

# Poised for the Future

What's next for the Metallurgy and Materials Community? The organizing committee has decided to dedicate joint **plenary sessions** to highlight the future of metallurgy and materials technology which will derive from the core technical themes of the conference. Plenary topics include:

- ✓ **World Gold:** environmental opportunities and issues, social and political challenges, cleaner wastes and storage, alternative waste storage and management systems and community opportunities.
- ✓ Future technology influencing **materials:** the engineering underlying welding technologies to sustain future materials development and manufacturing in relation with the forthcoming environmental, energetic and economic considerations.
- ✓ **Management in Metallurgy:** insight on how to prepare for the next recession.
- ✓ **Light Metals:** the challenges facing the light metals industry.

COM 2011 will feature short courses and industrial tours which will mirror the technical program. Other developing programs include the student activities and the Metals Trade Show.

This will be a memorable event; mark your calendar for October 2-5, 2011, Montreal, Canada.  
*C'est un rendez-vous!*

Organizer:



Metallurgical Society of C.I.M.  
855-3400 de Maisonneuve West  
Montreal, Quebec H3Z 3B8  
Canada

[www.metsoc.org/com2011](http://www.metsoc.org/com2011)

Co-organizers:

Australasian Institute of Mining and Metallurgy (AusIIM)  
Southern African Institute of Mining and Metallurgy (SAIMM)

# COM 2011

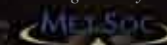
CONFERENCE OF METALLURGISTS  
MONTREAL, QC

## 50th Anniversary

### October 2 to 5, 2011

Montreal, Canada - Hilton Bonaventure Hotel

Organized by



Featuring themed symposia on:

## World Gold 2011 and Light Metals

Canadian Metallurgy, Celebrating History  
and Poised for the Future!

# CALL FOR PAPERS

# Technical Themes

## Celebrating History

The year 2011 will mark the 50th Anniversary of MetSoc's Annual Conference of Metallurgists (COM 2011). The city of Montreal has been home to the Metallurgical Society of CIM (MetSoc) headquarters for close to 65 years so it's the ideal location for this special and commemorative occasion.

A committee was formed to organize the events to celebrate Canada's influence on Metallurgy and Materials Engineering on the global metals and materials industry. Historical events and activities include:

- ✓ Historical presentations from industry experts, contributors and pioneers.
- ✓ Commemorative Book - A historical compilation of the past 50 years of Canadian Metallurgy & Materials Engineering's contributions will be published. Anticipated to include a number of specially targeted individual papers capturing the key metallurgical developments and events that have occurred in Canada over the past 50 years! This prestigious volume will cover the important milestones in the industry and the history of the Metallurgical Society of CIM.

### **Light Metals**

Light metals will be a significant contributor to the technical programming for COM 2011 because of its host province Québec; Québec is an international leader in the production of aluminium with all major international companies having operations in Montreal. RIO TINTO, ALCAN, ALCOA and ALUMINERIE ALOUETTE are actively participating in this unique international symposium. Light metals, whether it is aluminum, magnesium, or other light elements have seen their utilization ever increasing over the past decades. Despite the downturn in economy recently experienced, interest towards light metals is there to last and will even further develop in the upcoming decades.

### **World Gold 2011 – 3rd International Conference**

The mining environment was hit by the financial crisis; however, the record gold price helped the gold mining industry to continue growing. Exploration, investments and profits are related to: gold metal prices, exploration success, opportunities for by- and co-products; potential of marginal deposits; decreasing precious metal content and increasing refractoriness and finally more efficient, more environmentally friendly mining and processing technologies. Topics will be on hydrometallurgy, pyrometallurgy and mineral processing techniques and processes including:

- ✓ Applied mineralogy and surface analysis to assist processing
- ✓ Sampling techniques and accounting
- ✓ Comminution and classification
- ✓ Recovery of gold by gravity
- ✓ Flotation
- ✓ Alternative lixivants
- ✓ Ion exchange resins
- ✓ New operations and new applications in the treatments of refractory gold ores
- ✓ Improvements of cyanidation (recovery, reagents, effluents, agitation)
- ✓ Automation, control strategies and modelling
- ✓ Activated carbon/zinc cementation and refining practices, and
- ✓ Effluent treatment.

### **Second International Symposium on New Technology Implementation in Metallurgical Processes**

The purpose of this symposium is to bring together those individuals who have accomplished the implementation of new technologies, from complete plants to minor modifications of existing operations, to speak about the difficulties they encountered, the successes they achieved & even the failures that provided valuable lessons. The design & function of pilot plants, including the difficulties & importance of instrumentation, the extent to which computer models either replaced, supplemented or completed pilot operations, & an assessment of the contributions of pilot facilities to the successful implementation of new technologies are some of the aspects of interest in this symposium.

### **Waste Recycling in Mineral and Metallurgical Industries**

Mining, mineral and metallurgical industries have seen tremendous growth all over the globe. Almost every metal in the Periodic Table is useful, even necessary for constructive human activity, to ensure adequate living standards for the growing world population. Extraction of metals applying various technologies, including physical separation, hydrometallurgy, pyrometallurgy, electrometallurgy and new ones, from a wide range of complex raw materials generates a variety of tailings, and effluents, generally classified as "wastes" and by products. Use of byproducts and processing of wastes are rapidly gaining importance both due to environmental concerns as well as for economic benefits. The Symposium will focus on the following areas of research and development related to mining, mineral, metallurgical and petroleum industries: • Clean and "green" metallurgical technologies. Recycling of metals, and composite engineering materials • Slag processing and applications • Tailings management, treatment and immobilization • Effluent treatment and resource recovery • Resource recovery from residues, sludges, dust, fumes and gases. Water management-treatment and recycle, and • Biological processes.

### **Innovation in Joining of Advanced Materials I (IJAM I)**

This symposium will provide an international forum for scientists and engineers from industry, academia and government research laboratories to present and discuss recent innovations in the joining of materials. The symposium will feature three days of technical programming focusing on both fundamental and applied topics related to welding and joining. The technical topics include welding of aerospace and automotive alloys, materials in the oil, gas and petrochemical industries and advanced materials, such as nanomaterials and composites. New industrial approaches will also be discussed.

### **Managing Through Recession**

Share stories of resilience and success of mining companies in light of the most recent global economic recession. Topics: lessons learned, changes in the understanding of the minerals and metals markets fundamentals, recovery assessments, and preparedness for the next recession.