

The

Geochemical

News

NUMBER 42

May 1965

THE GEOCHEMICAL SOCIETY COUNCIL MEETINGS

Miami, Florida, November 19 and 21, 1964

The Council met from 2:00 to 7:30 p.m. on the 19th and from 10:00 to 11:15 a.m. on the 21st. Both meetings were in the Deauville Hotel.

J.A.S. Adams, F.R. Boyd, C.W. Burnham, J.G. Erdman, Present Nov. 19:

M. Fleischer (presiding), H.E. Hawkes, Jr., W.C. Kelly,

K.E. Lowe, B.H. Mason, R. Siever, L.T. Silver, S.R. Silverman, D.B. Stewart, J.B. Thompson,

A. Van Valkenburg, and K.H. Wedepohl.

J.A.S. Adams, F.R. Boyd, C.W. Burnham, M. Fleischer, B.H. Mason (presiding), K. J. Murata, S.R. Silverman, Present Nov. 21:

and D.B. Stewart.

REPORTS OF OFFICERS

Secretary's Report: The Society has continued its gradual growth this year with the addition of 135 new members. The rate of increase in the membership has not varied significantly in recent years inasmuch as there were 107 new members last year and 165 in 1962. The total membership is 2,383 and about one third of our members are from countries other than the United States. Two applications from geochemists in the USSR are the first thus far received from that country.

Arrangements have been made this year for the American Geological Institute to maintain the Society's addressograph file and to process its mailings. This will result in a saving of as much as several hundred dollars a year and it greatly simplifies the procedure of handling address changes.

Work on the new directory is underway. It is being edited by Werner Schreyer in Kiel and will be printed in West Germany inasmuch as printing costs are considerably less there than in the United States. There will be several innovations including a separate listing for members of the Organic Geochemistry Group. It is hoped that the directory can be mailed to members about the first of the year.

The possibility of putting a notice in <u>Acta</u>, with information on joining the Society, was discussed. The secretary said that Pergamon Press had agreed to run such a notice over a year ago, but had never taken any action in the matter. Adams offered to make arrangements for the notice; later it was decided that the notice would appear on the back cover of Acta along with the list of officers and committee members.

Treasurer's Report. See pages 6-9

ORGANIC GEOCHEMISTRY GROUP

Siever and Silverman discussed plans for publishing a book, sponsored by the OGG, on petroleum geology in the USSR. Last year the Council authorized the OGG to draw on the Society's Publication Fund for money to publish the book. The price of the book is expected to be about \$5 and it may realize a profit of as much as \$2,500. The OGG had originally intended to pay back the amount borrowed from the Publication Fund and to retain any additional profits in a separate fund. The treasurer, Wayne Burnham, objected to this plan and recommended that all profits go to the Publication Fund, where they would still be available to OGG for similar ventures in the future. Siever, current chairman of OGG, agreed to the arrangement suggested by Burnham.

During the year The Geochemical Society received invitations to affiliate with AAPG and with The American Institute of Professional Geologists. The president, Michael Fleischer, referred these invitations to the Executive Committee of OGG inasmuch as OGG members were most directly concerned. Siever reported that it was the opinion of the Executive Committee of OGG that the invitations should not be accepted.

OGG representatives also requested Council approval for a joint symposium to be held with the Coal Group at the 1965 Annual Meeting in Kansas City. The title of the symposium is "Coalification and Early Metamorphism of Organic Material." Approval was unanimous. Adams requested that he be notified as soon as possible if it was the intention of the sponsors to publish the papers given at the symposium as a special issue of $\underline{\text{Acta.}}$

Silverman brought up the problem of notifying Society members who are not also GSA members about the Annual Meeting. For a combination of reasons, such notification was either late or lacking this year. It was agreed that the secretary would send out a notice in February, either in the News or as a separate mailing. This notice would contain a form to be filled out and returned by members who wished to receive the sequence of circulars mailed out by GSA in advance of the meeting, together with the program and list of abstracts. These will be paid for by The Geochemical Society. Overlap with MSA, which provides a similar service, might be reduced by putting a query on the dues notice regarding membership in other societies.

Siever commented that Umberto Colombo would be a good choice to succeed William E. Hanson as Acta's Associate Editor for Organic Geochemistry. Adams agreed.

Finally it was remarked that it would be a good idea to iron out some conflicts in the By-laws of the Society and OGG.

Illnesses and another commitment limited attendance at the Executive Committee meeting in Miami to Chairman Raymond Siever, Gordon Erdman, and John Hunt. It is planned to hold an interim meeting of the complete Executive Committee in early spring.

Newly elected officers for 1964-65 are: Chairman, Irving A. Breger; Chairman-Elect, J. Gordon Erdman; Editor, William E. Hanson; Secretary, W. G. Meinschein.

COMMITTEE REPORTS

Auditing. See page 10

<u>Program.</u> The chairman, Leon Silver, gave an oral report describing the Program Committee meeting in New York, attended by him and by the secretary. Approximately 80 papers of a geochemical nature were submitted. These were

far in excess of those that could be accommodated in the four sessions allocated for Geochemistry. In the end, 41 papers were included in the three Inorganic sessions with 10 more in the Organic session. Economic Geology was persuaded to take 11 papers dealing with sulfide geochemistry, and 6 geochemical papers were wedged into the General Session. This accounted for a total of 68; the remainder were read by title. As has been the case in the past few years, the Geochemistry Committee worked closely with the Mineralogy and Petrology Committee to avoid conflicts and to arrange sessions with reasonably homogeneous subject matter.

