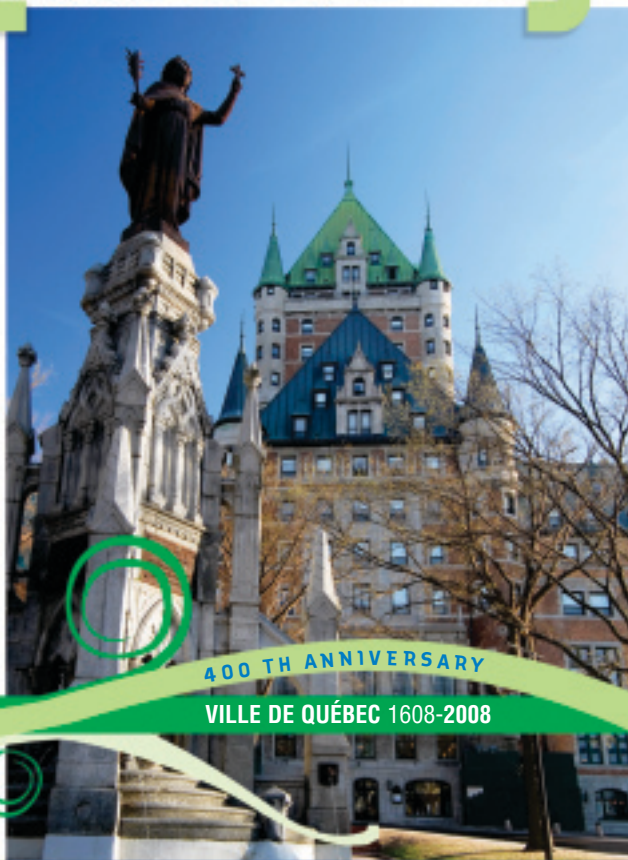


# INTERNATIONAL PULP BLEACHING CONFERENCE



400 TH ANNIVERSARY

VILLE DE QUÉBEC 1608-2008

**June 2-5, 2008, Québec City  
(Québec) Canada**

**Preliminary Program**

*As of March 3, 2008*

# INTERNATIONAL PULP BLEACHING CONFERENCE

Welcome to the 2008 edition of the International Pulp Bleaching Conference. This conference is dedicated to all chemical and engineering aspects of pulp bleaching. Held every three years, it is the most important meeting on this subject and allows hundreds of individuals involved in pulp bleaching to meet, learn and exchange with one another.

We hope you will enjoy your stay in Québec City, as it is celebrating its 400th Anniversary!

## [ SPONSORS ]



### **PAPTAC (Host)**

Pulp & Paper Technical Association of Canada  
740 Notre Dame St. W. Suite 1070  
Montreal, Qc H3C 3X6 (Canada)  
Tel: 514-392-0265 Fax: 514-392-0369  
Contacts: Greg Hay ghay@paptac.ca  
Carmie Lato clato@paptac.ca  
Website: www.paptac.ca



### **Finnish Paper Engineer's Association**

Snellmaninkatu 13, PO Box 118  
Helsinki Fin-00171  
Finland  
Tel.: 358-9-132-6696/6697 Fax: 358-9-630-365  
www.papereng.fi



### **The Swedish Association of Pulp and Paper Engineers**

Holmen, Box 5407  
Stockholm 11484 Sweden  
Tel.: 46-8-666-2182 Fax: 46-8-661-7344  
www.spci.se



### **TAPPI**

15 Technology Parkway South  
Norcross, GA 30092 (USA)  
Tel: (770) 446-1400 Fax: (770) 446-6947  
Website: www.tappi.org



