



www.clays.org

The Clay Minerals Society

CMS NEWS

Introducing the Society's Office Manager: Michelle Johnson

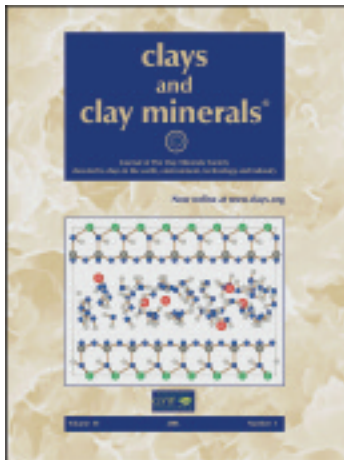
Michelle Johnson became the Society's office manager in May 2006. She has an accounting background (BA in accounting and public affairs, 1992, Lincoln University, Pennsylvania) and has worked in accounting environments since graduation, including seven years as an accounting supervisor at Nextel Communications. She was also the treasurer of Youth Corporation Inc/Youth Outreach Services from 2004 to 2005, among other positions.

Michelle is the mother of a four-year-old and is married to a ten-year employee of the Mineralogical Society of America, Everett Johnson. She is originally from Barbados, West Indies, and now resides in Virginia. She intriguingly describes herself as an "entrepreneur and avid real estate investor."

Michelle comments: "My major tasks for CMS are to facilitate all financial activity and organize it in a fashion that will allow the organization to maintain accurate records for audit purposes. I handle all member and subscriber payments, renewals, orders, and shipments. One area where members can make my job easier is in the submission of applications and forms. It is often difficult to decipher individual penmanship. It would be nice if all forms or requests submitted be done either electronically or, if mailed or faxed, typed or printed in block letters to allow for clear and concise data translation."

CMS members, next time you write to or call the office, be sure to say hi.

Online Manuscript Submission and Tracking Goes Live



It is now possible, and in fact we encourage you, to submit your papers online to *Clays and Clay Minerals*. Use the links from the journal page of the Society's website (www.clays.org) or go directly to <http://ccm.allentrack2.net>, register, and then follow the instructions on how to upload your files. We hope that this will help to reduce our submission-to-publication times and that it will make the process more transparent to authors and editors alike.

Clays and Clay Minerals Archive Now Available



The entire archive of *Clays and Clay Minerals* has been reproduced in electronic format, and access is available online, again via the journal page of the

Society's website. Click on "Archive." The archive is also available on two DVDs, and these are available for purchase from the Clay Minerals Society office. They cost \$600 for institutional libraries, \$100 for individuals, and \$75 for members of the Society.

Call for News Items

The Clay Minerals Society news section of *Elements* contains information of interest to the clay science community. Please consider contributing your ideas, highlights of your work, photos, and other items of interest to your peers. Non-commercial information is free of charge; however, commercial advertising space is available at a cost (contact the managing editor, Pierrette Tremblay). Send your contributions to the incoming news editor, Steve Hillier (s.hillier@macaulay.ac.uk).

Many thanks to Kevin Murphy for his volunteer contribution to The Clay Minerals Society as acting CMS News Editor for *Elements* in 2006–2007. We appreciate his time and care.

Forthcoming Papers in Clays and Clay Minerals

Some papers accepted for publication in the June 2007 issue of *Clays and Clay Minerals*:

- Steven M. Kuznicki, Christopher C.H. Lin, Junjie Bian, and Alejandro Anson
CHEMICAL UPGRADING OF BOWIE, ARIZONA, SEDIMENTARY SODIUM CHABAZITE
- Philip S. Neuhoff and Jie Wang
ISOTHERMAL MEASUREMENT OF HEATS OF HYDRATION IN ZEOLITES BY SIMULTANEOUS THERMOGRAVIMETRY AND DIFFERENTIAL SCANNING CALORIMETRY
- Etienne Balan, Emmanuel Fritsch, Thierry Allard, and Georges Calas
INHERITANCE VERSUS NEOFORMATION OF KAOLINITE DURING LATERITIC SOIL FORMATION: A CASE STUDY IN THE MIDDLE AMAZON BASIN
- M.V. Villar
WATER RETENTION OF TWO NATURAL COMPACTED BENTONITES
- Fabienne Trolard, Guilhem Bourrié, Moustapha Abdelmoula, Philippe Refait and Frédéric Feder
FOUGERITE, A NEW MINERAL OF THE PYROAURITE-IOWAITE GROUP: DESCRIPTION AND CRYSTAL STRUCTURE

CLAY MINERALOGISTS IN THE NEWS

Fibrous Minerals, Genetics, and Health

Mineralogists A. Umrán Dogan^{1,2} and Meral Dogan^{3,4} participated in a recent study investigating the possible links between exposure to a zeolite-group mineral and mesothelioma. A summary of this work follows.

