International Association of Geochemistry and Cosmochemistry

Newsletter

number 23 September 1989

Contents

Washington (1984-1989) council meeting highlights General Assembly Washington (1989-1992) council meeting highlights IAGC medal Applied Geochemistry
Current individual membership status
IAGC-sponsored meetings
Other meetings of interest
Addresses of Council members

Total Income

Washington (1984-1989) council meeting highlights

Dr. Grunenfelder welcomed the Council members to the last meeting of the 1984-1989 Council, noting, with a moments silence, the recent death of Council member Ivan Barnes. The main business was taken up with completion of the few still outstanding items from his term as President.

Dr. Angino, Treasurer, presented an audited statement for the period 1984-01-01 to 1989-05-31, which Council approved prior to submission to the General Assembly. The association's financial affairs at 1989-06-30 are as follows:

Statement of Income and Expenses January 1, 1989 to June 30, 1989

Beginning balance, January 1, 1989 \$2	11,059.56
Income:	
National Member dues \$	3,669.18
Individual Member dues	6,052.00
Interest on investments	1,386.40

10tal income\$11,107.58
Expenses:
Postage and duplication\$ 100.60
Tax preparation
Telexes
Secretarial and accounting
Bank charges
28th IGC conference
Pergamon <u>60.00</u>
Total Expenses
Total excess income over expenses \$ 8,939.98
Cash balance June 30, 1989
Certificate of Deposit
Chequing account
Ingerson fund
Journal Sinking Fund
\$49,999.54

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International Association of Geochemistry and Cosmochemistry

Council also approved a detailed 25-page report to the General Assembly prepared by the Secretary. It had already been sent to all National Members and a few copies are still available for distribution to Working Group Chairmen and interested members.

After some discussion and comparison with other organizations, it was agreed to institute a Life Membership category of Individual Members at 15 times the current dues. This is thus currently set at \$150.00 US and is *independent* of the subscription fee for Applied Geochemistry. Individuals who wish to avail themselves of this opportunity should send \$150.00 US to the Treasurer, indicating it is for a Life Membership. The transmittal letter should be copied to the Secretary so that Pergamon Press plc can be informed and special arrangements made for receipt of Newsletters etc.

Guidelines were set up for a Medal Nominating Committee. The first task of the committee will be to decide on a name for the medal. Subsequently, at the first meeting of the 1989-1992 Council, Dr. Grunenfelder agreed to serve as Council representative and Chairman of the Medal Nominating Committee. Other members remain to be appointed.

With respect to IAGC's participation in the IMA meeting in Beijing, PRC in 1990, and in view of the recent unsettling events in that city, Council took a straw poll which showed 6 in favour of going ahead with the meeting, 2 against and 1 abstention. This message was carried to the IMA Council meeting (attended by invitation by Drs. Grunenfelder, Angino and Hitchon).

The final piece of business was a decision to fund an IAGC Distinguished Lecture at the Second V.M. Goldschmidt Conference, Hunt Valley, Maryland, USA, 1990-05-2/4.

General Assembly

The General Assembly of IAGC convened in Room 28 of the Washington Convention Center at 6:00 p.m. on Friday, July 14, 1989, during the 28th International Geological Congress. President Marc Grunenfelder called for a moments silence to remember two Council members who died since the last General Assembly in 1984, namely Dr. Marcello Carapezza (Italy) in the fall of 1987 and Dr. Ivan Barnes (USA) on May 11, 1989. The Minutes of the Moscow General Assembly were accepted as distributed April 20, 1985, and there was no business arising.

Dr. Grunenfelder presented his report, the main items of which can be found in Newsletter 22, in the report of IAGC to IUGS. The period 1984 to 1989 was probably the most dynamic that IAGC has experienced in its 20-year history, with substantially increased national and individual membership, a new journal, Applied Geochemistry, the donation of \$10,000 for the Ingerson Fund, and a healthy bank balance. The Secretary (Dr. Hitchon) emphasized the publication of the newly formatted Newsletter, a Membership Directory,

two historical reviews of IAGC (Applied Geochemistry, vol. 1, pp. 7-14, 1986; Episodes, vol. 9, pp. 155-159, 1986), and his efforts as Executive Editor of Applied Geochemistry. The Treasurer (Dr. Angino) reported both the 1988 year-end statement and a statement as at June 30, 1989 with a cash balance of close to \$50,000 (see report of the Council meeting elsewhere in this Newsletter). All three reports were accepted as read.

