

## PROCEEDINGS OF THE THIRTY-EIGHTH ANNUAL MEETING OF THE MINERALOGICAL ASSOCIATION OF CANADA

The 38th annual meeting of the Mineralogical Association of Canada was held on May 17–19th, 1993, at the University of Alberta, Edmonton, Alberta, with the annual meeting of the Geological Association of Canada, as the Joint Annual Meeting EDMONTON'93. The 21st MAC Short course on "Experiments at High Pressures and Applications to the Earth's Mantle" was organized by Robert Luth, University of Alberta, and presented at the University just preceding the meeting. The course notes have been published as a Short-Course Handbook, Volume 21, available by order from the Business Office. The technical sessions and exhibits were held on the University of Alberta campus. The program of Symposia and Special and General sessions were coordinated with full-day Poster sessions and exclusively Poster presentations in the evening. Attendance at the meeting was 849 professional registrants and 70 accompanying guests. The field trip program took advantage of the magnificent scenery along the Rocky Mountain Foothills, to view the stratigraphy and structural geology of the area. The public lecture and the social event were planned in conjunction with the Ex Terra opening display of dinosaur skeletons, recovered during the joint Canada–China international project.

The Annual Luncheon of the Mineralogical Association of Canada was held on Tuesday, May 18, in the banquet room of Lister Hall. The Hawley Award for 1993, for the best paper in Volume 30 of *The Canadian Mineralogist* was presented by Association President Peter Roeder to Simon Jackson, Greg Dunning, Henry Longerich and Brian Fryer of Memorial University of Newfoundland, for their paper on "The application of laser-ablation microprobe – inductively coupled plasma – mass spectrometry (LAM-ICP-MS) to *in situ* trace-element determinations in minerals" (volume 30, part 4, pages 1049-1064, 1992). The Leonard G. Berry Medal, in recognition of distinguished service to the Association, and the Past Presidents' Medal, for excellence in research and contributions to the mineralogical sciences in Canada, were presented to Louis Cabri, Department of Energy Mines and Resources, Mineral and Energy Technology Sector. This is the first time anyone has won two awards in one year, a fact that recognizes the outstanding work of Louis as a scientist, and his energetic and enthusiastic efforts on behalf of the MAC. The awards were presented by Frank Hawthorne, Past President, and the citations for these medal winners follow in this issue. The Ann Sabina Award, for the best amateur collection entered in a Mineral Show sponsored through the Central Canada Federation of Mineral Societies, was won for 1992 by Renée Patterson. The 1993 competition will be hosted by the Sudbury mineral club.

The Annual Business Meeting of the Mineralogical Association of Canada was held on May 18, 1993, in room V-106, University of Alberta. Appreciation for a well-organized and very successful program of technical sessions and social events was offered, on behalf of the Association, to the Chairman, John Kramers, Vice-Chairman, Ron Burwash, and the Organizing Committee of EDMONTON'93. Minutes of the 1992 annual business meeting, published as proceedings in *The Canadian Mineralogist*, Volume 30, were approved. Proceedings of the Sudbury – Noril'sk conference, sponsored by the Mineralogical Association of Canada, will be published by the Ontario Geological Survey by the fall of 1993. The 1998 meeting of the International Mineralogical Association has been awarded to Canada. The meeting will be held at the University of Toronto, and chaired by A.J. Naldrett. The December 1 deadline for abstracts will be followed for the WATERLOO'94 GAC–MAC Joint Meeting. The abstract volume will again be available by separate order. Members who have prepaid with their membership dues will receive the Program with Abstracts volume at the meeting.

