



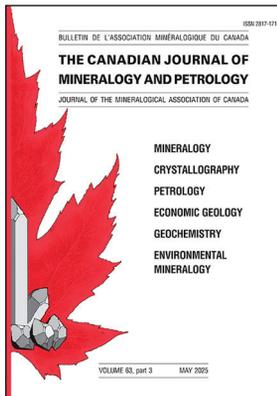
Mineralogical Association of Canada

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NEWS FROM THE CANADIAN JOURNAL OF MINERALOGY AND PETROLOGY (CJMP)

Highlights

The May issue of *CJMP* flirts with controversy, and is not for the faint-hearted; make sure you're comfortably seated and adequately fortified first. To begin with, the assumption that euhedral-looking phenocrysts in a volcanic groundmass actually represent simple magmatic growth events, arguably the fundamental basis for the development of crystal-liquid partition coefficient data (at least from natural systems), is questioned by Georg Zellmer and Yoshiyuki Iizuka. They identify evidence of crystal fracturing, resorption, annealing, and overgrowths in phenocrysts in a variety of tectonomagmatic settings requiring microimaging to resolve. To properly put your digestion at risk, this paper is followed by a proposal by Louis Cabri and Andy MacDonald that the existing IMA classification of the platinum group mineral mertiete, a Pd-Cu-Sb-As compound, should be re-assessed and clarified, and that the discrepancy between IMA-approved names and compositions and structures and those in usage subsequently have become problematic. More comfortingly, Bob Martin and Dirk Schumann investigate the relationship between marble coloring, anatectic carbonate melts, fluorapatites, and fenites from the Central Metasedimentary Belt of the Grenville Province in Ontario; and Lee Groat and colleagues from the west coast of North America (British Columbia and California), plus the Czech Republic, assess the provenance of an emerald cabochon gem found in Sicily, a probable remnant from a ruin, from which its origins and relevant trace routes are surmised based on geochemistry and inclusions. If you only think of the Roman Empire once this year, make this article that moment. One new mineral is also identified in this issue, a uranyl selenite from Colorado, amurselite, by researchers from California and Pennsylvania. The combination of ammonium and uranium oxide is particularly intriguing. The name is a portmanteau of the first two letters of the dominant ions, ammonium, uranyl, and selenite.



Amurselite, $(\text{NH}_4)_2[(\text{UO}_2)_5(\text{SeO}_3)_3\text{O}_2(\text{OH})_2(\text{H}_2\text{O})] \cdot 8\text{H}_2\text{O}$, a new mineral from the Burro U and V mine, Colorado, USA, features in our latest issue, from Tony Kampf, Travis Olds, Christopher Emproto, Chi Ma, and Joe Marty.

Our recently most-read publications, according to GeoScienceWorld, show interest in tourmaline waning somewhat, replaced by our featured article on crystal fragmentation, comfortably in first place:

Crystal Fragmentation Inducing Euhedral Crystal Habits in Volcanic Rocks: Fracture Histories of Crystals from Various Tectonomagmatic Settings and Implications for Plumbing System Processes, by Georg Zellmer and Yoshiyuki Iizuka, up from third place where it was available online since May 2025.

A surprising dark horse in second place is **Virgilluethite: A New Mineral and the Natural Analogue of Synthetic $\beta\text{-MoO}_3\cdot\text{H}_2\text{O}$, from Cookes Peak, Luna County, New Mexico, USA**, from Hexiong Yang, Xiangping Gu, Ronald Gibbs, and Robert Downs, from *CJMP* volume 61(3), from 2023, representing a resurgent interest in molybdenum.

These are followed by our long-standing chart-toppers, **Recognizing Tourmaline in Mineralized Porphyry Cu Systems: Textures and Major-Element Chemistry**, and now in a distance second place, **Trace Element Characteristics of Tourmaline in Porphyry Cu Systems: Development and Application To Discrimination**, both by Christopher Beckett-Brown, Andrew McDonald, and Beth McClenaghan. These both appear in volume 61(1) from 2023 *CJMP*.