Council proposed two changes in the statutes, and these were explained by Dr. Grunenfelder. The first related to Section V.A and was a housekeeping matter, in that approval for affiliation of an Associated Society is now the responsibility of Council and not "by vote of those present at the organizational meeting of IAGC". The second referred to the creation of a special category of non-voting National Members from countries with currency restrictions; these will pay only the same dues as Individual Members (currently \$10.00 US). This move allows active groups of geochemists in these countries to participate in IAGC and should benefit both these geochemists and IAGC. Following unanimous approval of these statute changes the General Assembly also voted unanimously to admit Mexico, Turkey and Yugoslavia as nonvoting National Members. Additional non-voting National Members may be recommended by Council, but final approval still rests with the General Assembly.

Dr. Grunenfelder then presented the report of the Nominating Committee, after thanking Professor S.R. Taylor (Australia, Chairman) and other members for their efforts. In addition to the names of eight Council members recommended by the Nominating Committee, Council suggested that the number of Councillors be increased to ten in view of the increased National Members over the past few years. By unanimous vote the General Assembly agreed to this increase (to be implemented in the Statutes by the Secretary) and Dr. Grunenfelder put forward the names of Dr. Gomes (Brazil) and Dr. Seward (New Zealand) as Council choices for the two additional positions. The General Assembly then voted unanimously for the entire slate, as follows:

President: Vice-President:

Secretary:

Hitoshi Sakai (Japan) Brian Hitchon (Canada) Ernest Angino (USA)

Heinrich Wanke (FRG)

Treasurer:

Marc Grunenfelder (Switzerland)

Past-President: Councillors:

A. Erlank (RSA)
C. Gomes (Brazil)

S. Grigorian (USSR)

D. Lal (India)

S. Moorbath (UK)

F. Mrna (Czechoslovakia) E. Neumann (Norway)

E. Neumann (Norwa

J. O'Neil (USA) M. Ozima (Japan)

T. Seward (New Zealand)

STATUTES OF THE INTERNATIONAL ASSOCIATION OF GEOCHEMISTRY AND COSMOCHEMISTRY

- I. Name, Objectives. Membership and Associated Societies.
 - The organization shall be known as the International Association of Geochemistry and Cosmochemistry (IAGC). The word "geochemistry", where used along hereinafter, shall be understood always to include "cosmochemistry"
 - R The principal objective of the Association shall be to foster cooperation in, and advancement of, geochemistry and cosmochemistry in their broadest sense:

 - ochemistry in their orodoest sense:

 by working with any interested group in planning symposia and other types of meetings related to geochemistry;

 by sponsoring publications in the geochemistry of a type not normally covered by existing organizations;

 by appointment of Working Groups to study problems that require, or would profit from, international cooperation.
 - C Membership of the Association shall be of four classes.
 - National Members

National organizations, such as committees, societies or academies that have been designated by the Council of the Association as the official representative of the geochemists of those countries and shall be entitled to vote in the General Assembly provided they are fully paid according to the table in Section II.A.2. National organizations that have been designated by the Council of the Association as the official representatives of the geochemists of their country but which are unable to pay full dues because of currency restrictions shall have their dues set by the Council but shall have no vote. Approval of all non-voting National Members shall rest with the General

Individual Members

Individuals who are interested in any aspect of pure or applied geochemistry.

Sustaining Members

Individuals or organizations particularly interested in the Association and its work and who make annual contributions, substantially greater than the regular dues, as specified below under Finances.

Honorary Fellows

Individuals distinguished for their contributions to geochemistry or cosmochemistry may be nominated as Honorary Fellows from time to time by the Council, their election being ratified by a General Assembly of the Association.

