



Mineralogical Society of Great Britain and Ireland

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LONDON NEWS

And so we arrive at the end of another 'Elements' year. The *Elements* calendar is a bit different from the regular Gregorian calendar. The end of the year happens when this text is written in late September/early October!

The Mineralogical Society has had a busy and successful year.

- Three books in the EMU Notes in Mineralogy series, now co-published by the Society, will have been released.
- Our membership numbers are up noticeably, and our student numbers are very healthy (this is partly related to our free student membership offering for year 1 and partly due to the good work put in by departmental representatives who encourage their students to become members).
- Our Annual Meeting was a good success – see the report below.
- Our third Nature's Treasures event is building up to be the most successful so far.
- Our journals have performed well, both scientifically and financially.

And all of this has taken place against the background of a gloomy international recession. Many thanks to all who make it possible: editors, Council members, those who serve on the committees of our special interest groups, departmental representatives, all who volunteer their time in service of the Society (e.g. this year two volunteers helped with the proofreading of the journals, giving their time and expertise to raise the bar still further) and, of course, the staff!

To what do we look forward next year?

Richard Harrison's project to establish a list of the '100 most important questions in the mineral sciences' will be one of the most interesting topics of discussion at the coffee table/water cooler in 2011, in my view. More information about this soon. Support from the IMA and from *Elements* will make this a truly international venture.

The Society hopes to become involved in the provision of educational material suitable for use in second-level schools in the UK and elsewhere. We will work with appropriate teaching professionals to make this possible, and the results will be available on the Society's website for all to use.

There will be another EMU volume. Our online bookshop and new-look website will be functional. We expect to publish one if not two more books in our Landmark Papers series. Our Annual Meeting promises to be an exciting one: it will have an environmental theme and will be located in Aberystwyth, Wales, a stone's throw from a perfect location to study some classic environmental geochemistry problems in the field.

The Society is applying to become a licensed body of the Science Council, entitled to award chartered status to its Fellows. CSci is recognized not only in Britain but also throughout Europe. For some with long careers in academia behind them, this will not be a necessary title, but for those looking to join the ranks of professional mineralogists, academic or commercial, then we believe the right to confer chartered status will be an attractive feature in the Society's arsenal.

There will be much focus on our journals in the coming year. They are the scientific and financial mainstay of the Society and our primary *raison d'être*. At the time of writing, interviews are about to be held for one or two new Principal Editors for *Mineralogical Magazine*. Mark Welch steps down in the middle of 2011.

Best wishes for the New Year!

Kevin Murphy, Executive Director

"NUCLEAR WASTE MANAGEMENT: RESEARCH CHALLENGES FOR THE FUTURE"

A joint meeting of the Mineralogical Society of Great Britain & Ireland and the Geological Society – Report

Some 120 delegates gathered for two days in late September in Cambridge, UK, for this meeting. There was a healthy crop of students (50%) in attendance, as befits the title of the meeting. The meeting was divided into five sessions:

- Stabilization of high-level waste
- Long-term behaviour of engineered barriers (containers, buffers, backfills) in geological conditions
- Retention, retardation and reactive transport of radionuclides
- Total system performance, models and uncertainties
- Careers panel discussion

The keynote speakers and the titles of their talks are as follows:

- Andy Felmy (Pacific Northwest Laboratories): Interfacial reactivity: Emerging paradigms from molecular-level observations
- Francis Livens (The University of Manchester): Why chemistry matters in radioactive waste management (especially for actinides!)
- Bernard Kienzler (Karlsruhe Institute of Technology, Germany): Retention, retardation and reactive transport of radionuclides
- Scott Painter (Los Alamos National Laboratory, New Mexico): Modeling geosphere transport in performance assessments of geologic disposal
- The Mineralogical Society's 41st Hallimond Lecture was delivered by Rod Ewing (University of Michigan): The nuclear fuel cycle: Role of mineralogy and geochemistry in the safe management of nuclear waste.



Andy Felmy



Francis Livens



Bernard Kienzler



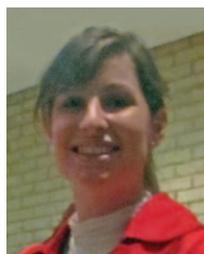
Richard Patrick, Society President, presenting the Hallimond Lecture certificate to Rod Ewing (RIGHT)

As suggested by these titles, a wide range of material was covered. There were no parallel sessions: all delegates were encouraged to attend presentations and discussions on all aspects of the conference. A recurring comment was that people were learning a lot by going to talks outside of their usual area. A longer report, more photographs, and copies of some of the presentations are available on the Society's website. A thematic set of papers arising from presentations made at the meeting will be published in *Mineralogical Magazine* in early-mid 2011

Experimental Aspects

Two novel aspects of this meeting, at least as far as the Mineralogical Society was concerned, were:

- Preview presentations of posters. Each presenter of a poster was invited to show one slide and speak for two minutes about the content of their poster. This was successful in so far as it allowed delegates the opportunity to decide which posters to study in detail in the poster session held immediately afterwards. It also gave more profile to the poster session, often the poor relation at conferences.
- At the end of the meeting, there was a two-hour panel discussion about research requirements, training needs, and possible career options for students and others in the audience. The panel included Sarah Vines from the Nuclear Decommissioning Authority, Ian Barraclough from the Environment Agency, Fiona Rayment from the National Nuclear Laboratory, and the meeting convenors. There was much useful input from the audience, including industry people, consultants and academics.



