



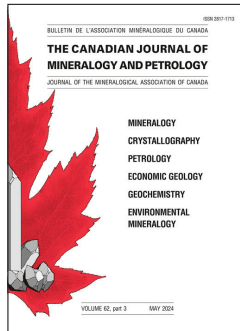
# Mineralogical Association of Canada

[www.mineralogicalassociation.ca](http://www.mineralogicalassociation.ca)

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

### Highlights

In our May issue, we begin with a short communication that has already, at the time of writing, garnered more than 70 reads, on the topic of why large basaltic magma chambers seem not to routinely solidify from the roof downwards, asked and answered by Rais Latypov and Sofya Chistyakova. In another page-turner, the link between gold mineralization and Li isotope fractionation from Red Lake in northwestern Ontario is assessed by Olivier Nadeau and colleagues. In another isotopic study, we present S isotopic variation measured by SIMS in Zn-Pb-Cu VMS ores from the Yukon, from Nicola Denisová and colleagues from Newfoundland and Manitoba.



The smorgasbord of new minerals from the Redmond Mine, North Carolina, USA (which serves as the type locality for 16 minerals on Mindat already, and there are more looming in the future pages of this journal), offers up zincochenite, a Pb-Zn sulfate mineral forming from alteration of Pb-Zn sulfide ores. Bazzite, a critical element-rich BeSc-silicate of the beryl family, is reported from granitic pegmatites in Ontario and British Columbia, its first recorded appearances in Canadian rocks. Rare Cr- and Ni-bearing corundum is reported from Thompson, Manitoba, Canada. In addition, synchrotron micro-focus diffraction spectroscopy is applied by a team of researchers from Germany and Australia (plus one in the U.S.) to pleysteinite and hochleitnerite, two hydrated Mn-phosphate minerals, demonstrating them to be monoclinic, rather than orthorhombic as anticipated. Don't be the last to find out!

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

New on the top of the charts, we feature ***The First (and Second) Known Occurrences of Bazzite in Canada – The Quadeville Rose Quartz Quarry, Ontario, and the Bugaboo Castles Aquamarine Deposit, British Columbia – Description and Crystal Structure*** by Paula Piilonen (of the Mineralogy Section of the Canadian Museum of Nature, Ottawa), and her coauthors Ralph Rowe, Glenn Poirier, Henrik Friis, Chris Robak, and Michael Bainbridge, in vol. 62 (3) from May 2024.

Dropping to second place, ***Growth and Stability of Stratiform Carrollite (CuCo<sub>2</sub>S<sub>4</sub>) 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).

Close behind (one read, in fact), is the short communication by Rais Latypov and Sofya Chistyakova from our May issue (vol. 62 (3)) asking (and answering, potentially) the question ***What Prevents the Crystallization of Magma from the Roof Downwards in Large Basaltic Magma Chambers?***

Our most cited recent publication is ***Trace Element Characteristics of Tourmaline in Porphyry Cu Systems: Development and Application To Discrimination*** by Christopher Beckett-Brown, Andrew McDonald, and Beth McClenaghan, dropping off the tops of the “most read” list as people have stopped just reading it and started citing it instead, evidently.

### Our Technical Editor

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 editorial staff. In addition to the contributions of our two scientific editors and numerous Associate Editors, we depend on the behind-the-scenes expertise and dedication of our technical editor, Dr. Hexiong Yang (University of Arizona, USA), for consistency and attention to detail. This is particularly critical in the context of mineral crystallography and its protocols, required for a research journal in mineralogy and petrology.

### Hexiong Yang

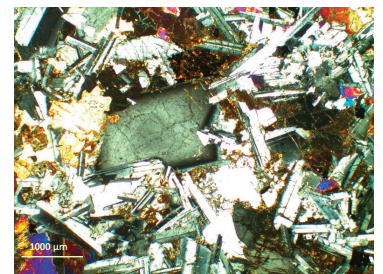
Dr. Yang is employed as a Project Scientist for the RRUFF Project (<http://rruff.info>) in the Mineralogy section of the Geosciences Department of the College of Science at the University of Arizona in Tucson, Arizona (USA), where he has worked since 2006. Prior to that, he conducted mineralogical research at the University of Washington (Seattle, WA, USA), and subsequently at the Geophysical Laboratory of the Carnegie Institution in Washington DC, USA. From 2000 to 2003, he joined NASA's Jet Propulsion Laboratory as a key scientist for the mission in search for life on Mars. A quick search reveals that Dr. Yang has contributed to the discovery of more new minerals than I've had hot dinners; he has first-authored at least nine new mineral announcement papers since the start of 2023 alone. He also coauthored a paper with implications for Li-exploration on Mars. His name appears on no less than 11 MinDat mineral entries. It almost goes without saying, but we are saying it nonetheless, that he has a mineral named after him, yangite (PbMnSi<sub>3</sub>O<sub>8</sub>)·H<sub>2</sub>O, an epithermal chain silicate Pb ore mineral discovered in the Kombat mine, Namibia and accepted by the IMA in 2012. Dr. Yang has served as the technical editor for the *CJMP* since 2021.



