



Geochemical Society

www.geochemsoc.org

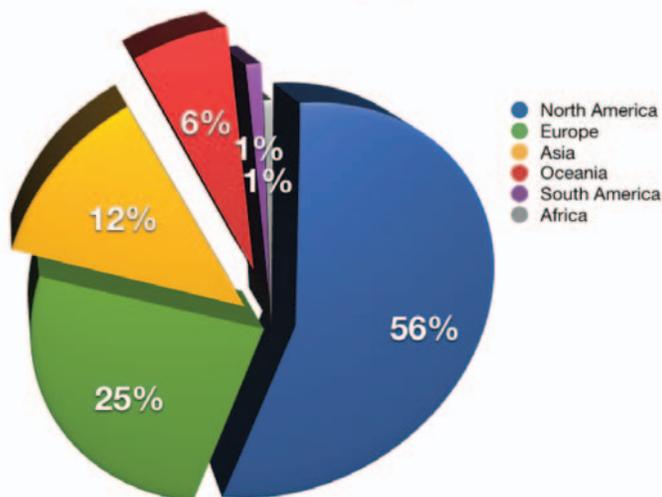
WHO BELONGS TO THE GEOCHEMICAL SOCIETY?



The end of the year brings renewal time for society memberships, and it is perhaps a good time for a look at who belongs to the Geochemical Society (GS). As of June 2012, the GS has 3793 members. Three-quarters of the members are professional geochemists. Students constitute 22% of the membership, with senior members making up the last 4%. The membership is divided among 63 countries (see figure). Since 2000, membership in the GS has grown

on average by 14% per year, a figure closely matched by the rise in attendance at Goldschmidt conferences.

2012 Membership by Continent



Professional societies in geochemistry can be traced back to a commission for geochemistry within IUPAC formed in 1951 (e.g. Hitchon, *Applied Geochemistry* 1, 1986). The independent Geochemical Society was founded only 4 years later by F. Earl Ingerson, who also served as GS's first president (see the bio by Fleischer, *American Mineralogist* 79: 1019–1020, 1994). In 1963, IUPAC decided that geochemistry more properly belonged with geology than chemistry, abolishing their geochemistry commission in the process. Ingerson stepped in after the IUPAC decision to form what is now the International Association of GeoChemistry (IAGC). In doing so, Ingerson was working to extend the reach of geochemistry, then a new, small subfield of geology, to a broader international audience than was served by the GS. Though the GS was founded as, and remains, an international organization, its membership is dominated by North Americans, who currently constitute 56% of the membership. The GS leadership is working hard to expand its international representation through bylaw changes, enacted at the Montreal Goldschmidt, that ensure that the GS governing board better matches the regional distribution of the membership. With the selection of Japan and our colleagues from the Geochemical Society of Japan as hosts for the 2016 Goldschmidt Conference, we also are working to ensure that this rapidly growing conference is made more accessible to geochemists outside North America and Europe.

Having attended several workshops on “membership trends” held recently by associated societies, professional societies clearly are struggling to find ways to stay relevant to their membership. One need only breeze through the latter quarter of *Elements* and the reports from the many participating societies to reach the conclusion that no one organization can represent all the many interests of a field as broad as geochemistry. Nevertheless, some valued activities require a critical mass to be successful. Running a Goldschmidt Conference with thousands of attendees and an expense budget in the millions of dollars is an example of a professional activity that is increasingly out of the reach of a small group. Publications are another, particularly given the current unsettled state of the transition from paper to e-publishing and the push to open access. Many societies, including the GS, are seeing their traditional publication efforts strained as commercial publishing partners try to find ways to stay profitable in these changing conditions. The GS has just reactivated its Publication Advisory Committee (www.geochemsoc.org/society/committeesandpersonnel/2012publicationsadvisoryco.htm) and has charged it with evaluating the whole publication portfolio of the GS, which currently includes the *Geochemical News*, now e-mailed to over 5000 recipients weekly, and our shared efforts with *Elements*, *GCA*, *G-cubed*, and the Reviews in Mineralogy and Geochemistry book series. The committee will be providing recommendations on what forms of publication and what partners in publication will best serve the membership in the future. Please inform the committee members of your opinions on the good and bad points of current GS publications, and pass on your ideas about how these efforts can be improved or expanded in the future. Ultimately, a professional society is its membership, so by renewing your membership or by joining the GS for the first time you can influence the ways in which the GS promotes and supports the field of geochemistry internationally.

Rick Carlson, GS President

GEOCHEMICAL NEWS

The new format of *Geochemical News* (*GNews*) was launched on January 10, 2012, and in the time since, *GNews* has grown in popularity, serving as a weekly source of news about the Geochemical Society and the geochemical community, and of current news items related to geochemistry. As Rick Carlson wrote in the previous issue of *Elements*, we are working on developing *GNews* as a forum for exchanging breaking news, as well as a tool to build closer ties with other international geochemical organizations.

