

## CURRICULUM VITAE

### Yu-Ping Chin

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Dept. of Civil and Environmental Engineering

University of Delaware

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### Education

*The University of Michigan, Ann Arbor, MI 48109  
Dept. of Civil and Environmental Engineering*

Ph.D. 1988 (**Walter J. Weber Jr.: Advisor**)

M.S. 1984

*Columbia College, Columbia University, New York, NY 10027  
Department of Earth and Environmental Sciences*

A.B. 1981

### Employment

*Department of Civil and Environmental Engineering, and  
Department of Earth Sciences, University of Delaware*

2017-present

**Professor**

*School of Earth Sciences (SES) and Department of Civil,  
Environmental, and Geodetic Engineering, The Ohio State  
University*

2006-2010

**Division Head: Climate, Environment, and Water in SES**

2003-2017

**Professor**

1998-2003

**Associate Professor**

1991-1997

**Assistant Professor**

*Department of Chemistry, University of Otago, Dunedin, New Zealand*  
2010-2011

**Visiting Professor:** Conducted research on pesticide vapor drift processes and taught a seminar on organic compound transformations in natural waters.

*Swiss Federal Institute of Environmental Science and Technology (EAWAG-ETH), Zurich, Switzerland*  
1999 (Duebendorf) and 2000 (Kastanienbaum)

**Visiting Research Scientist:** Conducted research on the photochemical cycling of Fe and Cr in lacustrine systems and copper speciation by dissolved organic matter (DOM)

*Ralph M. Parsons Laboratory, Dept. of Civil and Environmental Engineering, Massachusetts Institute of Technology*  
1988-1991 (**Philip M. Gschwend: Advisor**)

**Postdoctoral Research Associate:** Investigated the properties of DOM in marine and lacustrine pore waters: specifically size, structural characteristics, diffusion, and affinity for nonpolar organic contaminants. Other aspects of this project included modeling fluxes of particle reactive contaminants across the sediment/water interface and elucidated the role of benthic organism activity in enhancing sediment bed-to-overlying water exchange of chemical species.

*Dept. of Civil and Environmental Engineering, University of Michigan*  
1981-1988

**Graduate Student Research Associate:** Conducted research on sediment and DOM sorption. Developed conceptual and predictive thermodynamic models for purposes of understanding the sorption of nonionic organic compounds by soils, sediments, and organic colloids such as humic and fulvic acids. Investigated the feasibility of using reverse phase high performance chromatography for studying the properties and mobility of organic compounds in groundwater systems.

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**Professional Societies**

American Chemical Society  
American Society of Limnology and Oceanography

American Geophysical Union  
Society of Environmental Toxicology and Chemistry

## Honors

University of Michigan Rackham Fellowship

IAWQ Founders Award for Outstanding Paper in *Water Research*

American Chemical Society Environmental Chemistry Division Graduate Student Award

American Chemical Society's "Excellence in Review" Award for *Environmental Science and Technology* (2004)

Ohio State University College of Engineering Lumley Interdisciplinary Research Award (2005)

The State of Ohio General Assembly Citation for Outstanding Accomplishment for the Lumley Prize (2005)

American Chemical Society Certificate of Appreciation for Service to ACS (2011)

American Chemical Society Certificate of Merit for Oral Presentation (2011, 2012)

School of Earth Sciences Excellence in Faculty Mentoring Award (2011)

Fellow of the International Association of Geochemistry (2017)

American Chemical Society's "Super Reviewer" Award for *Environmental Science and Technology* (2019)

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## Teaching

*Department of Civil and Environmental Engineering*  
*University of Delaware*  
2017-present

I teach **Introduction to Environmental Engineering** (CIEG 133), which focuses on principles of mass balances, reactors, and environmental chemistry. I also teach **Water and Wastewater Analysis** class (CIEG 437) that I redesigned Spring 2019. I also teach the 2 semester graduate classes in **Environmental Organic Chemistry** (CIEG 640 and 833).

*School of Earth Sciences,  
The Ohio State University  
1991-2017*

I taught **Dynamic Earth** (ES 1121) and have in the past taught an undergraduate class "**Water Resources**" (ES 2204) which deals with global hydrologic cycles, groundwater movement, and water quality. My graduate classes include "**Biogeochemistry**" (ES 5627), which focuses on biogeochemical cycles and climate change, and advance classes in "**The Geochemistry of Natural Waters**" (ES 5718) and "**Environmental Organic Geochemistry**" (ES 5719). Topics from 5718 covered include mass conservation concepts, nutrient cycles, acid/base equilibrium, solving complex equilibrium using the Tableau approach, metal complexation, alkalinity, buffer capacity, and redox chemistry. Topics from the 5719 include nomenclature of organic pollutants, vapor pressure, aqueous solubility, solubility in organic solvents, partitioning, air/water exchange, and redox, thermal, and photochemical transformation reactions.

*Department of Civil and Environmental Engineering,  
Massachusetts Institute of Technology  
1990*

**Lecturer:** I taught "**Introduction to Aquatic Chemistry and Biology**" a junior and senior level undergraduate class and accompanying laboratory. Topics covered included acid/base chemistry, metals and coordination reactions, spectrophotometry and chromatography techniques, dissolved oxygen, basic phycology, nutrient cycling, and organic compounds in the environment.

### **Students Advised (Refer to the end of the vitae)**

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**Service:** *National and International*

**Editorship** Associate Editor:  
*Aquatic Geochemistry*  
*Journal of Contaminant Hydrology*  
*Aquatic Sciences*  
*Water Resources Research (ended 12/2010)*  
*Environmental Science and Technology (Guest Editor, 2004, 2018)*

*Environmental Science and Technology Science Advisory Board  
(2013-2017)*

**Review Panels** NSF Hydrologic Sciences Panel (1996, 2003, 2009, 2010 x 2, 2014 x 2)  
NSF IGERT Panel (1999)  
NOAA National Undersea Research Program Panel (2003)  
NSF Water Cycle Panel (2004)  
NSF Sensors Panel (2005)  
NSF WATERS Panel (2006)  
NSF Arctic Natural Sciences Panel (2006)  
NSF International Polar Year Panel (2007)  
NSF Chemical, Bioengineering, Environmental, and Transport Systems (CBET) Panel (2010, 2012, 2013, 2016, 2019)  
NSF INFEWS Panel (2017)  
EPA STAR Graduate Fellowship Panel (2015)

**Workshop  
Participant**

ASLO/NSF Limnology Workshop (2002)  
DOE/NSF Water Cycle Workshop (2004)

**The National Academies of Science, Engineering, and Medicine**

Water Science and Technology Board (2009-2015)  
Committee on Future Water Resource Needs for the Nation:  
Water Science and Research at the U.S. Geological Survey  
(2017-2019)  
Committee on Alternatives for Managing the Nation's Complex  
Contaminated Groundwater Sites (2009-2012)  
Committee on WATERS Network Science Plan (2007-2009)

**Session Chair**

Gordon Research Conference Environmental Sciences: Water  
1998: Poster Session Chair  
American Chemical Society (ACS) Fall Meeting 1998, Boston,  
MA: Session Chair in Environmental Chemistry Division  
American Society of Limnology and Oceanography (ASLO)  
Summer Meeting 2006, Victoria, BC: Session Chair  
Gordon Research Conference Environmental Sciences: Water  
2006: Discussion Leader  
American Chemical Society Fall Meeting, 2013, Indianapolis, IN  
Session Co-Chair in Environmental Chemistry Division  
American Chemical Society Spring Meeting, 2015, Denver, CO  
Session Co-Chair in Environmental Chemistry Division

American Chemical Society Spring Meeting, 2017, San Francisco, CA Session Co-Chair in Environmental Chemistry Division, George Aiken Symposium  
American Geophysical Union Session Co-Chair in Hydrology Division, 2021

**Reviewer**

*Journals*

Limnology and Oceanography  
Water Research  
Environmental Science and Technology  
Hydrological Processes  
Organic Geochemistry  
Geochimica et Cosmochimica Acta  
Journal of Contaminant Hydrology  
Engineering Geology  
Chemical Geology  
Chemosphere  
Journal of Hydrology  
Journal of Environmental Quality  
Marine Chemistry  
Water Resources Research  
Langmuir  
Aquatic Sciences  
J. Hazardous Materials

*Agencies*

National Science Foundation  
U.S. Department of Agriculture  
National Oceanic and Atmospheric Association  
U.S. Geological Survey  
U.S. EPA  
Department of Defense

*Regional and University Level*

*State of Ohio*

Ohio Sea Grant Advisory Committee (2010-present)

*University Level (OSU):*

Environmental Science Graduate Program Graduate Committee  
(1992-1995 and 2004-2010, 2015-present)

Environmental Molecular Science Institute sub-program leader

*College Level*

Math and Physical Sciences (MAPS) Dean Advisory Committee  
(2008-2010)

MAPS Promotion and Tenure Committee (2006-2008)

*School of Earth Sciences*

Graduate Committee (1992-1995)

Division Head: Climate, Environment, and Water (2006-2010)

Promotion and Tenure Committee Chair (2009-2017t)

Director's Advisory Committee (2009-2017)

*College Level (UD):*

COE Promotion and Tenure Committee (2020-present)

COE Diversity Committee (2018-2020)

*Department Level (UD)*

Faculty Mentor: Julia Maresca

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**Refereed**

**Publications**

**\* denotes student or postdoc advisee:**

**h-index = 47 (Google Scholar)**

**> 9000 citations**

1. Weber W.J. Jr. **Chin Y.P.**, Rice C.P. (1986) Determination of partition coefficients and aqueous solubilities by reverse phase chromatography I: Theory and background. *Water Research*, 20, 1433-1442.
2. **Chin Y.P.**, Weber W.J. Jr., Voice T.C. (1986) Determination of partition coefficients and aqueous solubilities by reverse phase chromatography II: Evaluation of partitioning and solubility models. *Water Research*, 20, 1443-1450.
3. **Chin Y.P.**, Peven C.S., Weber W.J. Jr. (1988) Estimating soil/ sediment partition coefficients by high performance reverse phase liquid chromatography. *Water Research*, 22, 873-881.
4. **Chin Y.P.**, Weber W.J. Jr. (1989) Estimating the effects of dispersed organic polymers on the sorption of contaminants by natural solids I: A predictive thermodynamic humic acid-organic

solute interaction model. *Environmental Science and Technology*, 23, 978-985.

