The Geochemical News

Number 63 May 1983

A Letter From the President

GEOCHEMICAL SOCIETY MEMBERS:

It's that time again when the new president reports, exhorts, and often transports you (to the nearest waste basket) with the annual presidential letter. Here's my two cents. The major thing to report is that, as a result of the vote of the membership, starting next November both the President and Vice President of the Geochemical Society will serve for two years, instead of one as it now is. This means that the present Vice President, Hubert Barnes, will be our first two-year president. This, I feel, is an important improvement. Every year there is a big hiatus between the old and new presidents with the old left with a pile of unfinished business and the new coming in without a general sense of what has been transpiring. It takes a while to become used to the job and it seems that as soon as that happens, the new President has become the past President. With a two year term there should be less of this and, in addition, two years should provide more time for the Vice President to learn the ropes and be able to move more smoothly into the presidency.

Another thing to report is that the By-Laws are undergoing an extensive review with an eye toward updating them and revising them so that there will be better overall agreement between what is done and what is supposed to be done. This job has not been performed for some time. Please send us any comments or complaints about the running of the Society; this is a good time for it.

Now for the exhortation. One of the most important tasks of the Geochemical Society is to present its awards each year to outstanding geochemists. Much time and effort goes into this (last year there were over 20 candidates for the Goldschmidt Medal alone) and I personally have found that the award and acceptance speeches generally are extremely interesting and informative. (For example, I remember a few years back the Goldschmidt medalist, Hans Suess, relating experiences he had shared with V.M. Goldschmidt himself, but, unfortunately, it was delivered to an audience of only about 10 - 15 people). To try to increase attendance, we are attempting to shift the time of the awards ceremony so that it will not conflict with other activities of interest to geochemists, such as the MSA Presidential address, as was the case at the last GSA. But this won't help without more interest on the part of the membership. So please attend; you won't regret it.

Finally, for the transport (to the wastebasket) section. I'd like to register a complaint about the definition of geochemistry as expressed in most dictionaries. For example, in Webster's New Collegiate Dictionary (1981), geochemistry is defined as "A science that deals with the chemical composition and chemical changes in the crust of the earth." A similar definition appears in the 1982 New World Dictionary of the American Language. This isn't exactly what many geochemists study. What about such fields as mantle petrology, chemical oceanography, planetology, biogeochemistry, geochronology, and air chemistry? All such fields considerably overlap what we commonly feel is represented by the word geochemistry, but none would normally be included in the dictionary definition. I propose that an updated, much broader definition, along the lines of Article II in our own Constitution, be used. How about, "the science which applies chemistry to the study of the earth and the cosmos"? Has anyone a better definition? If we can agree amongst ourselves, then maybe we can set the dictionaries straight.

Robert A. Berner
President

Meetings and Symposia, 1983

10th INTERNATIONAL GEOCHEMICAL EXPLORATION SYMPOSIUM and Third Symposium on Methods of Applied Geochemistry - Joint Symposium AEG-IAGC.
August 28 - September 2, Helsinki (Finland).
Address: Dr. A Bjorklund, Geological Survey of Finland, SF-02150 ESPOO 15 Finland.

4th INTERNATIONAL SYMPOSIUM ON WATER-ROCK INTERACTION organized by the Institute for Thermal Spring Research, Okayama University, the Geochemical Society of Japan and the Geothermal Research Society of Japan, sponsored by IAGC.
August 29 - September 9, Misasa (Japan).
Circular available from Prof. Hitoshi Sakai, Institute for Thermal Spring Research, Okayama University, Misasa, Tottori-ken 682-02 (Japan).

SYMPOSIUM "FROM ASTEROIDS TO METEORITES": sponsored by IAGC; to be held in conjuction with the 46th Annual Meeting of the Meteoritical Society.
September 5 - 9, Mainz (West Germany).
Address: Prof. H. Wanke, Max Planck Institut fur Chemie, Abteilung Kosmochemie, Saarstrasse, 23 - 6500 Mainz (West Germany).