Kate Norman, EMPOWER poster prize winner

Quality

There was an excellent selection of talks, and the poster presentations, including a batch of 17 given by 'EMPOWER' students, were of very high quality. The EMPOWER award for the best poster was given to Kate Norman.

Success?

Often the measure of success of a conference is whether those present considered that it would be an exercise worth repeating. There was a general feeling that this meeting could be repeated in a couple of years' time. Britain needs a revitalized nuclear industry; clearly, research is required in many areas, which should lead to careers in the industry, especially for those with a mineralogical background.

BURSARY REPORT

I thank the Mineralogical Society for the travel bursary that enabled me to travel to Seville, Spain, and attend the 20th Society of Environmental Toxicology and Chemistry (SETAC) Europe Annual Meeting. This large conference was attended by delegates from academia, business and government, and a wide range of presentations were made on the theme of the environmental chemistry of organic and inorganic toxicants in sediment, soil water and the atmosphere. It was an ideal setting to meet and network with professionals from all over the world, to the benefit of both my current research project and the advancement of my career.

I gave a presentation on the first day of the conference entitled 'Metals in earthworm casts are more mobile but earthworm mucus reduces mobility.' It attracted a lot of attention, perhaps due to the bold statement made in the title. The presentation went well, and several delegates approached me to discuss aspects of my current research that may link with or complement their own or to tell me about similar work that they have in the pipeline.

I spent the rest of the week in a more relaxed frame of mind (!) as I skipped from room to room watching presentations on subjects that interested me. I also spent time during the poster sessions to find out what other students from various European countries were doing. Of particular help to me was speaking to students who use techniques unknown to me; these methods might be useful in my research, and collaborations might happen in the future as a result of these conversations.

Tom Sizmur

University of Reading, UK

OCTOBER ISSUE OF MINERALOGICAL MAGAZINE

A. N. ZAITSEV, C. T. WILLIAMS, S. N. BRITVIN, I. V. KUZNETSOVA, J. SPRATT, S. V. PETROV and J. KELLER: Kerimasite, $\text{Ca}_3\text{Zr}_2(\text{Fe}^{3+}_2\text{Si})\text{O}_{12}$, a new garnet from carbonatites of Kerimasi volcano and surrounding explosion craters, northern Tanzania

S. V. KRIVOVICHEV, V. N. YAKOVENCHUK, E. S. ZHITOVA, A. A. ZOLOTAREV, Y. A. PAKHOMOVSKY and G. YU. IVANYUK: Crystal chemistry of natural layered double hydroxides. 1. Quintinite-2H-3c from the Kovdor alkaline massif, Kola peninsula, Russia

S. V. KRIVOVICHEV, V. N. YAKOVENCHUK, E. S. ZHITOVA, A. A. ZOLOTAREV, Y. A. PAKHOMOVSKY and G. YU. IVANYUK: Crystal chemistry of natural layered double hydroxides. 2. Quintinite-1M: first evidence of a monoclinic polytype in $\text{M}^{2+}\text{-M}^{3+}$ layered double hydroxides

E. S. ZHITOVA, V. N. YAKOVENCHUK, S. V. KRIVOVICHEV, A. A. ZOLOTAREV, Y. A. PAKHOMOVSKY and G. YU. IVANYUK: Crystal chemistry of natural layered double hydroxides. 3. The crystal structure of Mg,Al-disordered quintinite-2H

LIDONG DAI, HEPING LI, CHUNHAI LI, HAIYING HU and SHUANGMING SHAN: The electrical conductivity of dry polycrystalline olivine compacts at high temperatures and pressures

CNMNC Newsletter 5: P. A. WILLIAMS, F. HATERT, M. PASERO and S. J. MILLS: New minerals and nomenclature modifications approved in 2010

S. J. MILLS, A. R. KAMPE, P. A. WILLIAMS, P. LEVERETT, G. POIRIER, M. RAUDSEPP and C. A. FRANCIS: Hydroniumpharmacosiderite, a new member of the pharmacosiderite supergroup from Cornwall, UK: structure and description

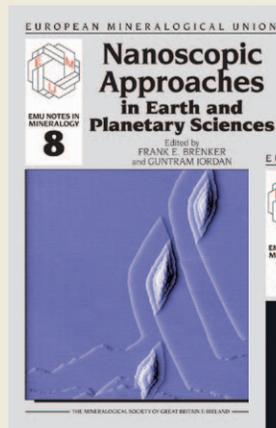
M. NAGASHIMA, T. ARMBRUSTER and T. HAINSWANG: A temperature-dependent structure study of gem-quality hibanite from Myanmar

L. MELLUSO, S. CONTICELLI and R. DE' GENNARO: Kirschsteinite in the Capo di Bove melilite leucite lava (cecilite), Alban Hills, Italy

S. J. MILLS, S. A. WILSON, G. M. DIPPLE and M. RAUDSEPP: The decomposition of konyaitite: importance in CO_2 fixation in mine tailings

P. BAYLISS, U. KOLITSCH, E. H. NICKEL and A. PRING: Alunite supergroup: recommended nomenclature

M. S. RUMSEY, S. J. MILLS and J. SPRATT: Natropharmacoalumite, $\text{NaAl}_4[(\text{OH})_4(\text{AsO}_4)_3]\cdot 4\text{H}_2\text{O}$, a new mineral of the pharmacosiderite supergroup and the renaming of aluminopharmacosiderite to pharmacoalumite



Two new volumes in the EMU series are now available: go to www.minersoc.org/pages/EMU-notes/EMU-notes.html for information and to order.