Silver also asked permission to organize a symposium on extraterrestrial geology at the Kansas City meeting in 1965. The emphasis would be on such matters as recent radar and optical studies of the moon's surface rather than meteorites and tektites. The Council approved the proposed symposium.

Standards. Van Valkenburg reported that the National Bureau of Standards had procrastinated over the preparation of various rock standards for years, but that it currently looked as though they might get started. These standards are badly needed, and other organizations such as the U. S. Geological Survey and the Geological Survey of Canada have undertaken the job of supplying them. The U. S. Geological Survey has half a dozen standards in preparation, including granite, basalt, and peridotite.

Education. The chairman, Kurt Lowe, presented a discouraging picture of a protracted (two-year) negotiation with AGI over the publication of four papers in the Society's proposed Education Series. The Council agreed the program was most worth-while and should be vigorously pursued. It was also agreed that the Society owed it to the authors of these four papers to publish their work swiftly. The problem is not primarily to find funds for printing the papers; money could be made available from the Society's Publication Fund. The main difficulty lies in distributing the papers to the high-school and college chemistry teachers for whom they were written. The Geochemical Society has no way of carrying out such distribution.

It was the mood of the Council that there was no point in continuing negotiations with AGI. The possibility of publishing the four papers in the Journal of Chemical Education or the Journal of Geological Education was discussed. This might be the best way to solve the immediate problem, but it is almost certain that these journals would balk at a continuing series of papers. Lowe envisaged a program in which there might ultimately be as many as thirty or forty papers on various aspects of geochemistry.

Tellers. The chairman, William H. Pinson, Jr., reported that a total of 844 ballots were cast. Elected officers for 1965 are: President, Brian H. Mason; Vice-President, Julian R. Goldsmith; Secretary, Edward C. T. Chao; Treasurer, C. Wayne Burnham; Councilors, Heinrich D. Holland and Kiguma J. Murata.

One hundred and sixty-one names were written in where the ballot provided space for suggestions to the Nominating Committee. These were tabulated and will be forwarded to the 1965 Nominating Committee. Four ballots carried strong objections to the Society's practice of having only one nominee for each office.

Nominating. The Council voted on the names provided by the Nominating Committee and the choice was: Vice-President, Patrick M. Hurley; Treasurer, Russell M. Honea; Councilors, Paul B. Barton and Paul W. Gast.

The Council discussed the recommendation of the Nominating Committee, that the Society have a multiple-choice ballot. Fleischer said that many qualified scientists would refuse to run for a Society office if they had to compete in a popularity contest. Moreover, it is possible for a small group of members to make a nomination by petition; this has been done at least twice in the Society's history. It was agreed that the matter should be brought up at the Business Meeting and discussed with the members present.

REPORTS OF EDITORS

The Geochemical News. See page 10

The Council regretfully accepted Kelly's resignation as editor of the News and appointed Paul L. Cloke as his successor. It was suggested that four issues be published next year.

The treasurer commented that the relatively small number of library subscriptions to the $\underbrace{\text{News}}$ had become a major administrative headache and recommended that this category of subscription be eliminated. The Council agreed that this should be done.

Book Translations. No report.

Journal Translations. See page 11 Stewart's suggestion that the Society relinquish its grantee status to AGI is attractive because it would mean a large load off the treasurer's office without much loss of overhead. It is understood that the Society would retain full control of the editing of Geochemistry International. Stewart was authorized to negotiate an arrangement with AGI, but this arrangement will have to be ratified by the Council.

The matter of a copyright for the journal was discussed, but decision was left for the future.

Selecting papers for translation and publication in Geochemistry International will be a major problem. Fleischer suggested that a note be put in $\overline{\text{Acta to}}$ the effect that anyone encountering suitable papers should notify $\overline{\text{Stewart}}$.

Stewart's request to be relieved of the managing editor's responsibilities was considered with great regret. Priestly Toulmin, III, was mentioned as a possible replacement. At the time of writing these minutes, Toulmin has conditionally agreed to take on the job, pending some further discussion with Stewart and AGI.

Geochimica et Cosmochimica Acta. See page 12 Adams stated that he hoped Pergamon Press would agree to publish the index for Volumes I-XX as a free bonus to subscribers. Fleischer commented on the improvement in publication time for papers in 1964. The Council endorsed the appointment of Umberto P. Colombo to the Board of Associate Editors.

FURTHER BUSINESS

Financial Squeeze. Reduction in overhead from NSF translation grants has significantly reduced the Society's income. However, the Society has enough funds in hand to continue with present dues for at least several years. It was moved and passed that the dues be maintained at \$3.00 for the present.

Committee on Public Health Liason. Fleischer stated that there was much interest in the joint symposium held in New York in conjunction with the GSA meeting in November 1964. Public Health people would like to hold future joint meetings in which geochemists participate. It was agreed that a standing committee should be set up to arrange such meetings.

International Mineralogical Association. A proposal to form an International Geochemical Association patterned after the IMA will be considered by a panel at the XXII International Geological Congress in New Delhi. Brian Mason will represent The Geochemical Society at these discussions. The Council discussed the desirability of forming such an association and what attitude the Society should adopt towards the proposal.

