

The 2025 Durham Crystal Symposium

6th June 2025

Durham Molecular Crystals and Crystallisation Group
(DuMoC2)



Introduction

DuMoC2 would like to express their gratitude to BACG for sponsoring our Durham Crystal Symposium (DuCS). DuCs is a one-day symposium bringing together leading crystal researchers, professionals and enthusiasts in crystal chemistry, crystallography and crystallisation to discuss the latest developments, challenges and future directions of these fields. The event is organised annually by the DuMoC2 typically in early June.

Speakers and attendees

The focus of the conference this year was to shed light on crystallisation and crystallography research carried out by early career and established researchers primarily based in academic and industrial organisations in the UK. In the 2025 DuCS we had 40 attendees.

The talks were structured such that there were two talks from academics followed by a short break. This was then followed by four talks from Durham PhD students then a lunch break. The final talks were from two industry representatives and two academics, and the day ended with a drinks reception.

Table 1 List of the order of speakers and their institution.

Talk	Speaker (s)	Institution
1	Professor Fiona Meldrum	University of Leeds
2	Professor Roger Davey	University of Manchester (prior)
	Professor Simon Black	University of Durham
Coffee Break		
3	Glen Hebbard	University of Durham (PhD)
4	Frank Theodosiou	University of Durham (PhD)
5	Martin Screen	University of Durham (PhD)
6	Marta Brocca	University of Durham (PhD)
Lunch break		
7	Dr Pietro Sacchi	CCDC
8	Dr Ana Kwokal	Syngenta UK
9	Professor Colin Pulham	University of Edinburgh
10	Professor Erin Johnson	Dalhousie University and University of Cambridge
Drinks reception		

Use of BACG Sponsorship

DuMoC² group was able to organise access to the lecture theatre, lunch, drinks reception, and name badges for all attendees for the symposium with a mixture of the BACG sponsorship and the charging of a small registration fee (£30 per person). The £500 kindly donated by BACG were used in the following way:

- The registration fee for 12 attendees was covered (£360). This was done for all invited speakers as well as many students.
- A travel bursary was given to a student, Luca Sironi, to attend the event from Italy (£140) covering his travel costs.

Advertising material

As per the agreement for the grant generously given by the BACG, all material used for the event included recognition of the sponsorship from the BACG. This recognition extended to the inclusion of the BACG logo on the poster for speakers and the name badges for the event and a thanks to the BACG given at the start and end of the event.

Durham Crystal Symposium Programme

10:00	Welcome Prof. Aurora J. Cruz-Cabeza Durham University
10:05	Bespoke Crystals: Controlling the Structure and Properties of Crystals Prof. Fiona Meldrum University of Leeds
10:35	Nucleation and Structural Symthons Prof. Roger Davey and Dr Simon Black University of Manchester and Durham University
11:05	Refreshments
11:30	Solving the Magnetic Structure of BaFe₁₂Se₇O₆ from Neutron Powder Diffraction Data Glen Hebbard Durham University
12:00	Smashing! Phase Diagrams of Pharmaceutical Solvates from Mechanochemistry Frank Theodosiou Durham University
12:30	Designing Lenalidomide Cocrystals with an Extended-Release Profile for Improved Pulmonary Drug Delivery Martin Screen Durham University
12:45	Simple Quantification of Sticking Propensities of Pharmaceuticals with Mechanochemistry Marta Brocca Durham University
13:15	Lunch
14:15	Why We Should Care About Predicting Crystal Shapes Dr Pietro Sacchi Cambridge Crystallographic Data Centre
14:45	Examples of solid solutions in agrochemical industry and their impact on manufacturability and product quality Dr Ana Kwokal Syngenta UK
15:15	Putting the Squeeze on Energetic Materials – Structural Studies of Explosives at High Pressure Prof. Colin R Pulham University of Edinburgh
15:45	Molecular Crystal Structure Prediction and Comparison Prof. Erin R. Johnson Dalhousie University, Canada
16:15	Drinks Reception

Kindly sponsored by:



The British Association for Crystal Growth

Organised by:



DUMOC2

Figure 1: Poster for advertising the Durham Crystal Symposium including speakers and their talk titles.



Figure 2: Example of the design used for the name badges for the event.

Gallery

Photos clicked from the event showcasing a breadth of talks have been attached below:

Talks about solid solutions synthesis and challenges in academia and industry from Prof Fiona Meldrum (right) and Dr Ana Kwokal (left)



CCDC talk by Dr Pietro Sacchi



Talk about nucleation and symthons by Prof Roger Davey and Dr Simon Black





Conclusion

DUMOC² would like to thank the BACG for providing a grant for the Durham Crystal Symposium. Without this money, the event would not have been able to cater for all 40 attendees and would not have been able to provide a travel bursary to one of the students. We hope that this event has spread awareness of the exciting work being done in the field of crystal chemistry and we hope to expand the event further in future iterations.