# Elin Ulrich, Research Chemist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division Mailing Address

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Area of Expertise: Elin's current research focuses on developing methods and tools for non-targeted analysis to more rapidly sequence the exposome. She co-organized a non-targeted analysis workshop held in RTP, NC August 18-19, 2015 that hosted over 100 attendees. She also continues to develop traditional targeted analysis methods and field collection procedures for application in children's exposure studies. She is active in the Chemical Safety for Sustainability (CSS) "Rapid Exposure and Dose" project and the Sustainable and Healthy Communities (SHC) "Assessing Environmental Health Disparities in Vulnerable Groups" project. She is also contributing to two Pathfinder Innovation Projects (PIP5) on "Building a Network to Measure the Totality of Chemical Exposures" and "Development of a Novel Method to Estimate Children's Dust Ingestion." Elin is also an expert in the separation and analysis of chiral pesticides.

#### **Select Publications:**

- E. Ulrich, J. Starr, and T. Slagle Feasibility research on alternative approaches for sampling and extraction methods in the TO-4A method for pesticides in ambient air with analysis by GC/MS and LC/MS/MS; EPA/600/R-15/039; US Environmental Protection Agency: RTP, NC, 2015; p 56.
- W. Weathers, M. Colón, A. Hines, and E. M. Ulrich "Use of fluorinated polybrominated diphenyl ethers and simplified cleanup for the analysis of polybrominated diphenyl ethers in housedust" Journal of Chromatography A 2014, 1356, 266-271.
- C. Tan, C. Dary, D. Chang, E. M. Ulrich, J. Van Emon, J. Xue, J. Pleil, J. F. Kenneke, J. Sobus, L. S. Sheldon, M. Morgan, R. Goldsmith, R. Tornero-Velez, R. Highsmith, R. Fortmann, T. Collette and V. Zartarian Biomonitoring An Exposure ScienceTool for Exposure and Risk Assessment; EPA/600/R-12/039; US Environmental Protection Agency: RTP, NC, 2012; p 34.
- E. M. Ulrich, C. N. Morrison, M. R. Goldsmith, and W. T. Foreman "Chirality in agrochemicals" Reviews of Environmental Contamination and Toxicology 2012, 217, 1-74.
- E. M. Ulrich and R. L. Falconer "Chiral chlordane components in environmental matrices" In Chiral Pesticides: Stereoselectivity and Its Consequences, Garrison, A. W.; Gan, J.; Liu, W., Eds. American Chemical Society: Washington, DC, 2011; 1085, 11-43.

E. M. Ulrich, W. T. Foreman, P. C. Van Metre, J. T. Wilson, and S. A. Rounds. "Enantiomer fractions of chlordane components in sediment from U.S. Geological Survey sites in lakes and rivers" Science of the Total Environment, 2009, 407(22), 5884-5893.

View more research publications by Elin Ulrich.

### **Education:**

- Ph.D., Analytical Chemistry; Environmental Science, Indiana University, 2000
- B.A., Chemistry; Computer Science, Augustana College, 1995

## **Professional Experience:**

### Honors and Awards:

- 2014 US EPA Level III Scientific and Technological Achievement Awards for Reviews of Chiral Pesticides (with Michael R. Goldsmith, Renee L. Falconer, Candice N. Morrison, and William T. Foreman)
- US EPA ORD Diversity Awards-Non Supervisor for practicing the principles of diversity and inclusiveness resulting in a highly efficient and successful research organization (with Analytical Methods for Human Exposure Characterization Team, 2013)
- SETAC Presidential Citation for promotion and support for the activities of the Society (2012, 2015)
- US EPA Exceptional/Outstanding ORD Technical Assistance to the Regions or Program Offices (with Pyrethroid Cumulative Risk Team, 2008)
- US EPA Special achievement award recipient for Health and Safety (2006)