5. Walters R.W., Tarleton A.L., Grasso D., Al-Ghushain I., **Chin Y.P.**, West B.W., Sullivan J.A., Yousefi Z., Schoppet M.J. (1989) Wastewater treatment-physical and chemical methods. *J. Water Pollution Control Federation*, 61, 789-794.
6. Grasso D., Walters R.W., Ellis G., **Chin Y.P.**, Morriconi K., Koch N., Flood K., Armstrong R. (1990) Physicochemical treatment processes. *J. Water Pollution Control Federation*, 62, 387-398.
7. **Chin Y.P.**, Weber W.J. Jr., Eadie B.J. (1990) Estimating the effects of dispersed organic polymers on the sorption of contaminants by natural solids II: Sorption studies in the presence of humic substances. *Environmental Science and Technology*, 24, 837-842.
8. Grasso D., **Chin Y.P.**, Weber W.J. Jr. (1991) Structural and behavioral characteristics of a commercial humic acid and natural dissolved aquatic organic matter. *Chemosphere*, 21, 1181-1197.
9. **Chin Y.P.**, Weber W.J. Jr., Chiou C.T. (1991) A thermodynamic partition model for binding of hydrophobic organic compounds by organic colloids and implications for their sorption to soils and sediments. In *Organic Substances in Sediments and Water*, R.A. Baker ed. 1(14), 251-273.
10. **Chin Y.P.**, McNichol A.P., Gschwend P.M. (1991) Quantitation and characterization of porewater organic colloids. In *Organic Substances in Sediments and Water*, R.A. Baker ed. 2(6), 107-125.
11. **Chin Y.P.**, Gschwend P.M. (1991) The size, abundance, and configuration of porewater organic colloids from recent sediments. *Geochimica et Cosmochimica Acta* 55, 1309-1317.
12. Wong C.S., **Chin Y.P.**, Gschwend P.M. (1992) Sorption of radon 222 to natural sediments, *Geochimica et Cosmochimica Acta* 56, 3923-3930.
13. **Chin Y.P.**, Gschwend P.M. (1992) Partitioning of polycyclic aromatic hydrocarbons between porewater colloid organic matter and marine interstitial waters. *Environmental Science and Technology*, 26, 1621-1626.



14. **Chin Y.P.**, Gschwend P.M. (1993) Response to Comment on "Partitioning of polycyclic aromatic hydrocarbons to marine porewater colloids". *Environmental Science and Technology*, 27, 757-759.
15. Gschwend P.M., Holmen B.A., MacKay A.A., Ryan J., Backhus D.A., **Chin Y.P.** (1994) Overview: Processes Limiting the occurrence of organic contaminants in moving groundwater. In *Transport and Reactive Processes in Aquifers*, Dracos and Stauffer (eds.) A.A. Balkema Rotterdam, p. 11-18.
16. **Chin Y.P.**, Aiken G.R., O'Loughlin E. <sup>\*</sup> (1994) On the molecular weight, polydispersity, and spectroscopic properties of aquatic humic substances, *Environmental Science and Technology*, 28, 1853-1858.
17. Kimble K.D. <sup>\*</sup> **Chin Y.P.** (1994) The sorption of PAHs by soils in low methanol/water mixtures, *J. Cont. Hydrol.* , 17, 129-143.
18. Danielsen K.D. <sup>\*</sup> , **Chin Y.P.**, Buterbaugh J., Gustafson T., Traina S.J. (1995), The solubility enhancement and fluorescence quenching of pyrene by humic substances, *Environmental Science and Technology*, 29, 2162-2166.
19. Hess A <sup>\*</sup> , **Chin Y.P.**, (1996) Physicochemical characterization of polymaleic acid: A synthetic humic substance analog, *Colloids and Surfaces: A*, 107, 141-154.
20. Kilduff J.E., Karanfil T., **Chin Y.P.**, Weber W.J. (1996), The adsorption of natural organic polyelectrolytes: a size exclusion chromatography study, *Environmental Science and Technology*, 30, 1336-1344.
21. **Chin Y.P.**, Buterbaugh J.M., Gustafson T.J., Traina S.J., Danielsen K.M., (1996) Response to Comment on "Solubility enhancement and fluorescence quenching of pyrene by humic substances, *Environmental Science and Technology*, 30, 1409-1411.
22. **Chin Y.P.**, Kimble K.D<sup>\*</sup>., Swank C.R<sup>\*</sup>. (1996) The sorption of 2-methylnaphthalene by soils in the absence and presence of a nonionic surfactant *J. Cont. Hydrol.* 22, 83-94.

23. Erret D.H.<sup>\*</sup>, **Chin Y.P.**, (1996) The sorption kinetics of PAHs by soils in methanol/water mixtures, *Haz. Wastes Haz. Materials*, 13, 177-195.
24. MacKay A. A., **Chin Y.P.**, MacFarlane J.K., Gschwend P.M. (1996) A laboratory assessment of BTEX soil flushing, *Environmental Science and Technology*, 30, 3223-3232.
25. **Chin Y.P.**, Aiken G.R., Danielsen K.M.<sup>\*</sup>. (1997) Binding of pyrene to aquatic and commercial humic substances: The role of molecular weight and aromaticity, *Environmental Science and Technology*, 31, 1630-1635.
26. Wang L.<sup>\*</sup>, **Chin Y.P.**, Traina S.J. (1997) The adsorption of polymaleic acid and an aquatic fulvic acid by goethite, *Geochimica et Cosmochimica Acta*, 61, 5313-5324.
27. **Chin Y.P.**, Traina S.J., Swank C.R.<sup>\*</sup>, Backhus, D. (1998) Abundance and properties of natural organic matter in the porewaters of a freshwater wetland, *Limnology and Oceanography*, 43, 1287-1296
28. Maurice P., K. Namejesnik-Dejanovic, S. Lower, M. Pullin, S. Cabaniss, **Y.P. Chin**, G.R. Aiken (1998) Sorption and fractionation of natural organic matter on kaolinite and goethite, *Water-Rock Interaction International IX*, B.W. Roginson (ed)., A.A. Balkema, Rotterdam, 109-113.
29. Meier M.<sup>\*</sup>, K. Namejesnik-Dejanovic, **Chin Y.P.**, Maurice P., Aiken G.R. (1999) Fractionation of natural organic matter upon sorption to goethite and kaolinite, *Chemical Geology*, 157, 275-284.
30. Everett C.R.<sup>\*</sup>, **Chin Y.P.**, Aiken G.R. (1999) High pressure size exclusion analysis of dissolved organic matter isolated by tangential flow ultrafiltration, *Limnology and Oceanography*, 44, 1316-1322.
31. Rozan T., Benoit G., Mash H.<sup>\*</sup>, **Chin Y.P.** (1999) Intercomparison of DPASV and ISE for the measurement of Cu complexation characteristics of NOM in freshwater, *Environmental Science and Technology*, 33, 1766 –1770
32. Uhle M.<sup>\*</sup>, **Chin Y.P.**, Aiken G.R., McKnight D.M. (1999) Binding of PCBs to aquatic humic Substances: Role of substrate and

sorbate properties on partitioning, *Environmental Science and Technology*, 33, 2715–2718

33. O'Loughlin\* E.J., S.J. Traina, **Chin. Y.P.** (2000). Association of organotin compounds with aquatic and terrestrial humic substances. *Environmental Toxicology and Chemistry* 19, 2015-2021
34. Cabaniss S.E., Zhou Q., Maurice P.A., **Chin Y.P.**, Aiken G.R. (2000) A log normal distribution model for the molecular weight of aquatic fulvic acids, *Environmental Science and Technology*, 34, 1103-1110.
35. Namejesnik-Dejanovic K., Maurice P.A., Pullin M. J., Cabaniss S., **Chin Y.P.**, Aiken G.R. (2000) Adsorption and fractionation of a muck fulvic acid on kaolinite and goethite at pH 3.7, 6. 8, *Soil Science*, 165, 545-559
36. O'Loughlin E.J.\* **Chin Y.P.** (2001) Effect of detector wavelength on the determination of molecular weight of humic substances by HPSEC, *Water Research*, 35, 333-338
37. Lamminen M., Wood J\*., Walker H.J., **Chin Y.P.**, He Y., Traina S.J. (2001) Effect of Flue Gas Desulfurization (FGD) By-product on water quality at an underground coal mine, *Journal of Environmental Quality*, 30, 1371-1381.
38. **Chin Y.P.** (2002) The speciation of hydrophobic organic compounds by dissolved organic matter, In *Dissolved Organic Matter in Aquatic Ecosystems*, Findlay S. and Sinsabaugh R., (eds) Academic Press, 161-180.
39. Loch A.R.\* , Lippa K.A., Carlson D.L., **Chin Y.P.**, Traina S.J., Roberts A.L. (2002) Nucleophilic aliphatic substitution reactions of propachlor, alachlor and metolachlor with bisulfide and polysulfides, *Environmental Science and Technology*, 36, 4065-4073
40. Miller P.L.,\* **Chin Y.P.** (2002) Photoinduced degradation of carbaryl in wetland surface water, *Journal of Agricultural and Food Chemistry* , 50, 6758-6765.
41. Klupinski T.\* , **Chin Y.P.** (2003) Degradation of trifluralin by Fe(II): Kinetics and transformation pathways, *Environmental Science and Technology*, 37, 1311-1318

42. Mash H.\*, **Chin Y.P.**, Sigg L., Hari R., Xue H. (2003) Complexation of copper by zwitterionic aminosulfonic (Good) buffers, *Analytical Chemistry*, 75, 671-677
43. Gaberell M.\*, **Chin Y.P.**, Hug S.J., Sulzberger B. (2003) The role of DOM composition on the photoreduction of Cr(VI) to Cr(III) in the presence of iron, *Environmental Science and Technology*, 37, 4403-4409.
44. Meier M.\*, **Chin Y.P.**, Maurice P.A. (2004) Seasonal variations in the composition and adsorption behavior of dissolved organic matter at a small, forested watershed, *Biogeochemistry*, 67, 39-56.
45. Brown A., McKnight D.M., **Chin Y.P.**, Uhle M\*, Roberts E. (2004) The influence of mixotroph growth on DOM chemistry in Pony Lake, a eutrophic coastal pond in Antarctica, *Marine Chemistry*, 89, 327-337.
46. Klupinski T.\*, **Chin Y.P.**, Traina S.J. (2004) Abiotic degradation of pentachloronitrobenzene, by Fe(II): Reactions on goethite and iron oxide nanoparticles, *Environmental Science and Technology*, 38, 4353-4360.
47. **Chin Y.P.**, Miller P.L.\*, Zeng L\*, Cawley K\*, Weavers L. (2004) Photosensitized degradation of bisphenol A by dissolved organic matter, *Environmental Science and Technology*, 38, 5888-5894
48. Dong C., Ziqi H., Weavers L.K., **Chin Y.P.**, Walker H.W. Hatcher P.G., (2004) Sonochemical reaction of dissolved organic matter, *Research on Chemical Intermediates* 30, 735-753.
49. O'Loughlin E.L.\*, **Chin Y.P.** (2004) Quantification and characterization of dissolved organic carbon and iron in sedimentary porewater from Green Bay, WI, *Biogeochemistry*, 71, 371-386
50. Schwede-Thomas S.B.\*, **Chin Y.P.**, Dria K.J., Hatcher P., Kaiser E., Sulzberger B. (2005) Characterizing the properties of dissolved organic matter isolated by XAD and C-18 solid phase extraction and ultrafiltration, *Aquatic Sciences*, 67, 61-71.
51. Miller P.L.\*, **Chin Y.P.** (2005) Indirect photolysis promoted by natural and engineered wetland water constituents: processes leading to alachlor degradation, *Environmental Science and Technology*, 39, 4454-4462.