Arguments advanced in favor of organizing such an association are:

- 1) The Geochemical Society is not regarded as a truly international organization in many countries because two thirds of its members are from North America and the administration is largely carried out in the United States.
- 2) While The Geochemical Society has members in a number of communist countries including the USSR (see secretary's report), Hungary, Roumania, Czechoslovakia, and Yugoslavia, it is clear that the representation from such countries is small. If an International Geochemical Association were formed, communist countries could send national delegations to meetings and it would thus enhance communication between geochemists throughout the world.

Arguments against the formation of such an association are:

- 1) The IMA is built upon a foundation of national mineralogical societies, of which there are many. In geochemistry, however, there are very few national societies. It will presumably cost several thousand dollars per year to finance an International Geochemical Association. Where can these funds be obtained?
- 2) The Geochemical Society has sponsored symposia in conjunction with international meetings in the past and can continue to do so in the future.

It is clear that impetus for the formation of an International Geochemical Association should come from outside the Council of The Geochemical Society. The Council would not oppose the creation of such an Association if a clear need for it could be shown to exist and if it could be financed. It seems likely that most of those who attend the discussion panel in New Delhi will be enthusiastically in favor of creating an association and it might thus be beneficial if The Geochemical Society's representative adopted a skeptical attitude.

F.R. Boyd, Secretary

THE GEOCHEMICAL SOCIETY ANNUAL BUSINESS MEETING

Miami, Florida, November 20, 1964

The president, Michael Fleischer, opened the meeting after concluding his presidential address. The secretary read his report and summarized the report of the Tellers Committee. He commented that there had been a large response to the practice of putting spaces for suggestions to the Nominating Committee on the ballot. There were 161 write-in nominations this year. The treasurer summarized the financial status of the Society. Income this year has thus far been over \$9,000 and expenses have been such that we should finish the year in the black. Ninety per cent of the membership has paid dues this year, which is a record. The Society will lose a substantial income from overhead on NSF grants next year, but it will probably not be necessary to raise the dues for another couple of years.

John A. S. Adams, Executive Editor of Geochimica et Cosmochimica Acta, commented that it had been a year of growth for Acta; 2,030 pages will have been published this year compared with 1,350 in previous years. Author and subject indices have been completed for Volumes I through XX. Adams said he hoped to have indices for Volumes XXI through XXX completed by the end of his term. Fleischer commented that average publication time for Acta is now down to less than eight months.

David B. Stewart noted that complete translation and publication of GEOKHIMIYA would be superseded next year by selected translations published under the title Geochemistry International. There will be an increase in price to \$25, but present indications are that this will not cause a major drop in the number of subscribers. Members who know of important geochemical papers in Russian, Japanese, and other languages that should be made available in English are invited to contact Stewart.

President Fleischer opened the meeting to general discussion.

- C. W. Burnham commented that one of the possible actions which the Council was contemplating was combining the dues and subscription to Acta into one package.
- K. E. Chave asked if such an arrangement would financially benefit the Society. Burnham replied he thought this would be the case and that the Society needed more funds to back programs like the Educational Series.

Fleischer reviewed the present impasse over the Series.

Brian Mason brought up the proposed International Geochemical Association, and he and Fleischer described the discussions which have taken place and plans for the meeting in New Delhi.

K. Krauskopf said there was strong feeling in other countries that something like IGA was needed and that we should instruct our representative to New Delhi to say that the Society was in favor of IGA if funds to support it could be found. He believed The Geochemical Society should give up the "fiction" that it is an international society.

There was much discussion over this point and disagreement over the image of The Geochemical Society outside North America.

P. H. Abelson commented that international unions tend to wind up being dominated by a few politicians. The meetings and symposia are what really count. The Geochemical Society can sponsor such meetings and it has formed a good, practical solution to the problem in the past. Creating an IGA will not improve the situation.

Brian Mason said we should have more information on international meetings as notes in Acta.

Fleischer said he judged the consensus to be that our representative in New Delhi (Brian Mason) should view the proposed IGA with "healthy skepticism."

Fleischer and Adams commented on the new Public Health Liason Committee.

The meeting was adjourned at noon.

REPORT OF THE TREASURER OF THE GEOCHEMICAL SOCIETY FOR 1964

After several years of negotiation, the Society has been declared a tax-exempt organization by the Internal Revenue Service. This tax-exempt status was achieved largely through the efforts of attorneys whose services were generously provided by the Carnegie Institution of Washington at no cost to the Society.

The Society's treasury closed the year 1964 with a net excess of income over expenses in the operating fund of \$2,415.86. This was made possible by receipt of \$2,313.29 in indirect costs on NSF Grant GN-188 and by lower publishing costs because of issuing only two numbers of the Geochemical News. As gratifying as this gain appears, it is in no way indicative of the future financial stability of the Society because the National Science Foundation has ruled, effective with the award of NSF Grant GN-295 in July 1964, that indirect costs in excess of actual costs of administering grants are no longer allowed. Moreover, operating expenses will be increased about \$2,000 as a result of publishing a new Directory of Members and more issues of the Geochemical News.

Thus, it is anticipated that operating expenses will exceed income in 1965 by nearly \$2,000, and that similar deficits will occur each year the Directory is published. Hence, if the Society is to continue this service to its members biennially, it will be necessary to increase dues by at least \$0.50 per member no later than 1967.

The Publication Fund finally has exceeded \$3,000. It increases more slowly each year as a result of diminished royalty income from ADVANCES IN GEOCHEMISTRY.

