REPORT OF THE COUNCIL MEETING OF THE GEOCHEMICAL SOCIETY
November 3, 1957

Present:

Earl Ingerson, G. T. Faust, J. R. Goldsmith, H. S. Yoder, J. W. Greig, W. W. Rubey, J. A. S.

Adams, and J. C. Maxwell.

Guests: Farrington Daniels, R. A. Rowland, J. F. Schairer and Shinya Oana.

The Council met at 10:00 A.M. in the Haddon Hall Hotel, Atlantic City, New Jersey. Minutes of the Council Meeting of March 16, 1957 were approved as submitted.

### President's Report:

The Geochemical Society is now a member of the Division of Chemistry and Chemical Technology of the National Research Council. Philip Abelson is the Society's representative.

Ingerson discussed the results of the joint session of the Geochemical Society with the Commission on Geochemistry of the International Union of Pure and Applied Chemistry in Paris, July 1957. The Commission recognized the Geochemical Society as the international spokesman for geochemistry and urged local and national societies to affiliate with the Geochemical Society. At the same time the Commission noted the essentially American character of the Society's officers and council and suggested that steps be taken to emphasize the international scope of the Geochemical Society.

The question of translating the Russian journal Geokimiya into English has been taken up tentatively with the National Science Foundation, and a few inquiries have been made regarding cost. Associated Technical Services of New York have offered to do the complete job of translation and printing (1,000 copies) at a cost of \$1600 per issue, or \$12,800 per year for 8 issues. Other bids will be obtained. It was agreed that a definite proposal to N. S. F. should be prepared as quickly as possible. It was further agreed that the quality of translation was a more important consideration than cost and that efforts would be made to obtain the services of translators familiar with the various aspects of geochemistry.

# Treasurer's Report:

Balance in bank	10/6/56	1,434.76
Receipts (dues)		3,040.55
Disbursements -	\$1,880.44	
Balance in bank	7/31/57	\$2,594.87

A detailed statement is attached. It was suggested that a statement be added to the report to the effect that no liabilities were outstanding against the Society as of the date 7/31/57. This was done and the report was accepted.

### Reports of Committees:

# Teller's Committee

Secretary read report of the Tellers Committee for the election just completed. Copy of report attached. Officers and Councilors elected, terms to begin at close of annual meeting:

For	one	year	terms
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President -- Farrington Daniels
Vice-President -- J. F. Schairer
Secretary -- K. B. Krauskopf
Treasurer -- G. T. Faust

For three year terms

Councilors -- E. F. Osborn, H. G. Thode

Additions and amendments to By-laws:

Section III, paragraph 2: substitute Treasurer for Vice-President.

Yes -- 700 No -- 52

Section III, paragraph 4 (new paragraph): establishment of office of Regional Vice-President.

Yes -- 731

No -- 23

**Auditing Committee** 

Presented by J. E. Greig. Copy is attached to official copy of the minutes.

#### Seal Committee

Ingerson reported for the Seal Committee that a number of sketches had been prepared for exhibit during the convention. Members will be asked to comment on the designs and to express a preference, if any. The Committee suggested that the designs favored by most members be reproduced in the Geochemical News for a formal vote of the membership. The recommendations were accepted.

Program Committee

No formal report. Yoder suggested the Committee consider ways of reducing the congestion of the scientific program at the annual meetings.

Membership Committee

Secretary read the report of the Membership Committee, defining the qualifications for membership and recommending that applications be considered first by the Membership Committee which would then make recommendations to Council. This was approved. A copy of the report is attached to the minutes.

It was moved, seconded and passed that no industry membership be established at this time, but that the Treasurer be authorized to accept subscriptions to Geochemical News at \$2.00 per year.

Committee on Constitution and By-laws

Secretary read a brief report from Chairman Fleischer. Copy attached. The Council agreed to propose the following changes in By-laws for the consideration of the Committee.

Section IV - Nominations shall be made known to the members at least <u>four</u> months before the annual meeting. Other nominations may be made in writing by any ten members; they must be in the hands of the secretary at least sixty-five days before the annual meeting.

