

Proceedings of the Sixtieth Annual Meeting of the Mineralogical Society of America in San Diego, California

LARRY W. FINGER, SECRETARY 1979
AND M. CHARLES GILBERT, SECRETARY 1980

The sixtieth annual meeting of the Society was held on November 4-8, 1979, in San Diego, California. There were two technical sessions in mineralogy, six in petrology, and a symposium, "Properties of Silicate Melts," organized by Bjørn Mysen. The technical sessions were integrated with those of the Geological Society of America and other affiliated societies of GSA.

The retiring president, David R. Wones, addressed the Society on the subject, "Contributions of Crystallography, Mineralogy and Petrology to the Geology of the Lucerne Pluton, Hancock County, Maine." The annual luncheon followed the address of President Wones. The Roebling Medal was presented to W. H. Taylor, who was introduced by Joseph V. Smith. The Mineralogical Society of America Award was presented to Ho-Kwang Mao, who was introduced by William A. Bassett.

At the annual business meeting, reports were presented by the Secretary, the Treasurer, and the Editor. The results of the election and Council Actions were announced.

1979 Council Actions

The second meeting of the 1979 Council was held on May 31, 1979 and the third meeting on November 4, 1979. The principal actions taken at these meetings are as follows:

Awards

The Council voted to award the Roebling Medal for 1980 to D. S. Korzhinskii. The Mineralogical Society of America Award for 1980 will be given to Susan W. Kieffer. The Kraus-Glass Research Award for 1980 goes to Rodney J. Hill.

Nominations of Officers for 1981

The following slate of elective officers for 1981, based on the recommendation of the Nominating Committee for Officers (C. T. Prewitt, Chair) was chosen by the Council and will appear on the ballot in 1980:

President: Gerald V. Gibbs, Virginia Polytechnic Institute and State University

Vice President: (one to be elected)
Donald H. Lindsley, State University of New York at Stony Brook
David B. Stewart, U. S. Geological Survey

Secretary: Not on the 1981 ballot.

Treasurer: Odette B. James, U.S. Geological Survey

Councilors: (1981-1983) Two to be elected.
Philip M. Bethke, U. S. Geological Survey
Gordon E. Brown, Stanford University
Charles W. Burnham, Harvard University
Peter R. Buseck, Arizona State University

Fellowship

The Council elected members to Fellowship, based on the recommendations of the Nominating Committee for Fellows (C. Klein, Chair). The new Fellows are:

H. L. Barnes	G. R. Rossman
D. M. Burt	J. C. Rucklidge
D. H. Eggler	C. A. Salotti
J. Ganguly	S. D. Scott
K. Langer	D. G. W. Smith
R. W. LeMaitre	Douglas Smith
J. B. Lyons	I. M. Steele
W. G. Mumme	D. J. Vaughan
B. O. Mysen	R. H. Vernon
R. C. Newton	D. Virgo
R. W. Potter	R. W. T. Wilkins
D. C. Presnall	

Miscellaneous

The Council increased the library rate for *The American Mineralogist* from \$50 to \$55 and eliminated all paid advertising from the journal. In addition, negotiations were completed with Springer-Verlag, and members of the Society may receive a 70% discount on personal subscriptions of *Physics and Chemistry of Minerals*.

LARRY W. FINGER
Secretary

1980 Council Actions

The first meeting of the 1980 Council was held on November 7, 1979.

The Council discussed the following topics: (1) Short Course program as it was developing through 1982 and ways to promote larger distribution of the Course Notes; (2) likely increased costs of publications over the next three years; (3) our participation in the Joint Technical Program Committee for the Fall national meetings; and (4) our contractual relationship with the American Geophysical Union. The Council approved the budgets for the Society and *Mineralogical Abstracts*, and reappointed Brian Mason as Editor, Kathleen Krafft as Managing Editor, and A.F. Spilhaus as Executive Secretary.

Committees

The report of the Committee on Committees (W.G. Ernst, Chair) was approved with modifications.

