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Mineralogical Association of Canada

INTRODUCING NEW VP AND COUNCILORS

Vice-President Iain M. Samson



Iain Samson graduated from the University of Strathclyde with a BSc in applied geology in 1979 and a PhD in 1983. He then became a research associate with the Mineral Exploration Research Institute at McGill University in Montreal. In 1986 he joined the Department of Geology at the University of Windsor where he is now a full professor in the Department of Earth and Environmental Sciences. From 1998 to 2003 he was chair of the department. Dr. Samson's research interests revolve

around the geochemistry and mineralogy of hydrothermal systems and the origin of hydrothermal mineral deposits. He uses a variety of approaches to understanding such systems, including mineral chemistry, isotope geochemistry, fluid inclusion studies, and thermodynamic modeling. He is also interested in improving analytical techniques for minerals and fluid inclusions, including laser ablation ICP-MS and Raman spectroscopy. His research has involved a variety of system types, including sediment-hosted base-metal mineralization; magmatic-hydrothermal W, Mo, Cu, and rare-element deposits; and disseminated PGE mineralization. He has also been involved in studies of diagenetic fluids. Dr. Samson was MAC's finance chair, served on its Council and Executive for 9 years from 1998 until 2007, and previously chaired the Hawley Medal committee. During this period, he was the lead organizer and editor for MAC short course 32 on fluid inclusions. He was formerly the short course coordinator for the Mineral Deposits Division of GAC.

Councillors 2008–2011

DANIELLE FORTIN has been a professor in the Department of Earth Sciences at the University of Ottawa since 1997. Dr. Fortin did her graduate studies in Quebec City where she obtained her BSc and MSc degrees at Laval University and her PhD in aqueous geochemistry at INRS-ETE (Université du Québec). Prior to joining the University of Ottawa, Dr. Fortin was a postdoctoral fellow in the Department of Microbiology at the University of Guelph and in the Department of



Geology at the University of Toronto. Her field of research is environmental geomicrobiology. Her ongoing research focuses on the microbial diversity of various groups of bacteria present in extreme environments (mine tailings, deep-sea vents, cold environments, etc.) and on the role of bacteria in the formation of biogenic nanominerals. She is also interested in using biogenic minerals as potential biosignatures in the search for past and present life on Earth and other planetary bodies. Dr. Fortin is an associate editor of *Applied Geochemistry* and *Geochemical Journal* and has coedited several special issues on bacteria-mineral interactions in various peer-reviewed journals. She is also a regular panel member of the NASA exobiology program.



DAVID PATTISON is a professor in the Department of Geoscience at the University of Calgary. He received his BSc from Queen's University, Kingston, Ontario, and his PhD from Edinburgh University, Scotland. He undertook postdoctoral work at the University of Chicago before arriving at the University of Calgary in 1987. His research interests are primarily in the field of metamorphic petrology. Specific areas include metapelitic phase equilibria, geothermobarometry, granulites, metamorphosed ore deposits, petrogenesis of accessory phases used for geochronology, and application of metamorphic petrology to tectonics. He is in charge of the microprobe lab at the University of Calgary.

YOUNG SCIENTIST MEDALIST



Every year, the Mineralogical Association of Canada presents its Young Scientist Medal to an individual who has, in the early stages of his or her career, distinguished themselves as a researcher. The medalist for 2007 was Dr. Laurence Coogan, of the University of Victoria. As he could not attend last year's ceremony, we were glad to have the opportunity to recognize Dr. Coogan's achievements during the award presentations at the 2008 Goldschmidt Conference.



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"LASER ABLATION ICP-MS IN THE EARTH SCIENCES" SHORT COURSE FOLLOWING GOLDSCHMIDT 2008

One can always depend on enjoying five stimulating days of geochemistry at the annual Goldschmidt Conference, but for some enthusiasts even five days is not enough! Following this summer's Goldschmidt Conference, held in a sunny Vancouver, British Columbia, Canada, eighty professional and student geochemists from nineteen countries stayed on for two additional days (19–20 July) to immerse themselves in the world of laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS). There, sixteen of us who have been toiling at this method for years, some since the early 1990s, presented a short course sponsored by the Mineralogical Association of Canada, with generous financial contributions from Agilent Technologies and Varian Canada, and flawless logistical assistance from the local Goldschmidt organizing committee at the University of British Columbia. In some ways the course was an updated version of a similar one given seven years ago in conjunction with an annual meeting of the Geological Association of Canada–Mineralogical Association of Canada held in St. John's, Newfoundland and Labrador; many of the same lecturers participated in both courses, for instance. But in other ways this was a brand new course, focusing on technical issues and geological applications that have come to the fore only in the last few years.

