The Geochemical News

NUMBER 30 February 1962

THE GEOCHEMICAL SOCIETY COUNCIL MEETINGS

Cincinnati, Ohio, 2 November and 4 November 1961

The Council met at 9:00 a.m., November 2, and 12:30 p.m., November 4, at the Netherland Hilton Hotel.

Present November 2: J. A. S. Adams, F. R. Boyd, C. W. Burnham, R. M. Denning, J. J. Fahey, G. T. Faust, R. M. Garrels, E. Wm. Heinrich, E. Ingerson, H. M. Smith, O. F. Tuttle, H. C. Urey (presiding), A. Van Valkenburg, P. A. Witherspoon.

Present November 4: F. R. Boyd, C. W. Burnham, G. T. Faust, R. M. Garrels (presiding), E. Wm. Heinrich, E. Ingerson, B. Nagy, D. M. Shaw.

REPORTS OF OFFICERS

Secretary's Report. The membership of the Society has increased to more than 2,000 this year. One hundred and twenty-eight new members with one resignation and four deaths bring the total to 2066. Fifty-five of the new members, or about 40 per cent, are from countries other than the United States. These are largely from France and Italy. The addition of a member from British East Africa and another from Hungary brings the total number of countries represented to 57. Forty-two of 128 new members indicated on their application blanks that their major interest was in some field of organic geochemistry. The number of new members is down from last year's total of 207. The deceased members are A. L. Burwell, E. S. Larsen, Jr., E. S. Larsen III, and S. J. Lloyd.

Treasurer's Report. See pages 6-8.

REPORTS OF COMMITTEES

The Council approved the nominees named by the committee. These are G. Tunell, president; M. Fleischer, vice-president; and J. B. Thompson, Jr. and H. E. Hawkes for councilors.

Program. See page 9.

Translations. See page 8.

Standards. See page 9.

Tellers.

The officers elected for 1961-62 are: president, R. M. Garrels; vice-president, G. Tunell; secretary, F. R. Boyd; treasurer, C. W. Burnham; and councilors, D. M. Shaw and Bartholomew Nagy.

REPORT OF THE EDITOR OF THE GEOCHEMICAL NEWS

See page 10. E. Wm. Heinrich also reported that he will be unable to continue as editor of The Geochemical News after next year. His colleague at The University of Michigan, William C. Kelly, has agreed to take over the editor's job and will act as co-editor with Heinrich in 1962. The Council greatly regrets the loss of Heinrich's services, but welcomes his successor.

The problem of keeping the News supplied with general news on geochemistry was discussed. The incoming chairman of the Organic Group, Paul A. Witherspoon, offered to supply reviews on organic geochemistry books and Heinrich said he would be happy to cooperate. The secretary agreed to write to the regional vice-presidents and request reports on geochemical activities in their areas.

APPOINTMENTS

The Council appointed Paul A. Witherspoon as the Society's representative on the Board of Directors of the American Geological Institute, succeeding J. Frank Schairer. It also appointed Raymond Siever to succeed Philip Abelson as AAAS councilor. The appointment of a representative to the Division of Earth Sciences, National Academy of Sciences--National Research Council, to succeed George Phair was left up to the Executive Committee.

OLD BUSINESS

Dues. The Society's income has come primarily from dues, interest on National Science Foundation grants for Russian translations, and indirect costs on NSF grants. The NSF has recently ruled that interest must not be used for other purposes, although indirect costs can be charged. Substantial royalties from RESEARCHES IN GEOCHEMISTRY, P. H. Abelson, editor, have been received by the Society, but cannot be used for administrative expenses. G. T. Faust pointed out that the Society's expenses exceed the income from dues and difficulties would arise if there were a change in NSF policy. However, the Council felt that this was not an immediate problem and a motion to raise the dues failed.

Approximately 13 per cent of the Society's members are in arrears on their dues. A proposal to hold up Society publications to members in arrears was discussed but was considered to be unnecessary.

