The thirty-eighth meeting of the Society was held on November 4-6, 1957 at Haddon Hall, Atlantic City, New Jersey. As in past years, the scientific sessions were integrated with those of the Geological Society of America and the other affiliated Societies. Of the total of thirty-one scientific sessions, two were devoted to mineralogy, one to petrology, one to crystal chemistry and four to geochemistry, at which eighty papers were presented.

The annual luncheon of the Society on November 5 was attended by 232 fellows, members and guests. This is the largest number ever to attend a Society luncheon. Following the luncheon the fifteenth presentation of the Roebling Medal was made to Walter F. Hunt and the sixth presentation of the Mineralogical Society of America Award was made to Rustum Roy.

The Retiring President, D. Jerome Fisher, addressed the Society on the afternoon of November 5. His subject was Pegmatite Phosphates and Their Problems. At the annual business meeting, held at 4:30 P.M., November 5, brief reports were given by the President, Treasurer, Secretary and Editor. General discussion, particularly regarding symbols for refractive indices, took place from the floor. It is the hope that in the future more members will come to the Annual Business Meeting prepared to raise questions and take part in discussion.

COUNCIL ACTION

The 1957 Council of the Society met for thirteen hours and discussed thirty-eight items of business. There are several of these items which the Council felt are of general interest and should be reported to the membership. The President in his report has mentioned most of these but two others worthy of consideration are given below.

Constitution. A committee was appointed in 1956 to study the Constitution and make suggestions that would bring it up to date. A large portion of the time of the 1957 Council was spent in considering the report of this Committee. The Council recommends many changes in the Constitution, some minor but others of major importance, which will be published in the May-June issue of the American Mineralogist. The membership will be asked to vote on the recommended changes in September, 1958.

One of the proposed changes that will be of interest to many members is in regard to the election of Councilors, two of whom are elected annually. It is proposed that the ballot carry the names of four nominations for Councilor and the membership be asked to vote for two.

Free reprints. As an economy measure, instituted in March, 1956, no free reprints have been given authors of papers published in the American Mineralogist. However, the Council voted that beginning with the January-February 1958 issue, 50 free reprints are to be given to the author of each major article and each Note published in the American Mineralogist.

The 1958 Council met for three hours on November 6 and discussed the following items of business:

Committee Appointments. President Goodspeed made various committee appointments which were approved by the Council.

International Mineralogical Association. Professor M. J. Buerger was appointed official
delegate to the organizational meeting of the International Mineralogical Association to be held in Madrid, Spain, 1958. Professor L. G. Berry was appointed alternate delegate.

*Mineralogical Abstracts.* In 1959, the Mineralogical Society of Great Britain and the Mineralogical Society of America will jointly publish the new *Mineralogical Abstracts*. The Council voted the equivalent of 500 English pounds to underwrite the establishment of this project.

*Pamphlet on Careers in Mineralogy.* The Council voted that the Society should provide a pamphlet on *Careers in Mineralogy*, to be distributed by the American Geological Institute and appointed Charles Milton chairman of a committee to prepare it.

*Indices of Refraction Symbols.* The Council voted that the Editor be instructed to use \( \alpha, \beta, \gamma \) as index of refraction symbols, in papers published in the *American Mineralogist*.

*MSA notice for museums, universities, etc.* The Council instructed Professor D. J. Fisher to prepare copy for a notice giving the aim of the MSA and instructions on how to join the Society. When printed, these notices will be sent to a selected list of museums and universities, but will be available to anyone on request. An announcement of this notice is to be made in the *American Mineralogist*.

**1958 Committees of the Mineralogical Society of America**

The President wishes to remind the fellows and members of their privilege of corresponding with the officers and councilors or any of the personnel of the following committees regarding the business of the Society.

**Nominating Committee for Fellows**
- A. W. Jolliffe, Chairman 56–58
- G. Switzer 56–58
- W. R. Foster 57–59
- S. E. Claibough 57–59
- C. O. Hutton 58–60
- A. L. Anderson 58–60

**Roebling Medal Committee**
- Ian Campbell, Chairman
- J. R. Goldsmith
- C. A. Anderson
- C. E. Tilley
- R. E. Emmons

**Nominating Committee for Officers**
- A. C. Waters, Chairman
- G. C. Kennedy
- W. F. Bradley
- G. W. Bain
- H. L. James

**Mineralogical Society of America Award Committee**
- L. W. Staples, Chairman
- F. W. Heinrich
- L. H. Ahrens
- W. S. Burbank
- Rustum Roy