# CONFERENCE COMMITTEE

## CONFERENCE CHAIRMAN:

Peter Axegård  
STFI  
Sweden

## CONFERENCE CHAIRMAN:

Jean Bouchard  
FPIInnovations – Paprican  
Canada

## SCIENTIFIC PROGRAM COMMITTEE:

Tony Johnson, Beca Amec	Australia / New Zealand
Jorge Colodette, Universidade Federal De Vicosa	Brazil
Gerry Pageau, Howe Sound Pulp and Paper LP	Canada
Agneta Fuhrmann, KCL	Finland
Tapani Vuorinen, Helsinki University of Technology	Finland
Christine Chirat, EFPG	France
Hans Suess, Evonik Degussa Corporation	Germany
Yuji Matsumoto, University of Tokyo	Japan
Maria Boman, SCA Graphic Sundsvall	Sweden
Art Ragauskas, Georgia Institute of Technology	USA
Ashok Jain, NCASI	USA
Gopal Goyal, International Paper	USA

## PAPTAC CONTACT:

Greg Hay  
Events Planner  
514-392-6964  
ghay@paptac.ca



# PROGRAM AT A GLANCE

## SUNDAY, JUNE 1

08:00–18:00	PAPTAC Bleaching Committee Meeting
18:30–19:30	Speakers' Briefing Meeting and Reception
19:30–22:00	Scientific Committee Dinner

## MONDAY, JUNE 2

08:30–11:30	Plenary Session
13:00–15:00	ECF Bleaching I
15:30–17:30	ECF Bleaching II
18:30	Welcoming Reception

## TUESDAY, JUNE 3

07:00–08:00	Mill Operations Breakfast Roundtables (registration required)
08:30–10:00	Oxygen Delignification I
10:30–12:00	Oxygen Delignification II
13:30–15:30	Pulping and Bleachability, Fractionation and Fibre Properties
15:30–17:30	Poster Session

## WEDNESDAY, JUNE 4

08:30–10:00	Bleaching Effluents
10:30–12:00	Brightness Reversion
13:30–15:30	Ozone and Peroxide-based Bleaching I
16:00–17:30	Ozone and Peroxide-based Bleaching II
18:30	Reception and Banquet

## THURSDAY, JUNE 5

08:30–10:30	HexA, Enzyme and other Bleaching Processes
10:30–11:00	Closing Ceremony
11:00	Bus Departure for Mill Tour of Domtar, Windsor

The registration desk will be located at the Hotel's Convention Level.

All sessions will be taking place in Room Suzor-Côté-Krieghoff.



# INFORMATION

## ON-SITE REGISTRATION HOURS:

The conference registration desk will be located at the hotel's convention level.

Sunday, June 1	16:30-19:30
Monday, June 2	07:30-11:30 & 12:45-16:00
Tuesday, June 3	07:30-11:30 & 12:45-16:00
Wednesday, June 4	07:30-11:30 & 12:45-16:00
Thursday, June 5	07:30-11:00

The registration fees include:

- Participation in the technical sessions
- Welcoming Reception
- Conference Banquet
- Preprint Book and CD

\* To register for the "Mill Operations Breakfast" and/or the Spouses Program and/or the Mill Tour, kindly complete the registration form accordingly.

## ACCOMMODATIONS:

The conference is held at the Loews Le Concorde Hotel,  
1225 cours du Général  
Montcalm, Québec City (Québec) Canada.  
Tel.: +418-647-2222  
Fax: +418-647-1773  
[www.loewshotels.com](http://www.loewshotels.com)

**IMPORTANT:** In order to benefit from the conference room rate, please make sure to mention PAPTAC and the following reservation code: BLE31M



# INFORMATION

## WELCOMING COCKTAIL RECEPTION

Musée National des Beaux-Arts du Québec  
Monday, June 2 – 18:30-21:00  
Admission by badge

A Welcoming Cocktail Reception will be hosted at the Musée National des Beaux-Arts du Québec – an extraordinary site situated in the heart of the Battlefields Park. This will be an ideal opportunity to mingle with your fellow delegates, renew old acquaintances and make new friends. In addition, there will be a private showing of some of the museum's feature exhibitions.

## CONFERENCE BANQUET AND RECEPTION

Musée des civilisations du Québec  
Wednesday, June 4 – 18:30-22:00

Enjoy a special evening in the unique architectural setting of the Musée des civilisations du Québec and to the sound of Québec's most musically versatile and dazzling family band – The Painchaud Family! It will be an evening to remember!

