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2009 INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY

Unlocking the Potential of Nano-Enabled Biomaterials

Explore a world of possibilities for opening the door to new markets with nanotechnology

A TAPPI Conference

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The Westin Edmonton

June 23-26, 2009

Edmonton, Alberta, Canada

www.tappi.org/09nano

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INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY

JUNE 23-26, 2009

Unlocking the Potential of Nano-Enabled Biomaterials

Bringing together input from leading researchers, industry experts, government representatives and other stakeholders from around the world, this year's event promises a unique, multi-disciplinary look at the rewards and risks of using nanotechnology — from the forest to marketed products. You will explore how nanoscience can transform biomaterials into high-value products that expand and transcend traditional forest products portfolios.

Whether your focus is new product development, academic study or supplier research, this year's conference will provide the big picture for unlocking value from this tiny technology.

Along with researchers from the forest products industry, you will hear from experts in agriculture, safety, policy and other related interests to gain a global, technical and social perspective on how nanotechnology will influence this and other industries.

TECHNICAL ADVANCES

Derived from wood, nanocrystalline cellulose (NCC) has generated interest from the scientific community because of its biodegradability, strength and other characteristics. Conference sessions will explore the latest research on NCC's properties, structure and compatibility with other materials. You will also learn about the technical and economic considerations related to enzymatic and mechanical processes for isolating NCC from the wood cellulose of various species and pulp types.

For an overview of recent nanotechnology research, you can attend interactive poster sessions that provide a synopsis of conference presentations. Working sessions geared toward advancing research will also be held for groups interested in the topics of self assembly, nanophotonics, and forest industry opportunities.

HEALTH & SAFETY

Nanotechnology fuels debate among public action groups worldwide regarding its impacts on the environment and public health. Along with sessions addressing health and safety considerations, keynote speaker **Nigel J. Walker** of the National Institute of Environmental Health Sciences explores the need for balancing the promise of nanomaterials with research into their potential toxicity and environmental impacts.

Also, in the Environmental Health & Safety Panel, **Joanne Shatkin** of CLF Ventures shares insight about the importance of risk analysis in managing nanomaterial impacts throughout a product's lifecycle. Panelist **Lynne Bergeson** of Bergeson & Campbell offers perspective on still-emerging legal standards and regulatory frameworks related to nanotechnology.

APPLICATIONS & EMERGING MARKETS

From improved paper, packaging and wood products performance to unique ink, paint and coatings, application of nanotechnology can help forest products companies expand into a new generation of value-added markets. You will discover how nanotechnology improves paper's optical qualities, achieves better print application, develops more durable wood cabinetry and flooring, and influences the choice for exterior wood use with UV-resistant, high-adherence paints.

Among other applications that propel traditional forest products into high-value composite markets, you will hear about nanotechnology's role in development of bioactive paper that detects and deactivates pathogens, as well as a nanocomposite film for printing on OLEDs that creates exciting possibilities for the display industry.

Keynote speaker **Carlo Montemagno** will discuss how a targeted focus on nano-enabled biomaterials is an important step towards a sustainable future. The Emerging Markets Panel reveals potential applications of nanotechnology by representatives from AF&PA, DuPont, Woodbridge, University of British Columbia, and Xerox.

GLOBAL DRIVERS FOR NANOTECHNOLOGY DEPLOYMENT

Sustainability and green issues continue as top priorities for many businesses and individuals, stimulating the search for non-petroleum based structural materials like bio-nanocomposites that are biodegradable, high performance and lightweight. This is one of the major drivers for nanotechnology development discussed in this year's sessions, along with the ongoing focus for more efficient biomass utilization.

A keynote speech from **Don Roberts**, senior paper and forest products research analyst for CIBC World Markets, offers an economic perspective, focusing on biomass use and the development of high-value materials and products derived from the forest and agricultural sectors.