**Program Committee**
- H. W. Fairbairn, Chairman 57–59
- H. T. Evans 57–59
- O. R. Grawe 58–60

**Nomenclature Committee**
- C. Milton, Chairman 57–59
- E. E. Wahlstrom 56–58
- H. Winchell 57–59
- C. S. Hurlbut 58–60
- M. Fleischer 58–60

**Board of Associate Editors**
- E. W. Heinrich 56–58
- C. L. Christ 56–58
- J. Murdoch 57–59
- D. J. Fisher 58–60
- G. T. Faust 58–60
- R. M. Garrels 57–59

**Financial Advisory Committee**
- E. P. Henderson, Chairman 56–58
- A. Montgomery 57–59
- M. Hooker 58–60

**Auditing Committee**
- W. T. Pecora, Chairman
- M. E. Mrose
- F. R. Boyd
REPORT OF THE PRESIDENT

To the Council and Members of the Mineralogical Society of America:

Reports of your officers make it clear that our Society has had another good year as measured by material things. Our Journal, far and away the most important contribution we make towards the advancement of the mineralogical sciences, has continued to thrive under its new editor. The outstanding sacrifices made by him, and by our long-standing secretary and even longer-standing treasurer, are far too little appreciated, even by the other officers and councillors who for a few years are in more or less close contact with them.

Our Council meets but once a year. This of necessity means a considerable burden of correspondence throughout the year, and a heavy program at the meetings. For instance the retiring council alone this year had 38 items of business listed on its advance agenda. One innovation put into effect this year which seems to be of value is the requirement that all reports from committees and representatives be submitted to the Secretary by September 1. These can thus be duplicated and distributed to the Council well in advance of the meeting. This not only gives time for careful appraisal of matters well before the meeting, but permits the possibility of a limited amount of correspondence in an attempt to clear up controversial points. It is hoped that at least some of the Officers' Reports (perhaps tentative) may be submitted early in this fashion in the future.

This past year the number of committees has been larger than usual. The membership of these is listed on pp. 269–270 and 572 of Vol. 42 of our Journal. Over fifty different fellows besides the twelve on the Council have participated in these activities; in addition we have five other names among our representatives to the various societies. Thus more than seventy different fellows (or over 20% of our total) have played a direct role in keeping us functioning this year. Who says this is not a democratic organization? On behalf of our Society it is a pleasure to thank all these fellows, and particularly the Committee Chairman, for their labors.

Besides the usual committees that our Society always needs, this year we have had several extraordinary ones dealing with the following matters: Criteria for Medals and Awards, Endowment Funds, International Mineralogical Association, Lengths of Officers' Terms, Mineralogical Abstracts, and Revision of the Constitution. In the preceding
notes the Secretary has reported on the deliberations of the Council as regards some of these items; my comments on some of the others are as follows.

**International Mineralogical Association.** The proposal that this organization be formed was brought up in our open business meeting last year in Minneapolis. Professor Buerger was named chairman of a committee which acted with such speed that a first international meeting was held at Montreal July 16, 1957. Delegates from twelve countries besides Canada and the United States were in attendance. All continents but Africa were represented. Nine European countries including the U.S.S.R. sent delegates. The following was accomplished: 1) election of a set of three interim officers with six delegates; 2) a committee from these is preparing a constitution; 3) a meeting of delegates is scheduled to be held in Madrid in April 1958; and 4) there was discussion of needed commissions.

It seems to me that this is a perfect example to show that our membership exclusive of the Council can initiate important business. While the open meeting at Atlantic City on November 5, 1957 was satisfactory as regards attendance and discussion, and a great improvement over such meetings in the past which I have attended, nevertheless in my opinion it would have been more satisfactory had there been less time devoted to relatively negative matters such as criticism of the Council, and if more signs of a live membership making proposals for positive action to advance our science had been in evidence. What good suggestions can you make at our St Louis meeting next fall?

**Length of Officers’ Terms.** This committee under the chairmanship of Professor Campbell prepared an outstanding report. It recommended no change as regards present customs except for two items: 1) the office of editor be appointive rather than elective; and 2) the secretary and treasurer be elected for three-year terms, with a maximum of three terms. The committee was strongly in favor of item 1, and rather lukewarm as regards item 2. After careful deliberation the Council accepted the first of these, but voted no change as regards the second. As a result, item 1 will go on the ballot next September.

**Nomenclature Committee.** The chairman, Professor Hutton, reported that the committee has been unable to agree on one subject on its agenda—the nomenclature of crystal forms. There are two sub-committees, one on nomenclature of feldspars, which has not yet completed its deliberations; and one on the nomenclature of clays, which seems to be bogged down because of lack of agreement. This report is at first glance discouraging; but what it really means is that we are still pretty ignorant. Facts are not sufficient to justify final conclusions.

