



Mineralogical Association of Canada

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THE CANADIAN MINERALOGIST NEWS

Highlights

In the past (May) issue of *TCM*, we feature the characterization of three new minerals, h leniusite-(Ce), CeOF (the Ce analogue of h leniusite-(La)), donowensite, $\text{Ca}(\text{H}_2\text{O})_3\text{Fe}^{3+}_2(\text{V}_2\text{O}_7)_2$, and mikhewardite, $\text{Fe}^{3+}_4(\text{VO}_4)_4(\text{H}_2\text{O})_2 \cdot \text{H}_2\text{O}$. Refinements to the structure and stoichiometry of selivanovaite, $\text{NaFe}^{3+}\text{Ti}_4(\text{Si}_2\text{O}_7)_2\text{O}_4(\text{H}_2\text{O})_4$, are provided, and some confusion between mertiete I and mertiete II, a PdSbAs mineral, is resolved.

In addition, the application of stable and radiogenic isotopes for VMS exploration is assessed, as are the origins of the Sokoman Iron Formation (Labrador Trough, Canada), and pyrochlores and fluor-calciocarbonates are also discussed. From the empirical side, the decarbonation kinetics of calcite are evaluated using synchrotron radiation XRD.

Special issues that are currently in the works for publication include a thematic issue on Critical Metals, a current global hot topic, and a thematic issue in honor of Ron Peterson (Minerals from Mines to Mountaintops from Earth to Mars and Beyond) planned for 2023. A thematic issue on indicator minerals is currently in gestation; from the late John Gurney's recognition that tracking down diamondiferous kimberlite is made a lot easier by hunting down its resistant but much more abundant associates, the study of indicator minerals has continued to develop and be refined.

Our most-read (and therefore "must-read") publications from the past year include the following:

A proposed new mineralogical classification system for granitic pegmatites, by Michael Wise, Axel M ller, and William Simmons (Vol. 60, 2022), with currently over 100 reads, tops the list. Three other papers have had around 60 recorded reads at the time of writing:

The magmatic-hydrothermal transition in lithium pegmatites: Petrographic and geochemical characteristics of pegmatites from the Kamativi Area, Zimbabwe, by Richard Shaw, Kathryn Goodenough, Eimear Deady, Paul Nex, Brian Ruzvidzo, Jeremy Rushton, and Ian Mounteney (Vol. 60, 2022)

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 – Part I: History and the need for a new classification, by Axel M ller, William Simmons, Hartmut Beurlen, Rainer Thomas, Peter Ihlen, Michael Wise, Encarnaci n Rod -Robles, Ana Neiva, and Victor Zagorsky, effectively setting up their better-read companion paper above.

SUDBURY 2023 GAC-MAC-SGA JOINT ANNUAL MEETING

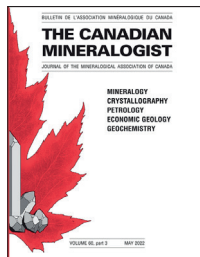
May 24–27, 2023

Laurentian University, in Sudbury, Ontario, Canada
Discovering Ancient to Modern Earth – D couvrir la Terre Ancienne   Moderne



REQUEST FOR ABSTRACTS

ABSTRACT SUBMISSIONS: will be open from December 2022 through 1 February 2023, with late abstracts accepted at a higher fee between 2 February and 1 March 2023. Get more info at <https://event.fourwaves.com/Sudbury2023/pages>.



OUR ASSOCIATE EDITORS

As a means of both gratefully acknowledging and promoting the efforts of researchers in the mineralogical and geoscience community who donate their time to the necessary task of facilitating effective peer review, we would like to use this space to feature our Associate Editors (AEs). In this issue, we feature two of our longer-standing contributors, to get the ball rolling (or the crystals growing, if you prefer).



