



## Société Française de Minéralogie et de Cristallographie

[www.sfmc-fr.org](http://www.sfmc-fr.org)

### SFMC TRAINING DAYS: "MÉTHODES D'ANALYSE DES MINÉRAUX ET MATÉRIAUX"



Participants of the training days



Julie Cosmidis

FROM LEFT TO RIGHT: Benjamin Malvoisin, Karim Benzerara (representing Julie Cosmidis) and Étienne Balan (president of the jury).

The SFMC Training Days were organized by the Société Française de Minéralogie et de Cristallographie and were held in Paris, France (UPMC Univ Paris 06), 20–21 November 2014. A wide range of tools used to analyse minerals and materials were demonstrated, such as microscopy, spectroscopy, and diffraction techniques, plus an overview of molecular modelling. The lectures highlighted the applicability of these techniques across a diversity of disciplines. The workshop was attended by about 30 people, most of them PhD students, and was organized by Anne-Line Auzende, Étienne Balan and Marc Blanchard.

During the workshop, the society awarded the 2014 Haüy–Lacroix Prize (which recognizes original and high-quality PhD work) to two recipients: Julie Cosmidis and Benjamin Malvoisin. Julie (represented by one of her PhD supervisors, Karim Benzerara) and Benjamin were invited to present a lecture on their thesis. Julie Cosmidis completed her thesis at the IMPMC (Univ Paris 06, IGP) with a study entitled, "Bacterial biomineralization of modern and fossil calcium and iron phosphates." Benjamin Malvoisin carried out his PhD at ISTerre (Univ Joseph Fourier, Grenoble), "Reducing conditions associated with serpentinization reaction: magnetic monitoring of San Carlos olivine hydration, natural case study and industrial H<sub>2</sub> production." Further information on the meeting and the two laureates can be found on the society website (<http://sfmc-fr.org/>).

### 21<sup>st</sup> GFSV MEETING IN REIMS, FRANCE



The French Vibrational Spectroscopy Group (GFSV) will be holding its 21<sup>st</sup> meeting at the University of Reims on 17–19 June 2015. This year, the theme of the meeting is "Vibrational Spectroscopy in Biology–Health–Cosmetology," and the venue is the department of Medicine/Pharmacy. For further information: [www.gsfv.net/gsfv-2015-reims/](http://www.gsfv.net/gsfv-2015-reims/). Contact: ganesh.sockalingum@univ-reims.fr



## International Association of GeoChemistry

[www.iagc-society.org](http://www.iagc-society.org)

### IAGC GOVERNANCE CHANGES



Philippe Négrel

Philippe Négrel of the French Geological Survey (BRGM) is the new IAGC vice-president, beginning in January 2015. Philippe received his PhD in isotope geochemistry (1992, University of Paris 7, France) and supervised research in 2005 at the University of Toulouse, France. He joined the BRGM in 1993 as a research geochemist, and has specialized in radiogenic (Sr, Nd, Pb) and stable (O, H, B, Li) isotope studies for 20 years. Philippe was a senior research project leader at the BRGM, head of the Isotope Geochemistry Unit (2005–

2010), and is now deputy director of the BRGM Laboratories Division. He has more than 150 publications in peer-reviewed international journals and more than 270 communications at international conferences. He is an associate editor of *Applied Geochemistry*, served as an editor of the proceedings of the 14<sup>th</sup> Water–Rock Interaction International Symposium, and is a member of the organizing team of the next Applied Isotope Geochemistry conference (AIG-11) to be held in Orléans, France, 21–25 September 2015. Since 2010, Philippe has been a Council member of the IAGC and has acted as chair of the Publication Committee.

In January, Rich Wanty transitioned to the past-president position, and Ian Cartwright began his tenure as the current president. Finally, the IAGC would like to thank Clemens Reimann for his eight years of dedicated service to the IAGC as he steps out of the past-president role. Clemens served for four years as vice-president, two years as president, and two years as past-president, and his leadership has provided stability and helped make us into the strong organization we are today.