A fresh new committee has been constituted. It may attack new problems; members with suggestions or comments should transmit them to Chairman Milton or Secretary Hurlbut. In addition this committee will cooperate with a similar British committee in connection with Mineralogical Abstracts, and also a corresponding committee of the International Mineralogical Association.

**Glossary Committee.** The American Geological Institute has published a glossary of geology which is now in its second printing. It is expected that a new edition will appear within a few years. If you find errors in the present edition in any section dealing with the mineralogical sciences, kindly transmit a memorandum covering these to our committee chairman, Professor Frondel.

I would call particular attention to our endowment fund. This was started by a magnificent unrestricted gift of $45,000 by Colonel Washington A. Roebling in 1926 with the expressed wish that “—the whole, or part of it, be devoted to the publication of the monthly magazine, The American Mineralogist—.” By 1940, when the present treasurer took over, this fund amounted to nearly $53,000. Since then, under the watchful eyes of our Finance Committees and the Treasurer, this amount has more than doubled. There have been only very minor gifts (since the original one) to this fund, but besides capital
gains, interest, and dividends, the fund has been increased by $100 for each life membership (whether voluntary or due to retirement, or to selection as correspondent or M.S.A. award winner; of course only the first of these adds any “outside” money to the fund). With continued careful scrutiny of our investments plus an active campaign to increase the principal substantially, by the time of our fiftieth anniversary, our Society should be in a position to carry forward on its own resources. We should not put all the burden of trying to raise this needed money on the shoulders of the members of one committee. While each of us should report good prospects to Chairman Woodford of the Endowment Committee, it must be realized that if only half of our members sent in checks for double their annual dues for each of the next twelve years, this would add $50,000 to our endowment funds by the time of our golden jubilee. This is an age in which organizations such as ours are very dependent on small gifts continuing over a period of years; if your dues-check is oversize, our Treasurer will understand.

In addition to the usual financial aid the Geological Society of America gives us each year to help carry the cost of publishing the American Mineralogist, which is very vital in our maintenance of a superior journal at a nominal subscription price, it is a pleasure to acknowledge the receipt of a generous grant from the National Science Foundation underwriting the publication costs of the current Decennial Index to our journal prepared by Dr. Ingerson. It is urged that all fellows, members, and subscribers purchase a copy of this index. Early compliance with this request will give each of us more use of it during the period when it is most valuable, and also will relieve the Society’s storage and amortization problems. Even if you don’t feel able to contribute to the endowment fund, surely you can help out the cause of dissemination of mineralogical literature to this extent. Why not send the Treasurer three dollars now?

The year as President has been very interesting to me; I see no reason to think that the Society has failed to survive it in good fashion. I deeply appreciate the honor conferred on me in electing me to this office. It is my one excursion into administration, and may such a thing never happen again! With confidence in the future, even though it involves doing the mineralogy of the moon, and great personal pleasure, I turn over the gavel to Professor Goodspeed.

Respectfully submitted,

D. Jeromo Fisher.

REPORT OF THE SECRETARY

To the Council of the Mineralogical Society of America:

Election of Officers and Fellows

Six hundred and twenty ballots were cast in the election of officers, 184 by fellows and 426 by members of the Society. In addition, ten were irregular and not included. The officers elected to serve in 1958 are:

President: George E. Goodspeed, University of Washington, Seattle, Washington.

Vice-President: Ralph E. Grim, University of Illinois, Urbana, Illinois.

Secretary: C. S. Hurlbut, Jr., Harvard University, Cambridge 38, Mass.


Editor: Lewis S. Ramsdell, University of Michigan, Ann Arbor, Michigan.


Richard H. Jahns, California Institute of Technology, Pasadena, California.

According to the provisions of the Constitution, the following have been elected to fellowship:

F. Donald Bloss, University of Tennessee, Knoxville, Tennessee.
MEMBERSHIP STATISTICS

November 1, 1957

\[
\begin{array}{cccc}
   & 1956 & 1957 & \text{Gain} & \text{Loss} \\
\hline
\text{Correspondents} & 4 & 3 & 0 & 1 \\
\text{Fellows} & 345 & 356 & 17 & 6 \\
\text{Members} & 1,014 & 1,075 & 61 & 70 \\
\text{Subscribers} & 966 & 1,041 & 75 & 53 \\
\hline
2,329 & 2,475 & 276 & 130 \\
\end{array}
\]

The above figure shows a net gain of 11 fellows, 61 members and 75 subscribers. Considering the four groups together, there is a gain of 146, giving a total of 2,475.

