

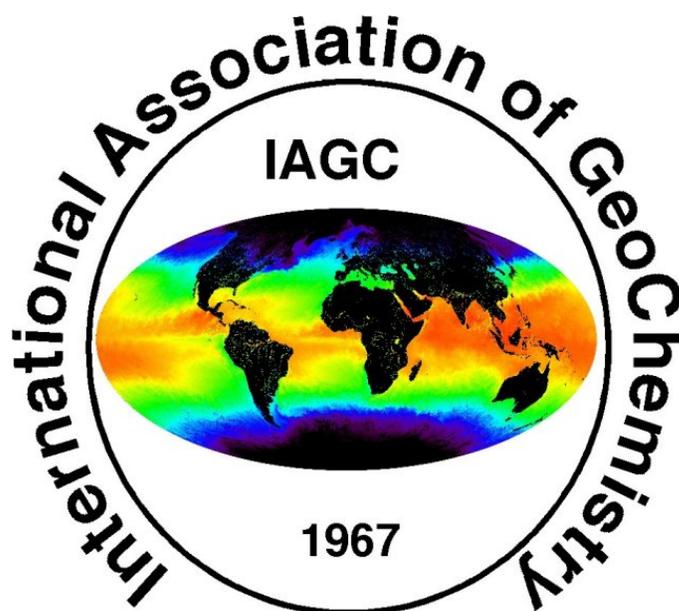
Newsletter

of the

International Association of GeoChemistry

Number 47, November 2007

Mel Gascoyne, Newsletter Editor



NEWS FROM THE ASSOCIATION

- **40th Anniversary: a photo opportunity!**
- **WRI-12: a successful meeting!**
- **Plans for IGC in 2008**
- **Graduate Student Research Grants**
- **New IAGC Working Group Proposed**

ASSOCIATION NEWS

Summary of the 2007 IAGC Awards

IAGC announced the recipients of its inaugural set of awards in May, 2007. They were presented formally in association with the 2007 Goldschmidt Conference, held in Cologne, Germany, at the IAGC 40th Anniversary Celebration event on Saturday 18 August. In summary the awards and recipients were:

- **The IAGC Vernadsky Medal** to Prof Fred Mackenzie, University of Hawaii
- **The IAGC Ebelmen Award** shared between Dana Royer of Wesleyan University and Seifu Kebede of the University of Addis Ababa
- **The Hitchon Award** to Keara B. Moore and B. Ekwurzel of the University of Arizona and Bradley K. Esser, G. Bryant Hudson, and Jean E. Moran of Lawrence Livermore University,



Participants at the Council Meeting

Certificates of Recognition were awarded to:
U. Aswathanarayana of the Mahadevan International Centre for Water Resources Management (India),

Mike Edmunds of the University of Oxford (UK),
John Gurney of the University of Cape Town (South Africa),
Jochen Hoefs of the University of Göttingen (Germany),
Yousif Kharaka of the U.S. Geological Survey (USA),
Herbert Palme of the University of Köln (Germany), and
Zell Peterman of the U.S. Geological Survey (USA).



Presentation of the Vernadsky Medal to Fred Mackenzie by Russ Harmon

IAGC 40th Anniversary Celebration

Celebration of the IAGC's 40th Anniversary took place on Saturday, 18 August 2007 Earth Sciences Building, Zülpicher Strasse 49, Köln, Germany. The invited guests and speakers were:

- Welcome – R. Harmon
- Introduction of IAGC Officers, Council, and Working Group Chairs
- Introduction of Distinguished Guests – C. Reimann
- Historical Overview of IAGC, 1967 to 2007 – R. Harmon
- Perspectives on Geochemistry 1967-2007: Short historical vignettes from distinguished guests: G. Faure, E. Galimov, J. Ludden, H. Wänke, & K.-H. Wedepohl

- Friso Veenstra – Elsevier: *Perspectives on the IAGC Journal Applied Geochemistry*
- Ingerson International Lecture #1: Mike Edmunds – Oxford University *Geochemistry's Vital Contribution to Solving Global Water Resource Issues*
- Ingerson International Lecture #2: Balz Kamber, Laurentian University *Geochemical Fingerprinting: 40 Years of Analytical Development and Real World Applications*
- Announcement of IAGC Awards for 2007: C. Riemann and J. Kramers
- 'Keynote' Address: Stephen Moorbatch, Oxford University, *Geochronology – Aims and Reminiscences*
- Closing Remarks: R. Harmon

A reception and buffet meal was then held at the University Mensa. Photographs of these events follow.



Kebede and Royer receiving the Ebelmen Award

IAGC Business Meeting for 2007

A formal Business Meeting of the IAGC was held at the University of Cologne Earth Sciences Building at Zülpicher Strasse 49, Köln, from 8:30am to 5:30 pm on Sunday 19 August 2007. All IAGC members were welcome to attend and time was made available for members to share with the Board any concerns about the Association

that they may have had or ideas to improve the Association, so that it can better serve both its members and the geochemistry community. Minutes of this meeting are given in an appendix at the end of this Newsletter.

