



# Newsletter

of the

# International Association of GeoChemistry

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Chris Gardner, Newsletter Editor  
BusinessOffice@iagc-society.org

## From the President

Starting my challenge as the IAGC President for a two-year term, I want to thank our outgoing President and Past-President, Ian Cartwright and Rich Wanty, for their commitments to IAGC during years of service as Council members, Vice-President and President.



Ian now starts a two-year term as Past-President, and I look forward to having benefits of his experience. I also would like to welcome Neus Otero, from the Universitat de Barcelona, as Vice-President.

The group of members who serve as officers, Council members, and working group leaders are the core team of the Association and their dedication assures the continued success of the IAGC. The working groups (Water-Rock Interaction, Global Geochemical Baselines, Applied Isotope Geochemistry, Geochemistry of the Earth's Surface, Urban Geochemistry, Biogeochemistry and Environmental Geochemistry) are the foundation of the Society and continue to organize important and successful meetings such as the recent meetings in France (AIG-11 in Orléans) and Portugal (WRI-15 in Evora). Compared to other societies, the IAGC has developed a different but complementary strategy for meetings.

Rather than big meetings that aim to represent a large forum for science, our working groups organize dedicated and focused meetings that allow more important scientific exchanges. The next planned meeting is 12th Applied Isotope Geochemistry (AIG-12) in Copper Mountain Colorado, USA organized by Rich Wanty (US Geological Survey).

IAGC is still a healthy and growing society and this is strongly related to our journal, *Applied Geochemistry*. *AG* is going strong thanks to the excellent management of our executive editor. Great work was done in the past by our experienced editor, Ron Fuge (19 years as editor) who retired from this position at the end of 2012. Michael Kersten from Johannes Gutenberg University (Mainz) replaced Ron, and since he took the position of executive editor, the journal has journal metrics have all increased. Between 2014 and 2015: Total Cites from 8,883 to 9,648, Impact Factor from 2.268 to 2.468, and *AG* is now ranking 29 of 81 journals in the category Geochemistry & Geophysics, reflecting the great job he did with the precious collaboration of the associated editors. However, in addition to the authors that want see their scientific research published, ***AG* needs reviewers**. If you are solicited, please accept and make a positive impact on our science and the Association, because the IAGC lives off the royalties from *AG* and all IAGC members have a keen interest its success. Indeed, our contract with Elsevier led to important financial support for the working groups and to fund the Elsevier PhD Student Research Grant Program. The journal also needs enthusiastic associate editors, so if you are interested please contact Michael Kersten.

Another important program is the IAGC / Elsevier PhD Student Research Grants, the aim of which is to attract more students to the Association ([www.iagc-society.org/phd\\_grants.html](http://www.iagc-society.org/phd_grants.html)). It is important to motivate young scientists and students to become active in the IAGC, become members of a global network of colleagues, and participate in our working groups.

In our modern world, intense communication is a strong reality and this is also a driver for science. For the IAGC, this includes everything from Elements, to this Newsletter, our working groups meetings, and even our Facebook and LinkedIn pages. One key objective of the next two years is to define and adapt our communication to continually strengthen the network between scientists. We are open to suggestions/comments, or anything else. Please do not hesitate to contact us: Philippe Negrel (p.negrel@brgm.fr) or Neus Otero (notero@ub.edu)

I look forward working with all of you.

- Philippe Négrel  
IAGC President

## Association News

### 2018 Award Nominations

The IAGC will be accepting award nominations for 2018 **through December 31**.

**The Vernadsky Medal** - awarded for a distinguished record of scientific accomplishment in geochemistry over the course of a career:

<http://www.iagc-society.org/vernadsky.html>

**The Kharaka Award** - bestowed to up to two deserving scientists (which may include senior graduate students) from developing countries. The award consists of a framed certificate plus an IAGC membership and *Applied Geochemistry* subscription for a term of three years. [http://www.iagc-society.org/kharaka\\_award.html](http://www.iagc-society.org/kharaka_award.html)

**The Harmon Distinguished Service Award** - bestowed on a deserving candidate 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:  
[http://www.iagc-society.org/distinguished\\_service.html](http://www.iagc-society.org/distinguished_service.html)

**IAGC Fellow** - bestowed to a scientist who has made significant contributions to the field of geochemistry:  
[http://www.iagc-society.org/iagc\\_fellows.html](http://www.iagc-society.org/iagc_fellows.html)

**Certificate of Recognition** - awarded to IAGC Members for outstanding scientific accomplishment in a particular area of geochemistry, for excellence in teaching or public service, or for meritorious service to the Association or the international geochemistry community:  
[http://www.iagc-society.org/certificate\\_recognition.html](http://www.iagc-society.org/certificate_recognition.html)