52. Grannas A.M. \*, Martin C.B., **Chin Y.P.**, Platz M. (2006) Hydroxyl radical production from irradiated Arctic dissolved organic matter, *Biogeochemistry*, 78, 51-66.
53. Fimmen R. L. \*, Cory R.M., **Chin Y.P.**, Trouts T.D. \*, McKnight D.M. (2007) Probing the oxidation-reduction properties of terrestrially and microbially derived dissolved organic matter *Geochimica et Cosmochimica Acta*, 71, 3003-3015.
54. Cory R. M., McKnight D. M., **Chin Y. P.**, Miller P.L. \*, Jaros C.L. (2007) Linking chemical characteristics of fulvic acids from Arctic surface waters to photochemical controls, *JGR: Biogeosciences*, 112, G04S51.
55. Hakala J.A. \*, **Chin Y.P.**, Weber E.J. (2007) Influence of dissolved organic matter and Fe(II) on the abiotic reduction of pentachloronitrobenzene, *Environmental Science and Technology*, 41, 7337-7342.
56. Jacobs L.E., Weavers L.K., **Chin Y.P.** (2008) Direct and indirect photolysis of polycyclic aromatic hydrocarbons in nitrate-rich surface waters, *Environmental Toxicology and Chemistry*, 27-1643-1648.
57. O'Malley C., Ausich W.I., **Chin Y.P.** (2008) Crinoid biomarkers (Borden Group): Implications for phylogeny, *Echinoderm Paleobiology*, pp. 291-309.
58. Hakala J.A. \*, Fimmen R.L. \*, Agrawal S.A. \*, Ward C., **Chin Y.P.** (2009) An assessment of the geochemical reactivity of Fe-DOM complexes in lacustrine sediment pore waters using a nitroaromatic probe compound, *Geochimica et Cosmochimica Acta*, 73, 1382-1393.
59. Agrawal S.A. \* Fimmen R.L. \* **Chin Y.P.** (2009) Reduction of Cr(VI) to Cr(III) by Fe(II) in the presence of fulvic acids and in a lacustrine pore water, *Chemical Geology*, 262, 364-371.
60. Cawley K.M. \*, Hakala J.A. \* **Chin Y.P.** (2009) Evaluating the triplet state photoreactivity of dissolved organic matter isolated by chromatography and ultrafiltration using an alkylphenol probe molecule, *Limnology and Oceanography: Methods*, 7, 391-398.
61. Guerard J.G. \*, Miller P.L. \*, Trouts T.D. \*, **Chin Y.P.** (2009) The role of source composition in controlling the dissolved organic matter

sensitized photodegradation of aquatic contaminants: the need for a systematic evaluation, *Aquatic Sciences*, 71, 160-169.

62. Guerard J.G.\*, Mash H.\*, Hadad C.R., **Chin Y.P.** (2009) Photochemical fate of sulfadimethoxine in aquaculture waters, *Environmental Science and Technology*, 43, 8587-8592.
63. Hakala, J. A. \*, **Chin, Y. P.** (2010). Abiotic reduction of pendimethalin and trifluralin in controlled and natural systems containing Fe(II) and dissolved organic matter. *Journal of Agricultural and Food Chemistry*, 58, 12840-12846.
64. Foreman C.F., Dieser M., Greenwood M., Cory R.M., Laybourne-Parry J., Lisle J.T., Jaros C., **Chin Y.P.**, Miller P.L.\*, McKnight D.M. (2011) When a habitat freezes solid” Microbes overwinter within the ice column of a coastal Antarctic Lake, *FEMS Microbiology Ecology*, 72, 401-412.
65. Jacobs L.E.\*, Fimmen R.L., **Chin Y.P.**, Mash H.E., Weavers L.K. (2011) Fulvic acid mediated photolysis of ibuprofen in water, *Water Research*, 45, 4449-4458.
66. Zeng, T., Ziegelgruber K.L.\*, **Chin Y.P.**, Arnold W.A. (2011) Pesticide processing potential in prairie pothole porewaters, *Environmental Science and Technology*, 45, 6814-6822.
67. Grannas A.M.\*, Cory R.M., Miller P.L.\*, **Chin Y.P.**, McKnight D.M. (2012) The role of dissolved organic matter in Arctic surface waters in the photolysis of hexachlorobenzene and lindane, *J. Geophysical Research: Biogeosciences*, doi:10.1029/2010JG001518JGR
68. Jacobs L.E.\*, Weavers L.K., Houtz E., **Chin Y.P.** (2012) Photosensitized degradation of caffeine: role of fulvic acids and nitrate, *Chemosphere*, 86, 124-129
69. Card M. L.,\* **Chin Y. P.**, L. S. Lee B., Khan (2012) Prediction and experimental evaluation of soil sorption by natural hormones and hormone mimics, *Journal of Agricultural and Food Chemistry*, 60, 1480-1487.
70. Zeng T., **Chin Y.P.**; Arnold W.A. (2012) Potential for abiotic reduction of pesticides in Prairie Pothole porewaters, *Environmental Science and Technology*, 46, 3177-3187

71. Card M. L.,\* J. L. Schnoor, **Chin Y. P.** (2012) Uptake of natural and synthetic estrogens by maize seedlings, *Journal of Agricultural and Food Chemistry*, 60, 8264-8271.
72. Guerard J.J.\*, **Chin Y. P.** (2012) Photodegradation of ormetoprim in aquaculture and stream derived dissolved organic matter, *Journal of Agricultural and Food Chemistry*, 60, 9801-9806
73. Davie-Martin C.\*, Hageman K., **Chin, Y.P.** (2013) An improved screening tool for predicting volatilization of pesticides applied to soils, *Environmental Science and Technology*, 47, 868-876.
74. O'Malley C.E., Ausich W.I., **Chin Y.P.** (2013) Isolation and characterization of the earliest taxon-specific organic molecules, *Geology*, 41, 347-350
75. Ziegelgruber K.L.\* , Teng Z., Arnold W.A., **Chin Y.P.** (2013) Sources and composition of sediment pore water dissolved organic matter in prairie pothole lakes, *Limnology and Oceanography*, 58, 1136-1146.
76. Card M. L.,\* J. L. Schnoor, **Chin Y. P.** (2013) Transformation of Natural and Synthetic Estrogens by Maize Seedlings, *Environmental Science and Technology*, 47, 5101-5108.
77. Dieser M., Foreman C.M., Jaros C., Lisle J.T., Greenwood M., Laybourn-parry K., Miller P.L\*., **Chin Y.P.**, McKnight D.M. (2013) Physicochemical and biological dynamics in a coastal Antarctic lake as it transitions from frozen to open water, *Antarctic Science*, 1-13.
78. Barker J.D\*., Dubnick A., Lyons W.B., **Chin, Y. P.** (2013) Changes in dissolved organic matter (DOM) fluorescence in proglacial Antarctic streams. *Arctic, Antarctic, and Alpine Research*, 45, 305-317.
79. Cawley K.M.\* , McKnight D.M., Cory R.M., Fimmen R\*, Guerard J.G.\* , Dieser M., Jaros C. **Chin Y.P.**, Miller P.L\*., and Foreman C.M. (2013) Characterization of fulvic acid fractions of dissolved organic matter (DOM) during ice-out in a hyper-eutrophic, coastal pond in Antarctica, *Environmental Research Letters*, 8, 045015
80. Foreman C. M., Cory, R. M., Morris, C. E., SanClements, M. D., Smith, H. J., Lisle, J. T., Miller, P. L.\* , **Chin, Y.P.**, McKnight, D. M. (2013) Microbial growth under humic-free conditions in a

supraglacial stream system on the Cotton Glacier, Antarctica, *Environmental Research Letters*, 8, 035022.

81. Wei-Haas M.L.\*, Hageman K.J., **Chin, Y.P.** (2014) Partitioning of polybrominated diphenyl ethers to dissolved organic matter isolated from arctic surface waters, *Environmental Science and Technology*, 48, 4852-4859
82. Langlois M.\*, Weavers L.K., **Chin Y.P.** (2014) Contaminant-Mediated Photobleaching of Wetland Chromophoric Dissolved Organic Matter, *Environmental Sciences: Processes and Impacts*, 16, 2098-2017
83. Sleighter R. L., **Chin Y. P.**, Arnold W. A., Hatcher P. G., McCabe A. J., McAdams B. C., Wallace G. C. (2014). Evidence for abiotic S and N incorporation into prairie wetland dissolved organic matter. *Environmental Science and Technology Letters*, 9, 345-350.
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### **Presentations and Extended Abstracts**

1. Chin Y.P. (1986) Prediction of soil/sediment partition coefficients by reverse phase liquid chromatography. *Organic Geochemistry Gordon Conference*, poster presentation, Holderness School, NH.
2. Grasso D., Chin Y.P. (1988) Characterization of a commercial humic acid and aquatic dissolved organic matter by liquid chromatography and proton NMR, *SETAC Conference*, Rutgers University, New Brunswick, NJ.
3. Chin Y.P., (1988) Prediction of humic substance-organic contaminant binding constants using a modified Flory-Huggins model. *Environmental Sciences (Water) Gordon Conference*, poster presentation, New Hampton School, NH.
4. Chin Y.P., McNichol A.P., Gschwend P.M. (1990) Quantitation and characterization of porewater organic colloids from Boston Harbor sediments. *American Chemical Society National Meeting*, Boston, MA.

