

# Mineralogical Society of Great Britain and Ireland

## www.minersoc.org

#### **BECOME A CHARTERED SCIENTIST NOW!**

The Mineralogical Society has become a body licensed to award the Chartered Scientist status to its members. We are now ready to begin receiving applications. The benchmark route is the successful completion of a programme of study leading to an MSc (visit our website to read about 'M'-level equivalence).

All candidates need to have at least four years of postgraduate experience in the practice, application or teaching of science. Additionally applicants must have undertaken continuing professional development commensurate with the level of attainment required for a minimum of two years immediately prior to the application.

Applicants must demonstrate that their scope of practice requires them to:

- Demonstrate a systematic understanding of knowledge, and show critical awareness of current problems and/or new insights in their area of mineralogical science
- Have a comprehensive understanding of techniques applicable to their scope of practice and the ability to critically evaluate current research
- Deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- Exercise self-direction and personal responsibility in solving problems, and exercise personal autonomy in planning and implementing tasks at a professional level
- Continue to advance their knowledge, understanding and competence to a high level

Visit www.minersoc.org/chartered.html for more details and an application form. Members of long standing may be particularly interested in our 'fast-track' method of application. There is an initial cost of £50 plus a charge of £45 per year thereafter.

### **MAJOR MEETINGS IN 2013**

The Society will be involved in two major meetings in 2013. Details are given below below and on the Society website.

#### Volcanism, Impacts and Mass Extinctions: Causes and Effects



On 27–29 March 2013, London's Natural History Museum will host an international, multidisciplinary conference that brings together researchers from across the geological, geophysical and biological disciplines to assess the state of research into the causes of mass extinction events. The main goal of this conference will be to evaluate the respective roles of volcanism, bolide

impacts, sea level fluctuations and associated climate and environmental changes in major episodes of species extinction. More details are available at http://massextinction.princeton.edu/. This event is supported by the Volcanic and Magmatic Studies Group and the Mineralogical Society.

#### Minerals for Life: Overcoming Resource Constraints

On 17–19 June 2013, our 'Minerals for Life' meeting will be held in Edinburgh. The meeting is a collaborative venture with the Geological Society, the British Zeolite Association and the Institute of Materials.

The key aim of this meeting is to bring together workers from academia (mineralogy, chemistry, 'materials' and others), industry and regulatory bodies to discuss mineralogy under the following four themes:

Strategically Important Mineral Resources includes the sustainability of mineral resources, such as strategically important elements (considering both primary and secondary sources), ethically/responsibly sourced metals and gems, and related topics such as resource recovery and management. The recycling of minerals will be addressed here as appropriate.

Functional Materials and Minerals deals with nano-, micro- and mesoporous materials (both synthetic and natural), such as zeolites, pillared clays and the like; thin films of (or on) mineral surfaces; and mineral catalysts. This topic may include any 'functional' mineral application (or mineral-derived material), such as sensors and transducers, sorbents, ion-exchange media, cements and others.

Minerals for Environmental Protection includes both nuclear and nonnuclear applications. It considers the use of minerals as retarding media in engineered chemical barriers, alongside physically engineered subsurface structures such as mineral liners; permeable reactive barriers; and examples of environmental remediation in which mineral technology has had significant impact. Carbon capture and storage is another important part of this theme.

Biological Processes in Mineral Science and Technology includes a range of biological processes, both naturally occurring and industrially applied. These will include biomining and bioremediation applications, and also emerging biological synthesis routes for commercially useful materials. Other geologically important biomineralization processes, in both prokaryotic and eukaryotic systems, will also be of interest.

Go to www.minerals-for-life.org for more information.

#### **CLAYS USED IN BEADMAKING**

Modern lampwork\* glass beadmaking can trace its lineage back 500 years to the Italians (e.g. Murano glass), who made beads by wrapping hot glass around copper wire. After the glass cooled, the bead was cut off with the copper wire still inside. It was then dropped into a caustic solution that dissolved the copper wire, leaving a clean hole behind.



The American lampwork bead movement started around the 1970s. Glass-bead artists found they could use techniques similar to those of the Italian beadmakers by wrapping molten glass around a mandrel (a piece of stainless steel welding rod) that had been dipped in a sludge (generally a mixture of clay, water

and other ingredients, called bead release) beforehand and dried so that the bead could be twisted off after cooling.

When I started making lampwork beads in 1991, I had problems getting the beads off the mandrels and I decided to try to make my own bead release. It took 6 months of experimenting and testing to settle on a good basic formula using kaolin as the main ingredient. It's been eight years since the first test batches of bead release were handed out in pickle jars. Now I have three formulas sold in many parts of world.

Robin J. Foster

ELEMENTS JUNE 2012

<sup>\*</sup> A type of glasswork that uses a torch to melt rods and tubes of clear or colored glass; the molten glass is then shaped with tools, gravity and hand movement.