Mineralogical Association of Canada

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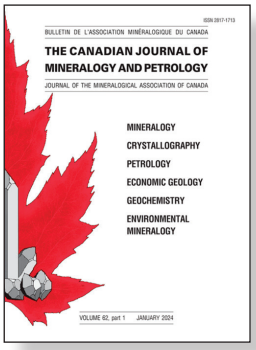
NEWS FROM *THE CANADIAN JOURNAL OF MINERALOGY AND PETROLOGY* (*CJMP*)

Highlights



Our January 2024 issue features papers on the *L'Enfer Norite in Québec*, highlighting its possible link to the enigma that remains Proterozoic anorthosite petrogenesis. *Enfer* also means "hell" in French, just to add additional spice to the story. Where else would magmas originate? Other contributions include a study of inclusions in Argentinian corundum, diagenetic carrollite (a Cu–Co sulfide and the main ore mineral of cobalt) from the Central African Copperbelt, gold-bearing sperrylite from Brazil, and unit cell variations in chromite indicator minerals from diamondiferous and non-diamondiferous kimberlites. New minerals appearing here include trebiskyite (the first Ti-decavanadate (TiV_9) mineral, from Montana, kodamaite (an alkali-alkaline earth fluorosilicate-hydrate from Québec), and stanevansite, a hydrous glycolate from Arizona. Ever wanted to rationalize your pyrochlore supergroup stoichiometries, but couldn't? Thanks to Fuat and Vural Yavuz, a Windows-based software is now available.

Our recent, most-read publications, according to GeoScienceWorld, include the following:

Growth and Stability of Stratiform Carrollite ($CuCo_2S_4$) in the Tenke-Fungurume Ore District, Central African Copperbelt, by Bjorn Von Der Heyden, Jeffrey Dick, Ryan Rosenfels, Luke Carlton, Kristina Lilova, Alexandra Navrotsky, Tamilarasan Subramani, Brian Woodfield, and Alexis Gibson, in vol. 62 (1).

In second place, for the platinoid-inclined, is the smorgasbord that is the ***Abstracts from the 14th International Platinum Symposium and the Wager & Brown Workshop Technical Session***, featuring many authors, appearing last November (vol. 61 (6), 2023).

Close behind is ***Structural Controls on the Origin and Emplacement of Lithium-Bearing Pegmatites*** by David Silva, Lee Groat, Tânia Martins, and Robert Linnen, also from vol. 61 no. 6.

Our most cited recent paper is ***On the Attributes of Mineral Paragenetic Modes*** from Robert Hazen, Shaunna Morrison, Anirudh Prabhu, Jason Williams, Michael Wong, Sergey Krivovichev, and Marko Bermanec, from vol. 61 (4).

A WARM WELCOME TO OUR NEW CO-EDITOR, DR. GREG SHELLNUTT

"It is with great pleasure that the Mineralogical Association of Canada announces the appointment of Professor Greg Shellnutt, from the National Taiwan Normal University as co-editor of the *Canadian Journal of Mineralogy and Petrology* (*CJMP*). Professor Shellnutt is a very accomplished researcher and has a long history of journal editorship and will be a welcome addition to the *CJMP* team. Professor Shellnutt is replacing Professor Andy McDonald, from Laurentian University, whose term at *CJMP* is ending. Professor McDonald is sincerely thanked for his diligence and hard work throughout his term as co-editor."

Dan Marshall, President

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 continue to use this space to feature our Associate Editors (AEs). In this issue, we feature two more of our relatively recent contributors from our expertise-base.

Malte Junge

Dr. Junge is employed at the Mineralogical Museum Munich, Germany, of the Bavarian Natural History Collections. His research focus is on the mineralogy of platinum-group element phases from the prominent mafic-ultramafic igneous rocks, with particular emphasis on the Bushveld Complex of South Africa, where arguably most of them are to be found, as well as the Great Dyke (Zimbabwe). His research includes not only mineral petrogenesis but also ore extraction potential and microanalytical innovations. He is a prominent member of the platinum research community, and has served as an associate editor for *CJMP* since 2022.

Gary Stevens

Gary Stevens is a professor of Earth science at Stellenbosch University in South Africa, where he runs an experimental petrology laboratory, and also serves as the Director of their Central Analytical Facilities. He was previously employed in the Economic Geology Research Unit at the University of the Witwatersrand (Johannesburg), after his PhD studies at the University of Manchester (UK). His main research themes, supported by a very active cohort of graduate students, consist of studies of metamorphism, magmatism and partial melting in the rocks associated with the Barberton greenstone belt, S-type granite petrogenesis and the anatexis of metapelitic/psammitic rocks, and investigations of the behaviour of sulfide minerals and melts during high-temperature processes. He has approximately 8000 citations, an h-index of around 50, and has served as an associate editor of *CJMP* since 2022.

WELCOMING SOME OF OUR NEW MEMBERS OF COUNCIL

The Mineralogical Association of Canada (MAC) is thrilled to introduce two of our newest professionals who will be joining its esteemed council, bringing a wealth of expertise and experience to the forefront of mineralogy to promote and advance its knowledge and allied disciplines.

Councillors (2023–2026)

Tânia Martins
(Manitoba Geological Survey)

Tânia Martins graduated with a geology degree in 2002 from University of Porto, Portugal. After a brief period in consulting, she obtained her PhD in geology in 2009 from the University of Porto, studying Li-Sn-Nb-Ta mineralization in granitic pegmatites. In 2010 and 2011, Tânia worked with Anton Chakhmouradian at the University of Manitoba on the mineralogy of alkaline rocks and carbonatites. Tânia has worked for the Manitoba Geological Survey since November 2011, both in the Mineral Deposits and the Precambrian sections. Currently, she is acting in the position of Chief Geologist, Precambrian Section of the Manitoba Geological Survey. Her research interests are in Li-Cs-Sn-

Nb-Ta mineralization in granitic pegmatites, critical mineral systems, and how these fit in the tectonic evolution of the Precambrian terrains in Manitoba.

