

POSTGRADUATE STUDENT BURSARY REPORT 2010

Role and Nature of Organic Matter in the Mobilisation of Arsenic in Shallow Aquifers in Taiwan

Wafa Al Lawati,
bursary winner

I thank the Mineralogical Society for financially supporting my attendance at the third International Congress on Arsenic in the Environment, which was held in Taiwan in May 2010. I felt delighted to have the opportunity to present a talk at the largest international conference about arsenic in the geosphere and its effects on human health. It was a fruitful conference where I learned about the most recent scientific work in my area of interest. It also allowed me to interact with other researchers from all over the world, including the scientists with whom I am collaborating.

A field trip was organized on the last day of the conference. I got to see arsenic-affected regions, including a clinic where many hundreds of blackfoot disease patients have been treated, arsenic-bearing source rocks, some hot springs and the drilling sites where groundwater samples are collected for analysis of arsenic, iron and organics.

Wafa Al Lawati, The University of Manchester

Deposits Magazine

Colleagues at *Deposits Magazine* have asked us to mention their publication in these pages. The magazine has steadily gained high regard amongst both professionals and enthusiasts alike for the quality of the articles it presents from around the world. Go to www.depositsmag.com to read more. The editors are happy to consider short articles for publication.

**SOME SELECTED PAPERS FROM MINERALOGICAL MAGAZINE AND CLAY MINERALS****Mineralogical Magazine, June 2010**

- Atomic-scale models of dislocation cores in minerals: progress and prospects
A. Walker, P. Carrez, P. Cordier
- Evolution of nepheline from mafic to highly differentiated terms of the alkaline series: the Messum complex, Namibia
S. B. Blancher, P. D'Arco, M. Fontelles, M.-L. Pascal
- The synthesis and solubility of the copper hydroxyl nitrates: gerhardtite, rouaite and likasite
C. H. Yoder, E. Bushong, X. Liu, V. Weidner, P. McWilliams, K. Martin, J. Lorgunpai, J. Haller, R. W. Schaeffer

Clay Minerals, June 2010

- Chemistry, morphology and structural characteristics of synthetic Al-lizardite
M. Bentabol, M. D. Ruiz Cruz, I. Sobrados
- XRF and nitrogen adsorption of acid-activated palygorskite
J. Zhang, Q. Wang, H. Chen, A. Wang
- Nano-size quartz accumulation in reservoir chalk, Ekofisk Formation, South Arne Field, North Sea
H. Lindgreen, F. Jacobsen, N. Springer

PASSING OF PETER G. HILL

Dr Pete Hill, Production Editor of *Mineralogical Magazine* from 2008 to 2010, died unexpectedly in May of this year. He is a great loss to the community. A tribute will be published in the August issue of *Mineralogical Magazine*.

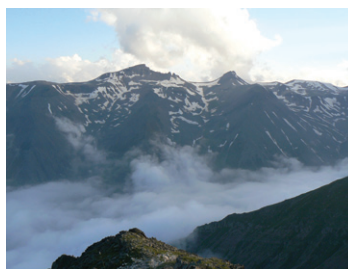
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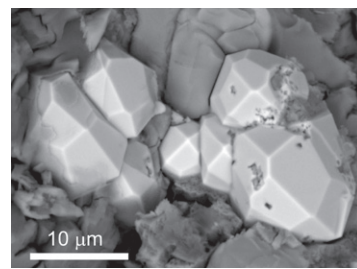
TEN NEW MINERALS DISCOVERED BY AN INTERNATIONAL RESEARCH TEAM

Irina and Evgeny Galuskin, members of the Polish, Russian, and American mineralogical associations and affiliated with the University of Silesia in Katowice, Poland, have accomplished a significant mineralogical feat. Together with international research groups from Poland, Russia, and Switzerland, they have discovered ten new minerals in high-temperature skarns in northern Caucasus, and in Sakha-Yakutia, Russia. These minerals belong to several common mineral groups. Five new minerals belong to the garnet group (all approved in 2009): eringaite, $\text{Ca}_3\text{Sc}_2\text{Si}_3\text{O}_{12}$; toturite, $\text{Ca}_3\text{Sn}_2\text{Fe}^{3+}_2\text{SiO}_{12}$; elbrusite-(Zr), $\text{Ca}_3(\text{U}^{6+}\text{Zr})(\text{Fe}^{2+}\text{Fe}^{3+}_2)\text{O}_{12}$; bitikleite-(SnAl), $\text{Ca}_3(\text{Sb}^{5+}\text{Sn})\text{Al}_3\text{O}_{12}$; and bitikleite-(ZrFe), $\text{Ca}_3(\text{Sb}^{5+}\text{Zr})\text{Fe}^{3+}_3\text{O}_{12}$. Two new rock-forming minerals belong to the humite group (approved in 2008): chegemite, $\text{Ca}_7(\text{SiO}_4)_3(\text{OH})_2$, and kumtyubeite, $\text{Ca}_5(\text{SiO}_4)_2\text{F}_2$. Two new minerals belong to the perovskite group: lakargiite, CaZrO_3 (approved in 2008), and megawite, CaSnO_3 (approved in 2010). Last, an analog of uraninite has been identified: vorlanite, $(\text{CaU}^{6+})\text{O}_4$ (approved in 2009).

Ryszard Kryza (President, MSP)



The Kum-Tyube plateau (Kabardino-Balkaria, northern Caucasus). Kumtyubeite, a rock-forming mineral of the humite group, was named after this plateau. PHOTO: IRINA GALUSKINA



Bitikleite-(SnAl): Si-free garnet crystals in cuspidine skarn. BSE IMAGE: IRINA GALUSKINA



A xenolith (white) within ignimbrites (Upper Chegem caldera, Kabardino-Balkaria, northern Caucasus), in which the tin garnet toturite was discovered. In the foreground are Evgeny Galuskin (left) and Viktor Gazeev; the latter discovered these xenoliths containing high-temperature skarns in the 1980s. In the background is Lakargi peak, after which the perovskite group mineral lakargiite was named. PHOTO: IRINA GALUSKINA