

Proceedings of the Seventy-second Annual Meeting of the Mineralogical Society of America in San Diego, California

REPORT OF THE SECRETARY FOR 1991

The seventy-second annual meeting of the Society was held on 21–24 October 1991 in San Diego, California. Presentations sponsored by MSA were organized into 18 technical sessions: two on experimental petrology, seven on igneous petrology, four on metamorphic petrology, two on mineralogy and crystallography, and three on volcanology. Seven of these sessions involved poster presentations. There were 271 volunteered abstracts submitted for the five MSA-sponsored categories, with an acceptance rate of 92% for all categories. The Society's representatives to the GSA Joint Technical Program Committee were D. L. Bish, M. S. Ghiorso (Chair), and J. E. Grover. The Society's symposium, "Contact Metamorphism," was convened by M. L. Crawford and R. J. Tracy. Prior to the meeting, MSA's short course, Contact Metamorphism, was organized by D. Kerrick.

The retiring president, Malcolm Ross, presented an address to the Society entitled "Crystalline Solution Series and Order-Disorder within the Natrolite Mineral Group" on Tuesday, 22 October. Subsequently, President Ross called the annual business meeting of the Society to order.

Council meetings

The first meeting of the 1991 Council was held on 30 October 1990 in Dallas, Texas; the second was on 30 May 1991 in Baltimore, Maryland; and the third was held on 20 October 1991 in San Diego, California.

The first meeting of the 1992 Council was also held in San Diego, California, on 22 October 1991.

Discussions and actions by Council, as summarized from minutes of the three 1991 Council meetings and the 1991 business meeting, are noted below.

Results of the 1991 election

The voting for officers and Council members of the Society for 1992 was held during the summer of 1991; the following officers were elected:

<i>President:</i>	Michael J. Holdaway (1992)
<i>Vice President:</i>	Alexandra Navrotsky (1992)
<i>Secretary:</i>	Stephen Guggenheim (1992–1993)
<i>Councillors:</i>	Michael F. Hochella (1992–1994) Joseph R. Smyth (1992–1994)

The ballots (837) were certified on 27 August 1991 by the Tellers, Sorena S. Sorensen and Ann G. Wylie. Approximately 33% of the membership eligible to vote cast their ballots.

Membership statistics

As of December 1991, the Society's 2542 members included 1587 Members (+84), 531 Fellows (–16), 392 Students (+59), five Honorary Fellows (–1), and 27 Associated Life Members and Life Fellows (+1). Numbers in parentheses are changes from December 1990.

Necrology

It is with regret that the Society announces the deaths of the following Fellows and Members:

Louis H. Ahrens (LF)
George W. Bain (LF)
Douglas G. Brookins (F)
Paul Desautels (F)
E. William Heinrich (LF)
Katharine Mather (LF)
Arnulf Muan (F)
Charles F. Park (LF)
Jack Parnau (LM)
William Parrish (LF)
Alfred O. Woodford (LF)

Anyone who wishes to honor a deceased Fellow or Member by preparing a memorial should contact Memorialist B. H. Mason.

Financial affairs

Although the financial status of the Society remains good, limitations were imposed by Council to prevent further losses to the endowment. These losses were incurred, in part, by an increased number of pages published in the *American Mineralogist* last year as a result of a special issue and an increase in the submission rate. Although several cost-savings measures have been taken, the major limits to expenditures were placed on short courses by the consideration of funding relative to course size and on the *Lattice* and the *American Mineralogist* by limiting the number of pages per volume. The financial status of the Society is discussed in detail in the Report of the Treasurer.

American Mineralogist

The 1991 Council approved appointments of the following Associate Editors, who will serve for the three-year period 1992–1994: Thomas Armbruster, Ron Cohen, and Joel Grice. In its first Council meeting, the 1992 Council approved Jay Bass for the three-year period 1992–1994 and appointed R. L. Freed (1992–1994) to replace R. C. Reynolds, Jr., who resigned.

Awards

The 1992 Roebling Medal will be awarded to Hatten Yoder (Geophysical Laboratory, Carnegie Institution of Washington) and the 1992 Mineralogical Society of America Award to Jonathan F. Stebbins (Stanford University). The Distinguished Public Service Medal of the Mineralogical Society of America is not to be awarded this year.

The recipient of the 1992 Crystallography Research Grant Award is Roberta L. Millard of Queen's University, Kingston, Ontario.

The *American Mineralogist* Undergraduate Award was presented to 19 students in 1991.

Fellowship

Council approved Fellowship status for the following members of the Society:

Ross J. Angel	Erling S. Krogh
John T. Cheney	Peter B. Leavens
Stefan Graeser	Steve Ludington
Ian E. Grey	Bruce Nesbitt
Paul C. Hess	Nancy L. Ross
Roderick J. Hill	Robert A. Woodtli
Guy L. Hovis	

Nominations for officers for the 1992 election

President: Alexandra Navrotsky, Princeton University

Vice-President: Bernard W. Evans, University of Washington
(one to be elected) Henry O. A. Meyer, Purdue University

Secretary: (not on ballot)

Treasurer: Rosalind T. Helz
(1993–1994)

Councillors: John B. Brady, Smith College
(1993–1995) Edward S. Grew, University of Maine at Orono
(two to be elected) Anne M. Hofmeister, University of California–Davis
Jack M. Rice, University of Oregon

Other

In 1994, the Society will celebrate its 75th anniversary. Council is considering a joint celebration with the American Geophysical Union (AGU) at the Spring meeting in Baltimore. AGU will be having its 50th anniversary in 1994. Further details will be given in the *Lattice* as they become known.

Barbara Dutrow and David Veblen are the 1991–1992 lecturers for the MSA Lecture Program. This program continues to be popular; there were 65 requests from geoscience departments for speakers this past year. Each speaker expects to visit nine universities.

REPORT OF THE TREASURER FOR 1991

This report summarizes the financial activity of the Mineralogical Society of America for the calendar year 1991. The financial statements have been audited by Massey Good and Associates of Gaithersburg, Maryland. The financial statements given in this report are taken from the audit report.

The Statement of Assets, Liabilities, and Fund Balances (Table 1) shows a negative balance of \$198,946 in the General Operating Fund and positive balances of \$883,527 in the Endowment Fund, \$53,756 in the Crystallography Fund, and \$74,212 in the Mineralogy and Petrology Fund. These balances represent a \$158,290 decrease in the General Operating Fund, a \$48,746 increase in the Endowment Fund, and increases of \$12,176 and \$16,547 in the Crystallography and Mineralogy and Petrology Funds, respectively. All securities in those totals are evaluated on a cost basis. The Society's net worth therefore decreased by a total of \$80,821, or 9.05% when securities are evaluated on a cost basis.

However, the securities held in the Endowment Fund increased greatly in market value. Therefore, although \$135,118 was transferred from the Endowment, Crystallography, and Mineralogy and Petrology Funds to pay for awards, the lecture program, dues for life members, and general society expenses, the market value of the combined Funds increased from \$957,897 to \$1,069,146 (see Table 2 in the Report of the Financial Advisory Committee).

