

FAREWELL TO MIKE HOHELLA

Unlike many scientific journals, whose editors have been known to linger in harness for several decades, *Elements* has the wise policy of refreshing its team of principal editors every three years. Mike Hochella is the second of the principal editors to go, after two years as editor following our first issue at the end of 2004. When Rod Ewing first approached Mike to become one of the founding editors of *Elements*, he politely declined. A few days later, Rod phoned him again and persuaded him to join the editorial team. We are certainly glad he did so. The founding editors first met as a group, along with managing editor Pierrette Tremblay, three short years ago, in April 2004, at Rod Ewing's base in Ann Arbor, Michigan. At the time, we had Rod's strong, well-formed vision of the aims and general form that the magazine would have, but an enormous amount of detail had to be filled in, from hard-to-articulate but crucial factors, such as the level at which thematic contributions should be pitched, to nuts-and-bolts issues, like the style of artwork and the punctuation of references. Mike made a tremendous contribution to this phase—he was always wise, well tempered, and clear about objectives, a joy to work with. The level and look-and-feel of *Elements*, and themes covered to date, owe a great deal to Mike. He boldly volunteered his colleague Bob Bodnar to be guest editor of the inaugural issue, a task guaranteed to be more stressful than for any subsequent issue. Look behind the cover of the inaugural issue, with that iconic picture of the half-Earth above the lunar horizon, and you will find five supporting societies listed. Now there are thirteen, a success story in which Mike has played a pivotal role.

I've known Mike by reputation for many years, and in 2002, when we ran the 18th IMA General Meeting in Edinburgh, he was our choice for the first of our plenary lectures. His talk on the role of mineralogy in environmental science was brilliant, a perfect combination of cutting-edge mineralogy and geochemistry. I remember him saying, at the beginning of his talk, that he really considered himself, first and foremost, a mineralogist. At the time, he had just finished his term as president of the Geochemical Society! Despite a certain amount of historical baggage suggesting the contrary, geochemistry, mineralogy and petrology really do occupy the same scientific space. *Elements* has a number of objectives, one of which is ensuring that we act as a single, harmonious community, confident in its societal role and able to promote its scientific achievements and potential. Mike has done as much as anybody to achieve this, while at the same time being one of the most kindly, warm-hearted, and genuinely nice people you are ever likely to meet. Thanks from all of us, Mike!

Ian Parsons

On behalf of Bruce Watson, Susan Stipp,
and founding editor Rod Ewing

THANKS TO ADVISORY BOARD MEMBERS 2005–2006

Since its inception, *Elements* has benefited from the wisdom of its advisory board. As outlined in the letter of agreement signed by all participating societies, "the advisory board members have the principal responsibility of identifying thematic topics and guest editors for *Elements*. They will be consulted by the principal editors as need arises, particularly as part of an ongoing review of the content and quality of *Elements*."

When the advisory board of *Elements* was initially formed, members were randomly given two- and three-year terms. The following members had two-year terms that ended at the end of 2006: Peter Burns, Monica Grady, Alain Manceau, Bice Fubini, Neil Sturchio, and John Valley. We gratefully acknowledge their contributions during the first two years of *Elements*.



Peter C. Burns received a BSc (honours) in geology from the University of New Brunswick in 1988, an MSc in geology from the University of Western Ontario in 1990, and a PhD in geology from the University of

Manitoba in 1994. He joined the faculty of the University of Notre Dame in 1997, and is currently professor and chair of the Department of Civil Engineering and Geological Sciences. Burns has authored or co-authored more than 200 journal papers concerning mineralogy and solid state chemistry. He has received several awards. He is the vice president of the Mineralogical Association of Canada.