GEOCHEMICAL SOCIETY 1983 ANNUAL MEETING: Held in conjunction with the Annual Meeting of the Geological Society of America in Indianapolis, October 31 through November 3. In addition to the usual sessions and the awards ceremony, the Geochemical Society will co-sponsor the TENTH ANNUAL SYMPOSIUM ON GEOCHEMICAL CYCLES on Sunday, October 30. (First circular on page 9).

Visiting Councilors

NON-NORTH AMERICA COUNCILOR VISITS BIG SUCCESS

Two of the three councilors from outside North America attended the Council meeting of the Society in New Orleans on October 17, 1982. Yehoshua Kolodny and Werner Schreyer also both presented talks at the Annual meeting.

After the meeting Kolodny gave talks at ARCO-Dallas, UCLA, Caltech, and U.S.G.S. - Menlo Park (and visited Univ. Calif. Santa Cruz on the weekend). Prior to the meeting Schreyer gave talks to the Petrology Club-Geophysical Laboratory, Geological Society of Washington, U.S.G.S.-Reston and the University of Chicago. Each councilor was asked to give impressions of his experience.

Kolodny:

To sum up - it was certainly a very beneficial trip as far as I am concerned. In less than two weeks' time I had a chance to test our results and ideas on a very impressive audience. Taking into account the degree of isolation one certainly suffers from in Jerusalem, that is no small achievement in itself. I came back with the impression that it was not a total waste for my U.S. audiences either. But, of course, you probably have better judges than me for that side of the story. Thanks again for your hospitality, cooperation, and kindness.

Schreyer:

I also think that the whole trip was a great success, certainly scientifically with regard to the discussions I got on our various ongoing research projects. I do feel very strongly that this arrangement of the Geochemical Society is most fruitful, certainly for the overseas councilors. I do hope that it is reciprocal.

The many favorable responses received indicate the visits were very worthwhile to the many that were exposed to these talks, and that the value was indeed two ways. A tangible piece of appreciation is shown by Werner Schreyer winning the Bradley Prize of $200.00 from the Geological Society of Washington for best paper of 1982!

Past-President Doe says, "I must admit I had some reservations when the Council voted to undertake this project which is among the most expensive the Society does. The success, however, exceeds anyone's wildest expectations. The interesting thing is that as people become more aware of the project, the value will probably even increase!

In connection with the November 1983 Council meeting in Indianapolis, Hugh Taylor has already set a schedule for Schreyer to start lectures at University of British Columbia and work his way south along the coast. Bruce Doe is making arrangements for Kolodny to take an eastern tour. Doe's address is MS 981, U.S. Geological Survey, Reston, VA 22092 (Tel. 703-860-6591).

The third Non-North American Councilor - Sadao Matsuo - plans to attend the spring Council meeting prior to the AGU annual meeting in Baltimore. His firm schedule is to give talks at the Geological Society of Washington (May 25), and U.S.G.S.-Reston (May 26,27) on:

May 25 Amount and quality of the early terrestrial atmosphere and its subsequent evolution.

May 26 Fluid inclusion study on hydrothermal quartz

May 27 Geochemical observations on post-eruptive activity of the Usu volcano, Hokkaido, Japan, since August 1977.

After the Council meeting, he will visit the Sandia Laboratories at Albuquerque and the U.S.G.S.-Denver.

Those institutions interested in participating in this project in the future are reminded that the Society provides each Non-North American Councilor with one round trip airplane ticket per year to a council meeting. The institutions wishing a visit from one of these Councilors are responsible for travel to their institution and per diem expenses.

International Association of Geochemistry and Cosmochemistry

The Geochemical Society is a non-voting corporate member of the IAGC. The following items of special interest to our members are excerpted from the IAGC Newsletter 15 (October 1982).

New Working Groups (W.G.)