5. Chin Y.P., Weber W. J. Jr. (1990) A thermodynamic partition model for quantifying the binding of hydrophobic organic compounds to humic substances and implications with respect to sorption. *American Chemical Society National Meeting*, Boston, MA.
6. Chin Y.P., Kimble K.D. <sup>\*</sup> (1992) Remediation of contaminated groundwater systems using water-miscible chemical additives, *Environmental Sciences (Water) Gordon Conference*, poster presentation, New Hampton School, NH.
7. Kimble K.D. <sup>\*</sup>, Errett D.H., Chin Y.P. (1992) Co-solvent remediation of groundwater systems contaminated by hydrophobic organic compounds, *15th Annual Environmental Chemistry Workshop*, Madison, WI.
8. Kimble K.D. <sup>\*</sup>, Chin Y.P. (1993) Co-solvent remediation of groundwater systems contaminated by hydrophobic organic compounds, *AGU National Meeting*, Baltimore Md.
9. Erret D.H. <sup>\*</sup>, Chin Y.P. (1993) Sorption/desorption kinetics of hydrophobic organic compounds by soils and sediments, *AGU National Meeting*, Baltimore, Md.
10. Erret D.H. <sup>\*</sup>, Chin Y.P. (1993) Sorption/desorption kinetics of hydrophobic organic compounds by soils in co-solvents, *16th Environmental Chemistry Workshop*, Notre Dame, IN
11. Y.P. Chin, Aiken G., O'Loughlin E. <sup>\*</sup> (1993) The molecular weight and spectroscopic properties of humic substances, *16th Environmental Chemistry Workshop*, Notre Dame, IN
12. Backhus D.A., Chin Y.P. Gschwend P.M. (1993) Fluorescence quenching of PAH probes to evaluate colloids in groundwater and sedimentary porewater, *Chinese Chemical Society Meeting, Tapei Taiwan*.
13. Y.P. Chin, Aiken G., O'Loughlin E. <sup>\*</sup> (1994) The molecular weight polydispersity, and spectroscopic properties of humic substances, *American Chemical Society National Meeting*, San Diego, CA
14. Danielsen K.M. <sup>\*</sup>, O'Loughlin E. <sup>\*</sup>, Chin Y.P. (1994) The molecular weight, aromaticity, and nonpolar organic compound binding properties of humic substances, poster, *Environmental Sciences (Water) Gordon Conference*, poster presentation, New Hampton School, NH.

15. Danielsen K<sup>\*</sup>, Chin Y.P. (1994) A comparison of the fluorescence quenching and solubility enhancement methods of measuring pyrene to humic materials partition coefficients, *17th Environmental Chemistry Workshop*, East Lansing, MI
16. Hess A<sup>\*</sup>, Chin Y.P., Traina S.J. (1994) Physicochemical characterization of polymaleic acid: A synthetic humic substance analog, *17th Environmental Chemistry Workshop*, East Lansing, MI
17. Swank C.R<sup>\*</sup>, Chin Y.P., Traina S.J. (1994) The size and quantity of organic colloids in porewater of and estuarine wetland, *17th Environmental Chemistry Workshop*, East Lansing, MI
18. Hess A<sup>\*</sup>, Chin Y.P., Traina S.J. (1995) Physicochemical characterization of polymaleic acid: A synthetic humic substance analog, *American Chemical Society National Meeting*, Anaheim, CA
19. Danielsen K<sup>\*</sup>, Chin Y.P. (1995) The effect of dissolved oxygen on the fluorescence quenching pyrene by humic substances, *American Chemical Society National Meeting*, Anaheim, CA
20. O'Loughlin E.<sup>\*</sup>, Chin Y.P. (1995) Effect of detector wavelength on the determination of the molecular weight of humic substances by HPSEC, *American Chemical Society National Meeting*, Anaheim, CA
21. Kilduff J., Karanfil T., Chin Y.P., Weber W.J. (1995) Adsorption of humic substances on activated carbon, *American Chemical Society National Meeting*, Anaheim, CA
22. Swank C.R<sup>\*</sup>, Chin Y.P., Traina S.J. (1995) Abundance and size distribution of DOC in porewaters of a freshwater wetland, *5th V.M. Goldschmidt Conference*, Penn State University, State College PA
23. Swank C.R<sup>\*</sup>, Chin Y.P., Traina S.J. (1995) Abundance and size distribution of DOC in porewaters of a freshwater wetland, *American Chemical Society National Meeting*, Chicago, IL
24. Wang L.<sup>\*</sup>Chin Y.P., Traina S.J., (1995) Sorption of a synthetic humic substance by goethite, *18th Environmental Chemistry Workshop*, Columbus, OH

25. Sacco S.\*, Olesik J., Chin Y.P., Kinzer J., Grunwald E. (1995) Metal complexation of organic ligands using ISE and CE-ICP-MS, *18th Environmental Chemistry Workshop*, Columbus, OH
26. O'Loughlin E.\*, Chin Y.P. Traina S.J. (1996) The binding of organotins to Aldrich humic acid, *Environmental Sciences (Water) Gordon Conference*, poster presentation, New Hampton School, NH.
27. Wang L.\*, Chin Y.P., Traina S.J., (1996) The adsorption of polymaleic acid and an aquatic fulvic acid by goethite, *Environmental Sciences (Water) Gordon Conference*, poster presentation, New Hampton School, NH
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29. Miller P.\*, Chin Y. (1996) Photoinduced degradation of agricultural pollutants in wetlands, *19th Midwest Environmental Chemistry Workshop*, Purdue University
30. Chin Y.P., Swank C.R.\*, Traina S.J. (1997) Abundance and properties of NOM in porewaters of a freshwater wetland, *ASLO' 97*, Santa Fe, NM
31. Miller P.L.\*, Chin Y.P. (1997) Photoinduced degradation of agricultural pollutants in wetlands, *American Chemical Society National Meeting*, San Francisco
32. Chin Y.P., Wang L.\*, Meier M.\* (1997), Application of HPSEC in the analysis of dissolved organic matter, *American Chemical Society National Meeting*, Las Vegas
33. Everett C.\*, Chin Y.P. (1997) Quantitative molecular weight measurements by HPSEC of natural organic matter fractionated by ultrafiltration, *American Chemical Society National Meeting*, Las Vegas,
34. Meier M.\*, Chin Y.P., Namjesnik-Dejanovic K., Maurice M. (1997) Sorption of surface water natural organic matter on goethite and kaolinite, *GSA' 97*, Salt Lake City
35. Uhle M.\*, Chin Y.P. (1997) Binding of PCBs to aquatic humic substances: Role of substrate and sorbate properties on partitioning, *GSA' 97*, Salt Lake City
36. Miller P.L.\*, Chin Y.P. (1997) Photoinduced degradation of organic pesticides in wetlands, *SETAC National Meeting*, San Francisco,

37. Uhle M.,\* Chin Y.P. (1998) The effect of aquatic humic substances on the bioaccumulation of PCBs by phytoplankton, *Environmental Sciences (Water) Gordon Conference*, poster presentation, New England College, NH
38. Uhle M.,\* Chin Y.P. (1998) Assessing the role of aquatic humic substances on the bioaccumulation of PCBs by phytoplankton, *American Chemical Society National Meeting*, Boston, MA
39. Meier M.,\* Chin Y.P., Maurice P.A. (1998) Sorption and fractionation behavior of natural organic matter in surface and ground water samples from a small, well-characterized watershed, *American Chemical Society National Meeting*, Boston, MA
40. Miller P.L.,\* Chin Y.P. McKnight D.M. (1998) Effect of DOM on the photolysis of synthetic organic compounds in Antarctic surface waters, *SETAC National Meeting*, Charlotte, NC
41. Miller P.L.,\* Chin Y.P. (2000) Photochemical transformation of pesticides in wetland surface waters, *American Chemical Society National Meeting*, Washington D.C.
42. White E.M.,\* Chin Y.P. (2000) Steady-state determination of hydroxide radicals produced by the photolysis of DOM, *American Chemical Society National Meeting*, Washington D.C.
43. Gaberell M., Chin Y.P. , Hug S., Sulzberger B. (2000) Photoreduction of Cr(VI) to Cr(III) by DOM and iron, *American Chemical Society National Meeting*, Washington D.C.
44. Klupinski T.,\* Chin Y.P. Traina S.J. (2000) Reduction of pentachloronitrobenzene by Fe(II), *American Chemical Society National Meeting*, Washington D.C.
45. Mash H.,\* Chin Y.P. (2000) Assessment of electroanalytical techniques for the measurement of Cu in the presence of natural organic ligands, *American Chemical Society National Meeting*, Washington D.C.
46. White E.M.,\* Chin Y.P. (2001) Reduction of trifluralin by Fe(II) and goethite. *American Chemical Society National Meeting*, Chicago, IL
47. Schwede-Thomas S., \*Chin Y.P. (2002) Changes in the composition of DOM along a hydrologic flow path in the Weeks Bay watershed, AL. *ASLO National Meeting*, Victoria, BC.