**Hitchon Award** –Awarded to authors of the most highly-cited paper in *Applied Geochemistry* 5 years earlier, according to SCOPUS. This award consists of a framed certificate to the lead author and a complementary 1-year membership to IAGC for all authors for the year following receipt of the award, if not already an IAGC member. The award recipients will be cited in the IAGC Newsletter and website.  
<http://www.iagc-society.org/hitchon.html>

## 2017 Awards

We are pleased to announce our Society Awards for 2016. Congratulations to all the recipients, and thank you for your service to the IAGC and the geochemical community!

### Harmon Distinguished Service Award

**Rich Wanty**, US Geological Survey, Denver, Colorado. Rich served as IAGC Vice President 2011-2012, President 2013-2014, and just finished his term as Past President. During this time under his leadership, the IAGC added three new Working Groups: Urban Geochemistry, Environmental Geochemistry, and BIOGEOMON. In addition, Rich fostered more interaction between the IAGC and other organizations such as the Geochemical Society. Rich continues to be an international leader in the Applied Isotope Geochemistry Working Group (AIG), where he has been a major scientific contributor. This year, he is leading the AIG-12 meeting in Copper Mountain, Colorado. Rich always brings great energy and a positive attitude to all he does; he was a thoughtful and collegial leader, setting an example for all who follow. Rich is truly deserving of the Harmon Distinguished Service Award for 2017.



## IAGC Fellow

**John J. Gurney**, Emeritus Professor of Geochemistry in the Department of Geological Sciences at Cape Town University, South Africa, has made significant contributions to the field of geochemistry over the course of a 50+ year professional career.



Prof. Gurney received his PhD 1968 from University of Cape Town (UCT), which was followed by post-doctoral fellowship at the Smithsonian Institution from 1970-71. As an academic staff member at UCT from 1963 to 1974, John undertook upper mantle research that investigated the upper mantle beneath the South African craton and addressed the origin of kimberlites by establishing and leading the Kimberlite Research Group. John has authored 273 peer-reviewed research publications, a body of work which defined our current understanding of kimberlites and established the way in which diamond exploration is presently conducted. John was granted a Personal Chair in Geochemistry in 1984 and is a Lifetime Fellow of the Royal Society of South Africa. Other awards John has received include:

- IAGC Certificate of Recognition for a Career of upper mantle and diamond research and its practical application in 2007,
- Distinguished Lecturer of the Society of Economic Geologists in 2006
- Society of Economic Geologists Silver Medal for contribution to mineral exploration in 2005
- Professional Management Review Golden Arrow Award - Most admired individual in Geology Education in South Africa in 1999
- Draper Memorial Medal - Premier Award of the

Geological Society of South Africa in 1995  
 - International Lecturer Award of the Society of Economic Geologists in 1992.  
 - Alex L du Toit Memorial Lecturer Award of the Geological Society of South Africa -1989

A chemist by training, John's first research appointment was in 1963 as an analyst in Prof. Louis Arhens research team in the newly formed Geochemistry Department at UCT. Trace element studies on mantle xenoliths lead to a PhD and a Post Doctoral Fellowship at the Smithsonian Museum, Washington DC. Returning to UCT, he was appointed head of the newly created Kimberlite Research Group (KRG), in 1972, a position he held until his retirement in 2004. During this period the KRG was a prolific source of mantle related theses and publications in scientific journals. UCT also hosted two very successful kimberlite conferences with John's input and attracted visiting scientists to participate in joint research projects. Since his official retirement, while continuing his mantle research, John has established Mineral Services Ltd, a company that consults for the diamond exploration industry

**Yu-Ping (Yo) Chin.** Yo has been a faculty member at the Ohio State University since 1991. He is an environmental and organic geochemist and has made important and seminal contributions to the investigation of both naturally occurring and xenobiotic organic matter, its characterization, and its behavior in aquatic systems. He has co-authored 95 referred publications on the topics of naturally occurring dissolved organic matter and trace metal-organic matter interactions, and the effects of photo-oxidation and redox changes on anthropogenically introduced pesticides,



herbicides, fire-retardants, and other like compounds. Besides the quantity of his work, the quality of his work is also very high. He currently has an h-index of 36 (ISI Web of Science) with citations approaching 6000. He has published in some of the best environmental geochemistry journals in the world, with 30 publications alone in the ACS journal, *Environmental Science and Technology*. He currently serves on *ES&T's* Science Advisory Board. He has been honored by ACS with an Excellence in Reviewing Award, with a Certificate of Appreciation for Service, and has won numerous Certificate of Merit for Oral Presentation Awards. He recently stepped down as a member in the U.S. National Research Council's (NRC) Water Science and Technology Board, and he has been a member of the Committee on Future Options of the Nations Subsurface Remediation Effect.