UNDERGRADUATE AWARDS 2025

The Mineralogical Association of Canada Undergraduate Student Awards are given annually to undergraduate students (2nd year of study or higher) at a recognized Canadian university or institute of higher education for excellence in one of the specialties supported by the society: mineralogy, crystallography, geochemistry, petrology, and mineral deposits. Congratulations to the following students who received this award in 2025:

Tiernan Davies, Acadia University
Willow Skagos, University of Regina
Steven Del Bel Belluz, Lakehead University
Matteo Clemente, University of Toronto
Isaiah J. Baerg, University of Saskatchewan
Tyler Boyce, Memorial University of Newfoundland
Mia Isabelle Pereira, University of Waterloo
Erica Pew, McMaster University
Nicole Schoenherr, University of Toronto
Samantha Taylor Gottschalk, Trent University
Rowen Hortness, Carleton University
Will Girard, UBC Okanagan
Alexandra Garland, Laurentian University
Marianne Heino, Brock University
Benoit M Filion, University of Victoria
Myriam Gallant, McGill University

MAC SCHOLARSHIP WINNERS 2025

The Mineralogical Association of Canada funds annual scholarships to graduate students. \$3000 scholarships are available to students enrolled in MSc programs and \$5000 scholarships are available to students enrolled in PhD programs.

Michelle Stevens (MSc, Carleton University)

Silvia Castilla (PhD, University of Toronto)

Babak Ghane (PhD, University of New Brunswick)

MAC TRAVEL & RESEARCH GRANT WINNERS 2024

We congratulate Kelsey Krossa, Nicolas Prieto-Moreno, Taylor Rae Morrell, Lindsay Abdale, Melissa Bowerman, Dana Šilerová, and Sheila Ballantyne each of whom received a 2024 Mineralogical Association of Canada Travel & Research Grant.



Kelsey Krossa completed her MSc project in June of 2024 at the University of British Columbia – Okanagan Campus (Canada) under the supervision of Dr. Brendan Dyck. Her MSc project focused on the timing of ductile shear along the Wopmay fault zone located in the Northwest Territories, Canada. The MAC travel grant was used to attend the GAC-MAC-PEG conference in May of 2024 held in

Brandon, Manitoba where Kelsey presented a poster of her research on the Wopmay fault zone. Kelsey is grateful to have received the MAC travel grant that allowed her to partake in the conference as it gave her the opportunity to attend a variety of talks, meet with a wide range of researchers, and receive constructive feedback on her research. Moving forward, Kelsey is excited to utilise all she has learnt from this invaluable experience in her PhD research that she will be starting at Simon Fraser University (Canada) in 2025.



Nicolas Prieto-Moreno is an MSc student at the Memorial University of Newfoundland (Canada) under the supervision of Dr. Eric J Thiessen. He was awarded the MAC travel grant to attend the GAC-MAC conference for the first time, where he had the opportunity to participate in a field trip to the Thompson Nickel Belt and give a presentation about the deformation and tectonic evolution of the 1.3 Ga

REE-bearing Fox Harbour Volcanic Belt in southeastern Labrador. Through this conference, Nicolas not only enhanced the dissemination and visibility of his research project but also experienced a unique environment for networking and building recognition within the scientific community. Additionally, being part of GAC-MAC-PEG 2024 exposed him to the latest trends and methodological advancements in tectonics and geochronology. For Nicolas, participating in this conference was invaluable, enriching his experience in sharing his scientific endeavors and contributing significantly to his ongoing learning, skill enhancement, and academic and professional advancement.