48. Raquet M.,\* Chin Y.P. (2003) Effect of membrane composition and natural organic matter on the removal of atrazine from drinking water using tangential-flow ultrafiltration *American Chemical Society National Meeting*, NY, NY
49. Grannas A.,\* Chin Y.P. Martin C. Platz M. (2003) Hydroxyl radical production from irradiated Arctic dissolved organic matter *American Chemical Society National Meeting*, NY, NY.
50. Grannas A.,\* Miller P.L.,\* Chin Y.P. (2003) Indirect photolysis of persistent organic pollutants by Arctic dissolved organic matter, *American Chemical Society National Meeting*, NY, NY
51. Chin Y.P., Zeng L.,\* Cawley K.,\* Weavers L. (2003) Indirect Photolysis of Bisphenol A by Dissolved Organic Matter, *American Chemical Society National Meeting*, NY, NY.
52. Grannas,\* P. L. Miller,\* Y. P. Chin (2004) Photochemical degradation of polychlorinated biphenyls mediated by dissolved organic matter, *American Chemical Society National Meeting*, Philadelphia, PA.
53. K. M. Cawley,\* J. A. Hakala,\* Y. P. Chin (2004) Photoreactivity of surface water dissolved organic matter (DOM) isolated by three methods using trimethylphenol (TMP) as a probe molecule, *American Chemical Society National Meeting*, Philadelphia, PA.
54. K.M. Cawley \* Yu-Ping Chin (2005) Probing the photoreactivity of dissolved organic matter isolated by different methods using 2,4,6-Trimethyl Phenol, *Humic Science and Technology Meeting VIII*, A Workshop in honor of Robert Wershaw, Boston, MA
55. Fimmen R.L.\* , Chin Y.P. (2005) Changes in fulvic acid redox behavior and fate of organic amines in Pony Lake, Antarctica dissolved organic matter during ice-melt over the austral summer, *ASLO National Meeting*, Salt Lake City
56. Hakala J. A. \*, T. P. Klupinski, Y. P. Chin, (2005) Abiotic degradation of pentachloronitrobenzene in freshwater sediments: Clean system investigations and in-situ comparisons, *American Chemical Society National Meeting*, Washington D.C.
57. Paolucci A. \*, Y.P. Chin (2005) Photolysis of tetracycline in the presence of dissolved organic matter (DOM), Ca<sup>2+</sup> and Mg<sup>2+</sup> as a function of pH, *American Chemical Society National Meeting*, Washington D.C.



58. Jacobs L. \*, Weavers L., Chin Y.P. (2005) The effect of nitrate and dissolved organic matter on the photofate of pah's in natural water, *American Chemical Society National Meeting*, Washington D.C.
59. Chin Y.P., Hakala J.A.\*, Agrawal S.\* (2006) Transformation of contaminants by biogenically derived chemicals: microbial metabolic products being put to good use, *ASLO Summer Meeting*, Victoria B.C.
60. Fimmen R.L.\* , Cory R. McKnight D.M., Chin Y.P. (2006) Contrasting chemical redox and chemical properties of microbially and terrestrially derived electron-shuttlesfulvic acids, *ASLO Summer Meeting*, Victoria B.C.
61. Guerard J.G.\* , Fimmen R.L.\* , Miller P.L.\* , Chin Y.P., Cory R., McKnight D.M. (2006) Characterization of the Photoreactivity of Pony Lake Dissolved Organic Matter, *ASLO Summer Meeting*, Victoria B.C.
62. Jacobs L.\* , L. Weavers, and Y. P. Chin (2007) Ibuprofen Direct Photolysis and in the Presence of Pony Lake, Antarctica, Fulvic Acid and Old Woman Creek Natural Estuarine Research Reserve Water, *American Chemical Society National Meeting*, Chicago, IL
63. Guerard J.G.\* , Y. P. Chin (2007) Photodegradation of antibiotics used in aquaculture *American Chemical Society National Meeting*, Chicago, IL.
64. Hakala J. A. \*, Y.P. Chin (2007) Reduction of pentachloronitrobenzene in freshwater sediment porefluids: Role of Fe(II), dissolved organic matter and pH. *American Chemical Society National Meeting*, Boston, MA.
65. Trouts T. D. \*, K. M. Cawley\*, Chin Y.P. (2007) Sensitized photolysis of metolachlor in a temperate eutrophic wetland, *American Chemical Society National Meeting*, Boston, MA.
66. Barker, J. D.\* , Chin Y.P., Sharp M.J., Lyons W.B., Turner R.J. (2007) The Presence and Export of Labile Dissolved Organic Matter from Glacier Systems, *American Geophysical Union Meeting San Francisco*, CA.
67. Hakala, J.A.\* , Fimmen R.L.\* , Chin Y.P., Agrawal S.G.\* , Ward C.\* (2007) Assessing the Geochemical Reactivity of Fe-DOM Complexes in Lacustrine Sediments Using Nitroaromatic Probe Compounds, *American Geophysical Union Meeting San Francisco*, CA.
68. Fimmen, R L.\* , Guerard J.G.\* , Miller P.L.\* , Cory R., Chin Y.P., Foreman C.M., McKnight D.M. (2007) Linking photochemical transformation of an Antarctica Fulvic Acid to diminished bioavailability and oxidation of organic electron shuttles, *American Geophysical Union Meeting San Francisco*, CA.

69. Guerard J.G. \*, Y.P. Chin (2008) Photofate of antibiotics used in aquaculture, *ASLO Summer Meeting, St Johns NF*.
70. Jacobs L.E. \*, Y.P. Chin, Fimmen R.L. \*, Mash H. \* and L. Weavers (2008) The photolysis of ibuprofen mediated by dissolved organic matter, *ASLO Summer Meeting, St Johns NF*.
71. Jacobs L.E. \*, Y.P. Chin, Fimmen R.L. \*, Mash H. \* and L. Weavers (2008) Ibuprofen photolysis: Reaction kinetics, chemical mechanism, byproduct analysis, *American Chemical Society National Meeting, Philadelphia, PA*
72. Card M.L., \* Y.P. Chin (2008) Degradation of zeranol by phytoremediation, *American Chemical Society National Meeting, Philadelphia, PA*
73. Ward C. \*, Chin Y.P. (2009) Accumulation and photodegradation of synthetic musk fragrances in organic surface microlayers, *American Chemical Society National Meeting, Washington D.C.*
74. Hakala J. A. \*, Chin Y.P. (2009) Abiotic reduction of trifluralin and pendimethalin by Fe(II) and dissolved organic matter, *American Chemical Society National Meeting, Washington D.C.*
75. Guerard J.G. \*, Chin Y.P. (2009) Dissolved organic matter enhanced photodegradation of ormetoprim in surface waters, *American Chemical Society National Meeting, Washington D.C.*
76. Card M. L. \*, Chin Y.P. (2009) Soil sorption of zeranol and melengestrol acetate, *American Chemical Society National Meeting, Washington D.C.*
77. Ziegelgruber K.L. \*, Chin Y.P., Teng Zeng, William A. Arnold (2010) Sediment pore water biogeochemistry in N. Dakota Prairie Pothole Lakes, *Environmental Sciences Gordon Research Conference, Holderness, NH.*
78. Card M. L. \*, Chin Y.P. (2010) Phytoremediation of zeranol by soybean and hybrid poplar, *Environmental Sciences Gordon Research Conference, Holderness, NH.*
79. Card M. L. \*, Chin Y.P. (2011) Uptake and degradation of natural and synthetic estrogens by maize seedlings, *American Chemical Society National Meeting, Denver, CO*
80. Zeng T., Ziegelgruber K. L. \*, Chin Y.P., Arnold W. A., Abiotic transformations of chloroacetanilide and nitroaromatic pesticides in prairie pothole porewaters, *American Chemical Society National Meeting, Denver, CO (received certificate of merit)*

81. Ziegelgruber K. L. \*, Chin Y.P., Zeng T., Arnold W. A., Seasonal changes in the quantity and quality of dissolved organic matter (DOM) in the pore waters of prairie pothole lakes, *American Chemical Society National Meeting, Denver, CO*
82. Card M. L. \*, Chin Y.P. (2011) Uptake and transformation of estrogenic compounds by corn, *Society of Environmental Toxicology and Chemistry National Meeting, Boston, MA*
83. Langlois M. \*, Chin Y.P. (2011) Photosensitized transformation of acetochlor and isoproturon by chromophoric dissolved organic matter, *Society of Environmental Toxicology and Chemistry National Meeting, Boston, MA*
84. Wei-Haas M. \*, Chin Y.P. (2011) Partitioning of PBDE to dissolved organic matter, *Society of Environmental Toxicology and Chemistry National Meeting, Boston, MA*
85. Kreinberg A. \*, Chin Y.P. (2011) Sorption of two growth promoters used in livestock to Midwestern soils, *Society of Environmental Toxicology and Chemistry National Meeting, Boston, MA*
86. Wei-Haas M. \*, Sanclements M., Smith H., Foreman C., McKnight D., Chin Y.P. (2012) Transformation of supraglacial DOM from the Cotton Glacier, *ASLO/AGU Ocean Sciences Meeting, Salt Lake City, UT*
87. Kreinberg A.\*, Chin Y.P. (2012) Sorption of tylosin and progesterone to midwestern soils, *American Chemical Society National Meeting, San Diego, CA*
88. Wei-Haas M.\*, Hageman K., Chin Y.P. (2012) Partitioning of polybrominated diphenyl ethers to dissolved organic matter, *Gordon Research Seminar Invited Talk*
89. Wei-Haas M.\*, Hageman K., Chin Y.P. (2012) Partitioning of polybrominated diphenyl ethers to dissolved organic matter, *American Chemical Society National Meeting, Philadelphia, PA (received certificate of merit)*
90. Semones M.\*, MacKay A., Chin Y.P. (2013) Generation of hydroxyl radicals by dissolved organic matter isolated from wastewater treatment plant outflows, *American Chemical Society National Meeting, Indianapolis, IN*

91. Yuan C. \*, Weavers L., Chin Y.P. (2013) Diurnal kinetics of triplet-induced transformation of isoproturon in the presence of aromatic ketones and fulvic acids, *American Chemical Society National Meeting, Indianapolis, IN*
92. Albanese K., Lanno R., Chakraborty M., Christopher Hadad, Chin Y.P. (2013) Mixture effects of triclosan and triclocarban on their aquatic chemistries, *American Chemical Society National Meeting, Indianapolis, IN*
93. Albanese K., Lanno R., Chakraborty M., Hadad C., Chin Y.P. (2013) Mixture effects of triclosan and triclocarban on *Daphnia Magna*, *SETAC National Meeting, Nashville, TN*
94. Wei-Haas M., Chin Y.P. (2013) A Novel Method for Measuring Photokinetic Parameters Under Variable Natural and Artificial Light Regimes, *American Geophysical Union Annual Meeting, San Francisco, CA*
95. Langlois M., Weavers L., Chin Y.P. (2014) Herbicide mediated photobleaching of chromophoric dissolved organic matter, *Joint Aquatic Sciences Meeting, Portland, OR*
96. McAdams B., Arnold W. A., Chin Y.P. (2014) Spatial variation of redox species in Prairie Pothole pore waters with depth, *Goldschmidt Conference, Sacramento, CA*
97. Albanese K., Lanno R., Chakraborty M. Hadad C., Chin Y.P. (2014) Photolysis product toxicity and mixture toxicity of triclosan and triclocarban to *Daphnia magna*, *American Chemical Society National Meeting, San Francisco, CA*
98. Yuan C. \*, Weavers L., Chin Y.P. (2014) Dark formation of isoproturon from its semi-persistent photodegradation product, *American Chemical Society National Meeting, San Francisco, CA*
99. Anderson R., Chin Y.P. (2014) Transformation of chlorpyrifos and chlorpyrifos-methyl in prairie pothole porewaters, *American Geophysical Union Annual Meeting, San Francisco, CA*
100. Wei-Haas M., Chin Y.P. (2015) Does debromination dominate BDE-47 photodegradation in natural environments? *American Chemical Society National Meeting, Denver, CO*
101. Smith H., Wei-Haas M., SanClements M., D'Andrilli J., Foreman C., Chin Y.P., McKnight D. (2015) Transformations in autochthonous DOM: An

