

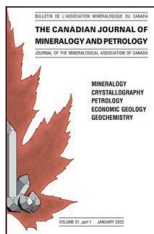


Mineralogical Association of Canada

www.mineralogicalassociation.ca

THE CANADIAN MINERALOGIST NEWS

As of January 2023, the journal formerly known as *The Canadian Mineralogist* will be transitioning into a new incarnation, ***The Canadian Journal of Mineralogy and Petrology*** (CJMP, if you prefer), all the same great taste you've come to love, but more flavor! The name change is in a response to the recognition that, as it states on the cover page (for years), our journal is not just about new mineral announcements and crystal-structure studies but, fundamentally, it's also about publishing **mineralogically driven geological studies**. The new name will better reflect the broad content that has been and will continue to be published, emphasizing that the science that we publish is focused on mineralogy and how it shapes our understanding of geological processes. The change in name is accompanied by several other actual changes and is not just a cosmetic rebranding. These changes include (1) a "new" editorial board, composed of a broad range of international mineralogists and experts in the mineral sciences (active since April 2022); (2) a new, fast-tracking scheme for new mineral description papers, getting the information that researchers need out sooner and faster; (3) a wider breadth and increased number of associate editors, who will facilitate high-quality, informed reviews covering the breadth of subject matter we represent; and (4) a new short communications section that will provide a unique forum for succinct, cutting-edge subject matter (e.g., a new technique, results from a novel experiment).



Highlights

The highlights of our January issue include a review of tourmaline chemistry, textures, and occurrences in porphyry copper system settings, courtesy of two, count 'em two, companion papers by Christopher Beckett-Brown and coauthors. In addition, your sleepless nights wondering how to classify detrital corundums in placer sapphire deposits are over, thanks to a case study from Montana. In addition, we feature Cretaceous lamproites from India, serpentinites from Japan, marble-associated pegmatites from New Jersey, and three (technically, five) new minerals: betzite (from the Eifel volcanic field, Germany), a three-in-one paper on new lead-zinc hydroxide-based minerals from North Carolina, and a hydrated molybdenum oxide from New Mexico. And finally, your days of nagging insecurity over whether or not the Pt-Pd sulfides braggite, vysotskite, and cooperite represent a solid solution or not, are now over. Unbinding them from the comparable enigmas such as discriminating brontosaurus, camarasaurus, and apatosaurus, or why Clark Kent always missed the good stories, Louis Cabri and Andy McDonald set the record straight here.

Our recently most-read publications, according to GeoScience World, include the following.

The classification of granitic pegmatites revisited, by Petr Černý and Scott Ercit (Vol. 43, 2005).

PGE distribution in Merensky wide-reef facies of the Bushveld Complex, South Africa: Evidence for localized hydromagmatic control, by Stephen Prevec, Savvas Largatzis, William Brownscombe, and Tobias Salge (Vol. 59, 2021).

A proposed new mineralogical classification system for granitic pegmatites, by Michael Wise, Axel Müller, and William Simmons (Vol. 60, 2022).

Niobium is highly mobile as a polyoxometalate ion during natural weathering, by Henrik Friis and William H. Casey (Vol. 56, 2018).

Mineralogical variability of the Whabouchi Pegmatite and its effect on the Li concentrations, by Claude Morissette, Emmanuelle Cecchi, and Jean-François Blais (Vol. 60, 2022).

Our Associate Editors

As a means of both gratefully acknowledging and promoting the efforts of those researchers in the mineralogical and geoscience community who donate their time to the necessary task of facilitating effective peer review, we continue to use this space to highlight our Associate Editors. In this issue, we feature two more of our long-standing contributors from our crystallographic expertise-base. They are what help make our journal great.

Maria Franca Brigatti



Professor Brigatti, of the Dipartimento di Scienze Chimiche e Geologiche, Università di Modena e Reggio Emilia (Italy), is also now a member of different academies including Accademia Nazionale dei Lincei (the National Academy of Italy). Her particular research interests include the structure and chemical behaviour of sheet silicate minerals, particularly micas and clay group minerals, and the application of these properties to address real-world problems. She has authored or coauthored on the order of 200 papers, which have been cited more than 4000 times, and is a coauthor of the books "Micas" (2002) and "Layered Mineral Structures and their Application in Advanced Technologies" (2011). She is a student of the history of mineralogy as a scientific discipline, and has served as an Associate Editor for *The Canadian Mineralogist* since 2012.