Such Honorary Fellows shall be elected for life and shall pay no dues to the Association.

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Any international, regional, or national scientific society, other than those designated as National Members, with a particular interest in the objectives of the Association and that wises to join with the Association in seeding to achieve those objectives may become an Associated Society. This association can be established by mutual agreement between the IAGC Council and that of the Society. No hierarchical relationship between IAGC and the Associated Society is implied by joining together in this way. Associated Societies will receive all general mailings of IAGC and will be notified in advance of all regular Council meetings and General Assemblies.

Associated Societies are expected to maintain effective contact with the Association and provide an up-to-date mailing address to the Secretary of the Association.

In the case of countries having no National Member, an appropriate Associated Society may request that their status be changed to that of National Member for that country. They will be designated as a National Member if in the judgement of IAGC Council they will most effectively represent all geochemists of that country.

II. Administration

A. General Assembly

Final authority and decisions on all matters rest with the General Assembly.

At a business meeting of the Association, the voting members of the General Assembly shall consist of delegates from National Members fully paid up according to the following table. Voting power and dues category of each National Member shall be determined by the Group into which it falls in the following table:

GROUP	. Δ	R .	· · · · · · · · · · · · · · · · · · ·	·	-	-
Number of geochemists	-	U	C	U	E	r
represented	< 25	26-100	101-250	251-500	501-1000	>1000
Voting Power	1	1	2	201-000	307-1000	, 1000
Dues (Units)	1	ì	ā	6	g g	10

- 3. Each National Member may be represented at the General Assembly by a number of Delegates not exceeding its voting power. Each National Member may also appoint not more than two Alternates who may take part in the General Assembly, but who have no vote. The Delegates and Alternates must present their credentials to the Secretary in advance of the General Assembly.
- Representatives of National Members who are not fully paid up according to the above table. Associated Societies,
- individual members, or sustaining members may attend meetings and take part in discussions, but shall have no vote. Should it become necessary to take postal ballots between regular meetings, all of the National Members who are fully paid up according to the above table representing their respective countries shall be polled by air mail.

B. Council

The Council shall consist of the President, Vice-President, Secretary, Treasurer, and ten ordinary members, all of whom shall be elected by the General Assembly. No two of the ordinary members shall be from the same country. The President and Vice-President shall not be eligible for reelection in the same position, but the retiring President shall serve for one term as an additional ordinary member. Ordinary members shall be eligible for reelection for an additional term, with the exception of four of the members, elected in 1980, who shall not be eligible for reelection.

The Council shall be responsible for supervising the activities, conducting the business, and achieving the objectives of the Association.

The Council or the General Assembly may appoint Working Groups as required to carry out functions of the Association. Further, subsequent to each General Assembly, the new Council will formally appoint the chairman and members of all working groups. Existing appointments will remain effective until these new appointments are made. The Council may also establish new working groups, as well as discontinue or change the membership of existing working groups. In the case of well-organized working groups operating under their own statutes, the Council will recognize the need of these groups for autonomy, and in normal circumstances the appointments will be consistent with the recommendations of the working group.

b. The Council shall instruct the Treasurer as to the kinds of expenses for which funds may be used, but shall not authorize each disbursement.

c. The Council shall act for the General Assembly between meetings of the latter.

d. The actions of the Council must be ratified by the General Assembly at its next meeting.

C. Executive Committee

- There shall be an Executive Committee, consisting of the President, Vice-President, Secretary and Treasurer.
- 2. The Executive Committee is empowered to take emergency action on behalf of the Council when there is not time to poll the entire Council, and to act on minor matters on which polling the entire Council is not justified.
- Interim actions of the Executive Committee must be ratified by the Council at its next meeting.