A. INTERNATIONAL STANDARDS

Subsequent to the decisions of the last Council meeting and as a result of the correspondence between V. Barsukov and K. Govindaraju (Editor-in-Chief of Geostandards Newsletter), H. Wanke was appointed to the editorial board of Geostandards Newsletter as approved by IAGC Council members. Moreover, a letter from V. Barsukov will be published in this newsletter. There were numerous replies to the invitation for the creation of such a W.G. which showed the interest of many scientists. It was agreed that such a W.G. should first aim at compiling a list of standards available by searching the literature and getting in contact with the laboratories which prepared them. UNESCO funds may be available for such an activity. The Council suggested that K. Govindaraju be asked to chair this W.G. and to contact some individuals who replied to the letter, such as F. Flanagan, Th. Hugi, G.R. Argent, C. Ingamells, B. Doe.

B. INTERNATIONAL TEACHING OF GEOCHEMISTRY W.G.

A first circular on the possibility for this W.G. to organize an annual seminar on applied geochemistry was sent to several developing countries in agreement with the decisions taken at the Irkutsk Council meeting. Ethiopia and Brazil have shown real interest. The organization of such a seminar in Ethiopia in 1983 or 1984 might represent a first experience for this W.G. The council members suggested the involvement of existing IAGC W.G., such as the ones on laterites and applied geochemistry and isotopic geochemistry. These W.G. will be asked to identify experts and to prepare a tentative program for the seminar. The chairmen of these groups (J. Goni, L. Tauson, Y. Aswatharayana) will be contacted by F. Ryigenko, who will be asked also to attend the AEG and IAGC joint symposium in Helsinki in 1983 to discuss this problem with the scientists present and to determine the experts who could present geochemical letures in Ethiopia at the proper level.

U.S. National Committee for Geochemistry - Structure and Goals

The U.S. National Committee for Geochemistry (USNC/Geochemistry) was established by the National Academy of Sciences in 1967 to provide a liaison between the academy's working arm, the National Research Council (NRC), and the national and international community of geochemists. The major purposes of the Committee are 1) to promote the advancement of geochemistry in the United States and internationally, 2) to provide a national group to speak for the diverse interests represented in geochemistry, and 3) to effect an appropriate participation by the United States in international activities in geochemistry primarily through affiliation with the International Association for Geochemistry and Cosmochemistry (IAGC).

Within this context, the U.S. National Committee for Geochemistry is constituted to perform the following functions: 1) to provide advice to the President of the National Academy of Sciences, to agencies of the Federal government at their request, and to the U.S. geochemical community and the Nation at large on matters concerning geochemistry and on U.S. participation in international activities in geochemistry, 2) to promote international cooperation in geochemistry, 3) to inform U.S. geochemists of such international activities and of foreign scientific and technical developments in geochemistry, 4) to nominate U.S. representatives to meetings of the IAGC and to provide information and guidance to such representatives, 5) to plan and sponsor scientific meetings of an international character in the United States in accordance with objectives of the IAGC and in cooperation with other U.S. organizations with interests in geochemistry and related fields, 6) to perform duties appropriate to a national committee of the IAGC, and 7) to perform any other functions as appropriate for the benefit and advancement of geochemistry nationally and internationally.

The U.S. National Committee for Geochemistry consists of ten members who are appointed to serve three years with about one-third of the membership retiring at the end of June each year. An effort is made in selecting nominees for membership on the Committee to provide representation for the major sub-fields of geochemistry. Coordination with the IAGC is accomplished through an IAGC council member, currently George W. Wetherill of the Carnegie Institution of Washington, who, as IAGC past President, serves as the Committee's direct link with the IAGC Executive Committee and Council. Presently, the USNC/Geochemistry membership is as follows: V. Rama Murthy (Chairman), University of Minnesota; Keith A. Kvenvolden (Vice Chairman), U.S. Geological Survey, Menlo Park; Larry W. Finger, Carnegie Institution of Washington; David A. Hewitt, Virginia Polytechnic Institute and State University; John R. Holloway, Arizona State University; Everett A. Jenne, Battelle Pacific Northwest Laboratories; Fred J. MacKenzie, University of Hawaii at Manoa; Jill D. Pasteris, Washington University; and Peter J. Wyllie, University of Chicago.