Organic Geochemistry Group. Activities of the Organic Group were described by its chairman, Harold M. Smith, and its chairman-elect, Paul Witherspoon. The Group as a whole now has over 300 members. Its European branch is growing rapidly under the chairmanship of Umberto Colombo of the Instituto di Ricerche "G. Donegani" in Milan. The Group is sponsoring a Gordon Research Conference on the origin of petroleum in 1963. The Council's approval was requested for two symposia to be held in Houston next November on the day before the start of the GSA meeting. These symposia are to be on the biogeochemistry of organic matter and on petroleum chemistry in the USSR. The latter symposium will be held only if political conditions permit a group of Russian petroleum chemists to participate. The Council approved the symposia and also secured the approval of the Council of the Geological Society of America. The matter has been referred to the local committee for the 1962 meeting.

Geochimica et Cosmochimica Acta. H. C. Urey reviewed the problem of the time required for editing and publishing papers in Acta. This time is now approximately nine months, which compares favorably with other journals in the earth sciences except for the Journal of Geophysical Research. The latter journal publishes in about three months. Urey said that geologists have

not been too concerned about fast publication in the past because of the nature of their investigations. Field investigations are likely to be lengthy and generally two individuals or groups do not work on the same area. However, in laboratory work the boundaries of research areas are not so well defined as those of a quadrangle. It is not uncommon for two groups to be working on the same problem. Competition is, hence, keener and fast publication has become important to the laboratory investigator. Urey said that a considerable number of papers in cosmochemistry were being lost to other journals which publish faster than Acta. The publication time of Acta should be reduced to three to four months. Urey felt that this would be possible only if the present system of having three executive editors who operate independently were replaced by a system in which there was a single managing editor responsible for the journal.

Adams and Ingerson described the editorial practices of Acta. Papers are required to be sent to three reviewers so that the reviewing by the different offices of the three executive editors will be as uniform as possible. Urey commented that it should be the responsibility of the executive editors to decide how many reviews a particular paper required. Many papers are extensively reviewed before they are sent to an executive editor. The Council concurred that the executive editors should be free to make their own decisions on such matters.

Adams said that if there were to be a single managing editor, he should be made a member of the Council and that the office should be elective. Adams also suggested that the proposal to have a single managing editor should be voted by the membership.

The Council seemed to agree that it would be desirable to replace the "troika" of executive editors with a single managing editor. Tuttle moved that the matter be referred to the Executive Committee for further consideration and with power to act. This was unanimously approved. The Executive Committee will meet in January for discussion. The Council may meet to consider the problem further in April at the time of the Washington meeting of the International Mineralogical Association.

NEW BUSINESS

Inactive Committees. Both the Research Committee and the Constitution and By-Laws Committee have been inactive for a number of years and the Council discussed the desirability of eliminating them. The reorganization of the editorial board of Acta will require some work by the Constitution and By-Laws Committee and it was agreed that this committee should be reactivated. However, there seemed little point in continuing the Research Committee and a motion to eliminate it was carried.

New Members. There has been a substantial drop in the number of new members during the past year and the Council agreed that means should be found to interest newly-graduated geochemists in joining the Society. Pergamon Press has agreed to run an ad in Geochimica et Cosmochimica Acta outlining the advantages available to members. It was also recommended that posters and application forms be sent to university departments in this country and abroad.

Cosmochemistry Group. Ingerson suggested that the time might be appropriate for the formation of a Cosmochemistry Group analogous to the Organic Group. The Council felt that this should be a spontaneous action on the part of members interested in cosmochemistry and should not be initiated by the Council.

Petition. Approximately two-dozen members presented a petition to the Council, requesting that George Faust be presented with a life subscription to Geokhimya in recognition of his seven years' service to the Society. A motion to approve the petition was unanimously carried.

F. R. Boyd, Secretary

THE GEOCHEMICAL SOCIETY ANNUAL BUSINESS MEETING

Cincinnati, Ohio, 3 November 1961

The meeting was called to order at 11:30 a.m. by the president, Harold C. Urey. Reports were read by the secretary, F. R. Boyd, and the treasurer, George T. Faust. (These reports appear elsewhere in this Newsletter.) The president then reviewed the work of the Council on the previous day, with particular reference to suggested changes in the editorial board of Geochimica et Cosmochimica Acta, and the meeting was thrown open to general discussion.

GENERAL DISCUSSION

E. Ingerson commented that the average time required to publish a paper in Geochimica et Cosmochimica Acta was about nine months and that this was as good or better than other journals in the earth sciences.

