



Mineralogical Association of Canada

www.mineralogicalassociation.ca

GAC-MAC WINNIPEG 2013

The 2013 joint annual meeting of the Geological Association of Canada and the Mineralogical Association of Canada will be held from May 22 to 24 at the Convention Centre in downtown Winnipeg. The city is located 29 km west of the longitudinal center of North America and sits on the sediments of the immense glacial Lake Agassiz. It is just a short distance from one of the world's largest rare-metal pegmatites at Tanco, spectacular outcrops of Paleozoic carbonate rocks in the Interlake region, Precambrian rocks of the Superior craton and Trans-Hudson orogen, and a score of other geological attractions. As is customary at a GAC-MAC meeting, the field trip offering is exceptional. Here is a great opportunity to discover the Tanco pegmatite, the Flin Flon mining district, the Thompson nickel belt, for example. Several short courses will be offered before and after the meeting.

Details on registration, programs, and events are available at:

www.gacmacwinnipeg2013.ca

Here are some of the symposia, special sessions, and field trips that will be of great interest to the mineralogy-geochemistry-petrology community. Check the website for the full list.

Symposia

Earth Materials, Petrological and Geochemical Processes (in Honor of Frank C. Hawthorne)

Elena Sokolova, Norman Halden

Granitic Pegmatites – From Fascinating Crystals to High-Tech Elements (in Honor of Petr Černý)

Milan Novák

Special Sessions

Diamond: From Birth in the Mantle to Emplacement in Kimberlite

Maya G. Kopylova, Yana Fedortchouk

Uranium: Cradle to Grave

Peter Burns

Rare Earth Elements in Melts, Fluids, and Crystal Structures

Anton Chakhmouradian, Ian Coulson

Precious and Rare Metals in the Volcanogenic Massive Sulfide Environment

Patrick Mercier-Langevin, Harold Gibson, Simon Gagné

Testing Links among Large Igneous Provinces, Iron Formations, and Volcanogenic Massive Sulfide Deposits

Andrey Bekker, Richard Ernst

Layered Intrusions: New Paradigms and Approaches to Understanding Magmatic Processes

James S. Scoates, Jim Miller



Magmatic Ni-Cu-PGE-Cr Deposits: Ore-Forming Processes with Implications for Exploration

Michel Houllé, Valérie Bécu, Doreen E. Ames, Xue-Ming (Erik) Yang, Paul Gilbert

Metamorphism in the Ore Environment

Chris Couëslan, Doug Tinkham, David Pattison, Simon Gagné

Geomicrobiological and Biogeochemical Advances in Environmental Systems

Ian Power, Lachlan MacLean

Impact Cratering: A Geological Process

Gordon Osinski, Richard Grieve

Terrestrial Analogues for Comparative Planetary Geology and Astrobiology

Ed Cloutis, Gordon Osinski



Field Trips

The Tanco Mine: Geological Setting, Internal Zonation, and Mineralogy of a World-Class Rare Element Pegmatite Deposit

Tania Martins, Paul Kremer, Peter Vanstone, Gary Poetschke, Blair Skinner

Neoproterozoic Mafic-Ultramafic Intrusions in the Bird River Greenstone Belt: Tectonic Setting and Economic Significance

Paul Gilbert, James Scoates, Jon Scoates, Erik Yang, Caroline Mealin, Michel Houllé, Carey Galeschuk

The Volcanological and Structural Evolution of the Paleoproterozoic Flin Flon Mining District: The Anatomy of a Giant VMS System

Harold Gibson, Bruno Lafrance, Sally Pehrsson, Michelle Dewolfe, Kelly Gilmore, Renée-Luce Simard

Metamorphosed Alteration Zones and Regional Metamorphism: Examples from the Trans-Hudson Orogen

Chris Couëslan, Doug Tinkham, Al Bailes, Simon Gagné

Tectonic Evolution of the Thompson Nickel Belt, Manitoba: Sedimentation, Structure, and Magmatism in a Continent-Continent Collisional Zone

Josef Macek, Herman Zwanzig, Chris Couëslan



Uranium: Cradle to Grave

Mineralogical Association of Canada Short Course

Winnipeg, Manitoba, Canada

May 20–21, 2013

ORGANIZERS: Peter C. Burns and Ginger E. Sigmon, University of Notre Dame

The focus of this short course, which will immediately precede the GAC-MAC meeting, will be the many aspects of uranium, an element that changed the course of the world like no other. Content will span the mineralogy, geochemistry, and ore deposits of uranium, and will include nuclear waste challenges and solutions, weapons proliferation, and nuclear forensics for attribution and nuclear security. The short course will bring together a panel of international experts focused on educating graduate students, early-career scientists, and researchers seeking a deeper involvement in the field. We invite you to join us and enjoy topics central to this fascinating element's history, complexity, environmental impact, and importance in global security. Topics and confirmed speakers/authors include:

History of Uranium – Jessica Beard, University of Notre Dame

Mineralogy and Crystallography – Sergey Krivovichev, Saint Petersburg State University

Ore Deposits and Economic Geology – Mostafa Payek, University of Manitoba

Thermochemistry of Uranium Minerals and Compounds – Alexandra Navrotsky, University of California-Davis

Aqueous Geochemistry of Uranium – Jeremy Fein, University of Notre Dame

Materials at the Nanoscale – Peter Burns, University of Notre Dame

Mine Tailings Characterization and Remediation – Michael Schindler, Laurentian University

Ceramic Waste Forms for Actinides – William Weber, University of Tennessee, and Rodney Ewing, University of Michigan

Subsurface Uranium Mobility – John Zachara, Pacific Northwest National Laboratory

Spent Nuclear Fuel – David Shoosmith, University of Western Ontario

Actinide Borate Waste Forms for Actinides – Thomas Albrecht-Schmitt, University of Notre Dame

Pre-Detonation Nuclear Forensics – Ian Hutcheon, Lawrence Livermore National Laboratory

Post-Detonation Nuclear Forensics – Antonio Simonetti, University of Notre Dame