Section IV is to be printed in the Geochemical News in connection with the announcement of the official slate of officer and councilor candidates.

Section III, Paragraph 4, to be amended as follows: Regional Vice-Presidents will be appointed for a one year term, and may be reappointed for additional one year terms by the President, with consent of the Council.

The Regional Vice-Presidents will be invited to meet with the Council, and will receive copies of the minutes of Council Meetings.

### **Education Committee**

Chairman J. A. S. Adams, for the Committee recommended:

- 1. That Council prepare a statement of the function of each Committee.
- 2. That Regional Vice-Presidents be ex-officio members of the Education Committee.
- 3. That the Society obtain reprints of "Geochemical Table of the Elements," by Jack Green, soon to be published, for distribution to all members. Adams announced that his committee had decided not to distribute the prepared questionnaire because the wording made it unsuitable for international use. The Committee is planning to solicit news letters from various centers of geochemical work, foreign and domestic, for publication in Geochemical News. Lectureship tours in geochemistry are being considered.

The report of the Education Committee was accepted. Council recommended that each committee should submit a statement of its functions and aims for consideration by the Council. Goldsmith will inquire whether California Research Corporation will be willing to provide reprints of Green's article for distribution to Society members.

# Publications Committee

Secretary read a report from A. Poldervaart, chairman, concerned with various features of Geochimica Acta. Copy of report attached. Several of the recommendations already have been put in force.

Recommendation by the Committee that an index be prepared for volumes 1-10 of the Acta was modified to read volumes 1-20, so that an up to date index could be published in about three years, simultaneously with publication of volume 20. Pergamon Press will bear the expense of preparing the index, which will be available separately.

Council requested that abstracts in English accompany all papers in the Acta.

### Research Committee

Report of the Committee was presented by chairman R. A. Rowland. Copy attached. The Committee

has undertaken a survey of geochemical research now in progress, the survey to be carried out by an expanded committee with representatives responsible for various continents (the Regional Vice-Presidents) and for groups such as U. S. universities, oil company research labs, government and related agencies, and oceanographic institutes. Results will be published in Geochemical News from time to time.

### New Business:

A Standards Committee consisting of the following members was approved by the Council:

Harry A. Bright, chairman A. E. J. Engel K. J. Murata Felix Chayes George S. Switzer S. S. Goldich

The Committee was authorized to appoint advisory members for the various analytical disciplines. To emphasize the international character of the Society it was recommended that the nominating committee consider nominating candidates for elective offices from outside the United States whenever practicable to do so. It was further decided that a list of forthcoming meetings sponsored by the Society be published in Geochimica Acta, and that a Council Meeting be held in connection with the International Geological Congress in Copenhagen in 1960. The latter motion was passed by majority vote of Council.

Affiliation of other societies with the Geochemical Society was considered. It was suggested that members of affiliated societies be invited to subscribe to Geochemical News at a cost of \$2.00 per year. Affiliated societies may appoint a non-voting representative to meet with the Council of the Geochemical Society.

Translation of Geokimiya was referred to the Publications Committee for consideration. Adams pointed out that many companies spend large sums for translations of scientific articles, and might be willing to contribute financially to this project.

Yoder suggested that the Geochemical Society consider instituting an award in form of a financial grant to a professor for a period of study at the Geophysical Lab or elsewhere, perhaps in the name of N. L. Bowen. Council reaction was highly favorable.

Adjourned 2:00 P.M.

J. C. Maxwell Secretary

### MINUTES OF THE ANNUAL BUSINESS MEETING Atlantic City, New Jersey, November 6, 1957

The meeting was called to order at 4:00 P.M. by President Ingerson. Minutes of the Annual Meeting of October 31, 1956 were approved.

### Reports of Officers

Treasurer's Report (see above)

Secretary:

Total members as of November 1, 1957 - 1505. Of this number, 341 members are citizens of 47 countries other than the United States of America.

Notice has been received of the deaths of four members: G. D. Louderback, A. F. Rogers, J. C. Rabbitt and S. J. Shand.