Search for next Editor

Brian Mason has asked to be relieved as Editor at the end of 1980. The Committee appointed to search for his successor is E. Zen, Chair; L. Finger, B.J. Skinner, and J.V. Smith.

M. CHARLES GILBERT
Secretary

Report of the Secretary for 1979

Results of the Election

The results of the 1979 election are as follows:

President: W. Gary Ernst (1980)
Vice President: Gerald V. Gibbs (1980)
Secretary: M. Charles Gilbert (1980-1981)
Councilors: Paul Ribbe (1980-1982)
Peter Robinson (1980-1982)

The Constitutional Amendment calling for a contested election for Vice President carried by a vote of 818 to 89.

Membership Statistics

As of October 1979, there were 2530 members, divided as follows: Members, 1549; Student Members, 397; Fellows, 575; and Honorary Fellows, 9.

Necrology

Members and Fellows whose deaths have been noted since the last report are:

Henry R. Aldrich Arthur L. Howland
John H. Brant Walter J. Rodekohl

Richard A. Crippen, Jr. Jasper L. Stuckey
Wilbur J. Elwell Donald Trent
Harry C. Grahl F. Alton Wade

This report is my last as Secretary. I wish to thank the members of the Society for all their assistance during my tenure.

LARRY W. FINGER
Secretary

Report of the MSA Financial Advisory Committee for 1979

The state of the Society's investments is generally quite satisfactory. Transfer of custody of our securities from Stires & Co. to The Chemical Bank is essentially complete, and the new arrangement is working well.

In contrast to last year's extensive reconstitution of the portfolio, this year has seen only fine-tuning of the list (Table 1). Performance has been highly commendable: market value increased from \$437,427.66 at the beginning of the year to \$557,999.59 December 31. Part of this increase is attributable to the addition of a gift of securities and to reinvestment of interest and dividend income, but even when corrected for these factors the portfolio has grown by 21.9% for the year. As of the end of December, the portfolio's market value represented a gain over cost of \$151,094.97, or 37.1%.

Dividend and interest income from the investment portfolio amounted to \$21,883.75 (Table 2). The current yield (12/31/79) is 4.0% per annum. In addition, the Society earned \$5,507.52 on short-term investment of operating funds, at an average rate of 11.15%. Sale of securities resulted in a net realized capital loss of \$6,895.84 (Table 3).

An important responsibility of this Committee is the analysis and oversight of the Society's general financial operations, as distinct from the investment funds. Such analysis is greatly hampered this year by the lack of adequate reports from our bookkeeping office at AGU. This results in part from the complete turnover in the AGU staff last summer, but the continuing problem is cause for concern.

Respectfully submitted,
P.R. BRETT
C.W. BURNHAM
W.A. DOLLASE
G.W. FISHER
M. ROSS, *Treasurer*
PRIESTLEY TOULMIN, III, *Chairman*

Table 2. Dividends and interest received from investments in 1979

Portfolio	Cost or Other Basis	Approximate Market Value 12/31/79
Senior Securities		
15,000 Commercial Credit Co. Notes, 8.40%, 3/1/81	\$ 15,000.00	\$ 14,268.75
35,000 Georgia Power Co. 1st. Mtge. 7 5/8%, 11/1/2001	25,550.00	21,700.00
15,000 International Bank Recon. & Devel. Note 8.15%, 1/1/85	15,022.50	13,312.50
22,645 Pool #21285 GNMA, 8.000%, 10/15/2007	21,144.82	18,682.17
30,000 U.S. Treasury Notes, 8%, 2/15/83	30,004.69	27,843.60
10,000 U.S. Steel Corp. cv. sub. deb., 5 3/4%, 7/1/2001	10,000.00	5,525.00
5 American Tel. & Telegraph Co.	328.12	272.50
	\$117,056.13	\$101,604.52

Interest \$1,260.00
 Georgia Power 2,668.76
 GNMA Pool 1,948.84
 Intrnl. Bank Redevel. 1,222.50
 U.S. Steel debenture 575.00
 U.S. Treasury Notes 2,400.00
 \$ 9,975.10