BALANCE SHEET

December 31, 1964

ASSETS

LIABILITIES AND FUND BALANCES

Operating Fund:

Operating Fund:

Cash on hand

and in banks \$21.540.20

Fund Balance \$21,540,20

Accounts receivable to the Operating Fund on December 31, 1964

Subscriptions Credit, American

Geological Institute

43.50

Balance of NSF Grant GN-295

10,077.00

\$10,120.50

Accounts payable from the Operating Fund on December 31, 1964

Balance of 1964 assessment American Geological Institute

561.60

Income from sales of GEOKHIMIYA translations due the National

Science Foundation

9,389.92

\$9,951.52

Publication Fund:

Publication Fund:

Cash on hand

and in banks

3,008.66

Fund balance

\$ 3,008.66

Total:

\$24,548.86

\$24,548.86

STATEMENT OF INCOME, EXPENSES, AND CHANGES IN FUND BALANCES JANUARY 1, 1964 TO DECEMBER 31, 1964

Operating Fund

General		
Income: Dues Subscriptions to the Geochemical News Indirect costs NSF GN-188 Interest on savings account Carnegie Institution Grant Total Income	\$5,809.04 32.00 2,313.29 59.70 566.15	\$8,780.18
Expenses: Operational Assessments Executive Editor Total Expenses Excess of income over expenses	\$3,778.32 1,336.00 1,250.00	\$6,364.32 \$2,415.86
Translations		•
Income: NSF Grants GN-188 GN-295 Subscriptions and Credit Total Income	\$18,000.00 20,000.00 9,389.92	\$47,389.92
Expenses: 1963 Volume (GN-188) 1964 Volume (GN-295) Refund Total Expenses Excess of income over expenses	\$25,446.17 10,727.07 8,520.75	\$44,693.99 \$2,695.93
Fund Balance, January 1, 1964*		
Savings account Checking account Petty cash Total	1,470.01 14,946.22 12.18	\$16,428.41
Fund Balance, December 31, 1964 Savings account	1,529.71	
Checking account Petty cash	19,972.83	
Treasurer Translation Editor Total	4.96 32.70	\$21,540.20

^{*}The Society's Savings and Publication Fund are on deposit with the State College Federal Savings and Loan Association at 4.0 per cent interest. The checking account is with the First National Bank of State College, Pa.

STATEMENT C	F	EXPENSES	JANUARY	1,	1964 TO	DECEMBER	31,	1964

Bank charges Express and shipping Miscellaneous Postage Printing and lithographing	\$490.23 10.73 20.85 576.70 559.10 987.55	
Secretarial Services: Organic Geochemistry Group Secretary Treasurer Stationery and supplies	160.00 110.00 829.00 34.16	\$3,778.3 2
Total operational expenses	-	\$3,110.32
Assessment, American Geological Institute Executive Editor, Geochim, et Cosmochim. Acta Total general expenses	.* •	1,336.00 1,250.00 \$6,364.32

TRANSLATIONS OF GEOKHIMIYA

	1963 Volume GN-188	1964 Volume GN-295	
Production Mailing Editor Asst. Editor Preparation of Index Travel (Editor) Communications Clerical assistance	\$20,265.35 1,788.80 750.00 210.00 68.73 50.00 \$23,132.88	\$ 9,750.00 362.50 195.75 188.82 \$10,497.07	
Indirect costs (10% direct costs) Indirect costs (actual administrative costs) Total	2,313.29 - \$25,446.17	- 230.00 \$10,727.07	
Refund to NSF on GN-34 Total translation exp Total expenses	enses		\$ 8,520.75 44,693.99 \$51,058.31
P	UBLICATION FUND		
Income:			

Income: Royalties \$134.85 Interest 115.02 Total Income	249.87
Expenses:	
Total expenses Excess of income over expenses	249.87
Fund balance January 1, 1964 Fund balance December 31, 1964	2,758.79 \$3,008.66

C. Wayne Burnham, Treasurer

REPORT OF THE EDITOR OF THE GEOCHEMICAL NEWS

At the request of the Council, publication of the <u>Geochemical News</u> was kept to the minimum number of issues necessary to carry official news and reports of the Society. Two issues have therefore been published -- in May (No.40) and November (No. 41) of 1964. It is hoped that a normal publication schedule can be resumed in the coming year.

As of this year, addressing and mailing of the News is handled at AGI headquarters in Washington while preparation and printing is still carried on in Ann Arbor. This effects a saving in that the News bearing the permit indicia of AGI can be mailed at third-class rates. A further saving can be achieved by mailing the News unfolded in larger envelopes, and this change will be initiated with future mailings. Aside from its advantages, the new arrangement has resulted in abnormal delays and late mailings of the News (e.g. Nov. 1964 issue) but we have assurances from AGI that these will be avoided in the future.

This past summer, I regretfully notified the president of the Society that I would no longer be able to continue editorship of the News due to the press of other responsibilities. As retiring editor, I would like to suggest for consideration Dr. Paul L. Cloke of the Department of Geology and Mineralogy at The University of Michigan as successor. Dr. Cloke's primary specialization is in the field of geochemistry and he would be willing to serve should the Council so decide. I would very willingly work with Dr. Cloke or whomsoever the Council chooses as a successor to assure a smooth transition of editorship. I wish to express my appreciation to the Council for this past opportunity to serve the Society, as I have profited greatly from this experience.