EVENT HOSTS

TAPPI people resources solutions

ALBERTA INGENUITY FUND

CONFERENCE HIGHLIGHTS

Mark your calendar for these important sessions at the 2009 International Conference on Nanotechnology for the Forest Products Industry . . .

DAY 1 — TUESDAY, JUNE 23, 2009

5:30-9:00pm Tour of Canada's National Institute for Nanotechnology & Conference Reception

Welcome to the NanoWorld!

Canada's National Institute for Nanotechnology (NINT) invites conference attendees to tour its 20,000 m^2 research facility located on the University of Alberta campus in Edmonton. Founded in 2001, NINT is an integrated, multi-disciplinary institution with researchers in physics, chemistry, engineering, biology, informatics, pharmacy and medicine. Its objective is to discover design rules for nanotechnology and develop platforms for building nanosystems and materials that are constructed for specific applications. You will hear brief presentations from NINT scientists and enjoy a reception with light refreshments.

Photo courtesy of the National Research Council Canada

DAY 2 — WEDNESDAY, JUNE 24, 2009

9:00-10:30am Framework for Managing Environmental Risks & Rewards

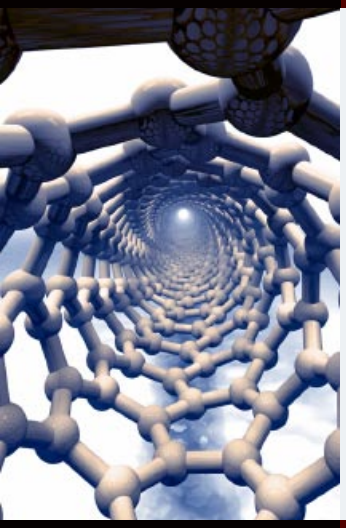
In Session 1B, you will hear about these environmental and policy-oriented topics:

- Importance of strategically communicating nanoscience's potential benefits as a way to counter fears and effectively influence regulatory direction. ***Lori Sheremeta, National Institute for Nanotechnology***
- Current research on the responsible use of nanotechnology to combat environmental issues like global warming, water purification and air pollution. ***Morteza Hanifezadeh, Agricultural Biotechnology Student***
- Nanotechnology's role in development of solid wood products with superior fire, moisture, light and decay resistance, and their possible impacts on health and the environment. ***Girma Kifetew, Vaxjo University***

4:00-5:00pm Global Challenges Panel Session

Attend the Panel 2 Session for a discussion about challenges facing nanotechnology development with panelists Phil Jones of Imerys, Martin Fairbanks of AbitibiBowater, Stephane Rousseau of Kruger, Alain Bourdage of AbitibiBowater and Robert Pelton of McMaster University.

DAY 3 — THURSDAY, JUNE 25, 2009



10:45-12:15pm New Generation Bioproducts

Session 5B describes these exciting new nano-based products:

- An economically sustainable nano-membrane bioreactor system shows promise for converting agricultural waste into valued-added materials as part of a biorefinery. ***Yuko Ikeda & David C. Bressler, University of Alberta***
- Ink containing semiconductive nanopartides proves a stable product for inkjet applications. ***Peter D. Angelo & Ramin R. Farnood, University of Toronto***
- A study of a sago palm starch biopolymer demonstrates its potential in semiconductor applications when combined with silver nanoparticles and sulfur. ***Vladimir Djoković, University of Alberta***

2:15-3:45pm Investing in Nanotechnology Panel Session

Investing in nanotechnology for R&D efforts in the forest products industry is the subject of the Panel 3 discussion. For a global take on nanotechnology investment, join panel chair John Cowie of AF&PA's Agenda 2020 and panelists George Weyerhaeuser, Jr., Partner, Houghton Cascade; Chris Risbrudt of the US Forest Service Forest Products Laboratory; Ian de la Roche, former president of FP Innovations; Kristiina Oksman of Lulea University; and Mark Harmer of DuPont.

