

## GI-MS48-O2

### Diamond light source's biggest outreach project: 1000 samples, 100 schools, 1 great big experiment

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Project M [1] is a large outreach project conducted by Diamond Light Source, designed to engage secondary school students in a real science experiment, investigate calcium carbonate formation and exploit the high throughput capabilities available at synchrotron beamlines.

100 secondary schools across the UK made 1000 samples of calcium carbonate, using equipment and resources provided in a project pack. The samples produced were sent to Diamond in preparation for the diffraction patterns to be collected in a single 24 hour experiment, in April 2017 on beamline I11. The calcium carbonate samples were synthesised using selected additives, including amino acids, which affected the polymorphs of calcium carbonate that were formed (calcite/vaterite) and the lattice parameters of the mineral phases, which will be identified, by students, in the diffraction patterns.

Beamline I11 at Diamond Light Source is a high resolution powder diffraction beamline equipped with automated sample changing facilities and a fast diffraction detector [2]. The speed of data collection and sample changeover enable 1000 high quality diffraction datasets to be collected from powdered capillary samples in a 24 hour period.

Project M has successfully engaged more than 1000 students (age 12-18) from all across the UK (from the Shetland Isles to the south coast) that may otherwise be unaware of Diamond Light Source and the research being carried out there. This presentation will describe the aims of the project and present details of the implementation, results and feedback from the project.

References:

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- [1] <http://www.diamond.ac.uk/ProjectM/>  
[2] Parker, J.E., et al. (2010) Journal Of Applied Crystallography 44 (1), 102-110
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**Keywords:** Outreach, Synchrotron, Diffraction

## GI-MS48-O3

### The IUCr OUP Book Series; overview and update

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This presentation will document the IUCr Books and will allow ECA participants to discuss with John Helliwell their ideas for future books and authors. Since its inception about 20 years ago more than 60 book titles have been published and around 58,000 copies sold. The books published within the book series are commissioned in two categories:

- Monographs on Crystallography
- Texts on Crystallography

A diverse, highly experienced, membership has recently been assembled and is as follows:

- J.R. Helliwell (Chair, UK)
- G. Chapuis (Switzerland)
- J. Gulbis (Australia)
- R Herbst-Irmer (Germany)
- H. Maynard-Casely (Australia)
- P. Mueller (USA)
- M. Nespolo (France)
- N. Yagi (Japan)
- X. Zou (Sweden)
- K.A. Kantardjieff (USA; *ex officio* as Chair of Commission on Crystallographic Teaching)
- S. Adlung (*ex officio* representative of Oxford University Press)

The income derived to the IUCr from these works, as ever, helps support our community events and conferences, especially bursaries for young crystallographers. Please do join in. The process for publishing a book is as follows. The IUCr OUP Book Series Committee considers proposals for new publications and makes recommendations to the IUCr Executive Committee and to the Delegates of the Oxford University Press (the body responsible for approving all publications handled by the OUP). JRH as Chair welcomes proposals for new books to be included in this Series. The details of the procedure to submit a proposal are described here: <http://www.iucr.org/iucr/governance/advisory-committees/book-series/proposals> and basically involves providing: (a) a presentation of the motivation, aims, scope, level, and readership of the proposed volume; (b) a detailed Table of Contents (with sub-headings); (c) a short CV of the authors; (d) a sample chapter or part of a chapter; (e) a list of related books and brief comments on how they differ from that proposed.

**Keywords:** Books, Education, Research monographs