Report of Teller's Committee (see above)

Proposed additions and amendments to By-Laws (see above)

President's Report (see also above):

Membership. The Committee on Membership suggested the following qualifications be required:

Any person of good character and unchallenged basic scientific integrity and honesty, regardless of sex, nationality, residence, employment, prominence or proficiency may

become a Member providing only that he or she

1. Will subscribe to the declared purposes of the Society, and

2. Can evidence a general understanding of the field of endeavor by at least a bachelor's degree in one of the following fields: Physical science, mathematics or engineering, and/or

3. Three years or more of activity in any of these disciplines (including teaching,

research, application, bibliographic and editorial service).

The qualifications were accepted by the Council, as was another recommendation that applications be referred to the Membership Committee for consideration and recommendation to the Council, which shall be responsible for all elections.

Geochimica and Cosmochimica Acta. A board of three executive editors now has final responsibility for manuscripts. As these editors are members of the Geochemical Society, technical control rests with the Society.

Geochemical Society award. It has been suggested that the Society establish an award to be given annually, possibly in the name of N. L. Bowen.

# New Business

Ingerson discussed a proposal that the Geochemical Society sponsor the translation and publication of the Russian journal Geokimiya in English (see above). The members present went on record as unanimously favoring the project.

C. R. McKinney suggested that affiliation with physical societies such as the American Institute of Physics would be advantageous. Ingerson asked McKinney to review the various societies and recommend those with which affiliation should be considered.

The meeting adjourned at 4:30 P.M.

John C. Maxwell Secretary

### COMMITTEES

President Farrington Daniels has announced the following committee titles:

<u>Auditing</u>	
Joseph J. Tregoning,	Chm.
W. L. Hill	
C. R. Naeser	

Constitution and By	-laws
Michael Fleischer,	Chm.
J. R. Goldsmith	
D. M. Shaw	

Ed	uca	tio	n	
Η.	D.	Н	olland,	Chm
J.	Α.	s.	Adams	
n	M	L	landarea	. ri

Kurt E. Lowe G. D. Nicholls

Membership R. M. Garrels, Chm. Harvey C. Diehl Chester B. Slawson James E. Slosson

<u>Nominating</u>
D. E. White, Chm.
George Edwards
A. E. Engel
W. D. Keller
T. G. Sahama
D. M. Shaw

Pro	gran	1	
H.	T. I	vans,	Chm.
H.	A. I	owen	stam
G.	J. F.	. Mac	Donald

<u>Publications</u> E. W. Heinrich, Chm. J. R. Goldsmith J. C. Maxwell N. W. Rakestraw S. C. Robinson L. R. Wager

Regional Vice Presidents Louis H. Ahrens C. W. Correns Rui Ribeiro Franco William S. Fyfe Ing. Georges Ordonez Ken Sugawara

# Research C. G. Dodd, Chm. W. F. Bradley R. A. Rowland T. G. Thompson G. W. Wetherill

A. Van Valkenburg, Jr., Chm. Margaret D. Foster Jewell Glass Edwin Roedder

**Standards** Harry A. Bright, Chm. Felix Chayes A. E. Engel S. S. Goldich Kiguma J. Murata George S. Switzer

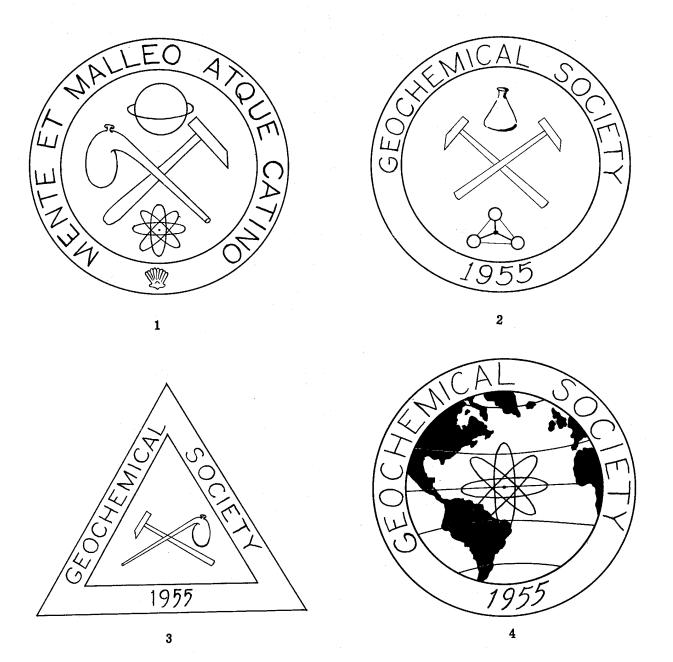
Charles Meyer, Chm. Henry R. Cornwall Colin O. Hutton

