Meet the Authors

Michael Berg leads the Contaminant Hydrology group at the Swiss Federal Institute of Aquatic Science and Technology (Eawag). His research focuses on the occurrence, fate, and behavior of organic and inorganic contaminants in groundwater and surface water. Since 1998 he has been involved in environmental issues in Vietnam, Cambodia, and China, where arsenic and manganese contamination of groundwater is a major concern. A recent interest is the geospatial modeling of geogenic contaminants at local to global scales. As a result of his research, he received two *Environmental Science & Technology* top-paper awards and was given the Medal of Honour by the Government of Vietnam. He received a PhD from the University of Karlsruhe, Germany.

David A. Dzombak is the Walter J. Blenko, Sr. Professor of Environmental Engineering in the Department of Civil and Environmental Engineering at Carnegie Mellon University, Pittsburg. The emphasis of his research and teaching is on water-quality engineering, environmental remediation, and energy–environment issues. He earned a PhD in civil and environmental engineering from the Massachusetts Institute of Technology, an MS in civil and environmental engineering and a BS in civil engineering from Carnegie Mellon University, and a BA in mathematics from Saint Vincent College. He is a fellow of the American Society of Civil Engineers, a diplomate of the American Academy of Environmental Engineers, and a member of the National Academy of Engineering.

Kelvin B. Gregory is an assistant professor of civil and environmental engineering at Carnegie Mellon University in Pittsburgh, Pennsylvania. His research explores the microbiology, ecology, and fundamental interactions of bacteria with their physical and geochemical environment. He studied biological systems engineering as an undergraduate at the University of Nebraska and later received a doctorate in civil and environmental engineering from the University of Iowa; he then completed postdoctoral studies at the University of Massachusetts' Environmental Biotechnology Center. His current research interests lie in applied environmental biotechnology and biogeochemistry for the management of produced water from oil and natural gas production and the control of radionuclide contamination.

Janet G. Hering is the director of the Swiss Federal Institute of Aquatic Science and Technology (Eawag), a professor of environmental biogeochemistry at the Swiss Federal Institute of Technology, Zürich (ETHZ), and a professor of environmental chemistry at the Swiss Federal Institute of Technology, Lausanne (EPFL). She has degrees in chemistry from Cornell and Harvard Universities and a PhD in oceanography from the Massachusetts Institute of Technology–Woods Hole Oceanographic Institution Joint Program. She currently serves as a member of the Board of Reviewing Editors for *Science*. Her research interests include the biogeochemical cycling of trace elements in natural waters and water treatment technologies for the removal of inorganic contaminants from potable water.

Motomu Ibaraki is an associate professor in the School of Earth Sciences, Ohio State University. He conducts research on the human health and environmental/ecological problems that result from water contamination and insufficient water supplies caused by human activities. He also carries out research on scientific communication. His recent projects include the hydrological impact on parasitic disease transmission, wetland hydrology with the application of radar altimeter measurements, and water and energy sustainability.

C. Annette Johnson is a senior staff member of Eawag (Swiss Federal Institute for Aquatic Science and Technology). Her research focuses on the geochemical properties of inorganic geogenic and anthropogenic substances in soils and water. Her current interest is on the identification of fluoride-contaminated groundwaters and the development of fluoride-removal technologies for drinking water treatment. She received her BSc in chemistry and her PhD in applied geochemistry from the Royal School of Mines, Imperial College, London. She is a fellow of the American Chemical Society, the International Society for the Environmental and Technical Implications of Construction with Alternative Materials (ISCOWA), and the European Association of Geochemistry. She is a member of the Swiss Nuclear Waste Commission and is on the advisory board of *Environmental Science & Technology*.

