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PROCEEDINGS OF THE THIRTY-SEVENTH ANNUAL MEETING OF THE MINERALOGICAL ASSOCIATION OF CANADA

The 37th annual meeting of the Mineralogical Association of Canada was held on May 27–29th, 1991, at Acadia University, Wolfville, Nova Scotia, in conjunction with the annual meeting of the Geological Association of Canada, as the 1992 Joint Annual Meeting, WOLFVILLE'92. The meeting was preceded by the 20th MAC short course on "Low Temperature Thermochronology", organized by Marcos Zentilli and Peter Reynolds and given at Dalhousie University. The course is published as Short-Course Handbook **20**, available from the Business Office. MAC cosponsored, with the Mineralogical Society of America, one of five Symposia at the meeting, "Isotope Geochemistry of Granite Pegmatites" (A.J. Anderson, P. Cerny), and four Special Sessions: "Education in the Earth Sciences" (L. Ferguson, H.V. Donohoe), "Geochemistry and Mineralogy of Ironstones" (J. Petranek, G.M. Yeo), "Low-Pressure Regional Metamorphism" (R. Jamieson, R.P. Raeside, E-An Zen), and "Mineralogy and Crystallography in Low-Temperature Thermochronology" (C. Ravenhurst, R.A. Donelick). The technical session and exhibits were held on the Acadia University campus. The program, with pre- and post-meeting field trips, balanced regional and national issues, with an emphasis on earth science awareness and education, and attracted a large registration of 809, with additional accompanying members.

The Annual Luncheon of the Mineralogical Association of Canada was held on Tuesday May 26, in Wheelock Hall. The Hawley Award for 1992, for the best paper in Volume 29 of *The Canadian Mineralogist*, was presented by Association President Peter L. Roeder to George B. Skippen and Dan Marshall of Carleton University, for their paper on "The metamorphism of granulites and devolatilization of the lithosphere" (Volume 29, Part 4, pages 693-705, 1991). The Leonard G. Berry Medal, in recognition of distinguished service to the Association, was presented by Vice-President Fred Wicks to John L. Jambor, CANMET, who served the Association in many capacities. John was elected to Council from 1971 through 1974, and from 1972 through 1977, he served as Editor of *The Canadian Mineralogist*, sharing the early duties with Len Berry, for whom this Medal is named. The Past Presidents' Medal was presented by Past President Frank Hawthorne, to R.W. (Bob) Boyle, Geological Survey of Canada. The award recognizes his research contributions in geochemistry and geology of the lode gold deposits of the Yellowknife camp, the Keno Hill district, Yukon, and the Cobalt camp in Ontario, and for establishing regional geochemical surveys across Canada. The citations of these medal winners follow in this Volume.

The Annual Business Meeting of the Mineralogical Association of Canada was held on May 28, 1992, in the BAC Building, Acadia University. President P.L. Roeder expressed thanks on behalf of the Association to Sandra Barr, Vice-Chairperson (MAC), and David Piper, Chairman (GAC), and to the Organizing Committee and Chairmen of Symposia and Special Sessions. The campus provided scenic surroundings for a well-organized and well-attended meeting, with the Short Courses presented off campus.

Following approval of the minutes of the 1991 annual business meeting, published as proceedings in *The Canadian Mineralogist*, Volume 29, Part 4, pages 1069-1070 (1991), the President summarized the educational and promotional efforts of the Association. The Visiting Lecture Program continues to be a success through the regions. Toby Rivers, Memorial University, will be assuming the post of Chairman of that program, with the retirement of Bruce Nesbitt, who inaugurated it. The Association extends its appreciation to Bruce for establishing a regional network of lecture tours. MAC sponsorship was given to a Museums Conference held in Toronto in October. *The Canadian Mineralogist* has published (June issue) abstracts of the Sudbury–Noril'sk Symposium, October 2–6, organised by A.J. Naldrett. Our Public Awareness Committee, chaired by B. Sherriff, will support the Canadian Geoscience Council's EDGEO Program of geoscience education. Grants were provided to the Atlantic, Central, and Western University Geological Conferences. The Mineralogical Association of Canada is considering sponsorship of the 1998 International Mineral Association meeting, in Toronto. A formal offer to host the meeting will be forwarded to the IMA for their consideration.

The audited financial statement to December 31, 1991, 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 1992. Member's equity at year end stands at $300,953. Interest income is reduced from last year, because of lower interest rates, and the Treasury Reserve Fund was depleted somewhat due to a loss of $26,435 incurred in publishing the Journal. The first $25,000 instalment of a two-year grant ($10,000 final year payment in April 1992) from the Natural Sciences and Engineering Research Council of Canada, and a $4000 grant-in-aid of publication of a special issue, from the Geological Survey of Canada, were received. Income from dues was

redistributed in 1991 on the basis of 20% to general operations (from 10% previously), and 80% to *The Canadian Mineralogist*. The financial statement reflects a net loss for the year of $4,827.