DAY 4 — FRIDAY, JUNE 26, 2009

9:00-10:30am Self Assembly

In Session 8A, find out about this important self assembly research:

- The surface chemistry of nanocrystalline cellulose requires a compatible polymer matrix to produce stable, biodegradable nanocomposites that can be used as the basis for a new generation of value-added wood based products. ***Bruce Lyne, Royal Institute of Technology***
- Thin films of cellulose nanocrystals produced by the Langmuir-Schaffer horizontal dipping technique and deposited on gold with an enzymatic process are compared with amorphous cellulose substrates to determine enzyme binding and hydrolysis rates. ***Orlando Rojas, North Carolina State University***
- Cationic surface modification of cellulose nanocrystals has resulted in stable aqueous suspensions of nanocrystalline cellulose with unexpected properties. ***Derek G. Gray, McGill University***

Photo courtesy of the National Research Council Canada

See next page for additional program details →

Tentative Program. Subject to Change.

WEDNESDAY, JUNE 24

8:00–8:45 AM

KEYNOTE

NCC: The Revolution — *Pierre Lapointe, President, FPInnovations*

9:00–10:30 AM

SESSION 1A

Manufacture and Characterization of Nanostructured Cellulose
Chair: Kristiina Oksman, Lulea University of Technology

- Individualization of Nano-Sized Plant Cellulose Fibrils Achieved by Direct Surface Carboxylation using TEMPO Catalyst — ***Akira Isogai, The University of Tokyo***
- Novel Routes to Nanofibrillar Cellulose from Wood Pulps — ***Markus Nuopponen, UPM***
- Structure-Process-Yield Interrelations in Nanocrystalline Cellulose Extraction — ***Wadood Y. Hamad, FPInnovations***

SESSION 1B

Framework for Managing Environmental Risks & Rewards
Chair: Lori Sheremeta, National Institute for Nanotechnology

- The Responsible Development of Nanotechnology: Striking the Balance Between Risks and Benefits — ***Lori Sheremeta, National Institute for Nanotechnology***
- Strategic Management of Nanotechnology in Environmental Conservation — ***Morteza Hanifezadeh, M.A. Student in Agriculture Biotechnology***
- Application of Nanotechnology in Improving and Developing the Performance of Solid Wood Products — ***Girma Kifetew, Vaxjo University***

10:45 AM–12:15 PM

SESSION 2A

Nanocomposites I
Chair: John Simonsen, Oregon State University

- Conducting Properties of Nano-Crystalline Cellulose — Polypyrrole (NCC-PPY) Composite Films — ***P. Syed Abthagir, University of Toronto***
- Development of Flexible and Optically Transparent Cellulosic Nanocomposites — ***Mohini Sain, University of Toronto***
- Composites Nano- and Micro-fibers with Cellulose Nanocrystals — ***Orlando J. Rojas, North Carolina State University***

SESSION 2B

Nano-Dimensional Interfaces
Chair: Alan Rudie, US Forest Service, Forest Products Laboratory

- Probing Molecular, Nanoscale and Adhesive Forces Related to Fiber-Fiber Bonding and Optimized Surface Interactions — ***Agne Swerin, YKI***
- Pilot Plant Trial Runs with Layer-by-Layer Nanocoated Recycled Fibers: An Update on the Louisiana Tech Nano Pulp and Paper Initiative — ***George Grozdits, Louisiana Tech***
- Electrowetting on a Paper Substrate — ***Jarkko J. Saarinen, Abo Akademi University***

12:30–2:00 PM

LUNCHEON

Current Knowledge on Nanomaterial Toxicity — *Nigel Walker, National Institute of Environmental Health Sciences*

2:15–3:45 PM

PANEL 1

Environmental Health and Safety
Chairs: John Festa, American Forest & Paper Association and Lori Sheremeta, Alberta Ingenuity Fund

JoAnne Shatkin, CLF Ventures, Inc.
James Votaw, Wilmer Hale
Andy Atkinson, New Chemicals Evaluation, Environment Canada