Breakdown by funds

The Society has four funds. The General Operating Fund, which accounts for all aspects of the Society's operations, showed a deficiency of revenues over expenses of \$158,290, with a balance as of December 31, 1991, of negative \$198,946 (Table 1, column 3). A total of \$135,118 was transferred from the Endowment Fund to offset this shortfall. The Endowment Fund, which acts as a reserve for the Society and whose income provides some support for Society operations and special projects, showed an excess of expenses over revenue of \$109,544, yielding a balance of \$750,571 based on the market value of securities (Table 1). This loss was due to the transfer of \$132,956 to the General Operating Fund. Approximately \$120,000 of this total was to offset budgetary shortfalls mainly associated with the publication of the *American Mineralogist*. The rest of the money transferred was to offset the costs of the awards, dues for life members, and the lecture program. The Crystallography Fund and the Mineralogy and Petrology Fund, which provide biennial research grants to promising young scientists, showed an excess of revenue over expenses of \$2,334 and \$3,052, respectively. These funds also realized increased value because of the reduction in unrealized depreciation in fair market reported in 1990, resulting in fund balances of \$53,060 and \$72,746 (Table 1), including money to be transferred from the General Fund after the end of the year.

TABLE 1. Statements of assets, liabilities, and fund balances

	1990 Total	1991 Total	Unrestricted			Restricted		
			General Operating Fund	Reserve Fund	Total	Crystallography Fund	Mineralogy and Petrology Fund	Total
Assets								
Current assets:								
Cash	\$ 205,570	\$ 197,052	\$197,052	\$ —	\$197,052	\$ —	\$ —	\$ —
Accounts receivable	27,185	24,885	24,885	—	24,885	—	—	—
Prepaid expenses and deposits	7,406	13,982	13,982	—	13,982	—	—	—
Investments (FAC report)	913,830	876,377	—	750,571	750,571	50,060	72,746	125,806
Interfund borrowings	—	—	(135,118)	132,956	(2,162)	696	1,466	2,162
Total current assets	1,153,991	1,112,296	100,801	883,527	984,328	53,756	74,212	127,968
Furniture and equipment, net of accumulated depreciation	16,768	13,037	13,037	—	13,037	—	—	—
Total assets	\$1,170,759	\$1,125,333	\$113,838	\$883,527	\$997,365	\$53,756	\$74,212	\$127,968
Liabilities and fund balance								
Current liabilities								
Accounts payable	33,027	9,207	9,207	—	9,207	—	—	—
Accrued expenses	15,291	13,496	13,496	—	13,496	—	—	—
Due to other publishers	23,571	23,416	23,416	—	23,416	—	—	—
Deferred revenues:								
Dues	53,090	67,460	67,460	—	67,460	—	—	—
Subscriptions	152,410	199,205	199,205	—	199,205	—	—	—
Total liabilities	277,389	312,784	312,784	—	312,784	—	—	—
Fund balance	893,370	812,549	(198,946)	883,527	684,581	53,756	74,212	127,968
Total liabilities and fund balance	\$1,170,759	\$1,125,333	\$113,838	\$883,527	\$997,365	\$53,756	\$74,212	\$127,968

Discussion of changes

The losses for the year were very close to those predicted in the original 1991 budget. The original budget showed a predicted deficit of approximately \$134,000 in the General Operating Fund, which, added to the deficit of \$48,405 at the beginning of the year, gave a predicted deficit of \$182,313 compared to the actual value of \$198,946.

Deviations from the original budget occurred in several categories. MSA dues received were 3% (\$2561) above projections because of an increase in the number of dues-paying members. The *American Mineralogist* income was 10% (\$30,572) below budget. This shortfall came from several sources, including institutional subscription income (-\$8607), page charges (-\$20,147), and reprint sales (-\$2679). A small amount of this shortfall was offset by increased revenues from other sources. *Reviews in Mineralogy* brought in 12% (\$14,356) more revenue than projected. Money market income that is normally credited to the *American Mineralogist* was also lower by 48% (\$5305) due to lower cash balances and lower interest rates. Short courses brought in \$40,861 (not listed in original budget) but cost \$54,308, for a loss of \$13,447. Net income, not counting short course income, was therefore 3% (\$17,872) below budgetary estimates.

Under expenses, the Business Office came in under budget by 5% (\$8178). The *American Mineralogist* came in under budget by 8% (\$8607) for the Editorial Office and 2% (\$5434) for printing and distribution. The *Lattice* came in over budget by 22% (\$4440). All other categories

were close to budgeted amounts. The net result was that expenses, not counting short courses, were 2% (\$15,250) below budget.

The Council has already taken substantial measures to stop the deficits. Last year we were forced to raise all dues by \$10, to \$50 for regular members and \$30 for student members, to offset the shortfall. In addition, we have raised the subscriber rates by \$25 and added additional fees for foreign subscribers to offset the postage and freight. We have also been forced to charge for credit card orders on some transactions, since we must pay 5–10% for all credit card purchases.

This year the Council has also moved to put page limits on the *Lattice* and additional restrictions on the budgeting of short courses to attempt to keep these items within budget limits. We anticipate further increases in subscription rates caused by increases in printing and production costs, but hope to hold these increases to approximately 10%. With these changes, we predict that the budget deficit for 1992 will be much smaller and that by 1993 we may show an excess of revenue over expenses. It is the intention of Council to pay back the approximately \$120,000 transferred from the Endowment Fund to cover general operating expenses as revenues allow.

Summary

In summary, the 1991 year was one of financial difficulty for the Society. We lost approximately \$150,000 in the General Operating Fund, which was partially offset by transferring money from the Endowment Fund. All

TABLE 2. Mineralogical Society of America endowment

	1991 Cost	1991 Market	1990 Cost	1990 Market
Fund Type				
Endowment	\$750,571	\$943,340	\$816,928	\$860,995
Mineralogy and Petrology	\$ 73,385	\$ 72,746	\$ 70,165	\$ 56,032
Crystallography	\$ 54,630	\$ 53,060	\$ 52,281	\$ 40,870
Investment type				
U.S. Treasury notes	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
Mutual funds and equities	\$498,702	\$689,262	\$759,923	\$778,446
Cash equivalents	\$339,884	\$339,884	\$139,451	\$139,451

though the Endowment Fund was originally set up to support the functions of the society, including publication of the *American Mineralogist*, the transfer was far more than the Society can sustain on a regular basis. The Council has therefore taken steps to increase revenues and limit expenses in order to stop the deficit in the General Operating Fund. It is our hope that by 1993 the Society will be back to a balanced budget and can start paying back some of the money transferred from the Endowment Fund.

With all of this negative budgetary information, there is a hidden silver lining, which is documented in the Report of the Financial Advisory Committee. The FAC, under the guidance of Bruce Hemingway, wisely moved money from stocks to cash after the stock market had reached its highest level in 1991. As a consequence, we did not have to cash in any securities at low points in the market. Equities went up so much in 1991 that even though we transferred approximately \$120,000 to cover the general operating costs of the Society and the cost value of securities in the Endowment Fund went down from \$816,928 to \$750,571, the market value of that fund went up, from \$860,995 to \$943,340. The total investment portfolio, including the Endowment Fund, Crystallography Fund, and the Mineralogy and Petrology Funds, now exceeds one million dollars in terms of market value.