One ticket is included with each full conference registration and/or spouses' program registration. Additional dinner tickets may be purchased for \$ 85.00/each at the conference registration desk.

## SPOUSES/COMPANIONS PROGRAM

A hospitality suite for registered spouses and companions will be available from 8:00 a.m. to noon, Monday-Thursday. A complimentary continental breakfast will be provided each day, compliments of PAPTAC (for spouses/companions only).

- |                          |   |
|--------------------------|---|
| <b>Monday, June 1</b>    | Sightseeing Tour of the Québec City Area (Montmorency Falls and Orléans Island) |
| <b>Tuesday, June 2</b>   | Walking Tour of Old Québec  |
| <b>Wednesday, June 3</b> | Tour of Le Château Frontenac  |

Registered spouses and companions are welcome to attend all social events during the conference.



# INFORMATION

## **CURRENCY**

Canadian dollar. As rates change daily, check current value with your bank or through internet services.

## **TIME ZONE**

Quebec in May-June observes Eastern Daylight Time (EDT) which is 5 hours behind Greenwich Mean Time (GMT).

## **WEATHER AND DRESS**

Daytime temperatures at this period of the year are usually between 15-20 C (60-70 F). A sweater or jacket is recommended, especially for the evening. For additional information on the Quebec City area, log on to [www.quebecregion.com](http://www.quebecregion.com).

## **TRANSPORTATION**

Jean Lesage International Airport in Quebec City serves both domestic and international flights. It is a 20-minute drive to the hotel.

## **TELEPHONE MESSAGES**

It will be impossible to interrupt sessions to locate delegates for telephone calls. Messages may be left by dialing the hotel at 418-647-2222 and asking for the PAPTAC Conference Registration Desk.

## **REGISTRATION LISTS**

A printed pre-registration list will be available Sunday evening at the PAPTAC Conference Registration Desk. Supplementary lists of delegates registering throughout the week will be posted in the Registration Desk Area.

## **PREPRINTS**

Additional copies and/or CD-Rom will be available for purchase at the registration desk. All PAPTAC publications may be ordered through its Publications Department – PAPTAC, 740 Notre-Dame W, Suite 1070, Montreal, Quebec H3C 3X6 (Canada), Tel: 514-392-6967, Fax: 514-392-0369, [pubs@paptac.ca](mailto:pubs@paptac.ca)



# INFORMATION

## USE OF TAPE RECORDERS

It is recognized that a number of individuals prefer to use recording devices in place of note-taking to cover technical sessions and panel discussions. PAPTAC has no objection to the use of such devices by the delegate who is attending the conference. However, if the recording is to be utilized for publication remarks, it is mandatory that all contributing individuals have an opportunity to edit transcripts prior to publication.

\*\* All rooms are subject to last-minute changes.  
Please always consult the hotel's daily events board for up-to-date information.


## PAPTAC POLICY IN RELATION TO THE CANADIAN COMPETITION ACT

The Pulp and Paper Technical Association of Canada makes every effort to ensure that its activities, including those of its many Committees and Branches do not contravene the provisions of the Canadian Competition Act. This is important for the individuals who take part in Association work, including members, PAPTAC staff, and guest speakers at PAPTAC meetings.

All who participate in PAPTAC activities share the obligation of ensuring that those activities do not contravene the Act. Subjects which should not be discussed are: the price of industry products; the allocation of markets; the terms and conditions of sales; and company production plans, operating rates, marketing plans, and strategies.

Should there ever be a question in the minds of any participants as to the propriety of a PAPTAC activity or the way it is conducted, they should have no hesitation in seeking the advice of their own or PAPTAC counsel.