The Committee meets twice a year, usually in conjunction with the spring meeting of the American Geophysical Union and the annual fall meeting of the Geological Society of America. In addition to Committee members and the IAGC representative, these meetings are attended by liaison members and representatives from government agencies including the National Science Foundation, the Department of Energy, the U.S. Geological Survey, and the National Research Council.

Some recent activities of the Committee have included the following: A workshop on Basic Research in Organic Geochemistry Applied to National Energy Needs was organized at the University of South Florida, St. Petersburg, December 15-17, 1980. The proceedings of this workshop are published. An ad hoc committee of the USNC/Geochemistry, chaired by E.A. Jenne, with members R.J. Vidale, A.W. Rose, H.L. Barnes and D. Langmuir, reviewed the DOE report Status of Technology for Isolating High-level Radioactive Wastes in Geological Repositories. A symposium entitled "Multiple Fluid Flow in Crystalline Rocks at Elevated Temperatures" is being planned by Maria Luisa Crawford at the fall Annual GSA Meeting in 1983. The purpose of this symposium is to bring together some overviews of fluid flow processes and the physical, chemical, and kinetic factors governing flow, as well as to provide an opportunity for "state of the art" presentations of current research in this broad area.

The USNC/Geochemistry solicits your ideas, views, and comments, which should be sent to V. Rama Murthy, Department of Geology and Geophysics, University of Minnesota, Minneapolis, Minnesota 55455, telephone (612) 373-4136.

Continental Scientific Drilling

James E. Hall of Dalhousie University reports that some papers on the Cyprus Crustal Study Project will be presented in Special Session 9, "Deep ocean mineral deposits and the Cyprus Project" at the joint annual meeting of the GAC, MAC, and CGU at Victoria, British Columbia, to be jeld May 11-13, 1983. First public release of the results of the research drilling will appear in a series of articles in Nature. Following these, core will become available to others not currently in the program for follow-on studies as in the case of DSDP samples.

Professor Werner Schreyer, University of Bochum, reports that geoscientists in the Federal Republic of Germany are engaged in the planning phase of a Deep Continental Drilling Program, which hopefully will be financed largely through the Federal Government. The actual drilling may start in 1986-87 and final depths of 8-10 kilometers are envisaged. The principal geoscientific goal is to obtain more insight into the nature of the middle and lower continental crust within the Hercynian Mountain Belt and to learn about its architecture as a result of crustal growth. The chance to obtain deep crustal samples from their present environment and to make direct measurements in these depths is of profound interest for both geophysicists and geochemists. A geochemical working group was established during 1982, which plans investigations within the bore hole such as continuous routine rock analyses for major, minor, trace, and ultratrace elements and studies on the coexisting fluids as a function of depth. Possible variations of the redox potential, of stable isotope compositions, and of radiogenic isotope systems are to be determined as well as hydrothermal in situ rock alteration and perhaps local sulfide deposition. Even organic geochemists may get interested in deep crustal fluids provided uncontaminated samples can be obtained. International participation is invited. The Chairman of the Geochemistry Working Group is R. Emmermann, Mineralogisch-Petrologisches Institut der Universitat, Senckenbergstrasse 3, D6300, Giessen, West Germany.

Garrels Symposium At Harvard

The Department of Geological Sciences at Harvard University held a symposium entitled "Sediments, Ores and Cycles" in honor of Robert M. Garrels on 23 and 24 April 1983. The speakers included R.A. Berner (Yale University), H.C. Helgeson (University of California, Berkeley), W.T. Holser (University of New Mexico), A.C. Lasaga (The Pennsylvania State University), A. Lerman (Northwestern University), F.T. Mackenzie (University of Hawaii), U. Peterson (Harvard University), M. Pourbaix (Free University of Brussels), R. Siever (Harvard University), B.J. Skinner (Yale University), Y. Tardy (University of Strasbourg), R. Wollast (Free University of Brussels) and R.M. Garrels (University of South Florida). A reception and dinner were held at the Harvard Faculty Club on the evening of April 23rd; the speaker was Dr. D.L. Peck, Director of the United States Geological Survey. The meeting was organized by H.D. Holland, R.A. Berner, U. Peterson, R. Siever and J.B. Thompson, Jr.

