Newsletter

of the

International Association of GeoChemistry

Number 57, November 2012

*** Issue Highlights ***

New IAGC President…	Rich Wanty
New & Retiring AG Editors…	Michael Kersten & Ron Fuge
New IAGC Board Members…	WG Leaders
Award Nominations…	4 Jan Deadline
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NEWS FLASH

Rich Wanty will be the IAGC President for 2013-14

and

IAGC Member **Michael Kersten** takes over in 2013 as Executive Editor of *Applied Geochemistry*

CONGRATS RICH & MICHAEL !

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WHO ARE THESE NEW GUYS?

Rich Wanty



- B.A., geochemistry, State University of New York at Binghamton
- M.S., geochemistry, Colorado School of Mines
- Ph.D., geochemistry, Colorado School of Mines

Rich has been a research chemist with the USGS since 1981. His research interests center around environmental geochemistry, and coupling of geologic, hydrologic, and geochemical processes. Current research topics include: landscape geochemistry and the relation between soil and ground-water geochemistry; geochemistry of mined or unmined mineral deposits and natural background geochemistry; geochemistry of non-traditional stable isotopes, especially those of iron, copper, and zinc. Another current project is examining the usefulness of data mined from large online databases to evaluating regional geochemical baselines. Previous research focused on brines produced with

hydrocarbon resources, geochemistry of natural radionuclides in ground-water supplies, ground-water geochemistry in agricultural areas, and geochemistry of sandstone-hosted U-V deposits.

Rich bikes, skis, hikes, camps, fishes, and tries his hand at just about anything else that one can do outside.

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Michael Kersten



- Habilitation in Geochemistry, Technical University of Hamburg, 1996
- PhD, Technical University of Hamburg, 1988
- Diploma, Technical University of Darmstadt, 1983

Michael is currently a Professor of Environmental Geochemistry and Mineralogy at Johannes Gutenberg-University Mainz. He is currently, head of the Environmental Geochemistry and Mineralogy Group with 3 laboratories and 25 members including Post Docs, PhD, and MS students. Michael has published >200 published papers, >50 listed in WoS, with an h-index = 19.

Michael's previous appointments include Baltic Sea Research Institute at Rostock University 1995-97, and Post-Doctoral Fellow, ETH Zürich, 1993-94. He has served as an Associate Editor for the *Journal of Soils and Sediments* since 2007, and *Applied Geochemistry* since 1998.

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LETTER FROM THE PRESIDENT



This is my inaugural letter as incoming President of IAGC. I'm not sure, but within my 2-year term I expect we will see some large changes in the Association and in the world around us. Some of these include:

- Changes in our official journal, *Applied Geochemistry*
- As scientists we live in an ever-changing world, with publications venues changing, communications, technology, etc. One of the benefits of being an IAGC member is to be part of a global network of colleagues, organized for our mutual advancement and maintaining the excellence of our science.
- Turnover in our board of Officers and the Council, as members' terms are

completed and new members step up to volunteer.
- Time marches on, and we are always happy to welcome new young members and unfortunately saying sad goodbyes to others.

The biggest, and most immediate change, is that our *Applied Geochemistry* Editor, Ron Fuge, is stepping down after 19+ years in the job. I have had the great fortune to be a friend of Ron's for some time, and it really is not possible to say thanks in a sufficient way. From my perch in Denver, Colorado, I am removed from Ron by 7 time zones, but there have been many times when I get messages from him when I know it is approaching (or past) midnight in Aberystwyth, or on weekends, holidays, you name it. Under Ron's tenure, our journal impact factor has increased from below 1 to significantly over 2, and the number of papers submitted annually has more than quadrupled. Ron's dedication to our journal and our society has been beyond exemplary. Whether you have published in *AG* or not, we all owe Ron a huge debt of gratitude.

Another large debt of gratitude goes to Michael Kersten, the new Editor-in-Chief of *Applied Geochemistry*. Michael volunteered to take Ron's position and was IAGC's nomination to succeed Ron. We all appreciate his willingness to serve in this most important capacity. I look forward to getting to know Michael and working with him.

Of course, as some of us rotate into new positions, others are transitioning out. Clemens Reimann has been our President the past two years and has done a marvelous job of maintaining the Association in excellent health, including negotiating our current contract agreement with Elsevier which helps support the day to day Association operations, but also funds the graduate student research grant program and the Working Group meetings that Association supports financially. Clemens now begins a 2-year term as Past President, and I look forward to continuing to learn from his experience. Russ Harmon is transitioning out of the Past President position, and I cannot thank Russ enough for his dedication to IAGC, and for all his hard work over the past 20 years. Russ continues to be an extraordinarily valuable asset to the Association, and he is currently working on the next version of our contract with Elsevier.

Fortunately for all of us, Tom Bullen will remain on as Secretary and Berry Lyons as Treasurer, and we are all supported by the dedicated work of Chris Gardner, our Business Office manager.

One of the things that continually strengthens our scientific network is communication amongst us. This can take a variety of forms, from this Newsletter to attending Working Group meetings, to simple email. With that in mind, I am always open to suggestions/comments or anything else. Please email me at rwanty@usgs.gov. I look forward to working with all of you.

-Rich

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ASSOCIATION NEWS

Membership for 2013

Don't forget to renew your IAGC membership for 2013 today so you don't miss any issues of *Elements*! The membership fee remains **only $25** and includes a one year hard copy subscription to *Elements* magazine. Visit www.IAGC-Society.org and click on "Society, Membership" for payment options. When you renew, make sure your delivery address is up-to-date.

This year, online-only access to *Applied Geochemistry* will be available for $76 for professional members, and $57 for student members.

