



The Clay Minerals Society

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THE PRESIDENT'S CORNER



By the time you read this article, I will have become the President of The Clay Minerals Society (CMS). I succeeded the former President, Steve Hillier, and Ian Bourg succeeds me as Vice-President. It is a great honour for me to become President of the CMS. As a woman from outside North America, I would say that this reflects the willingness of the CMS to welcome anyone, whoever they are and wherever they are from. If you are interested in clays and clay

minerals but don't yet dare take the step to become full member immediately, the new status of "Associate Member" is for you. It offers ways for you to join the CMS to experience the benefits of membership at no cost for a limited time. The "Warren Huff Pathway Award" is also a newly endowed award offered by the CMS that is intended to support the development of the next generation of clay scientists and to help them broaden their network as they build their careers in clay science.

The 2023 Annual Meeting, masterfully organized by Michael Cheshire, was an in-person event in Austin, Texas, USA (see a glimpse of conference in this issue of *Elements*). On behalf of the CMS, I would like to thank Michael and his team for perfectly organizing the event. As some new members joined the council and various committees, I would like to welcome them and thank those whose terms ended at this meeting.

The 2024 Annual Meeting, co-organized with the Asian Clay group, will be held in Honolulu, Hawaii, USA on June 3–6, 2024 with the theme "Expanding Clay Science Over the Pacific and Beyond." Save this date now on your calendar.

Sabine Petit, CMS President

CMS STUDENT RESEARCH AWARD WINNERS

Among our eight brilliant award winners, we featured Kevin and Emily in *Elements'* June issue, and in this issue, **Opeyemi Aransiola** of Georgia State University (USA) and **Zubaer Hosen** of the University of Newcastle (Australia) are our spotlight.



Opeyemi Victoria Aransiola works with Dr. Elliott Crawford, and her research interest lies in the potential of Woodford Shale rock in Oklahoma's sedimentary basins. Her study focuses on the role of clay minerals in understanding the thermal maturity of shale formations for oil and natural gas generation and flow. Clay minerals (illite, illite–smectite mixed layers, and kaolinite) have been identified by X-ray diffraction analysis.

Using a CMS grant, Opeyemi will perform scanning electron microscopy (SEM) on the clay fractions to investigate their component fabrics. The aim is to obtain useful insights into hydrocarbon generation from the Woodford Shale and fluid flow within the reservoir. This research focuses on improving the understanding of shale properties for optimal unconventional exploration through hydraulic fracturing and horizontal drilling. It also seeks to enhance well positioning and facilitate informed exploration decisions. She thanks CMS for the enabling the advancement of science.



Md. Zubaer Hosen is a PhD student at the Global Centre for Environmental Remediation (GCER) research centre, which is supported by CRC CARE Australia, at the University of Newcastle, Australia. The aim of his project is to investigate clay–microbe interactions in the cattle rumen environment. This is a mechanistic area where clays are used as a feed supplement to reduce enteric methane production in the rumen. The CMS grant will help him study this interaction at

a molecular level, such as obtaining a metagenomic profile of clay interacting microbes. Mr. Hosen completed his master's and bachelor's degrees from Islamic University, Bangladesh. Previously, he was awarded a research grant funded by the University Grants Commission, Bangladesh for a food safety research project. He thanks CMS for supporting his research.

A GLIMPSE OF THE 60th CMS ANNUAL MEETING, 2023

The 60th Annual Meeting was held at the **UT Austin – JJ Pickle Research Campus – Commons Conference Center, Texas, USA** on 20–25 May 2023, thanks to Michael Cheshire (Chevron) and his team. The conference began with a full-day workshop about a quantitative X-ray course and Sybilla software, and ended with two field tours. A full report on this event is available at https://www.clays.org/past_meetings/.



Recognition of Randall, Susan, and Christophe by Jeffery.

The total number of attendees was 118, with 110 papers submitted (81 oral presentations and 20 posters).

