



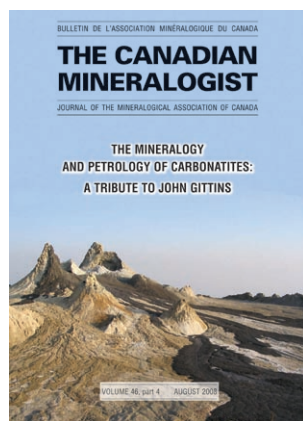
Mineralogical Association of Canada

www.mineralogicalassociation.ca

PUBLICATIONS NEWS

2008 was a dizzying year for the Mineralogical Association of Canada. The Association published two short course volumes (*Working with Migmatites* and *Laser Ablation ICP-MS in the Earth Sciences: Current Practises and Outstanding Issues*), two special publications (*Pegmatites* and *Atlas of Migmatites*), and two thematic issues of *The Canadian Mineralogist*. And in 2009, we kick off with the long-awaited short course volume *Recent and Not-So-Recent Developments in Uranium Deposits and Implications for Exploration*.

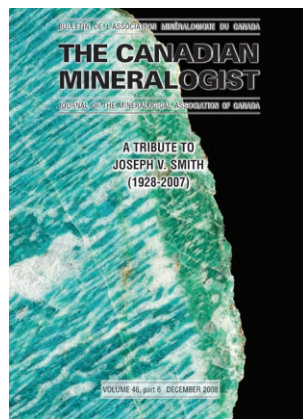
Thematic Issues in 2008



The Mineralogy and Petrology of Carbonatites, published in August 2008, is a tribute to John Gittins, Professor Emeritus of Geology at the University of Toronto. Although the name of John Gittins has become synonymous with carbonatite petrology, his research has covered all aspects of alkaline rock genesis. Significantly, the eponymous mineral *gittinsite* ($\text{CaZrSi}_2\text{O}_7$) was discovered in an apgaitic syenite and not in a carbonatite!

The impetus for this volume, edited by Roger H. Mitchell, Anton R Chakhmouradian, and David R. Lentz, was the special session "Alkaline Igneous Systems: Dissecting Magmatic to

Hydrothermal Mineralizing Processes," held in Montreal during the May 2006 GAC-MAC annual meeting. The 22 contributions selected for this issue span a wide range of topics covering virtually every aspect of carbonatite petrogenesis. It would be impossible to condense all carbonatite wisdom into 350 pages of text, but this collection of papers is both an adequate reflection of our current understanding of these unusual rocks and a step forward toward the resolution of some of the outstanding controversies in the world of carbonatites.



In December 2008, MAC published a special issue in honor of Joseph Victor Smith, an exceptionally gifted and socially enlightened scientist who was not hesitant to "probe with a sharp scalpel," to use his expression, the secrets of feldspars, feldspathoids, pyroxenes, zeolites, and many other important groups of minerals. As a result of his exceptionally productive career, Joseph Victor Smith exercised a major influence on many scientists involved in the study of rock-forming minerals and synthetic analogues. Thus it was only natural to celebrate his career accomplishments in an all-day session entitled "Feldspars 2007: In

Memory of J. V. Smith" at the Frontiers in Mineral Sciences symposium held in June 2007 at the University of Cambridge, where Joe began his career. Papers on feldspar-group minerals were definitely the focus, but several authors presented their findings on non-feldspar topics, a manifestation of the breadth of Joe's interests.

The 14 papers presented in this issue entitled "A Tribute to Joseph V. Smith" (1928-2007) cover themes close to Joe's heart and recall his seminal work on the application of an arsenal of microbeam techniques to solve important problems posed by rock-forming minerals, including those on the Moon and other celestial bodies. The papers cover the following themes: origin of incommensurate structures in plagioclase; metasomatic transformation of plagioclase to albite; origin of the rapakivi texture; response of anorthoclase to high pressure; anorthoclase-magma and nepheline-magma partitioning of key trace elements; modulation in the structure of nepheline; the potential of Raman spectroscopy to characterize feldspar-group minerals in future unmanned exploration of planetary bodies; powder-diffraction characterization of crystal structures; the structure of KAlSi_3O_8 -*OI*, a technologically important phase; crystal chemistry and symmetry of the scapolites; effect of Al-Si and Na-Ca disorder induced by heating marialite of composition $\text{Me}_{32.9}$; structure of jadeite and its thermoelastic properties between 1.5 and 270 K; polyhedron geometries and the structural hierarchy of neptunyl compounds. Ross Angel, Ian Parsons and Robert F. Martin acted as editors.



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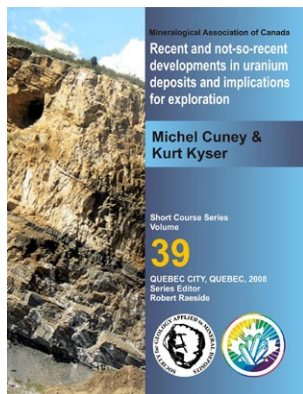







Now is the time to register
www.agu.org/meetings/ja09

Recent and Not-So-Recent Developments in Uranium Deposits and Implications for Exploration



In 1978, the Mineralogical Association of Canada presented a short course on uranium in Toronto. It had the highest attendance of any of the short courses MAC has held since, and the accompanying short course volume, entitled *Uranium Deposits: Their Mineralogy and Origin*, edited by M. M. Kimberley, became the most popular short course volume ever for MAC and was out of print for many years.