Matthew Steele-MacInnis
(University of Alberta)

Matthew is an associate professor of geology at the University of Alberta, whose research focuses on geologic processes that involve fluids, especially formation of mineral deposits. Originally from Newfoundland, he first studied geology at Memorial University, then did a PhD at Virginia Tech, USA (2013), after which he held a Marie Curie postdoctoral fellowship at ETH Zürich, Switzerland (2013–2015). Matthew has been awarded the Hisashi Kuno award from the American Geophysical Union, the Young Scientist Award from the Mineralogical Association of Canada, and the SGA Young Scientist Award from Society for Geology Applied to Mineral Deposits.

We extend our sincerest thanks to departing councillors **Dr. L. Paul Bédard** (Department of Applied Sciences (DSA) at Université du Québec à Chicoutimi), **Dr. Emmanuelle Cecchi** (UQAT – URSTM – IRME), and departing secretary, **Dr. Philippe Belley** (Department of Earth Sciences at Memorial University of Newfoundland).

MAC TRAVEL & RESEARCH GRANT WINNERS

We congratulate Lance Dostie, Amanda Smith, and Avni Patel, each of whom received a 2023 Mineralogical Association of Canada Travel & Research Grant.

Lance Dostie is studying environmental chemistry in his fourth and final year at Trent University, Canada (2023–2024). After two years of research under the supervision of Dr. Ian Power, Lance has gained extensive research experience using various minerals to capture carbon dioxide (CO_2) from the air to mitigate climate change. His focus developed "calcium oxide looping," a technology that uses abundant limestone to source lime from heat. The lime can rapidly capture CO_2 from the atmosphere with the strategies his research employed. He subsequently gave an oral presentation at the American Chemical Society (ACS) conference in March 2023. His work laid vital knowledge on how relative humidity, mineral thickness, and air supply control the ability of lime to capture CO_2 to mitigate climate change. He demonstrated geochemical techniques such as X-ray diffraction, scanning electron microscopy, and carbon coulometry. Overall, Lance's experience allowed him to communicate a new innovative method to mitigate climate change using minerals (lime/limestone), pushing the field to explore this technology for global-scale implementation.

Amanda Smith is a MSc student at Acadia University (Canada) under the supervision of Dr. Sandra Barr. Her research is focusing on Cobequid Highlands, an enigmatic part of Avalonia in the northern Appalachian orogen. A central focus of the project is to better constrain the age(s) of these rocks using U-Pb zircon dating. She used the MAC travel grant to collaborate with experienced geochronologists at the *Senckenberg Naturhistorische Sammlungen, Museum für Mineralogie und Geologie* laboratory located in Dresden, Germany. During her eight-day stay with the institute, Amanda worked closely with Dr. Ulf Linnemann, a recognized expert in U-Pb dating techniques. She learned valuable insights on dating techniques and was trained to use the laboratory's laser ablation and inductively coupled plasma mass spectrometer (LA ICP-MS) to date her samples. After successfully processing her samples using the LA ICP-MS, she was taught the laboratory's data reduction procedure.

Avni Patel is a PhD candidate in the Department of Earth and Atmospheric Sciences at the University of Alberta. She is currently completing her PhD thesis entitled "Amorphous-to-crystalline Ca-Mg carbonate phase transformations in water-limited systems and their effects on Ni partitioning and isotope fractionation" under the supervision of Dr. Sasha Wilson, Dr. Maija Raudsepp, and Dr. Anna Harrison (University of Bern, Switzerland). Her research elucidates the effects of water activity on the (1) rates, (2) pathways, and (3) oxygen isotope signatures of crystallizing amorphous carbonates, as well as the Ni sequestration capacity of amorphous carbonates and their crystalline transformation products. The MAC Travel Grant was used to support her attendance at the 2023 AGU meeting in San Francisco, where she gave an oral presentation entitled "Humidity-driven crystallization of amorphous Ca- and Ca-Mg-carbonate and the effects on ion mobility and isotopic exchange." Her presented research contributes to our understanding of mineral–fluid interactions in the absence of bulk water and the effects of these mineral reactions on the rewriting of isotopic signatures—which may have important implications for the interpretation of paleoproxy data. The MAC Travel Grant allowed her an invaluable opportunity to showcase her research to the wider community and to network with collaborators and future colleagues.

UNDERGRADUATE AWARDS 2023

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 2023:

ISAAC AWRAM, UBC Okanagan
FRANÇOIS-XAVIER BONIN, McGill University
JAMIE BURNETT, Trent University
KATHRYN CHENG, University of Toronto
CAMERON A. COATS, Lakehead University
MADISON A. DECORBY, University of Saskatchewan
FRÉDÉRIQUE BARON, Université Laval
COLLIN GERMANN, University of Regina
IRINA MALAKHOVA, University of Alberta
KRISTINA MIRONOVA, University of Waterloo
SARAH A. REBITT, University of Victoria
ANNIKA M. RICHARDSON, University of Calgary
MONET STREIT, Acadia University
TOBY M. D. BUTT, Memorial University of Newfoundland
JESSICA TOMACIC, Carleton University
TESSA WARKENTINE, University of Manitoba
CHARLOTTE MOTUZAS, University of Western Ontario