# SEAL OF THE GEOCHEMICAL SOCIETY

Reproduced below are the four designs for a seal that stood out above the others in the Atlantic City voting. In Atlantic City the members were asked for votes for first, second, and third choices, and it is desirable that second and third choices be indicated in this second ballotting. Therefore, please select your first, second and third choice, indicating them by number, and send your vote to Dr. A. Van Valkenburg, Jr., Chairman, Seal Committee of The Geochemical Society, Mackall Avenue, McLean, Virginia.

Several members have indicated that they did not particularly care for any of the suggested designs, and therefore if any of the members have another design in mind, it is suggested that they submit their ideas to the Chairman of the Seal Committee. If the Society begins publication of its translation of Geokhimiya next year, it probably would be desirable to be able to place the seal on the front of this publication at that time.

Please vote!



### JOHN CHARLES RABBITT by Michael Fleischer

John Charles Rabbitt died at his home in Washington on the evening of June 10, 1957, a few minutes after suffering a coronary occlusion. There had been no warning.

Jack, as he was always called, was born November 3, 1907, in Butte, Montana, the son of Grace Esther and Thomas C. Rabbitt. His father died when Jack was seven. He worked as a miner for six years after completing high school and then returned to school, receiving the B. S. degree in geology in 1935 and the M. S. degree in paleontology in 1937, both from the Montana School of Mines. He then went to Harvard from which he received the Ph. D. in 1947 in petrology and mineralogy. His thesis began as a regional study, but his interest was mainly in the mineralogical aspects, and the work culminated in a definitive study of the mineral anthophyllite, with new spectrographic, optical, and x-ray work by Jack.

In 1942 he joined the U. S. Geological Survey. During World War II, he worked on the spectrographic analysis of smelter products for minor elements, with emphasis during the last years on uranium. From 1947 to 1953, he was responsible for the staffing, equipping, and operating of the Trace Elements Laboratory, set up to supply the chemical, spectrographic, mineralogical, and radiometric studies required by the Geological Survey's work for the U. S. Atomic Energy Commission. The record made by this laboratory, almost entirely manned in its early stages by young and inexperienced scientists, is a reflection of Jack's inspiring leadership. He liked people and he knew how to encourage them and to help them; he was tolerant of mistakes, but never of sham or stuffiness.

In 1953 Jack was assigned to the staff of the Chief Geologist, where he worked mainly on manuscript processing and the Survey's publication program. Here he made significant contributions, especially in the preparation of a new edition of the Survey's "Suggestions to Authors", now in press.

In 1947 he married Mary Collins, who had been research assistant in geophysics at Harvard while he was there, and who has now taken over his work on publications in the Geological Survey. He is also survived by two brothers.

I had the good fortune to be closely associated with Jack from 1947 on, and working with him was one of the most pleasant and stimulating experiences I have had. I know that many others also cherish deeply their association with him.

### SOUTHWESTERN REGIONAL MEETING OF THE AMERICAN CHEMICAL SOCIETY

The 1957 Southwestern Regional Meeting of the American Chemical Society was held in Tulsa, Oklahoma, December 5-7, 1957, and included was a symposium entitled "Geochemistry and Petroleum Exploration." During the symposium the following papers were presented:

The ultracentrifuge - A new tool for research on petroleum. P. A. Witherspoon, University of California, Berkeley, Calif.

