Proceedings of the Sixty-seventh Annual Meeting of the Mineralogical Society of America in San Antonio, Texas

REPORT OF THE SECRETARY FOR 1986

The sixty-seventh annual meeting of the Society was held from November 10 to 13, 1986, in San Antonio. Texas. The abstracts were organized into nine technical sessions: three on igneous petrology, two on metamorphic petrology, and one each on experimental petrology, mineralogy-crystallography, and volcanology. In addition, the Society sponsored five poster sessions (experimental petrology, igneous petrology, metamorphic petrology, mineralogy-crystallography, and volcanology), and one symposium-"Crystal-Liquid Reactions in Granites and Migmatites." Prior to the annual meeting, a short course entitled "Stable Isotopes in High-Temperature Geological Processes" was organized by Hugh P. Taylor. All the sessions were integrated into the overall program of the Geological Society of America under the guidance of the Joint Technical Program Committee.

The retiring President, Paul B. Barton, Jr., presented an address to the Society entitled "Chalcopyrite Disease in Sphalerite: Pathology and Epidemiology" on Tuesday, November 11th. Subsequently, President Barton called the annual business meeting of the Society to order.

Council meetings

The second meeting of the 1986 Council was held in Baltimore on May 18, 1986, and the third meeting on November 9, 1986, in San Antonio, Texas.

The first meeting of the 1987 Council was held also in San Antonio, Texas, on November 11, 1986.

Actions by Council are noted below.

Results of the election

The voting for officers and Council members of the Society for 1987 was held during the summer of 1986; the following persons were elected:

President:

P. H. Ribbe (1987)

Vice-President:

D. B. Stewart (1987)

Treasurer:

G. L. Nord, Jr. (1987–1988) M. J. Holdaway (1987–1989)

Councillors: M. J. Holdaway (193

D. Rumble III (1987–1989)

The ballots (942) and the count were certified on August 26, 1986, by the Tellers, Charles A. Lawson and I-Ming Chou.

Approximately 33% of the membership voted, somewhat less than in 1985. The motion to amend the By-Laws so that only one candidate for Vice-President would appear on the ballot was defeated: 431 voted for having one nominee for Vice-President, and 465 voted for the 0003-004X/87/0506-0659\$02.00

present system of having a contested election between two nominees. The present system will therefore continue.

Membership statistics

As of December 1986 the Society consisted of 2771 members and fellows, distributed as follows: Members 1656 (-23); Student members 538 (+41); Fellows 571 (-8), and Honorary Fellows 6 (-1). Numbers in parentheses indicate changes from December 1985.

Necrology

It is with regret that the deaths of the following Fellows and Members are announced:

- M. J. Buerger, President 1974, Roebling Medalist 1958
- D. S. Korzhinskii, Hon. Fellow
- C. J. Awald
- S. W. Bachinski
- H. B. Barr
- C. H. Behre, Jr. (F)
- H. G. Fisk
- L. M. Hall
- E. M. Learned
- J. Phemister (F)
- R. A. Rowland (F)
- L. B. Sand (F)
- D. W. Scott
- W. G. Valentine
- W. M. Wadewitz
- K. D. Watson (F)

If any person wishes to write an obituary for any of the above deceased members, please notify the Secretary or Executive Secretary.

Business office

This year the transition to MSA's own business office was completed without any major problems due to the diligence of the Executive Secretary, Barbara Minich, and her staff. The lengthy period of transition from AGU headquarters was smoothy handled by J. F. Hays, Chairman of the Management Committee, and the Council compliments him for his major role on behalf of the Society.

The service that members now receive is exceptional in speed and efficiency, and members are particularly invited to visit the Society's chambers at 1625 I Street, N.W., Suite 414, Washington, D.C., (202) 775-4344.

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International Mineralogical Association-Stanford 1986

Besides the transition of the Business Office, the second major item that concerned Council in 1986 was the IMA meeting at Stanford, California, in July 1986. The MSA was the host organization, and various members served on several of the organizing committees. Overall, the meeting under the chairmanship of Charles Prewitt was a resounding success.