### THE SECOND MEETING OF THE IAGC URBAN GEOCHEMISTRY WORKING GROUP

*Urban Geochemistry: The impact of legacy infrastructure and contaminants on the environment and public health*

27–28 July 2015 – Detroit, Michigan, USA

Registration deadline: 15 June 2015

[www.iagc-society.org/UG.html](http://www.iagc-society.org/UG.html)

More than half the global population currently lives in urban areas, according to UN estimates, and two-thirds of the world's population are expected to call urban areas home by 2050. Economic and population shifts impact urban environments in novel and undefined ways. Moderate to rapid economic growth results in vibrant modern cities, yet activities associated with this growth can have unintended consequences for the environment and public health. As urban centers evolve, infrastructure is continuously modified and often repurposed. While environmental assessments commonly accompany redevelopment, characterization of legacy contaminants is lacking—particularly in areas that have become abandoned. The decay of legacy or abandoned infrastructure on biogeochemical cycles often has negative impacts on the health of ecosystems and humans. Although these effects are well accepted, the specifics of these changes and how they influence human and ecosystem health are not well defined.

Hosted at Wayne State University in the heart of Detroit (Michigan)—which exemplifies the challenges facing postindustrial cities with extensive urban decay—this workshop aims to explore the ways in which urban systems influence geochemistry and the associated environmental, ecosystem health and human health implications. Workshop attendees will have the opportunity to witness first-hand geochemical cycles in a decaying urban environment through site visits, seminars

and focused discussions. The workshop will culminate with the development of a white paper that will attempt to identify the specifics of urban geochemical changes and how they influence human and ecosystem health.

Visit our website at [www.iagc-society.org/UG.html](http://www.iagc-society.org/UG.html) for online registration and more details.

## GEOCHEMISTRY OF THE EARTH'S SURFACE (GES-10) MEETING REPORT

The Geochemistry of the Earth's Surface (GES-10) Working Group Meeting was held 18–22 August 2014, in Paris (France) at the Institut de Physique du Globe de Paris. The secretary general of GES-10 was Jérôme Gaillardet, professor at the Institut de Physique du Globe de Paris and a senior member of the Institut Universitaire de France. The GES-10 symposium was a small and friendly meeting featuring a limited number of invited oral presentations and extensive poster sessions. The theme for GES-10 was “Between Rocks and Sky: Earth's Critical Zone”. The “critical zone” is defined as the region of the Earth's surface between the top of the vegetation canopy and the bottom of groundwater. Advancing our understanding of the critical zone requires an interdisciplinary approach in which hydrologists, geomorphologists, geophysicists, geochemists, and ecologists all work together, as is happening now, in particular, in the critical zone observatories.

The GES-10 meeting was organized into nine sessions that covered a wide range of approaches and topics, from meteorology to modeling, and from geological timescales to ecological and global-change timescales. The nine session titles were as follows: (1) Measuring the Critical Zone; (2) Hydrologic and Geomorphic Drivers



Daily poster session in the hall of IPGP

of the Critical Zone; (3) The Critical Zone: a Living Interface; (4) From Nano to Micro in the Critical Zone; (5) Isotopes in the Critical Zone; (6) Characteristic Timescales of the Critical Zone; (7) The Critical Zone and the Geological Evolution of the Biogeochemical Cycles; (8) Anthropogenic Changes, Sustainability, and the Critical Zone; (9) Integrated Critical Zone Science. For each session, two or three one-hour talks were organized in the mornings, while afternoons were kept for discussion around posters. The meeting closed with a talk by the philosopher Bruno Latour on the geopolitical importance of the critical zone.

All contributions (about 100) have been edited into a special volume of the *Proceedia of Earth and Planetary Science* ([www.sciencedirect.com/science/journal/18785220/10](http://www.sciencedirect.com/science/journal/18785220/10)).

Social events, such as the wine tasting and a banquet while cruising on the River Seine, made the week friendly and facilitated exchanges between attendees.

Prior to the conference, a three-day pre-meeting field trip was held in the Jura Mountains, France. Guided by Marc Steinman and Jacques Mudry, both from the University of Franche-Comté, and by Jérôme Gaillardet, the 30 attendees learned aspects of the geology,

hydrology, geochemistry, and geomorphology of the Jura. The weather was wet, so the field exploration was punctuated by indoor diversions, including a tour of a salt mine in Salins-les-Bains, a visit to a wine maker in Arbois (the city of Pasteur), and a visit to the “cathedral” of Comté cheese, a vast cellar of the Fort Saint Antoine, near Métabief. There, the participants appreciated the centuries-old heritage of Comté cheese-making, a process that starts with managing the forest–meadow–cow environments in the critical zone.



Wine tasting practicals: and the winners are...



Participants in the Jura Mountains pre-GES field trip, between rain showers