THE GEOCHEMICAL NEWS

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RESEARCH IN GEOCHEMISTRY

It has been a desire of the editor and the officers of The Geochemical Society to raise, whenever possible, the informative level of The Geochemical News above that of just a clearing house of items regarding the membership and meetings. With this issue we are making such an attempt. Through the cooperation of many members, both in the United States and abroad, we have been able to assemble the items and abstracts presented herein. This issue aspires to be "Progress Report No. 1 on Research in Geochemistry", with emphasis on the scientific activities of some geochemists abroad, not only of our fellow members but also of those whom we hope will join us in the future.

GEOCHEMISTRY IN CZECHOSLOVAKIA

Jan Kutina, Dept. of Geochemistry, Mineralogy and Crystallography, Charles University (Albertov 6, Praha 11, Czechoslovakia), has prepared the following information on geochemical research in Czechoslovakia.

Geochemical Information
"Geochemicke Zpravy"

Through the initiative of the Dept. of Geochemistry, Mineralogy and Crystallography, Charles University, Institute for the Ore Research (Ustav pro vyzkum rud) in Kutna Hora and the Mineralogical Section of the Central Geological Institute (Ustredni Ustav geologicky) in Praha, a geochemical seminar was begun on March 11, 1957. It will be held regularly once a month in the Faculty of Geology and Geography, Charles University, Praha, under the leadership of Docent Dr. J. Kutina. In "Geochemical Information" there will be published summaries of lectures and discussions presented in the course of the individual seminars and various news items of geochemical progress at home and abroad (problems of organization, methods, research of trace elements, etc.).

The main goal of the seminar is to contribute in our country to the development of geochemistry, which abroad is marked at present by a rapid growth. We want to reach this goal through a program of lectures and discussions by means of a university seminar with the widest participation of workers outside the university. Thus we should contribute simultaneously to the education of students of our major fields, out of which a number of graduates are recruited to practice as geochemists, mineralogists, petrographers, and economic geologists, where a knowledge of geochemistry is necessary.

We want to direct the program of our seminar in such a way that it would suit the largest number of our workers. It will be our effort to follow in the course of the seminar the most varied aspects of geochemistry, in order to give the participants of the seminar the possibility of obtaining news even from those branches of geochemical research that are distant from their major field. So far we have included in the seminar program the following items:

1. Presentation of original scientific studies with discussions.
2. Presentation of comprehensive summaries on geochemical problems.
3. Contributions to methods of basic and applied geochemical research.
4. Applications of analytical methods to geochemical research.
5. Regular reports on foreign geochemical literature, with demonstrations.
6. Recording of geochemical papers published in Czechoslovakia and critical evaluation of results, if necessary.
7. Reports on the organization of geochemical work abroad, e.g. on geochemical societies, sessions, etc.
8. Reports on the organization of geochemical work in Czechoslovakia. We accept willingly brief reports from various of our institutions for publication in Geochemical Information.

Next follows a brief description of geochemical societies outside of Czechoslovakia. Most of these have been reported in previous issues of The Geochemical News. Previously unrecorded is that at the University of Bruxelles, Belgium. A "Cêntre de Geochimie Appliqué" has been established, whose director is Professor Dr. Ivan de Magnee, and the secretary is Dr. J. Jedwab. Since May 1955 a mimeographed "Bulletin d'Information" is being published (so far six numbers). In this bulletin there appears a list of geochemical papers received in journals or in the form of reprints. About some of them detailed commentaries are published. Their journal also notes numerous important items of scientific and organizational character.

Summaries of Lectures
(presented in the seminar March 11, 1957)

1. Contribution to the estimation of boron, tellurium, and germanium in geochemical research, by Zdenek Valcha, Inst. Ore Research Kutna Hora: Photocolorometric determinations of boron with quinalizarine and removal of interfering arsenic; of tellurium with thiourea; and of germanium with phenylfluoron.