Financial affairs

Details of the financial situation of the Society are to be found in the Treasurer's Report. However, the finances of the Society are in good shape, and although some change in dues will be necessary in the near future, none has been contemplated for 1987.

The Society does actively solicit contributions from members, and a few dollars extra sent with dues renewal by many members has a major effect on specific programs, for example, the Crystallography and Petrology Research Grants. Please remember your Society.

The American Mineralogist

James L. Munoz was reappointed editor for 1988, and Council has supported him in a program to clear the backlog of manuscripts by the summer of 1987. It is hoped that in the future most manuscripts will be reviewed and published within six to nine months of receipt.

Reviews in Mineralogy

The Reviews in Mineralogy contributes substantially to the finances of the Society. The prices have been kept constant for several years, but Council has voted, on the advice of the Editor, Paul H. Ribbe, to increase prices, marginally, in January 1987. Prices of the individual volumes will be in the range of \$9 to \$13 for members, and \$13 to \$18 for nonmembers of the Society. Council reappointed Ribbe as Editor for 1988.

Awards

The Roebling Medal for 1987 will be awarded to Gerald V. Gibbs of Virginia Polytechnic Institute and State University for his incisive investigations into the crystal structures and bonding in minerals and into mineral physics in general.

The Mineralogical Society of America Award will be presented to Donald De Paolo of the University of California at Los Angeles. Council commends De Paolo for his pioneering isotopic studies contributing to our knowledge of the evolution of the Earth's crust and mantle.

The Mineralogy-Petrology Research Grant for 1987 was awarded to Robert C. Tacker of Rice University for his proposed study of the experimental calibration of the mineral apatite as a volatile-fugacity sensor. The award is for \$3500.

Twenty-one students in 1986 were awarded *The American Mineralogist* Undergraduate Award.

Fellowship

Council elected the following eleven members to Fellowship on the recommendation of the Committee on Fellows (G. Medaris, Chairman):

R. A. Bailey

F. F. Foit, Jr.

E. E. Foord

B. C. Hearn, Jr.

E. Makovicky

J. L. Munoz

D. C. Presnall

G. Rapp, Jr.

R. O. Sack

J. R. Smyth

G. Will

Nominations for officers for 1988

President:

David B. Stewart, U.S. Geological Survey, Reston, Virginia

Vice-President: (one to be selected)

Charles W. Burnham, Harvard

University

James J. Papike, South Dakota School of Mines and Technol-

ogy

Secretary:

(1988-1989)

Treasurer:

Councillors:

(1988–1990, two to be elected)

Mary Ellen Cameron, University of Oklahoma

(Not on 1988 Ballot)

George H. Brimhall, University of California at Berkeley M. Charles Gilbert, Department

of Energy, Washington, D.C. Robert M. Hazen, Geophysical Laboratory, Washington, D.C. Lincoln S. Hollister, Princeton

University

Other

Any Society is only as strong as its members, and on behalf of Council I urge you all to make comments and criticisms and provide suggestions. Either call or write to one of the officers or the Executive Secretary. All comments will receive attention. On behalf of the Council I also thank all those who have served as chairs or members of the various committees of the Society—your time and effort on behalf of the MSA are much appreciated.

Henry O. A. Meyer

REPORT OF THE TREASURER FOR 1986

This report summarizes the financial activity of the Mineralogical Society of America for the calendar year 1986. The financial statements have been audited by Laventhol & Horwath of Washington, D.C., and a copy of the audit report is on file at the Society's business of-

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Table 2. Summary Statement of 1985 and 1986 Income and Expense