- Antarctic supraglacial case study, *American Chemical Society National Meeting, Denver, CO*
102. Wei-Haas M., Chin Y.P. (2015) Influence of dissolved organic matter on the rates and mechanisms of 2,2',4,4'-tetrabromodiphenyl ether (BDE-47) photolysis, *American Chemical Society National Meeting, Boston, MA*
103. McAdams B., Arnold W. A., Chin Y.P. (2015) Voltammetric analysis of naturally occurring reductants in prairie pothole wetland sediment pore water, *American Chemical Society National Meeting, Boston, MA*
104. Kim C., Ahn J.-Y., Chin Y.P., I. Hwang (2015) Effect of nanosized zero-valent iron on the spectroscopic characteristics of a terrestrial humic acid, *American Chemical Society National Meeting, Boston, MA*
105. M. Semones, Y. P. Chin (2015) Photofate of the UV-filters benzophenone-3 (oxybenzone) and benzophenone-4 (sulisobenzone) in natural waters *SETAC National Meeting, Salt Lake City*
106. K. Albanese, Y. Chin, R.P. Lanno, C. Hadad (2015) The Effects of DOM on the Photochemistry and Toxicity of Photoproducts of Triclosan and Triclocarban and their Mixtures to *Daphnia magna* *SETAC National Meeting, Salt Lake City*
107. C. Yuan, L. Weavers, Y. Chin (2016) Role of iron mediated photo-Fenton processes on the photofate of agrochemicals in wetlands, *American Chemical Society National Meeting, San Diego, CA*
108. B. McAdams, G. Aiken, W. Arnold, Y. Chin (2016) Revisiting molecular weight and polydispersity measurements by high-pressure size exclusion chromatography: Accounting for changes in analytical standards and isolation techniques, *American Chemical Society National Meeting, Philadelphia, PA*
109. C. Kim, Y. Chin, J. Ahn, M.L. Wei-Haas, B. McAdams, I. Hwang (2017) Effects of dissolved organic matter on the fate and transformation of nanosized zero-valent iron in aqueous system, *American Chemical Society National Meeting, San Francisco, CA*
110. B. McAdams, G. Aiken, J. Hudson, Y. Chin (2017) Exploring the relationships between the redox and mineral adsorption properties of DOM, *American Chemical Society National Meeting, San Francisco, CA*

111. J.R. Laszakovits, Y. Chin, A. MacKay, C.M. Sharpless (2017) Modeling singlet oxygen production by dissolved organic matter. *American Chemical Society National Meeting, San Francisco, CA*
112. C. Yuan, L.K. Weavers, P.G. Hatcher, Y. P. Chin (2017) Photomineralization of dissolved organic matter in acid mine drainage-impacted waters, *American Chemical Society National Meeting, San Francisco, CA*
113. Kerrigan, J., Chin, Y. P. (2018). *Photofate of Tetrabromobisphenol A in waters under natural and simulated sunlight. American Chemical Society National Meeting, Boston, MA*
114. Chin, Y.P., Brandon McAdams, B., Hudson, J. Aghajanian, B (2019) Properties of Dissolved Organic Matter Isolated Using Different Solid Phase Extraction Resins, *Soil Science Society of America Meeting, San Diego, CA.*
115. J Kerrigan, YP Chin, Photofate of Tetrabromobisphenol A (TBBPA) in Waters Under Natural and Simulated Sunlight. (2019) *European Geophysical Union, Vienna, Austria*
116. J Hudson, YP Chin (2019) Redox properties of iron-ligand complexes in dissolved organic matter, *American Chemical Society National Meeting, San Diego*
117. J Jansen, S MacIntyre, D Barrett, YP Chin, A Cortes, A Forrest, AR Hrycik (2020) Winter limnology: how do hydrodynamics and carbon biogeochemistry shape unique ecosystems under ice? *AGU Fall Meeting San Francisco*
118. Biogeochemical Feedbacks of the Coastal Critical Zone: Sea Level Rise Impacts on the Composition of Dissolved Organic Matter (2021) *AGU Fall Meeting, New Orleans*
119. Photo-enhancement of the degradation of two current-use pesticides in simulated sunlight by Arctic dissolved organic matter (2021) *AGU Fall Meeting, New Orleans*
120. Drivers and impacts of marsh migration in the coastal critical zone (2021) *AGU Fall Meeting, New Orleans*

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**Invited  
Lectures**

Interaction of Organic Compounds with Natural Solids and Colloids,

**The University of Connecticut**, March 24<sup>th</sup>, 1989.

The Binding and Mobilization of Hydrophobic Organic Compounds by Colloids in Sedimentary Porewaters, **Syracuse University**, December 4<sup>th</sup>, 1989.

Colloids from the Black Lagoon: The Size and Abundance of Boston Harbor Porewater Macromolecules, **Woods Hole Oceanographic Institute**, July 30<sup>th</sup>, 1990.

Colloids from the Black Lagoon II: The Binding Properties of Boston Harbor Porewater Colloids, **University of Michigan**, February 7<sup>th</sup>, 1992

The Size, Spectroscopic, and Binding Properties of Aquatic Humic Substances: **Kent State University**, February 23<sup>rd</sup>, 1994

The Molecular Weight, Spectroscopic, and Binding Properties of Humic Substances: **Michigan State University**, April 27<sup>th</sup>, 1994.

Quantification and Characterization of Porewater Organic Carbon from Lacustrine Sediments: **5th V.M. Goldschmidt Conference**, Penn State University, State College PA, May 26<sup>th</sup>, 1995

A New Paradigm for the Size of Humic Materials: The Molecular Weight Distributions of Purified Humic Substances, **International Humic Substances Society Meeting**, Atlanta, GA, August 27<sup>th</sup>, 1995

A New Paradigm for the Molecular Weight Of Humic Substances, **Purdue University**, October 20<sup>th</sup>, 1995

The Contaminant Binding Properties of Dissolved Organic Matter in Wetlands, **SUNY/Buffalo**, September 23<sup>rd</sup>, 1996

Sorptive Properties of Dissolved Organic Matter Derived from Different Watersheds, **EAWAG**, April 30<sup>th</sup>, 1999

Properties and Reactivities of Dissolved Organic Matter Derived from a Small Forested Watershed, **Johns Hopkins University**, November 17<sup>th</sup>, 1999.

Direct and Indirect Photolysis of Carbaryl in a Wetland Surface Water, **The University of Iowa**, April 7<sup>th</sup>, 2000

Photochemical transformation of pesticides in promoted by natural chemical constituents in wetland surface waters, **Refractory Organic Substances in the Environment (ROSE), Universitaet Karlsruhe (TH), Germany**, August 3<sup>rd</sup>, 2000

Photochemical transformation of pesticides in promoted by natural geochemical constituents in surface waters **GSA National Meeting, Reno, NV.**, November 18<sup>th</sup>, 2000.

The Role Of Natural Dissolved Organic Matter Composition On The Photoreduction Of Cr(VI) To Cr(III) In The Presence Of Iron, The **University of Minnesota**, November 2<sup>nd</sup>, 2001.

Photodegradation of Persistent Organic Pollutants in Arctic Surface Waters, **University of Colorado**, October 21<sup>st</sup>, 2002.

Degradation of Agricultural Pesticides in Wetlands, **Purdue University**, February 10<sup>th</sup>, 2003.

Important Environmental and Biogeochemical Reactions Mediated by Iron and Dissolved Organic Matter, **University of Connecticut**, March 14<sup>th</sup>, 2005.

Effects of Fe(II) and Natural Organic Matter on the Abiotic Reduction of Pentachloronitrobenzene, **ACS National Meeting, A symposium in honor Dr. Renee Schwarzenbach**, March 28<sup>th</sup> , 2006.

Redox Processes in Lacustrine Sediment Porefluids: The Role of Iron and Dissolved Organic Matter, **Wright State University**, April 24<sup>th</sup> 2008

A Tale of Two Elements: The Role of Iron and Sulfur in Driving Redox Processes in Lacustrine Pore Waters, **University of Otago**, March 25<sup>th</sup>, 2011

Research Opportunities in Environmental Organic Chemistry, **Ball State University**, Jan. 17<sup>th</sup>, 2012.

A Tale of Two Elements: The Role of Iron and Sulfur in Driving Redox Processes in Lacustrine Pore Waters, **University of Utah**, Feb. 22<sup>nd</sup>, 2012.



Transformation of Growth Promoters Used in Animal Feed Operations by Plants and Soils, **University of Colorado**, October, 19<sup>th</sup>, 2012

Transformation of Growth Promoters Used in Animal Feed Operations by Plants and Soils, **Wayne State University**, January 10<sup>th</sup>, 2013

Fate of Concentrated Animal Feed Operation (CAFO) Growth Promoters in Soils and Plants, **Vanderbilt University**, November 20<sup>th</sup>, 2013

Fate of Concentrated Animal Feed Operation (CAFO) Growth Promoters in Soils and Plants, **Sewanee University of the South**, November 22<sup>nd</sup>, 2013.