2. On the question of crystallochemical and typochemical elements, by Jan Kutina. A critical discussion of Jedwab's crystallochemical and typochemical groups of elements and presentation of a genetic classification of elements as a basis for discussion. (To appear in Mineral. Petrog. Mitt.)

"Geochemical Information" is distributed once a month.

Co-workers: Dr. J.H. Bernard and Assistant M. Pisa, Mineralogical Section of the Central Geological Institute (Ustredni ustav geologicky) in Praha I, Hradebni 9. Docent Dr. Jan Kutina, Dept. of Geochemistry, Mineralogy and Crystallography, Charles University, Albertov 6, Praha II. Ing. V. Smejkal, Geochemical Section of the Central Geological Institute in Praha I, Hradebni 9, and Dr. Fr. Vrabka, Institute for the ore research = Ustav pro vyzkum rud, Hlousecka Street, Kutna Hora.

Items and inquiries should be sent to Dr. Jan Kutina.

Dr. Kutina also has prepared translations of abstracts of a number of recently published Czech geochemical articles, taken from journals generally not easily available to many members in the United States and some other countries:

J. H. BERNARD: Predbezna zprava o kombinaci vypoctu velikosti mrizkovych konstant a semikvantitativnich spektralnich analys nerostu pro geochemicky vyzkum rudnich zil. (Preliminary report on the combination of calculations of the lattice constants with semiquantitative spectral analyses of minerals for the geochemical research of ore veins.) Czech with English summary. Vestnik Ustr. ustavu geologickeho, 32, 135-145, Praha 1957.

The study of changes in the chemical composition of specimens of the same generation of a mineral both in vertical and horizontal directions in ore veins as well as regionally in the metallogenic province. Applies to tetrahedrites of the Spissko-gemerske Rudohori area (Zips-Gemer-Erzbebirge).

The Hg- and Ag-content of tetrahedrite decreases in the Drozdiak vein with increasing depth, whereas the content of As, Pb, Zn and less distinctly of Cd increases. For the whole area tetrahedrites rich in Hg and Ag (a_o >10,42 Å) are concentrated in its periphery. Their association with barite and primary cinnabar made possible the delineation of the apomagmatic zone.

P. CERNY: Druhy vyskyt hawleyitu - βCdS. (A second occurrence of hawleyite - βCdS.) Casopis pro mineralogii a geologii, 2, 13-16, Praha 1957.

Hawleyite, βCdS, occurs in a mixture with αCdS (greenockite), both products of the decomposition of sphalerite, in hydrothermally altered Tertiary andesite at Bocnik hill near Bojkovice, southeastern Moravia, Czechoslovakia.

V. BOUSKA: Zmena mrizkove konstanty Hg tetraedritu vlivem ruzneho chemickeho slozeni. Vyzkum nerostu tetraedritove skupiny II. (The change in the lattice constant of mercurian tetrahedrites as a result of variation in chemical composition. Investigation of minerals of the tetrahedrite group II.) Czech with Russian and English summaries. Rozpravy Csl. Akad. ved, 66, No. 13, 1-30, Praha 1956.

Twenty samples of tetrahedrite were studied. The lattice constant increases with increasing Hg-content, so far as its influence is not compensated by arsenic. In agreement with Machatschki the author postulates that Ag and Bi increase the lattice constant of tetrahedrite. With increasing Hg an increase in the density also occurs:

Variation of A_o and S.G. of Tetrahedrite with Hg-content

A_o	Hg	Ag	S.G.
10.296	1.10%		
10.311	1.22		
10.308	1.63		4.68
10.307	1.75		
10.361	1.87		4.80
10.340	2.27		4.72
10.366	2.66		
10.354	2.69		4.82
10.368	6.20	0.047	4.84
10.371	6.75		4.94
10.474	8.55		5.22
10.38	8.76 (9.0)	0.074	5.08
10.409	9.95		
10.440	12.40	0.262	5.07
10.453	18.18 (17.2)	0.104	5.29

High arsenic compensates effect of Hg, which probably explains lack of strict correlation of properties with Hg content.