He has been a contributing member of IAGC's Urban Geochemistry Working Group, contributed one of the four papers to the Special Issue of *Elementa* devoted to this topic, was a co-author on the groups recent review paper (Chambers et al. 2016) in *Applied Geochemistry*, and has contributed another paper to the special issue of *AG* on Urban Geochemistry.

In addition to his scholarly and service contributions, he has also been an outstanding classroom teacher and student mentor. Eleven of his graduate students over the past 13 years have won prestigious fellowships; many of them are now faculty members, or leading research in government laboratories.

In his over 20 years at Ohio State, Dr. Chin has developed a distinguished record of Research, scholarship, service and teaching, one that is worthy of consideration for Fellowship in IAGC, as he is clearly an international leader in the field of aquatic organic geochemistry.

## Kharaka Award

**Parthasarathi Chakraborty**, CSIR - National Institute of Oceanography, India. Partha received his PhD from Carleton University in Canada in 2007. Partha has an impressive scientific resume for someone in his stage of career. He has worked on trace metals, including mercury, and has developed his expertise in studies in both the water column and sediments.



He has 46 publications and these have been highly cited - his h-index is 16, according to Google Scholar and he has received a total of 538 citations. The top papers deal with important and interesting aspects of the environmental chemistry of metals. The most highly cited paper is his 2012 work on lead and cadmium speciation in sediments. Other papers dealing with metal binding and speciation are also highly cited, including his paper on Cd-humic interactions. Other highly cited papers deal with metal in effluents and in sediments. Overall, Partha has recently published at a high rate, averaging 6 paper per year!

Partha is well-recognized for his knowledge, being a member of two Scientific Committee on Oceanic Research (SCOR) working groups, and has received the Krishnan Award from the Geological Society of India, as well as other awards. He has a number of graduate students and it is clear that he is very productive and his students find success working with him.

The IAGC is happy to bestow the Kharaka award to Parthasarathi Chakraborty for recognition of his accomplishments, and we

wish him well in all his future endeavors in geochemistry.

## Hitchon Award

The Hitchon Award is given annually to a paper of significance published in the IAGC journal, *Applied Geochemistry*. The award is given to the *Applied Geochemistry* paper from 5 years ago (to allow for time to make an impact) that has the most citations according to SCOPUS. All authors will receive recognition here in the IAGC Newsletter and on the IAGC website, as well as a complimentary 1-year membership.

This year's recipient of the **Hitchon Award** applying Liming Ji's **2012** paper "Experimental investigation of main controls to methane adsorption in clay-rich rocks" with 120 citations since its publication in 2012. *Full Citation:*

Ji, L., Zhang, T., Milliken, K.L., Qu, J., Zhang, X., 2012. Experimental investigation of main controls to methane adsorption in clay-rich rocks, *Applied Geochemistry*, 27(12), 2533-2545. **cites = 120**

Additionally we would like to recognize two 2012 papers for **Honorable Mentions:**

Blanc, P., Lassin, A., Piantone, P., Azaroual, M., Jacquemet, N., Fabbri, A., Gaucher, E.C., 2012. Thermodem: A geochemical database focused on low temperature water/rock interactions and waste materials 2012 *Applied Geochemistry*, 27(10), 2107-2116 **cites = 62**

Luo, X.-S., Yu, S., Li, X.-D., 2012. The mobility, bioavailability, and human bioaccessibility of trace metals in urban soils of Hong Kong. *Applied Geochemistry*, 27(5), 995-1004. **cites = 52**

Congratulations to all the 2017 Hitchon Award and Honorable Mention authors!

## Elsevier PhD Student Research Grant Winners

The IAGC is happy to announce the recipients of the 2017 Student Research Grants, sponsored by Elsevier and the IAGC. The PhD Student Research Grant program assists geochemistry PhD students to acquire geochemical analyses in support of their dissertation research. Every year, we have many strong research proposals from students from around the world, and every year the awards become even more competitive. This year we allocated more funds so we could distribute five awards. The success of these grantees demonstrates the high caliber of their research. Congratulations to our grantees!

**Bryce Mitsunaga** - *University of California, Los Angeles, USA.* "A reconstruction of temperature and  $\delta^{18}\text{O}$  data since the Last Glacial Maximum using soil and gastropods from the Chinese Loess Plateau."