IAGC has a new Treasurer

The IAGC Treasurer's position officially transferred from Gunter Faure to Berry Lyons on 1 December 2007. The Association would like to thank Gunter for all his work for the IAGC over the last 15 years in the duties of Vice-President, President, Newsletter Editor and, most recently, Treasurer.

Thank you Gunter!



Berry Lyons (left) and Gunter Faure at the official change-over of the Treasurer's position. In the background is a slab of the Morton Gneiss, 3.5 by old piece of North America Precambrian crust from its type locality in Minnesota.

IAGC Student Research Grants

This year, the IAGC has started to offer one-time grants of up to \$3000 per student in a PhD program, to assist in paying for geochemical analyses that are needed for the research program. Application forms can be found on the IAGC website (www.iagc.ca). They must

be completed and submitted to the IAGC Business Office by **December 15, 2007.**
Conferences supported in 2007

The IAGC 40th Anniversary Celebration was held at the Earth Sciences Department at the University of Cologne (Germany) on Saturday 18 August.

The 12th International Symposium on Water-Rock Interaction”, co-chaired by Y. Kharaka, was held from 31 July – 5 August in Kunming, China. This meeting was a triennial event of the IAGC Working Group on Water-Rock Interaction, one of our most long-lived and successful working groups. The IAGC was well represented, providing support for the conference and students and set up a booth staffed by Russ Harmon and assistants. Over 50 new members joined the IAGC at the meeting.

The 7th International Symposium on Applied Isotope Geochemistry was held in Stellenbosch, South Africa from September 10 - 14, 2007. This is a meeting of the IAGC Working Group on Applied Isotope Geochemistry and was the first conference at which the new policy on registration fees for IAGC-sponsored meetings was implemented (i.e. all participants were charged a 1-year IAGC membership as a part of the meeting registration fee), so the IAGC Business Office did not have a booth at this meeting.



Edmunds, Clauer & Kharaka



Galimov & Faure



Hitchon, Ekwurzel & Kharaka



Ludden & Galimov



Kamber



Kebede Aswathanarayana



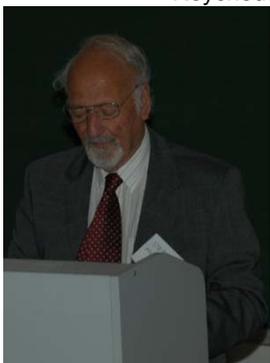
Reimann & Wänke



Roychoudhury & Lyons



Nordstrom & Kolonin



Moorbath



Hitchon



Current interim IAGC President Russell Harmon (right) and honored guests at the IAGC 40th anniversary celebration: (right-left) Karl-Hans Wedepohl, Member 1st IAGC Council 1967-72 and IAGC Vice-President 1972-76; Eric Galimov, IAGC President 2000-04; Heinrich Wänke, IAGC President, 1988-92; Gunter Faure, IAGC President, 1996-2000,; and John Ludden, IAGC President, 2004-06.



Moorbath & Faure

IAGC continued its presence and involvement in the **Geological Society of America Annual Meeting**, which was held in Denver, Colorado from 28-31 October 2007. The IAGC had a booth at the meeting and the recipients of the IAGC Vernadsky Medal, Ebelmen Award, and Hitchon Award were showcased in the

Affiliated Societies gallery during the course of the meeting. IAGC sponsored a session entitled Sources, Transport, Fate and Toxicology of Trace Elements in the Environment” co-chaired by LeeAnn Munk, Dave Long, and Berry Lyons.

Events planned for 2008.

The quadrennial Council meeting will be held during the 33rd **International Geological Congress**, in Oslo, Norway, from 6-14 August 2008. As a part of the “International Year of Planet Earth” and the ICG official technical program, Andrew Parker is organizing a special session on geochemistry that will consist of two parts: (i) historical reviews of geochemistry and its applications and (ii) a series of presentations on future developments in geochemistry and its potential to solve environmental problems in the 21st century. Plans are underway to have the proceedings of these sessions published in book form by Elsevier. IAGC Council has already approved \$5000 in financial support for this important initiative and the Steering Committee of IYPE is being asked to provide matching funds. It is also anticipated that an Ingerson International Lecture and the IAGC awards for 2008 will be presented at this meeting.

The 8th Conference on **Geochemistry of the Earth’s Surface** will be held in London, UK, from 17-22 August 2008. The meeting is sponsored by the IAGC Working Group on Geochemistry of the Earth’s Surface, the UK Mineralogical Society and the British Natural History Museum. This is a meeting at which the policy on registration fees for IAGC-sponsored meetings will be implemented (i.e. all participants will be charged a 1-year IAGC membership as a part of the meeting registration fee), so the IAGC Business Office will not need to have a booth and recruitment effort at this meeting.

International Geological Congress Norway 2008

In the upcoming 33rd IGC, organizers are expecting 5000-7000 geoscientists from around the world to participate in the meeting to be held 5-14 August 2008, in Oslo, Norway. Abstracts are due by 1 February 2008.