The audited financial statement to December 31, 1992, prepared by R. Stuart Haslett, accountant, was presented in the Treasurer's report by Ann Sabina. R. Stuart Haslett was reappointed, by motion, as auditor for 1993. At year end, member's equity has risen to \$348,970 owing to a slight surplus in interest income above the \$12,402 paid toward the loss incurred in publishing *The Canadian Mineralogist*. The financial statement shows a year-end income of \$8,769 compared to a loss of \$4,827 last year. The Association has been awarded a three-year publishing grant of \$20,000 in total, from the Natural Sciences and Engineering Research Council of Canada; this grant expresses confidence in the editorial board, and supports the move toward self-sufficiency.

The Finance Committee Report presented a 1994 budget and forecast through 1996, to account for increased costs associated with a larger issue of *The Canadian Mineralogist*. The loss of a book rate for mailing back issues and short-course notes will increase postage costs. The proposed 1994 fee structure of \$70 for Ordinary membership, \$30 for Student and Retired members, \$250 for a Corporate membership, including Libraries, and \$575 for a Sustaining Membership in the Association was approved.

The Editor's Report, presented by Editor Robert F. Martin, previewed regular issues in June and September, with the December issue a regular-sized special one commemorating the Geological Survey of Canada's 150th Anniversary. At the time of the Edmonton meeting, reviewed and corrected manuscripts were being assembled for the March 1994 issue. Requests for consideration for future Special Issues should be formalized and sent through the Editor, for consideration by Council.

Future GAC-MAC Joint Annual meetings have been approved in Quebec City for 1998. André Lalonde, University of Ottawa, is Chairman for OTTAWA'97. The Fall meeting of MAC Council was held in Waterloo, Ontario, to preview the WATERLOO'94 program. The next Annual Business Meeting of the Mineralogical Association of Canada will be held as part of that GAC-MAC Joint Annual Meeting, in Waterloo, Ontario, May 16-18, 1994, on the campus of the University of Waterloo, with Alan Morgan, Chairman, and Gwilym Roberts, Vice-Chairman of the meeting. Complete minutes of the Annual Business Meeting and the MAC Council meeting may be obtained from the Secretary.

G.M. LeCheminant

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### THE HAWLEY MEDAL FOR 1993 TO SIMON JACKSON, HENRY LONGERICH, GREG DUNNING, AND BRIAN FRYER

It is my pleasure to present the 1993 Hawley Award for the best paper in *The Canadian Mineralogist* in 1992 to Simon Jackson, Henry Longerich, Greg Dunning and Brian Fryer of the Memorial University of Newfoundland. Their award-winning paper is titled "The application of laser-ablation microprobe – inductively coupled plasma – mass spectrometry (LAM-ICP-MS) to *in situ* trace-element determinations in minerals" (*Can. Mineral.* 30, 1049-1064).

The major advances that are made in mineralogy and geochemistry are often dependent on the tools available to the geoscientist. The discovery of X rays and their use for mineral-structure determination and mineral identification laid the foundation for modern mineralogy. The introduction of emission spectrography and X-ray fluorescence allowed the mineralogist and geochemist to chemically characterize mineral separates of a few milligrams. The electron microprobe allowed mineralogists to not only chemically analyze single crystals for major and minor elements, but also to check on the homogeneity of the crystal at

the micrometer level. Simon Jackson, Henry Longerich, Greg Dunning and Brian Fryer have taken the next step by helping to develop a technique to analyze minerals at a resolution of 20–40 micrometers for trace elements at ppm and ppb concentrations. They explain the basic technique of developing and focusing the laser beam on standard polished thin sections, and they discuss the interaction of the laser beam with various minerals. They compare the results obtained with the laser-ablation microprobe with those of other techniques on standard materials. The authors give a number of examples of how the technique can be used, but the most impressive was the quantitative measurement and demonstration of zoning of fourteen rare-earth elements at five different positions across a grain of manganese-rich garnet 250  $\mu\text{m}$  in diameter from an alteration zone. The ability to measure rare-earth-element zoning for fourteen REE at the ppm and ppb level in a single crystal of garnet is heady and exciting stuff. The SEM photo of the resulting five tiny craters in the garnet crystal leave no doubt about the position of spots analyzed.