F. NOVAK: Vyskyt sfaleritu u Vapenky v Zelezynch horach. (Das Vorkommen von Zinkblende bein Vapenka in Zelezne Hory.) Casopis pro mineralogii a geologii, 2, 76, Praha 1957.

Discussion of qualitative spectral analyses of sphalerite from quartz veinlets in schists in which also occur arsenopyrite, galena, pyrite, marcasite, pyrrhotite, and chalcopyrite. In sphalerite elements determined (besides Zn) are: Cd, Fe , Hg, In, Si, Ag, Al, Ca, Cu, Mg, Mn, Pb, and Sb. The contents of Si, Al, Ca, Mg, and some Fe and Mn result from included hornblende and quartz. Ag, Cu, and Pb belong to other admixed sulfides. Of interest with respect to the temperature of formation is the copresence of Hg and In, similar to that in sphalerite from Chvaletice in the same region.

L. ZAK: Alabandin z Litosic v Zelezynch horach. (Alabandite from Litosice in the Zelezne Hory, E. Bohemia.) Czech with Russian and English summaries. Rozpravy Csl. Akademie ved, 66, No. 13, 49-78, Praha 1956.

Green alabandite contains Ge, Mg, and Si as minor constituents and Al, Ca, Cu, Fe, Ga, Na, and Pb as trace elements. Ge and Ga probably occur within the structure. MnS may have formed in opal gel below 100° C, which may have protected the MnS from oxidation and produced the green color. Brown to black alabandite probably contains Mn^{+4}. Succession of the minerals; rhodochrosite I, rhodochrosite II, alabandite I, opal, alabandite II, neotocite, rhodochrosite III, rhodochrosite IV, chalcedony, pyrite, ankerite, and quartz.

V. HANUS: Mineralogie a geochemie Cu-Pb-Zn zily s chalkosinem a willemitem u Vrancic na Pribramsku. (The mineralogy and geochemistry of the Cu-Pb-Zn deposit of Vrancice, with chalcocite and willemite, in the Pribram region.) Czech with Russian and English summaries. Sbornik Ustr. ustavu geologickeho, 22, 69-143, Praha 1956.

Combination of ore microscopic results and spectral analyses in the study of the development of an ore vein, which is concluded to be hypogene.

ZD. POUBA and ZD. VEJNAR: Polymetalicke rudni zily u Jasenie v Nizkych Tatrach. (Polymetallic ore veins at Jasenie in Nizke Tatry.) Czech with Russian and English summaries. Sbornik Ustr. ustavu geologickeho, 22, 485-555, Praha 1956.

Application of spectral analyses of ore minerals in the genetic study of an ore deposit in Slovakia. It is concluded that the deposits are hydrothermal and that they are related to a large magmatic body which also gave rise to the deposits of the Spis-Gemer district.

ZD. PACAL: Prispevek k problemu vlivu "lanthanidove Kontrakce" na geochemii hafnia, tantalu a wolframu. (A contribution to the problem of the influence of the "lanthanide contract" upon the geochemistry of hafnium, tantalum and tungsten.) Czech with English summary. Vestnik Ustr. ustavu geologickeho, 32, 41-47, Praha 1957.

Discussion on this article by J. Novak and J. Kutina will appear in the same bulletin. Cf. also Geochim. et Cosmochim. Acta, 11, 140, 1957.

DEVELOPMENT OF GEOCHEMICAL RESEARCH IN CZECHOSLOVAKIA

By

Z. Pacal

Very little geochemical research took place in Czechoslovakia before the second world war, with the exception of the studies of F. Slavik, F. Ulrich, V. Rosicky, J. Kokta, among others. After the war geochemical research began to expand. Charles University in Prague has a geochemistry department attached to the chair of mineralogy. Studies of hydrothermal processes of ore deposition are in progress, as well as other studies related to mineral deposits (J. Kutina, L. Zak).