Erionite is a zeolite-group mineral and is categorized as a Group-I human carcinogen. Erionite—like some asbestos minerals—is associated with mesothelioma, a rare lung disease with no known cure. Since 2000, morphological, compositional, and structural aspects of erionite from the Cappadocian region of Turkey have been studied in detail (Dogan et al. 2006 among many others).

Dogan et al. (2006) studied exposures to erionite in several Turkish villages with extremely high rates of mesothelioma. The original hypothesis was that individuals in certain homes in these villages were exposed to a more carcinogenic variety of erionite because mesothelioma occurs only in specific houses. However, Dogan et al.'s mineralogical studies indicated no significant differences in the erionite between affected and unaffected households, and pedigree studies indicated that malignant mesothelioma was prevalent in some families and not in others; they interpreted these results to indicate that mesothelioma development occurs in genetically predisposed individuals. This is the first time that genetics is shown to play a direct role in mineral fiber carcinogenesis.

The Dogan et al. (2006) study shows that quantitative mineralogical characterization can facilitate the interpretation of epidemiological data. Similar investigations of the mineralogy, morphology, chemical composition, and structure of a mineral as a function of different geological environments are also needed to help in the interpretation of regional- to national-scale epidemiological data sets. Epidemiological

MEMORIAL FOR ROLF NÜESCH



IMAGE COURTESY OF Matthias Schwotzer 2005©

Professor Rolf Nüesch passed away on Christmas Day, 2006. Rolf was president of the DTTG, which is the clay minerals group of Germany, Austria, and Switzerland. He was the director of the Institute for Technical Chemistry, Water and Geotechnology Section, at the Forschungszentrum Karlsruhe, Germany, and a full professor of applied mineralogy. Born in Switzerland in 1954, he received his PhD at ETH Zurich in 1991 with a thesis on the mechanical behavior of Opalinuston. He took his position in Karlsruhe in 1999, where he established the divisions of environmental microbiology and nanomineralogy.

As a scientist, Rolf was highly creative and observant. For example, he noticed the formation of tiny bubbles and white spots when aluminum plates, used as XRD mounts for clays, were left to soak in water. He analyzed the bubbles and spots, found hydrogen gas and bayerite, and thereby discovered that clay could catalyze the corrosion of Al metal. He directed much of his research toward solving societal problems. Some of his ideas, at first sight, seemed strange, but he had the courage and persistence to carry them through. For example, he found a method for transforming anhydrite into gypsum in the quarry; the method involved using saline suspensions and reworking deposits with explosives and heavy machinery. He worked on a project to prevent scale formation in pipes by using intermittent magnetic fields—over 250 communities in Germany and Switzerland now rely on this system. He worked on improving the durability of construction materials for buildings and roads; on recycling phosphorous for agriculture; on prevention of ground water pollution from contaminated sites using bioleaching, biosorption, biomineralization, and bentonite liners; and on the delamination of kaolinite to develop a polymer-clay nanocomposite for use as a diffusion barrier.

As an administrator, Rolf was remarkable for his kindness. He was sometimes frustrated by administration, but was noted for his determination to find creative and humane solutions. He had a way of listening to all ideas and of finding a compromise that opened new opportunities. He loved to discuss and to argue, never taking personal offense, and he enjoyed good jokes.

Rolf is sorely missed by all who knew him, and our sympathy and love are extended to his wonderful family: to his wife, Ruth Hass, and to his children, Fabian, Simon, Sarah, and Stefan.

**Peter Weidler and
Dennis Eberl**

studies would also benefit greatly from detailed modern mineralogical and geochemical characterization of the minerals in air samples collected from the living areas of potentially affected individuals.