**MONDAY**  
**June 2, 2008**

**MONDAY MORNING**  
**8:30-11:30**

**Opening Ceremony,**

Intro and keynote speakers (to be announced)

**21st Century Fibrelines,**

T. JOHNSON, Forest Industries New Zealand, Beca AMEC

**MONDAY AFTERNOON**  
**13:00-15:00**

**ECF BLEACHING 1**

**New and Improved Models for All Stages in Full ECF Bleaching Sequences of Softwoods and Hardwoods,**

**S. JAIN**, G.Mortha and N. Bénattar, EFPG, France and C. Calais, ARKEMA, France

**The Optimum pH for Aldehyde-Enhanced Bleaching,**


W.W. Al-Dajani, **Z.-H. JIANG**, R. Berry and B. van Lierop, FPIInnovations - Paprican, Canada

**Increasing Chlorine Dioxide Reaction Selectivity toward Non Oxidized Lignin in Flow through Reactor Delignification,**

**Y. HAMZEH** and S. Izadyar, University of Tehran, Iran and G. Mortha and D. Lachenal, EFPG, France

**Chlorine Dioxide Reactions and Effective Modification in D<sub>0</sub> Stage,**

**K. KISARA** and Y. Uchida, Oji Paper Co., Japan



**MONDAY**  
**June 2, 2008**

**MONDAY AFTERNOON**  
**15:30-17:30**

## **ECF BLEACHING 11**

### **Reversible Equilibria of Hypochlorous Acid and its Correlation with $\text{ClO}_2$ Bleaching of Pulp,**

**Z. ZHOU**, A.-S. Jääskäläinen and T. Vuorinen, Helsinki University of Technology, Finland

### **The Mechanism for Chlorate Formation in Chlorine Dioxide Delignification,**


**V. TARVO**, T. Lehtimaa, S. Kuitunen and J. Aittamaa, Helsinki University of Technology, Finland

### **Monitoring of Chlorine Dioxide Bleaching of Hardwood Kraft Pulp with UV-VIS Reflectance Spectroscopy,**

**S. LIUKKO**, T. Lehtimaa and T. Vuorinen, Helsinki University of Technology, Finland

### **Modified ECF Bleaching Sequences for South African Hardwood Kraft Pulps,**

**J. ANDREW**, Forestry and Forest Products Research Centre, South Africa



**TUESDAY**  
**June 3, 2008**

**TUESDAY MORNING**  
**8:30-10:00**

## **OXYGEN DELIGNIFICATION 1**

### **Fiber Damage in Oxygen Delignification: Mechanical and Chemical Interactions,**


**I. RAUVANTO**, FIBERA Oy, Finland and K. Henricson,  
Lappeenranta University of Technology, Finland

### **The Influence of Temperature and Donnan Equilibrium on Oxygen Delignification,**

**S. KUITUNEN**, E. Vanska, V. Tarvo and J. Aittamaa, Helsinki  
University of Technology, Finland and A. van Heiningen,  
University of Maine, USA

### **Fibre Damage in Unbleached Reinforcement Pulp - The Effect of Hemicelluloses and Lignin on the Susceptibility of Fibres to Damage During Oxygen Delignification,**

**I. RAUVANTO**, FIBERA Oy, Finland, J. Pere, VTT Biotechnology,  
Finland and K. Henricson, Lappeenranta University of  
Technology, Finland



**TUESDAY**  
**June 3, 2008**

**TUESDAY MORNING**  
**10:30-12:00**

## **OXYGEN DELIGNIFICATION 11**

### **The Role of Hydroxyl and Oxyl Anion Radicals in Selectivity of Oxygen Delignification,**


**J. BOUCHARD**, J. Wang and R. Berry, FPInnovations – Paprican, Canada

### **Evaluation of Anomeric Position of Carbohydrate as a Reaction Site of Active Oxygen Species under Oxygen Delignification Conditions,**

**T. YOKOYAMA**, F. Konishi and Y. Matsumoto, University of Tokyo, Japan

### **New Kinetics and Mechanism of Oxygen Delignification,**

**A. van HEININGEN**, University of Maine, USA, Y. Ji, National Renewable Energy Laboratory, USA and E. Vanska, Helsinki University of Technology, Finland