4:00–5:30 PM

PANEL 2

Global Challenges
Chair: Ian de la Roche, Former President, FPInnovations

Phil Jones, Imerys
Martin Fairbanks, AbitibiBowater
Stephane Rousseau, Kruger
Robert Pelton, McMaster University
Alain Bourdages, AbitibiBowater
Bruce Lyne, Royal Institute of Technology

SESSION 3

Nanotechnology and Paper
Chair: George Rosenberg, Sentinel Bioactive Paper Network

- Smart Pigments with Reactive Nanocolors Printed on Paper and Flexibles — ***Andreas Kornherr, Mondi Uncoated Fine Paper***
- Effect of CPVA Polymer Characteristics at Saturation Level of Adsorption on Paper Strengths — ***Pedram Fatehi, University of New Brunswick***
- Incorporation into Paper of Cellulose Triacetate Films Containing Semiconductor Nanoparticles — ***Derek G. Gray, McGill University***

5:45–7:30 PM

POSTER SESSION 1

Session Chairs:
Yaman Boluk, Alberta Research Council
Ted Szabo, Alberta Forestry Reseach Instititute
Robert Moon, USFS Forest Products Laboratory & Purdue University

7:30–9:45 PM

DINNER

Biomass and the Development of High Value Materials and Products: An Economic Perspective — *Don Roberts, CIBC World Markets Inc.*

THURSDAY, JUNE 25

8:00–8:45 AM

KEYNOTE

Nano-Enabled Biomaterials for Sustainable Living — *Carlo Montemagno, Dean, Faculty of Engineering, University of Cincinnati*

9:00–10:30 AM

SESSION 4A

Nanocomposites II
Chair: Siqun Wang, University of Tennessee

- Preparation of Poly Vinyl Ester/Clay Nanocomposites and Investigation of Their Properties Against Irradiation — ***Seyyed Mahdi Mahjoob, University of Tehran***
- Bamboo Cellulosic Fibers — ***Yuqin Wan, University of British Columbia***
- Morphological Design of Highly Porous Nanocellulose Structures — ***Hans-Peter Hentze, KCL***

10:45 AM–12:15 PM

SESSION 5A

UV Nanocoatings: Properties, Processing and Performance
Chair: World Nieh, US Forest Service

- Anti-UV Water-borne Nanocomposite Coatings for Exterior Wood — ***Pierre Blanchet, Mirela Vlad, and Bernard Riedl, FPInnovations-Forintek***
- Mechanical and Optical Properties of UV-Waterborne Composite Coatings with Nanoalumina and Nanosilica — ***Caroline Sow, University of Laval***
- UV Nanocomposite High Solids and Waterborne Coatings for the Wood Products Industry — ***Pierre Blanchet, FPInnovations-Forintek***

12:30–2:00 PM

LUNCHEON

ISO/TC 229 International Standards — *Clive Willis, President, CWIC Inc.*

2:15–3:45 PM

PANEL 3

Investing in Nanotechnology for the Forest Products Industry R&D — Global Perspectives
Chair: John Cowie, AF&PA Agenda 2020

Chris Risbrudt, Director, US Forest Service Forest Products Laboratory
George Weyerhaeuser Jr., Partner, Houghton Cascade
Ian de la Roche, Former President of FPInnovations
Kristiina Oksman, Lulea University of Technology

4:00–5:30 PM

SESSION 7A

Cellulose Nanofiber Synthesis, Functionlization and Bonding
Chair: Jeff Catchmark, Penn State University

- Cellulose Nanocrystal Aerogels: Structure and Chemistry — ***John Simonsen, Oregon State University***
- Silver Nanowire Fabrication Using Cellulose Nanocrystal Templates — ***Robert Moon, US Forest Service, Forest Products Laboratory/Purdue University***
- Enhanced Microbial Cellulose Production through Fermentation Additives — ***Jeff Catchmark, Penn State University***