During 1957, the Society lost through death six fellows: G. D. Louderback, Berkeley, California; A. L. Parsons, Toronto, Canada; J. C. Rabbitt, Washington, D. C.; A. F. Rogers, Berkeley, California; S. J. Shand, Edinburgh, Scotland; B. Wasserstein, Pretoria, South Africa. Also through death, the Society lost F. Slavik, of Praha, Czechoslovakia, a correspondent.

Respectfully submitted,
C. S. Hurlbut, Jr., Secretary

REPORT OF THE TREASURER FOR 1957

To the Council of the Mineralogical Society of America:

Your Treasurer submits herewith his report for the fiscal year beginning August 1, 1956, and ending July 31, 1957.

RECEIPTS

\[
\begin{align*}
\text{Dues and subscriptions} & : \quad 13,050.19 \\
\text{Sale of back numbers} & : \quad 1,383.39 \\
\text{Authors' charges on reprints} & : \quad 2,615.17 \\
\text{Interest and dividends from endowment} & : \quad 6,293.46 \\
\text{Geological Society of America aid for printing the Journal} & : \quad 8,000.00 \\
\text{Advertising} & : \quad 713.76 \\
\text{Sale of Index, vols. 21-30} & : \quad 10.00 \\
\text{Sale of Index, vols. 1-20} & : \quad 4.00 \\
\hline
\text{Total} & : \quad 32,069.97 \\
\text{Cash on hand, August 1, 1956} & : \quad 4,120.38 \\
\hline
\text{Total} & : \quad 36,190.35
\end{align*}
\]
DISBURSEMENTS

Printing and distribution of the Journal (6 issues) ...................................................... $15,708.83
Printing and distribution of reprints .................................................................................. 2,481.77
Honoraria to Editor, Secretary and Treasurer ................................................................. 1,250.00
Clerical assistance ........................................................................................................... 1,168.25
Printing and stationery ..................................................................................................... 520.61
Program and abstracts (1956) .......................................................................................... 225.00
Roebling Medal (1956) ..................................................................................................... 134.65
Postage and express .......................................................................................................... 696.15
Expenses of officers to 1956 meetings .............................................................................. 151.65
New securities purchased ................................................................................................. 10,018.18
Commission on new securities ....................................................................................... 37.50
Tax on new securities ...................................................................................................... 1.08
Office equipment .............................................................................................................. 435.90
Safety deposit box ........................................................................................................... 7.15
Refunds ............................................................................................................................ 19.46
Telephone and telegrams ................................................................................................. 6.39
Committee expenses ........................................................................................................ 5.03
Mineralogical Society of America Award certificate ....................................................... 7.00
Special certificate of appreciation to Walter F. Hunt ...................................................... 35.00
Contribution to American Geological Institute ............................................................... 516.00
Expenses in preparation of Index to volumes 31-40 ....................................................... 1,126.20
Checks returned .............................................................................................................. 107.20

$34,658.82

Cash on hand, July 31, 1957 .......................................................................................... 1,531.53

$36,190.35

The endowment funds of the Society as of July 31, 1957, consist of the following securities:

**Bonds**

<table>
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<tr>
<th>Bond Description</th>
<th>Amount</th>
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<tr>
<td>6M Atlantic Coast Line, 4½</td>
<td>$ 5,257.50</td>
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<tr>
<td>5M New York Central, 5</td>
<td>4,300.00</td>
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<td>5M Southern Railway, 5</td>
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$ 15,301.25

**Preferred Stocks**

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<td>500 Union Pacific, 4</td>
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<td>200 Southern California Edison, 4.88</td>
<td>5,250.00</td>
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<td>150 Penn-Texas, 1.60</td>
<td>4,487.50</td>
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<tr>
<td>60 Jones and Laughlin, A, 5</td>
<td>4,987.50</td>
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<td>55 United States Steel, 7</td>
<td>6,946.20</td>
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<td>50 Virginia Electric and Power, 5</td>
<td>5,942.50</td>
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<tr>
<td>40 Potomac Electric Power, 2.44</td>
<td>2,000.00</td>
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<tr>
<td>10 Consolidated Edison, 5</td>
<td>1,066.64</td>
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$ 35,250.59
REPORT OF THE AUDITING COMMITTEE

To the President of the Mineralogical Society of America:

The Auditing Committee has examined and verified the accounts of the Treasurer of the Mineralogical Society of America for the fiscal year beginning August 1, 1956, and ending July 31, 1957. The securities listed in the Treasurer's report, with all future coupons on the coupon bonds attached, are in the safety deposit box at the 17th and G Street Branch of the Riggs National Bank in Washington, D. C.