1986	1985
ASSETS	
Checking and Money-Market Accounts \$ 25662: 1st American Checking & MM Liberty Cash Management MM IMA86 Checking & MM Amer. Mineral. Checking	2 \$ 275757
Investments at Cost Endowment Portfolio & Mutual Funds Cryst & Min-Pet Mutual Funds & T-Notes	629723
Accounts Receivable 22006	30388
Prepaid expenses and deposits 6990	
Furniture and equipment (net of 35224 accumulated depreciation)	
\$ 1018097	7 \$ 972912
LIABILITIES	
Accounts Payable \$ 34259	
Min. Abs. & Jour. Pet. Subs. 18089	
Prepaid Dues 63609	
Prepaid Subscriptions 137960	114131
\$ 253909	\$ 239608
FUND BALANCES	
General Operating Fund \$ 98155	
Endowment Fund (at Cost) 581173	
Crystallography Fund 37159	
Mineralogy-Petrology Fund 47701	38924
33	
NET WORTH \$ 764188	\$ 733304

fice. The financial statements given herein are taken from the audit report. The statements consist of a balance sheet (Table 1), a summary statement of income and expense for 1986 compared to 1985 (Table 2), a statement of 1986 income and expense for the Society's Funds (Table 3), and a statement of income and expense for the various subactivities of the General Operating Fund (Table 4).

The balance sheet (Table 1) shows that the net worth of the Society increased to \$764,188 in 1986, an increase of 4.2% over the net worth at the end of 1985. This increase is entirely because of a strong stock market from which the Society realized large capital gains in the Endowment Fund Portfolio. Operations suffered a loss in 1986 of \$25,170 (Table 4) in comparison to a loss of \$21,871 in 1985, whereas total investments gained \$82,006 in 1986 (Table 2) in comparison to a gain of \$222,506 in 1985.

The Society has four Funds (detailed income and expenses are in Table 3). The General Operating Fund accounts for all aspects of the Society's operations and consists of six subactivities (Table 4): (1) Administration, (2) Special Activities, (3) The American Mineralogist, (4) Reviews in Mineralogy, (5) Short Courses, and (6) the International Mineralogical Society meeting at Stanford, California, in 1986. The Crystallography Fund and the Mineralogy-Petrology Fund provide biennial research grants awarded to promising young scientists. The Endowment Fund acts as a reserve for the Society, and its income provides some support for Society operations and special projects. The 1986 financial year-end status of each of these four funds is outlined below.

The General Operating Fund (Table 4) lost \$25,170 in

1985 TNCOME American Mineralogist
Subscriptions & Back Issues
Page Charges & Author Alter. \$ 154806 \$ 166435 38532 Reprints & Miscellaneous 7441 4361 Subtotal 200779 219898 Reviews in Mineralogy 11384 Subscriptions Sales & Miscellaneous Subtotal 85226 Dues Regular, Student & Prior Years 74535 New Life Subtotal 75410 82864 Investments
Money-Market Fund Interest 29405 9217 Investment Portfolio Mgmt. Fees Portfolio Dividends/Interest (9320) 14933 20145 Portfolio Cap. Gains (Losses) 187488 53297 82006 Subtotal Short Courses Contributions to Invested Funds 19853 14040 TMARK Income 190 194936 Miscellaneous Operations 1203 \$ 685760 \$ 609580 TOTAL American Mineralogist Editorial Office & Editors 48227 34621 Compos., Printing, Postage 131302 131210 Issue Handling, Storage 4574 6381 2077 7613 Reprints AGU Services, MSA Business Off. 16994 192515 216249 Subtotal Reviews in Mineralogy Editorial Office 5451 2263 Compos., Printing, Postage Storage & Handling 30846 4770 30544 3371 AGU Services, MSA Business Off. 57354 Subtotal 63324 Administration
AGU Services & New Office Salaries 61512 56969 Travel, Officer Expense, Typist Services, Supplies, Office Expenses Compos., Printing, Postage, Handling Liability Insurance

Miscellaneous

Special Activities
Dues to IMA, AGI

Subtotal

Short Courses IMA86

Research Grants

EXCESS OF INCOME OVER EXPENSE

Roebling Medal, Newsletters, AM AGU Services, MSA Business Off.