Richard B. Johnston has degrees in environmental engineering from Johns Hopkins University (MSE) and the University of North Carolina at Chapel Hill (PhD). From 1996 through 1999 and again from 2004 through 2009, he worked with UNICEF on arsenic-mitigation projects in Bangladesh. Since 2009 he has led the Water Supply and Treatment group in the Department of Water and Sanitation in Developing Countries at Eawag, the Swiss Federal Institute of Aquatic Science and Technology. His current research deals with ongoing arsenic mitigation in Bangladesh, fluorosis mitigation in East Africa, and the field application of low-cost technologies for measuring and improving microbial water quality.

Eric H. Oelkers is a CNRS Research Director at the GET laboratory (CNRS UMR 5563) in Toulouse, France. His primary research area is the experimental determination of the thermodynamics/kinetics of mineral–fluid reactions and the application of this knowledge to the quantification of environmental processes and global cycles. Eric has served as president of the European Association of Geochemistry, director of the Geochemical Society, coeditor in chief of *Chemical Geology*, associate editor of *Geochimica et Cosmochimica Acta*, and member of the Executive Committee of *Elements*. One of Eric's main goals is to energize the Earth science community towards finding solutions for long-term sustainable development. Towards this goal, Eric has coedited the *Elements* issues "Phosphates and Global Sustainability" and "Carbon Dioxide Sequestration."

Frank W. Schwartz is a professor and Ohio Eminent Scholar in hydrogeology at The Ohio State University. His current research interests are in new technologies for the remediation of groundwater contaminated by chlorinated solvents; engineering-based, passive approaches for treating urban runoff; and climate influences on lakes and wetlands in the Prairie Pothole region of the United States and Canada. He is the recipient of several important awards for research and was elected as a fellow of the American Geophysical Union in 1992. He has served on several expert panels of the U.S. National Research Council and has chaired the committee responsible for reviewing the applicability of contaminant-transport models to contemporary problems in hydrogeology.

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Elizabeth Tilley is a PhD student at the Centre for Development and Cooperation at the Swiss Federal Institute of Technology, Zürich. Her previous work was on developing and improving appropriate sanitation technologies in developing countries, with a special focus on nutrient recovery from human waste. Currently, she is investigating economic drivers and tools for sanitation uptake, which could act as incentives and increase global coverage.

Henry Vaux Jr. is Professor Emeritus of Resource Economics at the University of California, Riverside. He is also Associate Vice President Emeritus of the University of California System. Currently, he is the chair of the Rosenberg International Forum on Water Policy, which promotes global dialogue on reduction of water-related conflicts and improvements in water policy. His research deals with the economics of water resources and water policy. He is a national associate of the U.S. National Academy of Sciences. He received his education at the University of California (BA) and the University of Michigan (MS, MA, PhD).

Radisav D. Vidic is a William Kepler Whiteford Professor and chairman of the Department of Civil and Environmental Engineering at the Swanson School of Engineering, University of Pittsburgh. He holds a BS in civil engineering from the University of Belgrade and received his graduate education in civil and environmental engineering from the University of Illinois (MS, 1989) and the University of Cincinnati (PhD, 1992). His research efforts focus on advancing the applications of surface science by providing fundamental understanding of molecular-level interactions at interfaces, developing novel physical/chemical water treatment technologies, managing water for Marcellus Shale development, and the reuse of impaired waters for cooling systems. He has published over 150 journal papers and conference proceedings on these topics.

Chen Zhu is a professor of geological sciences and public and environmental affairs at Indiana University and an adjunct professor at the University of Oslo, Norway. He received his PhD from Johns Hopkins University and completed a postdoctoral fellowship at Woods Hole Oceanographic Institution. His research interests are groundwater geochemistry and geochemical modeling of water–rock interactions. His recent work involves the kinetics of feldspar dissolution, geological carbon sequestration, and arsenic and antimony in the environment. He was the 2006 recipient of the John Hem Award from the National Ground Water Association and a Fulbright Scholar at the University of Oslo in 2009. He coauthored with Greg Anderson the textbook *Environmental Applications of Geochemical Modeling*.