Respectfully submitted,

C. A. Anderson
H. L. James
Margaret D. Foster, Chairman

REPORT OF COMMITTEE ON ENDOWMENTS

The Mineralogical Society of America needs more endowment. The present endowment of about $100,000 should be increased to $300,000, to provide for our present operations. However, as our costs are constantly going up, and as some expansion in our operations seems necessary, especially in connection with the proposed abstract journal, an increase of the endowment to about $400,000 would be most desirable. The need is urgent, and gifts large and small will be welcomed at any time.

One attractive device, widely used, is to give stock that has increased markedly in value. The donor avoids paying capital gains tax, and can take as a tax deduction the full market value of the stock. Of course, the deduction cannot exceed the allowable limit of 20 per cent of adjusted gross income during the tax year.

Fellows and members are also urged to consider the Society when writing their wills.

Respectfully submitted,

Earl Ingersoll, Treasurer
and to bring the Society's needs to the attention of interested friends who might make bequests for the advancement of mineralogy. Property left to the Mineralogical Society of America is exempt from inheritance and estate taxes. Bequests should be made to the Mineralogical Society of America, Inc., Washington 25, D. C.

Committee on Endowments
A. O. Woodford, Chairman
C. Frondel
C. B. Slawson

REPORT OF THE EDITOR FOR 1957

To the Council of the Mineralogical Society of America:

The 1957 volume of The American Mineralogist contains 940 pages, compared with 974 for 1956. This averages about 160 pages per bimonthly issue. There are 65 leading articles, and 39 shorter papers, making a total of 104 published manuscripts. These were received from 162 contributors, representing 37 schools, institutions, and industrial laboratories; 27 in the United States and 10 in foreign countries. Four new minerals were described in detail for the first time. There were 23 book reviews, 8 notices of publications, and 20 miscellaneous notes. Dr. M. Fleischer continued his valuable section of New Mineral Names, New Data and Discredited Minerals, with 75 entries. Our Society is greatly indebted to Dr. Fleischer for this service. We appreciate not only the valuable information but also his pertinent comments.

As in former years, the Geological Society of America has continued its liberal financial support, defraying a very substantial portion of the printing costs of the Journal. We are grateful for this assistance and wish to express our appreciation.

In recent years there have been at times quite large backlogs of manuscripts on hand, so that in some cases there was too long an interval between receipt of a manuscript and its publication. When Dr. Hunt retired as Editor, he had this situation under control, as shown by the fact that after the January-February, 1957, manuscripts had gone to the printer there were only 25 additional manuscripts on hand. To keep the backlog under control, the Council in 1956 authorized a special supplement to the November-December, 1957, issue. Papers from Harvard University were to be held up for this supplement, thus leaving more room in the regular issues for other manuscripts.

By midsummer, however, because of the comparatively small number of manuscripts on hand, and the small number anticipated from Harvard, the idea of a supplement was abandoned, and it was decided to put the Harvard papers in the regular November-December issue. This decision was also influenced by the fact that in the three-months period from August through October, 1956, only five manuscripts were accepted for publication.

Subsequent developments show how unpredictable the supply of manuscripts can be. The number from Harvard increased to 14 leading articles and 5 shorter notes, making a large November-December issue. Moreover, in contrast to the 5 manuscripts received in the three months August through October last year, this year in the same period 27 were received. This about doubles our backlog and will require considerably larger issues for the first two or three numbers of 1958 to get back to normal. However, few of these manuscripts will have to wait more than eight months. In this connection, it might be well to consider the following facts. Manuscripts are sent to the printer about two months before the issue is out, for example, about January 12 for the March-April issue. But these manuscripts are being assembled, marked for the printer, and the arrangement and size of illustrations figured out during the preceding two weeks, beginning about December 28. Thus any manuscript arriving after January 1 could not appear before the May-June issue, nearly six months later.
However, since the editor does not wish to completely clear out all manuscripts on hand, it could very well be the July-August issue, nearly eight months later. This delay can be considered quite normal, unless the editor made it a policy to send in all manuscripts received up to a certain deadline. This might mean a very large issue, with a chance of having the following issue a very small one.

The new editor wishes to express his thanks for the help he has received from the Editor Emeritus, Dr. Hunt. The fact that he has been available for consultation on many questions has made the editorial task much easier. The George Banta Company Inc., publishers of the Journal, also deserve mention. Their efficient cooperation and great experience have made the change in editors possible with very few errors of commission or omission.

