Meet the Authors

Thilo von Berlepsch received a Diploma in Mechanical Engineering at the University of Hannover (Germany) and a PhD from the Ruhr-University of Bochum (Germany) on nuclear safety. After working in nuclear safety and nuclear regulation at an electricity utility that operated several nuclear power plants, he moved to DBE TECHNOLOGY GmbH (the German Company for Construction and Operation of Waste Repositories) where he headed the International Cooperation Department. He has been involved in many radioactive waste disposal projects. In addition, Thilo is an active member of several international working groups organized within the International Atomic Energy Authority (IAEA).

Evaristo J. Bonano is a senior manager at Sandia National Laboratories (SNL), a US National Nuclear Security Administration facility. He received his PhD in chemical engineering from Clarkson University (New York, USA) in 1980. He has spent 32 years working, in particular, on risk assessment and decision analysis for nuclear waste management. He was SNL's Lead Laboratory licensing manager during the preparation of the license application for the proposed geologic repository at Yucca Mountain (Nevada, USA) and assumed the senior program manager role following submittal to and docketing of the license application by the US Nuclear Regulatory Commission.

Rodney C. Ewing is the Frank Stanton Professor in Nuclear Security in the Center for International Security and Cooperation in the Freeman Spogli Institute for International Studies at Stanford University (California, USA) and is also a professor in the Department of Geological Sciences in the School of Earth, Energy & Environmental Sciences at Stanford. Ewing's research focuses mainly on nuclear materials and the geochemistry of radionuclides applied to permanent geologic disposal. Rod has written extensively on nuclear waste management. In 2006, he received the Lomonosov Medal of the Russian Academy of Sciences, and, in 2015, he received the Roebling Medal of the Mineralogical Society of America.

Bernd Grambow graduated from the Freie Universität Berlin (Germany), and is currently a professor (at "excellence" grade) at the École des Mines de Nantes (France). He holds the Chair on nuclear waste disposal in Nantes and is head of the Subatech laboratory in Nantes: Subatech is a French laboratory working on high-energy nuclear physics, on nuclear medicine, and on radiochemistry. Grambow is a former director of France's CNRS academic/industrial research network NEEDS (nuclear, environment, energy, waste, society), and his areas of expertise include radiochemistry, nuclear waste disposal, and radionuclide migration. In 2008, he received the Grand Prix Ivan Pechès of the French Academy of Science, and, in 2013, he became Chevalier of the Ordre des Palmes Académiques.

Bernt Haverkamp has been the Deputy Head of the Department for International Cooperation at DBE TECHNOLOGY (Germany) since 2004. He received a Diploma and a PhD in geophysics from the Westfälische-Wilhelms-Universität Münster (Germany). Before joining DBE TECHNOLOGY in 2002, he worked for 10 years for its parent company DBE, the German company for construction and operation of repositories for radioactive waste, where he was mainly involved in the geoscientific surface and underground investigation of repository sites. In his current position, Bernt has participated in several international projects on the management of radioactive waste and the evaluation of repository concepts for different host rocks.

Allan Hedin is a senior company specialist in post-closure safety assessments at the Swedish Nuclear Fuel and Waste Management Co. (SKB). He was the manager for the safety assessment known as SR-Site, which formed the basis for SKB's license application to build a final repository for spent nuclear fuel at the Forsmark site in south-central Sweden. Allan Hedin received his MS in engineering physics from the University of Uppsala in 1983 and his PhD in ion physics from the same university in 1987. He has been employed by SKB since 1994.

Boris T. Kochkin is a principal scientist at the Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Russian Academy of Sciences (IGEM RAS), Moscow. He received his PhD on the geology of sandstone-hosted uranium deposits in 1988 (IGEM RAS) and a DSc degree in 2002 (IGEM RAS). Since 1990, he has been studying the geological disposal of radioactive waste. He participated in evaluating the long-term isolation of radioactive wastes at both the Mayak Production Association site (aka PA "Mayak", South Urals) and at the Yeniseisky site (Siberia). He was a member of a working group for the Russian regulation of geologically disposing of radioactive waste.

Nikolai P. Laverov has been an Academician of the Russian Academy of Sciences since 1987 and is a specialist in the fields of ore deposits, radiogeology, radiogeoecology, waste forms development and the geological disposal of radioactive waste. He is a scientific leader of the Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Russian Academy of Sciences. Laverov has authored or coauthored some 500 papers, has been Vice President of the Russian Academy of Sciences, and is currently a member of the Presidium of the Russian Academy of Sciences.