Dividends	Cost	Gain (loss)
AT&T pref. 15.00		
Aetna Life & Casualty 610.00		
Amer. Std. 980.00		
AT&T common 896.00		
Anstead Industries 288.00		
Beech Aircraft 630.00		
Boeing 216.00		
Bristol-Myers 40.00		
Capital Cities Commun. 224.00		
Church's Fried Chicken 210.00		
Dresser Industries 544.00		
El Paso Co. 246.00		
Fort Howard Paper 300.00		
General Dynamics 380.00		
Hilton Hotels 436.00		
Hospital Corp. of America 126.35		
Houston Natural Gas 315.00		
IRM 619.20		
Levi Strauss Co. 555.00		
MCA Inc. 336.60		
Melville Corp. 560.00		
Northwest Industries, Inc. 760.00		
Ogilvy & Mather Intrnl. 348.00		
Overseas Shipholding 171.00		
Owens Corning Fiberglass 180.00		
Parker Drilling 72.00		
Phillip Morris 238.75		
Revco D.S. Inc. 216.00		
Santa Fe Intrnl. 36.00		
Scientific-Atlanta 12.75		
Scott-Foresman 298.00		
Sea Containers 115.50		
Sears Roebuck 30.72		
Smithline Corp. 72.00		
Teledyne 40.78		
Tiger Intrnl., Inc. 225.00		
UAL, Inc. 100.00		
Xerox 460.00		
	\$11,905.65	
	\$21,883.75	

Table 3. Capital gains and losses realized in 1979

	Cost	Sale	Gain (loss)
200 Cordis Corporation	\$ 9,552.00	\$ 5,156.00	(\$ 4,396.00)
300 Ogilvy & Mather Intrnl. Inc.	8,289.00	6,122.42	(2,166.58)
200 Owens Corning Fiberglass	5,621.82	5,883.03	(261.21)
400 Santa Fe International	5,019.00	4,015.86	(903.14)
96 Sears	2,040.00	1,855.85	(184.15)
200 UAL	6,167.00	4,709.84	(1,457.16)
200 United Technologies	5,104.24	7,977.73	2,873.49
1401.78 GNMA Pool (princ. pmts.)	1,325.29	1,401.78	76.49
TOTALS	\$44,018.35	\$37,122.51	(\$ 6,895.84)