There should also be acknowledged the help of the Associate Editors, Drs. W. F. Bradley, C. L. Christ, R. M. Garrels, E. Wm. Heinrich, J. Murdoch and F. J. Turner. Their prompt reading of manuscripts and reporting on their acceptability, and their suggestions to the authors, all constitute an important service. Similar help has also been received from Drs. G. W. Brindley, R. M. Denning, D. McConnell, A. Pabst, and H. Winchell. Ten manuscripts were rejected, and quite a number were revised after receiving criticisms and suggestions.

As already stated, there are enough manuscripts on hand to provide for several larger issues early in 1958.

A summary of the distribution of subject matter in Vol. 42 is shown in the following table.

**Distribution of Subject Matter in Volume 42**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Articles</th>
<th>Pages</th>
<th>Per Cent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading articles*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive mineralogy and paragenesis</td>
<td>19</td>
<td>730</td>
<td>79.2</td>
</tr>
<tr>
<td>Chemical mineralogy and geochemistry</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-ray analysis and crystal geochemistry</td>
<td>6</td>
<td></td>
<td></td>
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<tr>
<td>Geometrical crystallography</td>
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<td></td>
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<tr>
<td>Petrography</td>
<td>4</td>
<td></td>
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</tr>
<tr>
<td>Differential thermal analysis</td>
<td>4</td>
<td></td>
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<tr>
<td>Physical properties</td>
<td>9</td>
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<td>Memorials</td>
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<td>Miscellaneous</td>
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<td></td>
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<td>1161</td>
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<tr>
<td>Short articles</td>
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<td>1161</td>
<td></td>
</tr>
<tr>
<td>Notes</td>
<td>23</td>
<td>5</td>
<td></td>
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<tr>
<td>Proceedings of Society</td>
<td>1</td>
<td>261</td>
<td>21.8</td>
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<tr>
<td>Book reviews and notices</td>
<td>31</td>
<td>181</td>
<td></td>
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<tr>
<td>Abstracts of new mineral names</td>
<td>65</td>
<td>261</td>
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<tr>
<td>Total entries</td>
<td>201</td>
<td>921</td>
<td></td>
</tr>
<tr>
<td>Index, Title page, Table of Contents</td>
<td></td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td>940</td>
<td></td>
</tr>
</tbody>
</table>

* Leading articles average 11.2 printed pages.
LIST OF FORMER OFFICERS AND MEETING PLACES

By recommendation of the Council, a complete list of past officers is printed in the proceedings of the annual meeting of the Society:

HONORARY PRESIDENTS
Edward S. Dana 1925–1935
Charles Palache 1949–1954
Edward H. Kraus 1955–

PRESIDENTS
1920 Edward H. Kraus
1921 Charles Palache
1922 Thomas L. Walker
1923 Edgar T. Wherry
1924 Henry S. Washington
1925 Arthur S. Eakle
1926 Waldemar T. Schaller
1927 Austin F. Rogers
1928 Esper S. Larsen
1929 Arthur L. Parsons
1930 Herbert E. Merwin
1931 Alexander H. Phillips
1932 Alexander N. Winchell
1933 Herbert P. Whitlock
1934 John W. Wolff
1935 Clarence S. Ross
1936 William S. Bayley
1937 Norman L. Bowen
1938 Ellis Thomson
1939 Max N. Short
1940 William F. Foshag
1941 Frederick E. Wright
1942 Arthur F. Buddington
1943 John F. Schairer
1944 R. C. Emmons
1945 Kenneth K. Landes
1946 Paul F. Kerr
1947 M. J. Buerger
1948 M. A. Peacock
1949 John W. Gruner
1950 George Tunell
1951 A. Pabst
1952 Michael Fleischer
1953 J. D. H. Donnay
1954 Sterling B. Hendricks
1955 Harry H. Hess
1956 Clifford Frondel
1957 D. Jerome Fisher

VICE-PRESIDENTS
1920 Thomas L. Walker
1921 Waldemar T. Schaller
1922 Frederick A. Canfield
1923 George F. Kunz
1924 Washington A. Roebling
1925 Herbert P. Whitlock
1926 George Vaux, Jr.
1927 George L. English
1928 Lazard Cahn
1929 Edward Wigglesworth
1930 John E. Wolff
1931 William F. Foshag
1932 Joseph L. Gillson
1933 Frank B. Guild
1934 William A. Tarr
1935 Ellis Thomson
1936 Harold L. Alling
1937 H. V. Ellsworth
1938 Kenneth K. Landes
1939 Burnham S. Colburn
1940 Ian Campbell
1941 William J. McCaughey
1942 Martin J. Buerger
1943 John W. Gruner
1944 Harry Berman
1945 George Tunell
1946 S. B. Hendricks
1947 Carl Tolman
1948 Adolf Pabst
1949 J. D. H. Donnay
1950 Ralph E. Grim
1951 Michael Fleischer
1952 J. D. H. Donnay
1953 Sterling B. Hendricks
1954 Harry H. Hess
1955 Clifford Frondel
1956 D. Jerome Fisher
1957 George E. Goodspeed
PROCEEDINGS OF 38th ANNUAL MEETING

SECRETARIES
1920–1922 Herbert P. Whitlock
1923–1933 Frank R. Van Horn
1933–1934 Albert P. Peck
1934–1944 Paul F. Kerr
1944– C. S. Hurlbut, Jr.