REFERENCE

Dogan AU, Baris YI, Dogan M, Emri S, Steel I, Elmishad AG, Carbone M (2006) Genetic predisposition to fiber carcinogenesis causes a mesothelioma epidemic in Turkey. *Cancer Research* 66: 5063-5068. This research paper is highlighted in *Nature Reviews-Cancer* 6: 489.

¹ Department of Geological Engineering, Ankara University, Ankara, Turkey

² Department of Chemical and Biochemical Engineering, University of Iowa, Iowa City, Iowa, USA

³ Department of Geological Engineering, Hacettepe University, Ankara, Turkey

⁴ Department of Civil and Environmental Engineering, University of Iowa, Iowa City, Iowa, USA

RARE MINERALS FOR RESEARCHERS

Our stock of over 200,000 mineral specimens encompasses more than 3100 different species from worldwide localities. If you require reliably identified samples for your research or reference collection, let us supply your needs. We and our predecessor companies have been the suppliers of choice since 1950. E-mail inquiries are invited to: info@excaliburmineral.com

DIAMOND CRYSTALS

Diamond crystals from numerous worldwide deposits are in stock, from tiny micros to large, multi-carat single crystals. Select from one of the world's largest, locality-specific inventories available! See our diamond website for details! www.diamondcrystals.net

FRANKLIN & STERLING HILL:

The World's Most Magnificent Mineral Deposits

By Dr. Pete J. Dunn – Smithsonian Institution

The revised HARDCOVER edition is available exclusively from us, in two handsome volumes of royal blue buckram, oversewn, with acid-free endpapers and gold-stamping on spines and covers. Over 750 pages, 900 b/w illustrations and photographs fill this important, definitive work. Every scientific library, serious collector and bibliophile should own this set, only \$195.00 plus \$15.00 s/h in the U.S.; foreign inquiries are invited!

Excalibur Mineral Corporation

1000 N. Division Street – Peekskill, NY 10566 - USA

www.excaliburmineral.com

Tel: 914-739-1134

Fax: 914-739-1257

WORKSHOP LECTURE SERIES VOLUMES THE CLAY MINERALS SOCIETY

- 4 *Clay-Water Interface and its Rheological Implications* (1993)
N Güven, RM Pollastro (eds) 244 pp, ISBN 978-1-881208-04-4
\$23 (\$18)
- 5 *Computer Applications in X-ray Powder Diffraction Analysis of Clay Minerals* (1993) RC Reynolds Jr, JR Walker (eds) 171 pp,
ISBN 978-1-881208-06-0 **\$23 (\$18)**
- 6 *Layer Charge Characteristics of 2:1 Silicate Clay Minerals* (1994)
AR Mermut (ed) 144 pp, ISBN 978-1-881208-07-9 **\$20 (\$15)**
- 7 *Scanning Probe Microscopy of Clays* (1994) KL Nagy, AE Blum
(eds) 256 pp, ISBN 978-1-881208-08-7 **\$26 (\$21)**
- 8 *Organic Pollutants in the Environment* (1996) BL Sawhney (ed)
197 pp, ISBN 978-1-881208-10-9 **\$23 (\$18)**
- 9 *Synchrotron X-ray Methods in Clay Science* (1999) DG Schulze,
JW Stucki, PM Bertsch (eds) 244 pp, ISBN 978-1-881208-09-5
\$23 (\$18)
- 10 *Electrochemical Properties of Clays* (2003) A Fitch (ed) 205 pp,
ISBN 978-1-881208-13-3 **\$26 (\$21)**
- 11 *Teaching Clay Science* (2002) AC Rule, S Guggenheim (eds)
223 pp, ISBN 978-1-881208-12-5 **\$26 (\$21)**
- 12 *Molecular Modeling of Clays and Mineral Surfaces* (2003)
JD Kubicki, WF Bleam (eds) 229 pp, ISBN 978-1-881208-11-7
\$26 (\$21)
- 13 *The Application of Vibrational Spectroscopy to Clay Minerals
and Layered Double Hydroxides* (2005) JT Klopogge (ed)
285 pp, ISBN 978-1-881208-14-1 **\$26 (\$21)**