



The Clay Minerals Society

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THE PRESIDENT'S CORNER



David Laird

The Clay Minerals Society Annual Meeting was held September 25–30, 2011, in beautiful Lake Tahoe, Nevada. The meeting, organized by program general chair Sam Traina with the assistance of CMS president Paul Schroeder and business manager Mary Gray, brought together academic, industry, and government scientists and engineers for discussions on the latest advances in clay science. Clay science integrates geoscience, soil science, chemistry, materials science, environmental

science, civil engineering, geotechnical engineering, and anthropology with diverse clay applications, such as paper coating, adsorbents, cosmetics, environmental remediation, and petroleum exploration and development (to name a few). The cross-disciplinary nature of clay science is fertile ground for innovation, and the congenial nature of the CMS annual meetings provides an incubator for new ideas and an opportunity for students, professors, and professionals to network in an open and relaxed atmosphere. The Clay Minerals Society expresses sincere thanks to the organizers of the 2011 meetings and to our meeting sponsors, University of California Merced, Chevron, Oil-Dry Corporation of America, Theile Kaolin Company, KS Analytical Systems, Wyo-Ben, Inc., and H. H. Murray and Associates.

The Clay Minerals Society congratulates Mark Raven and Peter Self, winners of the 5th Reynolds Cup competition, the premier round-robin quantitative mineralogy competition. Mark Raven is a senior research projects officer with the CSIRO Land and Water Centre for Environmental Contaminants Research. At the Lake Tahoe meeting, he described their winning procedure, which integrated X-ray diffraction analysis of “as-received” samples with XRD analysis; these procedures followed grain-size fraction and various cation saturation and glycolation pretreatments. The award-winning CSIRO Land and Water lab in Urrbrae, South Australia, will host the 6th Reynolds Cup competition in 2012. Mark promised to challenge those entering the next competition. Meanwhile his lab will proudly display the Reynolds Cup.

David Laird (dalaird@iastate.edu)
President, The Clay Minerals Society

NEWS FROM THE 48th ANNUAL MEETING

The Clay Minerals Society 48th Annual Meeting took place on September 25–30, 2011, in South Lake Tahoe, on the California–Nevada state line. There were approximately 95 attendees who delivered 55 oral and 17 poster presentations. In addition to the general session, technical sessions included the atomistic modeling of clays, clay mineralogy in unconventional reservoirs, the crystal chemistry of clays, and soil clays.

Three CMS awardees gave plenary lectures. Douglas McCarty (Chevron Corporation) gave the Marion L. and Chrystie M. Jackson Mid-Career Clay Scientist Lecture entitled “Illite-Smectite: Three and One Dimensional Characteristics.” Dr. McCarty provided strong evidence for structural control in illite fundamental particles during the formation of smectites and their diagenetic conversion to illite-smectite. Glenn Waychunas (Lawrence Berkeley National Laboratory) gave the Pioneer in Clay Science Lecture entitled “Structural Studies of Mineral–Water Interfaces over 25 Years: The Development of Molecular Geochemistry.” In a tour de force, Dr. Waychunas reviewed 25 years of advances in the technology and the understanding derived from that technology of structure and interactions at the mineral–water interface. Sridhar Komarneni (Penn State University) gave the Marilyn and Sturges W. Bailey Award Lecture entitled “Synthetic and Modified



2011 President Paul Schroeder passes the gavel to 2012 President David Laird.

Clay and Clay Nanocomposites: Multifunctional Materials.” During his lecture, Dr. Komarneni described the unique properties of various synthetic and modified clays. Some of these materials are highly effective for selectively removing problematic ions from radioactive wastes.

Eleven students received CMS travel awards to attend the meeting. The award for best student oral presentation went to Sarah Saslow (Northwestern University) for her talk entitled “Uranyl Adsorption and Speciation at the Mineral/Water Interface Studied by Resonantly Enhanced Second Harmonic Generation and the Chi⁽³⁾ Technique.” Sarah’s advisor is Franz Geiger. The award for best student poster went to Ana Barrientos-Velazquez (Texas A & M University) for “Effects of Charge Origin and Octahedral Cations of Smectites on Their Selectivity and Adsorption Capacity for Aflatoxin.” Ana’s advisors are Youjun Deng and Joe Dixon.



Student travel awardees (left to right): Pushparaj Charan, Jean-Baptiste Fernandez, Hongji Yuan, Michael Bishop, Artur Kuligiewicz, Jing Zhang, Michael Cheshire, Sarah Saslow, Sungho Kim, Ana Barrientos-Velazquez, and Andrew Russell



Reiner Dohrmann inspects the dickite/kaolinite deposit during the field trip.

Two field trips were offered. The pre-meeting trip included visits to Mono Lake and Mammoth Mountain. The postmeeting trip visited three clay deposits in northern Nevada: a sodium bentonite deposit near Fallon, a calcium bentonite deposit near Lovelock, and a dickite/kaolinite deposit on the western flank of the Stillwater Range.

The 2012 Annual Meeting will be held in late July in Golden, Colorado. Check the CMS website soon for more details.