Those familiar with LA-ICP-MS know it as a powerful technique capable of providing micron-scale analyses of trace-element concentrations and isotopic ratios in minerals, melt inclusions, fluid inclusions, corals, and other objects of geological interest. They also know that it can be both utterly frustrating and completely rewarding all in the span of one afternoon's work. Frustrating because when the instrument is not set up just right, results can be not only incorrect but incorrect in unexpected ways. On the other hand, when the system is operating properly, large amounts of very useful data can be collected to solve geological problems that could not be addressed nearly as easily using other analytical tools. And therein lies the reason why so much energy has been spent by so many creative people to understand how best to set up an LA-ICP-MS lab and to carry out effective analytical sessions. The Vancouver short course aimed to pass on this knowledge as efficiently as possible in two intensive days of lectures and discussions. Numerous topics were described and debated, including reviews of basic instrumentation and principles, as well as new technologies such as ultrafast (femtosecond) lasers, rapid-washout ablation cells, multiple ion-counter devices for U–Pb geochronology and low-level isotopic analyses using magnetic sector ICP-MS instruments, synthetic standard reference materials, and the latest computer software packages for data reduction.

It is clear from the level of enthusiasm shown by course lecturers and participants that LA-ICP-MS is still a very popular method for geochemical applications, as well as being an intrinsically interesting technology itself, and will remain so for some time to come.

Paul Sylvester

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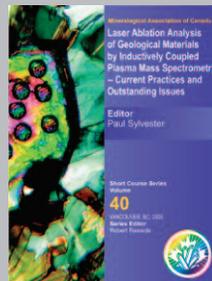
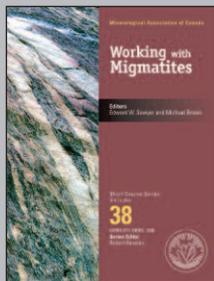
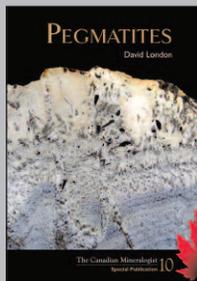
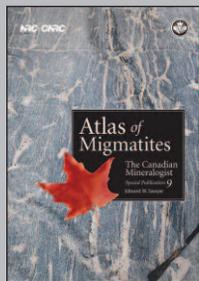
Some lecturers and participants at the LA-ICP-MS short course in Vancouver. Left to right – back row: Thomas Pettke, John Cottle, Matthew Horstwood, Simon Jackson; middle row: Detlef Günther, Klaus Peter Jochum, Paul Sylvester, Norman Pearson, Ingo Horn; front row: Davide Bleiner, Rebecca Lam, Brigitte Stoll, Michael Tubrett, Henry Longrich, Jan Košler, Amanda Kate Souders. Lecturers missing from photo: Thomas Chacko, Paul Mason, Chris McFarlane, Antonio Simonetti, Jon Woodhead. PHOTO COURTESY OF DETLEF GÜNTHER

Pinch Medal – Call for Nominations

The Pinch Medal has been awarded every other year since 2001 to recognize major and sustained contributions to the advancement of mineralogy by members of the collector–dealer community. The medal is named for William Wallace Pinch of Rochester, New York, in recognition of his enormous and selfless contributions to mineralogy through the identification of ideal specimens for study and through his generosity in making them available to the academic community. Previous recipients include William Wallace Pinch (2001), Mark Feinglos (2003), Charles Key (2005), and László (Les) Horváth and Elsa Pfenninger-Horváth (2007).

Nominations for the 2009 Pinch Medal should be submitted to Peter Burns (Department of Civil Engineering and Geological Sciences, University of Notre-Dame, 156 Fitzpatrick Hall, Notre-Dame, Indiana 46556-0767, USA; phone: 219-631-7380; fax: 219-631-9236; e-mail: pburns@nd.edu) by October 30, 2008. Each nomination should consist of a letter describing in detail the contributions of the nominee and a list of publications resulting from the nominee's contributions (the nominee is not required to be an author of these publications); additional supporting letters are welcome. The medal is typically awarded at the Tucson Gem and Mineral Show, following the selection of the recipient by the award committee and approval by MAC Council.

We have new publications for you!



- SP 9 Atlas of Migmatites – EDWARD W. SAWYER (2008) ISBN 978-0-66019-787-6, 386 pp
- SP 10 Pegmatites – DAVID LONDON (2008) ISBN 978-0-921294-47-4, 368 pp
- SC 38 Working with Migmatites – EDITORS: EDWARD W. SAWYER AND MICHAEL BROWN (2008) ISBN 978-0-92129-446-7, 168 pp
- SC 40 Laser Ablation ICP-MS in the Earth Sciences – EDITOR: PAUL SYLVESTER (2008) ISBN 978-0-921294-49-8, 348 pages

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