Leo Millonig

Dr Millonig is currently associated with the Frankfurt Isotope and Element Research Center (FIERCE) at the Department of Geosciences, Goethe-University Frankfurt am Main (Germany), following a stint at the University of British Columbia (Canada) after completing his PhD at the University of W rzburg (Germany). His research combines and applies petrology, mineralogy, geochronology, and geochemistry to address problems in tectonics and mineral exploration, among other things. Recent research includes the use of LA-MC-ICP-MS for garnet U-Pb geochronology, the study of metapelites in the Himalayas, and ultrabasic dykes from the Southern Province near Sudbury (Canada). His expertise and interests also include alkaline magmatic rocks such as carbonatites and kimberlites. He has been serving as an AE for *TCM* since 2016.

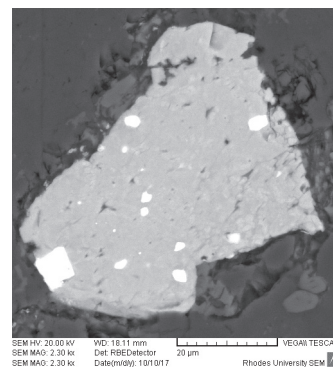


Antoni Camprub 

Dr Camprub  is based at the Universidad Nacional Aut noma de M xico (UNAM), in the Institute of Geology. He has been based in Mexico for more than 20 years, since his formative years at the University of Barcelona (Spain). His main research interests include studies of the petrogenesis of the metallogeny of Mexico, as well as studies of a wide range of non-magmatic ores and their transporting fluids, associated with epithermal, skarn, IOCG, porphyry Cu–Au, VMS, orogenic gold, MVT, and Kupferschiefer-type deposits. In his spare time, when he is not serving as an AE for *TCM*, which he has done since 2016, he also serves as Editor-in-Chief of the *Bolet n de la Sociedad Geol gica Mexicana*, as well as Editor-in-Chief of the *Springer Briefs in World Mineral Deposits*, and AE for *Frontiers in Earth Science*.

FEATURED MINERAL/TEXTURE

Our featured mineral for this article is the occurrence of thorite as subdomains in baked, sheared, and shocked rocks within a highly deformed metaleucogabbro from the thermal aureole of the Sudbury impact structure, Canada. Discovered in 1828 and with the kind of chemistry that makes you not want to keep it in your front pants' pockets, with stoichiometry $(\text{Th,U})\text{SiO}_4$, thorite is known to occur in association with zircon in pegmatites and volcanic extrusives, as well as in contact metamorphic rocks. The occurrence of thorite in the specific context of apparently shock-deformed zircons in an impact melt sheet aureole has not been previously reported.



Granular-textured zircon containing subhedral grains of thorite (bright/white), identified and photographed using SEM-EDS. Field of view is around 60 μm wide. IMAGE COURTESY S. PREVEC.

WELCOMING NEW MEMBERS OF COUNCIL

The MAC Executive approved the nomination of the following candidates for the position of Vice-President for 2022–2024, the two positions of Councillor for 2022–2025, and the position of Secretary. As no additional nominations were received from the membership, the nominated candidates were declared elected by acclamation.

VICE-PRESIDENT (2022–2024)



Dr. Frederick Ford (Vale Canada Ltd.)

Fred has been practicing applied mineralogy at Vale and its predecessor company Inco for the last 24 years. He holds degrees in Earth science from Carleton University (PhD and MSc in metamorphic petrology—supervised by the late-great Prof. George Skippen) and an honors BSc degree in Geological Science from Queens University in Canada. He specializes in quantitative mineralogy, using either electron microscopy (the Mineral Liberation Analyzer) or X-ray diffraction (Rietveld analysis using TOPAS). Other professional interests include microanalysis of silicate, oxide, and sulfide minerals by energy and wavelength dispersive spectroscopy. In 2020, Fred was nominated as Councillor on the MAC Executive, serving on several committees including the Hawley Medal, Young Scientist Award, and MAC Scholarship committees. Fred enjoys gardening around the house and going on camping adventures with his wife and three children, where all have been involuntarily dragged into expeditions ranging from amethyst mines near Thunder Bay to andalusite hunting on the coast of Nova Scotia.