III. Nomination and election of Officers and Council.

A. Nominations

- The Council shall appoint a nominating committee of five members, not more than two of whom may be Council members. The membership of this committee shall be made known to all National Members, Associated Societies and Individual Members. The committee shall submit for approval of Council a list of nominations for officers and ordinary members of the Council for the ensuing period. The approved list shall be made known to all National Members Associated Societies and Individual Members at least 90 days prior to a regular meeting of the General Assembly, together with notice of the said meeting.
- Additional nominations for one or more officers or ordinary members of the Council may be made in writing to the Secretary by two National Members or by 15 or more individual members of the Association not less than 60 days prior to the meeting of the General Assembly.
- B. Election of officers and councillors shall be by majority vote of the General Assembly and term of office shall be the period until the next regular meeting of the General Assembly.

IV Finances

- A. Dues and contributions.
 - Annual dues of all classes of members shall be established by the Council and ratified by the General Assembly.
 - National Members shall pay annual dues based on the group into which they fall according to the table of Article II. A. 2.
 - No dues are required of Associated Societies, but they are requested to contribute funds equivalent to one dues unit to support the cost of preparing and mailing IAGC information to their Secretary or other designated recipient of the material.
 - Sustaining Members shall make annual contributions to the Association substantially larger than the annual dues
 - they would pay as individuals or National Members.

 Changes in the dues and contributions may be made on the recommendation of the Council and ratification by the General Assembly.
- The Treasurer shall make an annual report of receipts and disbursements to the General Assembly through the Council. The Council shall appoint a committee to verify the accuracy of the report in advance of its presentation.
- The funds of the Association shall be lodged in a bank in the country of the Treasurer and be at his disposal, subject to the instructions from the Council. In the event that the office of the Treasurer should be vacant, the President may transfer the funds to the custody of an Acting Treasurer until another Treasurer is duly elected.

V. General.

- The Association may affiliate with appropriate international unions and other international organizations with geochemical interests in order to further the objectives of the Association. Any affiliation must be approved by Council.
- Regular meetings of the General Assembly shall be held at the same time and place as those of the International Union of Geological Sciences.
- C. The Council shall also hold regular meetings at these times, but may also hold interim meetings as deemed necessary by the Executive Committee, either separately or in conjunction with meetings of other appropriate organizations. The Council may take ballots via air mail on important or emergency matters in lieu of interim meetings. Representatives of all National Members and Associated Societies are invited to attend all regular Council Meetings ad non-voting guests. They shall be informed of the time and place of these meetings at least 60 days in advance by newsletter or special mailing.
- Within the framework of these statutes, the Council shall have the power to adopt By-Laws.
- The Executive Committee may meet at the above-specified times, or at other times when the Council does not meet, if such meetings appear essential. Normally, however, their interim decisions shall be made by correspondence, telegrams, etc.
- The official languages of the Association shall be English, French. German and Russian. The English test shall be considered the authoritative one in the interpretation of these statutes.
- Changes in these statutes may be effected only by a two-thirds majority vote of the General Assembly. Recommendations for changes may be submitted either by the Council or by a group of at least 20 members of the Association. Such recommendations must be in the hands of the Secretary at least six months prior to the date of the next meeting of the General Assembly.

As amended at General Assembly Washington, DC, USA, 1989

A full list of the addresses of the new Council can be found elsewhere in this Newsletter.

Dr. Grunenfelder thanked everyone for their assistance during his term as President, and passed the Chair to Dr. Heinrich Wanke. Following some general remarks, and their being no other business, Dr. Wanke declared the General Assembly adjourned at 6:40 p.m.

Washington (1989-1992) council meeting highlights

Dr. Wanke, the new President, welcomed the new Council members. Dr. Hitchon reported that the IAGC booth at the Exhibition Hall of the 28th IGC had been successful in terms of interest, but very difficult to gauge in monetary terms. Several new members joined, including one each from two countries not so far represented among our members.

After some discussion, it was decided to hold the next Council meeting in association with the Seventh International Conference on Geochronology, Cosmochronology and Isotope Geology (1990-09-24/29), in Canberra, Australia.

The new Publications Committee was appointed, with Dr. A.A. Levinson remaining as Chairman and Dr. Hitchon as ex-officio. Dr. J. O'Neil is Council's representative and Academician L.V. Tauson continues as the fourth member.