P. H. Abelson stated that as editor of the Journal of Geophysical Research he wished to point out that it was an earth-science journal and that its average publication time was only three months. A number of cosmochemists are now publishing in JGR for that reason. Abelson said that he had not actively recruited papers in geochemistry for JGR.

W. E. Hanson remarked that publication time in the chemical journals is about six months so that in comparison Acta does not look too bad. Hanson stated that he had edited a number of papers in organic geochemistry for Acta and that one of the principal problems was to find people with time to do the reviewing.

P. H. Abelson commented that one of the secrets of fast editing was to use the telephone rather than take the time to write letters.

R. Roy said that papers in mineralogy and geochemistry were usually much longer than in chemistry and physics and that this was one of the reasons for the greater editing time.

A. M. Pommer suggested that long and short papers be separated into different issues so that the short papers could be processed more quickly.

E. Ingerson said that presidential addresses are sent to the publisher without review and that last year it had taken Pergamon Press about six months to publish Tom F. W. Barth's address. Ingerson felt that the problem was, therefore, not entirely in the editing and reviewing.

R. Roy commented that the arrangement of papers in sessions of the Cincinnati meeting could have been better and wondered if it were possible for the program committees for geochemistry and mineralogy to get together on the arrangements.

The secretary replied that there was not much system in the division of papers between mineralogy and geochemistry. It is possible for the program committees of geochemistry and mineralogy to check on each other's arrangements during the committee meeting. The reason that some papers on quite different topics were grouped in geochemistry sessions was to avoid conflicts with papers on similar topics in mineralogy sessions.

F. R. Boyd, Secretary

THE GEOCHEMICAL SOCIETY
1962

Officers

President: Robert M. Garrels
Vice-president: George Tunell
Secretary: Francis R. Boyd, Jr.
Treasurer: C. Wayne Burnham
Past president: Harold C. Urey

Councilors

Thure G. Sahama
Ralph S. Cannon
Frans E. Wickman
O. Frank Tuttle
Denis M. Shaw
Bartholomew Nagy

Editors

The Geochemical News: E. Wm. Heinrich
William C. Kelly

Geokhimiya: Earl Ingerson

Committees

Auditing

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

Constitution and By-Laws

Brian J. Skinner, Chairman
Walter S. White
David B. Stewart

Education

Kurt E. Lowe, Chairman
John G. Woodruff
Paul L. Cloke
D. M. Henderson
John W. Winchester

Membership

Richard H. Jahns, Chairman
Harvey C. Diehl
Chester B. Slawson
James E. Slosson
Wallace A. Broecker

Nominating

Robert M. Grogan, Chairman
Knut S. Heier
G. W. Hodgson
Walter R. Eckelmann
Fredrik F. Koczy

Program

Reynolds M. Denning, Chairman
Paul A. Witherspoon

Publications

E. William Heinrich, Chairman

Translations

Earl Ingerson, Chairman
John M. Hunt
Charles F. Davidson
Raymond Siever
Sol R. Silverman
Michael Fleischer
Robert W. Boyle

Standards

Alvin Van Valkenburg, Chairman
Felix Chayes
George S. Switzer
John A. Maxwell
Michael Fleischer
Gunnar Kullerud
J. Frank Schairer
Henry Faul
George R. Tilton

Tellers

William S. Fyfe
Herbert E. Hawkes
Charles Meyer

REPORT OF THE TREASURER OF THE GEOCHEMICAL SOCIETY FOR 1961

TO THE COUNCIL OF THE GEOCHEMICAL SOCIETY:

The Treasurer's report covers the fiscal year beginning August 1, 1960 and terminating on July 31, 1961.

Receipts

Dues	$ 3,487.91
Grants from the National Science Foundation Grant G-8481, Supplementary Grant	3,400.00
Transfer from the Translation Editor	1,078.00
Bank Refund	4.00
Overhead from Translation Editor	2,440.00
Interest on Savings Account	818.25
Royalties from Abelson-Advances in Geochemistry	424.75
	$11,652.91

Day Book Receipts

Dues	$3,487.91
Transfer from Translation Editor	1,078.00
Royalties from Abelson-Advances in Geochemistry	424.75
NSF Grant G-8481	3,400.00
	$8,390.66

