



## International Association of GeoChemistry



### FROM THE PRESIDENT

We are pleased to join *Elements*, not only because of the timely advent of this publication, but also because of the need to build links between the major geochemical and mineralogical societies of the world.

Many of you will have known the IAGC, now the International Association of GeoChemistry, by its former name, the International Association of Geochemistry and Cosmochemistry. This subtle change reflects the "new look" of the Association, which has involved a migration away from the more fundamental fields of geochemistry towards applied research. This is reflected, not only by IAGC's association with the journal *Applied Geochemistry*, but also by the working groups and special symposia organised by the Association, for example in geochemistry and disease, the Water-Rock Interaction meetings, and geochemistry training in developing countries. We hope to use the magazine to build links with other societies and expand the knowledge of geochemistry worldwide.

John Ludden, President IAGC

### ACTIVITIES OF THE IAGC

This year has seen some big events and changes for the IAGC. First, the Annual Council Meeting was held in conjunction with the International Geological Congress (IGC) in Florence, Italy, on August 20. The meeting was well attended by both council members and chairmen of IAGC working groups. Two meetings were held, in fact. The first included a vote by the outgoing council and executive members, who had served for up to the last eight years, to appoint new officers. In the subsequent meeting, the new statutes were approved and, more significantly, the name of the IAGC was changed from the International Association of Geochemistry and Cosmochemistry to the International Association of GeoChemistry. This change reflects the shift in

emphasis of IAGC members over the years, away from theoretical geochemistry and cosmochemical research, to applied geochemistry, especially in the biogeochemical, medical, and environmental fields. This is borne out by the fact that the IAGC's journal, *Applied Geochemistry* has become an important and increasingly read journal in the geological world.

One of the main aims of the IAGC is to sponsor symposia and international meetings on various aspects of geochemistry, primarily through its working groups but also through a conference grants program. For instance, the IAGC sponsored a thematic session entitled "Frontiers in Analytical Geochemistry" at the International Geological Congress, in Florence, Italy, last year, and a

### THE INTERNATIONAL INGERSON LECTURE

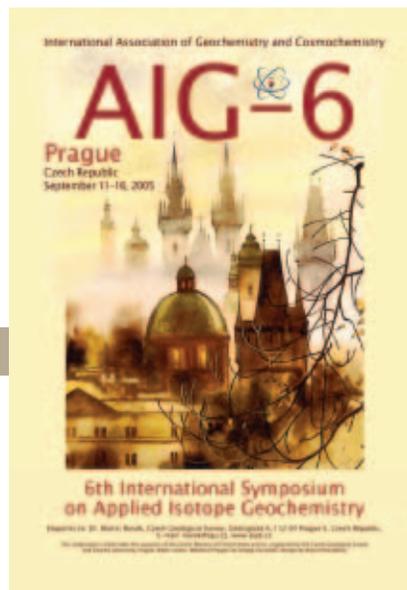
The International Ingerson Lecture originated from a bequest by Earl Ingerson to the International Association of Geochemistry and Cosmochemistry in 1985 to provide an award for distinguished geochemists. The award, which includes a framed certificate and a \$500 honorarium, is given every two to four years. To distinguish this award from the Ingerson Lecture Award presented by the Geochemical Society (from a similar bequest by Earl Ingerson), the IAGC in 2002 designated the award as the *International Ingerson Lecture*. The recipient is invited to present the lecture at a suitable international geochemical meeting, such as the Goldschmidt Conference, where the award is presented.

The *International Ingerson Lecture* for 2004 was delivered in Florence, Italy at the 32<sup>nd</sup> International Geological Congress



Stephen Moorbath (right) receiving award from IAGC President John Ludden

by Prof. Stephen Moorbath of Oxford University and was entitled "Oldest rocks, earliest life, heaviest impacts, and the Hadean-Archaean transition". The full text of Professor Moorbath's presentation will be published shortly in *Applied Geochemistry*. Previous recipients of the award have included A.E. Ringwood, A.A. Levinson, K.-H. Wedepohl, A. Masuda, D.M. Shaw, U.G. Cordani, and B.F. Jones.



collection of papers on this will appear in the near future as a special issue of *Applied Geochemistry*. In 2005, IAGC will also sponsor a special session on archaeological geochemistry at the April EGU meeting in Vienna, and will join in the sponsorship of the 15<sup>th</sup> Goldschmidt Conference in Moscow, Idaho in May (see article next page). IAGC will also be a general sponsor of the International Symposium on Applied Isotope Geochemistry in Prague on September 11-16 (AIG-6).