Additional information on the meeting is available at www.33igc.org. You are also invited to correspond directly with Prof. Arne Bjørlykke, President of the 33rd International Geological Congress, at arne.bjorlykke@ngu.no, or with the Scientific Program Committee at secretariat@33igc.org.

And for 2009: An Important Initiative

Following the approval by both the IAGC Council and the Steering Committee of the Association of Applied Geochemists, IAGC and AAG will join together to organize and conduct the 2009 **International Applied Geochemistry Symposium**, which most likely will be held in Denver, Colorado. It is also anticipated that an Ingerson International Lecture and the IAGC awards for 2009 will be presented at this meeting. If this initiative turns out to be successful in the opinion of both societies, then the stage will be set for a full IAGC-AAG partnership in future International Applied Geochemistry Symposia.

Other conferences of interest

Workshop on Applied Geochemistry in Environmental Studies

This meeting will take place on 8-9th February 2008 at the Centre at the University of Madras, Chennai, India. The main objective of the Workshop is to discuss the methodology and application of geochemistry in various areas of environmental sciences and other emerging areas of geology.

Contact Dr. M. Suresh Gandhi, (e-mail: surgan@yahoo.co.uk) for more details.

Conference reports

The Twelfth International Symposium on Water-Rock Interaction (WRI-12), July 31-August 5, 2007.

Submitted by Yousif K. Kharaka, former Chairman, WRI Working Group of IAGC
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Tel: 650-329-4535

The twelfth International Symposium on Water Rock Interaction (WRI-12) was held July 31-August 5, 2007, in the garden-like atmosphere of the Yunnan Conference Resort in Kunming the 'spring city' of the ethnically diversified Yunnan Province, the People's Republic of China. The Organizing Committee of WRI-12 was ably led by its Secretary General, Professor Yanxin Wang, School of Environmental Studies and Vice President, China University of Geosciences, Wuhan, China. Wang was greatly assisted by many of his energetic graduate students and colleagues, especially Zhou Yu, Yigun Gan, Dan Wu and Houli Ming.

The WRI-12 Symposium attracted a total of 420 participants from 26 countries. This total included a large number of students (30) and registered accompanying members (69), with the remainder comprising the leading geochemists, hydrologists and geologists from around the World. We were particularly pleased to achieve our goal of attracting a large number of participants (about half of the total) from China, the host country. At registration, participants received two hard cover WRI-12 proceeding volumes, edited by Thomas A. Bullen (USGS, Menlo Park, California) and Yanxin Wang, and published by Taylor & Francis that include 360 papers and a record total of 1705 pages.

Scientifically, WRI-12 continued the excellent traditions of previous WRI conferences. The oral and poster presentations covered the latest research results of water-rock interaction in a wide spectrum of geochemical environments ranging from weathering and low temperature groundwater and mining operations to geothermal, metamorphic and

magmatic systems. As expected, many of the presentations covered topics of surface and groundwater pollution, geohazards, and other water-rock interaction topics applicable to Chinese sites. Other topics that attracted large number of presentations included organic-inorganic interactions, geomicrobiology, stable and radiogenic isotopes, contamination from mining operations, climate change and CO₂ sequestration.

The Working Group of WRI encourages student excellence by providing awards to the best student oral and poster presentations. A third award is given to the best poster presentation, which for this conference was won by a Chinese student and her coauthors:

Deng, Y., Wang, Y., and Ma, T., for the paper "Hydrogeochemistry of high arsenic groundwater from Hangjinhouqi, Inner Mongolia". The best student poster presentation was given to the Swiss Möri, A., and his coauthors Mazurek, M., and Hu, Q., for the paper "In situ experiments on matrix diffusion in fractured crystalline rock." Finally the best oral presentation was awarded to a Turkish student at the U. of California, Davis, Sengor, S.S. and her coauthors, Spycher, N.F., Ginn, T.R., Moberly, J., Peyton, B., and Sani, R.K., for her paper on "Reductive dissolution and metal transport in Lake Coeur d' Alene sediments".

Keynote plenary lectures, covering the various themes of WRI were among the highlights of this symposium. The scientific program was started appropriately with Gordon Brown (Stanford University, USA) as the first keynote speaker (with 20 coauthors!) discussing recent advances in surface, interface and environmental geochemistry. He was followed by Shaoyong Jiang's (Nanjing University, China) presentation on isotope constraints on hydrothermal fluids in massive sulfide deposits. Paul Shand (CSIRO Land & Water, Australia) discussed in some detail the application of Sr isotopes in natural waters. Enrique Merino (Indiana University, USA) was the last keynote speaker providing a unified geodynamics theme using eolian dust to couple the origin of terra rossa and karst systems. WRI-12 had a second plenary session with an additional four outstanding keynote speakers. Kirk Nordstrom (USGS, USA) discussed the issue of water quality before the start of mining as a goal for remediation at the close of operations. Fengchang Wu (Institute of Geochemistry of CAS, China) covered the topic natural organic matter in rivers and lakes in China and its role in mobilizing contaminants to the environment. Lily Young (Rutgers University, USA) gave a comprehensive talk about bacteria and microbial transformations of hazardous metals in the environment. Carlos Ayora (Institut de Ciencies de la Terra, CSIC, Spain) concluded this session with a detailed lecture on acid mine drainage in the classic Iberian pyrite belt.