Table 1. MSA investment portfolio

Portfolio	Cost or Other Basis	Approximate Market Value 12/31/79
Senior Securities		
15,000 Commercial Credit Co. Notes, 8.40%, 3/1/81	\$ 15,000.00	\$ 14,268.75
35,000 Georgia Power Co. 1st. Mtge. 7 5/8%, 11/1/2001	25,550.00	21,700.00
15,000 International Bank Recon. & Devel. Note 8.15%, 1/1/85	15,022.50	13,312.50
22,645 Pool #21285 GNMA, 8.000%, 10/15/2007	21,144.82	18,682.17
30,000 U.S. Treasury Notes, 8%, 2/15/83	30,004.69	27,843.60
10,000 U.S. Steel Corp. cv. sub. deb., 5 3/4%, 7/1/2001	10,000.00	5,525.00
5 American Tel. & Telegraph Co.	328.12	272.50
	\$117,056.13	\$101,604.52
Common Stocks		
300 Aetna Life & Casualty Co.	7,959.91	9,975.00
200 American Standard Inc.	5,799.35	10,950.00
200 American Tel. & Tel. Co.	11,086.46	10,425.00
200 Anstead Industries Inc.	3,574.50	7,650.00
300 Beech Aircraft Corp.	6,817.50	15,000.00
300 Boeing Co.	6,617.00	15,187.50
200 Bristol-Myers Co.	6,721.00	7,400.00
200 Capital Cities Communications Inc.	7,615.00	9,725.00
400 Church's Fried Chicken Inc.	8,712.00	9,650.00
600 Computer Sciences Corp.	7,300.00	11,175.00
100 Computer Vision Corp.	3,789.35	5,037.50
100 Datapoint Corp.	3,922.31	10,400.00
400 Dome Petroleum Ltd.	3,922.31	10,400.00
200 Dresser Industries Inc.	6,837.01	18,650.00
200 El Paso Co.	6,528.67	10,400.00
200 Fort Howard Paper Co.	8,433.00	9,075.00
250 General Dynamics Corp.	8,993.00	15,125.00
400 General Foods Corp.	5,759.00	6,725.00
200 Hilton Hotels Corp.	4,410.84	12,650.00
266 Hospital Corp. of America	4,864.20	11,837.00
300 Houston Natural Gas Corp.	8,709.23	12,075.00
180 International Business Machines Corp.	10,293.75	11,887.50
300 Levi Strauss & Co.	6,250.42	21,825.00
300 MCI Communications Corp.	2,062.50	1,818.60
264 MCA Inc.	7,280.73	14,388.00
400 Melville Corp.	8,251.49	11,000.00
324 Overseas Shipholding Group Inc.	6,867.68	13,950.00
300 Parker Drilling Co.	7,940.28	12,636.00
200 Phillip Morris Inc.	5,315.00	11,287.50
300 Revco D.S. Inc.	6,880.73	7,200.00
100 Ralm Corp.	8,061.00	7,950.00
150 Scientific-Atlanta Inc.	3,543.50	4,237.50
400 Scott Foresman & Co.	3,707.00	5,418.75
300 Sea Containers Inc. Combined ctf	7,702.00	10,400.00
100 Smithline Corp.	7,183.88	4,762.50
200 Spectra-Physics Inc.	4,142.50	6,287.50
600 Storage Technology Corp.	3,576.00	10,425.00
100 Tandem Computers Inc.	4,000.00	4,250.00
200 T-Bar Inc.	4,000.00	5,046.00
119 Teledyne Inc.	6,106.51	15,946.00
300 Tiger International Inc	7,308.00	5,700.00
300 Tyshara Inc.	5,565.00	15,487.50
100 King Laboratories Cl.B	3,247.51	3,362.50
200 Xerox Corp.	9,800.50	12,425.00
Cash accounts	\$287,116.27	\$453,656.85
	2,738.22	2,738.22
TOTALS	\$406,904.62	\$557,999.59

Report of the Editor for 1979 (October 1, 1978–September 30, 1979)

Manuscripts received during the twelve months ending September 30, 1979, totalled 184, a decrease from the 231 received during the previous twelve months; the larger number for the preceding year can

be ascribed in part to the 28 manuscripts received for the Frondel–Hurlbut issue (September–October, 1978). Table 1 summarizes the operations of the journal for the period October 1, 1978–September 30, 1979.

The Editor is pleased to report that there was no backlog of manuscripts awaiting publication during 1979. Manuscripts that had passed the review process and were ready for publication were submitted to the printer for whatever issue was then in preparation. All the issues published during the year have been printed and mailed on schedule, thanks to effective cooperation between the editorial office and the printer.

The Editor expresses his appreciation for the efficient services of Ms. Kathleen Krafft as Managing Editor, and for the work of the Associate Editors, which are essential to maintain and improve the quality of the journal. The services of the retiring Associate Editors Professor Gordon E. Brown, Jr., Professor Eric Dowty, and Dr. R.F. Fudali deserve special mention, as do the contributions of Dr. Michael Fleischer and his collaborators on the preparation of "New Mineral Names." Those who have kindly reviewed manuscripts for the journal are listed below.