William C. Kelly, Editor

REPORT OF THE AUDITING COMMITTEE

The Auditing Committee has examined the accounts of the treasurer of The Geochemical Society for the period January 1, 1963 to December 31, 1963 and has verified the accuracy of the amounts as shown in his report.

John D. Ridge Robert F. Schmalz Thomas F. Bates, Chairman

March 26, 1964

REPORT ON JOURNAL TRANSLATIONS

On June 30, 1964 the National Science Foundation granted The Geochemical Society \$40,334 for the production of the journal Geochemistry International for a period of one year starting July 1, 1964. Work was immediately started on this project and, following completion of the Geochemistry, 1963 project in August, has been concentrated entirely on the new journal. The first of the six issues planned for the year is now nearly ready for the printer, and the material for the second issue is in various stages of translation and editing.

Each issue of Geochemistry International will contain approximately 200 pages, and will include selected translated papers from two issues of GEOKHI-MIYA plus about 65 pages of additional selected translations from French, German, Japanese, Chinese, and Russian articles. The selection and processing of these additional papers have greatly increased the difficulty of executing this project, and it is to be hoped that they will also greatly increase the value of the project to geochemists. Much additional effort needs to be accorded selection of papers for translation.

An enormous number of changes has been introduced during the past year. Many of these were made possible by Council actions last November as well as decisions made by mail ballot. Other changes are the addition of two assistant scientific editors (D. R. Wones and P. Toulmin, III), establishment of a close association with AGI in production matters and subscription service, price changes, format and personnel changes at Scripta Technica, etc. Many of these changes have taken time, but the availability of GEOKHIMIYA translations is the same as it was last year at this time, and can be expected to improve.

Subscriptions to Geochemistry International at present total 165, with the 11 cancellations reported from the 445 paid subscribers to Geochemistry 1963 being partly offset by 7 new subscribers. It is expected that circulation will approach 500 copies, half domestic and half foreign. Almost all are to libraries and companies. Sales during the production interval of the 1963 volume totalled \$10,786.07, \$2,858.00 of which was for back issues. More subscriptions were received than ever before for a volume in production (453 vs. 405) and this generated more current revenue than ever before (\$7,928.07 vs. \$6,320.00); the price structure was unchanged. Sales of 1956-1961 back volumes (as many as 57 volumes of one year) exceeded the price offered us last year for our entire stock of back issues. The stock of back issues has been carefully inventoried by AGI and has been condensed and consolidated. It is apparent that several early issues will soon be out of stock, and purchasers should act immediately if they wish to complete sets.

The publishers of Geochimica et Cosmochimica Acta, Pergamon Press, have continued to publish the contents of Geochemistry, as has the editor of the Geochemical News. I am grateful for this cooperation in publicizing our translation, and it has helped circulation measurably. The American Geological Institute has continued its assistance with many supporting activities, which have been very helpful.

The management of Scripta Technica has continued to be most helpful in the day-to-day operation of this project.

All of the officers have been especially helpful in handling the many problems that arose during the past year, and I thank them for their assistance.

D. B. Stewart, Journal Translations Editor

REPORT ON GEOCHIMICA ET COSMOCHIMICA ACTA

In 1964 approximately 2,030 pages will be published, compared with 1,320 in 1963 and 1,358 in 1962.

Author and subject indices have been prepared for volumes I through XX (end of 1960), covering a total of 6,250 pages; since 1960 another 6,200 pages have been published. Plans are being made to publish another set of author and subject indices at the end of Volume XXX (1966) and the present editors' terms; these indices will cover approximately 10,000 pages.

Arrangements are being made to supply Chemical Abstracts with page proof of Acta articles to expedite the preparation of material for Chemical Abstracts.

It is recommended to the Council of The Geochemical Society that Dr. Umberto P. Colombo be added to the Board of Associate Editors with a term to expire in November 1966.

John A. S. Adams

1965 ANNUAL MEETING OF THE GEOCHEMICAL SOCIETY

The Geological Society of America, The Mineralogical Society of America, the Paleontological Society, the Society of Economic Geologists, The Geochemical Society, and the National Association of Geology Teachers will hold the 1965 meetings in Kansas City, Missouri. The Muehlenbach Hotel is headquarters, and technical meetings will be held there and in the Kansas City Municipal Auditorium.

Circular 1 is being sent to each member of the GSA and to members of the associated societies who are not members of GSA, as requested by the individual societies. Non-members of GSA who are members of The Geochemical Society may obtain copies of the circulars by sending their names and addresses to Dr. Edward C. T. Chao, The Geochemical Society, U.S. Geological Survey, Washington, D. C. 20242, U.S.A. Members wishing to send their names should do so promptly, if they have not already returned the postcard to Dr. Chao, asking whether they wish these circulars to be sent.

SCIENTIFIC PAPERS

Participants who desire to present papers should obtain forms and instructions from The Geological Society of America headquarters office at 231 East 46th Street, New York, New York 10017. They should be sure to use the new 1965 forms, code KC. The selection of papers for various types of presentation will be by the Program Committee, which is composed of representatives of the various societies and divisions.

Abstracts must be received in acceptable form at GSA headquarters office by July 1, 1965.