At the College of Chemical Technology, (VSCHT) where J. Kaspar is professor of mineralogy, various geochemical problems are under study, relating to mineral raw materials, synthetic crystals, and quality of water.

At Masaryk University in Brno, Prof. J. Sekaniny is in charge of mineralogy, working primarily on the minerals of Moravian pegmatites and non-ferrous ore deposits. In the geology department Prof. K. Zapletal is engaged in studies of hydrochemical problems and skarn formation, among others.

At the School of Mines in Ostrava (Prof. J. Kokta) studies on ultra basic rocks and distribution of trace elements are in progress. Prof. B. Cambela at the mineral resources chair at Komensky University in Bratislava is studying pyritic ore deposits in districts in Slovakia. The department of geology and mineral resources at the School of Technology in Kosice (Prof. J. Salat) is investigating petrochemical problems related to eastern Slovakia.

In 1954 a division of petrology and geochemistry was organized by the Czechoslovakian Academy of Science under Dr. F. Fiala. Major studies include the fields of igneous petrology, geochemistry of titanium in sediments, geochemistry of vanadium, studies in geochronology, and stable isotope distribution, among others.

A branch in Brno is engaged in studies of Moravian ultrabasic rocks.

The D. Stur Institute of Geology in Bratislava (J. Kantor) is engaged in problems of ores and ultrabasic rocks and also has begun studies of age determination by the Rb/Sr method. The Institute of Mineral Research of the Ministry of Mines at Kutna Hora is engaged in spectrochemical and other studies related to ore deposits, and the various laboratories of the Ministry of Fuels are engaged in geochemical studies on coal and petroleum.

The bibliography of all this work can be found in Mineralogical and Geological Bibliography of Czechoslovakia, published annually since 1928. Geochemical papers usually appear in the publications of the Academy of Sciences, in the Journal of the Czechoslovakian Society for Mineralogy and Geology, and in the journals of the various schools. Of the major works, noteworthy are, Origin and Occurrence of Minerals by the late F. Slavik in 1952, and Mineral Raw Materials by J. V. Kaspar in 1954. (N.B.: in Czech.)

TRANSLATION SERVICES

By

Earl Ingerson

With the great surge of publication in Eastern Europe and Asia and the more general availability of journals from most of these countries, several organizations have been set up in the United States to make and distribute translations of technical articles, especially those in languages other than the principal western ones. The services described below have come to the attention of The Geochemical News and it is considered that many members of The Geochemical Society would like information on where and how to order translations that have been made, or to request special translations of articles.

The Translation Monthly collects translations and makes copies available at $1.40 per seven photostat pages or fraction thereof, plus $0.70 service charge per translation, or on microfilm at $0.70 per 25 pages or fraction thereof, plus the $0.70 service charge. Lists of translations available, subscriptions to Translation Monthly, and further information can be obtained by writing to: SLA Translation Monthly, The John Crerar Library, 86 East Randolph St., Chicago 1, Illinois.

This service does not make translations and so is dependent upon other organizations for them. Persons having translations of technical articles from obscure journals or languages are urged to send duplicate copies, or if these are not available, to send in the original on loan until it can be copied and returned. (See list elsewhere in this issue for translations of articles in geochemistry, mineralogy, and petrology recently submitted to Translation Monthly and now available.)

The Pergamon Institute is a non-profit foundation devoted to the dissemination of scientific knowledge. Two of its activities are of immediate interest to geochemists:

1. Establishment of a cost-sharing translation service in which one-third of the original cost is borne by the Institute; two-thirds by those desiring the translations. If only one organization desires a translation it pays the full two-thirds of the cost (maximum of $4.00 per 1,000 Russian words); if two or more desire copies the cost to each comes down proportionately.