New Working Group - Environmental Geochemistry

A proposal has been put forward to form a new "Environmental Geochemistry" working group within IAGC headed by Ron Fuge and with Olle Selinus as second in command. Council needs to approve forming this new working group – after we have the required number of votes from council we can establish the group as of Jan. 1, 2013. The main task of the group will be to run the International Symposium on Environmental Geochemistry (ISEG) every three years and to look after our relations with the International Medical Geology Association (IMGA) and the Society for Environmental Geochemistry and Health (SEGH). Because this is an "active" working group according to our definition (i.e. that active working groups periodically run a conference), the new WG will automatically have a position on council at the end of this year as leader of the new working group.



Olle Selinus and Ron Fuge

Overview of the ISEG

The International Symposium on Environmental Geochemistry (ISEG) was started many years ago. Since then this very popular international symposium has been held every three years and has visited almost all continents. IAGC has provided support for these symposia ever since the beginning. The most recent conference, the 9th ISEG was held in Aveiro, Portugal the past July. However, these symposia have never had any formal organisation or association behind it. Thus, there was a great risk that this very popular series would come to an end if it did not develop a society sponsor.

History of the ISEG

The history of ISEG started late 1980s. An initial local symposium on environmental geochemistry was held in Finland. After that, discussions came up in Uppsala, Sweden to organise a regular international symposium series on 'Environmental Geochemistry'. The discussion Olle Selinus of the Geological Society of Sweden and Prof. Mats Olsson of the Swedish University of Agricultural Sciences in Uppsala led to the first truly international ISEG symposium. No organisation was behind this conference but, from the beginning, a core group of three geochemical scientists provided leadership to these symposia: Prof. Iain

Thornton, Ron Fuge and Olle Selinus. It was also decided that these symposia were to be held every three years. Thus, the following symposia were held:

Sweden 1991,
Poland1994,
USA 1997,
South Africa 2000,
UK 2003,
China 2006,
Brazil 2009,
Portugal 2012

The next symposium is scheduled for 2015. It will be the Working Group's aim to decide on the next venue. One proposal has been submitted, from Perth, Australia.

Objectives of the Working Group

The main task for new Working Group on Environmental Geochemistry will be responsible for deciding on ISEG venues, providing guidance to the meeting organizers, and the mandated annual reports to IAGC. Other organisations will be represented within the Working Group, for example, the International Medical Geology Association (IMGA) and the Society for Environmental Geochemistry and Health, (SEGH). Like the other Working Groups that organize periodic conferences, the Environmental Geochemistry Working Group will be represented on the IAGC Council.

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Extended call for 2013 Award Nominations

EXTENDED TO 4-JAN 2013

The window of opportunity for submission of nominations for the 2013 will be extended from through 4 January 2013. Nominations should be sent by e-mail to IAGC Secretary Tom Bullen (*tdbullen@usgs.gov*).

Awards to be bestowed in 2013 are the:

- *Ebelmen Award,*
- *Distinguished Service Award,*
- *IAGC Fellow, and*
- *IAGC Certificate of Recognition.*

Note that no current IAGC Officer, Council Member, Standing Committee Member, Working Group Leader, the Journal Executive Editor, or Business Office Manager may be nominated for an award.

The IAGC ***Ebelmen Award*** is given biennially to a geochemist of particular merit and outstanding promise less than 35 years old at the time of nomination. A nomination for the Ebelmen Award shall consist of a letter or e-mail of nomination less than two pages from any IAGC member in good standing that (i) profiles the nominee, (ii) provides relevant career information, and (iii) includes a short list of important scientific accomplishments and the most important publications of the nominee.

The IAGC ***Distinguished Service Award*** shall is bestowed intermittently as a deserving candidate is identified 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. Nominations for the Distinguished Service Award shall consist

of an e-mail nomination not more than one page in length from any IAGC member in good standing that describes why the nominee is deserving of the award.

The honorary title of ***IAGC Fellow*** is bestowed annually to no more than two scientists who have made significant contributions to the field of geochemistry. Nominations for IAGC Fellow shall consist of an e-mail of nomination of one paragraph from any IAGC member in good standing that describes why the nominee is deserving of this special honor. The nomination should contain the suggested citation text.

Nominations for ***IAGC Certificate of Recognition*** shall consist of an e-mail of nomination of a single short paragraph in length that explains why the nominee is deserving of IAGC recognition as follows: (i) to any scientist for outstanding scientific accomplishment in a particular area of geochemistry, (ii) to other geochemists for excellence in teaching or public service, or (iii) to an IAGC member for meritorious service to the Association or the international geochemistry community. The nomination should contain the suggested citation text.

For detailed instructions on nominating procedures for all awards, please visit: http://www.iagc-society.org/awards.html

SUBMIT YOUR NOMINATIONS NOW!

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Last Minute Call For 2013 PhD Student Research Grant Applications

Due 1-December 2012!

The objective of the IAGC Student Research Grant program is to assist PhD students in geochemistry with undertaking and acquiring geochemical data and analyses in support of the student's Dissertation research. IAGC Student Research Award consist of a grant of up to $3000 (US) to support the analytical and data acquisition needs of a geochemistry PhD student and a 1-year membership to IAGC for the year following receipt of the award. Full instructions are available at: www.iagc-society.org/phd_grants.html

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Ron Fuge Retires as Applied Geochemistry Executive Editor

Many Thanks for more than 19 years of dedicated service, Ron!!!