Bryce Mitsunaga graduated from Williams College with a BA in Geosciences and is currently a PhD student in the department of Earth, Planetary, and Space Sciences at the University of California, Los Angeles. Bryce is exploring several applications of the carbonate "clumped" isotope thermometer: one project involves a reconstruction of Central Asian climate during the last Ice Age using  $\delta^{18}\text{O}$ ,  $\delta^{13}\text{C}$ , and multiple-heavy isotope  $\text{CO}_2$  data from soil carbonates and fossil terrestrial snail shells. The second proposes to characterize conditions at the Meso- / Neoproterozoic boundary through analyses of  $\text{CO}_2$  and trace metals from billion-year old Lake

Superior stromatolites. He also studies the systematics of CO<sub>2</sub> isotopologue thermometry: by establishing baseline values using artificially-reordered minerals, he hopes to better quantify the fractionation that occurs during their dissolution in acid.

**Maxence Guillermic** - *Institut Universitaire Européen de la Mer, France.* “Past evolution of ocean carbon sources and sinks in response to climate change.”

Maxence Guillermic is a PhD student at the Institut Universitaire Européen de la Mer (IUEM, France), with co-advisors at UCLA and the University of Cambridge. Maxence is working at the intersection of marine geochemistry and paleoceanography. He reconstructs Cenozoic pH and pCO<sub>2</sub> changes using boron isotopes ( $\delta^{11}\text{B}$ , a pH proxy) and trace element analyses (e.g., B/Ca, Mg/Ca) on multiple foraminifera species, and will learn about clumped isotopes (a temperature proxy). The goal of his thesis is to understand the role of past changes in marine carbon sources and sinks during critical climate transitions when there is evidence for changes in atmospheric greenhouse gas levels. Maxence earned a MSc of marine chemistry from IUEM in 2015, where his work involved characterizing the isotopic composition of Germanium in seawater



**Suzette Timmerman** - *Australian National University, Australia.* “Diamonds – Time capsules of volatiles and the key to dynamic Earth evolution.”

Suzette Timmerman earned her BSc in Earth Sciences in 2012 and MSc in Solid Earth in 2014 at the VU University Amsterdam (the Netherlands). She is currently doing her PhD at the Research School of Earth Sciences at the Australian National



University (Australia). Her work focuses on the origin and cycling of volatiles in the mantle by studying diamond samples from Brazil, Southern Africa, and Australia. Suzette uses diamond samples with ages ranging from 3.2 to 0.07 Ga to study noble gas compositions in the mantle through time. Noble gas analyses will be complemented by Cathodoluminescence imaging, nitrogen content and carbon isotope analyses, major element analyses of mineral/fluid inclusions, and trace element analyses to constrain the growth environment and diamond-forming fluid. She also compares lower mantle/transition zone and upper mantle diamonds for their noble gas compositions, and eclogitic and peridotitic diamonds to evaluate potential noble gas subduction into the diamond stability field. This will help to develop a better high-resolution model of the structure of the Earth's mantle and its evolution.

**Kirstin Washington** - *University of Southern California, USA. "Weathering and Climate from the Middle Devonian to the Upper Permian."*

Kirstin Washington earned her Bachelors in Environmental Sciences (2011) and MS in Applied Geosciences (2012) from the University of Pennsylvania (USA). She is currently a PhD student in the Department of Earth Sciences at the University of Southern California (USA). Her research focusses on understanding chemical weathering processes in the past and present. She utilizes dissolved  $\delta^7\text{Li}$  ratios of modern river water and hydrothermal fluids to investigate the relationship between low- and high-temperature rock/water interactions. Additionally, she is pairing  $\delta^7\text{Li}$  compositions of ancient carbonates and clumped-isotope thermometry to understand the relationship between climate, chemical weathering, and biotic changes over geologic timescales. She measures  $\delta^7\text{Li}$  ratios via multi-collector inductively-coupled-plasma mass spectrometry (MC-ICP-MS) and carbonate clumped isotopes using a specially configured mass spectrometer.