Detailed Account of Disbursements

Printing and Stationery	$1,197.49
Supplies and Stationery	30.33
Postage and Stamps	208.21
Secretarial Service - Secretary	188.84
Treasurer	368.08
Bank Charges	4.75
Returned Checks	6.00
Pergamon Press Refunds	110.00
Addressograph Charges	54.00
The Geochemical News	814.65
American Geological Institute	100.00
Railway Express Company	75.51
Miscellaneous Expenses	2.20
GSA Program Annual Meetings	506.40
NSF Return of Grant G-12501 (for books)	1,510.00
	$5,176.46

Assets

Balance Savings Account August 1, 1960	$34,952.25
Balance Checking Account #33-1146-SS, August 1, 1960	3,625.84
Income from Dues	3,487.91
From the Translation Editor	1,078.00
Grants from the National Science Foundation	3,400.00
Interest on Savings Account	818.25
Royalties from the sale of Abelson-Advances in Geochemistry	424.75
Bank Refund	4.00
Overhead from Translation Editor	2,440.00
	$50,231.00

Liabilities

Expenses incurred in conducting the business of The Geochemical Society	$ 3,666.46
Transfer of funds to the Translation Editor	23,488.00
Payments to NSF - Unused Grant G-12501	1,510.00
Funds held for the Translation Editor	11,150.00
	$39,814.46
Transfer of Funds to Overhead	$ 2,440.00
	$42,254.46
Balance as of August 1, 1960	7,976.54
	$50,231.00

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Funds of the Society

Funds held for the Translation Editor	$11,150.00
Balance as of August 1, 1960	7,976.54
	$19,126.54

Distribution of the Funds

Balance Savings Account August 1, 1961	$16,270.50
Balance Checking Account August 1, 1961	3,101.64
	$19,372.14
Less Check #270 Outstanding	245.60
	$19,126.54

Funds for the Translation Editor

Balance as of August 1, 1960	$34,110.00
Received from Translation Editor	1,078.00
NSF Grant G-8481 Supplementary	3,400.00
	$38,588.00

Disbursements

Funds to Translation Editor	$23,488.00
Funds to Overhead	2,440.00
Return of G-12501 to NSF	1,510.00
	$27,438.00
Balance (in G 10,050)	11,150.00
	$38,588.00

REPORT OF THE TRANSLATIONS COMMITTEE

Geokhimiya

Translation and publication of the journal Geokhimiya are being continued with support from NSF. All of the issues for 1956 through 1959 and the first two for 1960 have been printed and distributed. All of the remaining issues for 1960 (Nos. 3-8) have been translated and are being edited for publication.

There will be twelve issues in 1961 rather than the eight of previous years. Four of these have already been translated, but the manuscripts have not been processed.

Books

The book translation program has moved slowly, but is now well under way.

The 1956 book BERYLLIUM, by A. A. Beus, has been translated and the manuscript edited. It will be published by Freeman and Company, San Francisco, as will the 1960 one on the GEOCHEMISTRY OF BERYLLIUM, also by Beus; about one third of the second one has been completed.

TYPES OF DOLOMITE ROCKS AND THEIR GENESIS, edited by M. N. Strakhov, has been translated and is being edited for publication by the Ronald Press Company.

The book by N. P. Ermakov, which deals with liquid inclusions and ore-forming solutions, has been translated except for some of the out-of-date chapters which are being replaced by more up-to-date material.

The important treatise on DEPOSITS MINERALOGY AND GEOCHEMISTRY OF SELENIUM AND TELLURIUM, by Sindeeva, has been translated and will be published by Interscience Publishers, Inc.

DIKES AND MINERALIZATION by Abdulsev has been translated, but no publisher has been selected.

Two shorter books on the geochemistry of thallium and gallium, respectively, are being translated.

Translation of the 414-page book TRANSFORMATIONS OF PETROLEUM IN NATURE is projected, but has not yet been started.

Earl Ingerson
Chairman, Translations Committee

REPORT OF THE STANDARDS COMMITTEE

During the past year the Standards Committee, consisting of Michael Fleischer, Felix Chayes, George Tilton, Lorin Stieff, George Switzer, Gunnar Kullerud, Frank Schairer, John Maxwell and Alvin Van Valkenburg, held four meetings dealing with problems of standards and reference samples. Thomas Heoring substituted for George Tilton, who was on leave of absence, and Henry Faul will replace Lorin Stieff.