Reappointed as Chairmen of Working Groups were:

L.V. Tauson (Working Group on Geochemical Prospecting); H. Sakai (Working Group on Water-Rock Interaction); A.M. Nikanorov (Working Group on Natural Waters, Protection from Pollution); Y. Tardy (Working Group on Weathering, Sedimentary and Diagenetic Processes); I. Khodakovsky (Working Group on Thermodynamics of Natural Processes); A. Raheim (Working Group on Applied Isotope Geochemistry); and I. Thornton (Working Group on Geochemistry of Health and Disease).

Dr. Wanke desired to step down as Chairman of the Working Group on Extraterrestrial Geochemistry and the Working Group will find a replacement.

With the illness of Dr. Goni, and his wish to be relieved of his duties, Dr. Grigorian was charged with developing guidelines for the old Working Group on Cooperation in Applied Geochemistry, even to the extent of a new name. Dr. Grigorian will report back to the next Council meeting.

There was considerable discussion on the IMA meeting in Beijing, PRC. The IMA Council had voted 8 yes, 2 no, to continue to hold the meeting and IAGC agreed to continue their support. Should matters worsen the Executive Committee was empowered to make a final decision on the participation of IAGC by the final deadline for registration, 1990-03-

31, bearing in mind a potential financial expenditure of about \$10,000.

There being no other business the meeting was adjourned.

IAGC Medal

Council has already made the decision to produce a bronze medal and the general guidelines have been set. At this time there is no name, other than the IAGC medal. The Medal Nominating Committee is charged with suggesting a name – but in the event no name is suitable Council will probably decide to simply call it the IAGC Medal. Members wishing to suggest possible names should write to Dr. M. Grunenfelder (Swiss Federal Institute of Technology, Sonneggstrasse, Zurich CH-8092, Switzerland) giving the name of the individual after whom the medal is to be named, together with a short curriculum vitae. This should be done before the end of 1989.

Applied Geochemistry

Dr. A.A. Levinson, Chairman of the Publications Committee, reports that he met with Mr. G.F.. Richards, Deputy Chairman, Pergamon Press plc, on April 14, 1989. Mr. Richards is extremely pleased with the editorial and scientific status of Applied Geochemistry, and the page budget of 750 pages per year can be exceeded in order to ensure all high quality papers are accommodated. The financial status of the journal, however, is not as satisfactory; the rise in the number of institution and member subscriptions does not yet cover expenditures, but the gap is closing slowly.

As individual subscribers are aware, the annual subscription for Applied Geochemistry was fixed at \$15.00 US per year for 1986-1989 (volumes 1-4). A modest increase to \$18.00 US per year will apply for volumes 5-7, inclusive, that is 1990 to 1992. Individual Members will be billed directly by Pergamon Press plc for these increased rates. Other measures include an increase in institutional rates, discontinuance of the practice of giving authors 100 free reprints, and a *voluntary* page charge of \$35 per page, all effective with volume 5 (1990). In part, these changes are necessitated by the devaluation of the US dollar relative to the British pound of about 30% since the original contract between IAGC and Pergamon Press plc was signed in early 1985. Further, inflation in the UK now runs at about 7.9% and has averaged 5% per year between 1985 and 1989.

Despite these increases, Individual Members still receive Applied Geochemistry at a very favourable rate, and Dr. Levinson believes we have achieved an extremely favourable extension of our contract with Pergamon Press plc. The best way that individuals can ensure financial success of Applied Geochemistry is to have their institute take the journal.

Current individual membership status

Individual membership in IAGC continues to grow at a very satisfactory and steady rate. The status as of 1989-09-01 is as follows:

Australia20
Austria5
Belgium6
Brazil
Canada65
Denmark6
Egypt4
Finland
France
Federal Republic of Germany17
Iceland
India
Israel5
Italy12
Japan30
Korea (S)
Mexico
Netherlands 8
New Zealand8
Nigeria
Norway6
People's Republic of China
Portugal3
South Africa4
Spain10
Sweden
Switzerland10
Tanzania2
United Kingdom40
USA316
Yugoslavia

The following countries each have one member: Colombia, Costa Rica, Czechoslovakia, Ecuador, Eire, Greece, Indonesia, Iraq, Liberia, Monaco, Morocco, Philippines, Saudi Arabia, Uruguay. Membership as of 1989-09-01 stands at 670.