All the participants attended the one-day long mid-session field trip to the Yunnan Stone Forest (Shilin), covering a total area of 350 km² and located 86 km southeast of Kunming, and praised as the ‘First Wonder Under Heaven’ for its quintessential karst topography and astounding natural beauty. As you wander through the Stone Forest, you will be surrounded by the rising Permian limestone pillars of varying configurations and sizes (up to 30 m high), strange caves, springs and mirror lakes, layer after layer of green hills, and the widespread stone peaks of the forest. Locals have given the stone pillars some fanciful names and have identified one pillar with their national heroine Ashima, who epitomized the best qualities of Sani womanhood. Because of significant precipitation that day, we spent some educational time in the newly opened Stone Forest Museum. We met many Sani men, women and children dressed up in their colorful head dresses and ethnic uniforms, but the rain, while providing a sea of colorful umbrellas, limited our exposure to ethnic dancing and singing that is generally performed outdoors.

The post session field trips (August 6-9) proved very popular as more than a third of all WRI-12 attendees joined one of the three trips offered. The trip to Tibet, a once in a life time opportunity, proved popular, as 52 participants visited the Quokang, Potala Palace and other historic sites and temples in Lhasa, the Yangbajing geothermal field that supplies about 50% of Lhasa electricity and Namucuo Lake, a fresh water alpine lake situated on top of the world at about 5,000 m above sea level.



Water-Rock Interaction Working Group Leader Yousif Kharaka (first row, 4th from left and IAGC Interim President Russell Harmon (first row, 4th from right) together with WRI-12 Secretary General Yanzin Wang (first row, center) and the WRI-12 student assistants. As a token of appreciation for the excellent conference and the hard work of the conference assistants, Prof. Wang and the students all were given gifts of an IAGC membership by a group of IAGC members attending the conference.

The most popular field trip attended by 58 participants and initially planned as a visit to the Tengchong geothermal system (at the border of Yunnan and Myanmar), as well as the historical Heshun Village and Dali had to exchange Tengchong with Lijiang, because of heavy rain and flooding in the Tengchong area. The city of Lijiang, situated in a beautiful valley with stunning backdrop of the Jade Dragon Snow Mountains, is not only the home of the Naxi people but also the cultural cross roads of many other ethnic nationalities

I participated with 43 others in the Three Gorges Dam field trip that included a boat ride down the scenic Yangtze River from Chongqing to Yichang, where the monumental Three Gorges Dam (175 m deep) is located. This was by far the best field trip that I have ever participated in. The massive vertical beds and mountains that tower a kilometer or more above the river not only in the grand Three Gorges areas but for hundreds of kilometers, gigantic historical landslides that have killed thousands of local people, and hundred of new cities constructed to move more than a million Chinese to higher ground, were sights that I will never forget. The visit to the Institute of Geohazards Mitigation (China Three Gorges University) was very informative. We also visited fascinating historical and cultural sites, but the geology, geomorphology and human impacts are truly unique and breathtaking.

In the true spirit of water-rock-human interaction, the Organizing Committee of WRI-12 planned an excellent social, culinary and cultural program for all the participants. A truly Yunnan Chinese experience started when the buses arriving for registration were greeted with drums and beautiful ladies and men dressed in their colorful ethnic clothes and head dresses. This party atmosphere continued during the welcome reception around one of the four swimming pools filled with geothermal water from 2500 meters deep wells. We were treated to an even more sumptuous and varied Chinese dinner than usual with local beer and good Chinese wine together with ethnic minority musical performances at a city restaurant and again at the farewell party. Most of the non-Chinese participants also attended the play ‘‘Dynamic Yunnan’’ a powerful medley of song and dramatic local ethnic dances that tell the story and history of the people of Yunnan. Field trips and cultural activities for the large number of the accompanying members included visits to the Ethnic Minority Village, Lake Dian and Western Hills, temples, museums and local shopping bazaars.

During the General Business Meeting of WRI-12, the attendees voted to select Dr. Halldor Armannsson (Iceland) the new Chairman of the Working Group on Water-Rock Interaction. They also selected Prof. Thomas Kretzschmar (CICESE, Ensenada, Mexico) the

Secretary General for WRI-13. Thomas and his insipient WRI-13 Organizing Committee (Ignacio Torres-Alvarado, UNAM, Temixico, Peter Birkle, IIE and Mahendra Verma, Cuernavaca, and Anne Hansen, IMTA Cuernavaca) have tentatively decided to hold WRI-13 in the resort city of Guanajuato, Mexico in the summer of 2010.