**Mabrouk Sami** - *University of Vienna, Austria. "Rare Metal Granites, Central Eastern Desert, Egypt: Geochemistry and Economic Potentiality Red Sea Mountains, Eastern Desert, Egypt (Nubian Shield in East Africa)"*

Mabrouk Sami earned his BSc (Hons) in Earth Sciences and MSc in Geochemistry / Geochemical Exploration from the Faculty of Sciences at Minia University (Egypt). He is currently a PhD student in the Department of Lithospheric Research, at University of Vienna (Austria). He studies the mineralogy, geochemistry and geochronology of

rare metal bearing granitoids in the Central Eastern Desert of Egypt. His work focuses on unravelling the timing and sources of rare metals (such as Nb, Ta, Th, U, Sn and REE) enrichment in highly fractionated granitic rocks using whole rock chemistry (major, trace and REE), U-Pb zircon and Sr-Nd radiogenic isotopes. The composition of rare metal economic minerals will be determined by electron microprobe analysis (EMPA) and laser ablation inductively coupled plasma mass spectrometry (LA-ICP-MS). Mabrouk used a combination of these different geochemical methods to understand the petrogenesis and magmatic processes that controlled the formation of highly fractionated granitoids and associated rare metal mineralization.



## Working Group News

### Urban Geochemistry Special Issue

The [Urban Geochemistry Working Group](#) just completed their [Special Issue on Urban Geochemistry](#) in *Applied Geochemistry*! The issue contains topics ranging from legacy contamination of lead in cities, to human-accelerated weathering, to tracing the  $\delta^{13}\text{C}$  of atmospheric  $\text{CO}_2$  in cities. The issue is in print in August, and [available online now](#).

## Charitable Giving

Members can make a charitable gift to the 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. Please donate right now through the IAGC web site ([www.iagc-society.org/donate.html](http://www.iagc-society.org/donate.html))

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

The following members donated while renewing their membership dues for 2017. Thanks for your generosity and for supporting the IAGC and our mission!

Gwen Macpherson

William Evans

Rich wanty

Russell Harmon

Bernhard Mayer

Janet Herman

Rona McGill

Iñaki Vadillo-Perez

Robert Zielinski

Radomir Petrovich

Bret Leslie

Patrice de Caritat

Cynthia Venn

Miriam Kastner

Teodora Szocs

Heather Buss

Veselin Mladenov

Roberto Sanchez

Orfan Shouakar-Stash

Yousif Kharaka

Robert Dedoes

Carl Palmer

Silvia Carrasquero

## Meeting Report

### WRI-15

The 15th International Symposium on Water-Rock Interaction (WRI-15) was held in Évora in Portugal, a UNESCO World Heritage City, 16–21 October, 2016. The Organizing Committee was led by its Secretary General, Prof. José Manuel Marques (Centre for Natural Resources and Environment, Instituto Superior Técnico, University of Lisbon), who was greatly assisted by many colleagues and graduate students.

About 300 delegates from over 33 countries registered for the Symposium. Participants received a memory key with the WRI-15 proceedings, edited by Jose Manuel Marques and Antonio Chambel, and published as *Procedia Earth and Planetary Science*, volume 17, 2017. This volume consists of 247 papers peer reviewed by 76 expert reviewers, with open access, totaling 980 pages.



WRI-15 "Family" photo

Scientifically, WRI-15 continued the excellent traditions of previous WRI symposia. The oral and poster presentations covered the latest research results of water-rock interaction, including trending ones judging from the large number of worldwide students it attracted. Some of the major topics covered were:

- New insights into thermodynamics and kinetics of water-rock interactions
- Developments on water-gas-rock interactions
- Water-rock interaction in volcanic systems and natural hazards
- Water quality at active and abandoned mines
- Improvements in water-rock interaction and ecohydrology of arid and semi-arid environments
- Controls and impacts on groundwater quality and quantity
- High- and low-enthalpy geothermal systems, among others

The content proved to be of a very high scientific level, both in regards to oral and poster presentations as well as great networking interaction. The WRI-15 Scientific Committee received a large number of extended abstracts, which resulted in 144 Oral Presentations, 132 Posters and 23 e-Posters.

Plenary lectures, covering the various themes of WRI were among the highlights of the symposium. The scientific program started with the first plenary speaker Fernando Noronha, of the Porto University, Portugal on “Fluids and Variscan Metallogenesis in Granite related Systems in Portugal.” A plenary lecture was given by Alexis Navarre-Sitchler from the Colorado School of Mines, USA on “Complex Coupling of Fluid Transport and Geochemical Reaction Rates: Insights from Reactive Transport Models.” Giuseppe Etiope from INGV in Italy talked about “Abiotic Methane in Continental Serpentinization

Sites,” and Yanxin Wang of China University of Geosciences, China presented the plenary lecture “Remediation of high Arsenic aquifers by learning from Nature.” Mark Chappell from the US Army Engineer Research and Development Center, USA gave us insights into the topic “Predicting Soil Geochemistry Processes using the Emerging Pedo-Informatic approach.” “The Environmental Effects of Unconventional Energy Development and Hydraulic Fracturing: Lessons from the United States” was a very interesting lecture given by Avner Vengosh from Duke University, USA. In the closing plenary lecture, António Costa e Silva, Partex Oil & Gas, Portugal, discussed “Water, Energy and Environmental Challenges in the XXI Century: Solutions for the Future.” A special session dedicated in honor of our friend and colleague Mike Edmunds was initiated by the plenary talk “Mike Edmunds: fifty years of water, rock and interaction” by his colleague at the British Geological Survey, George Darling, was also one of the highlights of WRI-15.