J. A. WHITNEY

REPORT OF THE FINANCIAL ADVISORY COMMITTEE FOR 1991

The Mineralogical Society of America's endowment is divided into three funds. The largest of these, the Endowment Fund, is for unrestricted use authorized by the MSA Council, and the other two smaller funds, the Mineralogy and Petrology Fund and the Crystallography Fund, are restricted for providing financial assistance toward future research in their respective fields. This report summarizes the fiscal-year financial history of those funds. It does not include monies, such as recent contributions, not yet transferred to the endowment from the General Operating Fund (GOF), and it does not include monies to be returned to the endowment that were transferred to the GOF to cover recent deficits.

The Society's Endowment Fund is invested in a \$40,000 U.S. Treasury note, two mutual fund money-market accounts, and two mutual fund equity accounts, one in the

Fidelity Magellan Fund and the other in the Reich and Tang Equity Fund. During the year, \$200,000 from the Fidelity Magellan Fund and \$100,000 from the Reich and Tang Equity Fund were transferred to the money market accounts, and \$120,000 of that money was transferred to the GOF to cover the Society's negative cash flow. No reallocations occurred in the two restricted funds for 1991. At year end, the Endowment Fund was invested 64% in equities, 32% in cash equivalents, and 4% in the U.S. Treasury note. The Mineralogy and Petrology Fund and the Crystallography Fund are each 100% invested in separate Fidelity Equity-Income Fund accounts.

The year 1991 was a strong one for the equity markets. In spite of the transfer of \$120,000 to the GOF, the market value of the Endowment Fund increased from \$860,995 to \$943,340. The costs of those monies decreased from \$816,928 to \$750,571. The market values of the Mineralogy and Petrology and Crystallography Funds increased from \$56,032 and \$40,870 to \$72,746 and \$53,060, respectively. Additional details on the endowment are given in Table 2.

The Mineralogical Society of America remains in sound financial condition at this time. Actions taken by the Council during 1991 to decrease costs and to increase revenues are expected to bring the operating budget into balance from deficits of \$85,000 in 1990 and \$150,000 in 1991. If that does not happen in the next 12-18 months, the Financial Advisory Committee will be a strong advocate for further revisions in the operating budget.

Respectfully submitted,
D. A. HEWITT, Chair
G. L. NORD, Chair of the
Management Committee
D. RUMBLE
J. H. STOUT
J. A. WHITNEY, Treasurer

REPORT OF THE EDITORS FOR 1991 (OCTOBER 1, 1990-SEPTEMBER 30, 1991)

This has been an exceedingly challenging year for all of us in the editorial office. At the time of the MSA Council Meeting in Dallas (Fall, 1990) the journal was eight weeks behind schedule, and there was an unprecedented number of papers in the review process. One year later we were able to report to the Council that the journal was on schedule and had no backlog of papers.

TABLE 3. Summary of *American Mineralogist* operations

Volume	No.	Number of scientific articles	Pages of scientific articles	Pages of miscellaneous	Total pages	Signatures*
September–December 1990						
75	9–10	31	266	14	280	8.750
75	11–12	26	220	24	244	7.625
January–December 1991						
76	1–2	35	309	3	312	9.750
76	3–4	36	371	1	372	11.625
76	5–6	30	396	0	396	12.375
76	7–8	35	367	1	368	11.500
76	9–10	34	307	25	332	10.375
76	11–12	25	246	29	275	8.594
Total (v. 76)		195	1996	59	2055	64.219
For comparison: 1990						
Total (v. 75)		161	1422	52	1474	46.0625
For comparison: 1989						
Total (v. 74)		172	1369	87	1456	45.50
For comparison: 1988						
Total (v. 73)		173	1461	71	1532	47.875
Manuscripts submitted, 10/1/90 to 9/30/91:					220	
Manuscripts submitted, 10/1/89 to 9/30/90:					269	
Manuscripts submitted, 10/1/88 to 9/30/89:					239	
Manuscripts rejected, 10/1/90 to 9/30/91:					59	
Manuscripts rejected, 10/1/89 to 9/30/90:					45	
Manuscripts rejected, 10/1/88 to 9/30/89:					29	
Manuscripts withdrawn, 10/1/90 to 9/30/91:					26	
Manuscripts withdrawn, 10/1/89 to 9/30/90:					17	
Manuscripts withdrawn, 10/1/88 to 9/30/89:					13	

* One signature = 32 pages.

As can be seen in Table 3, over 64 signatures (2055 pages) were published in 1991, making volume 76 the largest volume in the history of the *American Mineralogist* by a very wide margin. Discussions of the financial strain caused by publishing such a large volume can be read in the other reports in the Proceedings for this year and last year.

At the Council Meetings held at Fall GSA (San Diego), it was decided that in 1992 the journal would not publish more than 42 signatures. Every attempt would be made to shorten the average length of articles by having authors tighten their writing, deposit tables, and design their figures economically, thereby making it possible to publish more articles in the same number of pages. In addition, the Council authorized increasing the rejection rate to keep the number of acceptances within a rate that can be

published in a timely fashion. The Council did not approve the creation of a backlog.

Although submissions were down for fiscal 1991, they began climbing in midsummer and continue at a very high rate. As a result, the rejection rate has risen steeply. We will continue to adjust the rate in response to the rate of submission, while striving to shorten the length of articles as much as possible. Despite these constraints, we are committed to continuing the *American Mineralogist* tradition of presenting the best of current research across the spectrum of mineralogy, crystallography, and petrology.

STEVEN R. BOHLEN, Editor
DONALD R. PEACOR, Editor
VICKI LAWRENCE, Managing Editor

