



www.mineralogicalassociation.ca

Mineralogical Association of Canada

YELLOWKNIFE 2007 MAY 23–25, 2007

Yellowknife will host the first GAC-MAC conference north of 60°. The conference coincides with the beginning of the International Polar Year.

The City of Yellowknife, capital of the Northwest Territories, is located on the north shore of Great Slave Lake and is famous for its Aurora Borealis and midnight sun. Founded in 1935 following the discovery of gold, the city now serves as a hub for mining and transportation, and provides infrastructure support for Canada's diamond mines.

Yellowknife 2007 will feature symposia and special sessions that highlight Canada's North: its climate, its culture, its mining heritage, and its future.

Although the weather can be cold in the North, the hospitality will be warm. We hope you can join us at the Yellowknife meeting from May 23 through May 25, 2007.

Here are some of the symposia and special sessions that will be held:

- Mitigation of Environmental Impact of Mining in the North
- Mineral Deposit Models and Regional Exploration Symposium and Workshop
- Submarine Volcanism and Associated Mineralization: Modern versus Ancient
- Geospatial Information and Tools in Support of Geosciences in the Canadian Arctic
- Recent Advances in the Geology of Laurentia
- Short-lived Magmatic Events of the Slave Province and Environs: Critical Time Markers and Indicators of Tectonic Processes
- Northern Energy and Sedimentary Basins
- Northern Mineral Deposits
- Diamonds: Exploration to Production – a Northern Canada Perspective
- Sustainable Mineral Resources Development: Critical Issues for Canada's North
- Northeast Canada and Greenland: Geology, Correlations, and Resource Potential
- Comparative Planetary Geology: Terrestrial Analogues to Mars and the Moon in the Arctic
- International Polar Year Research
- New Exploration Techniques for Unconventional and Atypical Ore Deposits

The local organizing committee has negotiated special rates for flights to Yellowknife from Edmonton. For more information, check http://www.nwtgeoscience.ca/yellowknife2007/welcome_en.html



Photos courtesy: The North Gems

The Geology of Gem Deposits

MINERALOGICAL ASSOCIATION OF CANADA SHORT COURSE

21–22 MAY 2007, YELLOWKNIFE, CANADA

SHORT COURSE ORGANIZER: **Lee Groat**, University of British Columbia

This two-day short course will look at gemstones from a geological perspective. It will precede Yellowknife 2007—the joint annual meeting of the Geological Association of Canada and the Mineralogical Association of Canada, in Yellowknife, Northwest Territories, Canada. It will be a unique opportunity to experience a change of climate and a meeting north of 60°. A special session entitled "Diamonds: Exploration to Production – A Northern Canada Perspective" and a post-conference field trip to the Canadian diamond mines, sponsored by BHP and Diavik, will complement the short course.

Gem deposits are rare because in general the conditions that promote their formation are unusual and thus worthy of scientific study. Recently modern geological and analytical techniques have been applied to gem occurrences in Canada and elsewhere, and our models and understanding of their formation are being radically altered. This short course will review our current understanding of diamond, ruby, sapphire, and emerald deposits but will also examine the lesser-known coloured gems.

1. INTRODUCTION
2. DIAMOND DEPOSITS (THOMAS STACHEL, UNIVERSITY OF ALBERTA)
3. GEM CORUNDUM (RUBY AND SAPPHIRE) DEPOSITS (GASTON GIULIANI, IRD AND CRPG/CNRS)
4. GEM BERYL (EMERALD, AQUAMARINE, ETC.) DEPOSITS (DAN MARSHALL, SIMON FRASER UNIVERSITY)
5. PEGMATITE GEM DEPOSITS (SKIP SIMMONS, UNIVERSITY OF NEW ORLEANS)
6. JADE DEPOSITS (GEORGE HARLOW, AMERICAN MUSEUM OF NATURAL HISTORY)
7. CANADIAN COLOURED GEM OCCURRENCES (BRAD WILSON, ALPINEGEMS LTD.)

Registration fees: CDN\$425 (professional) and CDN\$250 (students)

For more information, e-mail Lee Groat at lgroat@eos.ubc.ca or visit the conference website at www.nwtgeoscience.ca/Yellowknife2007



CANADA'S NORTH...
ITS CLIMATE, ITS CULTURE,
ITS MINING HERITAGE, AND ITS FUTURE!

LE NORD CANADIEN...
SON CLIMAT, SA CULTURE,
SON HÉRITAGE MINIER ET SON FUTURE!



VISIT OUR WEBSITE - VISITEZ NOTRE SITE INTERNET
www.nwtgeoscience.ca/yellowknife2007



UNDERGRADUATE AWARDS 2005–2006

The MAC Undergraduate Awards are given annually to undergraduate students for excellence in one of the fields covered by MAC (mineralogy, crystallography, petrology, geochemistry, and economic geology). The award consists of one free publication and a one-year subscription to the online version of *The Canadian Mineralogist*.