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2012 Elsevier PhD Student Research Grant Recipients

Three *Elsevier PhD Student Grants* were awarded for 2012. The recipients are:

Alice Du Vivier - Durham University, UK: "Osmium isotopes in late Cretaceous OAE 2: implications for Palaeoclimate and Palaeocirculation"



Alice Du Vivier

Du Vivier completed an MSc in Geology at Durham University in 2010. During the 4th year of her undergraduate she began work on a NERC funded project using osmium isotopes to constrain the driving mechanism(s) of the late Cretaceous oceanic anoxic event 2 (OAE2). This enabled her to incorporate her interest in paleoclimatology and paleoceanography with advanced and high-resolution geochemistry, undertaken in a world class laboratory. Alice has remained at Durham University for her PhD to expand her work using osmium isotopes during the late Cretaceous. Her PhD aims to establish initial osmium isotope profiles for the global paleobasins during the OAE2; she has completed fieldwork in France, Canada, China and Japan, and obtained samples from IODP 530A and California. She was awarded a grant from the Geological Society of London to assist her fieldwork costs in Japan. The support from the IAGC will enable Alice to add another dimension to her thesis by coupling calcium isotope work with the initial osmium isotope data, from GSSP Pueblo obtained during my 4th year, in order to constrain and highlight the influence of increased weathering on seawater isotope compositions.

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Jill Ghelerter – Georgia State University, USA: **"**Enhanced Bioremediation of Oiled Salt Marsh Sediments Using Clay Minerals**"**



Jill Ghelerter

Jill Ghelerter obtained a BS and MS in Geology from Florida Atlantic University in Boca Raton, FL (USA). She is a PhD student in geochemistry at Georgia State University in Atlanta, GA (USA) under the direction of Dr. Daniel Deocampo and she is working toward a Geographic Information Systems (GIS) certificate. Her research is focused on environmental pollution in both marine and terrestrial settings. She applies geochemical data

and techniques to solve environmental pollution problems. Jill is determining the role different types of clay minerals have in influencing microbial bioremediation of marine oil spills. She is also using GIS to evaluate soil pollution caused by anthropogenic sources in urban settings and the potential impact that contaminated groundwater may have on water resources.

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Peter Tollan – Durham University, UK. "Modern Arc Peridotites: Analogues for Continental Root Evolution over 3 Billion Years?"



Peter Tollan

Peter earned an MSc in geology from the University of Bristol in 2010. During this four year undergraduate degree program, he also studied for a year at the University of Oregon, where he developed and began to pursue an interest in high temperature geochemistry.

He is currently a PhD student in the Department of Earth Sciences at Durham University, where he is studying the geochemistry of the mantle in subduction zones. This award will contribute towards an extended period of work at the Australian National University, investigating the chemical controls on the partitioning of water between nominally anhydrous mantle minerals. The data obtained will help elucidate how efficiently water and other components are recycled during subduction and the impact this has on the ability of arc mantle to preserve its unique chemical signature over deep geological time.

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IAGC Governance Change

A meeting of the IAGC Board was held on 21 September 2011 in Tarragona, Spain during the AIG-9 symposium. One decision taken by the Board during this meeting was that the IAGC Working Groups that organize the periodic conferences that constitute the scientific activity of IAGC should play a more active role in the governance of the Association. This was to be accomplished by those Working Group Leaders having a place on the IAGC Board. Initially, this means that the Leaders of the Water Rock Interaction, Geochemistry of the Earth's Surface, Applied Isotope Geochemistry, and BIOGEOMON Working Groups will have representation on the IAGC Board, with full voting rights, commencing with the Association leadership change scheduled for 1 January 2013. Therefore, rather than elect replacements for the four term-limited Council Members, the size of the elected Council was to be reduced from 10 to 6, with the four Working Group Leaders assuming the vacant seats. This change has been implemented in a revision to the IAGC Statutes and By-Laws. Anticipating action

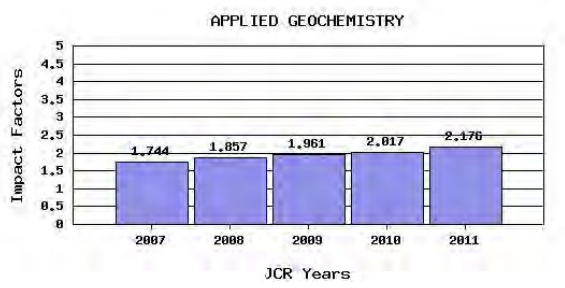
by the Board, the IAGC Council will be expanded to 13 members to make a place on Council for the Leader of the new Working Group on Environmental Geochemistry.

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NEWS FROM ELSEVIER

Dear IAGC Members:

As the Publisher of *Applied Geochemistry*, the journal of the IAGC, it is my pleasure to share with you two exciting announcements from the past few months and some news regarding a new pilot project in content innovation.



Firstly, I invite you to join me in celebrating the new 2011 Impact Factor for *Applied Geochemistry*, which was released in June 2012. I am delighted to announce that the journal saw another rise in Impact Factor to 2.176 (2011 Impact Factor), the highest Impact Factor since 2006. It is also noteworthy that the journal appears in the top quartile by 5-year Impact Factor, Total Citations and Eigenfactor score. For this success we must extend our gratitude and compliments to: Ron Fuge, the Editorial Board and our reviewers, for providing the journal with clear editorial direction and assessing the quality of papers submitted to the journal, and the authors who considered *Applied Geochemistry* as a home for their high quality manuscripts. We look forward to continuing to work with you, the members of the IAGC, to bring the journal from strength to strength. Please feel free to approach the Editor-in-Chief of the journal, or myself as Publisher, with any suggestions you may have to improve the Journal, and in particular any ideas of themes and authors/editors for review articles and topical special issues.

Our second announcement for this issue of the newsletter concerns the Editor-in-Chief role. As you may be aware, Ron Fuge steps down as Editor-in-Chief on 31st December 2012. I would like to take this opportunity to thank Ron for his stewardship of the journal over the past 19 years, and for his ceaseless energy, enthusiasm and commitment to *Applied Geochemistry* throughout his tenure as Editor-in-Chief. I am delighted to announce that Ron will continue to support the Journal as a member of the Editorial Board. With the support of both IAGC and Elsevier, it also gives me great pleasure to announce that Michael Kersten has been selected to succeed Ron as Editor-in-Chief of *Applied Geochemistry* effective 1st January 2013, and has accepted the appointment. Please join me in welcoming Michael and wishing him every success in his new role.