### FEATURED MINERAL/TEXTURE

The accompanying photomicrograph in cross-polarized light shows a subhedral coarse grained plagioclase crystal displaying magmatic growth zoning. Coarse-grained phenocrysts, or alternatively clumps of multiple grains of medium-grained plagioclase, are common features of the Karoo dolerites of South Africa, in which plagioclase was the main early liquidus phase, joined by pyroxenes prior to emplacement (as seen in chilled margins), but not by olivine, although the latter may be found in sill interiors, interestingly.

A zoned xenocryst, or more likely, early formed primocryst of plagioclase feldspar, hosted in a diabasic (or doleritic)-decussate-textured assemblage of plagioclase and (mostly) clinopyroxene, from a Jurassic sill intruding late Permian sedimentary rocks of the Karoo Supergroup, South Africa. PHOTO AND EXPLANATION COURTESY OF STEVE PREVEC.



## INTRODUCING NEW M.A.C. COUNCIL MEMBERS

November 2023–May 2025



**Matthew Lindsay** (Associate Professor, NSERC Industrial Research Chair in Mine Closure Geochemistry Department of Geological Sciences, University of Saskatchewan)

**Matthew** is an associate professor in the Department of Geological Sciences at the University of Saskatchewan (USask), the Natural Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair in

Mine Closure Geochemistry, and a Professional Geoscientist registered with the Association of Professional Geoscientists and Engineers of Saskatchewan (APEGS). He is currently serving as Associate Editor for *The Canadian Journal of Mineralogy and Petrology*, and as an Elected Member of the User's Executive Committee for the Canadian Light Source synchrotron. His research in environmental geochemistry and applied mineralogy emphasizes (i) mine waste characterization, management, and reclamation; (ii) mine drainage generation, transport, and treatment; and (iii) metal(loid)-mineral interactions in surface and ground water systems. His research contributions have helped advance understanding of complex process interactions controlling water chemistry in mining environments and, more broadly, terrestrial waters impacted by anthropogenic or geogenic contamination. He has published 44 refereed articles in high-quality international journals including *ACS Earth and Space Chemistry*, *Applied Geochemistry*, *Chemical Geology*, *Environmental Science and Technology*, and *Geochimica et Cosmochimica Acta*. He has also delivered several invited talks focused on aspects of mine waste characterization, management, and reclamation over the past decade.



**Christopher Beckett-Brown** (Surficial Geochemist at the Ontario Geological Survey - Ministry of Mines)

**Christopher** recently started a new position as Surficial Geochemist at the Ontario Geological Survey | Commission géologique de l'Ontario - Ministry of Mines. He completed his BSc (2016) at the Harquail School of Earth Sciences, Laurentian University (Canada).

His BSc research was supervised by Dr. Andrew McDonald and was on the incorporation of nickel in spinel-group minerals. This resulted in the publication, "*The Crystal-Chemistry of Ni-bearing Spinel-Group Minerals: Chemical, Geological, and Exploration Implications*" (*The Canadian Mineralogist*, 2018, v56 pp 77-94). Chris then began an MSc at Laurentian University, which he later upgraded in 2018 to a PhD in applied mineralogy and geochemistry completed in 2022. His research was on testing tourmaline's potential as an indicator mineral for detecting porphyry Cu-Mo-Au systems. That research was in collaboration with the Geological Survey of Canada's Targeted Geoscience Initiative 5 project, along with numerous exploration companies. This resulted in the publication, "*Trace Element Characteristics of Tourmaline in Porphyry Cu Systems:*

*Development and Application to Discrimination*" (*The Canadian Journal of Mineralogy and Petrology*, 2023, v61 pp 31-60). He held a Postdoctoral Research Program in Mineral Chemistry with the Northern Division of Natural Resources Canada, Apr 2022–Jun 2023. Christopher was awarded the Mineralogical Association of Canada (MAC) Foundation Scholarship in 2019. He volunteered as the Eastern Canada Student Representative for the Society of Economic Geologists. He is a member of the Association of Applied Geochemists (AAG) and the Society of Economic Geologists (SEG).

November 2023–May 2027



**Jacob J. Hanley** (Full professor in the Department of Geology, Saint Mary's University (SMU) in Halifax)

**Jacob** is a full professor in the Department of Geology, Saint Mary's University (SMU) in Halifax, Nova Scotia, Canada. He received his BEng (1999), MSc (geology, 2001), and PhD (geochemistry, 2005) from the University of Toronto and held a NSERC postdoctoral fellow at

the ETH Zürich (Switzerland) from 2005 to 2007. He currently heads the Mineral Exploration and Ore Fluids Laboratory at SMU. His group conducts research focused on the application of fluid inclusion microanalysis using techniques such as laser ablation inductively coupled plasma mass spectrometry (LA-ICPMS), Raman spectroscopy, and microthermometry to characterize the sources and *P-T* composition evolution of mineralizing fluids in ore-forming systems in magmatic and metamorphic settings, and the development of novel exploration tools for the mineral resources industry. He received the William Harvey Gross Medal from the Mineral Deposits Division of the Geological Association of Canada (GAC) in 2011, the Young Scientist Medal from the Mineralogical Association of Canada (MAC) in 2016, and was the GAC Howard Street Robinson Lecturer in 2013. Jacob has been an enthusiastic participant and leader on Mineralogical Association of Canada (MAC) outreach events.

OTTAWA 2025  
May 11-14  
11-14 Mai

GEOSCIENCE  
BEYOND BOUNDARIES

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DES FRONTIÈRES

GAC-MAC-IAH-CNC AGC-AMH-AIH-SNC