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## The Clay Minerals Society

### FROM THE PRESIDENT



As incoming president of The Clay Minerals Society for 2005–2006, I would like to extend warm greetings to the readers of *Elements*. The Clay Minerals Society (CMS) is an interdisciplinary community of scientists involved in clay science and technology. Our fields of inquiry are diverse and include mineralogy, geology, chemistry, nanotechnology, materials science, engineering, and soil science.

One of my goals is to better understand how we can help meet the needs of our current and future members. To do this I would like to engage our members, and the readers of *Elements*, in projecting what the future dimension of clay science will look like. There are clearly increased opportunities for clay scientists to contribute in areas of naturally occurring nanomaterials, environmental applications of clay science, and biogeochemistry. We seek to better understand how The Clay Minerals Society can respond to these opportunities. To this end, I would like to solicit your input for clay-related thematic issues in *Elements*. You can find instructions for submitting proposals for thematic issues on the *Elements* website <http://www.elementsmagazine.org/>, under “forms.” In addition, you can contact Kathryn Nagy ([klnagy@uic.edu](mailto:klnagy@uic.edu)) or myself ([clays@purdue.edu](mailto:clays@purdue.edu)) with your suggestions.

The enterprise of clay science, as with many other disciplines, is now truly global. Over 40 percent of the membership of The Clay Minerals Society resides outside of North America. At our recent annual meeting held this year in Burlington, Vermont, Andreas Bauer from Karlsruhe, Germany organized the pre-meeting workshop, which included other contributors from Europe; this reflects a growing trend of increasing participation by our international members. Finally, an exciting opportunity can be found in next year’s annual meeting. For the first time, the Groupe Français des Argiles (French Clay Group) and The Clay Minerals Society will meet together on June 3–7, 2006, at Oléron Island, France. This meeting, chaired by Sabine Petit, will provide a wonderful venue to explore the expanding frontiers of clay science. We are very pleased to partner with the Groupe Français des Argiles and hope to see you in Oléron!

**Cliff Johnston**

President of The Clay Minerals Society

### “GREEN MOUNTAIN CLAYS”— CMS ANNUAL MEETING 2005

The setting: 44.48° N, 73.21° W; green, rolling hills grading into high mountains befitting the Von Trapp family. Burlington, Vermont, host city of the 42<sup>nd</sup> annual CMS meeting is a vibrant, casual community with quaint Victorian New England architecture, a great college town center, and weather to suit all—“if you don’t like it, just wait a few minutes!”

Greeted by meeting organizer **Pete Ryan**, the events were officially opened by **Dewey Moore’s** Presidential Welcome followed by the Pioneer Lecture, “Nanoparticles: size matters” by **Jillian Banfield**, UC Berkeley. For half a century our Society has honored those who exhibit novel research in the traditional study of clay nanoscience, so it is a due honor for the Pioneer Award to be given to Jill Banfield, perhaps the youngest Pioneer awardee in our history. She has seized the advanced analytical techniques available today and energetically applied them to size-dependent phenomena, addressing problems in phase stability, aggregation behavior, crystal growth, microstructure development, and ion absorption. As a pioneer she has explored uncharted territory on microbial interactions with nanoparticles, paving the way for a new generation of scientists.

Prof. **Maria Franca Brigatti**, Università di Modena e Reggio Emilia (Modena, Italy), gave the honorary Brindley Lecture entitled “Structure and crystal chemistry of the micas.” Her detailed and graphic modeling of the crystal chemistry of dioctahedral micas demonstrated a strong structural control of the octahedral chemistry on the whole layer structure. Dr. Brigatti is a skilled and prolific contributor to the crystal chemical advancements in clay science.

The Bailey Award, the highest honor bestowed by the Society, was given to **M. Jeff Wilson**, Macaulay Institute, Aberdeen, Scotland, for scientific eminence in clay mineralogy and publication of outstanding original scientific research. His lecture was historical and outlined the evolution of scientific research at the MacCauley Institute and the serendipity of exciting collaborations and discovery. He also

showed great “baby” pictures of our illustrious editor, **Derek Bain**.

The Jackson Lecture Award for a mid-career scientist was given to **Samuel J. Traina**, UC Merced, who spoke of his most exciting recent XAS discoveries of heavy-metal sorption on geoparticles.

Other highlights included a pre-meeting workshop on the theme “Characterization of solid–water interface reactions of metals and actinides on clays and clay minerals,” led by **Andreas Bauer**. This timely workshop explored the theme of this issue of *Elements* on metals in the environment and the role of surfaces.