Petroleum geochemistry of Pembina, Redwater, and Joffre oil fields of Alberta, Canada. B. L. Baker and G. W. Hodgson, Research Council of Alberta, Edmonton, Alberta, Canada.

The protective action of crude petroleum for metal-porphyrin complexes exposed to gamma irradiation. H. N. Dunning, U. S. Bureau of Mines, Bartlesville, Oklahoma.

Preservation of chlorophyll derivatives in sediments off Southern California. W. L. Orr, K. O. Emery, and J. R. Grady, University of Southern California, Los Angeles, California.

The exchange capacity of marine sediments. R. G. Bader, Texas A. and M. College, College Station, Texas. The hydrocarbons in recent marine sediments. W. G. Meinschein, Magnolia Petroleum Company, Dallas,

Texas.

Hydrocarbons in sedimentary rocks of non-marine origin. G. W. Jamieson and J. P. Forsman, The Carter Oil Company, Tulsa, Oklahoma.

Geochemistry of proteins and amino acids. J. R. Vallentyne, Queens University, Kingston, Ontario, Canada. Isotopic distribution of carbon in sedimentary materials. J. A. Rickard, P. J. Aucoin, Jr., A. C. Daughtry, and D. Perry, Humble Oil and Refining Co., Houston, Texas.

The geochemistry of the stable isotopes of nitrogen in natural gas and petroleum. T. C. Hoering and H. E. Moore, University of Arkansas, Fayetteville, Arkansas.

If any of the members of the Geochemical Society are interested in obtaining copies of abstracts of these papers or learning more about the subjects, it is suggested that they contact the authors directly or John M. Hunt of the Carter Oil Company Research Department, 1133 N. Lewis, Tulsa, Oklahoma, who presided at the symposium.

# REPORT ON ACTIVITY OF SECTION 8 OF CHEMICAL ABSTRACTS FOR 1957 by Michael Fleischer

Following is a summary of the work of Section 8, Mineralogical and Geological Chemistry, of Chemical Abstracts for Vol. 51 (1957). Abstracts of 2904 papers, a new record, were published. This compares to 2280 for 1956, 2149 for 1955, 2076 for 1954, 1746 for 1953, and 1555 for 1952. These figures do not include the many papers of geochemical interest abstracted in other Sections, such as Section 2, Physical Chemistry; Section 14, Water; Section 15, Soils; Section 21, Fuel; etc.

The abstracts were prepared by 212 abstractors. 80.6% of the papers abstracted were published in 1956 or 1957; this is also a new high but we hope to improve on it.

The sources of the papers abstracted may be of interest. These are by country of publication; for example, all papers in Geochimica Acta are credited to Great Britain. A check shows that this nearly cancels out as compared with country of origin for the leading countries.

	<u>1957</u>	<u> 1956</u>
United States	579	420
U.S.S.R.	542	257
Japan	267	134
Great Britain	217	132
Germany (E. and W.)	172	151
France	118	90

The figures for Japan represent in part a clean-up of back-log; this was only a minor factor in the increase for the U.S.S.R.

Our coverage is not as good as that of the Russian abstract journal in geology, but ours is not state-supported. We must depend on the voluntary services of geochemists, and the increasing rate of publication means that we are constantly in need of more help. Anyone interested please write to Dr. E. J. Crane, Chemical Abstracts, Ohio State University, Columbus 10, Ohio, or to me.

### TRANSLATIONS

Dr. Earl Ingerson has submitted the following additional list of titles of translated articles, which are available on loan from the U. S. Geological Survey. He reports that the U. S.G.S. has had well over 100 requests for loans of copies of articles previously listed, and that the amount of work involved is beginning to be considerable. So if your request for a loan has been delayed, please be patient.

### Russian translations

BULYALOV, N. I. and SHVIRAYEVA, A. M.: Geobotanical methods for prospecting for salts of boron.

CHERNIKOV, A. A., KRUTETSKAYA, O. V. and ORGANOV, N. I.: Natro-autunite.