Three eminent scholars presented the Plenary Lecture. They were **Randall Cygan**, **Christophe Tournassat**, and **Susan Brantley**, who were all CMS awardees in 2023. Feel free to take a moment to read their biographies from our past News Pages. Their CMS lectures are also available on our YouTube channel @theclaymineralsociety2982.

Among the student presenters, the top three oral presentations were from **Benjamin Dean Urlick**, California State University, USA, **Abdulvahit Sahin**, Texas A&M University, USA, and **Klaudia Dziewiatka**, AGH



CMS Travel Grant winners at the conference.



Yuji Arai announcing the next meeting.

University of Science and Technology, Poland. In the poster category, the top presenters were **Maria Laura Arizaleta**, University of Alberta, Canada, **Oluwaseun Adeyemi**, University of Georgia, USA, and **Itunu Temidayo Apalara**, University of Oklahoma, USA.

CMS offered travel grants to ten students to attend and present their research. They were **Oluwaseun Adeyemi**, University of Georgia, USA, **Maria Arizaleta**, University of Alberta, Canada, **Anthony Boxleiter**, Georgia State University, USA, **Kevin Byerly**, **Emily Doyle**, and **Hunter Green** from Texas Tech University, USA, **Anna Jedras**, AGH University of Science and Technology, Poland, **Nadine Kanik**, Institute of Geological Sciences, Poland, **Nur Nizam**, Universiti Teknologi MARA Negeri Sembilan Branch, Malaysia, and **Jonathan Smolen**, University of Connecticut, Newtown, Connecticut, USA.

The conference was concluded by announcing the 61st Annual Meeting at Honolulu, Hawaii, USA, which will be held on June 3–6, 2024.

JOURNAL'S ISSUE UPDATE

Here are some recent papers published in Clay and Clay Minerals (<https://www.springer.com/journal/42860>):

- **Physicochemical Variation of Clay Minerals and Enrichment of Rare Earth Elements in Regolith-hosted Deposits: Exemplification from The Bankeng Deposit in South China**, by Li and Zhou.
- **Silicon Incorporation Reduces the Reactivity of Short-range Ordered Aluminosilicates Toward Organic Acids**, by Lenhardt et al.
- **Characteristics and Production Technologies of Byzantine Building Bricks from the Anaia Church in Western Anatolia**, by Çam and Sağın.
- **One-Step Fabrication of Magnetic Polymer/Montmorillonite Adsorbent for Highly Efficient Phenol Adsorption**, by Geng et al.
- **Rare Earth and Critical Element Chemistry of the Volcanic Ash-fall Parting in the Fire Clay Coal, Eastern Kentucky, USA**, by Dai et al.

- **Rare-Earth Minerals in Kaolin Ore, Mine Tailings, and Sands – Central Georgia, Upper Coastal Plain**, by Boxleiter and Elliott.
- **Effects of the Inclusion of Ce and Ni Species on Ti for Modification of K10-Clay by Sol-Gel and their Use as Catalysts in the Liquid-Phase Esterification Systems**, by Rangel-Porras et al.
- **Crystallization between (100) Goethite and (001) Orientation of Hematite – A Review**, by Wang et al.
- **Mineralogy and Geochemistry of a Bentonite Pellets Column Heated for 10 years**, by Villar et al.
- **Ceramics Properties of Indurated-Shale Quarry Wastes from Abakaliki, Southeastern Nigeria: Application as Raw Materials in Roofing-Tile Production**, by Nweke and Omeokachie.
- **Montmorillonite as an Anti-Tuberculosis Rifampicin Drug Carrier: DFT and Experimental Study**, by Scholtzová et al.
- **A Review of the Reactivity of Phosphatase Controlled by Clays and Clay Minerals: Implications for Understanding Phosphorus Mineralization in Soils**, by Chen and Arai.

IMPORTANT ANNOUNCEMENT

Join CMS

Join us with new types of membership! Please visit www.clays.org or contact the Business Office at cms@clays.org. Members receive tangible benefits. Extra benefits are available for students, such as student research grants (up to \$3000), student travel awards (up to \$1000), and free access to the full text of *Clays and Clay Minerals*. Check out more at https://www.clays.org/join_benefits_of_membership/.