

GAC-MAC London 2021



November 1-5, 2021



**MINERALOGICAL
ASSOCIATION OF CANADA
ASSOCIATION
MINÉRALOGIQUE DU CANADA**

Exploring Geosciences Through Time and Space
Explorer les géosciences à travers le temps et l'espace

Canadian Powder Diffraction Workshop 14 - Berry School

Organizers: Roberta Flemming (Western University) and Jim Britten (McMaster University), rflemmin@uwo.ca

4 day pre-meeting Workshop – Saturday October 30 – Tuesday November 2, 2021

This workshop is intended for students and practitioners who would benefit from an improved understanding of the basic theory and practice of powder and related X-ray diffraction techniques for analyzing crystalline materials. Sessions will cover the basic theory of powder diffraction, experimental considerations, sample preparation, and data analysis. Examples of some simple and some more difficult powder diffraction, Rietveld, 2D, and 3D diffraction analyses will be presented. Other diffraction and scattering techniques will also be presented, appropriate for the characterization of powders, in-situ solids, thin films, single crystals, nanostructured and disordered materials. A variety of diffraction software will be introduced during the presentations and used in the afternoon's practical sessions. Several practice data sets will be supplied. Participants are also invited to bring data from their own research to be worked out at the Workshop with expert advice from the Instructors who will be present. There may also be an opportunity to collect diffraction data on various instruments at Western University (if on-site, pandemic permitting). On-site participation in the Workshop will be limited to 40 participants. The workshop is intended to be run in person (on site). Scholarships are available to students through MAC Travel Grants & CNCC Larry Calvert Travel Awards.

Intended Audience: Industry, Government and Academic Researchers, Students

Sponsors: Mineralogical Association of Canada (MAC), Canadian National Committee for Crystallography (CNCC), Western University, Bruker Canada, Proto Manufacturing Ltd.

- 1) Event Date/Time: 4 day pre-meeting Workshop: Oct 30 - Nov 2, 2021, 9:00 am- 5:00 pm (EST)
- 2) Format: On- site (in person)
- 3) Registration Cost: \$250 Academic* and Government; \$500 Industry/commercial
- 4) Registration Cap: 40
- 5) Registration Deadline: October 20, 2021

* Travel Scholarships for students may be available.