In 2008, MAC teamed up with the Society for Geology Applied to Ore Deposits (SGA) to present the short course *Recent and Not-So-Recent Developments in Uranium Deposits*

and *Implications for Exploration*, just prior to the GAC-MAC-SEG-SGA meeting held in Quebec City last May. About 100 registered for this short course, and the majority of the registrants stayed on for the meeting and participated in the accompanying symposium.

The short course volume, authored by Michel Cuney and T. Kurtis Kyser and copublished with SGA, is now available. It highlights data acquired and research carried out over the past 30 years and new techniques and ideas that can be integrated into effective exploration strategies for uranium. A CD-ROM containing pdf files for all the papers in the 1978 short course volume is included.

New models developed for different deposits and the mechanisms that control their genesis are central themes in this new short course volume. The volume is divided into the following chapters (abridged titles):

INTRODUCTION – the discovery and properties of uranium; the countries that have the greatest reserves and those that use nuclear energy; types of deposits and their geological environments

ECONOMICS AND RESEARCH – the interplay between the market price of uranium and the exploration and research carried out during the past thirty years

GEOCHEMISTRY OF URANIUM – the characteristics of uranium in natural fluids at a variety of temperatures

MAGMATIC DIFFERENTIATION – uranium mineralization generated by high-temperature magmatic processes

PARTIAL MELTING – the effects of crustal melting processes on the production of melts that host uranium mineralization

METASOMATIC DEPOSITS – high-temperature hydrothermal processes associated with regional sodium metasomatism and quartz dissolution

HYDROTHERMAL DEPOSITS – deposits related to igneous rocks and generally exhibiting vein-type morphology, but also occurring as disseminated ore in syenitic bodies

UNCONFORMITY-RELATED DEPOSITS – mineralization related to a reduction front near the unconformity between Proterozoic sandstone units and underlying metamorphosed basement lithologies

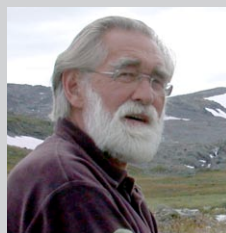
SANDSTONE-HOSTED DEPOSITS – breccia pipes and sandstone-hosted low-temperature deposits such as roll-front, tabular, and sedimentary copper-associated deposits.

OTHER TYPES OF DEPOSITS – the Elliot Lake quartz-pebble-conglomerate deposits in Canada and the Witwatersrand gold-uranium deposits in South Africa, as well as surficial deposits

IMPLICATION FOR EXPLORATION STRATEGIES – what has been learned during the past thirty years that may help us to explore for uranium deposits

These books can all be ordered online at www.mineralogicalassociation.ca.

PINCH MEDAL TO ROY KRISTIENSEN



Roy Kristiansen of Seldebakk, Norway, is the 2009 recipient of the Pinch Medal for his major contributions to the mineralogy of beryllium and scandium, and to the mineralogy of Norway. The Mineralogical Association of Canada instituted the Pinch Medal, awarded biannually since 2001, to recognize major and sustained contributions to the advancement of mineralogy by members of the collector-dealer community. This medal is named for

William Wallace Pinch of Rochester, New York, in recognition of his enormous and selfless contributions to mineralogy.

As an author or coauthor of over 50 articles in the scientific and popular literature on a great variety of topics related to mineralogy, Roy's special interests are minerals of beryllium, scandium, tantalum, cesium, lithium, yttrium, and rare earth elements, as well as the minerals from both granite and nepheline-syenite pegmatites, both of which abound in his native Norway. He is coauthor of four new-mineral descriptions and contributed to a fifth, kristiansenite, which was named in his honor to recognize "a well-known amateur mineralogist from Norway who first noticed the new mineral." Roy has also discovered 20 minerals new to Norway. He was presented with a pendant of scandium metal at the Kongsberg mineral symposium 2008, in recognition of his "enormous contribution to Norwegian mineralogy."

Roy exemplifies the best qualities one looks for in an amateur mineralogist – dedication and love of the subject, and great generosity in sharing his knowledge, resources, and specimens with both amateur and professional mineralogists. His accomplishments and dedication to the advancement of mineralogy make him an ideal recipient of the 2009 Pinch Medal, which was awarded to him at the Tucson Gem and Mineral Society Banquet on February 14.

Edward Grew

\$5000

Scholarships

The Mineralogical Association of Canada Foundation

will award two \$5000 scholarships to graduate students, one to a student enrolled in an MSc program and one to a student in a PhD program. The applicable fields of study are:

- Mineralogy
- Crystallography
- Geochemistry
- Mineral Deposits
- Petrology

Deadline to apply:
May 1st, 2009

Eligibility

- 1 Students entering the second year of an MSc program or the second or third year of a PhD program at a Canadian university in September 2009.
- 2 Canadian citizens enrolled in the above or equivalent programs at any university.

For more information, contact:

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Application form available at
www.mineralogicalassociation.ca

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Association minéralogique du Canada