IAGC-sponsored meetings

V.M. Goldschmidt Conference

1990-05-02/04

Baltimore, Maryland, USA

Contact: Dr. Peter Deines, 207 Deike Building, The Pennsylvania State University, University Park, Pennsylvania 16802, USA (Telephone (814) 865-7152)

Sponsors: Association of Exploration Geochemists; Division of Geochemistry, American Chemical Society; European Association of Geochemistry; The Geochemical Society; IAGC; Society of Environmental Geochemistry and Health

Comments: The focus of this conference is on the chemical aspects of the earth and planetary sciences. Symposia include: Ab-Initio Methods and Molecular Dynamics; Advances in Mass Spectrometric Techniques; Advances in Spectroscopy of Minerals, Melts, and Glasses; Aqueous Surface Chemistry and Kinetics; Fluids in Melts; Frontiers in Aqueous Geochemistry; High-Pressure Mineral Physics; Applications of Geochronometry and Geospeedometry to Crustal Problems; Chemical Reactions in the Crust; Geochemistry of the Environment; Isotopic Modeling; Large-scale Crustal Flow; Fluids in Subduction Zones: Thermal, Geochemical, and Petrological Constraints and Consequences; and Geochemical Cycles and Earth History. Abstract deadline 1989-11-27. Preregistration deadline 1990-03-15.

15th General Meeting of the International Mineralogical Association

1990-06-28 to 07-03

Beijing, People's Republic of China

Contact: Prof. Huang Yunhui, Institute of Mineral Deposits, Chinese Academy of Geological Sciences, Baiwanzhuang Road 26, Fu Wai, Beijing 100037, People's Republic of China

Sponsors: IMA, IAGC, Geological Society of China, Chinese Society of Mineralogy, Petrology and Geochemistry, and Chinese Academy of Geological Sciences Comments: IAGC-IMA Symposium on "Geochemistry, Mineralogy and Origin of Ore Deposits in Relation to Future Materials: I. Applied isotope geochemistry; II. Mineralogy for future materials." There are many other symposia, workshops and fieldtrips. Abstract and registration deadline 1990-02-01.

Second International Symposium on Geochemistry of the Earth's Surface and of Mineral Formation 1990-07-02/08

Aix-en-Provence, France

Contact: Prof. Daniel Nahon, Secretary-General GWDSP-2, University of Marseille, 13397 Marseille Cedex 13. France

Sponsor: IAGC Working Group on Weathering, Sedimentary and Diagenetic Processes

Comments: Eight sessions including conferences, poster sessions, workshops will be on the following topics: Weathering, soil science and erosion; Global environment, global climates, and ancient sediment cycles; Modern sediments and early diagenesis; Organic chemistry and biochemistry; Late diagenesis and low-grade metamorphism; Geochemistry of clays and poorly crystallized minerals; Crystal growth under surface conditions; and Isotope geochemistry. Deadline for Abstract submission is December 31, 1989.

International Symposium on Geochemical Prospecting 1990-08-29/31

Prague, Czechoslovakia

Contact: Dr. Frantisek Mrna, Geological Survey UUG, Malostranske nam. 19, 118 21 Prague 1, Czechoslovakia Sponsors: IAGC, AEG and the Geological Survey, Prague

Comments: The meeting comprises the 5th IAGC Symposium on Methods of Geochemical Prospecting and the 14th AEG International Geochemical Exploration Symposium. The scientific program consists of four plenary sessions (technogenic geochemistry; geochemical mapping, including ecological aspects; data processing; geochemistry of selected ore systems) and six workshops (panning; biogeochemical research; modelling; teaching; analysis; data bases), plus panel discussions. Pre- and post-symposium excursions will include Sn-W and Au deposits of southern and western Bohemia, and polymetallic ores in Moravia and in neovolcanics of Slovakia. Preregistration deadline was 1989-02-15; Abstract deadline was 1989-06-30.