Interest in the work of the Standards Committee is increasing every year and during the past year the Committee has received many requests for standard samples that include G-1, W-1, isotopic abundance samples, high purity materials, radioactive standards, etcetera. Laboratories are now sending us information on the availability of specialized reference materials that may be of interest to others. When possible, this information will be published in The Geochemical News.

Recently the Committee received from Professor Jaggar of the University of Berne, Switzerland, standard samples of mica in which the K/A and Rb/Sr ratios have been accurately determined. These samples will be made available on request to those who are doing work in age determination.

A four-hundred-pound sample of dolomite from the Ledger formation quarried at Plymouth Meeting, Pennsylvania, is now being processed at the National Bureau of Standards into a standard sample. Similarly, an argillaceous limestone from the Dragon Cement Company quarry at Northampton, Pennsylvania, is undergoing preparation for becoming a standard sample. It is expected that these samples will be ready for distribution in March or April 1962.

Felix Chayes has recently completed thin-section studies on a Bradford granite that was quarried near Westerly, Rhode Island. This sample, weighing about 350 pounds, will be processed into a standard sample supplementing G-1, which is now being depleted. The granite samples should be ready for distribution sometime late this summer.

The University of Nancy, in France, the center for petrographic and geochemical studies, is also engaged in a rock standards program. We hope to cooperate with this group in furthering the task of making available standards and reference samples to interested groups.

Alvin Van Valkenburg
Chairman, Standards Committee

REPORT OF THE 1961 PROGRAM COMMITTEE

Fewer papers were submitted to The Geochemical Society for the present year than in 1960. The reduction in number may be due, in part or entirely, to the new forms required of authors by the GSA. The total number of papers presented orally is fifty-four, forty-one in inorganic and thirteen in organic geochemistry. The oral presentation of papers required four inorganic and two organic sessions. The Bergmann Memorial Discussion of the Organic Group is in addition to these sessions. This year's discussion, which includes no formally listed papers, is on kerogen.

Few papers were refused. Several papers of considerable merit were listed by title at the authors' requests. All of the organic geochemistry papers submitted were accepted.

I should like to thank Dr. Harold M. Smith for his cooperation and aid in arranging the program for the Organic Group.

Reynolds M. Denning
Chairman, Program Committee

REPORT OF THE EDITOR, THE GEOCHEMICAL NEWS

During the period January 1 to November 1, 1961 three issues of The Geochemical News were published: Nos. 26, 27, 28 in April, June, and October, respectively. No. 29 is planned for December 1961, bringing the total to four numbers for this year -- a decrease of two compared to 1960. This decrease resulted chiefly from a lack of "news" or information suitable for publication in The Geochemical News. Despite continued editorial efforts, contributions from the membership remain minuscule and discouragingly infrequent. At the present rate of receipt of publishable material, it seems likely that in 1962 only four issues can appear. Comments from the membership continue to show high reader but low contributor interest in the News -- further evidence of the general decline in America of participant activities and continuing intumescence of spectator sports.

E. Wm. Heinrich
Editor

ORGANIC GEOCHEMISTRY GROUP

Minutes of Annual Meeting

The annual business meeting of the Organic Geochemistry Group was held in the Netherland Hilton Hotel in Cincinnati on Saturday, November 4, 1961. The meeting was called to order by Harold Smith, chairman, at 11:50 a.m.

The secretary's minutes for the previous annual meeting, held in Denver in 1960, were accepted without addition or correction.

Alfred Pommer reported for the Tellers Committee that all candidates listed on the ballot were elected and that the proposed changes in the By-Laws were approved; 58 valid ballots were returned. The officers for 1961-1962 are:

Chairman: Paul A. Witherspoon
Chairman-elect: John Hunt
Councilor: Bartholomew Nagy
Editor: William Hanson
Secretary: Irving A. Breger

The chairman turned the meeting over to Paul Witherspoon, incoming chairman, at which point a motion was unanimously passed that a vote of thanks be expressed to Dr. Harold M. Smith for his untiring efforts on behalf of the Organic Geochemistry Group and for his very successful term as its first chairman.

The secretary reported on the growth of the membership of the Group as follows:

	Total Members	Foreign Members
August 1960	180	31
April 1961	217	43
November 1961	274	81

Foreign members are distributed among twenty countries.