Depreciation and Bad Debt Expense

4125

6561 2758

5495

86392

23126

11103 38229

15794

19742

\$ 444652

164928

9402 1500

AMU

4000

36526

9604 4686

4825

3300

17540

23751 44591

12928

13681

196755 3500

654876

30884

1986. This is not nearly as bad as it seems because the MSA Council had passed a budget for 1986 that included a \$32,000 operating loss. This large loss is accommodated by a surplus of \$123,325 that was in the General Operating Fund at the end of 1985. The Council in its wisdom saw fit to reduce the surplus rather than to raise dues or other prices. The General Operating Fund assets at the end of 1986 consisted of \$55,941 in cash, \$6,990 in prepaid expenses and deposits, and \$35,224 in furniture and equipment. It is the intent of Council to keep the cash portion of the GOF at approximately \$50,000, and the Council will increase subscriptions, dues, or book prices to achieve this balance.

In 1986, dues income rose 10% and American Mineralogist income rose 9.5%, while income from the sales of the Reviews in Mineralogy series remained the same as in 1985. The Society Administration expenses rose by 48% in 1986. This increase was expected because of the

Table 3. Statement of 1986 Income and Expenses for the Funds of the Mineralogical Society of America

	General Operating Fund	Endowment Fund	Crystal- lography Fund	Mineralogy- Petrology Fund	Tota
INCOME					
Operations					
Dues (Prior Years)	\$ 360			44	\$ 360
Dues (Regular & Student)	72879			-2	7287
Dues (New Life Members)	9625	(Access	1404	1999	962
Subscriptions	168546		22		16854
Back Issues	6278		94.4	199	627
Page Charges & Author Alt.	49102			**	4910
Reprints	3842			**	384
Sales, Reviews in Mineralogy	73999	100			7399
Reg. Short Course, IMA	116926		22		11692
Contributions	11500	\$ 1324	\$ 995	\$ 3268	1708
Miscellaneous	85110	\$ 15E+	4 330		8511
Subtotal, Operations	598167	1324	995	3268	60375
Investments	390107	1324	333	9200	00010
Interest	8710		254	254	921
Transfer from Endow. to GOF	19329	(19329)	2.54	234	76.1
Portfolio Div./Int.		15759	2106	2281	2014
Portfolio Cap. Gains (Losses)	22	47875	2433	2989	5329
	28039	44305	4792	5523	8266
Subtotal, Investments TOTAL	\$ 626206	\$ 45628	\$ 5787	\$ 8791	\$ 68641
TOTAL	\$ 020200	\$ 43020	\$ 3707	\$ 0171	\$ 00041
EXPENSES					
Salaries	133905	***	44		13390
Typist Support	3980	3.55	27	357	398
Honoraria	9050			40.00	905
Office Expenses	106414			37	10641
Comp., Printing, Mailing	146539		77	***	14653
Postage, Freight	46704		44		4670
Reprints	7613	- 17		(777)	761
Travel & Officer Exp.	26584	240			2658
Facilities and Food	60472	-		06.00	5047
Awards	2607	-		-	260
Storage & Handling	14892	**		***	1489
Grants; Dues to IMA, AGI	3590		\$ 3500	0.000	709
Liability Insurance	7391	***			739
AMU Awards	591			10.00	59
Prof. Services (Audit & Legal	4963			16.46	496
Telecommunications	5353			0.00	535
Miscellaneous	53800	00.00	~-	(a)	5380
Depreciation & Bad Debt	12928			***	1292
Investment Management Fees		\$ 624	15	15	65
AGU Services	4003	***		(8.40)	400
TOTAL	\$ 651376	\$ 624	\$ 3515	\$ 15	\$ 65553
NET INCREASE (DECREASE)	\$ (25170)	\$ 45005	\$ 2272	\$ 8776	\$ 3088
DPENING FUND BALANCE	\$ 123325	\$ 536168 ¹	\$ 348871	\$ 389241	\$ 73330
CLOSING FUND BALANCE	\$ 98155	\$ 5811731	\$ 371591	\$ 477011	\$ 76418