Member Support Needed for Proposed New IAGC Working Group

The Geological Survey of Norway proposes to found a working group on 'Urban Geochemistry' within IAGC. Before a proposal to establish a new Working Group can be voted on by Council, at least 20 IAGC members must support the initiative.

So, if you are in favor of having IAGC stand up this new Working Group please send an e-mail message of support to the IAGC Secretary, Attila Demeny (demeny@geochem.hu) now.

Proposal:

Urban Geochemistry is a fast growing field in geochemistry, there already exist many urban geochemical atlases throughout the world. Urban geochemical mapping is often carried out by Geological Survey organizations, but universities also play an important role. Such studies need to be carried out in close cooperation with the local administration and the medical community. Urban Geochemistry requires an interdisciplinary approach. Even given the multitude of studies carried out to far, 'Urban Geochemistry' has not really found a 'home' in any of the geochemical associations. There exist, however, many issues that would need a common platform for discussions and it is for that purpose that we suggest to establish an 'Urban Geochemistry' working group within the IAGC.

The first task of such a Working Group on 'Urban Geochemistry', which would have Rolf Tore Ottesen as WG Leader, would be to act as a focal point for the harmonization of the many different approaches to the subject in the same manner that the IAGC Working Group on 'Global Geochemical Baselines' function in the domain of large-scale surface geochemical mapping. Topics that need discussion and common agreements include:

- * Documenting the concentration and distribution of chemical elements and species in the urban environment
- * Sampling strategy and methods for urban geochemistry
- * The importance of individual contamination sources

- * The dispersion mechanisms within the urban environment
- * The health challenge faced by people living in large cities
- * An unpolluted play environment for small children
- * Development of health based guidelines for soil in urban day-care centers, playgrounds and residential areas.

Last Chance for IAGC Council & Award Nominations

The deadline is fast approaching nominations for vacant IAGC Council positions and for the IAGC 2008 Awards. All nominations should be sent to IAGC Secretary Attila Demeny (demeny@geochem.hu) by e-mail by 15 December.

Council nominations: Nominations are open for the 4 IAGC Council positions that need to be filled in 2008. Each nomination needs a short biography of the nominee and be endorsed by 4 IAGC members.

So don't delay, make your nominations now!

The IAGC Awards:

IAGC has 7 permanent awards, 5 of which require nominations from IAGC members:

- the IAGC Vernadsky Medal,
- the IAGC Ebelmen Award,
- the IAGC Distinguished Service Award,
- the IAGC Hitchon Award,
- the IAGC Faure Award,
- the IAGC Certificate of Recognition, and
- the honor of IAGC Fellow.

1. The IAGC Vernadsky Medal is awarded biennially to a single person for a distinguished record of scientific accomplishment in geochemistry over the course of a career.
2. The IAGC Ebelmen Award is given biennially to geochemists of particular merit and outstanding promise less than 35 years old at the time of nomination.
3. The IAGC Distinguished Service Award is bestowed intermittently as a deserving recipient is identified, but not more than once every 2 years, to recognize outstanding service by an IAGC member to the Association or to the geochemical community that greatly exceeds the normal expectations of voluntary service.
4. IAGC Certificates of Recognition are awarded annually (i) to any scientist for a particular scientific accomplishment in a particular area of geochemistry, (ii) to other geochemists for excellence in teaching or public

service, and (iii) to an IAGC member for meritorious service to the Association or the international geochemistry community.

5. The honorary title of IAGC Fellow is a special tribute bestowed biennially on outstanding geochemists who have made significant contributions to the field or sub-field of geochemistry over the course of some extended period of years. Geochemists practicing in all facets of the subject are eligible for this honor, but particular emphasis is given to contributions in applied geochemistry.

Awards Nomination Process:

Nominations for all IAGC awards and honors except the Hitchon Award can be made by IAGC members in good-standing, except members of the Award Committee who instead shall actively solicit nominations from other IAGC Members. A nomination for the Hitchon Award shall consist of a nomination, from the Publications Committee. All nomination must be submitted in writing to the Secretary by the nomination deadline.

A nomination for the Vernadsky Medal and Ebelmen Award shall consist of a submission of not more than 2 pages in length that (i) profiles the nominee, (ii) provides relevant career information, (iii) and includes a short list of important scientific accomplishments and the most publications of the nominee.

Nominations for the Distinguished Service Award shall consist of a submission not more than ½ page in length that describes why the nominee is deserving of the award. This nomination should also contain the suggested citation text.

Nominations for a Certificate of Recognition shall consist of a single short paragraph that explains why the nominee is deserving of IAGC recognition in one or more of the three categories: (i) outstanding scientific accomplishment in a particular area of geochemistry, (ii) excellence in teaching or public service, and (iii) for meritorious service to the Association or the international scientific community. This nomination should also contain the suggested citation text.

Nominations for the honor of IAGC Fellow shall consist of a submission not more than ½ page in length that describes why the nominee is deserving of the award. This nomination should also contain the suggested citation text.

