

## EMU SCHOOL – “ADVANCES IN THE CHARACTERIZATION OF INDUSTRIAL MINERALS”



The EMU School “Advances in the Characterization of Industrial Minerals” was held in conjunction with an ERASMUS IP short course; it was organized by George Christidis and held at the Technical University of Crete, Chania, Greece, on June 10–21, 2009. School lecturers summarized the basic properties of industrial minerals and reviewed the analytical methods used to characterize them. Case studies illustrating important materials necessary for the preparation and characterization of industrial minerals were presented. Lectures were given on the application of industrial minerals in nanotechnology and on the utilization of waste materials from the mining industry. The School also featured a field trip to western Crete.

Forty-three students from 13 countries attended the School. Lectures and practical exercises were delivered by Faiza Bergaya, George Christidis, Jan Elsen, Katja Emmerich, Giovanni Ferraris, Sabine Petit, Eric Pirard, Paul Sardini, Peter Scott, Michael Stamatakis and Tamas G. Weiszburg. A high academic level of teaching ensured the success of the School, and participants also enjoyed the beautiful Cretan landscape and the warm local hospitality. A volume in the series EMU Notes in Mineralogy, with chapters written on all the topics covered during the School, will be published in 2010. The book aims at becoming a reference textbook for lecturers and students in academic institutions dealing with the mineral sciences.

**George Christidis**, Technical University of Crete, Greece

## INTERNATIONAL YEAR OF PLANET EARTH (IYPE), PLANET EARTH LISBON EVENT 2009

As a student in Earth sciences, I had the pleasure to be an ambassador for Canada at the closing event of the International Year of Planet Earth, held in Lisbon, Portugal, on November 19–22, 2009. The Planet Earth Lisbon Event 2009 (PEL2009) was organized by IYPE, the Portuguese National Committee for IYPE, and Bombazine, a professional event-organizing company. PEL2009 brought together scientists, politicians, and industrial leaders to celebrate the closing of the International Year of Planet Earth triennium (2007–2009). The aims of PEL2009 were to evaluate the results of the IYPE and launch new initiatives building on the IYPE legacy. The event was divided into three main sessions: Renewable Energy, Sustainable Land and Water Management, and Planet Ocean. These themes were discussed from the political, scientific, and industrial points of view. Furthermore, two students from each of the 80 IYPE nations were invited to the event to emphasize the important role for the next generations in reaching the sustainable development goals of the United Nations.

In the Renewable Energy session, I learned how Portugal became one of the leaders in the production of sustainable energy, and I discovered how palm oil can be used in tropical areas to produce energy sustainably. The Sustainable Land and Water Management session taught me to pay attention to how we use the land and how to get the most from each piece of land. Efficient water management is one of the key ways to reach this goal. The importance of understanding our oceans was emphasized in the Planet Ocean session. Being surrounded by scientists, politicians, and industrial leaders allowed me to diversify my knowledge in a broad spectrum of topics related to Earth science. The “Youth and Earth” conference was specifically dedicated to the invited students. Several organizations, such as Y.E.S., BIG Mama, and Earth Science Olympiads, provided tools to students who want to get involved and gave them ideas about how to reach a more sustainable planet Earth.



FROM LEFT TO RIGHT, John Boyd (Chair, Canadian National Committee, IYPE), Caroline Richer (University of New Brunswick graduate student), and Marit Heideman (Simon Fraser University graduate student)

Speakers mentioned the importance of new initiatives to increase sustainability and the necessity of good communication and networking. Students were also invited to take part in a brainstorming session where they were asked to share their ideas on the question: What should our generation do to promote the geosciences to the younger generation?

Participating in this event allowed me to share my research with other students and to exchange ideas about Earth’s future with students, researchers, politicians, and industrial leaders with diverse backgrounds. I sincerely thank the IYPE organizers, the Portuguese National Committee for IYPE, and Bombazine, who provided the funding to allow me to attend this stimulating event.

**Caroline Richer**, University of New Brunswick, Canada

ASTROMATERIALS  
WORKING GROUP MEETING


The Mineralogical Association of Canada sponsored a one-day Planetary Science Research Symposium in the Earth Sciences Centre at the University of Toronto, held on October 7, 2009. The symposium consisted of 15 talks by researchers from across Canada, including five talks by students. The topics ranged widely, reflecting the diversity of planetary research currently being undertaken in Canada.

The common theme of the symposium was astromaterials, which are defined as solid samples of other planetary bodies in the solar system, including meteorites from asteroids, the Moon, and Mars; samples returned by robotic and human missions; and impact-affected and analogous materials on Earth. Attendees were treated to the latest-and-greatest results from the application of mineralogical, petrological, and geochemical methods to astromaterials. The morning consisted of a series of talks about meteorites. Topics included X-ray diffraction as a tool for assessing the degree of impact shock witnessed by enstatite chondrites (Izawa and coauthors, University of Western Ontario, UWO), organic matter in the Tagish Lake meteorite (Herd, University of Alberta), and constraints on the timing and duration of events in the early solar system from  $^{26}\text{Al}$  abundances in primitive grains in carbonaceous chondrites (Srinivasan, University of Toronto). In all cases the texture and mineralogy of the meteorites provided important context for interpretation of the data, showing that the fundamentals of petrography are alive and well in the Canadian astromaterials community.

The afternoon began with a visit to the Moon, led by UWO researchers who study "dark haloed craters" (Antonenko), the complex region in and around Schrödinger Crater (Shankar), and a feldspathic granulite lunar meteorite (Dammeier). The rest of the day consisted of talks about impact structures on Earth, including an overview of the ten largest (Thompson, University of New Brunswick), a new scheme for classification of impactites (Osinski, UWO) and its application to the Rochechouart Crater (Sapers, UWO), and an overview of the Banc Ouellet Crater, possibly associated with the start of the Younger Dryas (Higgins, Université du Québec à Chicoutimi).

The diversity of talks and the participation of students bode well for the future of planetary science in Canada. The Astromaterials Working Group, originally commissioned by the Canadian Space Agency, consists of 16 members from across Canada with expertise in the curation and analysis of astromaterials (<http://cms.eas.ualberta.ca/adwg/>). The business meeting of the group, which took place the day following the symposium, provided an opportunity to share updates on meteorite collections and to continue to expand the network of astromaterials researchers and resources. The Astromaterials Working Group maintains that the application of advanced analytical tools available in this country to its world-class meteorite collections can raise the international profile of astromaterials research in Canada and establish Canada as a reliable and uniquely qualified world-class partner in space missions involving sample return.


**Chris Herd**, University of Alberta, Canada



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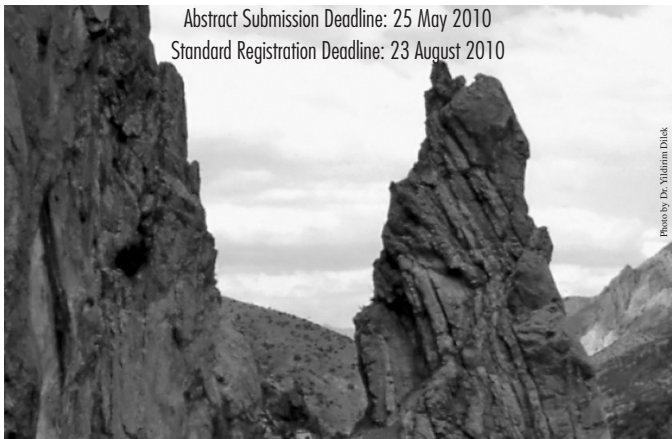
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