

**LEAD - ZINC 2010****INTERNATIONAL SYMPOSIUM
ON
LEAD AND ZINC PROCESSING**

Held in conjunction with

**October 3 - 6, 2010****Hyatt Regency Vancouver Hotel**
Vancouver, British Columbia, Canada**Second Circular and Call for Papers**Organized by MetSoc
Co-organizer: TMS
Co-sponsors: MMIJ and GDMB

Lead-Zinc 2010 is the fifth decennial symposium that is devoted to the theory and practice of the extractive metallurgy of lead and zinc. It is co-organized by the Minerals, Metals and Materials Society (TMS) and the Metallurgical Society of the Canadian Institute of Mining, Metals and Petroleum (MetSoc) and will be held in conjunction with the 2010 Conference of Metallurgists (COM 2010). Building on the successes of the original 1970 symposium and the subsequent meetings held in 1980, 1990 and 2000, Lead-Zinc 2010 will bring together plant operators, engineers and researchers to discuss all aspects of the hydrometallurgical, electrometallurgical and pyrometallurgical processing of these commercially important metals. At the operations level, the intent is to outline benchmarking technologies as well as present plant operations and recent commercial developments. The recycling of lead and zinc from a wide range of sources will be extensively discussed. At the research level, the emphasis will be placed on the understanding of existing technologies and the development of new processing concepts. Environmental concerns associated with the processing of both metals will be considered, along with the acceptable disposal of the various slags, residues, and bleed streams produced by the industry. The Lead-Zinc 2010 Symposium is expected to attract participants from around the world. Within this global framework, the International Organizing Committee is pleased to recognize the contributions of the following professional societies Gesellschaft für Bergbau, Metallurgie, Rohstoff-und Umwelttechnik (GDMB) and the Mining and Materials Processing Institute of Japan (MMIJ) for actively co-sponsoring this important event.

PROCEEDINGS

All papers presented at the Lead-Zinc 2010 Symposium will be printed in the Proceedings, which will be available at the time of the meeting. Following the tradition established by the four previous decennial conferences, the Proceedings of Lead-Zinc 2010 will become an authoritative summary of the current status of the extractive metallurgy of lead and zinc.

TECHNICAL PROGRAM

The Lead-Zinc 2010 Symposium will emphasize the industrial aspects of the extractive metallurgy of lead and zinc, but will also include key papers dealing with the fundamentals of the production of these metals. In addition, plenary sessions will be held every morning of the symposium to discuss the latest economic factors affecting lead and zinc, new applications for both metals, as well as the environmental challenges facing the Lead & Zinc industry. Sessions are anticipated in the following areas:

- Global Factors Affecting Lead and Zinc
- Modern Lead Smelting Technologies
- Lead Operations, incl. Smelter Survey
- Secondary Lead Processing
- Lead Refining
- Zinc Operations, incl. Smelter Survey
- Zinc Concentrate Leaching Technologies and Iron Control
- Imperial Smelting Technologies
- Zinc Electrowinning
- Zinc Oxide Technologies
- Secondary Zinc Processing
- EAF Dust Recycling
- Environmental Practices
- Process Fundamentals and Modeling
- New Zinc and Lead Processing Technologies and Concepts

SHORT COURSES

Four Short Courses will be held before the actual Symposium.

A two day Short Course focusing on **Lead and Zinc Processing** will be held on Saturday, October 2 and Sunday, October 3, 2010. This Short Course will emphasize the fundamental aspects of the extractive metallurgy of lead and zinc, and will complement the presentations given in the Symposium itself. In effect, the Short Course will review the fundamental basis for the technologies now used by the industry and will offer a foundation for the development of new processes. The preliminary program for the Lead-Zinc Short Course is given below:

Lead Session	Zinc Session
• Conventional Lead Smelting	• Imperial Smelting Furnace
• Lead Recycling	• Zinc Roasting
• Modern Lead Smelting	• Pressurized Concentrate Leaching
• Lead Pyrometallurgical Refining	• Atmospheric Concentrate Leaching
• Lead Electrorefining	• Calcine Leaching
	• Leach Purification
	• Electrowinning
	• Environmental Aspects of Zn Smelting
	• Zinc Recycling

In addition, three one-day Short Courses will be offered on iron and steel mill residues processing, treatment of lead and zinc plant effluents, and technologies for the production of sulfuric acid.

*The preliminary program for the **IRON AND STEEL MILL RESIDUES PROCESSING SHORT COURSE** to be held on Saturday October 2, 2010 includes:*

- Zinc recovery only using technologies such as Waelz kilns, the submerged plasma arc process, and the TSL smelting/fuming process;
- Zinc and pig iron recovery using technologies such as the Primus®, RedIron/RedSmelt, oxycuploa, and AusIron smelting/fuming processes as well as BF process for processing of BOF dusts;
- Residue treatment in Japan; and
- Treatment of the recovered zinc oxide in electrolytic or pyrometallurgical zinc smelters or to produce pure zinc oxide.