Paul Witherspoon reported on plans for the program to be held in Houston in 1962. These plans were submitted to the Executive Council of The Geochemical Society as well as to the GSA Council for their approval. Both groups approved of the program as submitted, but stipulated that final approval would have to be obtained from the GSA Program Committee for 1962. Witherspoon was able to discuss this matter with Ralph Taylor, who is chairman of this program committee, and obtained his tentative approval.

The program will include: 1) a symposium on "Biogeochemistry of Organic Matter" to include papers on soil geochemistry, microbiology of soils and recent sediments, diagenetic problems, clay-organic complexes and related subjects; 2) a special session on "Petroleum Geochemistry in the USSR" in which a series of five or six papers will be presented by visiting Soviet scientists, if a scientific exchange now being organized for 1962 materializes; and 3) one or more general sessions of contributed papers depending upon the time that can be allotted by the GSA program committee. There will also be a Bergmann discussion, although it has been suggested that the Biogeochemistry Symposium might be combined with this discussion in the event that the Soviet session materializes.

Irving Breger reported on the organization of the European Branch of the Group. Harold Smith has appointed Dr. Umberto Colombo to be acting chairman and also asked him to appoint a nominating committee for selection of permanent officers of the Branch.

A preliminary announcement has been received from Colombo for an international meeting on "Organic Processes in Geochemistry" scheduled to be held in Milan, Italy, on September 10-12, 1962. This meeting will be co-sponsored by the European Branch of the Organic Geochemistry Group and the Italian Chemical Society. One day of the meeting will be devoted to a symposium on "Analytical Methods and Techniques on Organic Geochemistry;" other sessions will deal with papers of more general interest. A ladies program and other social events are planned. Papers will be accepted in Italian, English, French, or German. Further information can be obtained by writing Dr. Umberto P. Colombo, Montecatini Instituto di Ricerche "G. Donegani," via del Lavoro 2, Novara, Italy.

There being no further reports or discussion, the meeting was adjourned at 11:57 a.m.

Irving Breger
Secretary

THE TENTH PACIFIC SCIENCE CONGRESS*

by

Donald H. Richter
U. S. Geological Survey
Hawaiian Volcano Observatory
Hawaii National Park, Hawaii

Hawaii, with its warm aloha spirit, played gracious and generous host to the Tenth Pacific Science Congress, which met in Honolulu August 22 to September 3, 1961. More than 1800 official delegates and some 700 auditors from 40 nations bulged the Congress meeting halls on the University of Hawaii campus during the two-week session. Multidisciplined, the Congress meetings covered almost every phase of science relating to areas in and around the Pacific Ocean, with papers ranging from "Leprosy in Korea" to "Glaciology in Antarctica." Of the participating nations attending the Congress, the United States with more than 200 delegates, Japan with 152, and Russia with 85, had the greatest representation.

The First Pacific Science Congress (Pan-Pacific Scientific Conference) was also held in Honolulu, Hawaii, in August 1920. The interest shown at that meeting was highly encouraging and it was then resolved to form a permanent organization dedicated to the advancement of science and the dissemination of scientific information for the mutual benefit of the countries within the Pacific area. In the years between the First and Tenth meetings in Honolulu, the Congress has rapidly grown and has convened in eight different circum-Pacific countries (Australia, 1923; Japan, 1926; Java, 1929; Canada, 1933; California, U.S.A., 1939; New Zealand, 1949; Philippines, 1953; Thailand, 1957). The Tenth Congress, meeting under the immediate sponsorship of the National Academy of Sciences, University of Hawaii, and the Bernice Pauahi Bishop Museum, was far larger, in terms of papers and participants, than any of the nine previous Congresses.

By necessity the sessions were divided into the following main sections, each representing a broad scientific discipline:

Agricultural Sciences	Geography
Anthropological and Social Sciences	Geophysical Sciences
Biological Sciences	Public Health and Medical Sciences
Conservation	Scientific Information
Forestry	

Of particular interest to geologists and geochemists were the symposia and contributed-paper sessions organized under the division of Solid Earth Sciences, one of three divisions (others: Meteorology and Oceanography) comprising the section of Geophysical Sciences. Highlighting the Solid Earth Sciences sessions were two symposia on "Volcanism and plutonism in relation to types of crustal deformation," eight on "Topography and sediments of the Pacific," and four on "Earth's crust in the Pacific basin." About 130 papers, including those in the 14 symposia, were presented. Besides the above specific symposia in the Solid Earth Sciences sessions, four general-interest symposia on Antarctic research, which included such topics as geology, meteorology, oceanography, glaciology, and geography, were organized by the section of Geophysical Sciences.