Victor I. Malkovsky is principal scientist in the Laboratory of Radiogeology and Radiogeoecology at the Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Russian Academy of Sciences and is Professor in Mathematical Modeling at Moscow's D. Mendeleyev University of Chemical Technology of Russia. He received his PhD in thermophysics in 1980. His research focuses on theoretical and experimental studies of how elements migrate and accumulae in geological media, including how radionuclides from radioactive wastes migrate from underground repositories. He is a member of scientific and technical council of Russia's Rosatom Energy State Corporation.

Daniel S. Metlay is a member of the Senior Professional Staff of the US Nuclear Waste Technical Review Board (NWTRB). Daniel Metlay received his BS degrees from the California Institute of Technology (USA) in molecular biology and medieval history. He received his Masters and Doctoral degrees in political science from the University of California, Berkeley. He taught political science at Indiana University and at the Massachusetts Institute of Technology (USA). Dr. Metlay has authored numerous publications dealing with technology policy, regulation, organization behavior, and radioactive waste. In June 2012, he testified before the Senate Environment and Public Works Committee on consent-based siting processes from radioactive waste repositories.

Olle Olsson received his PhD in applied geophysics from the University of Luleå (Sweden) in 1978 and, after working in Sweden's nuclear waste program since the 1980s, he recently retired from the position of Vice President of the Swedish Nuclear Fuel and Waste Management Co. (SKB). From 1995 to 2001, he was the director of SKB's underground research facility, the Äspö Hard Rock Laboratory. Starting in 2002, he managed the investigations of two potential Swedish repository sites and was responsible for preparation of the license application for the proposed Forsmark nuclear waste site, located ~150 km north of Stockholm. He has been a member of the Royal Swedish Academy of Engineering Sciences since 2003.

Peter N. Swift is a senior scientist at Sandia National Laboratories in Albuquerque (New Mexico, USA). He received his PhD in geosciences from the University of Arizona in 1987, and he has had lead roles in evaluating the potential for long-term isolation of radioactive wastes at both the Waste Isolation Pilot Plant in New Mexico and the proposed Yucca Mountain repository in Nevada (USA). He is currently the National Technical Director of the US Department of Energy's Used Nuclear Fuel Disposition R&D Campaign, providing technical leadership on secure storage, transportation, and disposal of spent nuclear fuel and high-level radioactive wastes.

Robert A. Whittleston received his PhD in geochemistry from the University of Leeds (UK) in 2011. From 2012 to 2015, he was a research manager at Radioactive Waste Management Limited, a wholly owned subsidiary of the UK Nuclear Decommissioning Authority. He was responsible for providing the science that underpins the UK's geological disposal program. Prior to his current position as a Policy Lead at the Department of Transport (UK), Rob was a senior research manager at Hitachi Europe Ltd., establishing and managing collaborative R&D projects with UK institutions and government in support of the UK Advanced Boiling Water Reactor (new build) and the Fukushima Nuclear Power Plant (Japan) decommissioning programs.

Bruce W.D. Yardley is currently Chief Geologist for Radioactive Waste Management Limited, the UK body tasked with geological disposal, and he recently retired as Professor of Metamorphic Geochemistry in the School of Earth and Environment at the University of Leeds. His research concerns fluid–rock interactions in the crust and has embraced a range of settings and approaches. These include metal transport in hydrothermal ores, the effect of carbon sequestration on rock properties, and the controls on retrograde reactions between crystalline rocks and introduced water, as well as studies of deeper processes. His recent publications include the special *Geochemical Perspectives* issue "Fluids in the Continental Crust" (2014, with Robert Bodnar).

Sergey V. Yudintsev obtained his PhD in 1989 and is a specialist in the scientific basis for managing radioactive waste derived from the nuclear fuel cycle. He is Head of the Laboratory of Radiogeology and Radiogeoecology at the Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Russian Academy of Sciences where he researches the geochemical and mineralogical aspects of radioactive waste disposal problems, including the search for new matrices in which to place long-lived radionuclides (actinides and technetium). In his career, he has worked as a researcher and principal scientist studying how to make nuclear energy both safe and sustainable.

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