A very successful 35th MAC-affiliated short course, entitled “Exploration strategies in both traditional magmatic and atypical PGE settings,” was held at the Ramada Hotel in Oulu, Finland on August 6 and 7, 2005. The course, held in conjunction with the 10th International Platinum Symposium, provided attendees with a solid grasp of the processes that concentrate and redistribute the platinum-group elements (PGE) in the Earth’s crust in magmatic, hydrothermal, and surficial settings. Case studies and descriptive ore deposit models complemented the theory, and built a framework for successful exploration strategies in both traditional magmatic and atypical PGE deposit settings.

The course was very well attended by both academia and industry. Day one began with detailed introductory theory on the magmatic and aqueous geochemical behavior of the PGE by James Mungall (short course editor) and Jacob Hanley from the University of Toronto, Canada. Grant Cawthorn (University of the Witwatersrand, RSA), Markku Iljina ( Geological Survey of Finland), and Chris Lee (consulting geologist, Amplats) presented the first descriptive ore deposit models, describing the characteristics of stratiform and marginal PGE deposits and focusing on the Bushveld Complex and layered intrusions in northern Finland. The behavior of PGE minerals in a supergene environment associated with the Great Dyke of Zimbabwe was presented by Thomas Oberthür (German Geological Survey). Descriptions of PGE placer deposits associated with Ural-Alaskan-type complexes (Nadezhda Tolstykh, UIGGM, Novosibirsk, Russia) and hydrothermal PGE deposits in atypical (not associated with mafic and ultramafic rocks) settings (James Mungall, and Andy Wilde, Monash University, Australia) continued into the late afternoon. Much discussion continued over wine and traditional Finnish food at dinner.

Day two began with a presentation on the revised classification of PGE ores associated with the Sudbury Igneous Complex (Catharine Farrow, FNX Mining Company). James Mungall and Nick Arndt (Université de Grenoble, France) then discussed the dynamic processes at work in magmatic conduits associated with PGE deposits. Finally, Maria Economou-Eliopoulos (University of Athens, Greece) described the concentration of PGE in porphyry systems. After an introduction to the economic considerations and geological criteria for PGE exploration (Tony Green, Falconbridge Ltd.), the afternoon was occupied by presentations describing the geophysical, biogeochemical, and lithogeochemical signatures of PGE ore deposits (Stephen Balch, Aeroquest Ltd.; Keiko Hattori, University of Ottawa, Canada; Wolfgang Maier and Sarah-Jane Barnes, Université du Québec à Chicoutimi, Canada). Case histories were presented at a poster session at the end of day; these provided examples of PGE ore discoveries made through the integration of geological, geochemical and geophysical observations, and exploratory techniques. Posters highlighting the global distribution of PGE deposits were also presented.

Special thanks go to James Mungall and Markku Iljina for organizing the course, to all presenters for their efforts, and to Rob Raeside (MAC short course series editor) and his team for their handling of the short course volume during the publishing and printing stages.


Jacob Hanley, University of Toronto

**STUDENT TRAVEL/RESEARCH GRANTS 2006**

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

**Deadline to apply: January 15, 2006**
Tired of mega-meetings and of that lost-in-a-crowd feeling? Fed-up with 15-minute talks? Looking for a more human-size meeting that still offers you a broad range of sessions to choose from across the Earth sciences?

Montreal 2006, the joint annual meeting of the Geological Association of Canada and the Mineralogical Association of Canada, might be the meeting for you. Andrew Hynes, chair of the technical program committee, has assembled a strong technical program, with many sessions covering the fields of geochemistry, petrology, and mineralogy.

Montreal is one of the most dynamic cities in North America, with cosmopolitan flair and European flavor. You might want to plan a holiday as it is a great place for families.

Some of the technical sessions that might be of interest are listed below (for the full program, visit the conference website at www.gacmac2006.ca). Abstract submission deadline is January 15, 2006.