COUNCILLORS (2022–2025)



Dr. L. Paul Bédard (Department of Applied Sciences (DSA) at Université du Québec à Chicoutimi)

Paul is a full professor in the Department of Earth Sciences and researcher at the LabMaTer and at the Centre d'études sur les ressources minérales (CERM) at l'Université du Québec à Chicoutimi (UQAC) since 2011. He obtained his BSc in geological engineering in 1984, his MSc in Earth sciences in 1987, and his PhD in geochemistry and petrology in 1991 from the Université du Québec à Chicoutimi, followed by a post-doc (1991–1996) at the Université de Montréal, where Paul worked with John Ludden. He practised as a consultant (1996–1999), and then as lab manager at the Université du Québec à Chicoutimi (1999–2011). Among his achievements, he developed multiple research programs on rare earth and niobium deposits and mineral optical recognition, implemented the UQAC geochemistry lab, founded the UQAC 'Petit Musée de Minéralogie' in 2002, and developed many geochemical analytical protocols. He was an Associate Editor for *Minerals* (2019–2021), is a review editor for *Frontiers in Earth Sciences* (2020–present), and was on the Certification Committee of the International Association of Geoanalysts (2005–2017). Paul teaches mineralogy, geostatistics, analytical techniques in geochemistry, and quality control in exploration geology. His research focuses on the optical reconnaissance of minerals, carbonatites and their mineralization, and industrial minerals.

MAC STUDENT TRAVEL AND RESEARCH GRANT 2023

To Apply submit the application form, which is available from our website (www.mineralogicalassociation.ca/scholarships-and-grants/student-travel-research-grant/), and your CV, along with a signed letter of support from your supervisor.

DEADLINE FOR APPLICATIONS: January 31, 2023



Mr. Benjamin Williams (Transition Metals Corp.)

Ben is currently a Project Geologist with Transition Metals Corp. in Sudbury, Ontario. He obtained a BSc with Honours in Geology from Saint Mary's University, Halifax, followed by graduate work in the field of igneous petrology and isotope geochemistry at Carleton University, Ottawa. Ben has been with Transition Metals since 2018, where his work has focused on overseeing the company's various projects, including detailed mapping, geochemistry, structural analysis, diamond drilling, land management, and technical report writing. In his roles at Transition Metals, Ben has supervised multiple crews of early career geologists and students in conducting field work. Prior to joining Transition Metals, He worked as a Senior Mapping and Research Assistant in collaboration with Carleton University's Department of Earth Sciences and the Northwest Territories Geological Survey. In that capacity, he conducted various value-added and isotopic research programmes on multiple Neoproterozoic volcanic belts within the Slave Craton, with a focus on VMS-style mineralization. Ben is an active member of the geological community, and he regularly presents and evaluates industry-related projects and properties for many affiliates of the Ontario Prospectors Association (OPA). Likewise, Ben instructs and promotes ethical and sustainable prospecting activities and hobbies for all ages.

SECRETARY



Dr. Philippe Belley (Department of Earth Sciences at Memorial University of Newfoundland)

Philippe is an assistant professor in the Department of Earth Sciences at Memorial University of Newfoundland. He received his BSc Honours in geology from the University of Ottawa in 2014, and his PhD in geological sciences from the University of British Columbia in 2019. His research focuses on the mineralogy, geochemistry, and petrology of coloured gemstone deposits, with the goal of developing new approaches to exploration in an industry where most new deposits are found by happenstance. His research group is actively involved in the study of Canadian coloured gemstone occurrences.

THANKS TO OUTGOING MEMBERS OF COUNCIL

We extend our thanks to outgoing past-president, **Andrew M. McDonald**, for his services to the MAC for the last eight years—Andy will continue as co-editor of *The Canadian Mineralogist*; to **Pamela Iraheta Muniz**, who served as Secretary for the last three years; and to outgoing councillor **Jacob Hanley**, who has served the MAC for the last three years.

EDITORS' CORRIGENDUM



The *Elements* Editorial Team expresses its sincere apologies for a typographical error in last issue, accidentally listing **Dr. Tom G. Kotzer**, a recipient of the Hawley Medal for the best paper published in *The Canadian Mineralogist* in 2021, as deceased. We are grateful to share that Tom is alive and well. This was a mistake on our end that was unfortunately missed during proofing.

We deeply apologize to Tom and those who were negatively impacted by this error.