You will have gathered from my previous update that content innovation – enhancing the online article in three directions: content, context and presentation – is something about which Elsevier is extremely passionate. Hence, in closing I would like to share a few brief words on a new innovation currently being piloted at Elsevier: Audio Slides, short (five-minute) webinar-style presentations created by the author of the

paper from slides and voice recordings using a special website developed by Elsevier. This latest innovation allows authors to really connect with the readers by explaining their research in their own words, and helps readers to better understand what a paper is about and determine its relevancy. This initiative is currently in pilot phase for 12 journals. You can view an example from a health science journal here: http://www.sciencedirect.com/science/article/pii/S1550728912000664. As always, please do feel free to contact me to share any suggestions you have for further enhancements, and I will be pleased to discuss these with you. In creating innovations to enhance your author and reviewer experiences, we rely on you to tell us what is important to your community, what systems/tools and workflows are key and/or unique to your discipline, and what your pain-points are, so please do reach out to us. I look forward to sharing more news with you in the Spring 2013 newsletter. In the meantime, on behalf of the *Applied Geochemistry* team at Elsevier, best wishes to you and yours for an enjoyable Festive Season and a good start to the New Year.

All the best,
Katie

Katherine Eve, Publisher
AppliedGeochemistry, Elsevier Limited
k.eve@elsevier.com

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INGERSON INTERNATIONAL LECTURER FOR 2013



The IAGC Ingerson International Lecture is based on a bequest by Dr. Earl Ingerson, first President of the Association. The Lecturer is selected for odd-numbered years. The selection for 2013 is Prof. **W. Berry Lyons** of The Ohio State University, who will deliver his lecture in June 2013 at the 14th Water-Rock Interaction Symposium in Avignon, France. After that, Berry will be available during 2013 & 2014 for seminars at academic and research institutions on the basis of expenses-paid invitation.

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UPCOMING *APPLIED GEOCHEMISTRY* SPECIAL ISSUES

Published Nov 2012: (issue 11) *Geochemistry of Arsenic During Low-Temperature Water-Rock Interaction*: Huaming Guo and George Breit (editors) - 10 papers mostly from WRI-13, and GSA (Denver) in 2010.

In press: *Applied Isotope Geochemistry* (Tom Bullen and Neus Otero, editors) - 19 papers from AIG-9.

In prep*: Carbon Dioxide Sequestration* – (Katherine Romanek, Yousif Kharaka & Russell Harmon, editors) - 15 papers - from WRI-13

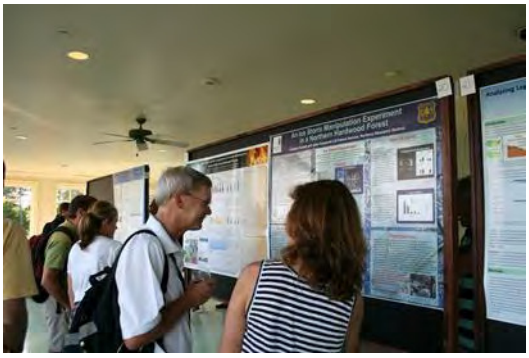
2012 MEETING REPORTS

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BIOGEOMON 2012



The First International Meeting on Ecosystem Behavior, subsequently called *BIOGEOMON*, was held in Prague, Czech Republic back in 1987. The two founding fathers were Prof. Tom Paces and Bedrich Moldan of the Czech Geological Survey. Tom also founded the Working Group on Water-Rock-Interaction, another member of the IAGC family, and Bedrich, after the Berlin Wall fell, turned into a politician and became a cabinet minister and Senator. So far, 7 Biogeomon meetings have been held in Europe and the US, attracting on average over 200 participants from over 30 countries on 5 continents. The main themes have always included hydrochemical and isotope monitoring in small catchments, biogeochemistry of forest ecosystems, large-scale ecosystem manipulations, and predictive modelling of ecosystem health status. Carbon and nitrogen cycling, as well as linkages among biogeochemical cycles of environmentally relevant elements, have also always belonged to well-attended BIOGEOMON sessions. BIOGEOMON became a Working Group of IAGC in 2010.



The 7th BIOGEOMON was organized by Prof. Steve Norton and Ivan Fernandez of the University of Maine. The symposium, held on July 15-20, 2012, took place in a scenic, near-shore location of the Northport country club in rural Maine, US. The highlight topics also included archives of past pollution levels, biosphere-atmosphere interactions, trace metal cycling, peatland biogeochemistry and the role of extreme events. Nearly half of the contributions were related to global change. In all, there were 211 full registrants (253 impacted professionals, including workshop participants and volunteers; 53 students). In addition to 6 plenary talks, there were 122 contributed oral presentations and 85 posters.



The plenary speakers included Emily Berhardt (Duke University, US), Filip Moldan (Swedish Environmental Research Institute), Paul Mayewski (Climate Change Institute, US), Daniel Engstrom (St. Croix Watershed Research Station, Minnesota, US) and Jiri Kopacek (Czech Academy of Sciences). Paricipants came from North and South America, Asia, Australia and Europe.



Eight field trips offered a close look at some of the field sites known to most biogeochemists from catchment-oriented literature. Tiffany Wilson was in charge of local arrangements. Dale Johnson, Kel Wieder and Melanie Vile serve as the guest editors of a special issue of *Biogeochemistry*, dedicated to original full-length papers presented at Northport. The meeting was closed by a speech by Senator George J. Mitchell. Both the guest speaker, and the organizers received a standing ovation on the last day of a very enjoyable and productive meeting.

The next BIOGEOMON will be organized by Egbert Matzner, Gerhard Gebauer and Stefan Peiffer at the University of Bayreuth in Bavaria, Germany.