It's More than Climate Change: The Fate of Persistent and Emerging Organic Pollutants in a Warming Arctic, **Johns Hopkins University**, October 2<sup>nd</sup>, 2018

Properties and Reactivity Of Dissolved Organic Matter From Prairie Pothole Wetlands, **GSA National Meeting**, Indianapolis, November 7<sup>th</sup>, 2018

Exploring the Redox Properties of Dissolved Organic Matter and Iron Using Mediated Electrochemical Reduction and Oxidation, **Pusan National University**, Pusan, Korea, February 3, 2021

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### Funded Projects:

“ *Collaborative Research: New Roles for Reactive Oxygen Species in Mediating Carbon Fluxes at the Terrestrial-Aquatic Interface*. **NSF Low Temperature Geochemistry and Geobiology Program**, \$244,878 (PI) 2021-2023

“ *Collaborative Research: Network Cluster: The Coastal Critical Zone: Processes That Transform Landscapes And Fluxes Between Land And Sea*. **NSF Critical Zone Network**, \$2,186,794 (co-PI: Michael PI)

“ *Collaborative Research: Predicting Current-Use Pesticides and Emerging Flame Retardants in a Changing Arctic - Fate and Phototransformation*”, **NSF Division of Chemical Bioengineering and Environmental, and Transport Systems**, \$194,603 (PI), 2019-2021

*“Collaborative Research: Hydrology and Geochemistry of Prairie Pothole Lake Sedimentary Pore Waters: Implications for the Attenuation of Pesticides”*, **NSF Hydrologic Sciences Program**, \$354,856 (PI), 2013-2016.

*“Atmospheric Inputs and the Photochemical Transformation of Brominated Flame Retardants in Arctic Surface Waters”*, **NSF Office of Polar Programs**, \$109,841 (PI), 2013-2015

*“Collaborative Research: Role of Organic Matter Source on the Photochemical Fate of Pharmaceutical Compounds”*, **NSF Division of Chemical Bioengineering and Environmental, and Transport Systems**, \$262,000 (PI), 2011-2014

*“Collaborative Research: The Role of Plants in the Environmental Fate of Growth Promoters and Antibiotics Used in Concentrated Animal Feed Operations”*, **NSF Division of Chemical Bioengineering and Environmental, and Transport Systems**, \$250,000 (PI), 2010-2013.

*“Enhanced photolysis of agrichemicals in constructed wetlands using iron amendments”*, **Ohio Water Development Authority**, (Weavers PI: co-PI), \$199,000 2008-2012.

*“Collaborative research: The biogeochemical evolution of dissolved organic matter in a fluvial system on the Cotton Glacier, Antarctica”*, **NSF Office of Polar Programs**, \$267,000 (PI), 2009-2012

*“Redox processes in the sedimentary porewaters of prairie pothole lakes: Implications for the attenuation of pesticides”*, **NSF Hydrologic Sciences Program**, \$78,000 (PI) 2009-2010.

*“Microelectrode Geochemical Observatory for In Situ Monitoring of Metals Concentration and Mobility in Contaminated Sediments”*, **DoD, ESTCP** (subcontract through Battelle), \$300,000 (co-PI, Ruiz (ONR) PI) (2011-2013)

*“EAGER: Characterization of Potentially Jurassic-Age Mummified Organic Material, Ellesmere Island, Canada”*,

**NSF Office of Polar Programs**, \$105,208 (co-PI, Barker PI), 2010-2011.

*“Fringelites: Fossil Organic Molecules as a Proxy for Phylogeny in Paleozoic Crinoids”*, **NSF Division of Earth Sciences**, \$19,790 (co-PI, Ausich PI)

*“Optimizing the Design of Constructed Wetlands for the Photodegradation of Organic Contaminants”*, **NSF Division of Chemical Bioengineering and Environmental, and Transport Systems**, \$400,000 (PI, co-PI Weavers), 2005-2008

*“The Biogeochemistry of Dissolved Organic Matter in Pony Lake, Antarctica”* **NSF Office of Polar Programs**, \$321,000 (PI), 2004-2007

*“Reduction of Agricultural Pesticides in the Sediments of a Coastal Lake Erie Wetland”* **Ohio Sea Grant Program/NOAA, U.S. Dept. of Commerce**, \$105,000 (PI) 2005-2007

*“Probing the Reductive Potential of Wetland Sediments”* **NSF, Hydrologic Sciences Program**, \$230,500 (PI) 2004-2007

*“Photodegradation of Agricultural Herbicides in a Lake Erie Coastal Wetland”*, **Ohio Sea Grant Program/NOAA, U.S. Dept. of Commerce**, \$65,000 (PI) 2003-2005

*“Environmental Molecular Science Institute”* **NSF** \$5,800,000 (Hatcher and Traina PIs: Co-PI for photochemistry program ~ \$300,000), 2001-2006

*“The Direct and Indirect Photolytic Fate of Persistent Organic Pollutants in Arctic Surface Waters*, **NSF Office of Polar Programs**, \$176,000 (PI) 2001-2004

*“Removal of Agricultural Pollutants from Drinking Water by Membrane Processes”*, **Ohio Water Development Authority**, \$200,000 (Walker PI, Co-PI), 2002-2005

*“Abiotic Transformation of Agrochemicals in Wetland Soils and Sediments”*, (PI, Co-PI's Traina, Roberts (Johns Hopkins) **USDA, National Research Initiative**, \$265,000

*"Distribution and Transformation of Nonpoint Source Agricultural Pesticides in Freshwater and Estuarine Wetlands"*, **NOAA, CICEET Program**, \$225,000, (PI)

*"An Integrated Study of the Fractionation of Natural Dissolved Organic Matter Upon Sorption to Mineral Surfaces"*, **NSF, Hydrologic Sciences Program** \$60,124 (PI)

*" The Effect of DOM on the Photolysis and Bioaccumulation of Synthetic Organic Compounds in Two Lakes on Ross Island, Antarctica"* **NSF Office of Polar Programs**, \$50,000 (PI, McKnight Co-PI) 1996-1997

*"Sunlight Induced Degradation of Agricultural Pollutants in Wetlands"*, **Water Research Institute/U.S. Dept. of the Interior** (USGS), (PI) \$40,080 1996-1998

*"Direct and Indirect Phototransformation of Agricultural Pesticides in a Coastal Wetland"* **Ohio Sea Grant Program/ NOAA, U.S. Dept. of Commerce**, \$53,000 (PI) 1997-1999

*" Configuration and Sorption Properties of Two Synthetic Humic Substance Analogs"*, **US EPA Exploratory Research Program**, \$304,000 (PI, Traina, co-PI)

*" Variability of the Properties of Aquatic Organic Matter and its Effect on Speciation of Heavy Metals, U.S. EPA Exploratory Research Program* (co-PI with Benoit/Yale U.) 1997-1999 \$248,000

*"Use of FGD to Mitigate Acid Mine Drainage"*, **Ohio Coal Development Office**, (co-PI, PI's, Whitlach, Wolfe, Bair, and Traina), \$294,000

*" The Geochemistry of Aquatic Organic Colloids and Their Role in Mobilizing Synthetic Organic Contaminants in Wetland Ecosystems"*, **NSF, Hydrologic Sciences Program**, \$140,000 (PI)

*"Colloid Mediated Transport of Hydrophobic Organic Contaminants Across the Sediment/Water Interface in the Great Lakes Ecosystem"*, **U.S. EPA**, \$157,962 (PI)

*" The Role of Organic Colloids in the Compartmentalization of Pesticides in Wetlands"* **USDA National Research Initiative**, \$84,000 (PI, Traina, co-PI)

*"The Mobility of Contaminant Laden Colloids in the Interstitial Waters of the Great Lakes"*, **Ohio Sea Grant Program/NOAA/ U.S. Department of Commerce**, \$61,487 (PI)

*"Co-solvent Processes in Aquifer Re-mediation"* (co-PI w/ Schwartz) Ohio  
**Water Research Institute/Department of the Interior**, \$34,476

*"Sorption Kinetics of Hydrophobic Organic Compounds in Soil/ Co-solvent Systems"*, **University Seed Grant**, \$18,000  
1/92-12/92

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## **Graduate Students and Postdoctoral Associates:**

### *Postdocs*

**Jill Kerrigan (Postdoc) Ph.D. University of Minnesota**

**Ryan Fimmen (Postdoc and University Fellow) Ph.D. Duke University**, B.S. Carleton College, M.S. University of Wisconsin-Madison,  
**Current Position:** *Principal: Geosyntec*

**Joel Barker (Postdoc and Byrd Polar Fellow) B.S. and Ph.D. University of Alberta**  
**Current Position:** *Assistant Professor, School of Earth Sciences, The Ohio State University, Marion campus*

**Ziqi He (Postdoc) Ph.D. The Ohio State University**  
**Current Position:** *HAS Engineers and Scientists*

**Amanda Grannas (Postdoc) Ph.D. Purdue University B.S.**  
Juniata College  
**Current Position:** *Professor of Chemistry and Associate Vice-  
Provost for Research, Villanova University*

**Maria Uhle (Postdoc) Ph.D. University of Virginia B.S.**  
Bates College; M.S. University of Massachusetts  
**Current Position:** *NSF Program Director for International  
Activities*

### Students

**Kathi Kimble: (Graduated 9/93) B.S. Texas A&M M.S.**  
**Thesis:** *Remediation of groundwater contaminated by  
hydrophobic organic compounds using water-miscible  
chemical additives*

**Douglas Errett (Graduated 12/93) B.S. Penn State M.S.**  
**Thesis:** *Modeling the sorption kinetics of hydrophobic organic  
compounds in soil/co-solvent systems*

**Karlin Danielsen (Graduated 12/94) B.S. New Mexico State  
MS Thesis:** *The partitioning of pyrene to sediment organic  
matter and humic substances, Completed Ph.D. Dept. of Civil  
and Environmental Engineering, University of Michigan*

**Angie Hess (Graduated 8/95) B.S. Millersville University M.S.**  
**Thesis:** *Physicochemical characterization of polymaleic acid:  
A synthetic humic substance analog,*

**Lili Wang (graduated 12/96) B.S. Tsinghua University M.S.**  
**Thesis:** *Adsorption of polymaleic acid, and fulvic acid by  
goethite*

**Steven Sacco (graduated 9/96) B.S. Cornell University  
M.S. Thesis:** *Metal complexation by dissolved organic matter*

**Edward O'Loughlin (Graduated, 10/97) B.S. Cleveland State  
M.S. The Ohio State University Ph.D. Dissertation:** *Binding of  
organotins to dissolved organic matter in sediment porewaters  
Current Position:* *Research Scientist Argonne National Lab*

