



Mineralogical Association of Canada

www.mineralogicalassociation.ca

2010 AWARDS

The Mineralogical Association of Canada presented its 2010 awards at its annual luncheon on May 11, 2010, during the GeoCanada 2010 Conference in Calgary. We reproduce excerpts of citations here.



FROM LEFT TO RIGHT, Peter Burns, Past President; Brian Fryer, Peacock Medalist; Sarah Gleeson, Young Scientist Awardee; David London, Hawley Medalist; Iain Samson, President; and Lee Groat, Vice President

Martin A. Peacock Medal to Brian Fryer

The Peacock Medal, formerly the Past Presidents' Medal, is the highest honor bestowed by the Mineralogical Association of Canada. This year, it was awarded to Dr. Brian Fryer of the University of Windsor for his outstanding contributions to the mineral sciences in Canada. Among Brian's major contributions to science are the introduction and development of inductively coupled plasma mass spectroscopy (ICP-MS) to analyze practically all metals involved in natural processes at concentration levels never before realized. Brian led a team of researchers at Memorial University who recognized that the capabilities of ICP-MS could make it the analytical tool of the future in the Earth and biological sciences. In a series of landmark papers beginning in 1987, Brian and his group demonstrated that ICP-MS could successfully be used to analyze the concentration of elements in complex materials and that it could be applied in U-Pb geochronology. In 1990, they married a laser and microscope to the ICP-MS apparatus and showed how complex solid samples could be analyzed in situ using the laser as a sampling tool at spatial resolutions hitherto only possible with much more expensive and technologically challenging instruments, such as the ion microprobe. Brian has not only developed new techniques for analyzing complex materials with ICP-MS, but also used these techniques to contribute to our understanding of how Newfoundland was tectonically assembled, how trace elements such as platinum and palladium could be used to trace natural processes, how trace elements are partitioned among various mineralogical, biological, and aqueous phases in natural systems, and, most recently, how trace metals can be used to indicate sources of pollutants in the Great Lakes.

Hawley Medal to David London for the best paper published in The Canadian Mineralogist in 2009

London D (2009) The origin of primary textures in granitic pegmatites. *Canadian Mineralogist* 47: 697-723

In his manuscript "The origin of primary textures in granitic pegmatites," David London presents a model for the development of textural domains in granitic pegmatites. He also addresses three fundamental questions about pegmatites by cleverly combining existing results and observations with new and exciting experimental data. Although some of the model is not new, he presents extensive lab experiments to support existing models and new key evidence from data on the interactions of fluxes (B, P, and F) with haplogranitic melt. This paper presents an interesting and well-told story that captivates the reader, but it is also an original and comprehensive study, making it worthy of the distinguished Hawley Medal.

David London is the Stubbeman-Drace Presidential Professor, the Norman R. Gelpman Professor of Geology at the University of Oklahoma, and director of the university's electron microprobe lab. His research pertains to the chemical evolution of silicic magmas and relies heavily on experimental studies in silicate science, including measurements of crystal nucleation and growth from melt or vapor; interactions among ions attending their chemical diffusion through melt; morphologies and preferred growth directions of crystals as functions of growth conditions; element partitioning among crystals, melt, and vapor; and stability fields of common and rare minerals of petrologic value. London has applied these results to the origin and internal evolution of granitic pegmatites. Much of that work is summarized in his recent book, *Pegmatites* (Canadian Mineralogist Special Publication 10). Named after London is the mineral londonite, $(Cs,K,Rb)Al_4Be_4[B_{11}Be]O_{28}$ (*Canadian Mineralogist* 39: 747-755).

Young Scientist Award to Sarah Gleeson

The Young Scientist Award is presented to a young scientist who has made a significant international research contribution in a promising start to a scientific career. The 2010 award was presented to Dr. Sarah Gleeson of the University of Alberta for her significant and internationally recognized research contributions in fluid geochemistry and mineral deposits. Beginning with her PhD thesis on the geochemical evolution of mineralizing brines in southern Cornwall, she has enhanced our understanding of the geochemistry and evolution of hydrothermal systems, including those involved in the formation of mineral deposits. Sarah applies a range of geological and geochemical techniques to decipher the evolution of paleofluid flow in crustal rocks on a range of scales. Her combination of mapping, petrography, and geochemical and stable isotope techniques has resulted in a series of publications that elucidate the processes that control fluid-rock interactions in a multitude of base metal deposits and in regional crustal processes. She has refined techniques for the analysis of fluid inclusions, the only way to sample fluids directly, and has developed novel strategies for tracing fluids using halogens and chlorine isotopes in both mineralizing and nonmineralizing systems. Her research efforts in the field of mineral deposits have been recognized by the Society of Economic Geologists, which awarded her the Waldemar Lindgren Award for 2007, and by the Mineral Deposits Division of the Geological Association of Canada, which awarded her the William Harvey Gross Award for 2010.

INCOMING VICE PRESIDENT AND COUNCILORS

At its recent meeting, MAC Council welcomed incoming vice president Lee Groat and incoming councilors Andrew Conly and Ian Coulson. Special thanks go to outgoing past president Kurt Kyser for his commitment to the welfare of the Association during his six-year cycle on the Executive, and to outgoing councilors Michele DeWolfe and Sarah Gleeson.

