



Mineralogical Association of Canada

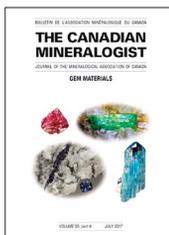
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THE CANADIAN MINERALOGIST

Recently Released Thematic Issues

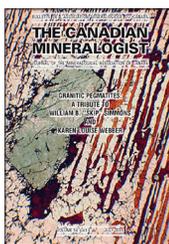
“Gems Materials” (Volume 55, Part 4, July 2017)

This thematic issue originates from the special session entitled Gem Materials that was part of the second European Mineralogical Conference (emc2016 “Minerals, Fluids and Rocks: Alphabet and Words of Planet Earth”) held 11 September 2016 in Rimini (Italy). The papers in this issue span 4 continents, 12 countries, and over 50 researchers. There are an eclectic range of manuscripts that cover tectonic and metamorphic studies as a backdrop to gem formation, plus a number of detailed mineralogical and geochemical studies on individual deposits and occurrences. The research in these papers derives from work done using a wide range of analytical techniques, including electron microprobe analyses, stable and radiogenic isotopes, and fluid inclusions.



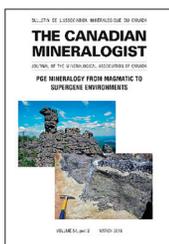
“Granitic Pegmatites: A Tribute to William B. ‘Skip’ Simmons and Karen Louise Webber” (Volume 54, Part 4, July 2016)

This pegmatite special issue is dedicated to Drs. William B. (Skip) Simmons and Karen L. Webber. It pleases us immensely that these two fine researchers are being celebrated by this special issue. These two geologists can truly be considered among the key scientists working in the “pegmatology” field in the period between the second half of the last century and the present day. They also coined the word “pegmatology”, which deals with pegmatite mineralogy and petrology. They are particularly active in describing mineralogy as well as petrology of pegmatitic rocks from the mega- to the micro-scale, doing very accurate work both in the field and in the laboratory. They spend a lot of time and effort in studying these particular rocks, driven by an immense passion. Thanks to this passion for pegmatology, they grew and trained a great number of students. Moreover, due to their presence at many of the big mineral shows, they also “infected” a lot of mineral collectors with the pegmatology virus, and, of course, they infected the two authors of this preface, too. Despite their high scientific standing, Skip and Karen are friendly with everyone, spending a lot of time speaking on pegmatites at all levels and being happy to answer all questions, either simple or complex. Both are truly approachable and always willing to help professionals, students, and mineral hobbyists.



“PGE Mineralogy from Magmatic to Supergene Environments” (Volume 54, Part 2, March 2016)

This thematic issue contains 10 papers focused on the mineralogy of the platinum-group elements with special emphasis on platinum group metal (PGM) genesis and physical properties. The thematic issue includes description of PGMs at many newly documented occurrences worldwide, such as Congo, India, Mongolia, and Russia. The paper by Cabral et al. describes the occurrence of Pt–Cu alloys associated with calcite found in heavy concentrates from the Lubero region of North Kivu (Democratic Republic of the Congo). Based on the paragenetic association, the authors proposed a hydrothermal origin for the studied PGMs. Three contributions (Barkov and Martin, Sinyakova et al., and Spiridonov et al.) deal with the presence of PGMs from the famed Noril’sk sulfide deposit in Siberia (Russia).



REMEMBERING DR. KURT KYSER



Professor T. Kurt Kyser (Department of Geological Sciences and Geological Engineering at Queen’s College, Kingston, Ontario, Canada), who was a Fellow of the Royal Society of Canada and a pioneering geochemist, died while teaching in Bermuda on 29 August 2017. Professor Kyser served the Mineralogical Association of Canada (MAC) in many ways. He served as President of the association from 2006 to 2008, was the co-chair of the 2017 Geological Association of Canada/Mineralogical

Association of Canada (GAC/MAC) annual meeting, and ran three short courses for the association. These short courses resulted in the publication of three popular MAC Short Course Series volumes: *Fluids and Basin Evolution* (2000; volume 28), *Recent and Not-so-Recent Developments in Uranium Deposits and Implications for Exploration* (2008; volume 39) and *Geology and Geochemistry of Uranium and Thorium Deposits* (2015; volume 46). Kurt was awarded MAC’s Hawley Medal in 2002 for the paper, “A Petrological, Geochemical, Isotopic, and Fluid-Inclusion Study of 379 Ma Pegmatite–Aplite Sheets, Peggy’s Cove, Nova Scotia” with co-authors D.J. Kontak, J. Dostal, and D.A. Archibald. He was awarded MAC’s Past-Presidents Medal (now the Peacock Medal) in 2001.