FIELD TRIPS

The eight field trips planned for the meeting will make it possible for participants to see a variety of Midcontinent geology. Five trips will be of general interest. Of these two trips will be devoted to stratigraphy and sedimentation of Pennsylvanian rocks in eastern Kansas. One trip in the Kansas City area will include visits to several excellent exposures of rocks of the Kansas City Group, whereas two others will deal with stratigraphy of Upper Cretaceous rocks in western Kansas and geology of cryptovolcanic(?) structures in

west-central Missouri. Trips of more specific interest will be devoted to hydrogeology in the Kansas River valley, study of well-preserved plant fossils in Pennsylvanian coal beds of southeast Kansas, and engineering geology at two dam sites in southwestern Missouri.

Persons who plan to join one of the field trips should complete the PREFERENCE CHECK LIST of circular 1 and return it immediately. Those trips in which insufficient interest is shown WILL NOT BE HELD. It is anticipated that most of the trips will be oversubscribed.

Circular 2, which will be mailed about September 15th, will give details about the program, will state the final field trips to be held, and will provide for preregistration for field trips and for the meeting. Hotel accommodations will be handled through the Kansas City Convention Bureau and will include a group of hotels, most of which are very near the headquarters hotel. Students will be housed three or four to a room at special student rates.

GEOCHEMISTRY SYMPOSIA

The Division of Nuclear Chemistry and Technology of the American Chemical Society is sponsoring two symposia in geochemistry at the September 12-17, 1965 meetings in Atlantic City. They are entitled "The Age of the Solar System," and "Forefronts in Terrestrial Geochemistry." Geochemists who wish to present papers at these symposia should write Dr. John W. Winchester, Associate Professor of Geochemistry, Room 54-1220, Department of Geology and Geophysics, Massachusetts Institute of Technology, Cambridge, Massachusetts O2139. Abstracts are due June 1, 1965. At least one author of each paper must be a member of ACS.

It is hoped that many members of The Geochemical Society will attend, and that improved relations with ACS will ensue.

CHEMICAL ABSTRACTS, SEC. 25 (MINERALOGICAL AND GEOLOGICAL CHEMISTRY) IN 1964

Data on speed of coverage and country of origin of papers are given in Tables 1 and 2. The number of papers abstracted (6,297) reached a new high, with an increase of 19.8 per cent over 1963. This was in part due to clearing some backlogs, as reflected in a decrease of speed of coverage.

Table 2 shows that the USSR continued to hold its dominant position. In general, the distribution was similar to that in 1963. There was a large increase in papers from Czechoslovakia, partly due to the publication of a very large symposium on "Ore Deposits."

Thanks are due to the group of devoted abstractors who made it possible to cover this large number of papers. As always, we welcome suggestions from those who use Sec. 25. No comments were received during 1964.

Michael Fleischer Gerald M. Friedman Editors, Sec. 25

Table 1. Year of Abstract Compared to Issue Year, Sec. 25
(by percentage of total)

		1964	<u> 1963</u>	<u> 1962</u>	1961
	Total number of abstracts	6297	5256	4509	4806
1.	Dated same year	29.1	29.5	28.7	22.5
2.	Dated 1 yr. later	44.8	49.6	47.8	49.6
3.	Dated 2 yr. later	17.0	14.3	16.2	18.2
4.	Dated 3 yr. later	5.3	4.8	5.1	6.7
5.	Dated 3 yr. later	3.8	1.8	2.2	3.0
	1 + 2	73.9	79.1	76.5	72.1

Table 2. Country of Origin of Papers Abstracted in Sec. 25 (leading countries)

	1964		1963		1962	
	No.	%	No.	<u>%</u>	No.	<u> %</u>
USSR	2921	46.4	2322	44.2	2168	48.1
USA	1062	16.9	970	18.5	620	13.8
Germany (W&E)	255 ⁻	4.0	2 7 5	5.2	218	4.8
Japan	222	3.5	238	4.5	161	3.6
France	170	2.7	166	3.2	163	3.6
India	113	1.8	119	2.3	82	1.8
Australia	107	1.7	112	2.1	100	2.2
England	169	2.7	110	2.1	112	2.5
Czechoslovakia	555	3.5	100	1.9	77	1.7
Italy	74	1.2	7 9	1.5	64	1.4
Canada	107	1.7	76	1.4	105	2.3
	-					
Total (all countries)	6297		5256		4509	

FULBRIGHT-HAYS ACT

United States government grants have been announced for lecturing and advanced research starting in 1966 in Latin America and in Australia or New Zealand (applications were due May 1, 1965 for the latter two countries). The competition for 1966-67 grants in Europe, Asia, and Africa will be open between May 1 and August 1, 1965. One lecturing/research award in mining engineering and geology, four such awards in undesignated fields, and four travel grants are available in Brazil. One research award in an undesignated field is available in Peru. Application forms and additional information may be obtained from the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Avenue, Washington, D.C. 20148.

BOOK REVIEW

INORGANIC THERMOGRAVIMETRIC ANALYSIS, by Clement Duval, 2nd edition, translated by Ralph E. Oesper. xiv + 722 pages, 13 tables, 80 illustrations. Elsevier Publishing Co., New York, 1963. \$22.00.

The second edition, 1963, of Clement Duval's treatise, INORGANIC THERMO-GRAVIMETRIC ANALYSIS, is a most welcome addition to the literature of analytical chemistry. The work, ably translated from the French manuscript by Ralph E. Oesper, is much larger than the first edition, published in 1953. The enormous increase, over the last few years, of the rate of publication in thermogravimetric analysis is due in no small measure to the work of the author, his students, and colleagues.