The posters were evaluated by an international committee consisting of four colleagues who did a great job talking to all of the colleagues and students present during the poster sessions. They awarded Markus Baum, CEA, France with the Best Overall Poster. Christiane Meier, UFZ, Germany was awarded the Best Student Poster and Amit Reiss, Ben Gurion University, Israel was selected runner up. The committee also awarded an honorable mention for Excellent Poster Presentation to Noriyoshi Tsuchiya, Tohoku University, Japan.

As has been the custom at previous WRI meetings, active scientists associated with the symposia were honoured by the WRI Group. Six people were designated as “Friends of WRI:” Professor Enrique Merino, Professor Stepan Shvartsev, Professor Tianfu Xu, Dr. Katherine Romanak, Dr. Roland Hellmann, and Professor Mark Reed. Furthermore, three WRI leadership awards were awarded to Dr. Richard Wanty, Dr.

D. Kirk Nordstrom, and Professor Jose Manuel Marques.

The very popular mid-week Symposium field trips were led by senior Portuguese researchers and scientists and covered topics such as:

- Hyperalkaline mineral waters ascribed to serpentinization (Cabeço de Vide), led by José Manuel Marques
- The Lousal Pyrite Mine, led by Manuel Francisco Costa Pereira, Jorge Relvas and Álvaro Pinto
- The Hard Rock Aquifers of Évora, guided by António Chambel



The Lousal Pyrite Mine: the open pit, acid water spring

The conference concluded with a Post-Symposium field trip to the Azores Islands (São Miguel), organized by José Manuel Marques, and was attended by 20 senior researchers and focused on the main topics of thermal and mineral waters and high temperature geothermal resources.



Azores Islands (São Miguel): the Furnas area with the presence of numerous mineral waters and thermal springs and fumaroles

Secretary General for WRI-16 will be Natalia Guseva of the Tomsk Polytechnic University, Russia, and WRI-16 to be held in Tomsk, Russia in 2019. We are expecting another excellent symposium and a large attendance for WRI-16 in 2019.

- Thomas Kretschmar, Chairman, WRI working group
- José Marques, Secretary General, WRI-15

## GES-11

The 11th International Symposium on Geochemistry of the Earth's Surface (GES-11) took place 11-16 June, 2017 in Guiyang, China. We'll have a full meeting report in the next Newsletter!

## 2017 Meetings

### 12<sup>th</sup> International Symposium on Applied Isotope Geochemistry (AIG-12)



17-22 September 2017

Copper Mountain Resort in Colorado, USA

Early Registration Deadline: **August 11** |

Abstract Deadline: **August 1**

[www.appliedisotopegeochemistry.org](http://www.appliedisotopegeochemistry.org)

To give as many people as possible the chance to register for the 12th Applied Isotope Geochemistry Symposium (AIG-12), we have made an adjustment to our registration and abstract deadlines.

The early registration deadline has been extended to 11 August. The abstract submission deadline is now 1 August. Abstracts submitted after 1 August will be considered for posters only as long as time permits.

The current early registration fees (all fees are in USD) will apply through Friday 11 August, at which time the professional registration will go from \$650 to \$1000 for IAGC members and \$685 to \$1035 for non-members. Student registrations will go from \$450 to \$500 for members and \$485 to \$535 for non-members. Of course, we encourage you to register and submit your abstracts as soon as possible!

We look forward to seeing you in beautiful Copper Mountain, Colorado this September!

