Carolyn Acheson, Chemical Engineer in EPA's National Risk Management Research Laboratory

Land and Materials Management Division
Mailing Address

acheson.carolyn@epa.gov

Areas of Expertise: Polycyclic aromatic hydrocarbons; chlorinated solvents; alkyl phenol ethoxylates and their degradation products; and per- and poly-fluorinated alkyl substances (PFAS). Current research efforts include evaluating attenuation of chemicals when biosolids are land applied, evaluating PFAS transformation and partitioning in model wastewater reactors, and characterizing contaminated sites where PFAS products were used.

Select Publications:

C.A. Lebron, P. Dennis, C. **Acheson**, N. Barros, D. Major, E. Petrovskis, F. Loeffler, K. Ritalahti, C. Yeager, E. Edwards, J. Hatt, and D. Ogles. 2013. Final Report -Standardized Procedures for Use of Nucleic Acid-Based Tools, SERDP Project ER-1561. Department of Defense Strategic Environmental Research and Development Program, Project ER-1561.

C. **Acheson**, R. Herrmann, E. Foote, S. Naber, R. Brenner, T. Dahling, S. Stoll, T. Stock, S. Wright, L. Zintek, M Graves-Allen, J.L. Heckman, J. Tompkins, and S. VonderHaar. 2012. "Task 3. Land Sampling Results," Multimedia Sampling During The Application Of Biosolids On A Land Test Site (EPA/600/R-11/020). U.S. Environmental Protection Agency, pp 55-81.

M. Harkness, A. Fisher, M. Lee, E.E. Mack, J.A. Payne, J. Roberts, S. Dworatzek, A. Possolo, and C. **Acheson**, 2012. "Reductive Dechlorination of High Levels of TCE in a Multi-lab, Statistically-based Microcosm Study," *Journal of Contaminant Hydrology* 131: 100–118.

C.A. Lebron, C. **Acheson**, C. Yeager, D. Major, E. Petrovskis, N. Barros, P. Dennis, X. Druar, J. Wilkinson, E.Ney, F. Loeffler, K. Ritalahti, J. Hatt, E. Edwards, M. Duhamel, and W. Chan, 2008. An Overview of Current Approaches and Methodologies to Improve Accuracy, Data Quality and Standardization of Environmental Microbial Quantitative PCR Methods. Department of Defense Strategic Environmental Research and Development Program, Project ER-1561.

Rawe, J., V. Hodge, C. M. **Acheson**, C. Lutes, and D. Liles. In Situ and Ex Situ Biodegradation Technologies For Remediation Of Contaminated Sites (Engineering Issue). EPA/625/R-06/015, 2006.

C.M. **Acheson**, Q. Zhou, Y. Shan, G.D. Sayles, and M.J. Kupferle, 2004. "Comparing the Solid Phase and Extract Microtox Assays for Two PAH Contaminated Soils," *Environmental Toxicology and Chemistry* 23: 245-251.

View more research publications by Carolyn Acheson.

Education:

- Ph.D., Cornell University, Ithaca, NY; Chemical Engineering, 1995
- B.S., University of Delaware, Newark, DE; Chemical Engineering (minor Biology), 1987

Professional Experience:

Workgroup/Project Leads

- Remediation Technology Development Forum – Bioremediation Consortium, Co-Chair, 2001 to 2009
- Technical recommendations to the Socialist Republic of Vietnam regarding bioremediation of Agent Orange through the Ford Foundation's Special Initiative on Agent Orange/Dioxin, 2007

Awards and Honors

- ORD Bronze Medal for exceptional leadership in developing multimedia methods for PFAS, PFAS Team (2017)
- Exceptional ORD Technical Assistance to the Regions, Engineering Technical Support Center (2014)
- Office of Pollution Prevention and Toxics, Mission Award for Implementation of the Biodeg SEP and Monitoring MOUs for PFOA (2007)
- Office of Pollution Prevention and Toxics, Bronze medal for continuing support provided to the Perfluorooctyl Sulfonate (PFOS) and the Perfluorooctanoic Acid (PFOA) Team, (2006)
- EPA Science and Technology Achievement Award (STAA) for use of chemical and toxicity assays to understand the performance of bioremediation of wood-treating impacted soil (2000)