Gordon E. Brown Jr. is at Stanford University (California, USA) where he is the D.W. Kirby Professor of Geological Sciences in the School of Earth, Energy & Environmental Sciences and also the Professor of Photon Science at the SLAC [Stanford Linear Accelerator Centre] National Accelerator Laboratory. Over the past 30+ years, Brown and his students have studied the chemical and biological processes that sequester and/or transform contaminant species, particularly heavy metals, at mineral–aqueous solution interfaces in both natural and synthetic systems using synchrotron radiation and other experimental and theoretical methods. He has enjoyed many research collaborations over the past 35 years with Georges Calas and Mike Hochella.

Georges Calas is Chair of Mineralogy at the University Institute of France and a professor at Université Pierre et Marie Curie, Paris. He held the chair Sustainable Development – Environment, Energy and Society at Collège de France between 2014 and 2015. His research interests concern how the molecular-scale organization of minerals, glasses, and melts controls their properties and can provide invaluable information on the formation conditions of geomatics. His current interests include environmental mineralogy, materials science, nuclear waste management, cultural heritage, and the use of mineral resources in a sustainable manner. He is a member of Academia Europaea and a Foreign Fellow of the Royal Society of Canada.

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Gaël Giraud is a CNRS researcher in economics, specializing in the theory of general equilibrium, game theory, finance and energy issues. He is the chief economist of the Agence Française de Développement, a professor at the École Nationale des Ponts et Chaussées, where he also holds the chair of Energy and Prosperity. He was also a member of the French government’s Steering Committee for Energy Transition and of the Stern–Stiglitz High-Level Economic Commission on carbon tarification. Gaël is a former student of the École Normale Supérieure of Paris (France) and the National School of Statistics and Economic Administration (Paris). He obtained his PhD (1998) in mathematics at the École Polytechnique (France). In 2009, he was named Best Young French Economist by the Le Monde newspaper and by the French think-tank group, Le Cercle des économistes.

Michael F. Hochella Jr. is a University Distinguished Professor in the Department of Geosciences at Virginia Tech, and is Founding Director of the Virginia Tech National Center for Earth and Environmental Nanotechnology Infrastructure (NanoEarth), both in Blacksburg (Virginia, USA). He is also a Laboratory Fellow in the Geosciences Group at Pacific Northwest National Laboratory in Richland (Washington, USA). He works in the fields of nanoscience and technology, and specifically in the areas of nano-bio-geo-environmental science at local, regional, and global scales. He obtained his PhD at Stanford University (California, USA) under Gordon E Brown, Jr.in 1981, and has known Georges Calas for almost as long.

Michel Jébrak received his DSc in Orléans (France). He is a professor at the Université du Québec à Montréal in Montreal (Canada) where he has also served as Vice-President, Research and Art. He teaches at the Université du Québec en Abitibi-Témiscamingue (Canada) and in the Université de Lorraine (France). His research focuses on epigenetic ore deposits and on social impacts of the mining industry. He has been involved in the development of several mineral exploration research groups: Divex, Consorem, Canada Mining Innovation Council. He holds the Chair in Mining Entrepreneurship in Canada and is a member of the Mines and Society network in France and of the Quebec-based climatology group Ouranos.

Jean-Marc Montel is a professor at the University of Lorraine (France). He graduated in 1982 from the École Nationale Supérieure de Géologie (ENSG) in Nancy (France). He received his PhD in Nancy in 1987. Subsequently, he became a CNRS researcher at the Laboratoire Magmas et Volcans in Clermont-Ferrand (France) (1988–1999), professor and head of Géosciences Environnement Toulouse (France) (1999–2008), and then returned to Nancy in 2008 as head of ENSG. His expertise lies in the mineralogy of accessory minerals, partial melting of the continental crust, radioactive waste management and U–Th–Pb geochronology. And because ENSG graduates about 120 high-level students at master’s level in geological engineering, he has also become an expert in fundamental and applied geoscience education.

Robert S. Pell is a PhD candidate at the Camborne School of Mines, University of Exeter (UK). His research aims to quantify the environmental performance of rare-earth production, using a life cycle assessment approach, and to incorporate the concept of raw material criticality into life cycle assessments. Prior to his current research, he received a BSc degree in geology from the University of Birmingham (UK) and then worked as Assistant Editor for International Mining, a monthly publication for mining technology news and project developments. More broadly, he is interested in the responsible sourcing of raw materials, particularly the social and environmental challenges associated with technology metals.

Alain Rollat is an independent consultant in rare-earth processing and technology. He is a graduate of the École Nationale Supérieure de Chimie de Strasbourg (France) and Doctor in Chemistry from University of Strasbourg. He has spent most of his career in the rare-earth business of the Solvay Group where he held various research and develop-
ment and industrial positions in the Research Centre of Aubervilliers and in the factory of La Rochelle (France). During this period, he developed several processes in the field of rare-earth separation and purification and participated in the design of new production units of rare earths in France and China. Coauthor of 12 patents, he currently works for several junior mining companies in the rare-earth field.

Fatma Rostom started a multidisciplinary PhD in economics and geosciences in 2014 at the University Paris 1 Panthéon-Sorbonne (France). Her research focuses on the economic modeling of natural resources, especially how resource depletion can be a limiting factor for economic growth. Fatma holds a master’s degree in engineering from the École des Mines (Paris, France), and a bachelor’s degree in geosciences from the École Normale Supérieure Lyon (France).

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Frances Wall is Professor of Applied Mineralogy at Camborne School of Mines, University of Exeter (UK). She has a BSc in geochemistry and PhD from the University of London (UK). Frances became interested in how rare-earth deposits form in carbonatites whilst working at the Natural History Museum in London, and her research interests currently centre on the formation of high-technology metal deposits, applied mineralogy, mineral processing, and responsible sourcing of mined raw materials. Frances joined Camborne School of Mines (CSM) in 2007, was Head of CSM from 2008 to 2014. She was also named one of the 100 Global Inspirational Women in Mining 2016.

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