**TUESDAY**  
**June 3, 2008**

**TUESDAY AFTERNOON**  
**13:30-15:30**


**PULPING AND BLEACHABILITY,  
FRACTIONATION AND FIBRES PROPERTIES**

**The Influence of Kraft Cooking Methods on Bleachability of Eucalyptus Camaldulensis Pulps,**  
**P. FATEHI**, University of New Brunswick, Canada and R.O. Malinen, Asian Institute of Technology, Thailand

**The Impact of Pulping Process on Fiber Properties,**  
M. Heinämäki, Helsinki University of Technology, Finland, V. M. Sacon, Votorantim Celulose e Papel, Brazil and **M.R. da SILVA**, Votorantim Celulose e Papel, Brazil

**Is Pulp Viscosity Measurement Valuable? Part II: Bleached Softwood and Hardwood Kraft Pulps,**  
**L. LAPIERRE**, J. Bouchard and R. Berry, FPInnovations - Paprican, Canada

**Birch Kraft Pulp Fines in Bleaching,**  
**S. PANULA-ONTTO**, A. Fuhrmann and M. Ranua, KCL, Finland



**TUESDAY**  
**June 3, 2008**

**TUESDAY AFTERNOON**

**15:30-17:30**

**POSTER SESSION**

**Use of Magnesium Hydroxide for the Bleaching of Mechanical Pulps (Softwood and Hardwood) and Deinked Pulp. Efficiency and Environmental Impact,**

**C. LEDUC**, J. Martel and C. Daneault, Université du Québec à Trois-Rivières – CIPP, Canada

**Chlorate Reduction in Eucalyptus Pulp Bleaching,**

**J.A. MEDINA**, T. Lehtimaa and T. Vuorinen, Helsinki University of Technology, Finland and J. Vehmaa and O. Pikka, Andritz Oy, Finland

**Elimination of Hexenuronic Acids by Different Enzymatic Bleaching Stages,**

**C. VALLS**, T. Vidal, M.B. Roncero, Universitat Politècnica de Catalunya, Spain

**Effect of Process Parameters in Laccase Mediator Stage on Pulp and Effluent Properties in TCF Bleaching of Flax Pulp,**

U. Fillat, T. Vidal and **M.B. RONCERO**, Universitat Politècnica de Catalunya, Spain

**Improving the Bleaching of Eucalyptus Globulus Kraft Pulp with Laccase Mediator Systems,**


D. Moldes and **T. VIDAL**, Universitat Politècnica de Catalunya, Spain

**Natural Mediators in Flax Pulp Delignification by Laccase,**

A. Fillat, J.F. Colom and **T. VIDAL**, Universitat Politècnica de Catalunya, Spain

**Bleaching of Kenaf Pulp with New Enzymatic Treatments,**

G. Andreu and **T. VIDAL**, Universitat Politècnica de Catalunya, Spain



**TUESDAY**  
**June 3, 2008**

## **POSTER SESSION [CONT'D]**

### **Exploring the Potential of Laccase-Mediator Systems for Bleaching of Sisal Pulp,**

È. Aracri, J.F. Colom and **T. VIDAL**, Universitat Politècnica de Catalunya, Spain.

### **Strategies for Improved Bleachability of Hardwood SAQ Pulps,**

**R.C. FRANCIS**, A.F. Brown, S.K. Bose and D. Kanungo SUNY College of Environmental Science & Forestry, USA and N.-H. Shin, Andritz Inc., USA

### **Effect of the Final ECF Bleaching Stage on the Eucalyptus Kraft Pulp Properties – a Comparison between Hydrogen Peroxide and Chlorine Dioxide,**

**P.E.G. LOUREIRO**, P.J. Ferreira and M.G.V.S. Carvalho, University of Coimbra, Portugal and D.V. Evtuguin, University of Aveiro, Portugal

### **Selection of Commercial Xylanases to Improve Pulp Bleaching in Jacarei Mill (Votorantim Celulose e Papel) - Influence of pH and DQO in Process Efficiency,**