CHUKHROV, F. V.: Migration of gold in the oxidation zone.

DROBKOV, A. A.: Progress in contemporary biology, 1951.

GERASIMOVSKII, V. I. and TURANSKAYA, N. V.: The high content of lanthanum and cerium in minerals of the agpairtic syenites of the Lovozersk massif.

KALIUZHNYI, V. A.: In reference to the results on pH measurements in solutions of liquid inclusions.

KAMINSKAIA, Sh. E.: In reference to presence of titanium in organisms.

KOPCHENOVA, E. V. and SKVORTSOVA, K. V.: Sodium uranospinite.

KUNASHEVA, K. G.: Distribution of Ra and U in plants grown in media varying in concentration of these elements.

KUNASHEVA, K. G.: Radium-content of plant and animal organisms.

LEMMLEIN, G. G.: Development of liquid inclusions in minerals and their application in geologic thermometry.

LIPOVA, I. M., SHEVALEEVSKII, I. D., and TUZOVA, A. M.: On the ratio of zirconium and hafnium in granitoids of the Verkhissetsk intrusion.

MAGARSHAK, G. K.: Polytherms of the system Al<sub>2</sub>O-Na<sub>2</sub>O-H<sub>2</sub>O from 30-200 C.

MALIUGA, D. P.: Geochemistry of dispersed nickel.

MALIUGA, D. P.: K Geohimii Rasseiannyh Nikelia i Kobal'ta v Biosfere.

MALIUGA, D. P.: On biogeochemical provinces in the southern Urals.

MALIUGA, D. P. and MAKAROVA, A. I.: An experience of biogeochemical prospecting for ore deposits in the autonomous Tuva region.

MATIAS, V. V. and BONDAREVA, A. M.: Lithiophosphate - a new

NESVETAILOVA, N. G.: Geobotanical investigations for prospecting for ore deposits.

SAUKOV, A. A.: Geochemistry of mercury.

SEDLETSKII, I. D.: Role of soil forming processes in the geochemical distribution of copper.

SCHERBINA, VI. V.: Geochemical characteristics of the elements of the diagonal series.

SHVIRAEVA, A. M.: An experiment on utilization of geobotanical indications in an analysis of lithologically similar strata of different origin.

SIGOV, A. P.: Prospecting by heavy mineral studies.

SOTRONOV, N. I.: Feasibility of utilization of dispersion halo in prospecting.

STANKEWICH, L. O.: Calciferous rhodochrosite of the Kerch deposit.

TIKHOMIROV, N. I. and MILLER, S. D.: On a physico-chemical method of prospecting for molybdenum in the semidesert climate of northern Pribalkhash.

TRUDY Biogechim. Lab. Nauk SSSR, II 1932; III, 1935; IV, 1937; Table of contents.

UMOVA, M. W., GLEBOV, R. I. and SHIBANOV, P. N.: Investigation of chemical composition of gaseous inclusions in quartz from different deposits.

VASIL'EV, V. S., KOBLIN, M. F., and KRASNOVA, V. N.: Zeolites in the Mesozoic and Cenozoic deposits of the Penza area.

VERSHKOVSKAYA, O. V. and FABRIKOVA, E. A.: Gallium in sphalerite.

VIKTOROV, S. V.: Brief outline of the history and present status of the geobotanical method in geology.

VINOGRADOV, A. P.: The isotopic composition of rocks of the earth and of meteorities.

VOSTOKOVA, E. A., BYSHIVKIN, D. D., KASIANOVA, S. M., NESVETAYLOVA, N. G., and SHVIRYAEVA, A. M.: Geobotanical indicators in prospecting for oil.

YARZHEMSKIJ, Ya Ya: About the role of dolomite and magnesite in salt-bearing beds.

ZNAMENSKII, E. B., RODIONOVA, L. M., and VERNADSKY, M. M. K.: On the distribution of niobium and tantalum in granites.

ZVIAGINTZEV, O. E.: On geochemistry of palladium.