2. To publish a journal devoted to reporting translation work done anywhere in the world from Russian and other Slavonic languages into English in the fields of science, technology, and medicine.

Also, the Institute is translating certain technical journals from the Russian, which are published by Pergamon Press. The one of most interest to earth sciences is the Geophysical Series of Izvestia, which is being published with the cooperation of the American Geophysical Union and the National Science Foundation. The Subscription price is $75.00 per year.

Further information on any of these activities can be obtained by writing to: Pergamon Institute, 122 E. 55th St., New York, N.Y.

Associated Technical Services, P.O. Box 271, East Orange, New Jersey, prepares and sells translations of technical articles and books. Seriously interested persons may receive current lists of offerings free of charge; a complete list of their translations may be purchased for $2.50. They are sending sample lists to the members of the Geochemical Society. Available translations sell for $0.25 to $0.40 per hundred words and additional copies of a given article are approximately 40% of the price of the first copy. Translations made on order are considerably more expensive. Associated Technical Services also does literature research on requested technical topics, covering up to 25 languages.

Consultants Bureau, Inc., 227 W. 17th St., New York 11, N.Y., specializes in translating entire journals as they are published, and selling subscriptions to them. Depending on numbers of pages, numbers of subscribers, financial assistance, etc., prices range from about $20.00 to $200.00 for the various journals. Journals of particular interest in geochemistry currently available are the Section of Geochemistry of the Doklady ($15.00 per year) and the new journal, GEOKHIMIYA ($80.00 per year). They also translate symposia, conference papers, and other non-periodic scientific publications. Prices for special request translations range from $20.00 to $30.00 per 1,000 words, depending on the language.

Prices of single issues of journals also vary and are more expensive per page than regular subscriptions (some sell for $10.00 per issue). Individual articles from the Doklady are $5.00 each; from most other journals $7.50, which makes the shorter papers (less than about 5 pages) more expensive than those from Associated Technical Services, but the longer ones are less expensive per page.

Research Information Service, 53 Nassau St., New York 38, N.Y., sells first copies of translations at approximately $0.70 per hundred words; second copies are about 60% of this value, subsequent copies, about 40% of the price of the first copy. They specialize in chemical and physical literature, particularly patents, but have some translations of geochemical interest.

The above-mentioned translation services are those that are known to have currently available translations of geochemical interests. Translating has grown to such proportions that most of the larger cities now have several services available (look under "Translators" in classified telephone directories).

TRANSLATIONS OF INTEREST TO GEOCHEMISTS

Copies of 72 translations of articles in geochemistry, petrology, and mineralogy have recently been submitted to the Translation Monthly. The titles of these articles are given below. Copies can be obtained from the Translation Monthly under the conditions and from the address given elsewhere in this issue under "Translation Services." If copies are desired for reading and/or abstracting they can be borrowed by writing to Earl Ingerson, U.S. Geological Survey, Washington 25, D.C.

ARKHANGELSKII, A.D. and KOPCHENOVA, E.V.: In reference to dependence of chemical composition of sedimentary iron ores on conditions of their formation. 30 typed pages.

BARSUKOV, V.L. and PAVLENKO, L.I.: The distribution of tin in granitoid rocks. 10 typed pages.

BEUS, A.A.: On the isomorphism of beryllium in connection with its dispersion and concentration. 9 typed pages.

BEUS, A.A. and FEDORCHUK, S.N.: The clarke of beryllium in granitic pegmatites. 12 typed pages.

BEUS, A.A. and SAZHINA, L.I.: The clarke of beryllium in acid magmatic rocks of U.S.S.R. 7 typed pages.

BORODIN, L.S.: On some characteristics of the concentration of niobium in nepheline syenites. 5 typed pages.

BORODIN, L.S.: On the distribution of beryllium in the Khibina alkalic massif and on the clarke of beryllium in nepheline syenites. 5 typed pages.

