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European Association for Geochemistry

EAG NEWS

New EAG Treasurer

The European Association for Geochemistry (EAG) is pleased to announce that Christa Göpel of the Institut de Physique du Globe de Paris (IPGP) has accepted the position of EAG Treasurer. Christa is CNRS 'Chargée de Recherche' at the Laboratoire de Géochimie et Cosmochimie at IPGP and has worked for many years as editorial assistant and co-editor-in-chief of *Chemical Geology*. Christa Göpel's main research concerns the chronology and thermal evolution of the early solar system. Her primary experimental focus is on high-precision mass spectrometry on small natural samples. She analyses long-lived (U/Pb) and short-lived (Al/Mg, Hf/W) radioactive isotopes in different classes of extraterrestrial material, including lunar samples. Through these different isotopic systems it is possible to construct a timescale for the early evolution of the solar system and the Earth.

New EAG Council Members

We are pleased to announce the appointment of François Chabaux, Tim Elliott and Andreas Kappler to the EAG Council for the term 1 January 2008 to 31 December 2010.

Tim Elliott is a reader in the Department of Earth Sciences, University of Bristol (UK) and a founding member of the Bristol Isotope Group. His research interests are in the application of isotopes to geological problems and especially in developing novel isotopic systems to address specific problems. Much of Tim's work focuses on questions relating to Earth's mantle, such as understanding melt generation and the origin of mantle heterogeneity. A significant recent effort into characterising the global Li isotopic cycle has stemmed from a hope to use these isotopes as a diagnostic tracer of recycled material in the mantle. The advent of multi-collector inductively coupled plasma mass-spectrometry has greatly expanded the potential of isotope geochemistry, and lately Tim has sought to exploit this capability in a range of new fields, from cosmochemistry to palaeoclimatology.

Andreas Kappler is a professor of geomicrobiology at the Center for Applied Geosciences of the University of Tübingen in Germany. Andreas is associate editor of *Palaios* and sits on the editorial board of *Geobiology*. Andreas's research focuses on iron geomicrobiology, cell–mineral interactions, and degradation and transformation of pollutants. Members of his research group study the precipitation and dissolution of iron minerals by iron(II)-oxidizing and Fe(III)-reducing microorganisms and the consequences of these mineral transformations for the fate of organic and inorganic pollutants in the environment. Modern Fe(II)-oxidizing bacteria, diagenesis simulation experiments and Fe-/C-isotope analyses are used to find evidence for a possible direct microbial contribution to the deposition of Precambrian banded iron formations.

MEETING NEWS

Goldschmidt 2008, Vancouver, Canada

The EAG is a proud sponsor of this year's Goldschmidt Conference in Vancouver, Canada, on July 13–18, 2008. Numerous short courses and workshops focusing on applications in analytical geochemistry will be offered, along with 20 themes designed to cover the full range of geochemistry. For more information, please visit the Goldschmidt website at: www.goldschmidt2008.org/.

Eighth Symposium on the Geochemistry of the Earth's Surface

This symposium, which will be held in London, UK, on 18–22 August 2008, is being organized by Mark Hodson on behalf of the IAGC, the Mineralogical Society of Great Britain and Ireland and the Natural History Museum, London, and is co-sponsored by the EAG, among others. The meeting will include the following sessions: Mineral weathering; Synchrotrons and environmental science; Global geochemical cycles and climate change; Contaminated environments, toxicology, human health; Biomineralization. The 2008 Hallimond Lecture will be delivered during the conference by Professor Julian Gale. For information and the exciting invited speaker list, please go to: www.ges8.com.

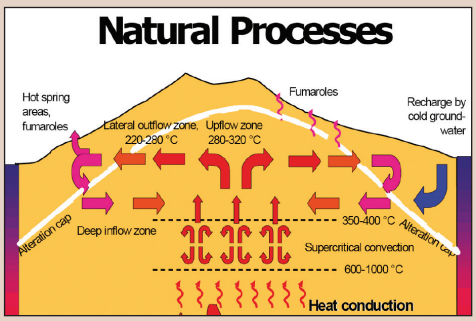
EUROPEAN GEOCHEMICAL NEWS BRIEF

Formal Agreement Signed to Sequester CO_2 into Icelandic Basaltic Rocks

Icelandic, American and French scientists have launched a project aimed at storing carbon dioxide (CO_2) in Iceland's lavas by injecting the greenhouse gas into basaltic bedrock where it will literally 'turn to stone' through natural processes.

The conversion of CO_2 into calcite is a well-known natural process in volcanic areas. Scientists at the University of Iceland, Columbia University in New York and Université Paul Sabatier in Toulouse are developing methods to imitate and speed up this transformation and to capitalize on its storage potential. Reykjavik Energy, a global leader in geothermal energy, is the main sponsor of the project. The company's facilities at the Hengill geothermal area, where a 300 MW geothermal power plant is under construction, are an ideal site for this multinational scientific project.

Basaltic rocks are common on the Earth's surface and contain minerals and glasses that are highly reactive with CO_2; basalts therefore have a vast sequestration potential. When CO_2 is released from solidifying magma, it reacts with calcium in the basalt to form calcite (see Figure). The project's implications for CO_2 storage and the fight against global warming are considerable, as calcite is stable for thousands of years in geothermal systems. Injecting CO_2 at carefully selected geological sites with large potential CO_2 capacities can be a long-lasting and environmentally benign storage solution.



Magma solidifying at depth release CO_2 to the overlying geothermal circulation system. The CO_2 partly escapes, for example through fumaroles, but it also forms the mineral calcite by reacting with basalt. Calcite is one of the principal minerals in the alteration zone that forms the cap rock sealing the geothermal system. The project intends to capitalize on this natural process by injecting CO_2 deep into the geothermal system.