### Program

Our intent is to highlight the use of light stable isotopes, radiogenic, non-traditional (non-CHONS), and any other isotope methods in each of the topical sessions, rather than to feature individual methods in each session. Our hope is that this will produce the greatest amount of cross-fertilization of our varied approaches in isotope geochemistry. The following session topics have been proposed by the Scientific Committee, but we also will be very happy to receive presentations on other topics in isotope geochemistry:

- Water isotopes and hydrologic tracers: A symposium to honor the memory of Prof. Klaus Fröhlich
- Analytical developments and applications to water-rock interactions
- Isotope tracers in soil-plant-water interactions
- Isotope proxies in the critical zone: Deciphering time-dependent processes in weathering profile, natural and anthropogenic fingerprinting of surface and groundwater and residence time assessment
- Advances with isotopes in polluted environments and delineation of anthropogenic impacts
- Multi-isotope approaches to trace sources and fate of nutrients and contaminants at the catchment scale
- Isotopic tracing of environmental impacts of development of conventional and unconventional energy resources

## BIOGEOMON 2017 - 9th International Symposium on Ecosystem Behavior

20-24 August, 2017  
Litomyšl Chateau, Czech Republic  
<http://www.biogeomon.cz>

The symposium will focus on biogeochemistry in an era of global change. Long-term trends in ecosystem functioning and stoichiometry of biogeochemical processes in upland and wetland soils will be emphasized, along with catchment monitoring/modelling, and translocations of nutrients, micronutrients and trace metals in forest ecosystems, grasslands and extreme environments. We look forward to seeing you in the lovingly restored 16th century town of Litomyšl.

**Highlight Topics include:** Catchment monitoring and modelling | Process-level studies in upland and wetland soils | Interactions between biogeochemical cycles of C, N, P, S, Ca and Mg | Micronutrients and trace metals in ecosystems | Biogeochemistry in an era of global change | Linking microbial communities with element pools and fluxes | Traditional and novel isotope systems in the environment | Ecosystem restoration/rehabilitation/management

### Sessions:

1. Catchment monitoring/ manipulations/ models
2. Long-term trends in ecosystem functioning
3. Biosphere-atmosphere interactions in an era of global change
4. Belowground turnover of carbon in forest ecosystems
5. Biogeochemistry of wetlands
6. Controls on dissolved organic matter fluxes
7. Biogeochemistry of nitrogen
8. Cycling of phosphorus in forest, grassland and wetland ecosystems

9. Links between the biogeochemical cycles of C, N, S, P, Ca and Mg
10. Trace-element and metal biogeochemistry
11. Stoichiometry in process-level studies
12. Linking biodiversity and biogeochemistry
13. Weathering and chemical processes as keys to ecosystem functioning
14. Linking microbial communities with element pools and fluxes
15. The role of dead wood in forest biogeochemistry
16. Traditional and novel isotope systems in the environment
17. Archives of past changes in pollution levels/climatic parameters
18. Extreme events and ecosystem health
19. Arctic environments
20. Ecosystem restoration/ rehabilitation/ management

## Goldschmidt 2017

13-18 August, 2017  
Paris, France  
<https://goldschmidt.info/2017/>

### Program:

1. Early Solar system
2. Making of planets (session for exoplanet exploration, impacts)
3. Early Earth
4. Earth's Mantle and Core
5. Crust to Mantle - Mantle to Crust
6. Crustal differentiation and specialization
7. Minerals and Geomaterials
8. Nano to microscale processes in geochemistry
9. Weathering, erosion and climate (past, present and future)
10. Chemistry of ocean (past present and future)
11. Environmental geochemistry (groundwater, rivers, lakes aerosols, particulates, aerosols etc.)

12. Geochemistry and culture (archeology, forensic, agriculture, paleo)
13. Geochemistry of contaminants and pollution
14. Geobiology of the Past (mass extinction, fossils, origin of life)
15. Geobiology of the Modern
16. Climate and Atmosphere of the Anthropocene
17. Paleoclimate
18. Mineral resources for society
19. Energy resources for society
20. Geo-omics meets Organic Geochemistry
21. Innovation in geochemical methods
22. Models and data in geochemistry
23. Education, Outreach and Career Opportunities



## ISEB23 - International Society for Environmental Biogeochemistry

24-29 September 2017  
Palm Cove, Tropical North Queensland,  
Australia  
<http://www.iseb23.info>  
[iseb23@pco.com.au](mailto:iseb23@pco.com.au)

The Symposium brings together environmental scientists with a diverse range of interests in an intimate setting which encourages close

interactions and exchange of information. A major attraction of the ISEB Symposia are their broad, cross-disciplinary coverage and single theme format. Attendance is typically 150 people. 2017 Symposium theme is: "From cells to Earth scale processes: traversing the breadth of temporal and spatial scales in biogeochemistry." The meeting will consist of several thematic sessions led by keynote speakers who are experts in their field. The topics covered in the 23<sup>rd</sup> ISEB Symposium are:

- Biogeochemistry of mined/industrial environments and impacts of resource extraction
- Frontier techniques in environmental biogeochemistry and microbiology (e.g. – omics)
- Aquatic and terrestrial microbiology including studies on extreme environments
- Impacts of pollutants on ecosystems and their remediation
- Biological interactions and transformations of metallic and organic contaminants in the environment
- Soil, water and landscape processes (including atmospheric fluxes/interactions)
- Microbe-mineral-organic matter interactions
- Marine and coastal biogeochemistry (special focus on tropical coastal systems e.g. reefs)
- Biogeochemical cycling of major (C, N, P, S) and minor elements - methods, applications, fundamental and applied studies



## IAGC Executive Officers

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Ian Cartwright  
Monash University  
School of Geosciences  
AUSTRALIA  
Email: [ian.cartwright@monash.edu](mailto:ian.cartwright@monash.edu)

### **PAST-PRESIDENT** (2015-2017)

Richard Wanty  
US Geological Survey  
United States  
Email: [rwanty@usgs.gov](mailto:rwanty@usgs.gov)

### **VICE-PRESIDENT** (2015-2017)

Philippe Négrel  
French Geological Survey (BRGM)  
FRANCE  
Email: [p.negrel@brgm.fr](mailto:p.negrel@brgm.fr)

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W. Berry Lyons  
School of Earth Sciences  
The Ohio State University  
Email: [lyons.142@osu.edu](mailto:lyons.142@osu.edu)

### **SECRETARY** (2014-2018)

Orfan Shouakar-Stash  
Dept of Earth and Environmental  
Sciences University of Waterloo  
CANADA  
Email: [orfan@uwaterloo.ca](mailto:orfan@uwaterloo.ca)

### **JOURNAL EDITOR**

Michael Kersten  
Johannes-Gutenberg-Universität  
Mainz  
GERMANY  
Email: [kersten@uni-mainz.de](mailto:kersten@uni-mainz.de)

### **BUSINESS OFFICE MANAGER**

Chris Gardner  
School of Earth Sciences  
The Ohio State University  
Ph: +1-614- 688-7400  
Fax: +1-614-292-7688  
Email: [BusinessOffice@iagc-society.org](mailto:BusinessOffice@iagc-society.org)

## Council Members

Patrice de Caritat  
Geoscience Australia  
AUSTRALIA  
[Patrice.deCaritat@ga.gov.au](mailto:Patrice.deCaritat@ga.gov.au)

Stephen Grasby  
Geological Survey of Canada  
CANADA  
[sgrasby@nrcan.gc.ca](mailto:sgrasby@nrcan.gc.ca)

Romain Millot  
French Geological Survey (BRGM)  
FRANCE  
[r.millot@brgm.fr](mailto:r.millot@brgm.fr)

Sophie Opfergelt  
Universite catholique de Louvain  
BELGIUM  
[sophie.opfergelt@uclouvain.be](mailto:sophie.opfergelt@uclouvain.be)

Avner Vengosh  
Duke University  
USA  
[vengosh@duke.edu](mailto:vengosh@duke.edu)

Jodie Miller  
Stellenbosch University  
SOUTH AFRICA  
[jmiller@sun.ac.za](mailto:jmiller@sun.ac.za)

Thomas Kretzschmar  
(Water-Rock Interaction Chair)  
CICESE  
MEXICO  
[mtkretzsc@cicese.mx](mailto:mtkretzsc@cicese.mx)

Steven Banwart  
(Geochemistry of the Earth's Surface  
Chair)  
The University of Sheffield  
UNITED KINGDOM  
[s.a.banwart@sheffield.ac.uk](mailto:s.a.banwart@sheffield.ac.uk)

Attila Demeny  
(Applied Isotope Geochemistry  
Chair)  
Hungarian Academy of Sciences  
HUNGARY  
[demeny@geochem.hu](mailto:demeny@geochem.hu)

Martin Novak  
(Biogeochemistry Chair)  
Czech Geological Survey  
CZECH REPUBLIC  
[martin.novak@geology.cz](mailto:martin.novak@geology.cz)

## Other Working Group Chairs (non-council)

David B. Smith  
(Global Geochemical Baselines)  
U.S. Geological Survey  
USA  
[dsmith@usgs.gov](mailto:dsmith@usgs.gov)

David Long  
(Urban Geochemistry)  
Michigan State University  
USA  
[long@msu.edu](mailto:long@msu.edu)

Ron Fuge  
(Environmental Geochemistry Chair)  
Aberystwyth University  
UNITED KINGDOM  
[rrf@aber.ac.uk](mailto:rrf@aber.ac.uk)

Olle Selinus  
(Environmental Geochemistry Chair)  
Linneaus University  
SWEDEN  
[olle.selinus@gmail.com](mailto:olle.selinus@gmail.com)