Kurt created and directed one of the leading geochemistry laboratories in North America, the Queen’s Facility for Isotope Research (QFIR). Dr. Kyser was a world-renowned researcher whose creativity and gift for solving scientific problems produced more than 500 peer-reviewed papers, books, book chapters, and technical reports. Beyond these seminal contributions, his lasting legacy is the hundreds of former students and post-doctoral fellows that he mentored. Each was touched in an insightful and inspirational way that not only challenged them, but elevated them as people. Dr. Kyser’s work has been recognized by numerous awards and accolades. Prominent awards include the Duncan R. Derry Medal (GAC) in 2017, the Willet G. Miller Medal (Royal Society of Canada), and the Past President’s Medal (GAC). In addition to these honours, he was a Fellow of the Royal Society of Canada, a Queen’s Research Chair, a Queen’s National Scholar, a Killam Research Fellow (Canada Council for the Arts), a Fellow of the Mineralogical Society of America, and recipient of the E.W.R. Steacie Memorial Fellowship (NSERC of Canada).

Dr. Kyser’s service to the scientific community was also unwavering. He was the Editor-in-Chief of the Geological Society of London’s journal *Geochemistry: Exploration, Environment, Analysis* and an active member of the Mineralogical Society of America, the American Geophysical Union, the Geochemical Society of America, and the Association of Applied Geochemists.

Dr. Kyser was born in Montana, grew up in California, completed his BSc at the University of California, San Diego (USA), and earned his MA and PhD degrees from the University of California, Berkeley (USA). His PhD pioneered the use of stable isotopes to understand seafloor basalt. He completed a post-doctoral fellowship at the US Geological Survey in Denver (Colorado) and a NATO post-doctoral fellowship at the University of Paris (France) in 1980. Before coming to Queen’s, he was a faculty member in the Department of Geological Sciences at the University of Saskatchewan (Canada). Professor Kyser joined the Department of Geological Sciences and Geological Engineering at Queen’s University in 1995. He collaborated with colleagues worldwide and believed strongly that field geology is fundamental to geochemical research. Many close friendships were born from these collaborations, which led to fieldwork in Canada, Australia, United States, Africa, South America, Europe, and Russia.

Professor Kyser is survived by his wife and partner in science and life, April Vuletech, and his larger family of former students and post-doctoral fellows.

A memorial scholarship fund has been set up in Kurt’s name. Please make a gift online, <https://www.givetoqueens.ca/project/view/902>, or send a cheque payable to Queen’s University with ‘In memory of Kurt Kyser’ added.

Eric Hiatt, Peir Pufahl and Ron Peterson



MAC SPONSORED EVENTS AT THE UPCOMING CIM-GAC-MAC JOINT MEETING

Resources for Future Generations
Vancouver, British Columbia, Canada
16–21 June 2018

Short Courses

The MAC has sponsored two short courses which will be held 16–17 June 2018, two days prior to the RFG 2018 CIM-GAC-MAC Joint Meeting technical sessions.

Geometallurgy. This course will address: (1) The principles of geometallurgy and critical evaluation of sampling, mineralogical and geochemical methods; and (2) Selected case studies of applications of geometallurgy involving innovative evaluation of mineral deposits, mineral exploration, resource estimation, applications and implementation of quantitative mineralogical and geochemical data, mining and ore processing, energy use, treatment of tailings and waste rock and remediation, and implementation of geometallurgical models in mining and plant operations. The short course will last for 2 days. Organized by Gema Olivo and Tassos Grammatikopoulos.

Novel Applications of Isotope Geochemistry. Isotope geochemistry is an integral part of the Earth sciences, particularly in revealing the fourth dimension of our science (time), revealing the processes involved in natural systems, and tracing the flux of elements between the geosphere and biosphere. This course addresses the recent applications of isotope geochemistry in the Earth sciences and how integration with other disciplines represents a paradigm shift in our understanding of the processes that operate in natural systems. Those involved in the course include the top isotope geochemists in Canada. The course will last for 1.5 days. Organized by Bruce Eglington.

Field Trips

The MAC has sponsored two field trips which will be held after the RFG 2018 CIM-GAC-MAC joint meeting.

