



Mineralogical Society of the UK and Ireland

www.minersoc.org

XVIII INTERNATIONAL CLAY CONFERENCE

Trinity College, Dublin
13–18 July 2025

Introduction

In 2020/2021, during the Covid pandemic, the Mineralogical Society and the Clay Minerals Group discussed the possibility of making a bid to AIPEA (Association Internationale pour l'Étude des Argiles) to host the prestigious International Clay Conference in the UK/Ireland. Trinity College Dublin quickly became a strong favourite as the venue. It has ideal conference facilities in the Arts Building of its City Centre Campus: seven lecture theatres in close proximity with capacities ranging from 100–450.

Statistics

The conference managed to attract an audience of 660 people, of whom 530 attended in person and a further 130 attended remotely. Delegates were present from 56 countries.

We had an excellent crop of session leaders/organizers/chairs. No conference would ever function without these people who deal with all of the minutiae, which mean that sessions run (mostly) smoothly. View the full version of the report at <https://icc.aipea.org/conference-report/> for a list of our scientific committee members.

We also drew heavily on the advice and experience of those in the Scientific Steering Committee:

- Helen Pendlowski
- Anke Neumann
- Sabine Petit
- Yuji Arai
- Peng Yuan
- Ian Bourg
- Pete Ryan
- Bruno Lanson

We were fortunate in securing the help and support of a team of volunteers who worked tirelessly throughout the conference to make sure that the sessions ran smoothly, that remote speakers were primed and ready to participate, and that interactions between those present in person and remotely ran as smoothly as possible. These are:

Faisal Gread, Celia Martín Morales, Alessandro Lo Bianco, Ludovico Guercio, Giulia D'Agostino, Ana Beatriz Zabala, Fabiane Santana, Trung Nguyen, Aurelie Dumont, Andrea Pierozzi, Helen Pendlowski, Kyle Adams, Daniel Doodoo, Eleanor Olegario, Ciara Ní Mhaoldomhnaigh, Nikita Turton, and Devyani Jambhule.

Programme

The conference hosted 35 sessions, with up to seven sessions running in parallel at any given time. We decided to retain shorter sessions as stand-alone, rather than force uncomfortable merges, so that we would be able to have focused and dedicated session leaders even for sessions with just 6–8 talks. Again, a full list of these is available at <https://icc.aipea.org/conference-report/>.



ICC volunteers enjoying a well-earned dinner.

Workshops

We were very fortunate to secure four excellent workshops at our conference.

1. ICDD® PDF-5+ and JADE® Pro Workshop (sponsored by the International Center for Diffraction Data)

2. **Kaolin, Kaolin and Kaolin – Everywhere**
LEADERS: Dr Prakash B. Malla and Dr Jeanne Percival

3. Key Determinative Methods in Clay Science

X-ray diffraction and the identification and structure determination of clay minerals: An updated perspective

Bruno Lanson, ISTERre, CNRS, Univ. Grenoble Alpes, France

Electron microscopy for clay science: what can be done and what to be considered

Toshihiro Kogure, Department of Earth & Planetary Science, School of Science, The University of Tokyo, Japan

Thermal Analysis in Clay Science

Katja Emmerich, Faculty of Civil Engineering, Geo- and Environmental Sciences Karlsruhe Institute of Technology, Germany

Infrared spectroscopic techniques for the non-invasive study of clays

Georgios Chryssikos, Institute of Theoretical & Physical Chemistry, National Hellenic Research Foundation, Greece

4. 1D X-ray diffraction pattern modelling: An introduction to 1D modelling of the XRD patterns of clay minerals

This workshop introduced two different software programmes that can be used to calculate 1D patterns from clay minerals, namely *Sybilla* and *Profex-BGMN*. Basic and important aspects of the theory of the calculations were covered with emphasis on the practical application of these softwares to calculate 1D patterns of pure and mixed-layer clay minerals for comparison with real examples.

The workshop was led and taught by Marek Szczerba, Kristian Ufer, Jan Dietel, and Artur Kuligiewicz.

Fieldtrips

The conference hosted two field trips: one to the Giant's Causeway, Co. Antrim, N. Ireland to see the famous columnar basalts; and another to visit the Platin Cement factory in Co. Louth.

Cement Manufacturers Ireland invited our delegates to visit one of Europe's most modern cement factories. This is located near Drogheda, Co. Louth, about an hour's drive north of Dublin.

The factory is located here because of ready access to a supply of high-quality limestone, the proximity of a port at Drogheda and the accessibility to a ready-made market in Dublin. Visitors were shown around the plant, which was operating at 100% capacity. Fifty percent of all of the fuels used to heat the kilns is produced from solid recovered fuels. The factory has an annual production capacity of 2.8 million tonnes of cement.