Lee A. Groat, Incoming Vice President

Lee Groat grew up in Kingston, Ontario, and graduated from Queen's University with a BSc (honours, geology) in 1982. From there he went to the University of Manitoba, graduating with a PhD degree in 1988. In 1988-1989, he was a NATO Postdoctoral Fellow at Cambridge University. He moved to the University of British Columbia in July 1989. In 1999 he was awarded the Young Scientist Award of the Mineralogical Association of Canada. Throughout the 1990s, he was at various times an associate editor for both *The Canadian Mineralogist* and *American Mineralogist*, and from 2001 to 2006 he was editor of *American Mineralogist*. In 2002 he was awarded a Killam Prize for Excellence in Teaching. In 2003 he was elected a fellow of the Mineralogical Society of America. He is currently a professor in the Department of Earth and Ocean Sciences and director of the Integrated Sciences Program at UBC. His main areas of research are the geology of gem deposits, granitic pegmatites, and the crystal chemistry of minerals. Through his former students, he has strong ties with the exploration, mining, and environmental industries in Vancouver.

Councilors 2010–2013

Andrew Conly received his HBSc and MSc degrees in geology from Carleton University and obtained his PhD degree in geology from the University of Toronto. In 2003, he joined the Department of Geology at Lakehead University and in 2008 was promoted to associate professor. Andrew is also the director of the Lakehead University Mineralogy and Experimental Laboratory. Andrew is the Regional Vice President – North America for the Society for Geology Applied to Mineral Deposits. He previously served as the chair of the Mineral Deposits Division of the Geological Association of Canada and as a director of the Geology Society of the Canadian Institute of Mining, Metallurgy and Petroleum. Andrew’s primary research interests include experimental investigations into the source of metals in hydrothermal mineral deposits and the application of stable isotopes to mineral-forming systems. Andrew’s research recently expanded to the investigation of acid mine drainage and the remediation of contaminated waters and mine waste associated with the former Steep Rock iron mine, and to the study of natural and synthetic, highly metalliferous manganese oxide minerals.

Ian M. Coulson is an associate professor of volcanology and igneous petrology at the University of Regina, Saskatchewan. He studied at the University of Portsmouth and the University of Birmingham in the UK, before moving to Canada in 1998 to work as a postdoctoral fellow at the University of British Columbia with Kelly Russell and Greg Dipple, and later at Queen’s University. Ian’s interest in volcanism and mineralogy/petrology has led him to work extensively in Italy, Greenland, and the Canadian Cordillera. He is now involved in collaborative studies of several active volcanoes in the Andes of Colombia. Combining diffusion profiles in minerals, analytical petrography and geochemistry, this work is helping to constrain eruption timescales, which provide insight into periods of magma chamber replenishment and their eruption. Ian is a fellow of the Geological Society and is currently an associate editor of *The Canadian Mineralogist*.

WEB-BASED MINERALOGICAL RESOURCES

The Mineralogical Association of Canada offers on its website an opportunity to contribute information of interest, but whose nature or scope is more appropriate to a website format than to an international journal. Members of the MAC community are invited to contribute relevant information, like reports of new assemblages of minerals at well-known localities, and basic information and mineral lists for various mineral localities in Canada. There are currently two publications available on the website: one providing general mineral statistics and the other entitled *Catalogue of Mineral Species Found in Canada*. The latter, maintained by László Horváth, is a useful source of information about minerals found in Canada. Updated recently in December 2009 as Revision 6 (2009), this catalogue, published as a PDF file, now lists 1492 confirmed mineral species (including IMA-approved but unpublished species) and 79 unnamed minerals. While succinct, the information presented for each mineral species is quite complete as it indicates whether the species is a Canadian type-locality mineral, the reference to the original description or to a significant publication describing the occurrence, and, if possible, to the locality. The mineralogical community is asked to contribute to this project by sending unpublished information to Mr. Horváth. The catalogue is located at the following address: www.mineralogicalassociation.ca/doc/catcanmin.pdf.

François Létourneau, Saint-Nicolas, Québec

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University of Ottawa
May 25-27, 2011

Ottawa 2011
GAC⁺ MAC - SEG - SGA

Navigating Past & Future Change

Ottawa will host the 2011 joint annual meeting of the Geological Association of Canada, the Mineralogical Association of Canada, the Society of Economic Geologists, and the Society for Geology Applied to Mineral Deposits. Canada’s Capital offers a unique blend of culture, history, and natural beauty, all in the heart of the city. It lies at the junction between the rocky edge of the Canadian Shield and the Cambrian and Ordovician deposits of an ancient sea, and is ideally situated for its two universities and the Geological Survey of Canada. The painting by artist Judi Pennanen shows the majestic limestone banks of the Ottawa River at Parliament Hill and highlights this meeting’s opportunity to showcase the societal relevance of the Earth Sciences to federal decision makers.

Committed to exploring both the scientific and societal aspects of Earth Sciences, Ottawa 2011 will feature symposia and sessions that revolve around Navigating Past & Future Change. Join us May 25-27th, on the downtown University of Ottawa Campus, to make this meeting a success!

Details on registration, programs, and events are available on our website:
www.gacmacottawa2011.ca

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