Martin Novak
Czech Geological Survey

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GSA 2012

IAGC sponsored 4 technical theme sessions at this year's GSA meeting, which was held in Charlotte, NC from 4-7 November. Thanks to IAGC member session co-chairs and members who made technical contributions.

T1. Sources, Transport, Fate, and Toxicology of Trace Elements and Organics in the Environment. David T. Long, W.B. Lyons, & LeeAnn Munk (co-chairs)

Basic and applied research on trace elements and organics in the environment. Topics include those that relate to understanding and modeling sources, transport and fate; human and ecosystem health; and environmental assessment and remediation.

T7. Progress in Forensic Geochemistry. Nancy McMillan (chair)

The scope of forensic geochemistry has expanded due to rapid development of analytical tools for elemental and isotope ratio analyses. This session covered geochemical approaches to tracing environmental contaminants, materials provenancing, and other forensic applications.

T8. Hydrochemistry and Biogeochemistry of Tropical Mountainous Rivers and Estuaries. Steven Goldsmith & Ryan Moyer (co-chairs)

This session contained contributions that examined the hydrochemistry of tropical mountainous rivers and/or the biogeochemical cycling and fluxes of material delivered by tropical mountainous rivers to their associated estuarine and coastal waters.

T9. Geochemistry of Urban Environments. W.B. Lyons & David T. Long (co-chairs)

This session contained presentations that qualify and quantify the geochemical and biogeochemical impacts of urbanization and urban activities on

soil, water, and air resources as well as human and ecosystem health.

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New Urban Geochemistry Session at GSA

IAGC and the Urban Geochemistry working group sponsored the first Urban Geochemistry session at the annual Geological Society of America meeting in Charlotte, NC in November. It is planned that this session will be a continuing one at future GSA meetings. There were 11 oral presentations and another 11 posters that contained a very wide diversity of topics ranging from the concern for potential Pb contamination from urban gardening to the impacts of urban disasters on human health. A number of themes were evident from the presentations. They included: 1) geochemical inhomogeneities in the urban setting and how to deal with them in the design of hypotheses, sampling campaigns, and data analysis; 2) what are 'background' concentrations in urban environments?; 3) the potentially harmful concentrations of chemicals in many urban areas currently; 4) the need to link geochemistry to human health risk; 5) the influence of the legacy of human development in time and space and its interplay with environmental policy and technological innovation; and 6) the need to better characterize the chemistry of complex urban materials.

-W. Berry Lyons, The Ohio State University and David T. Long, Michigan State University

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CHARITABLE GIVING TO THE IAGC

Members can make a charitable gift to IAGC, either for general fund support or for special initiatives during online membership renewal. You may donate at any time online, either during your membership renewal or separately.

US members who need an additional tax deduction for 2012 should make their contribution prior to 31 December. One IGAC initiative for which additional income is required is the **IAGC Y. K. Kharaka Award.** This award will be bestowed annually on 3 deserving scientists from developing countries and will consist of a framed certificate plus an IAGC membership and *Applied Geochemistry* subscription for a term of three years. However the IAGC Board has decided that the initiation of the award would be delayed until a fund of $5000 was raised and invested to create a sustainable situation. Thus, donations are particularly sought so that this award can be implemented without delay.

As the Newsletter goes to press, there is just about $2300 in the Kharaka Award Fund. This means that only another $2700 is needed. So, if 60 Members were each to make a charitable gift of $50 right now through the IAGC web site (www.iagc-society.org/donate.html) this fund raising goal will be realized.

IAGC is a 501(c)3 non-profit organization and donations to the Society are tax-deductible in the U.S. (EIN: 48-0943367).

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2013 MEETINGS

Water-Rock Interaction XIV

Avignon, France

9-14 June 2013

http://www.wri14-2013.fr

A. Fundamentals of water-rock interactions

- Thermodynamics and kinetics
- Migration and transport phenomena in fractured and porous rocks
- Mineral surfaces, water – mineral or glass interfacial processes
- Biogeochemical water-rock interactions
- Water-gas-rock interactions
- Developments in the measurement and application of Stable and radiogenic isotopes
- Experimental design for laboratory and field investigations
- Role of water in fault behavior and deformation
- Modeling of water – mineral or rock interactions
- Aquatic chemistry of actinides and fission products

B. Specific environments

- Water in petrogenesis and magmatic processes
- Deep fluids and geothermal systems
- Pore water chemistry in sediments and sedimentary basin evolution
- Weathering of rocks and soil formation
- Interactions in the vadose zone and soils
- High salinity continental fluids
- Ore deposits and ore forming processes
- Petroleum and oil field genesis
- Volcanic fluid interaction with rocks
- Water-rock interaction in arid and semi-arid climates
- Extraterrestrial water-rock interaction

C. Applications and environmental hazards

- Water resources and groundwater quality
- Exploration of geothermal resources
- Geological sequestration of CO2
- Oil and gas shale exploitation
- Mine tailings, acid mine drainage, remediation
- Radioactive and toxic waste: geological disposal and storage, alteration of matrices
- Risk assessment and remediation of brownfields and contaminated sites
- Transport and fate of contaminants in shallow and deep contexts
- Water rock interaction and health

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AIG-10

Budapest, Hungary

22-27 September 2013

http://www.aig10.com

The biennial conference of the IAGC Working Group on Applied Isotope Geochemistry will be held in Budapest, Hungary from 22-17 September 2013. The main aim of the AIG meetings is to provide a forum where a wide range of applications of isotope analyses in geosciences and related fields are presented. The techniques cover the

whole range of isotope analyses from light element stable isotope ratios to dating used in paleoclimate studies. In the following the main themes are given that are traditionally included in AIG scientific programs or have been identified as hot topics of recent years. Session proposals should mainly focus on the framework of the main themes, however, sessions dealing with additional fields are also welcome.