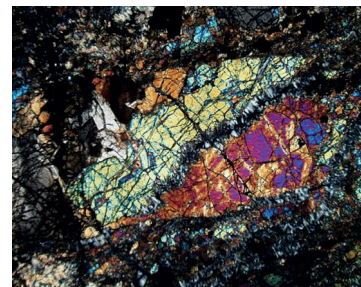
Jan Cempírek



Dr. Cempírek is based in the Department of Geological Sciences at Masaryk University in Brno (Czech Republic), where he studies the petrology and mineralogy of granite-related mineral deposits, including pegmatites and greisens; he is also very keen on the mineralogy and crystallography of boron, lithium, and REE-bearing minerals. His most-cited first author paper to date, a study of Al-rich olenitic tourmaline in an abyssal pegmatite, was published in *The Canadian Mineralogist*, for whom he has (subsequently) provided Associate Editorial expertise (since 2015). His published work in recent years has mainly focussed on the structure, composition, and petrological significance of tourmalines and beryls, and he has accumulated in excess of 1000 citations to date.

FEATURED MINERAL/TEXTURE

The accompanying photo is from an Early Cretaceous dunite collected from the peridotitic constituent of the Late Cretaceous South Anatolian ophiolitic mélange. Not only was it diverted from its fated destination in the hot, dry mantle, tectonically displaced from a subducting slab, and exhumed onto a carbonate platform, this bit of it suffered the final indignity of being transported in the pocket of a bathing suit for the final leg of its journey. For more on these rocks, see also Yilmaz and Yilmaz (2013) in the *Geological Bulletin of Turkey* 56.



A simple-twinning olivine crystal featuring a serpentinized twinning plane. From a rock collected from an ophiolite mélange in southwestern Türkiye. IMAGE COURTESY OF S. PREVEC.

SUDBURY 2023 GAC-MAC-SGA JOINT ANNUAL MEETING

24–27 May 2023

Laurentian University in Sudbury,
Ontario, Canada

*Discovering Ancient to Modern Earth – Découvrir la Terre
Ancienne à Moderne*



The geoscience community is invited to attend the Joint Annual Meeting of the **Geological Association of Canada (GAC)**, **Mineralogical Association of Canada (MAC)**, and **Society for Geology Applied to Ore Deposits (SGA)**, which will be held at Laurentian University in Sudbury, Ontario, Canada, on **24–27 May 2023**, with pre- and post-meeting workshops and field trips.

The meeting is being hosted by the **Harquail School of Earth Sciences and Mineral Exploration Research Centre at Laurentian University**.

Registration deadline for early bird, field trips, workshops, and short courses: **1 April 2023**; online meeting registration until **23 May 2023**, and onsite registration **24–27 May 2023**. Deadline for hotel “block” bookings: **24 April 2023**. More info and complete scientific program at event.fourwaves.com/Sudbury2023/pages.

Hoping to see you in Sudbury!

MAC TRAVEL AND RESEARCH GRANT AWARDS IN 2022

The Mineralogical Association of Canada (MAC) awarded 18 Student Travel and Research Grants in 2022 that totaled \$15,000: 1 went to an undergraduate student, 7 to MSc students, and 10 to PhD students. Congratulations to these deserving individuals! Report excerpts from 5 of the recipients follow.



Lindsey Abdale completed her BSc honors thesis in August 2017 at the University of Michigan (Ann Arbor, USA). She is currently a PhD candidate in mineralogy and petrology at the University of British Columbia (Canada) under the supervision of Dr. Lee Groat. She was awarded the MAC travel grant to attend the Goldschmidt 2022 geochemistry conference in Honolulu, HI, where she presented her

thermodynamic models on corundum formation from the Shuswap metamorphic core complex in southeastern British Columbia. She also attended a thermodynamic modeling workshop on the alphaMELTS 2 algorithm package as well as a fieldtrip to the eastern Oahu Koko Rift fissure. This experience allowed Lindsey not only to receive helpful feedback on her own thermodynamic models but also to learn a new program and meet experts she would not have otherwise.



