



## The Clay Minerals Society

[www.clays.org](http://www.clays.org)

### THE PRESIDENT'S CORNER



Dear CMS community,

As clay scientists, we are fortunate to work on a knowledge thread as old as humanity, on topics that connect us to the beginnings of agriculture, pottery, construction, and writing. We can trace this thread even further back to the formation of sedimentary rocks and to the muddy origins of primordial life.

Simultaneously, we are fortunate that this thread is tied to many questions critical to the future of humanity. For example, clays and clay minerals play important roles in our understanding of the surface of other planets, in the preservation of biomarkers in Earth's sedimentary record, in the design of more durable infrastructure and more sustainable materials, in the recovery of critical elements, in soil health, water quality, waste isolation, and many other timely topics. They are a key to the utilization of the subsurface for energy, from hydrocarbon extraction to hydrogen storage, enhanced geothermal energy, and geologic carbon sequestration. They strongly impact geophysical hazards including subsidence, erosion, debris flows, and fault slip. They control key features of the global carbon cycle, including the stability of soil organic matter and the rates of mineral weathering.

Because clays touch so many aspects of the human enterprise, their study presents a singular opportunity to be part of an important, long-standing field of science and technology, while also constantly presenting opportunities to reinvent ourselves and our endeavors and interests. I encourage us to incorporate this vibrancy in the activities of our society: to embrace new topics in clay science, to propose symposia at our annual meeting and special issues in *Clay and Clay Minerals* focused on emerging questions and applications, and to invite new colleagues to join our Society.

Warm regards,

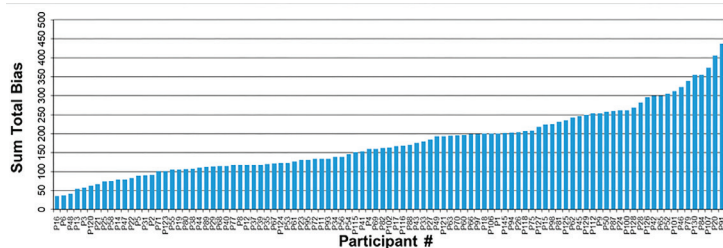
**Ian C. Bourg**, CMS President

### 12<sup>th</sup> REYNOLDS CUP COMPETITION

The Reynolds Cup (RC) competition continues to grow in popularity and of 120 sets distributed for the 12<sup>th</sup> RC, 99 contestants, spanning 30 different countries, returned results. Each set consisted of three, carefully prepared, samples designed to simulate a kaolin, a bentonite, and a sandstone, all common clay mineral-bearing sample types that pass regularly through many analytical labs. As in previous RCs, the sum of the absolute total difference between the known concentrations of the mineral components of the samples and the concentrations

submitted by each participant, plus any misidentified minerals, was used to calculate a 'sum total bias'. As usual, any method or combination of methods is allowed, though almost all participants rely mainly on X-ray powder diffraction.

The top finishing labs, all with an impressive bias of <60, were: in 5th place (58.5) Youjun Deng and his team Camilo Jose Sanchez Avellaneda, Md Wasek Foysal, Chia-Wei Lin, Ayazhan Bazarbekova, from Texas A&M University, USA; in 4th place (55.0) Kristian Ufer, Stephan Kaufold, and Reiner Dohrmann from the BGR, Hannover, Germany; in 3rd place (42.6), Gi Young Jeong from Andong National University, Republic of Korea; in 2nd place (37.4), Rieko Adriaens, Gilles Mertens, Silja Frederickx, Ines Boushah, Nathalie Lan Dung, Nancy Weynds, Ithar Shabeeb, Dania Alkhalidy, Abdullah Mohammad, Dominique Jacques, and Bram Paredis from Qmineral in Belgium; and in 1st place, the winner of the 12<sup>th</sup> RC (drum roll!), with a bias of 36.4, was **Mark Raven and the team of Peter Self, Rodrigo Gomez-Camacho, Rachael Maree, Rong Fan, Nick Owen, and Shu Huang from CSIRO in Adelaide, Australia**. Additional details are available on the CMS website. The presentation of the cup will take place, in person, at the awards ceremony of the International Clay Conference in Dublin on the 18<sup>th</sup> of July, 2025. Thanks to all participants who returned results, providing the latest snapshot of quantitative mineralogical analysis of clay bearing samples.



The bar chart presents the relative accuracy of each participant in the 12th Reynolds Cup.

### SAVE THE DATE!

Please visit the conference website <https://icc.aipea.org/> and explore the session list, submit your abstract, and registrar your attendance. The abstract deadline is 11 April 2025.

During the conference, CMS's administration (Executive Committee and Council) meetings will also be held in Trinity College, Dublin, as will our Business meeting, to which our members and others are invited.



**XVIII ICC**  
Dublin, Ireland  
13-18 JULY 2025