ICC delegates at the Giant's Causeway (Jeanne Percival sitting in the 'Wishing Chair').

Social

Organized social events in Dublin included the ice-breaker reception, held in the spectacular Dining Hall. This group included family members of M.L. Jackson who was honoured at the conference.



Yuanzhi Tang, the 2025 Jackson Award winner (CENTRE), with Dan (LEFT) and Thomas (RIGHT) Conlon, grandsons of Marion L. Jackson.

A large group of >500 people attended the conference banquet on the Thursday evening. This was held in the Hogan Suite of Croke Park, home to Ireland’s national games of hurling and football. The menu consisted of food sourced entirely from within a 50 km radius of the stadium. Delegates were entertained by the O’Maolagáin family of traditional Irish musicians.

Journals

Clay scientists have a large list of journals from which to choose when they publish their work; this reflects the broad nature of the science. The three key journals in clay science, i.e., *Clay Minerals* (Mineralogical Society), *Clays and Clay Minerals* (Clay Minerals Society), and *Applied Clay Science* (Elsevier), were all represented at the conference. Each of the journals hosted a meeting of their respective editorial boards. The editors of *Clay Minerals* and *Clays and Clay Minerals* both enjoyed a dinner on the evenings of their respective meetings. On the final day of the conference, the editorial teams came together to host a short workshop on “How to become a good reviewer” (video recording to follow).

Equality, diversity, and inclusivity

The Mineralogical Society has spent the past five years incorporating the key principles of EDI into all of its activities, including conferences. At ICC, and supported by AIPEA and all partners, we set out to ensure that any scientist who wanted to, would be able to attend the conference and take a real part in it, either in person or remotely.

Remote attendance where you are able to make a presentation, engage with other presenters or event present a poster, are all signs that we welcomed allcomers.

We had 130 delegates attending the conference remotely (20% of all of our delegates) from countries as remote as Cameroon and East Timor. And, between them, the Societies and AIPEA managed to offer support to dozens of delegates who attended in person. We hope that this will become the standard for future conferences. Remote conferencing is not without its challenges (with modest session disruption the result), but it is incumbent upon us all to try. Similarly, we encourage authors from all locations to submit papers to the special issues in our journals and to avail of the support available from members of our Editorial Board to help, especially first-time authors.

Awards

A list of all of the awards made during the Awards Ceremony at the end of the conference is available in the full version of the report: <https://icc.aipea.org/conference-report/>

Student Presentation Prize (Oral)	Wolfgang Jan Zucha
Student Presentation Prize (Oral)	Giulia D’Agostino

Student Presentation Prize (Oral)	Bruno Freitas Pio de Azevedo
Student Presentation Prize (Oral)	Trung Nguyen
Student Presentation Prize (Oral)	Celia Martín-Morales
Student Presentation Prize (Poster)	Viktória Planetová
Student Presentation Prize (Poster)	María Tijero-Martín
Student Presentation Prize (Poster)	Daniel Dodoo
Student Presentation Prize (Poster)	Julien Talon

Financial

When a national society undertakes to run a conference like ICC, it also takes on the burden of the financial risk associated with such a venture. There is no underwriting and no guarantee of success. This conference had a budget of more than a quarter of a million euros, so this was a significant undertaking for the Mineralogical Society. Very careful budgeting was required. The team needed to know in detail, every single cost associated with running a week-long event for 600+ people. This allowed us to prepare a set of registration figures, which would guarantee sufficient income to cover all of the costs, and to ensure that we could run an event of the standard expected by ICC audiences. The budget was, inevitably, affected by global inflation of ~25% between the time of the bid and the time of the conference.

Legacy

By their nature, conferences are ephemeral. As organizers, one of our tasks is to attempt to secure legacies from the event. Here are some of the takeaways:

1. The programme and abstracts volume for the conference is available at <https://icc.aipea.org/programme-and-abstracts-2025/>.
2. All of the authors have been invited to submit papers to a range of special issues in each of the three ‘main’ clay journals. With luck, we should see lots of papers published during 2026 bearing ICC livery.
3. All of the workshops and sessions at ICC Dublin were recorded. The organizers have sought permission from all of the presenters to publish the videos on the Mineralogical Society’s YouTube channel. Some of this work is already underway but it is expected to take some time; there are ~300 hours of video!

Summary

This was the 18th, and final, International Clay Conference. Future international clay events will be referred to by the term “clay” and the year, so colleagues in Madrid will organize “Clay 2027.” MSUKI was proud to host the final event in the ICC series and we look forward to joining our colleagues in Spain in 2027.

Working on conferences is challenging, but when a good outcome is achieved, it is also enormously rewarding. Thanks to every delegate who contributed to ICC 2025.



Handover of the AIPEA flag.

Russell Rajendra, Steve Hillier, and Kevin Murphy
(September 2025)