Minutes of the 2007 IAGC Board Meeting

Held on Sunday, 19 August 2007, 8:30 am at Earth Sciences Building, Universität Köln Zùlpicher Strasse 49, Köln, Germany

Prepared by A. Demény, Secretary

Present:

Officers: R. Harmon, C. Reimann, , A. Demény, & Gunter Faure (as of 09:25)

Council Members: J. Kramers, M. Novák, A. Parker, B. Lyons, A. Roychoudry, N. Clauer, Working Group Leaders: U. Aswathanarayana, S. Gíslason, Y. Kharaka, M. Novák, G. Kolonin (as of 09:15).

Invited Member: B. Hitchon

1.-2. Welcome and Opening Remarks. Interim President R. Harmon opened the Board meeting and expressed IAGC's thanks to the University of Cologne hosts. It was explained that the reason for the travel subsidy was to have as many of the IAGC Officers, Council Members, and Working Group Leader present as possible because of the important issues to be discussed.

3. President's Report. R. Harmon presented his report on IAGC's activities during the past year and those planned for 2008-09 (Appendix 1).

4. Minutes of the Last Meeting. An *ad-hoc* Council meeting was held in Philadelphia (USA) on October 21, 2006 during the Geological Society of America Annual Meeting without a quorum present. The Minutes, which had been provisionally approved by Council in December 2007, were presented by A. Demény and accepted by Council without change.

5. IAGC Reports for 2006-07

a. Officers Reports

i. Secretary's Report. A. Demény presented his report (Appendix 2)

ii. Treasurer's Report. G. Faure provided handouts (Appendix 3). IAGC has ~\$100,000 invested and ~\$2000-3000 is received annually as interest income, ~\$40,000 per year is received from Elsevier as a royalty from *Applied Geochemistry*, and ~\$10,000 per year comes from member dues. The Statutes and By-Laws revision provisionally accepted by Council prior to this meeting mandate that, under normal circumstances, not more than 85 % of yearly income should be spent. It was the opinion of the Treasurer that IAGC needs to do more to demonstrate its tax status in Ohio, USA, where IAGC is registered as a charitable organisation. G. Faure announced that he will resign as IAGC Treasurer at the end of December 2007; thus a new Treasurer is needed. Discussion: Clauer, Aswathanarayana, Kaharaka, Parker,

Harmon: The new student research grant initiative was mentioned as a means of becoming more involved in charitable activity. For an effective student support system, a list of possible host institutes should be created; lists of excellent young researchers could be provided by the Working Groups.

b. Operations Executive Reports

i. Journal Executive Editor's Report. R. Fuge provided a written report, presented by the Secretary (Appendix 4). Discussion: Concern was expressed that Ron Fuge might wish resign in the not too distant future, so an appropriate successor should be identified by the Publications Committee well in advance. The journal's impact factor has been steadily increasing over recent years, but dropped slightly last year. For the success of the journal and the impact factor it is not necessarily good to have more papers if these are less cited. The reason for this decrease should be examined by the Publications Committee. **ACTION:** Publications Committee

ii. Business Office Report. No written report was submitted, but M. Gascoyne provided proposal to continue to operate the Business Office through 2008. Discussion: The \$15,000 office cost is proportional to the membership size, however, additional possibilities should be found to reduce costs. Among the ideas mentioned were shifting some routine correspondence to the Secretary by hiring a low-cost part time assistant in Budapest, finding a volunteer Newsletter Editor, and moving the web site to Hungary under the Direction of the Secretary. It was agreed unanimously by the Council to continue to pay \$5000 US to cover the running cost of the Business Office and to offer M. Gascoyne a yearly fixed sum of \$10,000 US for his work in 2008, with the Council directing the following prioritization of tasks: (i) Membership matters, (ii) *Elements*-related work, (iii) Student research grant work, (iv) IAGC awards-related work, (v) Other work.

c. Committee Reports

i. Publications Committee Report. No written report was submitted, but it was noted that J. Gray had successful negotiations in 2007 with Elsevier about the *Applied Geochemistry* subscription rate increase for the next 3 years, i.e. 2008-10, of \$1.50US/year that previously was endorsed by the Council. Discussion: *Elements* is still very successful and attractive; IAGC's activity should be increased.

ii. Nominations Committee Report. J. Kramers summarized the Committee's work. An adequate number of nominees was achieved for the Vernadsky Medal and Ebelmen Award, thus, careful selection of awardees was possible. The President expressed thanks to the Committee for its difficult and conscientious work.