REVIEWERS OF MANUSCRIPTS EITHER ACCEPTED OR REJECTED IN 1991

- Abbott, R. N., Jr.
 Aines, R. D.
 Allen, F. M.
 Amthauer, G.
 Anderson, A. T., Jr.
 Angel, R. J.
 Armbruster, T.
 Ashley, P. M.
 Bailey, S. W.
 Baker, D. R.
 Baldridge, W. S.
 Barnes, S. J.
 Bass, J. D.
 Bauer, J. F.
 Bell, D. R.
 Bennett, P. C.
 Beran, A.
 Bergman, S. C.
 Berman, R. G.
 Bina, C. R.
 Bird, D. K.
 Bish, D. L.
 Boerio-Goates, J.
 Bohlen, S. R.
 Bowers, T. S.
 Brady, J. B.
 Brantley, S.
 Brimhall, G. H.
 Brown, G. E.
 Brown, P. E.
 Bukowinski, M.S.T.
 Bullen, T.
 Burdett, J.
 Burnham, C. W.
 Burns, R. G.
 Burruss, R. C.
 Burt, D. M.
 Burton, B. P.
 Buseck, P. R.
 Cabri, L. J.
 Cameron, M.
 Candela, P. A.
 Capobianco, C. J.
 Carlson, W. D.
 Carmichael, I.S.E.
 Cashman, K. V.
 Černý, P.
 Chang, L.L.Y.
 Chatterjee, N.
 Chernosky, J. V.
 Cho, M.
 Chopelas, A.
 Chou, I.-M.
 Christiansen, E. H.
 Christoffersen, R.
 Clinard, F. W., Jr.
 Cohen, R. E.
 Colson, R. O.
 Corrigan, J.
 Craig, J. R.
 Crawford, W. A.
 Davidson, A. O.
 Davies, P. K.
 Day, H. W.
 Dietrich, R. V.
 Delano, J. W.
 Dickenson, J. E.
 Dollase, W. A.
 Downs, J. W.
 Dunn, S. R.
 Dyar, M. D.
 Ebel, D. S.
 Eberl, D. D.
 Engi, M.
 Ercit, T. S.
 Erd, R. C.
 Essene, E. J.
 Evans, B. W.
 Evans, H. T., Jr.
 Ewing, R. C.
 Farges, F.
 Fei, Y.
 Fenn, P. M.
 Ferry, J. M.
 Finger, L. W.
 Fitzgerald, J. J.
 Flach, K.
 Fleet, M. E.
 Fleischer, M.
 Flinn, P.
 Foit, F. F., Jr.
 Foley, S. F.
 Foord, E. E.
 Foster, C. T.
 Francis, C. A.
 Freed, R. L.
 Frost, B. R.
 Frost, T. P.
 Ganguly, J.
 Gasparik, T.
 Geisinger, K. L.
 Getting, I.
 Ghiorso, M. S.
 Gibbs, G. V.
 Giese, R. F.
 Gillet, P.
 Glazner, A. F.
 Goldstein, J.
 Grambling, J. A.
 Gray, N.
 Grew, E. S.
 Griffen, D. T.
 Grove, T. L.
 Guggenheim, S. J.
 Guthrie, G. D.
 Haggerty, S. E.
 Harlow, G. E.
 Harris, D. C.
 Haselton, H. T.
 Hatch, D. M.
 Hawthorne, F. C.
 Heaney, P. J.
 Hem, J. D.
 Hemingway, B. S.
 Henry, D. J.
 Herzberg, C. T.
 Hewitt, D. A.
 Hibbard, M. J.
 Higgins, J. B.
 Hildreth, E. W.
 Hochella, M. F., Jr.
 Hodges, K. V.
 Hoersch, A. L.
 Hofmeister, A. M.
 Holdaway, M. J.
 Hollocher, K. T.
 Holloway, J. R.
 Honig, J. M.
 Hovis, G. L.
 Howard, J.
 Huebner, J. S.
 Hughes, J. M.
 Jambor, J. L.
 Jenkins, D. M.
 Joesten, R. L.
 Johnston, A. D.
 Karsten, J.
 Kinzler, R.
 Kirkpatrick, R. J.
 Kohn, M. J.
 Kress, V. C.
 Labotka, T. C.
 Laird, J.
 Langer, K.
 Leshner, C. E.
 Leshner, C. M.
 Lindsley, D. H.
 London, D.
 Longhi, J.
 Lorand, J. P.
 Loucks, R. R.
 Luhr, J. F.
 Lyons, J. B.
 Mackwell, S. J.
 Mahood, G.
 Manghnani, M. H.
 Mann, C. J.
 Mattioli, G. S.
 Matyi, R.
 McCallum, I. S.
 McConnell, J. D.
 McCormick, T. C.
 McMillan, P.
 Miser, D. E.
 Moecher, D. P.
 Mohr, D. W.
 Moore, J. G.
 Moore, P. B.
 Morrison, J.
 Morse, S. A.
 Mukhopadhyay, B.
 Munoz, J. L.
 Nabelek, P. I.
 Nada, R.
 Naeser, C.
 Nakada, S.
 Nash, W. P.
 Naslund, H. R.
 Navrotsky, A.
 Nekvasil, H.
 Nesbitt, B. E.
 Newton, R. C.
 Nickel, E. H.
 Nord, G. L., Jr.
 O'Neill, H. St.C.
 Orme, C. A.
 Orr, K. K.
 Palin, J. M.
 Parker, S.
 Parry, W. T.
 Parsons, I.
 Pattison, D.R.M.
 Peacock, S. M.
 Peacor, D. R.
 Peterson, E. U.
 Petrov, I.
 Phillips, M. W.
 Pluth, J. J.
 Post, J. E.
 Powell, R.
 Presnall, D. C.
 Prewitt, C. T.
 Price, D.
 Rask, J.
 Redfern, S.A.T.
 Reeder, R. J.
 Reynolds, R. C., Jr.
 Rigden, S. M.
 Rivers, M. L.
 Roberson, H.
 Robinson, P.
 Roddick, J. C.
 Rodgers, J.
 Rosenberg, P. E.
 Ross, M.
 Rossman, G. R.
 Rumble, D., III
 Russell, J. K.
 Rustad, J. R.
 Rutherford, M. J.
 Sack, R. O.
 Salje, E.
 Sautter, V.
 Scaillet, B.
 Schiffries, C. M.
 Schreyer, W. F.
 Schumacher, J. C.
 Sclar, C. B.
 Scotford, D. M.
 Scott, E.R.D.

Scott, S. D.	Spearing, D. R.	Treiman, A.	Wendlandt, R. F.
Selverstone, J.	Speer, J. A.	Trzcienski, W. E., Jr.	White, W. B.
Sen Gupta, P. K.	Spera, F.	Turner, S.	Whitney, J. A.
Shannon, M.	Stebbins, J. F.	Turnock, A. C.	Wickham, S. M.
Shannon, R. D.	Stein, D. J.	Veblen, D. R.	Wicks, F. J.
Sharp, T. G.	Stoessel, R. K.	Velbel, M. A.	Wiebe, R. A.
Shaw, H. R.	Stolper, E.	Virgo, D.	Williams, Q.
Sherman, D. M.	Stout, J. H.	Walker, J. R.	Wintsch, R. P.
Sherriff, B. L.	Stuart, J. A.	Wall, A.	Wise, M. A.
Skinner, H.C.W.	Sujattra, K.	Walter, L. M.	Wolf, G. H.
Smith, D.	Swanson, S. E.	Walther, J. V.	Woodhead, J. A.
Smyth, J. R.	Swope, J.	Warren, P. H.	Young, E. J.
Solomon, E.	Symonds, R. B.	Waychunas, G. A.	Yund, R. A.
Sorensen, S. S.	Tracy, R. J.	Webster, J. D.	Zoltai, T.
Spear, F. S.			