Table 1. Summary of operations of *The American Mineralogist* October 1, 1978–September 30, 1979

Volume	No.	# Articles	# Pages	Pages Ads	Pages Misc.	Total Pages
<u>Published</u>						
63	9-10	30	213	6	5	224
63	11-12	26	260	9	19	288
64	1-2	31	240	8	8	256
64	3-4	28	215	5	4	224
64	5-6	19	183	5	36	224
64	7-8	36	245	0	11	256
<u>In Press</u>						
64	9-10	26	192	0	0	192
64	11-12	23	196	0	28	224
Manuscripts accepted		32				
Manuscripts under review		98				
Manuscripts rejected		24				
Manuscripts withdrawn		7				

REFEREES 1979

<p>H. Andersen G.M. Anderson O.L. Anderson D. E. Appleman T. Araki C. Bacon S.W. Bailey R. Barton W.H. Baur P.M. Bell A.E. Bence M.G. Best H. Bill F. Birch D.L. Bish P. Bloomfield F.D. Bloss A. Blount E.H. Brown G.E. Brown, Jr. C.W. Burnham R.G. Burns D.M. Burt R.L. Burtner P. Buseck C.F. Campan F. Chayes C.L. Christ J.R. Clark D. Crerar P.S. Dahl G.A. Desborough W.A. Dollase G.H. Donnay B.L. Doolan</p>	<p>E. Dowty D. Eberl A.J. Ehlmann E.J. Essene J.H. Fang J.J. Fawcett G. Feiss J.M. Ferry L.W. Finger J.J. Finney G.W. Fisher M.E. Fleet M. Fleischer E.E. Foord C.A. Francis R.F. Fudali R.I. Gait M. Garcia E. Ghent S. Ghose D.S. Goldman J.I. Goldstein M. Gole T.L. Grove J. Grover A.J. Gude, 3d C.V. Guidotti J.J. Gurney R.B. Hargraves G. Harlow J.F. Hayes R.M. Hazen B. Hemingway M. Hochella L. Hollister</p>	<p>J.R. Holloway R.A. Hoppin G.L. Hovis J.S. Huebner C.S. Hurlbut, Jr. H.W. Jaffe N. Jones K.D. Keefer R.U. King R.J. Kirkpatrick S.E. Khalafalla C. Klein H. Kodama I. Kushiro G.P. Landis B.F. Leonard J. Longhi W. Luth I. MacKinnon H.K. Mao V.R. Matricardi E.P. Meagher P.B. Moore G.L. Nord N. Page A. Pabst D.R. Peacor D. Presnall C.T. Prewitt R.C. Reynolds P. Ribbe R. Robie P.Y. Robin P. Robinson</p>	<p>E.W. Roedder P. Roeder S.B. Romberger P.E. Rosenberg M. Ross G. Rossman D. Roy D. Rumble S.K. Saxena J. Schott C. Sclar J.W. Shade H.C.W. Skinner J.V. Smith J.A. Speer R.F. Stewart D.F. Strong E. Suess H.P. Taylor L.A. Taylor M. Taylor J. Tossell D. Veblen D. Walker G. Waychunas R.F. Wendlandt D.B. Wenner J.L. White W. White S.A. Williams R.P. Wintsh B.J. Wuensch R.A. Yund T. Zoltai</p>
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LIST OF FORMER OFFICERS AND MEETING PLACES

Honorary Presidents

Edward S. Dana 1925–1935
 Charles Palache 1949–1954
 Edward H. Kraus 1955–1973
 Edgar T. Wherry 1974–

Presidents

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

Vice Presidents

1920 Thomas L. Walker	1935 Ellis Thomson	1950 Ralph E. Grim	1965 Brian H. Mason
1921 Waldemar T. Schaller	1936 Harold L. Alling	1951 Michael Fleischer	1966 Felix Chayes
1922 Frederick A. Canfield	1937 H. V. Ellsworth	1952 J. D. H. Donnay	1967 James B. Thompson
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.
1927 George L. English	1942 Martin J. Buerger	1957 George E. Goodspeed	1972 Joseph V. Smith
1928 Lazard Cahn	1943 John W. Gruner	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

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

Treasurers

1920–1923 Albert B. Peck
 1924–1929 Alexander H. Phillips
 1929–1930 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– Malcolm Ross

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– Brian Mason

Councilors

- 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 Evans.
- 1979 Gerald V. Gibbs, Paul B. Moore, Arden L. Albee, Bernard W. Evans, Roger Burns, H. Catherine W. Skinner.