TECHNICAL TOURS

*The preliminary program for the **TREATMENT OF LEAD AND ZINC PLANT EFFLUENTS SHORT COURSE** to be held on Saturday October 2, 2010 includes:*

- Chemistry, technological aspects, recent advances, and actual case studies in effluent treatment for discharge and/or reuse;
- Management of sludges produced during effluent treatment;
- Zero Liquid Discharge for effluent treatment; and
- Specific effluent treatment issues for the lead and zinc industries.

*The preliminary program on **TECHNOLOGIES FOR THE PRODUCTION OF SULFURIC ACID SHORT COURSE** to be held on Sunday October 3, 2010 includes:*

- Acid plant process design fundamentals, safety and risk management, process control, modeling and simulation, equipment design improvements, and environmental issues and trends;
- Management of maturing acid plants and acid plant capacity creep; and
- New acid plant technologies such as Heat Recovery Systems, Wet Sulfuric Acid (WSA), Lurec™, and Bayqik®.

Participation in the Short Courses is limited, and is on a first registered, first accepted basis. Each participant will receive a copy of the Short Course notes, which will be available only at the Short Course itself. The notes will be an invaluable reference on the fundamentals of the processing of lead and zinc. The symposium organizers reserve the right to cancel the Short Course if the registration is inadequate, and a full refund will be provided in such circumstances.

SPONSORSHIP

There are several sponsorship opportunities currently available, at the Corporate and Event levels. By directly supporting this major international conference, your company will be prominently featured at the event as well as the program handbook. For further information, please contact Michael King at Michaelking806@comcast.net.

On Thursday, October 7, and Friday, October 8, 2010, immediately following the Lead-Zinc 2010 Symposium, a two-day technical tour will be provided to Teck Metals Ltd's Zinc - Lead smelter in Trail, British Columbia. Participants will fly by air charter from Vancouver to Trail on Thursday morning. They will then tour Trail Operations, which is one of the world's largest fully-integrated zinc and lead smelting and refining complexes. The metallurgical operations at Trail can produce 300,000 tpy refined zinc and 120,000 tpy lead as well as a variety of precious and specialty metals, chemicals and fertilizer products with the highest possible commitment to safety and the environment.

Other technical tours will be provided to:

- Canadian Autoparts Toyota, Inc., a manufacturer of aluminum alloy wheel models for Toyota vehicles globally
- Teck's Technology Division CESL operating pilot plants and providing technology transfer and improvement projects through the potential application of proprietary hydrometallurgical technology and the development of novel process designs for the treatment of nickel, copper and copper-gold concentrates
- Barrick Technology Centre, which provides metallurgical support services to Barrick's Technical Services Group, Research & Development Group, and the company's mine sites around the globe through its expertise in mineralogy, mineral processing, pressure oxidation, precipitation, leaching, adsorption, process modeling, environmental technologies, and analytical chemistry based on in-house laboratory and pilot-scale equipment
- Norman B. Keevil Institute of Mining Engineering at the University of British Columbia, which carries out a broad range of research that promotes sustainability and better working processes including mine safety, robotics, environmental and social issues and has the only full-scale pilot High Pressure Grinding Roll Crusher (HPGR) in North America plus other high speed stirred mills such as the ISA Mill and the Stirred Media Detritor.

METALS TRADE SHOW

A Metals Trade Show will be held in conjunction with COM 2010. To reserve your booth, please contact Show Management at metsoc@cim.org.

The Lead-Zinc 2010 conference will be held at the Vancouver Hyatt Regency Hotel from October 3–6, 2010. The Vancouver Hyatt Regency Hotel is located in downtown Vancouver in close vicinity of local attractions such as the historic Gastown, Stanley Park and Robson Street. It provides the ideal location for the Lead-Zinc 2010 conference in conjunction with COM 2010.

ABSTRACT SUBMISSION

All prospective authors are invited to submit a maximum 100-word abstract by December 31st, 2009. Abstracts for the Lead-Zinc 2010 Symposium should be submitted to the MetSoc online abstract submission system at <http://www.metsoc.org/com2010>.

Selection of papers for the symposium will be based on the abstracts, and full papers must be submitted for peer review by March 31st, 2010.

IMPORTANT DATES

- December 31, 2009:** Deadline for submission of abstracts (not to exceed 100 words).
- February 1 - 15, 2010:** Authors will receive notification of acceptance or regret.
- March 31, 2010:** Deadline for submitting camera-ready papers for final editing.
- May 1, 2010:** Deadline for presenters to register for the conference. (note all presenters must register and pay their registration fees)

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