

GAC-MAC London 2021



November 1-5, 2021



**MINERALOGICAL
ASSOCIATION OF CANADA
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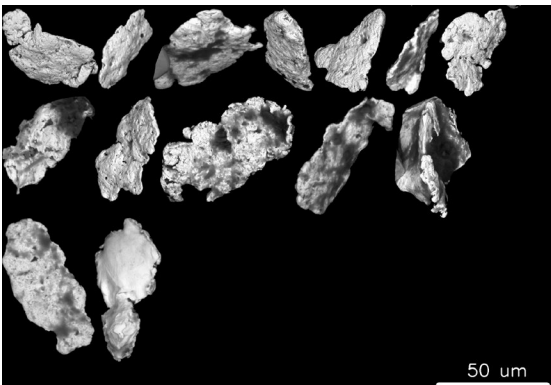
Exploring Geosciences Through Time and Space
Explorer les géosciences à travers le temps et l'espace

Modern Scanning Electron Microscope: The Most Versatile Tool for Geoscience

Organizers: Réjean Girard and Jonathan Tremblay (IOS Services Géoscientifiques Inc),
rejeang@iosgeo.com

Two day pre-meeting Workshop, Saturday October 30 to Sunday October 31, 2021

Although often perceived as the old dusty machine, scanning electron microscopes underwent rapid technological evolution in the last decade that makes them the most powerful tool available to geoscientists. A large array of detectors, fulfilling different functions, can be attached, synchronized and automated, fulfilling various needs such as fast EDS-SDD fully quantitative chemical analysis out-performing an electron microprobe, WDS for minor element analysis, micro-XRF for trace elements measurement, electron diffraction (EBSD) to reveal the crystalline structure, near-atomic scale TEM imaging, cathodoluminescence imaging and spectroscopy, microtomography or surface ablation for 3D imaging, QEMSCAN and MLA for automated mineralogy, etc. The workshop aims to familiarize geoscientists with operation of the instruments and its capabilities for their daily research work as well as presenting a series of automated applications and case studies.



Gold Grain mosaic automated routine.

Lecturers:

- Réjean Girard and Jonathan Tremblay: Basics of SEM and EDS-WDS analysis
- Dirk Schumann, Fibics: Cross-beams and 3D imaging
- Derek Wilton: Memorial University of Newfoundland: Cases studies in applied mineralogy

- Mark Kelsey: Bruker Nano analytics: Micro-XRF
- Richard McLaughlin, Oxford Instruments: EBSD and electron diffraction
- Richard Taylor, Carl Zeiss Microscopy: Automated mineralogy
- Sridhar Ramamurphy, University of Western Ontario: Auger spectroscopy

Intended audience: Students and Industry, Government or Academic Researchers

Sponsors: IOS Services Géoscientifiques Inc.; Edge Scientific Inc.

Registration information:

- 1) Event Date/Time: 2 days: October 30-31, 2021, 9:00 am - 4:30 pm (EST)
- 2) Format: Hybrid
- 3) Registration Cost*: \$50 Students; \$150 Academic & Government; \$300 Industry
- 4) Registration Cap: 30 on-site; 100 virtual
- 5) Registration Deadline: October 30 (on-site OK)