LIST OF FORMER OFFICERS, MEDAL RECIPIENTS, AND MEETING PLACES

Honorary Presidents

Edward S. Dana
1925–1935

Charles Palache
1949–1954

Edward H. Kraus
1955–1973

Edgar T. Wherry
1974–1982

Presidents

1920 Edward H. Kraus	1938 Ellis Thomson	1956 Clifford Frondel	1974 S. W. Bailey
1921 Charles Palache	1939 Max N. Short	1957 D. Jerome Fisher	1975 Arnulf Muan
1922 Thomas L. Walker	1940 William F. Foshag	1958 George E. Goodspeed	1976 E-an Zen
1923 Edgar T. Wherry	1941 Frederick E. Wright	1959 Ralph E. Grim	1977 F. Donald Bloss
1924 Henry S. Washington	1942 Arthur F. Buddington	1960 Joseph Murdoch	1978 Peter J. Wyllie
1925 Arthur S. Eakle	1943 John F. Schairer	1961 E. F. Osborn	1979 David R. Wones
1926 Waldemar T. Schaller	1944 R. C. Emmons	1962 Ian Campbell	1980 W. Gary Ernst
1927 Austin F. Rogers	1945 Kenneth K. Landes	1963 C. S. Hurlbut, Jr.	1981 Gerald V. Gibbs
1928 Esper S. Larsen	1946 Paul F. Kerr	1964 Leonard G. Berry	1982 Donald H. Lindsley
1929 Arthur L. Parsons	1947 M. J. Buerger	1965 George T. Faust	1983 Edwin Roedder
1930 Herbert E. Merwin	1948 M. A. Peacock	1966 Brian H. Mason	1984 Charles T. Prewitt
1931 Alexander H. Phillips	1949 John W. Gruner	1967 Felix Chayes	1985 Hans P. Eugster
1932 Alexander N. Winchell	1950 George Tunell	1968 James B. Thompson	1986 Paul B. Barton, Jr.
1933 Herbert P. Whitlock	1951 A. Pabst	1969 Francis J. Turner	1987 Paul H. Ribbe
1934 John E. Wolff	1952 Michael Fleischer	1970 William F. Bradley	1988 David B. Stewart
1935 Clarence S. Ross	1953 J.D.H. Donnay	1971 Julian R. Goldsmith	1989 Charles W. Burnham
1936 William S. Bayley	1954 Sterling B. Hendricks	1972 Hatten S. Yoder, Jr.	1990 Peter Robinson
1937 Norman L. Bowen	1955 Harry H. Hess	1973 Joseph V. Smith	1991 Malcolm Ross

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1920 Thomas L. Walker	1935 Ellis Thomson	1950 Ralph E. Grim	1965 Brian H. Mason
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1923 George F. Kunz	1938 Kenneth K. Landes	1953 Sterling B. Hendricks	1968 Francis J. Turner
1924 Washington A. Roebling	1939 Burnham S. Colburn	1954 Harry H. Hess	1969 William F. Bradley
1925 Herbert P. Whitlock	1940 Ian Campbell	1955 Clifford Frondel	1970 Julian R. Goldsmith
1926 George Vaux, Jr.	1941 William J. McCaughey	1956 D. Jerome Fisher	1971 Hatten S. Yoder, Jr.
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1928 Lazard Cahn	1943 John W. Gurner	1958 Ralph E. Grim	1973 S. W. Bailey
1929 Edward Wigglesworth	1944 Harry Berman	1959 Joseph Murdoch	1974 Arnulf Muan
1930 John E. Wolff	1945 George Tunell	1960 E. F. Osborn	1975 E-an Zen
1931 William F. Foshag	1946 S. B. Hendricks	1961 Ian Campbell	1976 F. Donald Bloss
1932 Joseph L. Gillson	1947 Carl Tolman	1962 C. S. Hurlbut, Jr.	1977 Peter J. Wyllie
1933 Frank B. Guild	1948 A. Pabst	1963 Leonard G. Berry	1978 David R. Wones
1934 William A. Tarr	1949 J.D.H. Donnay	1964 George T. Faust	1979 W. Gary Ernst

1980 Gerald V. Gibbs
1981 Donald H. Lindsley
1982 Edwin Roedder

1983 Charles T. Prewitt
1984 Hans P. Eugster
1985 Paul B. Barton, Jr.

1986 Paul H. Ribbe
1987 David B. Stewart
1988 Charles W. Burnham

1989 Peter Robinson
1990 Malcolm Ross
1991 Michael Holdaway

Secretaries

1920–1922 Herbert P. Whitlock
1923–1933 Frank R. Van Horn
1933–1934 Albert B. Peck
1934–1944 Paul F. Kerr
1944–1959 C. S. Hurlbut, Jr.
1959–1966 George Switzer
1966–1969 Ralph J. Holmes
1970–1971 Arnulf Muan
1972–1975 Joan R. Clark
1976–1979 Larry W. Finger
1980–1983 M. Charles Gilbert
1984–1987 Henry O. A. Meyer
1988–1991 Maryellen Cameron
1992– Stephen Guggenheim

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1920–1923 Albert B. Peck
1924–1929 Alexander H. Phillips
1920–1930 Albert B. Peck
1930–1940 Waldemar T. Schaller
1941–1958 Earl Ingerson
1958–1968 Marjorie Hooker
1969–1972 Alvin Van Valkenburg, Jr.
1973–1974 Philip M. Bethke
1975–1976 George W. Fisher
1976–1980 Malcolm Ross
1981–1984 Odette B. James
1985–1988 Gordon L. Nord, Jr.
1989– James A. Whitney

Editors

1920–1921 Edgar T. Wherry
1922–1956 Walter F. Hunt
1957–1961 Lewis S. Ramsdell
1961–1966 E. Wm. Heinrich
1966–1972 William T. Holser
1972–1975 F. Donald Bloss
1976–1980 Brian Mason
1981–1985 Michael J. Holdaway
1986–1989 James L. Munoz
1990– Steven R. Bohlen
1990– Donald R. Peacor