The Tulameen Alaskan-Type Ultramafic-Mafic Intrusion: Architecture, Emplacement Mechanisms and Cr-PGE vs. Cu-PGE “Reef-Style” Mineralization in a Convergent Margin Setting. The field trip will examine the lithological zoning and temporal evolution of the Tulameen complex, and contrasting styles of chromitite-PGE mineralization in the dunite core versus newly discovered Cu-PGE sulfide mineralization in the more differentiated ultramafic rocks. Highlights include examination of “magmatic avalanche” deposits exposed in the Tulameen River bed, and a 700-m zone of Cu-PGE mineralization similar to occurrences documented from layered intrusions in extensional tectonic settings. This trip complements the Special Session: Advances in the Study of Ultramafic Rocks. Dates: 21–24 June 2018. Organized by Graham Nixon and Dejan Milidragovic.

Upper Fir Carbonatite-Hosted Nb-Ta Deposit, Blue River Area, East-Central British Columbia. Participants of this field trip will see representative drill-core sections and outcrops of mineralogically and texturally diverse carbonatites, related alteration and alkaline ultramafic rocks, and the enclosing rocks of the Mica Creek assemblage at Upper Fir. We will discuss the primary igneous features and tectono-metamorphic overprinting of the Upper Fir carbonatites (Late Paleozoic), recorded by their paragenetic relationships, mineral chemistry, dynamic recrystallization and retrograde mylonitization. Highway travel from Vancouver to Blue River transects a number of different Cordilleran terranes. A few stops along the way will show pillowed and massive basalts of the Fennell Formation (Late Paleozoic), Slide Mountain oceanic terrane, and Quaternary volcanic landforms and deposits of the Clearwater valley. Dates: 22–24 June 2018. Organized by Alexei Rukhlov (BCGS), Thomas Chudy (UBC) and the Commerce Resources Corp.

FIELD WORKSHOP IN THE FRENCH MASSIF CENTRAL

Granites, Nappes and Migmatites: Anatomy of A Collapsing Orogen

The Société Française de Minéralogie et Cristallographie, the Université Jean-Monnet (Saint-Étienne, France) and the Laboratoire Magmas et Volcans (CNRS) are organizing a field-based workshop in the French Massif Central, which is a Variscan inlier located in South Central France. This fieldtrip will examine the Variscan nappe stack in the Moldanubian core zone of the Variscan belt. The nappe stack has been affected by pervasive partial melting and granite emplacement, and there are exposures of spectacular migmatites. This area offers great opportunities to discuss orogenic processes, anatexis, granite formation, and crustal differentiation and evolution.

The field workshop will take place after the EMPG XVI meeting (held in Clermont-Ferrand). Participants will meet in Saint-Étienne (150 km east of Clermont-Ferrand) on the evening of 21 June 2018, spend 5 full days in the field (22–26 June) and will return on 27 June.



Typical dendritic cordierite texture in the Velay migmatites

Most of the trip will be specifically held in the Ardèche Mountains of Southern France and will offer opportunities to sample other local pleasures, such as country food, local wine, great landscapes and beautiful swimming holes in mountain streams. Participants will be transported by minibuses and be housed in country hotels or bungalows in holiday resorts. We expect the cost to be about €400 per person. For further

information, please contact Jean-François Moyen: jean.francois.moyen@univ-st-etienne.fr.

All researchers interested in these topics are warmly invited to join us!

NEW PUBLICATION

Minerals with a French Connection

La Société Française de Minéralogie et de Cristallographie (SFMC) has joined forces with the Mineralogical Association of Canada (MAC) to co-publish *Minerals with a French Connection* (ISBN 978-0-921294-59-7, A4 format, 588 pages). François Fontan (1942–2007) and Robert F. Martin are the co-authors. The book contains information on all minerals with a type locality in France (including New Caledonia), as well as all minerals discovered elsewhere, and named after citizens of France. Each of the 260 or so minerals are presented under the following headings: type locality (or localities), occurrence (what is the geological context?), description of the mineral (with a few words about its structure), name (along with biographical details where the mineral is named after an individual, who is shown in a portrait or photo), type specimens (where are they deposited?), comments, IMA status (along with IMA number, Dana and Strunz classes), and pertinent references. Each mineral is presented on two facing pages; where possible, the colour photos include at least one from the type locality. The book can be ordered online at www.sfmc-fr.org (for Europe and Africa) and www.mineralogicalassociation.ca (for the rest of the world).