additional costs of our new business office. Administration costs are allocated as indirect costs (overhead) to the other subactivities in proportion to direct costs. Special Activities expenses increased by 17% in 1986. This subactivity consists of member-oriented services that include writing, printing, and mailing the "Lattice," renewal notices, and the new MSA poster as well as promoting the Society and its books at meetings, funding the Roebling Medal and other awards, and paying our dues to other societies. The American Mineralogist expenses decreased 11% in 1986, in part because the journal has a new and less expensive printer, Allen Press. The journal gained \$453 (after accounting for administrative overhead). Member and student dues as well as subscription income are set each spring to cover the cost of the journal. The fact that income and expenses are very close confirms the suspicion that MSA can produce a quality journal and keep costs low. Reviews in Mineralogy expenses rose 10% in 1986. However, weaker sales produced a deficit of \$4,990 after accounting for overhead. The Reviews volumes are popular, and the increased efficiency of the business office in getting the volumes out has increased sales;

however, the market appears to be near saturation. The *Short Course* on isotopes earned \$359 more than its expenses. The Society is particularly grateful to Finnigan/MAT Corp. and VG Instruments for donations of \$750 each for student scholarships to the short course. *IMA86* was a major event this year with a budget of \$200,000. MSA sponsored the meeting and is obligated to cover any deficit. For this reason the accounting for the IMA meeting, as well as the responsibility for holding it, rests with MSA. The meeting was a total success and ran a deficit of only \$8,738 for the three years it has been on MSA's books. The deficit, by vote of Council, was taken from the Endowment Fund. Grants of \$5,000 from IMA in 1984 and \$10,000 from the National Science Foundation in 1986 are gratefully acknowledged.

The two research-grant Funds—the *Crystallography Fund* and the *Mineralogy-Petrology Fund*—were invested in U.S. Treasury Notes and Fidelity Equity-Income Mutual Funds. The notes came due this summer, and the funds were reinvested in Fidelity Equity-Income Mutual Funds. Donations totaled \$995 to Crystallography and \$3,268 to Mineralogy-Petrology. The Crystallography

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Table 4. Statement of 1986 Income and Expense for the Subactivities of the General Operating Fund

	Adminis- tration	Special Activities	America: Mineralog		Reviews Mineral		IMA86		Total
INCOME									
Operations									
Dues (Prior Years)		\$ 360					4.4	\$	360
Dues (Regular)		37221	\$ 27916		**				65137
Dues (Students & Assoc. Li	fe)		7742		***	17.7			7742
Dues (New Life Members)		9625				**			9625
Subscriptions			160278	\$	8268		-		168546
Back Issues, Jahns, World I	Dir	121	6157		**				6271
Page Charges & Author Alt.			49102			***	***		49102
Reprints			3842			-77	200		3842
Sales, Reviews in Mineralo	9у	**	***		73999		4.4		73999
Short Course Registration		***	24.6			\$ 12540 \$			116926
Contributions		22	No in-		***	1500	10000		1150
Miscellaneous		1082	519		2959	- ++	80549		85110
Subtotal, Operations		48409	255556		85226	14040	194935		59816
Investments									
Money-Market Interest		777	8575		~ "		136		871
Transfer from Endowment			10591				8738		1932
Subtotal, Investments			19166	-			8874		2803
TOTAL		\$ 48409	\$ 274722	\$	85226	\$ 14040 \$	203809	\$	62620
EXPENSES									
Salaries per Subactivity	\$ 53648	\$ 23168	\$ 33392	\$	23697			\$	13390
Typist Support							\$ 3980		398
Honoraria			4000		2000	\$ 3050			905
Office Expenses	36526	244	8630		1916	1723	57375		10641
Comp., Printing	3657	5181	110819		16055		10827		14653
Postage, Freight	5030	4966	17624		13243	220	5621		4670
Reprints			7613		W ++				761
Meetings and Travel	7091	2556	708		334	3922	11973		2658
Facilities and Food	1231	1133	285			4767	53057		6047
Awards		2607					11		260
Off-site Storage & Handlin	q ~-		2077		4646				672
Supplier Handling & Mailin	q 917	925	5219		1109				816
Dues, Contrib. to IMA, AGI		3300	290			-4.4			359
Liability & Prop. Insuranc							2705		739
AMU Awards			591						59
Prof. Services (Audit, Leg	al) 4825						138		496
Telecommunications	3234		413				1706		535
Miscellaneous	3415	172	515		323		49374		5380
AGU Services	3321	341	341						400
Subtotal, Direct Costs	127582	44591	192515		63324	13681	196755		63844
Alloc. Admin. Expensel	(127582	18936	81754		26892				_
TOTAL	,	\$ 63527	\$ 274269	\$	90216	\$ 13681 \$	196755	\$	63844
NET INCREASE (DECREASE)		\$(15117)	\$ 453	\$	(4990)	\$ 359	\$ 7054	\$	(1224
Depreciation Expense		/			. ,			,	(976
Bad Debt Write-off									(316
TOTAL INCREASE (DECREASE) FO	R GOF								(2517
OPENING FUND BALANCE								\$	12332
CLOSING FUND BALANCE								\$	9815