7th International Conference on Geochronology, Cosmochronology and Isotope Geology 1990-09-24/29

Canberra, Australia

Contact: Professor W. Compston, Chairman ICOG-7 Committee, Research School of Earth Sciences, The Australian National University, GPO Box 4, Canberra 2601, Australia (Telephone: 062 49 3406; Telegrams: NATUNIV; Telex: 62693; Telefax: 062 474639)

Sponsors: The Geological Society of Australia, Inc.; IAGC; Research School of Earth Sciences, ANU; Austra-

lian Bureau of Mineral Resources, Geology and Geophysics.

Comments: Registration is Sunday September 23, following directly on the Third Archaean Symposium in Perth (09-17/21). One joint pre-conference excursion to the Yilgarn of Western Australia will precede the Perth meeting; up to five other major field excursions will be offered either before or after the ICOG scientific sessions. Local field excursions (geological, cultural, tourist) will be offered as mid-point relief on September 26.

Other meetings of interest

11th New Zealand Geothermal Workshop 1989-11-8/10

Auckland, New Zealand

Contact: Dr. Keith Nicholson, Geothermal Institute, University of Auckland, Private Bag, Auckland, New Zealand (Telephone: 0064 9 737 999, ext. 8710/8404; Telex: NZ 21480 Unilib; Telefax: 0064 9 371 183)

Comments: A Geothermal Workshop is hosted each year by the Geothermal Institute. The meeting covers all aspects of the exploration, development and use of geothermal resources worldwide, including sessions on fluid geochemistry, alteration assemblages, epithermal mineralization and field development. Geothermal resources are increasingly being studied as active epithermal systems, and this has been reflected in the conference by the number of presentations on epithermal depoits. All accepted papers are published in the Proceedings which are distributed at the conference and worldwide.

Eighth Meeting of The Society for Environmental Geochemistry and Health

1990-04-01/04

Reading, United Kingdom

Contact: Dr. J.E. Rae, Postgraduate Research Institute for Sedimentology, The University, PO Box 227, White-knights, Reading RG6 2AB, United Kingdom (Telephone: 0734; Telex: 847813; Telefax: 0734 31)

Comments: The theme will be Geochemistry, Ground and Surface Water Quality and Health. A general session on the broader theme of Environmental Geochemistry and Health will be followed by papers on Geochemistry and Water Quality. The third day of the conference will involve study visits to local institutions working in the field of water quality.

Geological Association of Canada – Mineralogical Association of Canada Joint Annual Meeting 1990-05-16/18

Vancouver, British Columbia, Canada

Contact: Bob Thompson and Ken Dawson, Co-chairmen, Organizing Committee, GAC-MAC Secretariat, 801 - 750 Jervis Street, Vancouver, British Columbia V6E 2A9, Canada (Telephone: (604) 681-5226; Telex: 04-352848 VCR; Telefax: (604) 681-2503)

Comments: Conferences and symposia topics include: Acid Mine Drainage – Designing for Closure; Cordilleran Mineral Deposits Colloquium; Structural Controls on Ore Deposits; Geology of Canada: A DNAG Perspective; Quantitative Methods in Petrology – The Greenwood Symposium; Special Symposium Commemorating the 10th Anniversary of the Eruption of Mount St. Helens. There will also be 17 Special Sessions and 3 Short Courses offered.

International Symposium on Trace Elements in Health and Disease

1990-06-05/08

Espoo, Finland

Contact: Ms. Virpi Castren, Symposium Secretary (Trace Elements/NTES-COMTOX Meeting) Institute of Occupational Health, Office of Information and International Affairs, Topeliuksenkatu 41 aA, SF-00250 Helsinki, Finland (Telephone: 358-0-4747345; Telex: 12139; Telefax: 358-0-4747548)

Sponsors: IUPAC, Clinical Chemistry Division; Nordic Trace Element Society

Comments: The scientific program will consist of plenary lectures, contributed papers, poster presentations and round-table discussions on the following themes: Analytical methods and quality assurance; Assessment of intake and exposure; Dietary requirements and health effects; Toxicological aspects; and Trace elements and other micronutrients in lipid peroxidation.