**U.F. LATORRE**, CIPAGRAF, Spain and V. M. Sacón and A. Bassa, CDTC, Brazil

### **Alkaline Peroxide Mechanical Pulp (APMP) from Paulownia (*Paulownia fortunei*),**

**H. RAHMATI** and H. Aminian, Gorgan University, Iran, and S. Navaee-Ardeh, École Polytechnique de Montréal, Canada

### **Analysis of Photodegraded Dioxane Lignin Isolated From Hardwood BCMP Pulp by Means of FT-IR and HPSEC,**

**M. AZADFALLAH** and D. Parsapajouh University of Tehran, Iran, S.A.Mirshokraei, Payam-e-Nour University, Iran and A. Jahan, Islamic Azad University, Iran



**TUESDAY**  
**June 3, 2008**

## **POSTER SESSION [CONT'D]**

### **New Possibilities in Bleaching Wood-Containing DIP: Alternatives to Alkaline Peroxide Bleaching,**

**A. BURNET**, B. Fabry, C. Ayala and B. Carré, Centre Technique du Papier, France

### **Impact of Fractionation on Morphological Properties, Bleachability, Refining, Strength and Optical Properties of Bamboo Pulp,**

**P. BAJPAI**, S. Tripathi, N. Sharma, O.P. Mishra and P.K. Bajpai, Thapar Centre for Industrial Research & Development, India

### **Production of Rayon Grade Pulp from Bamboo by Modification in the Bleaching Sequence,**

**P. BAJPAI**, S. Tripathi, N. Sharma, O.P. Mishra and P.K. Bajpai, Thapar Centre for Industrial Research & Development, India

### **The Influence of Acid Hydrolysis on the Performance of Chlorine Dioxide and Ozone in Bleaching Sequences,**

**P. FATEHI**, University of New Brunswick, Canada and R.O. Malinen, Asian Institute of Technology, Thailand

### **Influence of Hexenuronic Acids on Brightness Reversion in TCF Eucalyptus Kraft Pulp,**

È.M. Cadena, T. Vidal and **A.L. TORRES**, Universitat Politècnica de Catalunya, Spain

### **Brightness Reversion on Enzymatically Treated ECF and TCF Bleached Flax Pulps,**

J. Garcia, **T. VIDAL**, L. Lucia and J.F. Colom, Universitat Politècnica de Catalunya, Spain

### **Synthesis and Chromophore Formation Reactions of Hexenuronic Acid Model Compounds,**

**K. KRAINZ**, F. Liebner, A. Potthast, T. Rosenau, University of Natural Resources and Applied Life Sciences Vienna (BOKU), H.U. Suess and N. Nimmerfroh, Evonik, Hanau, Germany





**WEDNESDAY**  
**June 4, 2008**

**WEDNESDAY MORNING**  
**8:30-10:00**

## **BLEACHING EFFLUENTS**

**Prediction of COD from all Chlorine Dioxide and Extraction Stages in Full ECF Bleaching Sequences,**  
**S. JAIN**, G. Mortha and N. Bénattar, EFPG, France and C. Calais, ARKEMA, France

**A Method for the Determination of Stable and Unstable AOX,**  
**T. LEHTIMAA**, C. Järnefelt and T. Vuorinen, Helsinki University of Technology, Finland

**Organic Chlorine Compounds in Effluents of Japanese Pulp and Paper Mills Operating ECF Bleaching,**  
**H. TAKAGI**, H. Iwata and M. Nakagawa, Japan Pulp and Paper Research Institute, Japan



**WEDNESDAY**  
**June 4, 2008**

**WEDNESDAY MORNING**  
**10:30-12:00**

## **BRIGHTNESS REVERSION**

### **Formation of Aromatic Chromophores in Accelerated Ageing of Eucalyptus Kraft Pulp,**


**A.-S. JÄÄSKELÄINEN**, K. Toikka and T. Vuorinen, Helsinki  
University of Technology, Finland

### **Residual Chromophores in Bleached Pulps - Isolation, Identification, and Studies on the Formation Mechanism,**

**T. ROSENAU**, K. Krainz and A. Potthast, University of Natural Resources and Applied Life Sciences, Austria, H.U. Suess and N. Nimmerfroh, Germany