Fund increased in value 6.5% to \$37,159 after paying out a grant of \$3,500. The Mineralogy-Petrology Fund increased in value 22.5% to \$47,701.

The assets of the *Endowment Fund* are invested in the Fidelity Magellan Fund and the Reich & Tang Equity Fund. The Endowment also has \$80,473 in U.S. Treasury bills. The cost value of the Endowment Fund is \$581,173, an 8.4% increase over the value of \$536,168 at the end of 1985. The market value of the Endowment Fund is \$617,689, after accounting for \$35,033 of the cash assets of the General Operating Fund that are temporarily invested in the mutual funds of the Endowment Fund. This market value represents a 13.5% increase over the market value of \$544,049 at the end of 1985. Donations to the Fund totaled \$1,324.

At the end of 1986, the Mineralogical Society of America is in sound financial health with a net worth of \$764,000. However, with operating budgets of almost one-half million dollars, we must be careful to keep income greater than expenses. For 1987, dues and subscription prices have remained at 1986 levels. The Council has

voted, however, to raise the price of Reviews volumes and at the same time to increase the member discount. It is hoped that these increases will result in a small positive balance for the General Operating Fund in 1987. The foundation of the Society, the Endowment Fund, is stronger than ever and will provide steady support for future efforts to advance Crystallography, Mineralogy, and Petrology.

GORDON L. NORD, JR.

REPORT OF THE FINANCIAL ADVISORY COMMITTEE FOR 1986

The endowments of the Mineralogical Society of America consist of one large unrestricted fund, the Endowment Fund, and two smaller restricted funds, the Crystallography Fund and the Mineralogy-Petrology Fund.

During 1986 the Society's Endowment Fund portfolio consisted of two U.S. Treasury bills (~15% of the fund) and two stock mutual funds (~85% of the fund). At year-

end the market value of the Fidelity Magellan Fund portfolio had increased 20.7% to \$289,390 while the Reich & Tang Equity Fund increased 12.9% to \$270,800. The two Treasury bills closed the year at \$92,532, up 3.5%. Combined dividend and interest income amounted to \$15,759, and capital gains were \$47,875. The total Endowment Fund portfolio was worth \$652,722 on December 31, representing a total return on the unrestricted endowment of 14.8% for 1986.

For several years, many contributions into the Endowment Fund and a number of Council-authorized expenditures from the fund (to support Society activities and IMA86) have been retained on the books of the Society's General Operating Fund. With contributions of only \$2800 and expenditures of \$37,800, the net transfer of funds will reduce the value of the Endowment Fund portfolio by about \$35,000 when it is realized in early 1987.

The Crystallography Fund was invested in Fidelity's Equity-Income Fund during 1986 and, net of a \$3500 grant award, it closed the year at \$36,179, up 3.7% in market value. Dividend and interest income was \$2360, and capital gains were \$2432. Donations to the fund in 1986 were \$995.