Taylor Morrell is a PhD candidate at Queen's University (Kingston, Ontario). Her research focuses on studying the evidence of reactivated basement faults in overlying orogenic systems, focusing on the Himalayan and North American Cordilleran orogenic systems. Taylor uses field methods, metamorphic phase equilibria modelling, and petrochronology to constrain the age of deformation and metamorphism

along-strike to compare across basement faults that extend beneath the orogenic systems. Taylor received a MAC Student Research Grant to help fund travel to the University of California – Santa Barbara (USA) to conduct petrochronology on monazite using laser ablation split-stream inductively coupled plasma mass spectrometry. Petrochronology combines radiometric dates with chemical compositions and microstructural context of minerals, such as monazite, to better constrain and contextualize the date obtained. Petrochronology bridges mineralogy and metamorphic petrology to help answer larger-scale tectonic queries. The ability to travel to the lab and learn the detailed methodology in person was directly supported by the MAC Student Research Grant, providing an opportunity for important training for Taylor's future research career.



Lindsey Abdale completed her BSc honors thesis in 2017 at the University of Michigan. She is currently a PhD candidate in petrology and geochemistry at the University of British Columbia under the supervision of Dr. Lee Groat. She was awarded the MAC travel grant to attend the European Geosciences Union General Assembly 2024 in Vienna, Austria, where she

presented her work on the geochronology and isotopic composition of carbonatites and alkaline rocks in the Monashee Complex, southern Canadian Cordillera. Her results inform on the evolution of the western North American margin and subcontinental mantle. This work is being done in collaboration with researchers from Goethe University in Frankfurt, Germany. Attending this European conference allowed Lindsey to meet with collaborators in person and to receive invaluable feedback on her interpretations.



Melissa Bowerman is a PhD candidate at the University of Alberta (Canada) under the supervision of Thomas Stachel and Graham Pearson. Her research is focused on understanding the nature and timing of diamond formation in the mantle beneath the Wyoming-Yavapai collisional zone of the Laurentian Craton. She was awarded a MAC travel grant that allowed her to attend the 12th International Kimberlite

Conference in Yellowknife, Canada in July 2024. She delivered a presentation about her thesis entitled, "How old are diamonds beneath Proterozoic cratons? Answers from the State Line Kimberlite District, western Laurentia." She was fortunate to receive valuable feedback about her project and expand her professional network during the conference. Melissa is grateful for the opportunity to present her work to an international audience, an experience made possible by this travel grant.



Dana Šilerová is a PhD student at Saint Mary's University in Halifax, Canada, under the supervision of Drs. Dawn Kellett and Shawna White. Her research examines the spatial and temporal evolution of crustal-scale deformation zones through a combination of field mapping, petrography, microstructural analysis, and in situ U-Pb dating of accessory phases. The MAC research grant allowed her to travel to

Ottawa to conduct electron backscattered diffraction analysis of key samples at the Geological Survey of Canada. The analytical work has provided critical information linking petrochronometer (re)crystallization to fabric development, thus informing the timing and conditions of deformation in these rocks. With the support of the MAC research grant, Dana was able to gain invaluable hands-on experience in the lab and refine her research approach through discussions with other researchers using similar analytical techniques.



Sheila Ballantyne is a PhD candidate at the University of Toronto (Canada) under the supervision of Melissa Anderson and in collaboration with Meg Stewart (Mount Royal University) and Hudbay Minerals Inc. She is seeking to understand the processes, geochemical signatures, and resulting architecture of metal and sulphide remobilisation in metamorphosed and deformed volcanogenic massive

sulphide (VMS) deposits. She is using the ore deposits of the Snow Lake camp in Manitoba as a case study. She was awarded the MAC research and travel grant to attend and present a poster at GAC-MAC, Brandon 2024, and support travel costs for a site visit to Snow Lake, Manitoba, facilitating valuable discussions with fellow VMS researchers and field data collection. Her work on-site included stratigraphic logging and sampling of drill core, detailed underground mapping and oriented rock sampling, surface structural mapping, and sampling for geochronology analyses. The purpose of this work was to characterize the ore-hosting and ore-adjacent units and deposit-scale faults. Her next steps include analytical work to establish the paragenetic sequence of mineralization and metal re-mobilisation, integrating results into a district-scale 3D geological model she is building. She is appreciative of the support from MAC by this award.