Jody Shoemaker, Research Chemist, in EPA's National Exposure Research Laboratory

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Area of Expertise: Jody is a principal investigator for projects involving the development of standardized analytical methods for organic chemicals in drinking water and ambient water. The drinking water methods are usually adopted into Federal Regulations for the monitoring of drinking water under the Safe Drinking Water Act and used in Unregulated Contaminant Monitoring Regulations to determine nationwide occurrence of targeted organic contaminants that are listed on the drinking water Contaminant Candidate List (CCL) or are contaminants of emerging concern. The standardized ambient water analytical methods may be used to measure chemical contaminants under the Clean Water Act. Typical procedures employed include sample extraction and concentration followed by gas chromatography/mass spectrometry (GC/MS) or liquid chromatography/tandem mass spectrometry (LC/MS/MS). Jody was co-principal investigator on the development of seven EPA drinking water methods for measurement of pesticides, pesticide degradates, perfluoroalkyl acids, and cyanotoxins.

Select Publications:

D.R. Tettenhorst and J.A. Shoemaker, Development and multi-laboratory verification of US EPA method 540 for the analysis of drinking water contaminants by solid phase extraction-LC/MS/MS," *Analytical Methods,* (2014), 6(3), 930-939.

J.A. Shoemaker, "Development and multi-laboratory verification of U.S. EPA method 538 for the analysis of drinking water contaminants by direct aqueous injection-LC/MS/MS," *Anal. Methods*, (2011), 3, 1628-1636.

M.D.W. Ward M.J. Donohue, Y.J. Chung, L.B. Copeland, J.A. Shoemaker, S.J. Vesper, and M.K. Selgrade, "Human Sera IgE Reacts with a *Metarhizium anisopliae* Fungal Catalase," *Int. Arch. Allergy Imm.*, (2009), 150(4), 343-351.

J.A. Shoemaker, B. Boutin, P. Grimmett, "Development of a U.S. EPA Drinking Water Method for the Analysis of Selected Perfluoroalkyl Compounds by Solid-Phase Extraction and LC/MS/MS" *Journal of Chromatogr. Sci.*, (2009), 47(1), 3-11.

M.G. Antoniou, J.A. Shoemaker, A.A. De La Cruz, D.D. Dionysiou, "Unveiling New Degradation Intermediates/ Pathways from the Photocatalytic Degradation of Microcystin-LR," *Environ. Sci. & Technol.* (2008), 42(23), 8877-83.

M.J. Donohue, A.W. Smallwood, S. Pfaller, M. Rodgers, J.A. Shoemaker, "The Development of a Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry-Based Method for the Protein Fingerprinting and Identification of *Aeromonas* Species using Whole Cells," *Journal of Microbiological Methods*, (2006), 63(3), 380-389.

View more research publications by Jody Shoemaker.

Education:

- Ph.D. Chemistry, University of Florida, 1991
- B.S. Chemistry, Notre Dame College of Ohio, 1986

Professional Experience:

- Research Chemist, USEPA, ORD, NERL-EMMB, Cincinnati, OH 1991-present

Honors and Awards:

- U.S. EPA, Office of Water Achievement in Science and Technology Award, 2015
- U.S. EPA, Office of Research and Development Bronze Medal, 2015
- Federal Service Excellence Award Nomination, 2015
- NERL Exposure Science Excellence Award, 2013
- Level III, Scientific and Technological Achievement Award, 2011
- NERL Special Achievement Award: Goal 1-Support the Agency's Mission, 2010
- EPA National Honor Award: Science Achievement Award, 2009
- Level III, Scientific and Technological Achievement Award, 2009
- Honorable Mention, Scientific and Technological Achievement Award, 2008
- U.S. EPA, Office of Research and Development Bronze Medal, 2007
- Level III, Scientific and Technological Achievement Award, 2005
- U.S. EPA, Office of Research and Development Bronze Medal, 2003
- Level III, Scientific and Technological Achievement Award, 2002