Part One--five chapters, 143 pages--is devoted to a review of instrumentation for thermogravimetric analysis. Included is a detailed discussion of precautions to be taken in the use of thermogravimetric methods. The description of commercially available thermobalances is a very useful aspect of Part One. The Appendix to Part One lists seventy-six elements and ammonium, cyanate, cyanide, and nitrate, whose precipitates may be determined by thermogravimetric analysis. The composition of the compounds weighed, the temperature limits for analytical weighing, and page references to more detailed discussion are given.

Part Two, "Thermolysis Curves," presents data on the analytical procedure for the elements. Several alternate procedures are given in each case, with appropriate critical discussion. Detailed procedures are not given, but ample references are listed. In spite of the title of the book, one chapter entitled "Studies in Organic Chemistry" is included.

The reviewer can find no serious flaw in this excellent treatise. He would hope that in a future edition more could be included to relate thermogravimetric analysis to differential thermal analysis and other thermal methods. If such were done, the book would have more appeal for mineralogists. Thermal gravimetric analysis is a valuable tool in fields other than analytical chemistry. Be that as it may, the work is essential to the library of any laboratory doing, or contemplating doing, thermogravimetric studies.

CALENDAR

June	
7-11	Internatl. Carbon-14 and Tritium Dating Conf., Washington State Univ. (R.M. Chatters, Radiosotopes Lab., Washington State Univ. Pullman)
14-16	Rock Mechanics Symposium, Penn State (H.L. Hartman, 101 Hammond Bldg., Penn State, University Park, Pa.)
14-17	Natl. meeting on ocean science and engineering, American Soc. on Limnology and Oceanography and Marine Technology Soc., Washington, D.C. (L.B. Brown, Room 828, 1030 15th St. NW, Washington, D.C.)
27- July 2	ACA-Mineralogical Soc. meeting, field trips, Gatlinburg, Tenn. (O.C. Kopp, Geology Dept., Univ. of Tennessee, Knoxville.)
July	
2-9	Internatl. Union of Pure and Applied Chemistry, XXIIIrd Conf., Paris, France.
12-18	Internatl. Union of Pure and Applied Chemistry, XXth Internatl. Cong., Moscow, USSR.
Aug.	
1-8	Latin American Chemical Cong., San Juan, Puerto Rico, (Puerto Rico Chemical Assoc., Postal Apartado 2647, Rio Piedras, Puerto Rico.)
23-26	Clay Minerals Soc., annual meeting, field trips, and N.A. Clay Conf., Univ. of California, Berkeley. (J.A. Pask, Dept. Mineral Technology, Univ. of California.)
30- Sept. 3	Soc. for Applied Spectroscopy, natl. meeting, Denver. (215 Hewitt Bldg., Denver.)
Sept.	
6-9	Internatl. Conf. on Thermal Analysis, Aberdeen, Scotland. (C.B. Murphy, General Electric Co., 1 River Rd., Schenectady, N.Y.)
12-17	ACS 150th Natl. Meeting, Atlantic City, N.J.
Nov.	
4-6	Geological Soc. of America, Geochemistry Soc., Mineralogical Soc., Natl. Assoc. of Geology Teachers, Paleo. Soc., Soc. of Economic Geologists, annual meeting, Kansas City.
17- Dec. 10	Volcanology Symposium and field trips, New Zealand. (Secretary, Internatl. Symposium on Volcanology, PO 499, Rotoura, N.Z.)
Dec.	
26-31	AAAS, Berkeley, Calif.

ION EXCHANGE COLUMN

Educational Television*

"The AAAS, in collaboration with 19 other societies, attempts to do something about interdisciplinary communication—through the Science and Engineering Television Journal, a nationally distributed television program aimed at bringing professional—level information to scientists and engineers. Monthly ads in Science will give starting schedules for the broadcasts. For more information, check your local ETV station, or write to Science and Engineering Television Journal, 225 West 57th Street, Suite 603, New York, N. Y. 10019."

Medical Geology and Geography*

"Last of the six most popular events with the press was the symposium 'Medical Geology and Geography.' Trace amounts of certain metals in soil water and the soil itself may play a role in development of cancer, heart disease, tuberculosis, and shaking palsy, five scientists reported.

"'On one street in Canandaigua, N.Y., 75 percent of the deaths were from cancer. The chemical tests showed that plants and soil [in the area] contain more arsenic, nitrate, boron, manganese, chromium, titanium and lead and less strontium than areas of the country where cancer and heart disease deaths are less common. In all [high-cancer regions studied] backyard vegetable and fruit gardens were common.' (Los Angeles Times)"

Kneeland A. Godfrey, Jr.

*AAAS Bull., Vol.10, No.1, 1965.

From KAMA SUTRA OF VATSYAYANA, BEING THE QUINTESSENCE OF SEXUAL WISDOM OF HINDU PRECEPTORS. a Varma Publication, pp.24-27.

"Sixty-four arts have been prescribed by Vatsyayana for young maids..." Among these is "Knowledge of chemistry and minerology (sic)."

NEW JOURNAL

During 1965 the American Geophysical Union will start publication of a new journal, Water Resources Research.

"In an effort to bridge the physical and social sciences and so to meet the challenge of the future, <u>Water Resources Research</u> has been established as essential to a coherent development of all the sciences of water.

