

Meet the Authors



Karen A. Hudson-Edwards is a reader in environmental geochemistry and mineralogy at Birkbeck, University of London. Her research focuses on understanding contaminant, nutrient, and water cycling in Earth-surface environments. Specific topics of interest include the cycling of contaminants in mining-affected environments, mechanisms of arsenic and manganese pollution

of groundwater, formation and stability of biogenic sulfate minerals, and processes and products of weathering. She is on the editorial boards of *Journal of Geochemical Exploration* and *Mineralogical Magazine*, and currently serves as publications manager for the Mineralogical Society of Great Britain and Ireland.



Heather E. Jamieson is a professor in the Department of Geological Sciences and Geological Engineering at Queen's University, Kingston, Canada. She also holds an appointment and teaches courses in the School of Environmental Studies at Queen's. Her expertise is in the area of environmental geochemistry, particularly the mineralogical controls on the mobility of metals and

metalloids (notably arsenic) in mine waste and the application of synchrotron-based X-ray experiments and other microanalytical methods to metal speciation in mine tailings, soils, sediments, and household dust. Much of her fieldwork is in the Canadian Arctic, but she has also conducted research in Nova Scotia, California, Montana, Spain, and Australia.



Kim L. Kasperski is a senior research scientist with Natural Resources Canada, a Canadian government department. She holds a PhD in physical chemistry from the University of Alberta and has worked in research related to oil sands for over twenty years. In the past ten years, her research team has worked mainly on problems related to water and tailings in oil sands mining and more

recently in water issues associated with in situ operations. She has appeared before House of Commons committees as an expert witness on oil sand water issues and has written several reviews on oil sand topics.



Bernd G. Lottermoser is New Star Professor in environmental geochemistry at the University of Tasmania, Hobart, Australia. In his varied career, he has worked in the mining industry and also in research and teaching at Australian, German, and British universities. His work has been recognized by a German Humboldt Research Fellowship, an Erasmus Mundus Fellowship of the European

Union, and, from the Australian government, an Endeavour Executive Award and the Michael Daly Award for Excellence in Science Communication. His current research interests focus on mineralogical and geochemical aspects of degraded lands, mine-site rehabilitation, and mine wastes, areas in which he has written an acclaimed textbook and original papers.



Randy J. Mikula is the former leader of the Canadian federal government's Natural Resources Canada research effort on oil sands tailings. With over 25 years in oil sands research, his work has ranged from the development of more efficient extraction processes to mitigating the environmental impact of oil sands development. He is currently principal scientist at Kalium Research, a

new company devoted to responsible development of Canada's oil sands resource. Randy has a BSc in chemistry (magna cum laude) from the

University of Saskatchewan and a PhD in chemistry from the University of British Columbia. In 2003 Randy was elected as a Fellow of the Canadian Institute of Chemistry.



Suzette A. Morman is a research geologist with the U.S. Geological Survey in Denver, Colorado. Suzette began her professional career as a registered nurse. She received a BS in geology from the University of South Florida, an MS in geology from the University of Alabama, and a master's degree in public health from the University of Colorado.

Her current research focuses on the use of simulated biofluids to elucidate and estimate health risks to humans from exposure to geogenic materials (soils, dusts, wildfire and volcanic ash). Other research interests include linking geological and public health databases to assess morbidity, and the effects of climatic variability on dry lands and the implications for human health



D. Kirk Nordstrom is a senior scientist with the National Research Program of the U.S. Geological Survey at Boulder, Colorado. He has been a USGS project chief for the last 31 years, concentrating on mine waste geochemistry, arsenic geochemistry, radioactive waste geochemistry, geothermal chemistry, thermodynamic-data evaluation, aqueous redox geochemistry and microbiology, and geo-

chemical modeling of water-rock interactions. He has coauthored (with Jim Munoz) a popular text, *Geochemical Thermodynamics*; has documented the occurrence of negative-pH mine waters; and has consulted with numerous state, federal, and foreign agencies on water-quality issues. He has been recognized with the GSA Birdsall-Dreiss Lecture Award, the DOI Meritorious Service Award, and the DOI Cooperative Conservation Award, and he is a Fellow of the GSA and the MSA.



Geoffrey S. Plumlee, a research geochemist with the U.S. Geological Survey since 1987, received his BSc in geology from the University of New Mexico (1980) and PhD in geochemistry from Harvard University (1989). Growing upon his early research in economic geology and the environmental geochemistry of mineral deposits, his current research applies geochemistry to the understanding of prob-

lems in human health and environmental disaster response/preparedness. He is an adjunct clinical assistant professor at the University of Colorado School of Public Health, is chair of the American Geosciences Institute Environmental Geoscience Advisory Committee, and was the 2008 chair of the Geological Society of America's Geology and Health Division.

Alphachron™

Automated, Turn-key Thermochemistry

- Automated laser heating for 25 samples under computer control
- Investigate secondary ore deposits and tectonic processes
- Thermal histories of mineral belts and petroleum basins
- Powerful tool for diamond exploration

Phone 61-2-6126 2100
Fax 61-2- 6280 4885

www.asi-pl.com