Annual Meeting Places

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

Recipients of the Roebling Medal

1937 Charles Palache	1955 Alexander N. Winchell	1968 Tei-ichi Ito
1938 Waldemar T. Schaller	1956 Arthur F. Buddington	1969 Fritz Laves
1940 Leonard James Spencer	1957 Walter F. Hunt	1970 George W. Brindley
1941 Esper S. Larsen, Jr.	1958 Martin J. Buerger	1971 J. D. H. Donnay
1945 Edward H. Kraus	1959 Felix Machatschki	1972 Elburt F. Osborn
1946 Clarence S. Ross	1960 Tom F. W. Barth	1973 George Tunell
1947 Paul Niggli	1961 Paul Ramdohr	1974 Ralph E. Grim
1948 William Lawrence Bragg	1962 John W. Gruner	1975 Michael Fleischer
1949 Herbert E. Merwin	1963 John Frank Schairer	1975 O. Frank Tuttle
1950 Norman L. Bowen	1964 Clifford Frondel	1976 Carl W. Correns
1952 Frederick E. Wright	1965 Adolf Pabst	1977 Raimond Castaing
1953 William F. Foshag	1966 Max H. Hey	1978 James B. Thompson
1954 Cecil Edgar Tilley	1967 Linus Pauling	1979 W. H. Taylor

Recipients of the Mineralogical Society of America Award

1951 Orville F. Tuttle	1961 Joseph V. Smith	1970 Bernard W. Evans
1952 Frederick H. Stewart	1962 Douglas S. Coombs	1971 Robert A. Berner
1953 L. H. Ahrens	1963 Nobuo Morimoto	1972 Arthur L. Boettcher
1954 Hatten S. Yoder, Jr.	1964 William S. Fyfe	1973 Paul Brian Moore
1955 Julian R. Goldsmith	1965 Peter J. Wyllie	1974 James J. Papike
1956 George C. Kennedy	1966 David B. Stewart	1975 Roger G. Burns
1957 Rustum Roy	1967 Alfred E. Ringwood	1976 Friedrich A. Seifert
1958 Charles E. Weaver	1968 Barclay Kamb	1977 J. G. Liou
1959 Harry F. W. Taylor	1969 W. Gary Ernst	1978 J. Stephen Huebner
1960 Donald L. Graf		1979 Ho-Kwang Mao

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*Elected or appointed 1979

***Ex Officio* Appointment

CLAY MINERALS CONFERENCE

The 29th annual Clay Minerals Conference and the 17th annual meeting of the Clay Minerals Society will be held at Baylor University, Waco, Texas on October 5-9, 1980. Symposia on organo-clays, health, and instrumentation for clay analysis, poster sessions, and a field trip to study soils and clays in central Texas are planned.

For further information, please contact:

Dr. James L. McAtee, Jr.
Chemistry Department
Baylor University
Waco, TX 76703

INTER/MICRO 80

INTER/MICRO 80, the 27th in this series of microscopy conferences, will be held at the McCormick Inn, Chicago, Illinois on July 21-25, 1980. There will be an exhibit of all the latest microscopies and accessories for both light and electron microscopes, papers on new microscopical techniques, and a panel on forensic microscopy and asbestos.

For further information, please contact:

Miss Nancy B. Daerr
INTER/MICRO 80
2508 S. Michigan Avenue
Chicago, IL 60616

(312) 842-7105

AGI WORKSHOPS

The Education Office of the American Geological Institute is sponsoring three workshops to be conducted prior to the annual meeting of the Geological Society of America in Atlanta, Georgia:

November 15-16 *Geowriting -- Quickly, Clearly, Effectively.*

November 16 *Jobs: How and Where to Find Them.*

November 16 *Management Skills.*

For further information, please contact:

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