

Eric J. Weber, Research Chemist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

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Area of Expertise: My area of expertise is the transformation of organic pollutants in natural systems, primarily emphasizing reaction mechanisms, kinetics and the elucidation of transformation pathways. My work focuses on the development of the Chemical Transformation Simulator (CTS). The CTS integrates cheminformatics applications for the encoding of process science underlying transformation pathways with software technologies that allow for the high through put calculation of p-chem properties for both the parent chemical and predicted transformation products, as well as the retrieval of measured data required for the parameterization of environmental fate models.

Select Publications:

Washington, J.W., T.M. Jenkins, E.J. Weber. 2015. Identification of Unsaturated and 2H Polyfluorocarboxylate Homologous Series, and Their Detection in Environmental Samples and as Polymer Degradation Products. *Environ. Sci. Technol.* 49: 13256-13263.

Card, M., E.J. Weber and C.T. Stevens. 2015. Comparing Metabolite Biotransformation Simulators for Sensitivity and Selectivity toward Mammalian and Microbial Metabolites. Submitted for publication in *Environ. Sci. Technol.*

Zhang, H. and E.J. Weber. 2013. Identifying Indicators of Reactivity for Chemical Reductants in Sediments. *Environ. Sci. Technol.* 47: 6959–6968.

Zhang, H. and E.J. Weber. 2009. Elucidating the Role of Electron Shuttles in Reductive Transformations in Anaerobic Sediments. *Environ. Sci. Technol.* 43: 1042–1048

Colón, D., E.J. Weber and J.L. Anderson. 2008. Effect of Natural Organic Matter on the Reduction of Nitroaromatics by Fe(II) Species *Environ. Sci. Technol.* 42: 6538–6543

Hakala, J.A., Y.-P. Chin and E.J. Weber 2007. Influence of Dissolved Organic Matter and Fe(II) on the Abiotic Reduction of Pentachloronitrobenzene. *Environ. Sci. Technol.* 41: 7337–7342

View more research publications by [Eric Weber](#).

Education:

- Ph.D. Organic Chemistry, University of Illinois, 1985

- B.S. Chemistry, Bowling Green State University, 1980

Professional Experience:

- Research Chemist, USEPA, ORD, NERL, Athens, GA 2009 to present
- Acting Director, USEPA, ORD, NERL-ERD, Athens, GA 2005-2009
- Acting Office Director, USEPA, ORD, OSP, Washington D.C. 2007 (120-day detail)
- Research Chemist, Center for Computational Toxicology, USEPA 2005
- Research Chemist, USEPA, ORD, NERL-ERD, Athens, GA 1986-2005
- National Research Council Research Associate, USEPA, ORD, NERL-ERD, Athens, GA 1985-1986

Honors and Awards:

- Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices for serving on the Nonylphenol and Nonylphenol Ethoxylates Action Development Group (2015)
- ORD Teamwork Award for serving on the Endocrine Active Pharmaceuticals (EAP) Team (2013)
- Bronze Medal for Service to the ORD Computational Toxicology Design Team (2003)
- Bronze Medal for Promoting Strong Science in Agency Decisions (2003)
- Science Achievement Award for Exceptional Scientific Contributions in Enhancing the Agency's Capability to Understand & Predict the Chemical Reduction of Organic Pollutants in Anoxic & Aquatic Environments (2002)
- Gold Medal for HWIR Model Development Team for 3MRA/HWIR (2000)
- Bronze Medal for Outstanding Service to EPA's Hazardous Waste Identification Project, (1994)
- Arthur S. Flemming Award "Outstanding Research on the Transport and Transformation of Organic Pollutants in Aquatic Ecosystems"(1995)
- EPA/ACS Science Achievement Award in Chemistry for "Outstanding Leadership in Discovering and Defining Important Zero-valent Iron Reactions with Groundwater Contaminants, and Applying These Advances in Chemistry to Environmental Problems" (1997)