TREASURERS
1920–1923 Albert B. Peck
1924–1929 Alexander H. Phillips
1929–1930 Albert B. Peck
1930–1940 Waldemar T. Schaller
1941– Earl Ingerson

EDITORS
1920–1921 Edgar T. Wherry
1922–1956 Walter F. Hunt
1957—Lewis S. Ramsdell

COUNCILORS
1921 Frank R. Van Horn, Fred E. Wright, Alexander H. Phillips, Austin F. Rogers.
1922 Fred 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.
1930 Alexander N. Winchell, Ellis Thomson, Clarence S. Ross, Paul F. Kerr.
1931 Ellis Thomson, Clarence S. Ross, Paul F. Kerr, William S. Bayley.
1954 George T. Faust, Victor T. Allen, C. Osborne Hutton, Felix Chayes
Annual Meeting Places

1920 Chicago, Illinois
1921 Amherst, Massachusetts
1922 Ann Arbor, Michigan
1923 Washington, D.C.
1924 Ithaca, New York
1925 New Haven, Connecticut
1926 Madison, Wisconsin
1927 Cleveland, Ohio
1928 New York, N.Y.
1929 Washington, D.C.
1930 Toronto, Canada
1931 Tulsa, Oklahoma
1932 Cambridge, Massachusetts
1933 Chicago, Illinois
1934 Rochester, New York
1935 New York, N.Y.
1936 Cincinnati, Ohio
1937 Washington, D.C.
1938 New York, N.Y.
1939 Minneapolis, Minnesota
1940 Austin, Texas
1941 Boston, Massachusetts
1942 No meeting held
1943 No meeting held
1944 No meeting held
1945 Pittsburgh, Pennsylvania
1946 Chicago, Illinois
1947 Ottawa, Canada
1948 New York, N.Y.
1949 El Paso, Texas
1950 Washington, D.C.
1951 Detroit, Michigan
1952 Boston, Massachusetts
1953 Toronto, Canada
1954 Los Angeles, California
1955 New Orleans, Louisiana
1956 Minneapolis, Minnesota
1957 Atlantic City, New Jersey

Recipients of the Roebling Medal

Charles Palache, December 1937
Waldemar T. Schaller, December 1938
Leonard James Spencer, December 1940
Esper S. Larsen, Jr., December 1941
Edward H. Kraus, February 1945
Clarence S. Ross, December 1946
Paul Niggli, December 1947
William Lawrence Bragg, November 1948
Herbert E. Merwin, November 1949
Norman L. Bowen, November 1950
Fred E. Wright, November 1952
William F. Foshag, November 1953
Cecil Edgar Tilley, November 1954
Alexander N. Winchell, November 1955
Arthur F. Buddington 1956
Walter F. Hunt 1957

Recipients of The Mineralogical Society of America Award

Orville Frank Tuttle, November 1951
Frederick H. Stewart, November 1952
L. H. Ahrens, November 1953
Hatten S. Yoder, Jr., November 1954
Julian R. Goldsmith, November 1955
George C. Kennedy 1956
Rustum Roy 1957

1957 ANNUAL MEETINGS AT ATLANTIC CITY, NEW JERSEY

The meetings of the following Societies were held on November 4–6, 1957.
The Geological Society of America—70th
The Paleontological Society—49th
The Mineralogical Society of America—38th
Society of Economic Geologists—38th
Society of Vertebrate Paleontology—17th
Geochemical Society—2nd
Association of Geology Teachers

The complete program listed titles and abstracts of 280 papers. Of these 130 seemed to be of special interest to members of The Mineralogical Society of America. Authors and titles of these papers are listed below. Since by Council action the abstracts will not be reprinted in The American Mineralogist, references are given to the Bulletin of the Geological
PAPERS OF SPECIAL MINERALOGICAL INTEREST


LLOYD L. AMES, JR.: Chemical analyses of the inclusion fluids in a group of New Mexico minerals. Page 1694.


DANIEL E. APPLEMAN: Crystal-chemical study of johannite. Page 1696.


