Uranium: Cradle to Grave

Mineralogical Association of Canada
Short Course
Winnipeg, Manitoba, Canada

PRIOR TO THE GAC–MAC JOINT MEETING

ORGANIZERS:
PETER C. BURNS
AND GINGER E. SIGMON
UNIVERSITY OF NOTRE DAME

Date:	Mon & Tues, May 20–21, 2013
Location:	Convention Centre in downtown Winnipeg
Contact:	Peter C. Burns, University of Notre Dame
	E-mail: pburns@nd.edu
Registration:	Will occur through the GAC-MAC Winnipeg 2013 website at

WWW.GACMACWINNIPEG2013.CA

OVERVIEW

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

1. Uranium: History of an Element (Development of Weapons, Atomic Energy)
Lead Author: Jessica Beard, University of Notre Dame

2. Uranium: Mineralogy and Crystal Chemistry
Lead Author: Sergey Krivovichev, Saint Petersburg State University

3. Uranium: Ore Deposits and Economic Geology
Lead Author: Mostafa Fayek, University of Manitoba

4. Thermochemistry of Uranium Minerals and Compounds
Lead Author: Alexandra Navrotsky, University of California - Davis

5. Aqueous Geochemistry of Uranium: The Importance of Mineral Surfaces, Bacteria, and Natural Organic Matter
Lead Author: Jeremy Fein, University of Notre Dame

6. Uranium: Materials at the Nanoscale
Lead Author: Peter Burns, University of Notre Dame

7. Uranium Mineralogy and Geochemistry on the nano- to micrometer scale: Redox-, dissolution and precipitation processes at the mineral-water interface
Lead Author: Michael Schindler, Laurentian University

8. Subsurface Uranium Mobility
Lead Author: John Zachara, Pacific Northwest National Laboratory

9. Waste Forms for Actinides: Glass
Lead Author: Bernd Grambow, France

10. Waste Forms for Actinides: Ceramics
Lead Authors: William Weber, University of Tennessee, Rod Ewing, University of Michigan

11. Waste Forms for Actinides: Spent Fuel
Lead Author: David Shoesmith, University of Western Ontario

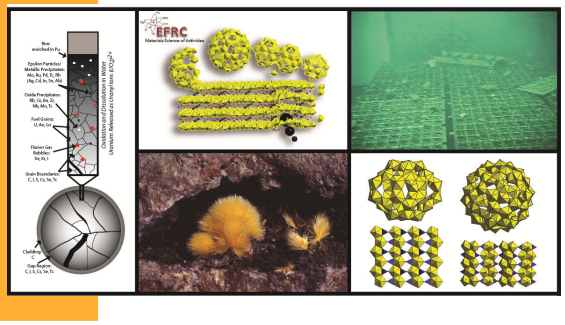
12. Waste Forms for Actinides: Actinide Borates
Lead Author: Thomas Albrecht-Schmitt, Florida State University

13. Nonproliferation and Nuclear Forensics: Pre-Detonation
Lead Author: Ian Hutcheon, Lawrence Livermore National Laboratory

14. Nonproliferation and Nuclear Forensics: Post-Detonation Attribution
Lead Author: Antonio Simonetti, University of Notre Dame

15. Uranium and Thorium Resources and Sustainability of Nuclear Energy
Lead Author: Michel Cuney, France

16. Computational Modeling of Uranium in Aqueous Solution
Lead Author: Georg Schreckenbach, University of Manitoba



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MINERALOGICAL ASSOCIATION OF CANADA
ASSOCIATION MINÉRALOGIQUE DU CANADA

490, rue de la Couronne, Québec, QC G1K 9A9
Phone: (418) 653-0333—Fax: (418) 653-0777
E-mail: office@mineralogicalassociation.ca
www.mineralogicalassociation.ca