The Mineralogy-Petrology Fund was also invested in the Equity-Income Fund, and its market value increased 14.8% to stand at \$44,680 at year-end. Dividend and interest income was \$2534, and capital gains were \$2989. Donations to the fund in 1986 were \$3268.

Overall, the combined value of the Society's total endowment portfolios increased \$90,943 in 1986 to stand at \$733,581 on December 31. This represents an increase in market value of 14.2% for the year.

Respectfully submitted,

K. M. Towe, Chair

C. W. BURNHAM

B. S. HEMINGWAY

G. L. NORD, JR. (Treasurer)

J. F. Hays (Management Committee Chair)

REPORT OF THE EDITOR FOR 1986 (OCTOBER 1, 1985–SEPTEMBER 30, 1986)

During the year ending September 30, 1986, 166 manuscripts were submitted to the journal. This represents a decline of 46 manuscripts from the corresponding period for 1985, a direct result of the large number of manuscripts received in 1985 for the Jahns Memorial Issue. The publication of the Jahns Issue in March-April of 1986 resulted in the largest issue ever for *The American Mineralogist* (422 pages); therefore, the total number of pages published in editorial year 1986 was 14% larger than the total number published in editorial year 1985. The manuscript backlog that exists at the date of this report amounts to approximately two-thirds of an issue, as compared to two issues at this time a year ago. The MSA Council has authorized the publication of extra pages

TABLE 1. Summary of American Mineralogist operations

Volume	No.	Number of scientific articles	Pages of scientific articles	Pages of miscel- laneous	Total pages
	Octobe	er 1, 1985, to	Septembe	r 30, 1986	
70	9–10	22	187	5	192
70	11-12	30	256	16	272
71	1-2	26	226	6	232
71	3-4	32	411	11	422
71	5-6	24	182	32	214
71	7-8	24	182	10	192
71	9-10	32	207	17	224
71	11-12*	33	257	9**	266**
Total		171	1465	85	1550**
	71 only				
	Octobe	er 1, 1984, to	Septembe	er 30, 1985	
Total		152	1275	85	1360
V. 7	70 only				
Manus	crints subm	itted, 10/1/8	5 to 9/30/86	6	166
Manus	26				
Manus	22				
Manus	109				
Manus	17				
1.4	cripts witho	401410	E 0/00/0		18

^{*} In press.

to eliminate the manuscript backlog, and I anticipate that there will be no significant manuscript backlog after the publication of the March–April 1987 issue. Table 1 summarizes the journal operations for 1986.

Beginning with the July-August 1986 issue, manuscript tables have been typeset by Allen Press. This change requires that authors carefully proofread their tables when they receive page proofs. Although this requires a small amount of extra effort, the benefits of typesetting are (1) the author need not take the extra time to prepare camera-ready tables, (2) most typeset tables require less space in the journal and hence result in both savings in space and cost, (3) the appearance and readability of the journal are enhanced.

This represents the end of my first full year as Editor. The year has been a very busy one, but has been helped by the transfer of all editorial office records and manuscript information to computer files. Mary Eberle designed the software needed to accomplish various tasks such as generating acceptance letters, status reports, and all the forms associated with the manuscript review process. Of particular value are the programs used to generate the yearly index. I hope authors will not be offended by receiving computer-generated correspondence, but will recognize the savings in time, effort, and money that such capabilities offer.

I would also urge any members who may have suggestions, questions, or complaints concerning the journal operation to contact me directly. Finally, I thank the associate editors, Mary Eberle, Barbara Minich, and the MSA Council for their continued support of the journal.

^{**} Plus the index and collated contents.

