



The Clay Minerals Society

REYNOLDS AND HIS LEGACY AT THE CMS

With the recent passing of one of clay science's most influential researchers, the CMS and its members take time to remember Bob Reynolds and his contributions to the society and clay science. Several upcoming CMS activities honor his memory. The Reynolds Cup challenges researchers in a quantitative mineral analysis contest; a new memorial Reynolds Scholarship is planned; and there will be a special symposium at the 2005 CMS annual meeting in honor of Reynolds and his contributions.

GREEN MOUNTAIN CLAYS

The 42nd Annual Meeting of the Clay Minerals Society will be held June 11–15, 2005 in Burlington, Vermont, USA. The Wyndham Hotel hosts the meeting on the shores of Lake Champlain, between the Green Mountains to the east and the Adirondack Mountains to the west. The theme of this year's meeting reflects the ancient tectonic processes responsible for forming metamorphic chlorite, serpentine, talc, and muscovite in deformed Paleozoic rocks of the Green Mountains, as well as the Pleistocene glaciation and deglaciation that led to the deposition of lacustrine and marine clay-rich deposits in the Champlain Valley.

Two field trips, both on Wednesday June 15, will take advantage of these geological resources. The trip to the Adirondack Mountains will examine glacial till spodosols and their associated weathering reactions and clay mineralogy. The trip to the Green Mountains will visit serpentinized peridotites, where tectonic, mineralogical, and environmental issues will be examined.

The conference will host numerous theme sessions and symposia covering topics such as soil mineralogy and geochemistry, links between soils and sediments, clays and the environment, ceramic science, stable isotopes and clays, structural modeling and quantitative analysis, and clays and climate.

WORKSHOP

This year's workshop is entitled "Characterization of Solid–Water Interface Reactions of Metals and Actinides on Clays and Clay Minerals," and will be held Saturday, June 11. The workshop will focus on improving our understanding of water/solid interactions. These reactions are of widespread interest because they are fundamental to a large number of geochemical processes. Our understanding of processes that occur at the solid–water interface has dramatically increased over the past several years. This is largely due to the application of new and/or improved experimental techniques. Many of these techniques will be covered, including time-resolved laser fluorescence spectroscopy, which allows in situ measurement of the binding form of trivalent actinides, and synchrotron radiation sources, which enable in situ identification of the species at mineral surfaces in the presence of reacting solutions. This topic will be of particular interest to those dealing with remediation of contaminated sites. The workshop organizer, Andreas Bauer, may be contacted at bauer@ine.fzk.de.

SYMPOSIUM HONORING BOB REYNOLDS

"The Reynolds Symposium: Clay Mineralogy, from Structural Modeling to Geological Applications" will be held on Monday, June 13. The special symposium is dedicated to the spirit of Bob Reynolds' ideas and approach to clay science and its integration with geology. Bob was a pioneer in the structure and compositional analysis of pure and mixed-layered clays, their origin, transformation, and geological significance, including three-dimensional polytype analysis, among other things. Bob's rigorous work, techniques, and ideas are standard setting. Victor Drits, the keynote speaker of the symposium, epitomizes this philosophy in the tradition of Bob Reynolds and continues to make important new discoveries about the structure, transformation, and significance, of these minerals each year. The symposium is dedicated to this approach.

Please join us also in a celebration of the life of Bob Reynolds on the morning of Thursday, June 16 at Dartmouth College. Round-trip transportation will be provided from the conference to Dartmouth, and participants are expected to return to Burlington by approximately 3 pm.

THE VENUE

Burlington is a city of 40,000 and is home to the University of Vermont. It boasts a thriving pedestrian-friendly downtown, museums and natural areas, and is surrounded by a working agricultural landscape renowned for world-class cheeses. The meeting will be held at the Wyndham Hotel on the Burlington waterfront, a venue ideally suited for a CMS meeting. We encourage you to attend, to meet old colleagues and friends, to strike up new professional relationships, to share knowledge and ideas, and to enjoy early summer on the shores of Lake Champlain. Make your reservations by calling 802-658-6500 or going to www.wyndham.com.

For a registration form, visit the meeting website at www.middlebury.edu/cms, or contact the meeting organizers: Peter C. Ryan, Geology Department, Middlebury College, Middlebury,

VT 05753, pryan@middlebury.edu, +1-802-443-2557; and Michele Hluchy, Environmental Studies, Alfred University, Alfred, NY 14802, fhluchy@alfred.edu.

