



Third International Symposium  
on  
**Iron Control  
in  
Hydrometallurgy**

Montreal, Canada  
October 1 - 4, 2006

**First Circular  
and  
Call for Papers**

36th Annual  
Hydrometallurgical Meeting

Hydrometallurgy Section  
Metallurgical Society of CIM



## **IRON CONTROL IN HYDROMETALLURGY**

The control, stabilization and disposal of iron plays a key role in the design and operation of most hydrometallurgical processes. In some processes, the iron dissolves and is precipitated in a subsequent operation; in other processes, such as those used to leach nickel laterites and bauxite, the iron is rejected in situ. In all the processes, the environmentally acceptable and economically sound disposal of the iron is of paramount importance to both existing operations and developing technologies.

The Third International Symposium on Iron Control in Hydrometallurgy – building on the successes of the first symposium in Toronto in 1986 and the second in Ottawa in 1996 – will bring together plant operators, engineers and researchers to discuss the theory and practice of the iron control problem as it relates to the processing of base and precious metals, the leaching of nickel laterites and bauxite, and the treatment of pickle liquors. The key role of iron precipitation in impurity element containment will also be considered. The Symposium will provide a forum for the international metallurgical community to review the recent technological developments in iron control, stabilization and disposal. The meeting will facilitate a better understanding of the theory and practice of iron control in hydrometallurgical processes and the identification of innovative iron control technologies.



## DATE AND VENUE

The Third International Symposium on Iron Control in Hydrometallurgy will be held from October 1 to 4, 2006 at the Centre Sheraton Hotel in Montreal, Canada. The Symposium is being organized by the Hydrometallurgy Section of the Metallurgical Society of CIM and will constitute the 36th Annual Hydrometallurgical Meeting. The Symposium is co-sponsored by:

- AusIMM - The Australasian Institute of Mining and Metallurgy
- GDMB – Gesellschaft für Bergbau, Metallurgie, Rohstoff und Umwelttechnik
- MMIJ – The Mining and Materials Processing Institute of Japan
- NRCan – Natural Resources Canada
- SAIMM – The South African Institute of Mining and Metallurgy
- TMS – The Minerals, Metals and Materials Society

Montreal is a cosmopolitan city which offers a diversity of dining, entertainment and cultural activities. The city is served by most of the world's major airlines. It is an attractive and convenient venue for the Symposium.



## PROCEEDINGS

The proceedings of the Symposium will be published in book form; the volume will be available at the meeting. Both the Symposium and its proceedings will be in English. All papers will be refereed and edited prior to final acceptance and publication.

## CALL FOR PAPERS

Papers are invited on the following (and other) topics relevant to iron control in hydrometallurgy:

- Iron control technologies and plant descriptions
- Iron control during the leaching of nickel laterites and bauxite
- Treatment of pickle liquors and iron solutions
- Role of iron precipitation to control impurity species
- Emerging iron control technologies
- Fundamental aspects of iron control
- Uses and applications of hydrometallurgical iron
- Thickening and filtration of iron precipitates
- Stabilization and disposal of iron residues and precipitates, including red muds
- Environmental considerations, trends and regulations related to iron residue disposal

Abstracts (150 to 200 words) should be sent to J.E. Dutrizac at the address shown on the attached Reply Form. All abstracts must be submitted before September 30, 2005. Authors of accepted papers must submit complete camera-ready texts before March 31, 2006.

## TECHNICAL TOUR

A one-day bus tour to CEZinc and Rio Tinto Iron & Titanium is planned immediately after the Symposium, on Thursday, October 5, 2006. CEZinc is one of the largest producers of zinc metal in the world. The plant utilizes the conventional roast-leach-electrowinning process and rejects iron as jarosite. Recently, the jarosite residue has been stabilized using the Jarofix process. Rio Tinto Iron & Titanium is a major producer of Ti-rich slag for the manufacture of titanium dioxide. The company employs reductive smelting of ilmenite to generate a Ti-rich slag and to reject the associated iron as a marketable metallic iron product. The Ti-rich slag is further up-graded using proprietary technology to yield commercial  $TiO_2$  products.



## SHORT COURSE ON IRON CONTROL

A one-and-a-half day short course will be offered immediately before the Symposium, on Saturday, September 30 and Sunday, October 1, 2006. The short course is designed to complement the industrially focused Symposium program, and will provide an in-depth study of the fundamentals and practice of iron control in hydrometallurgy. The short course will be given by a number of lecturers of international stature in their fields of expertise.

Topics will include:

- Mineralogical characterization of iron precipitates
- Iron solutions and solution species
- Physical chemistry of iron precipitation
- Use of iron precipitates to control impurities such as arsenic
- Behaviour of iron during the leaching of laterites and bauxites
- Pyrometallurgical options for iron precipitates
- Environmental considerations

The short course will be limited to 50 participants, and a separate registration fee will be charged.



## ORGANIZING COMMITTEE

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I am interested in additional  
information on the Symposium

## FURTHER DETAILS

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