GS members receive *GNews* as a membership benefit, but anyone may subscribe for free at <http://multibriefs.com/briefs/gs/>. Further, if you would like to submit a news item for consideration in a future issue of *GNews*, please submit it to the *GNews* editors via e-mail to gn@geochemsoc.org.

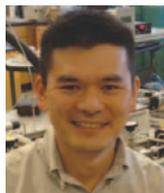
Speaking of which, we wish to express our deepest thanks and appreciation to the *GNews* editorial team. The four editors take turns reviewing the content for each weekly issue. Their work has gone a long way to making *GNews* a great resource.

2012 Geochemical News Editors



Dr. Martin Elsner investigates the environmental transformation of organic compounds—most prominently groundwater contaminants—with compound-specific isotope analysis. He leads a research group at the Institute of Groundwater Ecology, Helmholtz Zentrum München (since 2006) and is affiliated with the Department of Geosciences, University of Tübingen (Venia Legendi 2011). Elsner received his

diploma in chemistry at ETH Zürich (1998), obtained his PhD in the Schwarzenbach group, EAWAG (2003), and was a DFG postdoctoral fellow in Barbara Sherwood Lollar's group at the University of Toronto (2004–2005).



Dr. Shuhei Ono received his PhD in geochemistry from Pennsylvania State University and BSc in geology from Waseda University in Tokyo. After postdoctoral research at the Geophysical Laboratory, he joined the Department of Earth, Atmospheric, and Planetary Sciences of the Massachusetts Institute of Technology as an assistant professor of low-temperature geochemistry in 2007. Dr. Ono's main research has been the

application of the multiple-sulfur isotope system to the study of reaction pathways in sulfur biogeochemical cycles. He applies this unique technique in the study of the deep biosphere, seafloor hydrothermal systems, and deep-time Earth history.



Dr. Lesley Warren is a professor of aqueous and microbial geochemistry in the School of Geography and Earth Sciences at McMaster University. Warren's expertise includes aqueous trace element and microbial geochemistry, and mining and freshwater environments. Her research group integrates geochemistry, molecular microbiology, and imaging to advance the understanding of geosphere-biosphere interactions at the microbe-environment level. In particular, she

focuses on identifying connections among microbial activity, geochemical processes, and water quality, with a core focus on mining systems.



Dr. Helen Williams is a NERC fellow and senior lecturer in the Department of Earth Sciences at Durham University. In her research, she uses non-traditional stable isotopes as geochemical tools to investigate the chemical evolution of the Earth and other terrestrial planets. Current projects deal with spatial and temporal variations in mantle oxidation state, core-mantle interaction, and the origins of the Earth's moderately volatile elements.

ANNUAL MEMBERSHIP DRIVE

If you have not done so already, please take a moment to renew your membership in the Geochemical Society. Member dues for 2013 will increase by US\$5, but members joining or renewing by **February 1, 2013**, may do so at the 2012 rate (\$30 professional, \$10 student, and \$15 senior). You may renew online or download a membership form from our website at www.geochemsoc.org/join.

Please consider including a donation with your membership dues. Donations are tax deductible where applicable. Remember to indicate how you would like your donation to be used.

And finally, word of mouth is a valuable part of our membership drive. If you know of a peer or student who isn't a member, please encourage them to join.

GEOCHEMICAL SOCIETY BUSINESS OFFICE

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1st DEVELOPMENT OF ISOTOPIC PROXIES FOR PALAEOENVIRONMENTAL INTERPRETATION: A CARBON PERSPECTIVE (DIPPI-C) WORKING GROUP WORKSHOP



Workshop participants

The newly convened international, interdisciplinary working group Development of Isotopic Proxies for Palaeoenvironmental Interpretation: A Carbon Perspective (DIPPI-C) (www.dippi-c.org) held its first workshop at Durham University, UK, on 8–10 May 2012. The two-and-a-half-day workshop was attended by 36 delegates, including international visitors from the USA, The Netherlands, Hong Kong SAR, Estonia, and Denmark. The DIPPI-C working group focuses on the interdisciplinary synthesis, analysis, and interpretation of stable and radiocarbon isotopes (bulk and compound specific) and biomarker distributions in the natural environment at a range of spatial and temporal scales. By its very nature, the DIPPI-C working group aims to draw upon expertise across a number of disciplines (including, but not limited to, plant physiology, ecology, soil science, organic and inorganic geochemistry, sedimentology, and palaeoclimatology) to facilitate knowledge exchange among researchers and to develop a rigorous understanding of the current “state of the art” of the interdisciplinary science.