ROBERT C REYNOLDS JR. RESEARCH AWARD

The CMS has begun a fundraising campaign for a new award in memory of Bob Reynolds and his work. Paul Nadeau, of Statoil ASA, Stavanger, Norway, has been appointed to lead a stellar committee to create an endowment for a new award capable of providing substantial support for independent research. CMS plans to offer the award annually to one researcher with an outstanding project. For more information or to make a donation, contact Paul Nadeau at phn@statoil.com.

THE REYNOLDS CUP



The Reynolds Cup is a biennial international contest in quantitative mineral analysis (QMA) designed to evaluate quantitative methods on mixtures that are realistically representative

of sedimentary rocks, especially those that contain clays. The contest is supported by the German Research Council, the Clay Minerals Society, the Commission on Powder Diffraction of the International Union of Crystallography, and the German-Austrian-Swiss Clay Group. The next contest will open in early 2006, with the cup being awarded at the 2006 CMS annual meeting at Oléron Island, France. For more information, see "Quantitative Mineral Analysis of Clay-bearing Mixtures: The 'Reynolds Cup' Contest," D.M. McCarty, pp 12-16, IUCr Newsletter No. 27, June 2002, available online at www.iucr.org/iucr-top/comm/cpd/cpd27.pdf. And don't miss the next issue of the IUCr newsletter where Reinhard Kleeberg, the 2002 winner of the Reynolds Cup, will have more news.

How I Won The Reynolds Cup

The Clay Doctor has been providing his (?) occasional lighthearted contributions to the CMS newsletter since it began publication in the late 1980s. The following was submitted to the 2002 CMS annual meeting. The Clay Doctor's true identity has never been revealed, but we hear that he was later disqualified from the Reynolds Cup contest for failing a random drug test (or maybe it was for failing a random QMA test...?).

The Clay Doctor, Dept. of Earth, Wind, Fire and Water Sciences, Clayhead University, 9-10 Big Fat Hen Road, Rockland, BA 00002

"I suddenly became interested in minerals at a very young age, when other children began to throw rocks at me. Rocks that contained clay hurt less. So I began to wonder how much kaolinite was in this one, how much galena in that. My father bought me my first X-ray diffractometer when I was 10, and there was no turning back. While other children were reading *Tales from the Crypt Comics*, and later *Hustler Magazine*, I was reading the *X-ray Powder Diffraction Card Files*, memorizing d-spacings. So when Dr. Douglas McCarty from Chevron Texaco sent me the three unknowns that contained mixtures of pure mineral separates, I was ready to analyze them quantitatively.

I analyzed the samples as follows. They came in the mail in an Airborne Express pouch. I opened the pouch with a dry-wall knife, which is kept in the second drawer from the top in the X-ray lab. It is the type that has a retractable blade. Then I removed the bottles from the package and analyzed them.

I am so undeserving of this honor, but I am happy to have become the first winner of the Reynolds Cup. I would like to thank my parents, my music teacher, and the little gal who let me make a left turn into the parking lot this morning. I especially thank Dr. McCarty for mistakenly sending me the

answers along with the bottles, which saved a lot of analysis time. I realize that in accepting this award I will be responsible for helping to organize the next competition. Also, I understand that the cup is not permanently mine, but that it will circulate to the next winner. Therefore, in some ways, the Reynolds Cup is similar to the Stanley Cup, except for the hockey. Now I kiss the cup, raise it above my head, and run around the meeting room yelling, wrapped in a flag.

In the (unlikely) event that I do not win, I will relinquish this time at the podium to the real winners so that they can explain how they won the Reynolds Cup."

WANTED

The Hudson Institute of Mineralogy, a not-for-profit organization chartered by the Board of Regents of the State University of New York is seeking used analytical equipment, thin sections and mineral specimens for its descriptive mineralogical laboratory and educational programs. We are dedicated to classical mineralogical research, preservation of mineral specimens, and educational outreach to primary and secondary school teachers and students. If your institution is upgrading its analytical equipment, we want your used, working devices. Further, if you are disposing of minerals, thin sections or similar geological artifacts, let us put them to good use; aesthetics are unimportant, labels are! Please contact:

The Hudson Institute of Mineralogy
PO Box 2012 • Peekskill, NY 10566-2012
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The Clay Minerals Society is proud to announce

The publication of Volume 13 in the Workshop Lecture Series

The Application of Vibrational Spectroscopy to Clay Minerals and Layered Double Hydroxides

edited by J. Theo Kloprogge

Queensland University of Technology, Brisbane, Qld, Australia

Articles

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