**Chris Everett (graduated 10/97) B.S. The Ohio State  
University M.S. Thesis:** *Quantitative molecular weight*

*measurements by HPSEC of natural organic matter fractionated by ultrafiltration.*

**Monique Meier (graduated 6/98)** B.S. Grinnell College **M.S. Thesis:** *Sorption and fractionation of natural organic matter in surface and ground water in a small watershed*

**James Wood (graduated 6/98)** B.S. West Virginia Wesleyan **M.S. Thesis:** *Chemical feasibility of acid mine drainage abatement by injection of FGC by-products*

**Penney Miller (Graduated 6/01)** (*EPA STAR Fellowship Recipient*) B.S. Cedarville College; M.S. University of Illinois-Champaign/Urbana **Ph.D. Dissertation** *Photochemical transformation of agricultural pesticides promoted by natural water constituents in wetland surface waters*  
**Current Position:** *Associate Professor of Chemistry, Rose-Hulman Institute of Technology*

**Heath Mash (Graduated 3/01)** (*DoD Fellowship Recipient*) B.S. Old Dominion University **Ph.D. Dissertation** *A Critical Analysis of the Study of Analytical Procedures for the Study of Copper in the Presence of Organic Ligands*  
**Current Position:** *Research Scientist U.S. Environmental Protection Agency*

**Emily White (Graduated 9/00)** B.S. Tufts University **M.S. Thesis:** *Determination of Photochemical Production of Hydroxyl Radicals by Dissolved Organic Matter (EPA National Lab Internship and NOAA/NERR Fellowship Recipient), Ph.D. SUNY, ESF-Syracuse*  
**Current Position:** *Assistant Professor of Chemistry: Sewanee University of the South*

**Megan Gaberell (Graduated 6/01)** B.S. University of Wisconsin-Madison **M.S. Thesis:** *The Role of Natural DOM Composition on the Photoreduction of Cr(VI) in the Presence of Iron*

**Ted Klupinski (Graduated 6/02)** (*EPA STAR Fellowship Recipient*) B.S. Harvard; M.S. UC-Berkeley **Ph.D. Dissertation** *Degradation of Nitroaromatic Herbicides in Wetland Sediments*  
**Current Position:** *Research Scientist Battelle Memorial Institute*

**Sara Schwede-Thomas M.S. (Graduated 8/02)** B.S. Penn State **M.S. Thesis:** *The Suitability of Solid Phase Extraction by C-18 in the Characterization of DOM Along a Hydrologic Flowpath in the Weeks Bay Watershed, AL*

**Michelle Raquette (Graduated 12/03)** B.S. Ball State **M.S. Thesis:** *Effect of Membrane Composition and Natural Organic Matter in the Removal of Atrazine from Drinking Water using Tangential Flow Ultrafiltration*

**Lingke Zeng ( Graduated 3/04)** B.S. Nanjing University **M.S. Thesis:** *Indirect Photolysis Of Bisphenol A With Dissolved Organic Matter In Surface Water*

**Kaelin Cawley (Graduated 6/05)** B.S. The Ohio State University, **M.S. Thesis:** *The Sensitized Photolysis Of 2,4,6-Trimethylphenol, Atrazine And Metolachlor In A Temperate Eutrophic Wetland, Completed Postdoc Colorado School of Mines Ph.D. Dept. of Civil, Environmental, and Architectural Engineering, University of Colorado, Postdoc Colorado School of Mines*

**Angela Paolucci (Graduated 9/05)** B.S. SUNY-Binghamton **M.S. Thesis:** *Photolysis of tetracycline in the presence of dissolved organic matter (DOM), Ca<sup>2+</sup> and Mg<sup>2+</sup> as a function of pH*

**Jacqueline Alexandra Hakala (Graduated 3/08)** (EPA STAR Fellowship Recipient) B.S. Princeton University **Ph.D. Dissertation:** *Transformation of Nitroaromatic Pesticides by Fe(II) and DOM, Current Position: Research Scientist, NETL-DOE Lab*

**Laura Jacobs (Graduated 9/08)** B.S. Clemson, M.S. Vanderbilt (NOAA/NERR Fellowship Recipient) (co-advised with Linda Weavers) **PhD. Dissertation:** *Phototransformation of the Three PAHs, Ibuprofen, and Caffeine in Natural Waters* **Current Position:** *National Academies Senior Program Manager*

**Tamara Trouts (Graduated 9/08)** B.S. Wheeling Jesuit University, M.S., *Photolysis of Metolachlor and Triclocarban Sensitized by Natural Water Constituents*

**Sheela Agrawal (Graduated 4/09)** B.S. Duke University (NSF Graduate Fellowship Recipient) **Ph.D. Dissertation:** *Cr(VI)*



*reduction by Fe(II)-dissolved organic matter complexes and the characterization of pore water dissolved organic matter from a coastal freshwater wetland in the Laurentian Great Lakes* **Current Position:** *USDA CSRS Postdoctoral Fellow*

**Jennifer Guerard (Graduated 8/09)** B.S. Rose-Hulman Institute of Technology (*EPA STAR Fellowship Recipient*) **Ph.D. Dissertation:** *The characterization of dissolved organic matter and its influence on the photochemical fate of antibiotics used in aquaculture* **Current Position:** *Assistant Professor, University of Alaska-Fairbanks*

**Collin Ward (Graduated 6/10)** B.S. The Ohio State University (*NOAA-NERR Fellowship Recipient*) **M.S. The Photo-fate of Polycyclic Musk Fragrances and PAHs at Old Woman Creek, Ohio, Ph.D. University of Michigan, Current Position:** *Assistant Scientist, Woods Hole Oceanographic Institute*

**Kate Ziegelgruber (Graduated 5/10)** B.S. Depauw University **M.S. Sediment Pore Water Dissolved Organic Matter in North Dakota Prairie Wetlands,**

**Marcella Card (Graduated 7/11)** B.S. University of Iowa (*NSF Graduate Fellowship Recipient*) **Ph.D. Dissertation,** *Interactions among Soil, Plants, and Endocrine Disrupting Compounds in Livestock Agriculture* **Current Position:** *ORISE Postdoctoral Associate, US EPA.*

**Maureen Langlois (Graduated 8/11)** B.S. Washington University (co-advised with Linda Weavers) **M.S. Student** *Using Photoreactivity as a Holistic Indicator to Assess the Effects of Water Sampling Procedures on Sample Representativeness in Environmental Fate Studies*

**Allison Jean Kreinberg (Graduated 6/12)** B.S. Miami University **M.S. Student,** *The Sorption and Transformation of Tylosin and Progesterone by Soils*

**Joseph Voyles (Graduated 11/13)** B.S. The Ohio State University **M.S. Student** *Geochemical Microelectrodes for the In Situ Monitoring of Metals Concentration and Mobility in Contaminated Sediments*

**Cleo Davie-Martin (Graduated 3/15 and co-advised with Dr. Kimberly Hageman at the University of Otago)** B.S.

University of Otago, *Ph.D. Student at the University of Otago, Dunedin, NZ, Ph.D. Dissertation: Understanding processes affecting the local- and global-scale distribution of semi-volatile organic contaminants, Current Position: Postdoctoral Associate, Oregon State University*

**Rachel May Adams (Graduated 4/15)** B.S. University of Utah  
**M.S. Student (NSF Graduate Fellowship Recipient:)**  
*Transformation of Chlorpyrifos and Chlorpyrifos-Methyl in Prairie Pothole Pore Water*

**Maya Wei-Haas (Graduated 6/15)** B.S. Smith College (NSF Graduate Fellowship Recipient) **Ph.D. Student** *The Influence of Dissolved Organic Matter on the Fate of Polybrominated Diphenyl Ethers (PBDEs) in the Environment, Current Position: Associate Editor National Geographic*

**Molly Semones** B.S. Ohio University (NSF Graduate Fellowship Recipient) **Ph.D. Student** *Dynamics in the reactivity and photochemical production of hydroxyl radical in treated wastewater effluent and aquatic dissolved organic matter*  
**Current Position:** NOAA Fellow

**Katie Albanese** B.S. North Carolina State (co-advised with Roman Lanno) **Ph.D. Student** *Photochemistry and Toxicity of Triclosan, Triclocarban, and their Photoproducts and Mixtures in Freshwater Systems*  
**Current Position:** Battelle Institute

**Chenyi Yuan** B.S. Beijing University (co-advised with Linda Weavers) **Ph.D. Student (University Fellow)**  
*The Photofate of Pesticides and Dissolved Organic Matter in Diverse Aquatic Systems*  
**Current Position:** U.S. EPA ORISE Fellow

**Brandon McAdams** B.S. Denison University, M.S. OSU,  
**Ph.D. Student** *Relationships between reduced sulfur and dissolved organic matter in prairie pothole wetlands*  
**Current Position:** Research Scientist, NETL-DOE Lab

*Current Students at University of Delaware:*

**Jeff Hudson** B.S. Michigan State University, M.S. Western Michigan University

**Lauren O’Conner** B.S. Union College

**Patricia Hurley** B.S. Rowan University

**Anthony Sigman-Lowery** B.S. Swarthmore College

**Student  
Awards:**

*EPA STAR Fellows:*

**Penney Miller**

**Ted Klupinski**

**J. Ale Hakala**

**Jenn Guerard**

*NSF Graduate Research Fellows:*

**Sheela Agrawal**

**Marcy Card**

**Maya Wei-Haas**

**Molly Semones**

**Rachel Anderson**

*NOAA NERR Fellows:*

**Emily White**

**Laura Jacobs**

**Collin Ward**

*ACS Environmental Chemistry Division Graduate Awards*

**Ed O’Loughlin**

**Heath Mash**

**Penney Miller**

**Ted Klupinski**

**J. Ale Hakala**

**Laura Jacobs**

**Sheela Agrawal**

**Jenn Guerard**

**Marcella Card**

**Maya Wei-Haas**

*ACS Ellen Gonter Graduate Student Paper Award*

**J. Ale Hakala**

**Laura Jacobs**

**Jenn Guerard**

**Marcella Card**

**Maya Wei-Haas**

*NSF International Postdoctoral Research Fellows*

**Jenn Guerard (EPFL, Switzerland)**

**Marcella Card (University of Queensland, Australia and  
EAWAG, Switzerland)**

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