PROCEEDINGS

Reviewers 1986

Anderson, A. T., Jr. Annersten, H. Appleman, D. E. Arculus, R. J. Armstrong, R. L. Bailey, S. W. Barber, D. J. Bateman, R. Bennett, J. M. Bickford, M. E. Bickle, M. J. Birnie, R. W. Bish, D. L. Bloss, F. D. Boettcher, A. L. Bohlen, S. R. Boland, J. N. Brady, J. B. Brookins, D. G. Brown, G. E., Jr. Burnham, C. Wayne Burnham, Charles W. Burns, R. G. Burt, D. M. Černý, P. Chakomakos, B. C. Christiansen, E. H. Christie, J. M. Clarke, D. B. Clayton, R. N. Dickenson, M. P., III Dobos, S. K. Dollase, W. A. Donnay, G. H. Dowty, E. Duba, A. G. Dunn, P. J. Dusel-Bacon, C. Dyar, M. D. Dymek, R. F. Eberl, D. D.

Eggler, D. H. Ehlmann, A. J. Eichelberger, J. C. Essene, E. J. Evans, H. T., Jr. Ewing, R. C. Fang, J. H. Fenn, P. M. Fine, G. Finger, L. W. Flohr, M. J. K. Foord, E. E. Francis, C. A. Frost, B. R. Galeener, F. L. Gasparik, T. Geissman, J. W. Ghose, S. Giese, R. F. Gilbert, M. C. Goldsmith, J. R. Graeser, S. Graham, C. M. Graham, J. Grambling, J. A. Grant, J. A. Grice, J. D. Griffen, D. T. Grove, T. L. Grunder, A. Guggenheim, S. J. Halden, N. M. Harlow, G. E. Hawthorne, F. C. Hazen, R. M. Hearn, P. P. Hemingway, B. S. Hemley, R. J. Henderson, G. S.

Hibbard, M. J.

Higgins, J. Hildreth, E. W. Hill, R. J. Hinthorne, J. R. Hofmeister, A. M. Hollister, L. S. Huebner, J. S. Hvde, B. G. Jeanloz, R. Jolliff, B. Jones, J. King, H. E. Kirkpatrick, R. J. Kissin, S. A. Klein, C. Kolker, A. Kudo, A. M. Kunk, M. J. Lager, G. A. Land, L. S. Lang, H. M. Law, A. D. Leung, I. S. Lindsley, D. H. Lofgren, G. E. London, D. Loomis, T. P. Luhr, J. F. Lumpkin, G. R. MacKinnon, I. Mahood, G. A. Mazzi, F. McBirney, A. R. McCarthy, G. J. McConnell, Desmond McDougal, D. J. McMillan, P. McSween, H. Y., Jr. Meagher, E. P.

Mitchell, R. H.

Moore, P. B. Morse, S. A. Munoz, J. L. Nabelek, P. I. Nassau, K. Navrotsky, A. Newnham, R. E. Newton, M. Nold, J. L. Ohashi, Y. Olhoeft, G. Olmsted, J. F. Papike, J. J. Patrick, B. E. Peacor, D. R. Perkins, D., III Pevear, D. R. Popp, R. K. Potter, J. M. Powell, R. Prewitt, C. T. Rawson, S. A. Ribbe, P. H. Rice, J. M. Richet, P. Rimstidt, J. D. Robie, R. A. Robinson, Peter Roedder, E. Ross. M. Rossman, G. R. Rouse, R. C. Rubin, J. N. Rucklidge, J. C. Saxena, S. K. Selverstone, J. Sen. G. Seyfried, W. E. Sharma, S. K. Sheppard, R. A.

Sherman, D. M. Shimizu, N. Sibley, D. F. Silver, L. A. Smith, Douglas Smith, J. V. Smith, T. E. Smyth, J. R. Spear, F. S. Speer, J. A. Spera, F. J. Spooner, E.T.C. Stebbins, J. F. Steele, I. M. Stewart, D. B. Stolper, E. M. Stormer, J. C., Jr. Swanson, S. E. Taylor, B. E. Thompson, J. B. Tracy, R. J. Turner, S. A. Vance, E. R. Veblen, D. R. Vernon, R. H. Virgo, D. Visser, J. W. Walker, D. Ward, C. M. Waychunas, G. A. Werner, D. B. Whipple, E. R. Whitney, J. A. Winter, J. K. Wood, B. J. Wood, D. L. Wuensch, B. J. Wyllie, P. J. Yapp, C. J. Zoltai, T.

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