8th International Association on the Genesis of Ore Deposits Symposium

1990-08-12/18

Ottawa, Ontario, Canada

Contact: L.M. Cumming, Secretary, 8th IAGOD Symposium, Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, Canada (Telex: 053-3117)

Sponsor: IAGOD, Geological Survey of Canada, Carleton University, University of Ottawa

Comments: An International Conference on Mineral Deposit Modelling will be held in conjunction with the 8th IAGOD Symposium.

The scientific program will include invited lectures, oral and poster presentations and field trips covering the following topics: isotope geochemistry of mineral deposits; hydrothermal activity at mid-ocean ridges; mineral deposits in sedimentary rocks; gold deposits; distribution and genesis of metallogenic provinces and epochs. Pre- and post-symposium field trips to various mineral belts in eastern, central, western and northern Canada will be arranged.

Preliminary registration was requested by 1988-12-01; Abstract deadline is 1990-01-01.

11th IUPAC Conference on Chemical Thermodynamics

1990-08-27/31

Como, Italy

Contact: 11th IUPAC Conference, c/o Dip. to Chimica Fisica Applicata, Politecnico di Milano, Via Golgi, 39, 20133 Milano, Italy (Telephone: 39 2 2363770; Telefax: 39 2 2664950

Sponsors: IUPAC Commission 1.2 on Thermodynamics; Societa Chimica Italiana

Comments. The program will be divided into plenary lectures, invited papers and contributed papers including original contributions on the following topics: Biothermodynamics; Solutions; Equations of state, critical and supercritical fluids; Thermochemistry of inorganic and organic compounds; Heat capacities and phase transitions; Polymers; Surfaces, interfaces and micellar systems; Environmental thermodynamics; and Material science thermodynamics (including new materials, metals and alloys).

Geochemistry of Clay-Pore Fluid Interactions 1990-09-17/18

Burlington House, Piccadilly, London, United Kingdom *Contact:* Dr. D. Savage, British Geological Survey, Keyworth, Notts, United Kingdom (Telephone: (06077) 6111); or Dr. D.A.C. Manning, Department of Geology, The University, Manchester, United Kingdom (Telephone: (061) 275-3943).

Sponsors: Geochemistry Group, Mineralogical Society; Petroleum Studies Group, Geological Society of London; Clay Minerals Group, Mineralogical Society.

Comments: Topics to be covered include: pore fluid profiles in the natural environment; evidence from diagenetic, geothermal and weathering studies; theoretical and experimental studies; the role of organics in governing pore fluid chemistry; overpressuring phenomena; and applications in hydrocarbon and geothermal exploration, and in the isolation of toxic and radioactive wastes.

13th International Congress on Aquifer Overexploitation

1991-04-15/19

Puerto de al Cruz, Tenerife (Canary Islands, Spain)

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Sponsors: IAH Spanish Chapter, Public Works Department of Canary Islands Government

Comments: Topics to be covered include: Characterization of aquifer over-exploitation, Hydrogeological and hydrochemical aspects; Environmental effects related to over-exploitation; Protective and corrective measures in cases of over-exploitation; Legal and socioeconomic problems related to aquifer over-exploitation; and Over-exploited aquifers in water resources management. Deadline for preliminary abstracts is December 1, 1989.

International Symposium on Engineering Geology in a Desert Environment, Rock-Water Interaction

1991-08-18/23

Jerusalem, Israel

Contact: The Secretariat, International Symposium on Engineering Geology in a Desert Environment, Rock-Water Interaction; PO Box 50006, Tel Aviv 61500, Israel (Telephone: 03-654571; Telex: 341171 KENS IL; Telefax: 972 3 655674)

Sponsor: International Association of Engineering Geology

Comments: The program will include both state-of-theart and invited papers on the following interrelated topics: Rock mass and geotechnical processes; Geohydrology; Infrastructure and Energy; and Environment and Development.

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