### **A Comparison of Options to Improve Brightness Stability of Chemical Pulp,**

D. Davies, Evonik Degussa Canada Inc., Canada, G. Arnold, Degussa Corp., USA and T. Dietz and **H.U. SUESS**, Degussa, Germany



**WEDNESDAY**  
**June 4, 2008**

**WEDNESDAY AFTERNOON**  
**13:30-15:30**

**OZONE AND PEROXIDE-BASED  
BLEACHING 1**

**Peracetic Acid Bleaching of Kraft Pulps: Present Status, Development and Mill Experiences,**

**H. HÄMÄLÄINEN**, Kemira Pulp&Paper, Finland, M. Nyman, Kemira Pulp&Paper, Sweden and R. Anderson, Kemira Chemicals Inc., Canada

**On-Site Manufacturing of Peroxymonosulfuric Acid for Hexenuronic Acid Removal from Kraft Pulp,**


**K. YOSHIDA**, and T. Koshitsuka, Mitsubishi Gas Chemical Company Inc., Japan

**Light-ECF Bleaching of Eucalyptus Pulp with Molybdenum Activated Peroxide: Laboratory and Mill Trial Results,**

**M.S. RABELO** and J.L. Colodette, Federal University of Viçosa, Brazil, V.M. Sacon and M.R. da Silva, Votorantim Cellulose e Papel, Brazil

**Peroxymonosulfuric Acid Bleaching - The Brief of Bleaching Reaction and the Result of Mill Trials,**

**I. TOMODA** and Y. Uchida, Oji Paper Co., Japan



**WEDNESDAY**  
**June 4, 2008**


**WEDNESDAY AFTERNOON**  
**16:00-17:30**

**OZONE AND PEROXIDE-BASED  
BLEACHING II**

**Final Pulp Bleaching by Ozonation: Chemical Justification and Practical Operating Conditions,**  
G. Pipon, C. Chirat and **D. LACHENAL**, EFPG, France

**Effect of Ozone Bleaching on Chemical, Physico-Chemical and Physical Properties of Eucalyptus Kraft Pulp,**  
**C. CHIRAT**, S. P. Mishra, D. Lachenal and R. Passas, EFPG, France

**Brightness Development during Mechanical Pulp Peroxide Bleaching,**  
**T. LIITIÄ**, M. Ranua, P. Honkonen and A. Mikkelsen, KCL, Finland



**THURSDAY**  
**June 5, 2008**

## **THURSDAY MORNING**

**8:30- 10:30**

### **HexA, ENZYME AND OTHER BLEACHING PROCESSES**

#### **Hexenuronic Acid in South African Grown Eucalyptus Hybrid Clones,**

**J. ANDREW**, V. Grzeskowiak and I. Kerr, Forestry and Forest Products Research Centre, South Africa

#### **A Study in the Application of Commercial Xylanases in the Bleaching Sequence at the Jacarei Mill (Votorantim Celulose e Papel),**

**U. FILLAT, CIPAGRAF**, Spain and V.M. Sacón and A. Bassa, CDTC, Brazil

#### **Electrochemical Bleaching of Kraft Pulp Employing Polyoxometalates,**

M.R. Martins, J.A.F. Gamelas and **D.V. EVTUGUIN**, University of Aveiro, Portugal

#### **Photochemical Bleaching of Hardwood Pulp by UV Radiation,**

**K. KUROSU**, S. Miyawaki and T. Ochi, Nippon Paper Industries Co., Japan

### **Closing Ceremony**

**10:30-11:00**

- Winner: Best Poster
- Announcement for the IPBC 2011
- Final word from the Conference Chairman

**11:00** Bus departure for Domtar – Windsor, QC