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Goldschmidt Conference 2013

Florence, Italy

25-30 August 2013

http://goldschmidt.info/2013/

Technical Session Themes:

- Cosmochemistry & Planet Formation
- Early Earth
- Deep Earth
- Mantle Geochemistry
- Continental Crust
- Subduction
- Melts, glasses, magmas: from properties to processes
- Evolution of Earth's Environment
- Interfaces from the nano to macro scales
- Volcanoes and Hazards
- Earth Resources: Energy
- Ores: Their Construction, Destruction and Politics
- Climate Change
- Atmospheric aerosol in air quality and climate: the science and solutions
- Weathering, Climate, Tectonics and Surface Processes
- Oceans and Atmosphere
- Anthropogenic Impacts on Pollutant Dynamics
- Biogeochemistry: Activities, mechanisms and cycles
- Frontiers in Analytical Techniques
- Frontiers in Computational Geochemistry
- The Cutting Edge in Mineralogy and Mineral Physics
- Hydrogeochemistry

* * * * * *

WELCOME NEW MEMBERS

IAGC has added 21 new members since May and extends a welcome to:

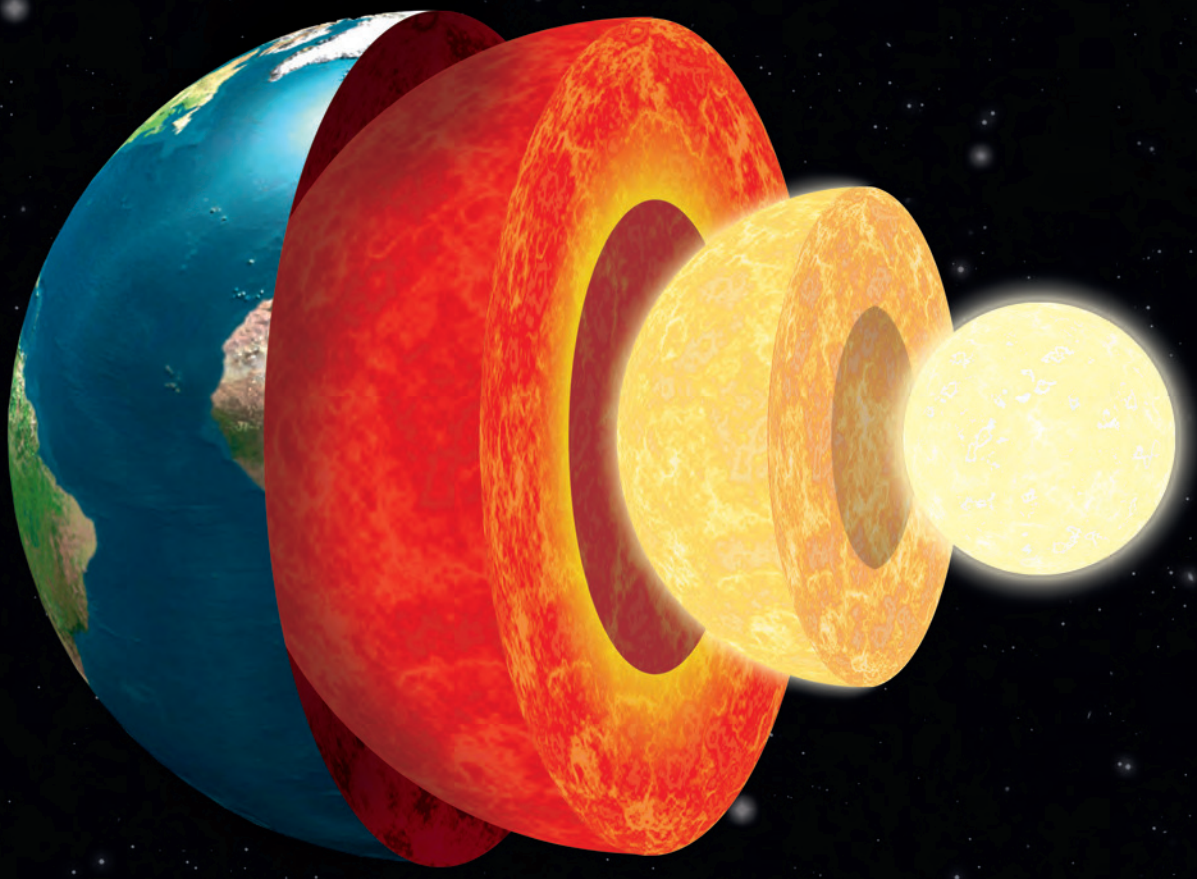
Ned Murphy
Alexandro Scislewski
Skadi Tirpak
Diederik Jacques
Kato Dee
Saif Eldin Siddeeg
Renguang Zuo
Rebecca Richards
Nurdan Duzgoren-Aydin
Steven Wilchinski
Geoffrey Giudetti
James Hansen
Vicente Jr Clemente
Veronica Canales
Adamu Mohammed
William Fearon
Tyna Truong
Jolene Hermanson
Gideon Lambiv Dzemua
Robert Netshitungulwana
SeungYoul Yoo

* * * * * *

CLEMENS REIMANN INTERVIEW

See the next page for IAGC President Clemens Reimann's interview about the IAGC in the European Journal *International Innovation*.

International Association of GeoChemistry



Dr Clemens Reimann, President of the IAGC, outlines the wide-ranging activities of the Association in advancing geochemistry and providing support to the global research community in their work to elucidate the mechanisms behind Earth's major geological systems

What are the main aims and objectives of the International Association of GeoChemistry (IAGC)?

The IAGC, formerly known as the International Association of Geochemistry and Cosmochemistry, is affiliated with the International Union of Geological Sciences and has been one of the pre-eminent international geochemical organisations for over 40 years. The principal objective of the IAGC is to foster cooperation in, and advancement of, geochemistry in the broadest sense.