5:45–7:30 PM

POSTER SESSION 2

Session Chairs:
Yaman Boluk, Alberta Research Council
Ted Szabo, Alberta Forestry Reseach Instititute
Robert Moon, USFS Forest Products Laboratory & Purdue University

SESSION 4B

Novel Nanotechnology Applications I
Chair: Orlando Rojas, North Carolina State University

- Effects of Chemical Pretreatment on Enzymatic Hydrolysis of Lignocellulose Observed by AFM — ***Junyong Zhu, USFS Forest Products Laboratory***
- Development of an Antibacterial Paper Filter with Silver Nanoparticles — ***Derek G. Gray, McGill University***
- Nanocellulose Materials for the Furniture and Building Industry Made Out of Recovered Waste Paper — ***Martin Ernegg, Zeo International***

SESSION 5B

New Generation Bioproducts
Chair: David Bressler, University of Alberta

- Bioconversion of Agricultural Byproducts to Value-Added Materials — ***Yuko Ikeda, University of Alberta***
- A Stable Inkjet Ink Containing Inorganic Semiconductive Nanoparticle Pigments — ***Peter Angelo, University of Toronto***
- Adsorption of Sulfur onto a Surface of Silver Nanoparticles Stabilized with Sago Starch — ***Vladimir Djokovic, University of Alberta***

SESSION 6

Nanoscale Characterization
Chair: Chaoyang (CY) Jiang, University of South Dakota

- Free-standing Multilayer Thin Film of Cellulose Nanocrystals — ***Chaoyang (CY) Jiang, University of South Dakota***
- Analysis of Lignins by Surface Enhanced Raman Spectroscopy — ***Umesh Agarwal, US Forest Service, Forest Products Laboratory***
- Nanocomposites Reinforced with Cellulose Fibrils in Micro and Nano-Scales — ***George Cheng, West Virginia University***

SESSION 7B

Application of Nanotechnology for Improving Durability of Wood Products
Chair: Catalino Blanche, USDA CSREES

- Wood Modification Through Impregnation Process Control and a Nanotech Approach — ***Pierre Blanchet, Xiaolin Cai, and Hui Wan, FPInnovations-Forintek***
- Improving the Fire Performance and Durability of Value-Added Wood Products through Nano-Treatments — ***Anisa Akhtara, FPInnovations-Forintek***
- Color Stabilization of Waterborne Semi-Transparent and Transparent Coatings by Nanotechnologies — ***Pierre Blanchet and Vincent Blanchard, FPInnovations-Forintek***

FRIDAY, JUNE 26

8:00–8:45 AM

KEYNOTE

Technology in Forest Products- The Changing Global Context — *George Weyerhaeuser Jr., Partner, Houghton Cascade*

9:00–10:30 AM

SESSION 8A

Self-Assembly
Chair: Hicham Fenniri, National Institute for Nanotechnology

- Surface Chemistry and Nanotechnology-Based Products for the Forest Industry — ***Bruce Lyne, Royal Institute of Technology***
- Langmuir-Schaffer Thin Films of Cellulose Nanocrystals and Their Interfacial Behaviors — ***Orlando Rojas, North Carolina State University***
- Cationic Surface Functionalization of Cellulose Nanocrystals — ***Derek G. Gray, McGill University***

SESSION 8B

Nanomechanical Characterization
Chair: Robert Moon, USFS Forest Products Laboratory/Purdue University

- Broadband Nanoindentation Creep Experiments in Wood Cell Walls and Compound Corner Middle Lamellae — ***Joseph Jakes, University of Wisconsin-Madison & US Forest Service, Forest Products Laboratory***
- Characterization of Wood and Tunicate Based Cellulose Nanocrystals by AFM — ***Robert J. Moon, US Forest Service, Forest Products*** Laboratory/Purdue University
- NanoCrystalline Cellulose Characterization by an Atomic Force Microscope — ***Roya Lahiji, University of Alberta***