"The new journal is also to serve...as a medium for papers relating to water resources." It will be issued on a quarterly basis beginning in 1965. The emphasis will be upon the sciences of water--whether physical, chemical, biological, or social--rather than upon water engineering or water projects.

"Papers in the physical, chemical, or biological sciences should be sent to Walter B. Langbein, U.S. Geological Survey, Washington, D.C. 20242." Subscriptions are available from the American Geophysical Union, Suite 506, 1145 19th Street, NW, Washington, D.C. 20036.

RIDDLE DEPARTMENT

In issue #12, Dec. 1963 of Priroda, Moscow, the following three articles appear. Could there be a connection?

- D. M. Troshin, "Counter far-fetched and metaphysical schemes"
- P. T. Tsagaraev, "A tragedy in the mountains"
- N. V. Pavlov, "An outstanding fellow traveller (the 100th Birthday Anniversary of P. K. Kozlov.) His last trip".

SAND-IN-THE-GEARS-OF-LEARNING

From Student Exams:

Wave Base: The bottom part of the wave.

Base Level: The level at which a river or stream flows.

Magmatic stoping: The process of replacing sedimentary rock by dissimulation.

The melt remains solid until a slightly higher temperature is reached.

One of the conditions for the formation of coal is a swampy inhabitant.

Literary Stuttering:

From Concrete Products, Dec., 1964, p.47: Each strand was prestressed to 175,000 lb. psi.

Paul L. Cloke Editor

Department of Geology and Mineralogy The University of Michigan Ann Arbor, Michigan

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and other selected geochemical translations

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CONTENTS OF FORTHCOMING ISSUE

PARTIAL CONTENTS Mountains... Serikov, Yu. I. The Source of the Uranium in the Khadum Shales... Shchepak, V.M. Distribution of Radium in Ground Waters of the Outer Zone of the East Carpathian Downwarp. Malakhov, I.A. Content and Distribution of Aluminum in the Ultramafic Rocks of the Urals. Borovko, N. N. Generalized Lognormal Distribution of Elements in Rocks and Ores. Brief Communications Borovko, N. N. Generalized Logiformal Distribution of Elements in Rocks and Ores. Borshchevskii, Yu. A. The Origin of Red Color in Potassium Salts. Kozin, A. N. On the Distribution of Strontium in the Formation Waters of the Petroleum Deposits of the Kuibyshev Region. GEOKHIMIYA NO. 4, 1964 Vdovykin, G. P. Carbonaceous Matter in Meteorites and Its Origin. Zykov, S. I., A. I. Tugarinov, I. V. Bel'kov and E. V. Bibikova. The Age of the Oldest Formations of the Kola Peninsula. Rabinovich, A. V., M. N. Golubchina and T. M. Murtazina. Isotopic Composition of Lead in Galena from Some Deposits of Middle Asia. Makagon, V. M. and B. M. Shmakin. Distribution of the Alkali Metals in the Biotites of the Mama Mica Pegmatites. Mintser, E. F. Crystallochemical Factors of Isomorphism in Essentially Covalent Compounds as Illustrated by Sphalerite Leonova, L. L. and N. S. Klassova. On the Geochemistry of Titanium During the Intrusive Process Sofiyev, I. S., K. A. Gorlenko and I. N. Semasheva. The Nature of Bonding of Germanium in Coal. Brief Communications Brandt, S.B. and S.N. Voronovskii. Dependence of the Energy of Activation of Radiogenic Gases in Minerals on Temperature Kozin, A.N. Distribution of Potassium in the Oil Field Waters of the Kuibyshev and Orenburg Regions . SELECTED ARTICLES Rozhdestvenskiy, A. The Main Biogenic Elements—Phosphorus as Phosphate and Nitrogen as Nitrate—in the Water of the Southwest Part of the Black Sea Near the Bulgarian Coast. Nasedkin, V. V. Chapter 4. Volatile Components of Volcanic Glasses. Yavits, I.N. Investigation of the Viscosity and Fusibility of Certain Water-Bearing Volcanic Glasses. Yavits, I.N. Investigation of the Viscosity and Fusibility of Certain Water-Bearing Volcanic Glasses. Gerard, André and Michel Delmelle. The Mössbauer Effect and the Ionic Character of the Iron Atoms in the Meteorites Orgueil (Pride) and Cold Bokkeveld. Osipov, D. K., R. S. Zhuravlev and G. M. Komarnitskiy. Geochemistry of Uranium in Granitoids of the Upper Kondoma Massif (Gornaya Shoriya). Moshkina, I. A. and Yu. P. Nikol'skaya. Trace Elements in Subsurface Water in Oligocene Rocks of the Irtysh Artesian Basin. Yavnel', A. A. The Abundance of Elements in the Metallic Phase of Iron Meteorites and in Chondrites. Sinyakov, V. I. Ferruginosity of Monticellites Drugova, G. M. and V. D. Bugrova. Garnets of the Granulite Facies of the Aldan Shield under Conditions of Polymetamorphism Metz, Paul and Helmut G. F. Winkler. Experimental Investigation of the Formation of Diopside from Tremolite, Calcite, and Quartz. Fin'ko, V. I. The Problem of the Abundance of Minor and Rare-Earth Elements and Minerals in Effusive Rocks. Brandt, S.B. and S.N. Voronovskii. Dependence of the Energy of Activation of Radiogenic Gases in Fin'ko, V. I. The Problem of the Administration of Effusive Rocks.

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