Meet the Authors

Gabriel M. Filippelli's obsession with the phosphorus cycle began when he was an undergraduate digging through Paleozoic marine deposits in central Nevada and continued during his graduate and postgraduate work when he focused on sedimentary core records from the equatorial Pacific and Southern oceans and from lakes in North and Central America. Graduate students along the way have swayed him toward more practical research areas, including environmental geochemistry and the links between Earth materials and children's health. He is a professor and chair of the Department of Earth Sciences at Indiana University-Purdue University Indianapolis and is actively involved in management of the Integrated Ocean Drilling Program.

David A. C. Manning is Professor of Soil Science at Newcastle University, UK. He has special research interests in mineral reactions in biologically mediated systems. That's quite a change from his PhD (Manchester 1979) on the effects of fluorine on the crystallization of granitic melts. His present research focuses on processes that take place in soil, including nutrient supply, organic matter transformations and carbon sequestration. He has recently developed novel instrumentation for the investigation of mineral–organic matter mixtures that occur within soil, based on thermal analysis with online isotopic and molecular evolved gas analysis.

Jean-Marc Montel is Professor of Mineralogy at the Université Paul Sabatier, Toulouse, France. He is also the director of the Laboratoire des Mécanismes et Transferts en Géologie (LMTG) in Toulouse. Jean-Marc did his undergraduate work at the École Nationale Supérieure de Géologie and completed his PhD at the CRPG Nancy in 1988. After graduation, he spent 11 years with the CNRS in Clermont-Ferrand before moving to Toulouse. Jean-Marc is an expert on the role of monazite and other phosphate minerals in natural systems. His most notable research results include measurements of monazite solubility in granitic melts, the development of electron microprobe methods for dating monazite, and applications of monazite ceramics as nuclear waste storage hosts.

Eric H. Oelkers is a CNRS research director working at the LMTG in Toulouse, France. Eric received BS degrees in chemistry and in Earth and planetary science from MIT before completing his PhD at the University of California in Berkeley. He is currently serving as vice-president/president elect of the European Association for Geochemistry and is the coordinator of the MIR and MIN-GRO European Research and Training Networks. He has also served as director of the Geochemical Society, co-editor in chief of *Chemical Geology* and associate editor of *Geochimica et Cosmochimica Acta*. Eric has made substantial contributions to our understanding of the thermodynamics and kinetics of water–rock interaction. His interest in phosphorus and other essential elements stems from his desire to apply scientific knowledge to solve societal problems and assure future sustainable development.

Simon A. Parsons is a chemist with BSc and PhD degrees from the University of Leicester. After joining the academic staff at Cranfield University in 1996, he was promoted to the chair in Water Science in 2006 and became head of the Centre for Water Science in 2008. He manages an active research team involved in the areas of potable water treatment and supply, nutrient removal, advanced oxidation processes and scale formation. Simon is a Fellow of the Royal Society of Chemistry.

Jill D. Pasteris is a professor in the Department of Earth and Planetary Sciences at Washington University in St. Louis. She received her PhD in 1980 from Yale University. Over the years, she has done research on kimberlites, magmatic sulfide ore deposits, carbonaceous materials, fluid-inclusion analysis, and the development of Raman spectroscopy on ocean-floor materials. Her current research focuses on biomineralization (especially biological apatite), oxide nanoparticles, and environmental mineralogy. She is particularly interested in applications of mineralogy to issues of resource development, health, and environmental remediation. From 2003 to 2006, she was an associate editor of *American Mineralogist*

Jennifer A. Smith is an academic research fellow (RCUK funded) in the Centre for Water Science at Cranfield University, UK. She has a first-class honors degree in geology from the University of Wales, Aberystwyth, and an MSc with distinction in water resources technology and management from the University of Birmingham. She continued at the University of Birmingham and obtained her doctorate in wastewater engineering (2006), researching the impact of chemical phosphorus removal on anaerobic digestion. Her current research focus is water safety in developing countries.

Eugenia (Éva) Valsami-Jones is a researcher in the Department of Mineralogy, Natural History Museum, UK. She received her BSc in geology from the University of Athens (Greece) and her PhD in geochemistry from Newcastle University (UK). Her research interests center on mineral reactivity and its applications to a diverse range of questions in biomineralization, bacterial weathering of minerals, and pollutant mobility/immobilization. She has studied the dissolution and precipitation of phosphate minerals in experimental systems, often as proxies of biological or industrial processes. She is currently working on assessing the reactivity and toxicity of nanomaterials. She is the editor of the book *Phosphorus in Environmental Technologies* (2004, IWA Publishing).

Brigitte Wopenka received her BS in silicate chemistry and technology, her MS in chemical engineering, and her PhD in analytical chemistry (1982) from the Technical University of Vienna. Since 1983 she has been a senior research scientist in the Department of Earth and Planetary Sciences at Washington University in St. Louis, where her work has focused on the application of Raman spectroscopy to questions of mineralogical and geological interest. Her research includes studies on fluid inclusions, carbonaceous materials, gems, shocked meteorites, interplanetary dust particles, interstellar grains, metamict zircons, SiO_2 polymorphs, ancient Greek pottery, bioapatite, and $CaCO_3$ biomineralization. In 2006 she was a member of the Preliminary Examination Team of the NASA Stardust Mission to Comet Wild II, and since 2003 she has been an associate editor of *American Mineralogist*.