Councillors

1920 Arthur S. Eakle, Frank R. Van Horn, Frederick E. Wright, Alexander H. Phillips.
1921 Frank R. Van Horn, Frederick E. Wright, Alexander H. Phillips, Austin F. Rogers.
1922 Frederick E. Wright, Alexander H. Phillips, Austin F. Rogers, Thomas L. Watson.
1923 Alexander H. Phillips, Austin F. Rogers, Thomas L. Watson, Esper S. Larsen.
1924 Austin F. Rogers, Thomas L. Watson, Esper S. Larsen, Arthur L. Parsons.
1925 Thomas L. Watson, Esper S. Larsen, Arthur L. Parsons, William F. Foshag.
1926 Esper S. Larsen, Arthur L. Parsons, William F. Foshag, William A. Tarr.
1927 Arthur L. Parsons, William F. Foshag, William A. Tarr, Alexander N. Winchell.
1928 William F. Foshag, William A. Tarr, Alexander N. Winchell, Ellis Thomson.
1929 William A. Tarr, Alexander N. Winchell, Ellis Thomson, Clarence S. Ross.
1930 Alexander N. Winchell, Ellis Thomson, Clarence S. Ross, Paul F. Kerr.
1931 Ellis Thomson, Clarence S. Ross, Paul F. Kerr, William S. Bayley.
1932 Clarence S. Ross, Paul F. Kerr, William S. Bayley, William J. McCaughey.
1933 Paul F. Kerr, William S. Bayley, William J. McCaughey, Kenneth K. Landes.
1934 William S. Bayley, William J. McCaughey, Kenneth K. Landes, E. P. Henderson.
1935 William J. McCaughey, Kenneth K. Landes, E. P. Henderson, J. F. Schairer.
1936 Kenneth K. Landes, E. P. Henderson, J. F. Schairer, Arthur F. Buddington.
1937 E. P. Henderson, J. F. Schairer, Arthur F. Buddington, Arthur P. Honess,
1938 J. F. Schairer, Arthur F. Buddington, Arthur P. Honess, R. C. Emmons.
1939 Arthur F. Buddington, Arthur P. Honess, R. C. Emmons, Carl Tolman.
1940 Arthur P. Honess, R. C. Emmons, Carl Tolman, D. Jerome Fisher.
1941 R. C. Emmons, Carl Tolman, D. Jerome Fisher, Martin A. Peacock.
1942 Carl Tolman, D. Jerome Fisher, Martin A. Peacock, Adolf Pabst.
1943 D. Jerome Fisher, Martin A. Peacock, Adolf Pabst, C. S. Hurlbut, Jr.
1944 Martin A. Peacock, Adolf Pabst, Michael Fleischer, S. J. Shand.
1945 Adolf Pabst, Michael Fleischer, S. J. Shand, R. E. Grim.
1946 Michael Fleischer, S. J. Shand, R. E. Grim, Joseph Murdoch.
1947 S. J. Shand, R. E. Grim, Joseph Murdoch, H. H. Hess.
1948 R. E. Grim, Joseph Murdoch, H. H. Hess, Clifford Frondel.
1949 Joseph Murdoch, H. H. Hess, Clifford Frondel, Lewis S. Ramsdell.
1950 H. H. Hess, Clifford Frondel, Lewis S. Ramsdell, E. F. Osborn.
1951 Clifford Frondel, Lewis S. Ramsdell, E. F. Osborn, George T. Faust.
1952 Lewis S. Ramsdell, E. F. Osborn, George T. Faust, Victor T. Allen.
1953 E. F. Osborn, George T. Faust, Victor T. Allen, C. Osborne Hutton.
1954 George T. Faust, Victor T. Allen, C. Osborne Hutton, Felix Chayes.
1955 Victor T. Allen, C. Osborne Hutton, Felix Chayes, L. G. Berry.
1956 C. Osborne Hutton, Felix Chayes, L. G. Berry, C. B. Slawson, A. O. Woodford.

- 1957 Felix Chayes, L. G. Berry, C. B. Slawson, A. O. Woodford, S. S. Goldich.
- 1958 L. G. Berry, C. B. Slawson, A. O. Woodford, S. S. Goldich, B. H. Mason, R. H. Jahns, C. Milton.
- 1959 S. S. Goldich, B. H. Mason, R. H. Jahns, C. Milton, W. R. Foster, E. W. Nuffield.
- 1960 R. H. Jahns, C. Milton, W. R. Foster, E. W. Nuffield, J. R. Goldsmith, Horace Winchell.
- 1961 W. R. Foster, E. W. Nuffield, J. R. Goldsmith, Horace Winchell, R. M. Garrels, O. F. Tuttle.
- 1962 J. R. Goldsmith, Horace Winchell, R. M. Garrels, O. F. Tuttle, Francis J. Turner, Hatten S. Yoder, Jr.
- 1963 R. M. Garrels, O. F. Tuttle, Francis J. Turner, Hatten S. Yoder, Jr., W. F. Bradley, Howard T. Evans, Jr.
- 1964 Francis J. Turner, Hatten S. Yoder, Jr., W. F. Bradley, Howard T. Evans, Jr., Harold L. James, Joseph V. Smith.
- 1965 W. F. Bradley, Howard T. Evans, Jr., Harold L. James, Joseph V. Smith, William T. Pecora, William S. Fyfe, Walter D. Keller.
- 1966 Harold L. James, Joseph V. Smith, William S. Fyfe, Walter D. Keller, Eugene N. Cameron, William S. MacKenzie.
- 1967 Eugene N. Cameron, Robert G. Coleman, William S. Fyfe, Donald L. Graf, Walter D. Keller, William S. MacKenzie.
- 1968 F. Donald Bloss, Eugene N. Cameron, Charles L. Christ, Robert G. Coleman, Donald L. Graf, William S. MacKenzie.
- 1969 Robert G. Coleman, Donald L. Graf, F. Donald Bloss, Charles L. Christ, W. Gary Ernst, Gunnar Kullerud.
- 1970 F. Donald Bloss, Charles L. Christ, W. Gary Ernst, Gunnar Kullerud, David R. Wones, Peter J. Wyllie.
- 1971 W. Gary Ernst, Gunnar Kullerud, David R. Wones, Peter J. Wyllie, Sturges W. Bailey, George Switzer.
- 1972 David R. Wones, Peter J. Wyllie, Sturges W. Bailey, George Switzer, George W. Brindley, Edwin Roedder.
- 1973 Donald H. Lindsley, George Switzer, George W. Brindley, Edwin Roedder, Daniel E. Appleman, David B. Stewart.
- 1974 George W. Brindley, Edwin Roedder, Daniel E. Appleman, David B. Stewart, Arthur L. Boettcher, Philip M. Orville.
- 1975 Daniel E. Appleman, David B. Stewart, Arthur L. Boettcher, Philip M. Orville, Iris Y. Borg, Barclay Kamb.
- 1976 Arthur L. Boettcher, Philip M. Orville, Iris Y. Borg, Barclay Kamb, Ian MacGregor, Charles T. Prewitt.
- 1977 Iris Y. Borg, Barclay Kamb, Ian MacGregor, Charles T. Prewitt, Gerald V. Gibbs, Paul B. Moore.
- 1978 Ian MacGregor, Charles T. Prewitt, Gerald V. Gibbs, Paul B. Moore, Arden Albee, Bernard W. Evans.
- 1979 Gerald V. Gibbs, Paul B. Moore, Arden L. Albee, Bernard W. Evans, Roger Burns, H. Catherine W. Skinner.
- 1980 Arden L. Albee, Bernard W. Evans, Roger Burns, H. Catherine W. Skinner, Paul Ribbe, Peter Robinson.
- 1981 Roger Burns, H. Catherine W. Skinner, Paul Ribbe, Peter Robinson, Charles W. Burnham, P. R. Buseck.
- 1982 Paul Ribbe, Peter Robinson, Charles Burnham, P. R. Buseck, James J. Papike, Donald R. Peacor.
- 1983 Charles Burnham, P. R. Buseck, James J. Papike, Donald R. Peacor, James R. Craig, Alexandra Navrotsky.
- 1984 James J. Papike, Donald R. Peacor, James R. Craig, Alexandra Navrotsky, Gordon E. Brown, Jr., Hugh P. Taylor, Jr.
- 1985 Gordon E. Brown, Jr., James R. Craig, Cornelis Klein, Anthony J. Naldrett, Alexandra Navrotsky, Hugh P. Taylor, Jr.
- 1986 Gordon E. Brown, Jr., J. Stephen Huebner, Cornelis Klein, Anthony J. Naldrett, Robert C. Newton, Hugh P. Taylor, Jr.
- 1987 James R. Craig, Michael J. Holdaway, J. Stephen Huebner, Cornelis Klein, Robert C. Newton, Douglas Rumble, III.
- 1988 M. Charles Gilbert, Robert M. Hazen, Michael J. Holdaway, J. Stephen Huebner, Robert C. Newton, Douglas Rumble III.
- 1989 M. Charles Gilbert, Frank C. Hawthorne, Robert M. Hazen, Michael J. Holdaway, Douglas Rumble, III, David R. Veblen.
- 1990 Rosemary V. Buden, Maria L. Crawford, M. Charles Gilbert, Frank C. Hawthorne, Robert M. Hazen, David R. Veblen.
- 1991 Rosemary V. Buden, Maria L. Crawford, Frank C. Hawthorne, R. James Kirkpatrick, Jo Laird, David R. Veblen.