Bice Fubini was educated at the University of Torino, Italy, where she is now a full professor of chemistry in the Faculty of Pharmacy and head of the G. Scansetti Interdepartmental Center for Studies on Asbestos and other

Toxic Particulates. She introduced a new quantitative, physical chemistry approach to understanding the toxicity of the mineral particles and fibers, based on their physicochemical properties, especially their surface reactivity, surface free radicals, and surface hydrophilicity. She has authored over 180 scientific papers and 20 review articles and book chapters, and has been invited to workshops organized by several international, European, and American agencies as an expert on the assessment of fiber and particle toxicity.

Monica Grady is a professor of planetary and space science at the Open University. She was formerly based at the Natural History Museum, where she curated the UK's national collection of meteorites. She graduated from the University of Durham in 1979, then went on to complete a PhD on carbon in stony meteorites at Cambridge University in 1982. Since then, she has

built up an international reputation in meteoritics, publishing many papers on the carbon and nitrogen isotope geochemistry of primitive meteorites, on Martian meteorites, and on interstellar components of meteorites.



Alain Manceau received his PhD in 1984 from the University of Paris 7. The same year he joined the CNRS as a researcher. In 1992 he established the Environmental Geochemistry team in Grenoble, a component of the Observatory of Earth and Planetary Sciences. His research interests focus on the environmental mineralogy and biogeochemistry of trace elements using X-ray techniques. Since the mid-1990s, he has pioneered the application of synchrotron radiation to determine the speciation of metal contaminants in natural systems. He is also co-lead principal investigator of the French absorption spectroscopy beamline in material and environmental sciences (FAME) at the European Synchrotron Radiation Facility (ESRF) in Grenoble.



Neil C. Sturchio is a professor of geochemistry at the University of Illinois at Chicago. He received his PhD in Earth and planetary sciences from Washington University in St. Louis (1983) and was a staff scientist at

Argonne National Laboratory from 1985 to 2000. His research interests are mainly in the areas of mineral-fluid interactions and the application of stable and radioactive isotopes as tracers of geochemical processes. He does both experimental and field-based research. Dr. Sturchio was editor of *The Geochemical News* from 1997 to 2001. He currently serves on the editorial boards of *Chemical Geology* and *Environmental Forensics*. He has authored or co-authored over 130 journal articles and book chapters.



John W. Valley, the Charles R. Van Hise Professor of Geology at the University of Wisconsin-Madison, received his AB from Dartmouth College and PhD from the University of Michigan. He has pursued new applications

and techniques in stable isotope geochemistry, and in 2005 installed a multicollector ion microprobe for in situ analysis of ultrasmall samples. His interests in the early Earth and the thermal and fluid history of mountain belts span 30 years. His more recent research interests range from diamonds to cancer cells. He was president of the Mineralogical Society of America in 2006.

In the next issue, we will introduce the current advisory board, including the new members for the 2007–2009 term: Tim Drever, Janusz Janeczek, Hans Keppler, David Lentz, Maggi Loubser, Eric Oelkers, and Olivier Vidal.

FROM THE MANAGING EDITOR

More about Mike

I met Mike Hochella for the first time at the founding editorial meeting in April 2004. I was touched by his extraordinary kindness and his genuine interest in everyone. Mike is one of the most positive and happy persons I have ever met. He always sees the diamond hidden in the rough stone, the good rather than the bad. I even secretly wondered if he could refuse a manuscript, so it was a relief when he cut a whole paragraph of a text I had written for the From the Editors section and kindly suggested the rest had to be rewritten (he landed the rewrite job). I also discovered that Mike is a gifted writer. To me, his article on nanoparticles is still the best we have published. He nailed the level of writing right on. I remember the excitement I felt when, after a quick read of his article, I understood what was so exciting about nanoparticles and was able to explain it to others. I will miss Mike's cheerful contributions but hope to rope him into being guest editor for a thematic issue very soon.