About seventy participants attended, many of them friends of the guest of honor. The atmosphere was pleasantly informal, and the talks were of uniformly high quality. The presence of three distinguished speakers from Europe is an achievement for which the Organizing Committee deserves high praise, as well as a measure of Robert Garrels's cosmopolitan influence. All in all, the meeting was a fitting tribute to a scientist whose ideas, perhaps more than any other's, have shaped our discipline in modern times and earned it the recognition it now enjoys among the scientific community, and to a friend whose unfailing kindness and good humor have endeared him to a multitude of people, eminent and obscure alike.

Obituary

Academician Vladimir Sobolev, 1908-1982

Vladimir Sobolev, the past-president of the International Mineralogical Association, died in Moscow on September 1, 1982. Born in 1908 at Lugansk, Ukraine, he graduated from Leningrad Mining Institute in 1930. During the thirties, he performed a detailed petrological study of the trappean rocks of the Siberian platform, and established a strong petrological basis for scientific forecast of the presence of kimberlites and diamonds on the northern Siberian platform. This forecast was confirmed fifteen years later by the discovery of a large kimberlite province. Sobolev made important contributions in the development of both theoretical and experimental mineralogy and petrology. In 1957 he joined the Siberian Division of the Academy of Science of the U.S.S.R., and was one of the founders of the Institute of Geology and Geophysics at Novosibirsk, the location of the 11th General meeting of the International Mineralogical Association in 1978. During 1974-1978 he was President of the International Mineralogical Association. He was an honorary member of mineralogical and geological societies of many countries, including Austria, Bulgaria, Czechoslovakia, Great Britain, Ireland, France, Hungary, and U.S.S.R. For his scientific contributions he was awarded the highest awards of his country, including both Lenin and State prizes, and many international awards.

Positions Vacant

The Department of Geological Sciences at Wright State University invites applications for two positions:

Sedimentologist

Beginning September 1983. The position will be either a tenure-track assistant professorship or a one-year visiting position depending upon qualifications. A clastic sedimentologist is preferred, but strong candidates in any sedimentology field will be considered. The successful candidate will be expected to teach at the undergraduate and graduate levels. Active department with 12 faculty, emphasizing professional practice while maintaining a firm commitment to basic research. Closing date for applications is June 15, 1983.

Chairman

Beginning September 1984. We seek a dynamic individual with administrative talent and an appreciation for research and practice-related educational activities. Rank is at the full professor level and no restrictions have been placed on areas of specialization. Closing date for applications is October 31, 1983.

For either position send a letter of application, curriculum vitae and names of three references to:

Chairman, Search Committee
Department of Geological Sciences
Wright State University
Dayton, OH 45435

Wright State University is an affirmative action/equal opportunity employer.

WORK GROUP ON GEOCHEMICAL CYCLES - TENTH SYMPOSIUM
INDIANAPOLIS, 30 OCTOBER 1983

First Circular

Technical Sessions, 9 a.m. to 6 p.m.: About 6 papers on topics related to geochemical cycles, mass balances and modeling. The atmosphere is informal, and discussion is encouraged.

Speakers' Reception, 6-8 p.m.: Refreshments and further discussion.

Intending participants please complete this form and mail it before 30 May 1983 to:

Bryan Gregor,
Work Group on Geochemical Cycles,
Department of Geological Sciences,
Wright State University,

1. Name _____ Address _____

   Tel. No. _____ _____

   _____

   _____

2. I mean to attend the Symposium but will not contribute a paper. _____ (x if appropriate)

3. If called on, I would contribute a paper (up to 1 hour including discussion) on

_____

_____

_____

4. I would write, if called on, a short critical review of the Symposium for eventual submission to the Sponsors together with the Chairman's Report: _____ (Yes/No)

5. If offering a paper, briefly summarize the gist of it on the back of the page.

_____

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