This year’s meeting brought together scientists from 14 countries. A third of the presentations were from students, and those presentations were more impressive than ever. We are proud to be a diverse, enthusiastic group, with members committed to sharing their wealth of knowledge in a collegial society that leads the world in nanoscience. Clay science is revitalized by the energy of youth and new technologies, and we invite all scientists and engineers interested in nanoscale processes to join us. Our greatest appreciation goes to **Pete Ryan** and **Michele Hluchy** for organizing this year’s meeting. Next year we will convene on a small quaint island off the coast of France. This meeting promises a European flair with great food, wine, and friends.

**Lynda Williams**

Arizona State University

### CMS Wants Your Photos!

Do you have any previously unpublished field photos, microscopic images, schematic diagrams, illustrations, or even dynamic molecular models you would like to post on the CMS website? If so, please send a jpg image (or equivalent file) with a brief description via e-mail to [rferrell@lsu.edu](mailto:rferrell@lsu.edu). Your contribution will be acknowledged appropriately. Thanks for your assistance.

**Ray Ferrell**

## LE GROUPE FRANÇAIS DES ARGILES WELCOMES THE CMS IN 2006

On behalf of the French Clay Group and The Clay Minerals Society, we invite you to participate in **Bridging Clays**, the combined 4<sup>th</sup> colloquium of the Groupe Français des Argiles and 43<sup>rd</sup> annual meeting of the CMS, to be held in the Poitou-Charentes region of France.

The workshop **Polymer-Clay Nanocomposites**, chaired by K. Carrado of Argonne National Laboratory and F. Bergaya of the CNRS, will be held at the **University of Poitiers**. Poitiers is the capital of the Department of Vienne, located in west-central France. Situated on high ground at the confluence of the Clain and Boivre rivers, the town oversees the Gate of Poitou, a 71-km-wide gap between the area south of the Loire River and the Massif Central connecting northern and southern France. Poitiers is a small medieval city of boulevards that follow the line of ancient fortifications. Poitiers contains great artistic wealth in the form of many old monuments such as the romanesque Notre-Dame-la-Grande church, with a remarkable 12<sup>th</sup>-century façade; the Saint-Pierre cathedral (12<sup>th</sup>-16<sup>th</sup> century), built largely in the local Gothic style known as Angevin; the rectangular 4<sup>th</sup>-century Baptistère Saint-Jean, which now houses an archaeological museum; and the 12<sup>th</sup>-century former ducal palace now part of the 19<sup>th</sup>-century Hôtel de Ville, which houses the Musée des Beaux-Arts.

A field trip will "bridge" Poitiers to Oléron Island via Montmorillon and Nontron, famous sites for clay scientists.

The second part of **Bridging Clays**, comprising scientific sessions dedicated to clay research and development, will be held on **Oléron Island**, 200 km from Poitiers. Thematic sessions include **Clays in Petroleum Systems**; **Polymer-Clay Nanocomposites**; **Iron Oxidation-Reduction in**

**Bridging Clays**

Joint Meeting  
Groupe Français des Argiles &  
The Clay Minerals Society

4<sup>ème</sup> Colloque du GFA  
43<sup>rd</sup> Annual Meeting of the CMS

**3-7 June 2006, France**

Workshop (3 June): **Polymer-Clay Nanocomposites**, Poitiers  
K. Carrado & F. Bergaya

Field Trip (4 June): *Montmorillon, Nontron*

Technical Sessions (5-7 June): *Ile d'Oléron*  
**All fields of clay research & development**

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<http://www.c2s-organisation.com/gfacms06>

**Clays; Colloidal Behavior of Clay Minerals; Equilibrium and Disequilibrium in Low-Temperature Processes; Environmental Mineralogy and Toxic Metals; Soils, Weathering and Alterations; and Clay-Organic Interactions.** Located off the French Atlantic coast in the Bay of Biscay, south of La Rochelle and north of the Gironde Estuary, Oléron is the second largest French island (after Corsica). Linked to the mainland by a bridge, the island and its beaches are a popular destination offering many opportunities: sailing, beach

activities, local specialties and delicious seafood. The meeting will be held at the "Village Vacances Vielle Perrotine" CAES CNRS center, St. Pierre d'Oléron. This center, dedicated to CNRS family holidays, is ideally suited for work (the conference rooms are located in the center of the village) and relaxation (direct access to the sea on foot).

We encourage you to attend, share knowledge and ideas, benefit from this opportunity for several communities to meet, and enjoy early summer on the shores of the European side of the Atlantic Ocean.

The **Bridging Clays**  
Local Organizing Committee

## SAVE TIME – GO ONLINE

[www.clays.org/membership/Membership.html](http://www.clays.org/membership/Membership.html)

Use this site to search the online membership directory, update your membership information, renew your membership, subscribe to *Clays and Clay Minerals*, make contributions, and access *Clays and Clay Minerals* via GeoScienceWorld.

## ADDRESS CHANGE

The address for CMS Dues & Subscriptions has changed to:

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