H. L. BARNES: Trace-element distribution in shales near the Hanover, New Mexico, mining area. Page 1699.


WILLIAM A. BASSETT: Copper vermiculites from Northern Rhodesia. Page 1700.


RUSSELL A. BRANT: Coal resources studies in Ohio. Page 1703.

GEORGE BRUNTON, H. STEINFINK, AND CARL W. BECK: Crystal structure of callaghanite Cu₃Mg₃(CO₃)₄(OH)₄·8H₂O. Page 1704.


C. L. CHRIST AND JOAN R. CLARK: Nature of the polyions in some borate minerals. Page 1708.


ROBERT R. COMPTON: Conversion of amphibolites to charnockitic rocks in the Santa Lucia Mountains, California. Page 1711.


L. DOLAR-MANTUANI: Concrete aggregate examination by prolonged copper-nitrate staining test. Page 1717.


Margaret D. Foster: Interpretation of the compositions of trioctahedral micas. Page 1729.


R. M. Garrels: Some free-energy values from geologic relations. Page 1732.


Paul W. Gast and Leon E. Long: Absolute age determinations from the basement rocks of the Beartooth Mountains and Bighorn Mountains. Page 1732.


Julian R. Goldsmith and Donald L. Graf: Structural and compositional variations in some natural dolomites. Pages 1735.


L. B. Halferdahl: Chemical and physical properties of chloritoid. Page 1740.

R. Ian Harker: System MgO-CO2-argon, and the effect of inert pressure on certain types of hydrothermal reaction. Page 1741.


William T. Holser: Space groups, plane groups, and twin symmetry. Page 1746.


Richard H. Howe and C. Wayne Burnham: Preliminary experiments on the transport of silica in water at high temperatures and pressures. Page 1747.

JOHN IMRIE AND ARIE POLDERVAART: Normative analysis of fine-grained sedimentary rocks. Page 1750.
HENRY L. JICHA, JR.: Hydrothermal zoning of lead in the manganese ores of the Luis Lopez district, Socorro County, New Mexico. Page 1753.
CYRIE KLINCBERG AND RUSTUM ROY: System Mn-O-OH. Page 1755.
KONRAD B. KRAUSKOPP: Composition of magmatic gases at 600°C. Page 1757.
FREDERICK J. KUELLMANN: Compositions of alkali feldspars in some igneous rocks. Page 1758.
KENNETH K. LANDER: Chemical unconformities. Page 1759.
GORDON A. MACDONALD: Dissimilarity of continental and oceanic rock suites. Page 1761.
Frederick A. Mumpton and Rustum Roy: Experimental study of the zircon-thorite group. Page 1772.


Robert L. O’Neil: Analytical procedures applicable to fine-grained sedimentary rocks. Page 1776.


Arie Poldervaart: Possible nature of deep oceanic crust. Page 1782.


Eugene H. Roseboom, Jr.: Phase relations in the system CoAs\(_2\)-NiAs\(_2\)-FeAs\(_2\)-As at 800° C. Page 1787.


J. F. Schairer: Phase-equilibrium relations in a portion of the system Na\(_2\)O-MgO-Al\(_2\)O\(_3\)-SiO\(_2\) and the composition of residual liquids from crystallization, Page 1791.


George M. Schwartz: Alteration of biotite under mesothermal conditions. Page 1794.

Donald G. Sherlock and Warren B. Hamilton: Granitic rocks of north half of Mt. Abbot quadrangle, Sierra Nevada, California. Page 1795.

Raymond Siever: Chemical factors in carbonate-quartz cementation. Page 1795.


F. G. Snyder and J. W. Odell: Mineralized submarine slides in the southeast Missouri lead district. Page 1797.


BRONSON STRINGHAM: Relationship of ore to porphyry in the Great Basin. Page 1801.
MING-SHAN SUN and ROBERT H. WEBER: Santafeite, a new hydrated vanadate from New Mexico. Page 1802.
HARRY A. TOURTELOT: Chemical composition of the Pierre shale and equivalent rocks of Late Cretaceous age, Great Plains region. Page 1806.
O. F. TUTTLE and P. J. WYLLIE: Hydrothermal studies in the systems NaAlSiO₃ (albite)-H₂O-HF and granite-H₂O-HF.
A. VAN VALKENBURG and C. E. WEIR: Beryl studies 3BeO·Al₂O₃·6SiO₂. Page 1808.
WILFORD F. WEEKS: Study of the growth of sea-ice crystal. Page 1811.
PETER K. WYLLIE: Change in solubility of calcium carbonate with temperature and carbon-dioxide content. Page 1811.
PETER J. WYLLIE: Discrepancies between optic axial angles of olivines measured over different bisectrices. Page 1814.