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Sandrine E. Déglin, Ph.D.
Senior Scientist

Professional Profile

Dr. Sandrine E. Déglin is a Senior Scientist in Exponent's Health Sciences Center for Toxicology and Mechanistic Biology. Dr. Déglin has 8 years of experience in chemistry, environmental science, and public and environmental health. She has worked on a variety of scientific assessments to evaluate the effects of persistent organic pollutants.

Dr. Déglin completed her graduate education in France and the U.S., and acquired experience in the fields of applied chemistry, risk assessment, and risk communication through several internships. In particular, she conducted an assessment of the risk of Creutzfeldt-Jakob disease and other microbiological risks associated with land application of sludge produced in wastewater treatment plants of slaughter houses.

Dr. Déglin worked on several short- and long-term research projects through which she acquired experience in the field of industrial and domestic wastewater treatment. She has broad expertise in dermal absorption of a variety of organic chemicals. Her doctorate research was on dermal absorption of low-volatility organic chemicals from soils. Her thesis is relevant to the work of EPA in establishing new risk assessment guidelines for exposure to contaminated soils.

Academic Credentials and Professional Honors

Ph.D., Chemistry, Colorado School of Mines, 2007
M.S., Public Health, National School of Public Health, France, 2002
M.S., Chemistry, National School of Chemistry, France, 2001
M.S., Environmental Science and Engineering, Colorado School of Mines, 2001

Publications and Reports

Déglin SE. Dermal absorption of low volatility organic chemicals from contaminated soils. Ph.D. Dissertation, Colorado School of Mines, 2007.

Déglin SE. Epandage des boues de stations d'epuration d'abattoirs de ruminants: Quel risque microbiologique? Ecole Nationale de la Santé Publique (Rennes, France), 2002.

Presentations

Déglin SE, Macalady DL, Bunge AL. Dermal absorption from contaminated soils: Importance of soil solubility. Poster and workshop, International Conference on Occupational and Environmental Exposures of Skin to Chemicals, Golden, CO, 2007.

Déglin SE, Macalady DL, Bunge AL. Absorption from contaminated soil into skin and silicone rubber membranes. Poster, International Conference on Perspectives in Percutaneous Penetration, La Grande Motte, France, 2006.

Déglin SE, Macalady DL, Bunge AL. Absorption from contaminated soil into skin and model membranes. Poster, Gordon Research Conference on the Barrier Functions of Human Skin, South Hadley, MA, 2005.

Déglin SE, Macalady DL, Bunge AL. Absorption from contaminated soil into skin and model membranes. Poster, Society of Toxicology Meeting, San Diego, CA, 2005.

Déglin SE, Macalady DL, Bunge AL. Absorption from contaminated soil into skin and model membranes. Poster, International Conference on Occupational and Environmental Exposures of Skin to Chemicals, Stockholm, Sweden, 2005.

Déglin SE, Macalady DL, Bunge AL. Dermal absorption from soil: Model membrane studies. Poster, International Conference on Perspectives in Percutaneous Penetration, La Grande Motte, France, 2004.

Prior Experience

Ph.D. Project, Colorado School of Mines, 2003–2007
Internship, National Institute of Industrial Environment and Risk, May 2002–August 2002
Research Assistant, Colorado School of Mines, 2000–2001
Internship, Nuclear Power Plant of Cattenom (France), April 2001–July 2001
Internship at the Water Agency Rhine Meuse (France), June 2000–August 2000

Project Experience

Researched the dermal absorption of low volatility organic chemicals from soils. Project was funded by EPA.

Assessed the microbiological risks associated with land application of sludge produced in wastewater treatment plants of slaughterhouses.

Participated in a study on the treatment of septic tank effluents by infiltration through soil. Project was funded through the EPA program on National Decentralized Water Resources Capacity Development.

Developed several procedures to improve the traceability and on-site management of hazardous (non radioactive) substances at the Nuclear Power plant of Cattenom (France). Focused on risk-communication pertaining to chemical handling.

Worked on the follow up of nitrogen compounds in the wastewater treatment plant of a paper mill in Clairefontaine (Vosges, France). Project was funded through the Rhine-Meuse water agency, depending on the French Ministry of the Environment.