The objectives of the workshop were to: (1) exchange new research findings and current knowledge with an interdisciplinary audience, (2) identify and rigorously examine the underlying assumptions our work is predicated on, (3) assess new directions for research and encourage the development of interdisciplinary teams to undertake this research, and (4) define unanswered scientific issues of interest to a number of disciplines (untested assumptions, “uncharted territory”) and develop working group themes and research objectives.

The workshop comprised 8 oral and 24 poster presentations covering a range of research across the plant physiology to deep burial of carbon spectrum [the full program details and workshop report are available at www.dippi-c.org under “Meetings – Past events – 1st workshop (Durham 2012)”). This was followed by discussions arranged into three groups, covering plant physiology (chaired by Geoff Abbott, Newcastle University, UK), soils and sediments (chaired by Jon Nichols, Lamont-Doherty Earth Observatory, USA), and palaeoenvironments (chaired by Phil Meyers, University of Michigan, USA). These groups probed “certain truths” (e.g. disciplinary assumptions and limitations), “system limits” (what are the boundaries of the definable?), and “opportunities” (areas requiring further research, scope for review articles and projects).

Workshop Output

A number of projects were discussed in detail, including method-development issues associated with radiocarbon and biomarker extraction, regional spatial reconstruction of climatic zones and events, end-member models, and carbon-reservoir fluxes. Emergent themes from the workshop (long-term DIPPI-C) focused on proxy durability (method development, diagenesis/preservation, sample context), steady state

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(A) Heidi Höfer and Gerhard Brey, local organizers, and (B) the EMC2012 volunteer crew. PHOTO: SABINE SEITZ

also held a number of business meetings. Clearly, replacing national meetings in favour of a single international one is a feasible strategy for the future.

The EMC2012 was not the first time that learned societies have come together to co-organize such an event. Previous conferences in Cambridge in 2007 and Edinburgh in 2009 (although on a smaller scale) were forerunners to the 2012 event. All scientists will say that there are too many meetings to attend every year. The EMC meeting is a new event to add to the calendar, but it replaces a number of smaller national meetings.

Gerhard Brey and Heidi Höfer, the local organizers in Frankfurt, were responsible for most of the effort and organization needed to make this meeting the success it was. The support they provided to the participating societies and the session organizers was outstanding. Heidi and Gerhard, along with the local team of volunteers, managed to make delegates feel welcome, and the meeting provided nice introduction to local cuisine and German beer and wine to non-Germans!

The success of the meeting raises an important question that needs to be considered by European mineralogists and petrologists. Should there be a regular EMC meeting? The mineralogical community meets every four years under the auspices of the International Mineralogical Association. Aside from that, mineralogists seeking an international audience for their work find themselves giving presentations at geochemical, geophysical or geological conferences. Of course the bound-



Giuseppe Cruciani, president of the Italian society SIMP. PHOTO: HEIDI HÖFER

aries are blurred between these disciplines, but EMC meetings can provide a new forum for mineralogists to come together and present high-quality work to an international mineralogical audience.

The ten participating societies have already agreed that the next EMC meeting will take place in Italy in 2016. Other European mineralogical societies are welcome to join the conference. Please contact the president of the Società Italiana di Mineralogia e Petrologia, the society responsible for the next meeting.

Many thanks to our hosts and the convenors for launching what we hope will become a regular event on our calendars.

Kevin Murphy, Peter Treloar and Jose Miguel Nieto
(MinSoc and SEM)

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system assumptions (fractionation), carbon reservoirs (pool-size changes, transfer between reservoirs, and rates of exchange) and interdisciplinary knowledge exchange.

The following recommendations for improving the resourcefulness of the DIPPI-C website to the wider community were made:

Develop a resources area that includes

- A compilation of datasets from modern through to palaeo contexts
- A searchable database of publications on the website
- Method protocols

Develop a forum for discussion of themes and projects

The DIPPI-C working group has an open call for manuscripts for a special theme issue of *Geochemistry, Geophysics, Geosystems (G-Cubed)* (covering all aforementioned topics) and is working on the logistics for the 2nd DIPPI-C workshop in 2013, to be hosted at Lamont-Doherty Earth Observatory, USA. We encourage all those interested in organic and inorganic carbon geochemistry in modern and palaeoenvironments to sign up to the DIPPI-C mailing list (via the DIPPI-C home page at www.dippi-c.org) to keep up to date with developments and contribute to future activities. DIPPI-C thanks the Geochemical Society, the British Ecological Society, IsoPrime, and Durham University for financial support.

Chris Brodie (University of Hong Kong, Hong Kong)
James Casford (Durham University, UK)
Melanie Leng (NERC Isotope Geoscience Facility / Leicester University, UK)
Erin McClymont (Durham University, UK)