The specific objectives of the IAGC are threefold:

- To foster the use of the tools and techniques of chemistry to advance the understanding of the Earth and its component systems for the benefit of mankind and modern society
- To contribute to advancement in geochemical research throughout the world, including both fundamental geochemical research aimed at understanding the global earth system and applied geochemical research that addresses problems of particular relevance to the welfare of mankind and society
- To promote international and educational cooperation in geochemistry through outreach activities

The primary scientific activities of the IAGC take place through its working groups, many of which conduct regular symposia, and the official journal of the association, *Applied Geochemistry*.

The IAGC works with interested groups in planning symposia and other types of meetings related to geochemistry. What benefits do these meetings bring and what form do they take? Are policy makers among the list of attendees or is it mostly academics?

IAGC is an Affiliated Society of the Geological Society of America (GSA) and sponsors technical theme sessions at the GSA annual meeting, which enhances the scientific profile of both organisations. IAGC provides advertising, and sometimes financial support, to the International Symposium of Environmental Geochemistry, which raises the awareness of a new group of scientists to IAGC. IAGC sponsors the conferences of its Working Groups, which bring new members into IAGC.

The working group meetings are typically rather small conferences with 100-200 participants focusing on specific scientific topics (eg. water rock interaction, applied isotope geosciences, geochemistry of the Earth's surface, biogeochemistry). Thus, they are aimed at scientists working in a small and well-defined field of geochemistry. Because they are small and consciously kept small, they provide excellent opportunities for scientists to network, since getting a chance to discuss these issues with all participants and to forge new working relations is no longer possible at much larger events. Due to this, the IAGC conferences are presently not aimed at policy makers, though at many working group meetings, local dignitaries may open the conference. However, the main attendees are academics, and other researchers from government and industry. We have not considered the step to actively try to involve policy makers in the meetings yet, and that would in fact be the task of the Working Group Chairs if they feel that this is needed.

What types of geochemistry publications do you sponsor? Would you say that you tackle issues not broached by other organisations?

IAGC sponsors the journal *Applied Geochemistry* and is a co-sponsor of the mineralogical and geochemical community bi-monthly magazine *Elements*. IAGC provides a special forum for scientists interested in the applications of the principles and approaches of chemistry and geochemistry to societal problems and, to this end, special issues of *Applied Geochemistry* are published that focus on specific topics of important current importance. For example, in the past year we have had special issues devoted to the biogeochemistry of mercury, arsenic in groundwater, and studies of clay-rich rocks as possible nuclear waste disposal sites.

How have you benefited from studying problems that require international cooperation? What might some of these problems involve?

Scientists around the world tend to have a number of different perspectives, in part because of the variety of regulations imposed by different governments around the world, and due to differences in culture and education. This diversity of background and research approaches can provide complementary relationships that sometimes lead to greater research successes. Our Working Group meetings are attended by diverse international audiences that have led to numerous collaborative projects over the past few decades. One reason for the success of the Working Group meetings may be that they are focused on a single theme, are relatively small, and are still organised by dedicated scientists. Thus, they provide unique opportunities for networking and obtaining new friends from around the world.

Regarding your education initiatives, could you describe your outreach work and if this had led to any further developments? Are enough geochemists coming up through the ranks?

IAGC sponsors a PhD student grant programme that supports worthy students from around the world in obtaining funds to assist with undertaking and acquiring the geochemical analyses that will inform their dissertation research. In many cases these funds are granted to students in countries that are historically poorer, so our intent in these cases is to advance scientific research where none might otherwise occur. Whether enough applied geochemists are entering the field is a difficult question to answer, as traditionally many geochemists work in the raw materials field and demand for qualified geochemists has fluctuated considerably during the last few decades. At present there is a severe shortage of geochemists, at least for the mineral resources related activities, which is directly related to the research policies of many nations. In Europe, for example, there are very few economic geology positions left at universities and there is not a single dedicated position for regional geochemistry.

In terms of the future, what plans do you have? Is growth essential to development?

Current political and economic developments threaten the existence of small learned societies. IAGC needs to grow by some 30-50 per cent to be a viable organisation for the long term, and we have been exploring

how best to utilise the conferences we sponsor in this context. However, we want to keep our conferences small and personal, as we feel that this type of conference is essential to foster better communication and cooperation between scientists.