BOTVINKIN, O.K. and POPOVA, T.A.: Diagram of the fusibility of the system Na_2SiO_3-Mg_2SiO_4-SiO_2. 10 typed pages.

BRUEVICH, S.V.: Concerning the geochemistry of silicon in the sea. 27 typed pages.

BURYANOVA, E.Z. and KOMKOV, A.I.: A new mineral - ferroselite. 5 typed pages.

BUTUZOV, V.P. and IKORNIKOVA, N. Iu.: Liquid inclusions in artificial quartz. 5 typed pages.

CHENTSOV, I.G.: In reference to the form of the entry of uranium into phosphate rock. 5 typed pages.

DONTSOVA, E.I.: Investigation of the conditions for the formation of some minerals by the isotope method. 4 typed pages.

DORFMAN, M.D.: On the question of determination of the origin of beryl. 3 typed pages.

GINZBURG, A.I.: Some peculiarities of the geochemistry of tantalum and on types of tantalum mineralization. 22 typed pages.

ICHIMURA, Takeshi: Igneous rocks and igneous activities in Taiwan. 61 typed pages.

IVANTISHIN, M.M.: Topazes in Korosten pegmatites. 26 typed pages.

KAKIHANA, Hidetake: Qualitative spectroscopic analysis of flue dusts, mainly produced in Japan. I. The flue dusts containing germanium. 11 typed pages.

KAKIHANA, Hidetake: Qualitative spectrographic analysis of flue dusts, mainly produced in Japan. III. Indium. 10 typed pages.

KALIUZHNYI, V.A.: Liquid inclusions in minerals as a geological barometer. 45 typed pages.

KARIAKIN, A.E.: On the origin of quartz crystal vugs. 6 typed pages.

KARPINSKII, A.: On the occurrence of inclusions of liquid carbon dioxide in mineral substances. 35 typed pages.

KATAYAMA, Nobuo: On some germanium resources: the results accomplished by the researching committee of raw material of semiconductor. 17 typed pages.

KATCHENKOV, S.M.: On some general regularities of the accumulation of mineral elements in petroleum and hard coals. 10 typed pages.

KAZAKOV, A.V. and SOKOLOVA, E.I.: Conditions of the formation of fluorite in sedimentary rocks (the fluorite system). 90 typed pages.

KHITAROV, N.I.: The state of the residual magmatic solution according to experimental data. 13 typed pages.

KHITAROV, N.I. and IVANOV, L.A.: Investigations in the field of critical temperatures of aqueous solutions. 15 typed pages.

KHITAROV, N.I., IVANOV, L.A. and ROTMAN, L.E.: Toward a knowledge of critical phenomena in natural processes. 11 typed pages.

KHITAROV, N.I. and RENGARTEN, E.V.: On the subject of geochemistry of carbonic acid in granitic instrusion. 9 typed pages.

KIMURA, K., and KOYAMA, Y.: Spectrographic detection of gallium, germanium, indium, rhenium and thallium in various Japanese minerals (Chemical study of the oriental ores containing rate elements, XXII). 14 typed pages.

KIMURA, K. and TANAKA, K.: Chemical research on the rare minerals produced in the Orient (25). The chemical analysis of zircon from Chinpyong-Ni and Pokchin-San, Korea. With a supplement on the hafnium content in the Japanese zirconium minerals. 7 typed pages.