At present IAGC has seven working groups: Water-Rock Interaction, Global Geochemical Baselines, Geochemistry of the Earth's Surface, Applied Isotope Geochemistry, Thermodynamics of Natural Processes, Geochemical Training in Developing Countries, and Geochemistry of Health and Disease. The activities of each of these will be featured in upcoming issues of *Elements*.

The IAGC has recently revised its website, which now contains information on the Association, its history, details of sponsored meetings, the biannual Newsletter, how to join, and the activities of the working groups. The site address is <http://www.iagc.ca>.

**APPLIED GEOCHEMISTRY, THE JOURNAL OF THE IAGC**

*Applied Geochemistry* is the official journal of the International Association of GeoChemistry. The journal was launched in 1986 under the editorship of Brian Hitchon. The early volumes of the journal consisted of around 700 pages in six issues. The journal has expanded dramatically since those early days with 2000 pages being published in the twelve issues of volume 19 in 2004.

*Applied Geochemistry* is an international journal devoted to publication of original research papers, rapid research communications, and selected review papers in geochemistry that have some practical application to an aspect of human endeavour, such as the preservation of the environment, environmental monitoring, agriculture, health, waste disposal and the search for resources. Topics covered include:

1. Environmental geochemistry (including natural and anthropogenic aspects, and protection and remediation strategies)
2. Hydrogeochemistry, surface and groundwater
3. Medical geochemistry
4. Agricultural geochemistry
5. The search for energy resources (oil, gas, coal, uranium, and geothermal energy)
6. The search for mineral deposits (metalliferous and non-metalliferous)
7. Upgrading of energy and mineral resources where there is a direct geochemical application
8. Waste disposal including the specific topic of nuclear waste disposal.



Papers on applications of inorganic, organic, and isotope geochemistry are therefore welcome provided they meet the main criterion. The executive editor is Ron Fuge (Institute of Geography & Earth Studies, University of Wales, Aberystwyth, Ceredigion, Wales SY23 3DB, UK. Fax: +44 (0) 1970 622659, e-mail: rrf@aber.ac.uk). IAGC members benefit from discounted subscription cost for *Applied Geochemistry*.

Some of the papers scheduled to be published in the early part of 2005 are listed below.

- J. Jönsson, P. Persson, S. Sjöberg, and L. Lövgren: Schwertmannite precipitated from acid mine drainage: phase transformations, sulphate release and surface properties.
- J. E. Gray, D. L. Fey, C. W. Holmes, and B. K. Lasorsa: Historical deposition and fluxes of mercury in Narraguinnep Reservoir, southwestern Colorado, USA.
- D. N. Castendyk, J. L. Mauk, and J. G. Webster: A mineral quantification method for wall rocks at open pit mines, and application to the Martha Au-Ag mine, Waihi, New Zealand.
- B. L. Brown, A. D. Slaughter, and M. E. Schreiber: Controls on roxarsone transport in agricultural watersheds.
- G. Jaks, P. Bhattacharya, and V. Chaudhary: Controls on the genesis of high-fluoride waters in India.
- M. A. Glaus, B. Baeyens, M. Lauber, T. Rabung, and L. R. Van Loon: Influence of water-extractable organic matter from Opalinus Clay on the sorption and speciation of Ni(II), Eu(II) and Th(IV).
- R. L. Seiler, K. G. Stollenwerk, and J. R. Gabarino: Factors controlling tungsten concentrations in ground water, Carson Desert, Nevada.
- Z. Cheng and K. A. Foland: Lead isotopes in tap water: implications for Pb sources within a municipal water supply system.