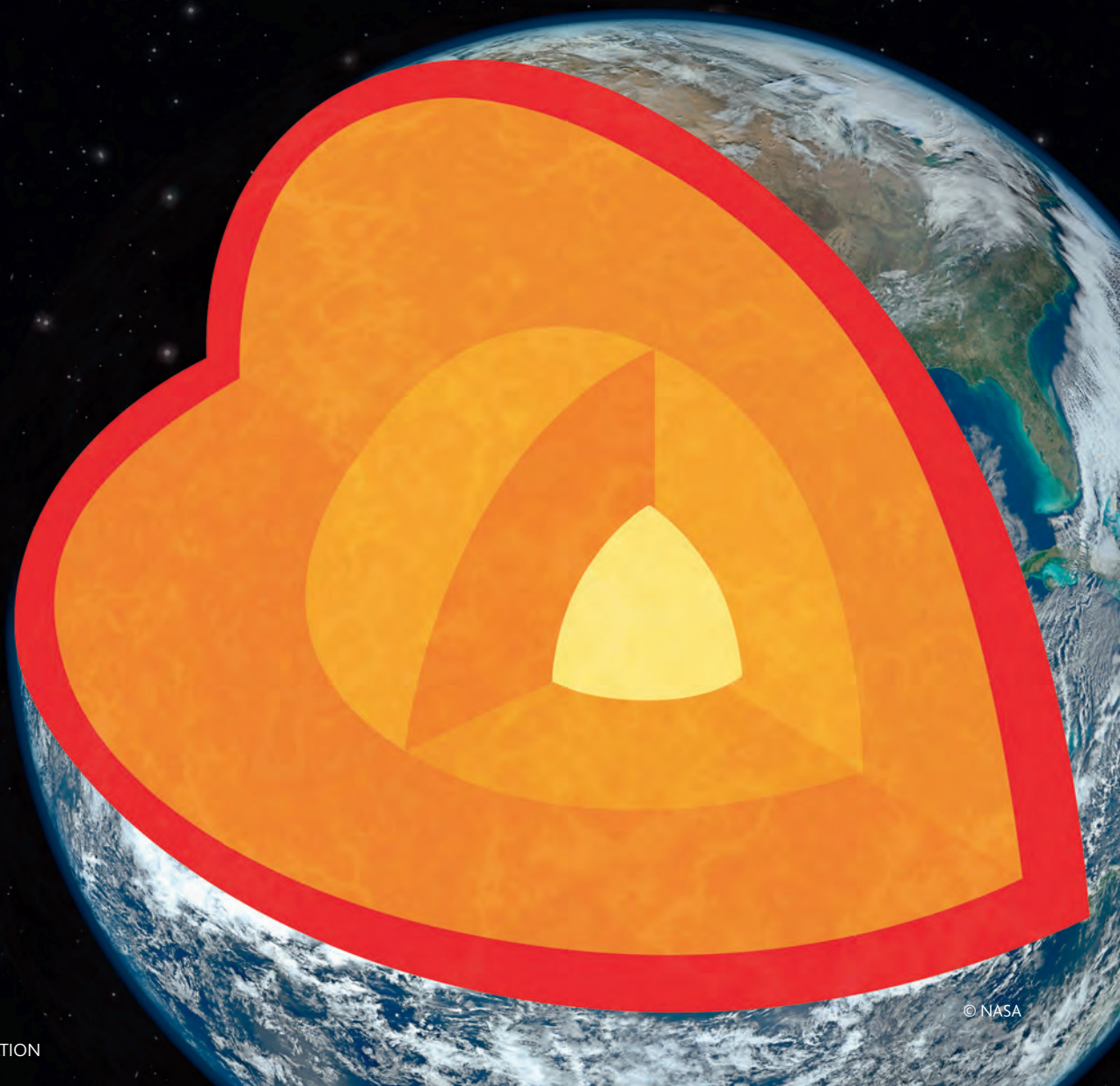
At present there exist many associations in the field of geochemistry, for example the European Association of Geochemistry (EAG), Association of Applied Geochemists (AAG), Geochemical Society (GS), and Society of Environmental Geochemistry and Health (SEGH); some smaller, some larger, some international, and some that work on just one continent. The primary question is whether there is still room for so many different small organisations in the near future, or whether it would be beneficial to join forces. Thus, the IAGC is exploring the possibility of developing collaborative relationships with other societies that have complementary goals and objectives. The problem is really the balance between the size needed to survive financially and becoming too large to keep in contact with your members.

How would you say that the IAGC have advanced the understanding of the earth and its component systems for the benefit of modern society?

The IAGC journal, the conferences of its Working Groups, the technical sessions it sponsors, and the scientific research of its members – which is frequently presented to the community by these means – has strongly advanced the application of the techniques and approaches of chemistry and geochemistry to problems of global and societal importance. We focus on all aspects of geochemistry that have some practical application to an aspect of human endeavor, such as the preservation of the environment, environmental monitoring, agriculture, health, waste disposal and the search for natural resources. We work in the heterogeneous near-surface environment, the Earth's critical zone, where atmosphere, biosphere, hydrosphere and pedosphere meet. Understanding the geochemical processes in this critical zone is paramount for the survival of humanity. Membership in international organisations such as IAGC foster greater international collaboration, but benefit the individual as well, by providing educational and research opportunities that are not otherwise available.

www.iagc-society.org





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International Association of GeoChemistry (IAGC)
2013 Membership Form (For Payment by Check)

iageochemistry@gmail.com | www.iagc-society.org

1. Membership

☐ I'm a New Member -or- ☐ I'm a Renewing Member. email:_____

Membership	Cost (USD)
IAGC Membership – 1 or 2 years	☐ 1yr-$25 ☐ 2yr-$50

1. Sub Total $_____

2. Charitable Giving

I would like to make a tax-deductible donation in the following amount (in USD)*:

A. Ebelmen Award $_____ C. Kharaka Award $_____

B. Distinguished Service Award $_____ D. Where most needed $_____

2. Sub Total $_____

3. Journal Subscription

Applied Geochemistry is now online-only at the following cost (USD):

A. Full Member - $76.00 B. Student Member - $57.00

3. Sub Total $_____

4. Contact Information *(all fields required)*

Title: _____

First Name: _____

Middle Name: _____

Last Name: _____

Institution: _____

Department: _____

Address 1: _____

Address 2: _____

City:_____State/Prov._____

Postal Code:_____Country:_____

Phone: _____

Email: _____

5. Demographic Information

Please help us better understand our membership. This information will help us better allocate resources and improve communication with our members.

How do you prefer to receive IAGC communication?
☐ Email ☐ Snail Mail ☐ Social Network (*Facebook, Linkedin*) ☐ Other: _____

Profession:
☐ Student ☐ Faculty ☐ Post-doc
☐ Gov't Sector ☐ Private Sector ☐ Other_____

In what year were you born? _____

Please list Working Group meetings you've attended:

_____

_____

What is your sub-discipline/personal interest in geochemistry?

_____

6. Grand Total

Sum of Sections 1, 2, and 3 $_____

7. Payment by Check

☐ Check *(payable to International Assoc. of Geochemistry)*

Instructions for Payment by Check

Mail this completed form along with your check to the IAGC Business Office (address below)

If you would like to pay by credit card, please visit our website and click on "Society," then "Membership." We are unable to process credit cards outside of the website.

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