KINOSHITA, K. and MUTA, K.: Minor elements in minerals from the Epithermal Deposits. 30 typed pages.
KONDA, Tadashi: Neogene volcanic rocks of Tazawa District. 23 typed pages.
KONTA, Jiri: Temperature of crystallization of minerals from Cinovec. 22 typed pages.
KROTOV, B.P.: Precipitation of iron and manganese hydroxides in lakes. 13 typed pages.
KURTSEVA, N.N.: New data on the slag pyroxenes of the series $FeSiO_3$-$MgSiO_3$. 7 typed pages.
KUZNETSOV, E.A.: Some problems of the petrography of the Ural Mountains. 16 typed pages.
LARS'KO, E.M.: Concerning the possibility of utilizing liquid inclusions in minerals for determining the pressure during process of mineral formation. 13 typed pages.
LEMMLEIN, G.G. and KLIIA, M.O.: Distinctive features of the healing of a crack in a crystal under conditions of declining temperature. 8 typed pages.
LEMMLEIN, G.G. and KLIIA, M.O.: New data on the deposition of crystal substance on the walls of cavities of liquid inclusions. 11 typed pages.
LESNIAK, V.F.: Temperature conditions in the formation of a zinc-lead deposit in Caucasus. 26 typed pages.
LIN, Tsan-sheng: Chemical composition of the mud ejected from the Kun-Shui-P'ing mud volcano in Chiao-Tzu-Tou, Kao-Hsing Prefecture, Taiwan. 7 typed pages.
MALIUGA, D.P.: On biogeochemical provinces in the Southern Urals. 6 typed pages.
MANSKAI, S.M., DROZDOVA, T.V. and EMELIANOVA, M.P.: Binding of uranium by humine acids and by melanoidines. 37 typed pages.
MANUILOVA, N.S.: Crystalline phases in the system Na_2O - MgO - SiO_2. 10 typed pages.
OSTROVSKII, I.A.: On the physico-chemistry of binary systems with volatile components. 9 typed pages.
RUKAVISHNIKOVA, I.A.: Some magnesium-nickel hydrous silicates of the Nizhna-Tagilsk serpentine massif. 5 typed pages.
SINDEEVA, N.D.: A geochemical prospecting method for pyrite deposits. 2 typed pages.
SORSKII, A.A.: On the mechanism of the tectonic lensing of rocks. 6 typed pages.
SUDOVIKOV, N.G.: Structure of Ladoga formation. 76 typed pages.
SUKHORSKII, R.F.: A communication of temperatures of formation of transparent calcite from Trans-Carpathian Region. 8 typed pages.
STRAHOV, N.M.: Distribution of iron in sediments of lake and marine basins and the controlling factors. 102 typed pages.
TANEDA, S. and YAMOGUCHI M.: Geological and petrological studies on the Aono volcano group. 31 typed pages.
TEIS, R.V.: Isotopic composition of oxygen in carbonates and its thermal variations. 6 typed pages.
TEIS, R.V.: Isotopic composition of oxygen in organic compounds of vegetative origin. 6 typed pages.
TCHAIKOVSKII, S.A.: Phenomena of the overheating of liquid inclusions in minerals. 6 typed pages.
VAINSHTEIN, E.E., TUGARINOV, A.I. and TURANSKAYA, N.V.: The distribution of rare earths in granitoid monazites. 4 typed pages.
VAINSHTEIN, E.E., TUGARINOV, A.I. and TURANSKAYA, N.V.: On regularities in the distribution of rare earths in certain minerals. 18 typed pages.
VEDENEEVA, N.E. and CHENTSOVA, L.G.: Regularities in disintegration of the coloring centers in the smoky quartz crystals. 7 typed pages.
VERNADSKY, W.I.: The biosphere and the neosphere. 13 typed pages.
VINOGRADOV, A.P. and DONTSOVA, E.I.: Isotopic composition of the oxygen of alumino-silicate rocks. 4 typed pages.
VINOGRADOV, A.P. and DONTSOVA, E.I.: Isotopic composition of oxygen in minerals of a skarn origin. 8 typed pages.
VINOGRADOV, A.P. and DONTSOVA, E.I.: Isotopic composition of the oxygen of some minerals. 4 typed pages.
VIROVLIANSKII, G.M.: Quartz as a geologic thermometer. 15 typed pages.
VOITKEVICH, G.V.: Concerning the age of the earth. 8 typed pages.
VOITKEVICH, G.V.: The radioactivity of potassium and the thermal regime of the earth (condition balance). 7 typed pages.
YAGI, Kenzo: Petrochemical studies on rocks of New Guinea, I. The garnet-biotite migmatite from the Ransiki River, Anggi Region. 18 typed pages.
YAKUBOVA, V.V.: An attempt at study of inclusions in minerals of Murzinka (Ural) pegmatites. 37 typed pages.
YARZHEMSKII, Y.Y.: Kurgantaite - a new borate mineral. 18 typed pages.
YATZIMIRSKII, K.B.: On the subject of free energy and entropy changes in reactions of complex-formation. 7 typed pages.
ZAKHARCHENKO, A.I.: Results of study of liquid inclusions in quartz. 21 typed pages.
ZHIROV, K.K.: On the transition of zircon into the metamict state. 6 typed pages.
ZVIAGINTZEV, O.E.: On geochemistry of palladium. 18 typed pages.