10:45 AM–12:15 PM

PANEL 4

Emerging Markets for Nano-Enabled Biomaterials
Chair: Bruce Lyne, YKI

John Cowie, AF&PA Agenda 2020
Mark A. Harmer, DuPont
Hamdy Khalil, Woodbridge Corporation
Bruce Lyne, Royal Institute of Technology
Hadi Mahabadi, Xerox

SESSION 9

Novel Nanotechnology Applications II
Chair: Richard Berry, FPInnovations

- Preparation and Characterization of Nanoscale Cellulosic Materials with Different Structural Morphology — ***Thi Thi Nge , National Institute of Advanced Industrial Science and Technology***
- Novel Preparation Method of Cellulose Nanofibers from Lignocellulosics — ***Seung-Hwan Lee, National Institute of Advanced Industrial Science and Technology***
- Nanoparticles with Immobilized Biosensors for Bioactive Papers — ***Robert Pelton, McMaster University***

12:30–2:00 PM

LUNCHEON

Nanooptics: Illuminating Nanostructures — *Martin Moskovits, University of California — Santa Barbara*

2:15–3:45 PM

INTEREST GROUP

Working Session I — Self Assembly

Chairs: Hicham Fenniri and Lori Sheremeta, Alberta Ingenuity Fund

INTEREST GROUP

Working Session II — Nanophotonics

Chair: Martin Moskovits, University of California — Santa Barbara

INTEREST GROUP

Working Session III — Forest Industry Opportunities in the Nano World

Chair: Pat Guidera

WHY ATTEND THIS YEAR'S CONFERENCE

FROM THE ORGANIZERS

"The foundation of TAPPI conferences is built with the ideas and visions of our member communities. The program for this year's event leverages advances across the field of nanotechnology with current research and applications in the broader forest products industry. Thinking 'nano' is no longer thinking small."

— Larry Montague, President of TAPPI

"Alberta's Nanotechnology Strategy targets the strong development of nanotechnology and its applications within its industrial sectors. The future of forestry is no less dependent upon innovation than any other. This conference will explore exciting new directions and possibilities that can give real competitive advantage to our industry."

— Dr. Peter Hackett, President and CEO, Alberta Ingenuity

ABOUT TAPPI

TAPPI is the leading association for the worldwide pulp, paper, packaging, and converting industries and co-publisher of Paper 360º. Through information exchange, trusted content, and networking opportunities, TAPPI helps members elevate their performance by providing solutions that lead to better, faster, and more cost-effective ways of doing business. Visit www.tappi.org for more information.

ABOUT ALBERTA INGENUITY FUND

Alberta Ingenuity supports science and engineering research excellence that aligns with the province's strengths to create maximum benefit for Albertans. As part of this focused strategy, Ingenuity is working with industry to address the pressing issues of the day, while also engaging Albertans to create a strong science culture that is building Alberta's future.

CONFERENCE PROGRAM CHAIRS

Dr. J. Phillip E. Jones, Imerys
Dr. Nils Peterson, NRC National Institute for Nanotechnology
Dr. Theodore H. Wegner, USFS Forest Products Laboratory

FROM PAST PARTICIPANTS

"The 2008 TAPPI Nanotechnology Conference provided us with three potential commercial leads. Pursuing these leads has instilled knowledge, energy and insight into the difficulties of other internal nanotechnology efforts focused on potential commercialization. Connecting with the foremost thinkers in this field allows one to understand nanotechnology concepts, difficulties, and thought trends, providing a clearer pathway for potential success."

— Steven L. Masia, Research Scientist, Sappi Fine Paper, NA

"The prospect of using nanotechnology to develop new and advanced materials from agricultural and sylvicultural products is exciting and timely. This conference is an extremely valuable bridge between communities that must communicate to make new nano-enabled biomaterials a reality."

— Nils O. Petersen, PhD - Director General, NRC, and Professor of Chemistry, University of Alberta - The National Institute for Nanotechnology.