Following the meetings more than 400 of the Congress delegates visited areas of specific and general interest throughout the Hawaiian Islands on the four major scheduled field trips. The seven-day geology-geophysics field trip toured the islands of Hawaii, Maui, and Kauai; more than half of the itinerary was devoted to the island of Hawaii and the areas of recent volcanic activity.

The Congress, despite the problems involved in handling the great number of international visitors, was hailed as a tremendous success by organizers and participants alike.

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* Publication authorized by the Director, U. S. Geological Survey.

BOOK REVIEW

THE IMPACT OF THE NEW PHYSICS, by Frank Hinman. 174 pages. Philosophical Library, New York 16, N.Y., 1961. $4.50.

In this short book the author attempts to construct a model of the universe in terms of modern physical principles and to point out some of the philosophical implications of this construction for the benefit of the intelligent layman. The text spreads thinly over the fields of physics, chemistry, biology, astronomy, geology, and psychology, touching lightly upon many fascinating facts and theories pertaining to organic and inorganic evolution.

The present work is apparently condensed from a "complete manuscript" (p. 3) with the result that many of the ideas presented are not rigorously developed and others required for completeness are omitted. In a book that dwells on the more novel and dramatic scientific discoveries of the last half century, it is startling to see the contributions of isotope geochemistry dismissed in a single statement to the effect that "... those few billion years of earth's existence before fossils appear are undated, illegible as to changes" (p. 65). Other similar examples could be cited.

The book is recommended for leisure reading only by the more critical layman.

WCK

PUBLICATIONS RECEIVED

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_____ Tectonics of the crystalline basement of the dolomites in North Italy. Geol. Ultra., Utrecht St. Univ., 1-232, 1961.

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ANDERS, EDWARD. Comments on the origin of natural diamonds. Astrophys. Jour., 134, (3), 1006, 1961.

BIESE, WALTER. El Jurasico de Cerritos Bayos. Inst. Geogr. Militar, Univ. Chile, (19), 1-60, 1961.

CECIONI, GIOVANNI F. Orogenesis subhercinica en el Estrecho de Magallanes. Perfil geologico entre Cabo Froward y Cabo San Isidro, Estrecho de Magallanes. Edit. Univ. Chile, 17, (17), 1-310, 1960.

DAVIDSON, C. F. Age of the Cambrian system. Nature, 187, (4742), 1020-1021, 1960.

_____ The Kolm deposits of Sweden. Min. Mag., 105, 201-207, 1961.

_____ The Witwatersrand controversy. Min. Mag., 105, 88-90, 1961.

DAVIS, STANLEY and JUAN KARZULOVIC K. Deslizamientos en el Valle del Rio San Pedro Provincia de Valdivia Chile. Edit. Univ. Chile, 18, (20), 1-98, 1961.

DEPT. GEOL. AND GEOPHYS., MASS. INST. TECH. Variations in isotopic abundances of strontium, calcium, and argon and related topics. 9th Ann. Prog. Rpt., 1-285, 1961.

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CALENDAR

Feb.

18-22 AIME, ann., Statler-Hilton and Astor Hotels, New York, N.Y.

Mar.

20-29 Amer. Chem. Soc., 141st mtg., Washington, D.C.

26-29 AAPG-SEPM, ann., jointly with AAPG-SEPM-SEG Pacific Sections, Civic Aud., San Francisco; Fairmont Hotel, hotel headquarters.

26-30 Workshop and Symposium on Computers and Computer Application in Mining and Exploration, College of Mines, Univ. of Arizona with School of Mineral Sciences, Stanford Univ., Tucson, Ariz.

Apr.

2-11 Caribbean Geological Conf., 3rd, Kingston, Jamaica. Write: E. Robinson, Sec'y., c/o Geological Survey Dept., Kingston, Jamaica.

12-14 AIME Pacific Southwest Mineral Industry Conf., Palace Hotel, San Francisco.