**THE GOLDSCHMIDT CONFERENCE 2005**

For the first time, IAGC is collaborating with the Geochemical Society, the European Association for Geochemistry, and the Mineralogical Society of America to sponsor the 15<sup>th</sup> annual Goldschmidt Conference. This premier international geochemistry conference ([www.uidaho.edu/gold2005](http://www.uidaho.edu/gold2005)) will be held in Moscow, Idaho (USA) from 20 to 25 May, 2005. IAGC will organise the three symposia described below. Interested geochemists are encouraged to participate in this special conference and, if appropriate, one of the three IAGC-sponsored sessions.

**The geochemistry of mercury – session SS-74**

Conveners: John Gray ([jgray@usgs.gov](mailto:jgray@usgs.gov)), U.S. Geological Survey, and Mark Hines ([Mark\\_Hines@uml.edu](mailto:Mark_Hines@uml.edu)), University of Massachusetts

There is currently abundant research involved in the evaluation of natural and anthropogenic mercury contamination of the air, land, water, and wildlife worldwide. Presentations in this session will discuss the global mercury cycle, mercury distribution and speciation at contaminated sites, and mercury cycling in terrestrial and aquatic systems.

**The halogens and their isotopes in marine and terrestrial aqueous systems – session SS-75**

Conveners: Glen Snyder ([gsnyder@rice.edu](mailto:gsnyder@rice.edu)), Rice University and Jean Moran ([moran10@llnl.gov](mailto:moran10@llnl.gov)), LLNL

The generally conservative nature of halides in groundwater and marine systems has led to their

application as tracers in marine and hydrological systems. Over the past 25 years, the development of accelerator mass spectrometry (AMS) techniques for determination of I-129 and Cl-36, along with the development of stable isotope techniques for chlorine, has opened up new avenues for examining halogen migration and residence times. The goal of this session is to provide a forum to address any aspect of the halogens and their relation to aqueous systems, including the interactions between ocean, soil, freshwater, and atmospheric reservoirs.

**Watershed-scale geochemistry – session SS-81**

Conveners: Berry Lyons ([lyons.142@osu.edu](mailto:lyons.142@osu.edu)), Ohio State University, and David Long ([long@msu.edu](mailto:long@msu.edu)), Michigan State University

The focus of this session is geochemistry at the watershed scale. Of specific interest are the geological, mineralogical, and geochemical nature of sources and sinks and their impact on local and global geochemical cycles; the factors determining mineral alterations at the Earth's surface; geochemical kinetics of mineral-water interactions during rock weathering; the hydrological, hydrochemical, and biogeochemical processes that occur along fluid pathways and influence the migration of elements through the landscape; and the geochemistry of human impacts on watersheds.

**GORDON RESEARCH CONFERENCE ON INORGANIC GEOCHEMISTRY AND ORE DEPOSITS****Metals in ore-forming systems: Sources, transport, and deposition**

PROCTOR ACADEMY, ANDOVER, NEW HAMPSHIRE, JULY 31 – AUGUST 5, 2005

The Gordon Research Conference on Inorganic Geochemistry addresses the geochemistry of metal-rich systems. The organizers are seeking expressions of interest from those who wish to participate. Subsidies for students and junior level participants are anticipated, particularly for those presenting posters. We also seek the participation of women and members of minority groups.

A preliminary program and conference details are available at [www.grc.uri.edu/programs/2005/inorggeo.htm](http://www.grc.uri.edu/programs/2005/inorggeo.htm). The organizers are Jean Cline, Steve Garwin ([steve.garwin@geoinformex.com](mailto:steve.garwin@geoinformex.com)), and Chris Heinrich ([heinrich@erdw.ethz.ch](mailto:heinrich@erdw.ethz.ch)). Those who wish to participate should contact Britt Meyer by e-mail at [meyer@erdw.ethz.ch](mailto:meyer@erdw.ethz.ch). Those who wish to present a poster are invited to send a brief abstract together with expression of interest. To apply for funding, contact Jean Cline ([cline@ccmail.nevada.edu](mailto:cline@ccmail.nevada.edu)).