ANNUAL MEETING OF THE GEOCHEMICAL SOCIETY

The annual meeting of the Society will be held at Atlantic City, New Jersey, November 4-6, 1957 (see the Geochemical News, No. 6, pp. 1-2, 1957), in conjunction with the meeting of the Geological Society of America and associated societies. An extensive program of geochemical papers is indicated. Over fifty abstracts were submitted by the end of July. Copies of the official program and abstracts will be mailed to members prior to the meeting. The annual business meeting of The Geochemical Society will be held at 4:30 P.M. November 4. The place of the meeting will be given in the program.

John C. Maxwell, Secretary

THE ION-EXCHANGE COLUMN

Doak Cox, Principal Geophysicist at the Experiment Station of the Hawaiian Sugar Planters' Association (Honolulu, Hawaii, U.S.A.), and a former classmate of the editor's, writes to indicate among other things, "...the nature of my interest in geochemistry....chiefly it is the chemistry of ground-water, particularly in the Herzkerg bodies of fresh ground water floating on salt water from which we derive our principal ground water supplies in Hawaii", and "To protest that Hawaii is not a foreign country as suggested in your tabulation on p. 5, Geochem. News, No. 6."

Greetings and thanks to you, Doak, and may your supply of Herzkergite continue to be ample and non-crystalline! The list status of Hawaii was fixed by one of our eminent Washington geochemical correspondents who doubtless was only being exceedingly careful not to be accused of lobbying (end of the fiscal year and all that) in the annual legislative merry-go-round on which our Congressmen ride Hawaii (and Alaska) out of, and right back into, its political limbo. If Senators can't decide where to put Hawaii, what is a mere editor to do?

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This is intended as an "end-of-the-field-season" issue, for it is designed to reach the membership by late August or early September. The editorial work, however, is being done in mid-July, in the state of Wyoming, with the Teton Mountains practically around the corner. To the editor, in nearly 20 consecutive seasons in the field, the western United States (New Mexico, Colorado, South Dakota, and Wyoming, so far) has far greener valleys and much whiter peaks than have appeared for some 14-15 years--a blessed event.

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Don't forget the XIth General Assembly of the International Union of Geodesy and Geophysics in Toronto, Ontario, Canada, Sept. 3-14, 1957; or the Sixth Commonwealth Mining and Metallurgical Congress, Canada, Sept.-Oct., 1957. (Write C.C. Huston, 2001-80 Richmond St., W., Toronto, Ontario, Canada.)

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Sand in the Gears of Learning Department (selected excerpts from examinations in elementary geology):

"Graphite--a slower in atomic pills."
"Faults are expressways for water."
"Evidence of tensional fault is seen by the slickensides and fault scrap."
"Erosion, slowly but surely, reduced these mountains to a mere penoplane."
"Property of biotite--sheetly."
"Property of calcite--feces with acid."

E. Wm. Heinrich
Editor

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