16-21 Internat. Mineralogical Assoc., 3rd Congress, Washington, D.C. Field trips April 14-16 & 21-23. Write: Miss Marjorie Hooker, U.S. Geological Survey, Washington 25, D.C.

23-28 Internat. Conf. on Palynology, Tucson, Ariz. Write: Palyn. Conf. Planning Comm., Geochronology Labs., Univ. of Arizona, Tucson.

25-28 AGU, 43rd ann., Washington, D.C.

26-28 Pacific Northwest Regional Minerals and Metals Conf., AIME-ASM, Benj. Franklin Hotel, Seattle, Wash.

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The European Branch of the Organic Geochemistry Group announces an international meeting on "Organic Processes in Geochemistry" to be held in Milan, Italy, September 10-12, 1962. The meeting will be jointly sponsored with the Societa Chimica Italiana.

The purpose of this meeting is to promote the exchange of knowledge among the different fields of organic geochemistry (petroleum, coals, soils, recent and ancient sediments, biogeochemistry) and among organic geochemists of different countries.

The program will consist of morning and afternoon sessions. One day will be devoted to a symposium on "Analytical Methods and Techniques in Organic Geochemistry," and other sessions will deal with papers of more general interest. Papers may be presented in Italian, English, French or German. A summary in English or French is requested. Those desiring to present papers should submit titles and abstracts of 300 words or less to Dr. U. Colombo, Chairman, Executive Committee of The Organic Geochemistry Group, European Branch, Geochemistry Department, "G. Donegani" Research Institute, Novara, Italy, before March 15, 1962.

Paul A. Witherspoon, Chairman
Organic Geochemistry Group

ION EXCHANGE COLUMN

NEW SOCIETY

An International Society for Stereology was established on May 12, 1961 on the Feldberg in the Black Forest. Stereology is the science of three-dimensional interpretation of sections and projections. One could call it extrapolation from two- to three-dimensional space.

Stereology is a new name for a body of methods used since 1852 (Delesse) by geologists, mineralogists and metallurgists in the evaluation of sections. Stereological methods are being employed frequently by microanatomists and cytologists. Ptolemy's effort to interpret planetary motions was a grandiose feat of stereology. All subsequent astronomers had to interpret images of heavenly bodies distributed in the depth of space in terms of three dimensions, although they appear to be projected on the inner surface of a sphere.

The purpose of the Society is interdisciplinary exchange of ideas, and the promotion of three-dimensional thinking.

The first congress of the Society will be held early in 1963. Its location will be determined by vote of the membership. The annual dues are $2.00.

Inquiries about membership should be directed to Dr. Guenter Bach, Assistant Professor of Mathematics, Institute of Technology, Braunschweig, Germany, or to Dr. Hans Elias, President, International Society for Stereology, Chicago Medical School, 710 S. Wolcott Ave., Chicago 12, Illinois.

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NEW JOURNAL

A new journal -- Journal of Catalysis -- has been announced by the Academic Press, 111 Fifth Avenue, New York 3, N.Y., and 17 Old Queen Street, London SW 1, England, to be published in English with Vol. 1, No. 1 to appear in February 1962. The editors are J. H. de Boer, Technological Univ. of Delft and P. W. Selwood, Northwestern University. The price for Vol. 1 (6 numbers) is $18.00.

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Dr. A. A. Levinson of Dow Chemical Co., Freeport, Texas, presented, before the Houston Geological Society on November 13, 1961, a lecture entitled "Geochemical Prospecting in the USSR -- A Review."

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Society members should take note that, with the close of 1961, Dr. George T. Faust of the U.S. Geological Survey has ended his long term of devoted service as Treasurer of The Geochemical Society. The sound financial position of our Society, based though it is on but a very restricted income, is the result in no small measure of Dr. Faust's untiring and meticulous concern.

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Sand-in-the-Gears-of-Learning Department

The plural of monotreme is diatreme.

"The batholith was accompanied by a swarm of irradiating dikes."

Aquiclude - "The flowing end of an artesian well."

Esker - "The third and final wave of an earthquake."

New sedimentary rocks: ferrureous dolomitic calcareous limestone, ferruginous coquinic quarsite, salacious limestone, siliceous center, silister sinter.

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E. Wm. Heinrich
Editor

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Co-editor

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