Recipients of the Roebling Medal

- | | | |
|-----------------------------|--------------------------|-------------------------------------|
| 1937 Charles Palache | 1959 Felix Machatchki | 1975 O. Frank Tuttle |
| 1938 Waldemar T. Schaller | 1960 Tom F. W. Barth | 1976 Carl W. Correns |
| 1940 Leonard James Spencer | 1961 Paul Ramdohr | 1977 Raimond Castaing |
| 1941 Esper S. Larsen, Jr. | 1962 John W. Gruner | 1978 James B. Thompson |
| 1945 Edward H. Kraus | 1963 John Frank Schairer | 1979 W. H. Taylor |
| 1946 Clarence S. Ross | 1964 Clifford Frondel | 1980 Dmitrii Sergeevich Korzhinskii |
| 1947 Paul Niggli | 1965 Adolf Pabst | 1981 Robert M. Garrels |
| 1948 William Lawrence Bragg | 1966 Max H. Hey | 1982 Joseph V. Smith |
| 1949 Herbert E. Merwin | 1967 Linus Pauling | 1983 Hans P. Eugster |
| 1950 Norman L. Bowen | 1968 Tei-ichi Ito | 1984 Paul B. Barton, Jr. |
| 1952 Frederick E. Wright | 1969 Fritz Laves | 1985 Francis J. Turner |
| 1953 William F. Foshag | 1970 George W. Brindley | 1986 Edwin Roedder |
| 1954 Cecil Edgar Tilley | 1971 J.D.H. Donnay | 1987 Gerald V. Gibbs |
| 1955 Alexander N. Winchell | 1972 Elburt F. Osborn | 1988 Julian R. Goldsmith |
| 1956 Arthur F. Buddington | 1973 George Tunell | 1989 Helen D. Megaw |
| 1957 Walter F. Hunt | 1974 Ralph E. Grim | 1990 Sturges W. Bailey |
| 1958 Martin J. Buerger | 1975 Michael Fleischer | 1991 E-an Zen |

Recipients of the Mineralogical Society of America Award

1951 Orville F. Tuttle	1965 Peter J. Wyllie	1979 Ho-Kwang Mao
1952 Frederick H. Stewart	1966 David B. Stewart	1980 Susan Werner Kieffer
1953 L. H. Ahrens	1967 Alfred E. Ringwood	1981 Alexandra Navrotsky
1954 Hatten S. Yoder, Jr.	1968 Barclay Kamb	1982 Robert M. Hazen
1955 Julian R. Goldsmith	1969 W. Gary Ernst	1983 David R. Veblen
1956 George C. Kennedy	1970 Bernard W. Evans	1984 Bernard J. Wood
1957 Rustum Roy	1971 Robert A. Berner	1985 John M. Ferry
1958 Charles E. Weaver	1972 Arthur L. Boettcher	1986 Antonio C. Lasaga
1959 Harry F. W. Taylor	1973 Paul Brian Moore	1987 Donald J. DePaolo
1960 Donald L. Graf	1974 James J. Papike	1988 Raymond Jeanloz
1961 Joseph V. Smith	1975 Roger G. Burns	1989 Michael A. Carpenter
1962 Douglas S. Coombs	1976 Friedrich A. Seifert	1990 Russell J. Hemley
1963 Nobuo Morimoto	1977 J. G. Liou	1991 Mark D. Barton
1964 William S. Fyfe	1978 J. Stephen Huebner	

Recipients of the Distinguished Public Service Medal

1990 Malcolm Ross
1991 H. Catherine W. Skinner

Annual Meeting Places

1920 Chicago, Illinois	1944 No meeting held	1968 Mexico City, Mexico
1921 Amherst, Massachusetts	1945 Pittsburgh, Pennsylvania	1969 Atlantic City, New Jersey
1922 Ann Arbor, Michigan	1946 Chicago, Illinois	1970 Milwaukee, Wisconsin
1923 Washington, D.C.	1947 Ottawa, Canada	1971 Washington, D.C.
1924 Ithaca, New York	1948 New York, New York	1972 Minneapolis, Minnesota
1925 New Haven, Connecticut	1949 El Paso, Texas	1973 Dallas, Texas
1926 Madison, Wisconsin	1950 Washington, D.C.	1974 Miami Beach, Florida
1927 Cleveland, Ohio	1951 Detroit, Michigan	1975 Salt Lake City, Utah
1928 New York, New York	1952 Boston, Massachusetts	1976 Denver, Colorado
1929 Washington, D.C.	1953 Toronto, Canada	1977 Seattle, Washington
1930 Toronto, Canada	1954 Los Angeles, California	1978 Toronto, Canada
1931 Tulsa, Oklahoma	1955 New Orleans, Louisiana	1979 San Diego, California
1932 Cambridge, Massachusetts	1956 Minneapolis, Minnesota	1980 Atlanta, Georgia
1933 Chicago, Illinois	1957 Atlantic City, New Jersey	1981 Cincinnati, Ohio
1934 Rochester, New York	1958 St. Louis, Missouri	1982 New Orleans, Louisiana
1935 New York, New York	1959 Pittsburgh, Pennsylvania	1983 Indianapolis, Indiana
1936 Cincinnati, Ohio	1960 Denver, Colorado	1984 Reno, Nevada
1937 Washington, D.C.	1961 Cincinnati, Ohio	1985 Orlando, Florida
1938 New York, New York	1962 Houston, Texas	1986 San Antonio, Texas
1939 Minneapolis, Minnesota	1963 New York, New York	1987 Phoenix, Arizona
1940 Austin, Texas	1964 Miami Beach, Florida	1988 Denver, Colorado
1941 Boston, Massachusetts	1965 Kansas City, Missouri	1989 St. Louis, Missouri
1942 No meeting held	1966 San Francisco, California	1990 Dallas, Texas
1943 No meeting held	1967 New Orleans, Louisiana	1991 San Diego, California

LIST OF 1992 OFFICERS AND COMMITTEES

Mineralogical Society of America
1130 Seventeenth Street NW, Suite 330, Washington, DC 20036

Membership in the Mineralogical Society of America is open to persons interested in the fields of mineralogy, petrology, crystallography, and allied sciences. Membership application forms may be obtained from the address given above. Annual dues are \$50.00 (\$30.00 for students), which includes a subscription to *American Mineralogist*. Members may also subscribe to *Mineralogical Abstracts* at the reduced rate of \$25.00, *Journal of Metamorphic Geology* at the reduced rate of \$102.50, *Journal of Petrology* at the reduced rate of \$137.00, and *Physics and Chemistry of Minerals* at the reduced rate of \$250.00.