Refreshment Break

d. Working Group Reports

i. Water-Rock Interaction. Y. Kharaka reported on WRI conferences. The recent WRI-12 Symposium in Kunming, China in late July 2007 drew some e 420 participants. There was a minor problem with last-minute cancellations by Chinese registrants, but overall it was a very successful meeting. The conference was followed by 3 well-attended field excursions. Haldor Armannsson (Iceland) was elected as new chairman of this WG.

ii. Geochemistry of the Earth's Surface. S. Gíslason presented the WG report. The abstracts from the last GES meeting were published in the Journal of Geochemical Exploration. The next meeting will be in London in August 2008 immediately following the International Geological Congress. The point was made that this meetings purposefully tries to stay small by having only 20 or so speakers, with the rest of the technical contributions included as posters. A typical number of participants is in the 80-160 range.

iii. Thermodynamics of Natural Processes. G. Kolonin presented a historical review of the WG activity.

iv. Global Geochemical Baselines. D. Smith provided a written WG report (Appendix 4) that was presented. Discussion: Reimann, Faure, Kharaka, & Parker: Geochemical mapping of the World and Europe are the major plans; bedrock composition and climate relations should be studied; negotiation with EU commission is a great success; cooperation with mining companies should be strengthened.

v. Applied Isotope Geochemistry. M. Novák presented the WG report. AIG-6 was held in Prague and an *Applied Geochemistry* special issue consisting of 15 papers was published. Problems with special issues from WG meetings were noted. AIG-7 will be held in South Africa in September 2007, with AIG-8 scheduled for Germany and AIG-9 for Canada.

vi. Geochemical Training in Developing Countries. U. Aswathanarayana presented his views on water use and geochemical training.

vii. Geochemistry of Health and Disease. Discussion: The WG has been inactive for over two years and WG Leader H. Belkin submitted his resignation in December 2006. In 2004, it effectively became has become a part of the new International Association of Medical Geology. Motion by Clemens Reimann to declare the WG terminally inactive and concluded, seconded by A. Parker, and adopted by unanimous vote of Council.

viii. Open discussion of relationship between IAGC and its Working Groups. Kharaka, Clauer, Gíslason, Novák, Faure, Kolonin, & Aswathanarayana, Hitchon: up-to-date membership lists are needed; good relations with industry is very important; IAGC is not always the largest sponsor of WG activities; the WG Leaders could ask for support to meeting organisers; there should be the possibility to just propose a new meeting group instead of needing 20 members (the President insisted on 20 member support for a new WG otherwise it may

become a 'one-person' activity, accepted by Council after discussion); the website, *Elements*, *Applied Geochemistry*, and the *IAGC Newsletter* are some key benefits of IAGC for Working Group leaders; the idea of an 'All-Working-Group' IAGC meeting was mentioned.

ix. New Working Groups. A draft proposal for a new Working Group on 'Urban Geochemistry' was received. Discussion: Faure, Lyons, & Hitchon: Maybe another is needed on waste disposal; cooperation with AAG is important; the roles of Working Group members should also be fixed. Motion for a message will be sent to the entire membership to obtain the 20 supporting members by G. Faure, seconded by B. Lyons, and adopted by unanimous vote of Council. **ACTION:** R. Harmon

7. IAGC-sponsored Activities

a. IAGC 40th Anniversary Celebration. This event was held on Saturday at the University of Cologne Earth Sciences Building, followed by an evening reception in the University Mensa. IAGC founding member and former Vice-President K.-H. Wedepohl and Past Presidents H. Wänke, G. Faure, E. Galimov, and John Ludden offered short personal perspectives on geochemistry over the past 40 years, M. Edmunds and B. Kamber presented two Ingerson International Lectures and S. Moorbath gave the keynote address, and C. Reimann announced the IAGC awards for 2007. Although the attendance was smaller than anticipated, the event was a success. Thanks was expressed to J. Hoefs for making the Cologne arrangements for the event.

b. Goldschmidt 2007. C. Reimann & B. Hitchon discussed the two IAGC-sponsored sessions.

c. AIG-7. M. Novák told about the upcoming meeting in South Africa, about 150 participants are expected.

d. IGC 2008. R. Harmon & A. Parker gave details and plans. There will be 4 IAGC-related sessions: 'Frontiers of Stable Isotope Analysis for Environmental Science and Biogeochemistry', 'Importance of Landscape Age, Tectonic Setting, and Lithology on Chemical Weathering Rates and River Geochemistry', 'Contribution of Geochemistry to the Study of the Planet', and the Arthur Darnley Symposium organized by the Global Geochemical Baselines Working Group.

e. GES 2008. S. Gíslason presented plans on the 2008 GES meeting to be held in London. It will be advertised in *Elements*. He presented a support request of \$7500. Motion to support at the requested level by N. Clauer, seconded by B. Lyons, and adopted by unanimous vote of Council. **ACTION:** G. Faure.

f. International Applied Geochemistry Symposium 2009. R. Harmon discussed the current IAGC-AAG cooperation over the 2009 IAG Symposium as a joint

AAG/IAGC meeting to be held in Fredericton, New Brunswick, Canada and presented meeting details. Discussion: At present, relations with AAG seem to be good and fruitful; The organisation of the meeting requires discussions about how the profits of the conference might be shared and how good papers can be published (competition between *GEEA* and *Applied Geochemistry* needs to be considered). **ACTION:** R. Harmon & Planning & Program Committee.