### Other translations

ERKAMA, J.: On the role of copper and manganese in higher plants.

FUJIHATA, T.: On geochemical prospecting of metallic ore deposits.

HAYASHI, S., SEKINE, S., and KISHI, H.: Chemical prospecting by natural water in Kidogasawa Mine, Tochigi Prefecture.

HEDSTROM, H. and NORDSTROM: The present position of the technique of prospecting.

KIMURA, K. and FUJIWARA, S.: Geochemical prospecting for metallic ore deposits.

KIMURA, K., FUIIWARA, S. and MORINAGA, K.: Geochemical prospecting in the Hosokura Mine.

KIMURA, K., FUJIWARA, S. and MORINAGA, K.: Chemical studies on the natural water in the Hitachi copper mine district—with reference to the relation with natural potential.

KIMURA, K., FUJIWARA, S. and YASUDA, Y.: "The distribution of minute amounts of silver and copper in the surface rocks in the southern region of the Sado Mine.

PALMQUIST, S.: Memorandum on geochemical prospecting.

PALMQUIST, S.: The Swedish prospecting company.

Ter MEULEN, M. H.: On the accumulation of molybdenum in certain aquatic plants.

VOGT, T. and BUGGE, J.: Geochemical and geobotanical prospecting VIII. Copper content of plants from the Roros area by quantitative Rorotsean analysis.

### CALENDAR OF FORTHCOMING EVENTS

### Feb.

16-20 AIME Ann. Mtg., Hotels Statler and Sheraton-McAlpin, New York.

### Mar.

- 3-4 AIME, Soc. Petroleum Engineers, 4th Ann. Joint Mtg., Rocky Mt. Petroleum Sections, Cosmopolitan Hotel, Denver, Colo.
- 7-8 AAPG: Pacific Section Ann. Mtg., Ambassador Hotel, Los Angeles, Calif.
- 9-12 Canadian Prospectors' and Developers' Assoc., Toronto, Ontario.
- 9-12 Canadian Mineralogical Society, Toronto, Ontario.
- 10-13 AAPG-SEPM Ann. Mtg., Biltmore Hotel, Los Angeles, Calif.
- 16-21 4th Internat'l. Atomic Exposition, Chicago.
- 16-21 1958 Nuclear Congress, Chicago.
- 17-19 6th Atomic Energy in Industry Conf., Chicago.
- 17-21 4th Nuclear Engrg. and Science Conf., Chicago.
- 19-20 6th Hot Laboratories and Equipment Conf., Chicago.
- 20-21 AIME: Mid-Continent Local Sec. Petroleum Production and Reservoir Engineering Conf., Mayo Hotel, Tulsa, Okla.

Michigan Acad. Sci., Ann Arbor, Mich. 21-22 ACSM-ASP: Consecutive Meetings and Co-Exhibit, Shoreham Hotel, Washington, D. C. 23-29 SEPM (Permian Basin Sec.) Ann. Tech. Mtg., Hotel Scharbauer, Midland, Tex. 27-28 AIME Pacific Southwest Conf., St. Francis Hotel, San Francisco. 27-29 Optical Society of America, Spring Mtg., Sheraton-Park Hotel, Washington, D. C. 27-29 GSA, Cordilleran Sec. Ann. Mtg., Eugene, Ore. 28-29 Apr. AIME, Soc. Petroleum Engineers, Gas Technology Symposium, Lou. -Ark., Miss. and E. Texas Sec-17-18 tions, Shreveport, La. SEGp, 11th Ann. Midwestern Mtg., Mayo Hotel, Tulsa, Okla. 17-18 AIME Pacific Northwest Regional Conf., Spokane, Wash. 17-19 Sigma Gamma Epsilon, 19th Biennial Conv., Pittsburgh, Pa. 17-19 Institute of Physics, X-Ray Analysis Group, Manchester, England. 18-19 2d Internt'l. Williston Basin Symposium, Provincial Museum Bldg., Bismarck, N. D. 23-25 AIME Pennsylvania-Anthracite Sec., spring technical mtg., Hazelton, Pa. 25 AAPG, Rocky Mtn. Sec., 8th Ann. Conv., Industrial Bldg., Natrona County Fairgrounds, Casper, Wyo. 27 - 30May GSA, Southeastern Sec., Tuscaloosa, Ala. 1-3 AIME, Soc. Petroleum Engineers, 3d Biennial Secondary Recovery Symposium, Wichita Falls, Tex. 5-6 AGU, 39th Ann. Mtg., Nat. Acad. Sci., Washington, D. C. 5-7 AIME: Uranium Sec., 3d Ann. Uranium Symposium, Moab, Utah. 9-11 Friends of the Pleistocene. Wilson M. Laird, Univ. of N. Dak., Grand Forks, N. D. 17-18 AIME Colorado MBD Subsection, Broadmoor Hotel, Colorado Springs, Colo.