AT THE CONFERENCE, YOU WILL...

GAIN PERSPECTIVES FROM:

AF&PA
CIBC World Markets
Conservation Law Foundation
Department of Health and Human Services
National Institute of Environmental Health Sciences
National Institutes of Health
NRC National Institute for Nanotechnology
USFS Forest Products Laboratory

LISTEN TO INDUSTRY EXPERTS:

Lynn Bergeson
Paul Burrows
Pierre Lapointe
Carlo Montemagno
Martin Moscovits
Don Roberts
Nigel Walker
George Weyerhaeuser, Jr.

EXPLORE THE LATEST RESEARCH AT THESE UNIVERSITIES:

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REGISTRATION INFORMATION

THREE EASY WAYS TO REGISTER:

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2. Phone 1.800.332.8686 (US); 1.800.446.9431 (Canada) or +1.770.446.1400 (worldwide)
3. Download a printable registration form from www.tappi.org/09nano, complete and mail or fax with payment information to:

   TAPPI
   P.O. Box 933644, Atlanta, GA 31193-3644, USA
   Fax: +1.770.209.7206

Need to make a Wire Transfer for payment? Call +1.770.446.1400 for details.

REGISTRATION FEES (in USD)

	On or before May 23, 2009	After May 23, 2009
Member*	$785	$1,265
Non-Member	$1,355	$1,750
Single Day Member	$490	$640
Single Day Non-Member	$725	$965
Speaker Full Conference**	$650	$650
Retired	$425	$640
Group Rate 3+ Member	$525	$640
Group Rage 3+ Non-Member	$875	$965
Student	$150	$150

* *TAPPI/PIMA membership is only $174 and can be included with your registration! Members of FPS may register at the TAPPI/PIMA Member rate.*

** *All speakers should register in advance.*

TAPPI PRESS DISCOUNTS FOR CONFERENCE ATTENDEES

Pre-order when you register, and pick it up when you arrive at the conference. Save on shipping and take advantage of this exclusive offer!

Nanotechnology for the Forest Product Industry Vision and Technology Road Map (0101R314)
List: US$73
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2008 Bioenergy & Bioproducts Conference Proceedings CD (BIOCD-08)
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Member: US$74
Special Conference Price: US$69

NEW!

Bioenergy Technologies Quarterly (*BTQ*) provides focused information on biorefinery research, operations, and markets relative to the global forest and paper industries. Published four times a year for TAPPI members, and available by subscription to non-members, its primary purpose is to track trends and activities in the emerging cellulosic bioenergy and bioproducts field, supporting the industry in regard to operating and investment decisions, as well as strategic planning options. *BTQ*'s focus includes both thermochemical and biochemical approaches and general fiber/biomass supply dynamics. **To subscribe, visit www.tappi.org/bionews.**

CANCELLATION POLICY

If you find that you have to cancel, your full registration fee will be refunded if TAPPI's Registration Department receives written notification (fax acceptable) at +1.770.209.7206 by May 22, 2009. Please note: There will be a 50% refund for all written cancellations made after May 22, 2009 but no later than 5 business days prior to the start of the conference, June 15, 2009. Understandably, after this time, no refunds can be issued. Substitutions, however, will be accepted any time without a penalty.

HOTEL INFORMATION

The Westin Edmonton
10135 100th Street
Edmonton, AB
Canada
Phone: +1.780.426.3636

Situated in the heart of downtown and connected to the Shaw Conference Center, The Westin Edmonton is only a few steps from the city's best shopping, dining, arts and entertainment. TAPPI has negotiated special hotel rates for this meeting of $214 CAD if you make your reservations by May 22, 2009. You don't want to miss out on these rooms; rooms outside the block may be much more expensive. If you utilize a travel agent or company travel department, please let them know about the procedures.

To make your reservations, contact the hotel directly at +1.780.426.3636 or use the hotel link on www.tappi.org/09nano.

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Making sense of Nanotechnology