden. August 17-21, 1998.

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Matt F. Simcik, Tom Franz, Huixiang Zhang, Steven J. Eisenreich, Gas-Particle Partitioning of PCBs and PAHs During AEOLOS: Sorption Mechanisms and Equilibrium. 17th International Symposium on Chlorinated Dioxins and Related Compounds. Indianapolis, IN. August 25-29, 1997.

Matt F. Simcik, Tom Franz, Huixiang Zhang, Steven J. Eisenreich, Gas-Particle Partitioning of PCBs and PAHs in an Urban and Adjacent Coastal Atmosphere. American Association of Aerosol Research 16th Annual Conference. Denver, CO. October 13-17, 1997.

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Patents

In situ Remediation of PFAS-Contaminated Groundwater. Pennell, Kurt; Liu, Chen; Marion, Bonnie A.; Simcik, Matt F.; Arnold, William A. Assignee: Trustees of Tufts University. Application number: WO 2018-US49928

Consulting

City of Roseville, Roselawn Cemetery, lawsuit in which the community was concerned about air pollution from toxic contaminants released from corpses during cremation

S.C. Johnson and Sons, Inc. Review of plan for gas-particle partitioning to model removal of odorant molecules from indoor spaces.

Environmental Resource Council. Developing techniques for transporting and purifying water in the developing world.

Expert witness in lawsuit regarding PFAS contamination of a river and water supply

Expert witness in lawsuit regarding PFAS contamination of groundwater.