# ION~EXCHANGE COLUMN

President Detlev W. Bronk, of the National Academy of Sciences--National Research Council, has announced the appointment of Dr. Guy Waddington as Director of the Office of Critical Tables in the Division of Chemistry and Chemical Technology. He will assume his duties October 7, 1957. This information is of interest to the many chemists, physicists and engineers who have expressed concern over the obsolescence of the International Critical Tables.

The International Critical Tables of Numerical Data, 1926-1933, was prepared under the auspices of the National Academy of Sciences--National Research Council, Division of Chemistry and Chemical Technology and the Division of Physical Sciences, and was an invaluable compilation of numerical data on chemical compounds for investigators and engineers.

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The National Science Foundation will award grants to partially defray travel expenses for a limited number of American scientists wishing to participate in the meetings of the International Federation of Electron Microscope Societies. This meeting is to be held in Berlin, Germany, 10-17 September 1958.

Application blanks may be obtained from the National Science Foundation, Washington 25, D. C. Completed application forms must be submitted by February 15, 1958.

Dr. Nobuhide Kokubu of the Department of Chemistry, Faculty of Science, Kyushu University, Fukuoka, Japan, is now spending the year studying at the Fermi Institute for Nuclear Studies at the University of Chicago, Chicago, Illinois. He recently visited the Mineralogical Laboratory of the University of Michigan as well as the Institute for Silicate Research in Toledo.

If you are wondering how long is a second, you will be interested in learning that in terms of motion a second is one 86,400th of a revolution of the earth on its axis. Now comes word that Dr. J. V. Richard Kaufman, head of Samuel Feltman Laboratories at Picatinny Arsenal, has designed a camera shutter which can take a picture in a five-billionth of a second. A pilot model, being built by the Zaren Electro-Optical Systems Co., will be used in photographic studies of nuclear reactions, shock waves, and explosions. The hermetically sealed chemical shutter is electronically activated by shifting molecules of a nitrobenzene solution.

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

Can any of our members supply an adequate answer to the following question recently launched in an elementary petrology class by a budding geology major: "Hey prof, how come so many meteorites occur with one side flat and polished?"

Owing probably to the increased fertility between species resulting doubtless from the recently augmented radioactive fallout, hybrids have been springing up everywhere, even in the field of music, in which one of the editor's more athletically inclined acquaintances (Neanderthal michiganensis) expressed a desire to see an opera, "Something like the Merry Wives of Figaro"—a real gone lit-par-lit cacophony.

And another hybrid is the recently suggested technique of dendroplagiochronology, in which the age of a plagioclase crystal may be determined from the number of its zones.

Submitted from the membership are the following from student examinations:

"Mimetic twin--a twin that only appears to be a twin but actually is not the perfect twin that it should be."

"Stability is important in that instability will tend to render the structure unstable."

"The root of a mineral name is followed by 'ite', a form of the Greek itis, meaning native or citizen of."

Thoughts on Changing Cb to Nb

Chemists prefer niobium, To this Earl I. subscribes. These elemental switches leave me in stiches, To geologists what benefit derives?

Let's hope the mineral stays unchanged For it seems a horrid notion To write niobite for columbite And to sing, "Niobia, the Gem of the Ocean."

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