Mike and Teaching

It is fitting that we publish this homage to Mike in the "teaching issue," a theme very close to Mike's heart. When he first introduced the idea of a thematic issue devoted to teach-

ing, he had to be persuasive. How will people react to a whole issue on teaching? (It is vitally important for our disciplines.) What about readers who do not teach? (We are all teachers in one way or another.) And the list of questions went on and on. Mike kept his course, and we are now very proud to bring you this special thematic issue. As I worked on it, I discovered that there is an extraordinary wealth of resources on the Web to help you make the changes—small or big—toward cooperative learning. This community is amazingly generous in sharing the resources it develops. Use them.

Yes, Teaching Matters

I am a geologist today because of a teacher. He taught my geology 101 course—a mandatory class at my school. He was young and passionate about geology; I was dissatisfied with physics. Within weeks, I had switched to a major in geology. I never regretted it.

On Outreach and Public Education

I spent the 1990s working on outreach projects, and I would probably be happily doing it still if funding had not dried up. I would like to relate an anecdote that really brought home to me how the way we present information can make a difference. In one of our projects, we visited over 100 classrooms, from kindergarten to grade 6. Once I had prepared the outline of

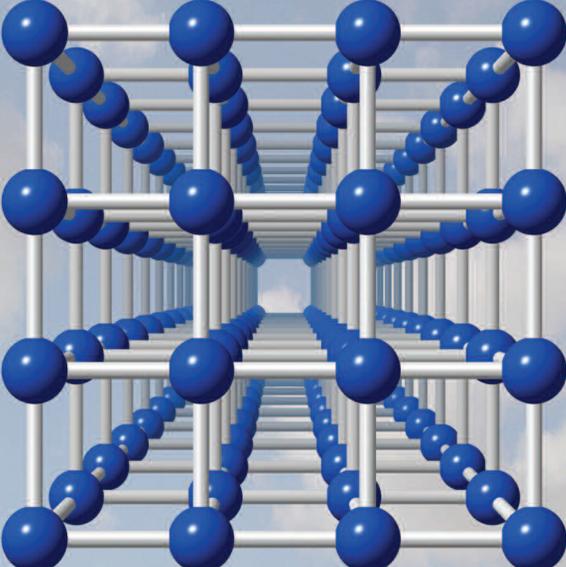
my presentation, I showed it to a teaching specialist at Laval University. She listened to me attentively and then told me, "You can choose to share a lot of content or you can give the content to the kids." With her help, I totally revised my approach and provided a hands-on workshop.

In the kindergarten to grade 3 classrooms, I started the workshop by a short presentation in which I explained the work of the geologist. To do this, I chose a child to be the geologist of the day and dressed him or her in a geologist's vest. Initially I had thought I would wear my field clothes, but the teaching specialist suggested that I could empower the children by choosing one to be the geologist. Then we discussed the type of work a geologist might do through some of the tools he uses. Several children then got to pick a rock or a mineral from my pack. This was an opportunity to introduce properties of minerals and the difference between a rock and mineral. As a final activity, each child was given a bag containing a few mineral chips and had to match the minerals with the clues provided (I am metallic gray; your fingers will feel greasy after you touch me. I am graphite). And they got to keep the chips.

Cont'd on page 86

Visit us in Cambridge at "Frontiers in Mineral Sciences 2007" • 26–28 June

CrystalMaker[®]



"a must-have for those serious about crystal structure manipulation and presentation"

Journal of Chemical Education





Award-Winning
Interactive Visualization
for Teaching & Research

- ▶ Real-time manipulation of crystal structures
- ▶ Elegant, easy to use, spectacular graphics with impressive 3D display options
- ▶ Digital video, animation & QTVR output
- ▶ Includes 600+ structures with major rock-forming minerals; more online
- ▶ Works with CrystalDiffract & SingleCrystal to simulate XRD patterns, single-crystal diffraction plus stereographic projections
- ▶ Education & multi-user pricing
- ▶ Download a free demo with examples from our website: www.crystallmaker.com



CrystalMaker
SOFTWARE

Centre for Innovation & Enterprise
Begbroke Science Park, Yarnton, OX5 1PF, UK
Voice: +44 1865-854804 • sales@crystallmaker.com
www.crystallmaker.com