1. Symposium Clément Gariépy – Lead isotopes as tracers of geological and environmental processes
   Ross Stevenson (GEOTOP-UQAM), Nuno Machado (GEOTOP-UQAM)
   stevenson.ross@uqam.ca

2. Alkaline igneous systems: Dissecting magmatic to hydrothermal mineralizing processes
   David Lentz (U. of New Brunswick), André Lalonde (U. of Ottawa), Stefano Salvi (LMTG, Toulouse), Jeanne Paquette (McGill U.)
   dlentz@unb.ca

3. Earth’s mantle: New insights from diamonds and xenoliths
   Maya Kopylova (U. of British Columbia), Don Francis (McGill U.)
   mkopylov@nexus.eos.ubc.ca

4. Kimberlites and other diamondiferous rocks
   Don Francis (McGill U.), Felix Kaminsky (KM Diamond Exploration)
   donf@eps.mcgill.ca

5. TTG, adakites, and high-Mg andesites: Modern and ancient analogues
   Ross Stevenson (GEOTOP-UQAM), Ali Polat (Windsor U.)
   stevenson.ross@uqam.ca

6. Physical volcanology, textures, and geochemistry of komatiite and basalt flow fields
   Wulf Mueller (UQAC), Terry Fowler (U. of Ottawa), Jarda Dostal (St. Mary’s U.)
   wmueller@uqac.ca

7. Isotope geochemistry and ore mineralization
   Kurt Kyser (Queen’s U.), Norbert Clauer (U. of Strasbourg)
   kyser@geol.queensu.ca

8. Recent developments and applications of ICP-MS with emphasis on methods of sample introduction
   Paul Bédard (UQAC), Richard Cox (UQAC), Nuno Machado (GEOTOP-UQAM), William G. Minarik (McGill U.)
   pbedard@uqac.ca

9. Advances in micro- and nano-scale characterization and analysis of Earth materials
   Alan Anderson (St. Francis Xavier U.), Penny King (U. of Western Ontario)
   andersso@stfx.ca

10. The storage and transport of trace elements in the Earth system: From the core to the environment
    Don Baker (McGill U.), Sarah-Jane Barnes (UQAC), Alfonso Mucci (McGill U.)

MELT INCLUSIONS IN PLUTONIC ROCKS
Mineralogical Association of Canada Short Course
15–17 May 2006 prior to the GAC–MAC Joint Annual Meeting, Montreal, QC, Canada

Convener: James D. Webster

Overview

Much of the research on melt inclusions has focused on volcanic systems. Yet, pluton-forming magmas are equally if not more important for mountain building and continental crust formation, and they are genetically related to a wide variety of metallic mineral deposits.

Investigation of the geochemistry and petrology of plutons in convergent margins can provide information crucial to our understanding of the generation, evolution, ascent, and emplacement of subduction-related magmas. The analysis of melt and fluid inclusions in these plutonic rocks is an indispensable research tool for understanding the recycling of crustal components into and through the mantle.

Studies on inclusions from plutonic systems are increasingly common. The studied systems are diverse and include mafic, ultramafic, and granitic rocks, and evolved felsic pegmatites. The inclusions trapped in these magmas range in composition from aqueous to sulfide-, carbonate-, silicate-, or halogen-enriched.

Current growing interest in the geochemistry of plutonic systems occurs at a time when advances in micro-analytical methods facilitate the analysis of fully crystallized melt inclusions (without prior reheating); the study of stable isotopes of D/H, Li, C, S, and Cl in melt inclusions; and the determination of the partitioning of ore metals and volatiles among melts, minerals, and fluid phases in coexisting and coeval inclusions.

A two-day symposium at Montreal 2006 entitled “Alkaline Igneous Systems: Dissecting Magmatic to Hydrothermal Mineralizing Processes” will complement the short course.

Registration fees: CDN$400 (professional) and CDN$200 (students)
For more information, e-mail Jim Webster at jweb@amnh.org or visit the conference website www.gacmac2006.ca