Rhiana Elizabeth Henry completed her PhD degree in October 2022 in geological sciences at the University of British Columbia Vancouver (Canada) under supervisor Lee Groat. Previously, she completed her MSc in geological sciences in 2018 at the University of Colorado at Boulder (USA). Her PhD research is on the crystal chemistry of beryl. She established relationships between the sodium and

H₂O contents within beryl such that one can calculate the H₂O content from the measured sodium, developed chemical separations across beryl varieties that will aid in later provenance and geological studies, and created a model of the permutations of the beryl crystal structure using measured chemistry. She has used this model to explore possibilities of and limitations to the beryl mineral group. She has participated

in research on beryl and tourmaline from pegmatites near Revelstoke, British Columbia. The MAC travel grant assisted her in attending the 2022 Goldschmidt Hawai'i and GSA Connects Denver conferences during her PhD studies, where she presented poster and oral presentations, respectively, on her beryl crystal structure research and was able to network with future colleagues. She will be continuing her beryl research as a postdoctoral fellow at the Gemological Institute of America in 2023.



Fazilat Yousefi is a PhD student in the Department of Earth Science at the University of New Brunswick (Canada). She is currently working on her PhD project entitled “Petrogenetic Analysis of Arc-Related Devonian Magmatic Rocks related to the formation of Magmatic Hydrothermal Cu-Mo-Au Deposits in the New Brunswick segment of the Northern Appalachians.” One of the aims of this thesis is to

work on the chemistry of key accessory minerals such as zircon and titanite in the arc-like I-type intrusive rocks, but more broadly in terms of their petrogenesis, source, and relationship with the surrounding units. These groups of rocks are associated with porphyry mineralization and vein-related Cu, Mo, and Au for arc-like systems. Facilitated by the MAC grant, Fazilat presented a talk entitled “Phenocryst and groundmass compositions of Eagle Lake granite porphyry, southwestern New Brunswick, Canada: Implications for the genesis of Cu-Mo-Au mineralization” at GAC-MAC, Halifax 2022, in which she mentioned the P–T range and redox evolution of this Late Devonian intrusive suite.



Arnaud Back is a MSc student at the Université du Québec à Chicoutimi (Canada) under the supervision of professors L. Paul Bédard (Geological Engineering) and Julien Maître (Computer Science). Arnaud used his travel grant to attend the 21st Annual Conference of the International Association for Mathematical Geosciences in Nancy (France, 2022). The conference lasted five days with four technical sessions having

topics such as computational petrology and geochemistry (where Arnaud presented), machine-learning-based mineral prospectivity mapping, mining geostatistics, optimization and geometallurgy, and mathematical geodynamics. Arnaud gave an oral presentation of his MSc research entitled, “Protocol for improving reproducibility and image acquisition quality for deep learning applications in mineralogy.” From attending talks, seeing posters, and speaking to researchers with related topics, he has been able to gain important insights into the application of statistics and computer science to mineralogy. All this experience will help him for his upcoming PhD. To conclude, he has learned a lot within a few days, which would not have been possible without this grant.



Reginald Somera completed his BSc honours thesis in April 2022 at the University of Waterloo (Canada), and recently started an MSc in Earth Sciences at Université Laval (Canada). The MAC travel grant allowed him to attend the 2022 GAC-MAC meeting in Halifax (Canada). Reginald presented a poster on his undergraduate research, “Characterizing the Isotopic Abundance of Cl and Br in the Thermal

Springs of the Southern Canadian Rocky Mountains.” Although the springs are well-known recreationally, they are also important for their endemic species, geothermal potential, and mineral deposits. By presenting this research at a national conference, he was able to receive valuable feedback from researchers interested in these springs, which he will use to refine his research. He was also able to attend early-career workshops and networking events, as well as expand his professional network, thanks to the MAC travel grant.