7. Open Discussion. R. Harmon presented the revised IAGC Statutes and By-Laws and new IAGC Operations Handbook. Discussion: Several suggestions for minor corrections were made. Council voted to accept these governance documents once the following changes are made: (i) add sentence that the pre-existing Gratis Members are not affected by the changes; (ii) for e-mail votes a short summary of what was discussed and what has to be decided shall be provided to Council; (iii) A quorum for a business meeting will be 9 Board members; (iv) Proxy voting will be ended; (v) Instead of a maximum of 3 student research grants Instead of a maximum of 3 student research grants A number of student research grants" will be given., 'A number of student research grants' will be awarded each year. The Ingerson Lecture should be a single event, but instead the Lecturer should be available for lectures during the 2-year period; The Lecturer's presentation should be available (slides on website) and the presentation published as a paper in *Applied Geochemistry*. Motion by G. Faure, seconded by N. Clauer, and adopted by unanimous vote of Council. **ACTION:** R. Harmon & A. Demény The corrected and By-Laws and Operations Handbook will be circulated.

11. New Business

a. Officer vacancy. Gunter Faure will serve until December 31, so it is necessary to find a new Treasurer. The Business Office manager has also expressed a wish to step down in the near future, but proposed a plan for Business Office operation through 2008.

b. Council activity, Council composition, Council Member status, & election of Council Members for 2008 was discussed. N. Clauer asked if a booklet of Council Members should be prepared? There will be 3 council vacancies in 2008; R. Harmon noted that the gender balance on the Council was poor and suggested that at least 2 female members should be on the nomination list for 2008. Motion by G. Faure, seconded by B. Lyons, and adopted by unanimous vote of Council. Council Member committee assignments were also discussed because the various committees have to be staffed to for proper IAGC operation over the next year. The following committee assignments were arrived at, with some vacancies to be filled by the Committee Chairs:

- (i) Student Grants Committee: R. Harmon Interim President as Chair, E. Galimov as Past President, and 2 Council Members TBD;
 - (ii) Awards & Honors Committee: C. Reimann Vice President as Chair and 3 additional Council Members - S. Frape, A. Roychoudry, & N. Clauer;
 - (iii) Nominations Committee: J. Kramers as Chair plus 3 additional members selected by the Chair (not more than 1 of whom may be a Council Member) - Y. Kharaka and 2 others TBD;
 - (iv) Publications Committee: J. Gray Chair and 2 other members unchanged;
 - (v) Planning and Program Committee: Chair and 2 Council Members – TDB;
 - (vi) Audit Committee (Needed for 2008) Council Member Chair plus 2 IAGC members TBD.
- c. An open discussion took place about Working Groups.
- d. An open discussion took place on new member recruitment (present & future).
- e. An open discussion took place on new scientific initiatives (student research grants). Student Research grant: submission deadline change for this year to 15 December 2007. Must be advertised in next issue of *Elements*.
- f. A open discussion took place on improving member services and communication. A booklet of members should be prepared and made available on the website for the members.
- g. Future IAGC Participation in the GS-EAG Goldschmidt Conferences
- h. Council was made aware of the possible interest of the new 'International Society of Groundwater for Sustainable Development' in becoming affiliated with IAGC .
- i. The IAGC desk at the 2007 Goldschmidt Conference was discussed.
Refreshment Break
- j. The idea of establishing an IAGC satellite business office at China Geosciences University in Wuhan as a means of handling Chinese memberships was presented and discussed. Motion by N. Clauer, seconded by A. Roychoudry, and adopted by unanimous vote of Council. **ACTION:** R. Harmon
- k. IAGC dues for 2008 were discussed. Council unanimously agreed that the members dues should remain at \$20 US.
- l. IAGC Business Office. The operation of the Business Office is supported for 2007 up to \$10,000, future possibilities will be explored.
- m. Additional business.
 - i. Request of Prof. Aswathanarayana for \$2000 US to invite 2 IAGC-sponsored lecturers to a conference in India in January 2008. The request was presented by

Prof. Aswathanarayana. Working Group chairs are thanked for participation and leave for Council discussion and vote. Discussion: The proposal and its implications for the Association were discussed at length, as well as the possible future of this Working Group. Formally it comes to late (such proposals must arrive at latest 6 months ahead of the event). Also, some Council members point out that the proposal is not detailed enough (e.g. a budget for the whole event is missing) to take a guided decision. Further more it was discussed whether there exists actually a true working group in view of the '20-members' requirement to establish a Working Group. Motion by A. Demény not to fund, seconded by N. Clauer, and adopted by unanimous vote of Council. It was suggest that the President write an official letter expressing Council concern about the structure of this Working Group in early 2008 after the 2007 annual report has been received.

ii. Booth at the GSA 2007 Annual Meeting. Discussion: Given the new research student grant initiative, it is considered important to have an IAGC presence at the meeting because of the large number of graduate students that participate. The booth is free, travel cost for the Business Office would be the only expense, estimated at \$1500 US. Motion by G. Faure to have an IAGC booth at the GSA meeting, seconded by A. Demény, and adopted by unanimous vote of Council.

12. Adjourn

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