David A. Arsenault, Memorial University of Newfoundland

Stephanie A. Blais, St. Francis Xavier University

Natasha L. Bumstead, University of Western Ontario

Caroline Dennis, University of Windsor

Jill L. Dreger, University of Regina

Cetina Farrugia, McMaster University

Nathan R. Forslund, Lakehead University

Jennifer K. Greville, University of Manitoba

Brett J.H.M. Hamilton, University of Waterloo

Philippe Hurtubise, University of Ottawa

Erin M. Kellough, Mount Royal College

Kerry Klein, McGill University

Marc Laurencelle, Université du Québec à Trois-Rivières

Evelyne Leduc, Queen's University

Jenny A. MacAuley, University of Victoria

Heather E. Menicanin, Brock University

Ryan Noftall, St. Mary's University

Jenna M. Phillips, Brandon University

Lise Robichaud, University of New Brunswick

Kara-Lynn Scallion, Acadia University

Reid Staples, Simon Fraser University

Mavros I. Whissell, Laurentian University

Mineralogical Association of Canada

STUDENT TRAVEL/RESEARCH GRANTS 2007

The Mineralogical Association of Canada will award travel and research grants to assist honours undergraduate and graduate students in the mineral sciences to:

- Present their research at a conference
- Attend a short course or a field trip relevant to their field of study
- Visit a facility, laboratory or field area to gather data for their research
- Pay for analyses or equipment for their research

The maximum grant value is CDN\$1200 per student. Grants will fund up to 50% of costs incurred for registration, travel and subsistence, and up to 100% of other research costs (e.g. equipment, analyses). Quotations and receipts may be requested for any equipment purchased.

Eligibility

- Graduate students and honours students at the undergraduate level in one of the fields covered in *The Canadian Mineralogist* (mineralogy, crystallography, petrology, economic geology and geochemistry)
- Grant recipients must submit a report of their travel or research for possible publication by MAC.

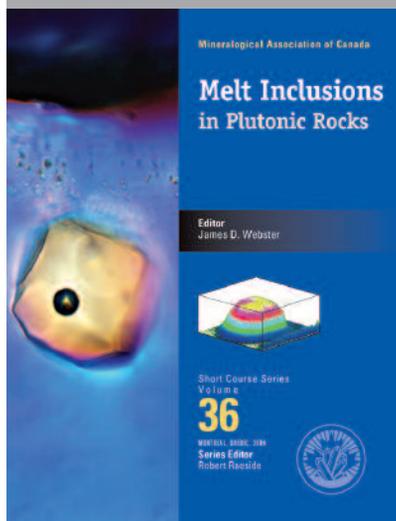
For more information, see www.mineralogicalassociation.ca

Deadline to apply: January 15, 2007

RENEW YOUR MEMBERSHIP AT:
WWW.MINERALOGICALASSOCIATION.CA

MELT INCLUSIONS IN PLUTONIC ROCKS

MINERALOGICAL ASSOCIATION OF CANADA SHORT COURSE VOLUME 36



EDITOR
James D. Webster

Short course volume 36 provides an accurate account of the current state of knowledge about melt inclusions in plutonic rocks. The volume discusses means to ensure high-quality melt inclusion research, provides practical methods to evaluate and investigate melt inclusions, describes important new analytical techniques and useful examples of their application to natural systems, and summarizes current understanding of plutonic systems ranging from basaltic to rhyolitic in composition.

ISBN 0-921294-36-0
248 pages
US\$40 (outside Canada)
CAN\$40 (in Canada)

Table of Contents

1. Melt inclusions in plutonic rocks: Petrography and microthermometry – R.J. Bodnar, J. Student
2. Application of secondary ion mass spectrometry to the determination of traditional and non-traditional light stable isotopes in silicate melt inclusions – G.D. Layne
3. *In situ* laser ablation–ICP–MS chemical analysis of melt inclusions and prospects for constraining subduction zone magmatism – T. Pettke
4. Melt inclusion record of magmatic immiscibility in crustal and mantle magmas – V.S. Kamenetsky
5. Crystallized melt inclusions in gabbroic rocks – I. Veksler
6. Parental magmas of plutonic carbonatites, carbonate–silicate immiscibility and decarbonation reactions: Evidence from melt and fluid inclusions – I. Veksler, D. Lentz
7. Magmatic processes and volatile phase generation in porphyry-type environments: A laser ablation–ICP–MS study of silicate and sulfide melt inclusions – W.E. Halter and C.A. Heinrich
8. Silicate melt inclusions in felsic plutons: A synthesis and review – J.W. Webster, R. Thomas
9. Understanding pegmatite formation: The melt and fluid inclusion approach – R. Thomas, J.W. Webster, P. Davidson
10. Fluid and melt inclusions in the subvolcanic environments from volcanic systems: Examples from the Neapolitan area and Pontine Islands, Italy – B. De Vivo, A. Lima, V.S. Kamenetsky, L.V. Danyushevsky

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