President

Michael Holdaway, Southern Methodist University, Dallas, Texas

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Malcolm Ross, U.S. Geological Survey, MS 959, National Center, Reston, Virginia

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Secretary

Stephen J. Guggenheim, University of Illinois, Chicago, Illinois

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Maria L. Crawford, Bryn Mawr College, Bryn Mawr, Pennsylvania

1992–1994

Michael F. Hochella, Jr., Stanford University, Stanford, California

1991–1993

R. James Kirkpatrick, University of Illinois, Urbana, Illinois

1991–1993

Jo Laird, University of New Hampshire, Durham, New Hampshire

1992–1994

Joseph R. Smyth, University of Colorado, Boulder, Colorado

1989–1992

David R. Veblen, Johns Hopkins University, Baltimore, Maryland

W. G. Ernst (1991–1993)

Hatten S. Yoder, Jr. (1991–1993)

Priscilla C. Grew (1992–1994)

Malcolm Ross (1992–1994)

MSA Lecture Program Committee

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Jeffrey L. Warner (1990–1992), Chair

William Carlson (1991–1993)

Guy L. Hovis (1991–1993)

Harry W. Green II (1992–1994)

Jeffrey E. Post (1992–1994)

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B. Ronald Frost (1991–1993)

Richard L. Hervig (1991–1993)

George R. Rossman (1992–1994)

MSA Delegates to the Joint Technical Program Committee of the GSA

David L. Bish, Representative (1990–1992), Chair

John E. Grover, Abstracter (1991–1993)

Craig M. Schiffrics (1992–1994)

MSA Delegate to the AGU Program Committee

Ronald E. Cohen (1992–1994)

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Mark D. Barton

John M. Ferry

B. Ronald Frost

Anne M. Hofmeister

Tellers Committee

Sorena S. Sorensen (1991–1992), Chair

Patricia J. Loferski (1992–1994)

Committee on Committees

Alexandra Navrotsky, Chair

Stephen J. Guggenheim, Secretary

B. W. Evans

Henry O. Meyer

Stephen E. Haggerty

Dean C. Presnall

Committee on Management

Gordon L. Nord, Jr. (term ends in 1992), Chair

George W. Fisher (term ends in 1993)

Stephen J. Guggenheim, Secretary

Bruce D. Marsh (term ends in 1994)

James A. Whitney, Treasurer

David A. Hewitt, Chair, Financial Advisory Committee

Financial Advisory Committee (6-year terms)

David A. Hewitt, Chair

Gordon L. Nord, Jr., Chair, Committee on Management

J. H. Stout

James A. Whitney, Treasurer

Douglas Rumble III

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Paul B. Barton, Jr.

Francis R. Boyd

G. V. Gibbs

Donald R. Peacor

David B. Stewart

MSA Award Committee

Michael F. Hochella, Jr., Chair

Michael A. Carpenter

Susan W. Kieffer

Jane Nielson

Edward Stolper

Walter Trzcinski, Jr.

Research Grant Committee (Even-numbered years, crystallography; odd-numbered years, min/pet; 1992 Committee will recommend a recipient for the 1993 award in mineralogy/petrology)

Jo Laird, Chair

Jillian F. Banfield

George E. Harlow

Attila I. Kilinc

T. Kurtis Kyser

Jack M. Rice

Public Service Award Committee

Alan M. Gaines (1990–1992), Chair

F. Donald Bloss (1990–1992)

Publications Committee

Donald M. Burt (1990–1992), Chair
 James L. Munoz (1991–1993)
 Robert J. Tracy (1992–1994)

Committee on Short Courses

Jeffrey E. Post (1991–1993), Chair
 Paul H. Ribbe (Editor, *Reviews in Mineralogy*)
 Derrill M. Kerrick (1992–1994)
 Jonathan F. Stebbins (1992–1994)

Archivist

Harvey E. Belkin

Memorialist

Brian H. Mason (1985)

Mineral Museums Advisory Council

Paul Keller (1983)

American Mineralogist

Editor: Steven R. Bohlen
 Editor: Donald R. Peacor
 Managing Editor: Vicki Lawrence

Board of Associate Editors

New Mineral Names (1987–)

John L. Jambor

1989–1992

William Carlson

Thomas D. Hoisch

John Longhi

G. A. Waychunas

1990–1992

C. R. Bacon

John M. Hughes

Tamsin C. McCormick

Richard F. Wendlandt

1991–1993

Ross Angel

John B. Brady

Philip E. Brown

Mark S. Ghiorso

Jonathan F. Stebbins

1992–1994

Thomas Armbruster

Jay Bass

Ron Cohen

Joel Grice

R. L. Freed

Reviews in Mineralogy

Editor: Paul H. Ribbe

Mineralogical Abstracts

Principal Editor: Robert A. Howie

Organizer for American Abstracts: Karl A. Riggs, Jr.

Representatives to Other Organizations

American Crystallographic Association: Bernhardt J. Wuensch (1981)

American Geological Institute: M. Charles Gilbert (1991)

Clay Minerals Society: David L. Bish (1988)

Friends of Mineralogy: Eugene E. Foord (1987)

JCPDS International Centre for Diffraction Data: Deane K. Smith (1974)

International Mineralogical Association: Charles W. Burnham (1989)

AGU Mineral Physics Committee: Robert M. Hazen (pro tem—1988)

Pegmatite Interest Group in association with MAC: Dave London (1992)

European Union of Geology: Jeffrey Post (1992)

Gemological Society of America: George Rossman (1992)

MSA Representatives on IMA Commissions

Applied Mineralogy: H. Catherine W. Skinner (1992)

Crystal Growth: R. James Kirkpatrick (1983)

Gem Materials: Henry O. A. Meyer (1982)

History & Teaching: Cornelis Klein (1985)

Mineral Data & Classification: Paul B. Moore (1977)

Museum: Carl A. Francis (1987)

New Minerals & Mineral Names: Pete J. Dunn (1985)

Ore Microscopy: James R. Craig (1977)

Physics of Minerals: Subrata Ghose (1989)

MSA Representatives on IMA Working Groups

Abstracts: Karl A. Riggs, Jr.

Cosmic Mineralogy: Roger H. Hewins (1988)

Electron Microscopy Applied to Mineralogy: Peter R. Buseck