The Finance Committee, chaired by N. Halden, presented the ten-year trend in income and expenditures of the Association, which indicates losses that exceed the interest income and results in the erosion of the Treasury Reserve Fund as noted above. The objectives of the proposed budget are to arrest this decline, with fee revenue balancing expenses. In order to achieve this, the Association must raise fees. The fee structure approved at MAC Council will bring the Ordinary Membership to $60, Students $25, Corporations $190, and Sustaining Members $550 for 1993.

Two changes approved in Council will impact on the budget. A change in Abstracts policy that has been adopted will offset the printing and distribution costs associated with the Program and Abstracts Volume. Starting in 1993, the Program and Abstracts Volume will be a separate item on the Dues Notice and Publications Order Form. Those members who wish to receive it will be asked to order it. The cost for the Program and Abstracts Volume will be commensurate with the fee charged by GAC for the same item. Corporate and Sustaining members will continue to receive the Program and Abstracts Volume with their Journal subscription. Members were reminded that for the EDMONTON'92 GAC–MAC, the Abstract deadline has been moved up to December 1st, as part of Edmonton's proposed changes in the issue of Circulars. It has also been agreed in principle to increase the page length of *The Canadian Mineralogist* to reduce the time between acceptance of an article and publication. Fall Council will consider the effect such increased page charges would have on the adopted budget, which allows for up to 1200 pages per issue. The Editor's Report, prepared by Editor Robert F. Martin, indicated that the next two issues after the Special Issue on Quantitative Methods in Petrology (December 1991) were regular issues, with a Special Issue on Granite Pegmatites planned for the September issue. Another thematic issue, commemorating the 150th Anniversary of the Geological Survey, will be published in Volume 31. The Special Issues contribute to the delay in publishing articles in regular issues of the journal, and their influence will be considered along with the effect of increased number of pages.

Council has approved the sponsorship of a timely and interesting Short Course proposal for WATERLOO'94, from D. Blowes and Gwilim Roberts, University of Waterloo, and C.M. Alpers, U.S. Geological Survey, on "Environmental Geochemistry of Sulphide Mine Tailings". The proceedings of the course will be published in our Short Course series. The VICTORIA'95 meeting will be chaired by Chris Barnes (GAC) and E. Van de Flier-Keller (MAC); WINNIPEG'96, chaired by George Clark with Frank Hawthorne as Vice-Chairman. The Steering Committee for OTTAWA'97 is seeking members to lead the Organizing Committee.

The next Annual Business Meeting of the Mineralogical Association of Canada will be held as part of the program for the EDMONTON'93 GAC–MAC, May 17–19, 1993, on the University of Alberta Campus, Edmonton, Alberta (John Kramers, Chairman, and Ron Burwash, Vice-Chairman). Complete minutes of the Annual Business Meeting and the MAC Council meeting may be obtained from the Secretary.

G.M. LeCheminant
Secretary

THE HAWLEY MEDAL FOR 1992 TO GEORGE SKIPPEN AND DAN MARSHALL

The Hawley Award of the Mineralogical Association of Canada is presented annually to the authors who are judged to have published the best paper in the previous year's volume of *The Canadian Mineralogist*. It is my pleasure to present the Hawley Award for 1992 to George Skippen and Dan Marshall of Carleton University for their paper entitled "The Metamorphism of Granulites and Devolatilization of the Lithosphere" (volume **29**, pages 693-705).

The process whereby generally hydrous supracrustal rocks become dominated by anhydrous mineral assemblages during prograde metamorphism is a fundamental geological problem. Previous explanations for the reduction in the activity of water implicit in granulite-facies metamorphism have included the dissolution of water in and extraction of a partial melt, and the invasion of the lower crust by carbon dioxide from the upper mantle. Skippen and Marshall, on the other hand, demonstrate that devolatilization would be an expected result of the pressure – temperature – time path typical of the tectonic evolution of the lower crust.

On the basis of homogeneous equilibria among gaseous species, and reasonable mineralogical constraints on the fugacities of hydrogen and oxygen and the activity of carbon, they show that calculated fluid pressure exceeds lithostatic pressure at elevated temperatures. The mechanical stability of the rocks could not be maintained under these circumstances, and outgassing would occur. Devolatilization would continue as long as heat is added or until either hydrogen or