NEW FOR 2006!—THE FIRST CONFERENCE OF ITS KIND FOR THE FOREST PRODUCTS INDUSTRY!

APRIL 26-28, 2006 | ATLANTA MARRIOTT MARQUIS | ATLANTA, GEORGIA

INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY

Small-Particle Science...A Catalyst for Transformation

Understand how nanotechnology can revolutionize the forest products industry.
Learn about the latest scientific breakthroughs.
Find out how you can position your business at the leading edge of nanotechnology.
Discover sources of funding for research and development.
Discuss environmental, health, and safety issues and solutions.

Join A Prestigious Group of Organizations at This Event
Emerging nanotechnologies offer the potential to develop entirely new approaches for producing engineered wood- and fiber-based materials. Nanotechnology could transform the forest products industry in virtually all aspects - ranging from production of raw materials, to new applications for composite and paper products, to new generations of functional nanoscale lignocellulosics.

No matter whether your work is focused at the macro- or the micro-level, this conference brings you the most up-to-date information about developments and opportunities in this exciting field. Find out more about:

- Economic drivers and opportunities for nanotechnology in the industry
- Lignocellulosics and other nanoscale materials in the laboratory
- Funding for nanotechnology programs

Designed For:
- Business Leaders
- Researchers
- Chief Technology Officers
- Academicians
- Strategic Planners
- Students
- And Others!

**2006 INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY**

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**NANOTECHNOLOGY PROGRAMS AND FUNDING PANEL**

Find out how to identify funding sources and how to apply for grants. Be sure to attend the Nanotechnology Programs and Funding Panel on Friday, April 28, at 10:45 a.m.

Global government funding of nanotechnology research was $3 billion in 2002.

US National Nanotechnology Initiative (NNI)

U.S. federal government funding for nanotechnology research in 2005 was $982 million, up from $116 million in 2001.

Office of Management and Budget,
The Executive Office of the President of the US

The 2006 budget request that President Bush sent to Congress calls for a total National Nanotechnology Initiative of just over $1 billion.

US National Nanotechnology Initiative (NNI)

An estimated 2 million workers will be needed to support nanotechnology industries worldwide within 15 years.

US National Science Foundation (NSF)

**POSTER SESSIONS**

Don’t miss this opportunity to hear about the latest developments in:

- Paper Coatings
- Colloid Crystals
- Composites
- Wet End
- Solid Wood
- Health & Safety
CONFERECE SPONSORSHIP

JOIN A PRESTIGIOUS GROUP OF ORGANIZATIONS IN SUPPORT OF THIS EVENT:

QUANTUM SPONSORS
Agenda 2020-American Forest & Paper Association (AF&PA)
University of Alaska-Fairbanks
Sappi North America
USDA Cooperative State Research, Education, and Extension Service (CSREES)
USDA Forest Service-Forest Products Laboratory (FPL)
West Virginia University

ATOMIC SPONSOR
Battelle-Pacific Northwest National Laboratory (PNNL)

MOLECULAR SPONSORS
American Chemical Society, Cellulose Division
Mississippi State University
North Carolina State University
University of Maine
University of Tennessee
USDA CSREES - Natural Resources and Environmental
USDA CSREES - Plant and Animal Systems

COLLABORATING PARTNERS
AIChE Forest Products Division
Appita
Forest Products Society (FPS)
International Academy of Wood Science (IAWS)
Materials Research Society (MRS)
National Nanotechnology Initiative (NNI)
Paper Industry Technical Association (PITA)
Pulp and Paper Education and Research Alliance (PPERA)
Pulp and Paper Technical Association of Canada (PAPTAC)
Society of Wood Science and Technology (SWST)
U.S. Environmental Protection Agency, Office of Research & Development
Zellcheming

2006 PAPERMAKERS AND COATING AND GRAPHIC ARTS CONFERENCE AND EXHIBIT
The International Conference on Nanotechnology for the Forest Products Industry will be held during the same week as the TAPPI 2006 Papermakers Conference and the TAPPI 2006 Coating and Graphic Arts Conference and Exhibit. Participants of the International Conference on Nanotechnology for the Forest Products Industry are invited to fly in early to also attend either one of these other conferences; a discounted combination conference fee is available. Information about all of the conferences is available at www.tappi.org/06nano.

TAPPI 06 EXHIBIT
The TAPPI 06 Exhibit has something for everyone! Held in conjunction with three comprehensive conferences, the exhibit features leading industry suppliers showcasing their latest products and services all in one place. A one-stop shopping experience, the TAPPI 06 Exhibit will include products and services for coating and graphic arts, papermaking, process control, quality control, and more.

Exhibit Hours
Monday, April 24 - 6:00 p.m. - 8:00 p.m.
Tuesday, April 25 - 4:30 p.m. - 6:30 p.m.
Wednesday, April 26 - 12:00 p.m. - 2:00 p.m.

If your organization would like to participate as a sponsor, please contact Clare Reagan at +1.770.209.7271 or creagan@tappi.org.
2006 INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FO
see www.tappi.org/06nano for the latest technical program

WEDNESDAY, APRIL 26
8:00 a.m. - 8:45 a.m.
Session: 1 Opening Session/Keynote Presentation
Session Co-Chairs
Phil Jones, Imerys
Ted Wegner, USDA Forest Products Lab
Keynote Speaker
Bioinspired Nanotechnology: Green Chemistry and Sustainable Manufacturing
Dr. John Warner, University of Massachusetts Lowell

9:00 a.m. - 10:30 a.m.
Session: 2 Health and Safety Panel
Panel Moderator
Nora Savage, US EPA
Panels:
Vladimir Murashov, NIOSH, Loretta Schuman, OSHA, Lori Perine, AF&PA

10:45 a.m. - 12:15 a.m.
Session: 3 Naturally Occurring Carbohydrate, Cellulose, and Cell Wall Nanostructure
Session Chair
Paul Gatenholm, Chalmers University of Goteborg
Immunolabeling as a Tool for Understanding the Spatial Distribution of Cell Wall Components and Their Biosynthetic Enzymes
Candace H. Haigler and Avci Utku, North Carolina State University
Nanoscale Structures of Native Celluloses and Their Denaturation During Pulping
Rajai Atalla, USDA Forest Products Laboratory

10:45 a.m. - 12:15 p.m.
Session: 4 Forest Products Industry Nanotechnology Workshop Report Out Panel
Panel Moderator
Theodore H. Wegner, USDA Forest Products Laboratory
Panels:
Forest Products Industry Workshop
Daniel Coughlin, Sappi
Path Forward for NanoBiomaterials Derived from Lignocelluloses
Ted Wegner, USDA Forest Products Lab
Bob Ashurst, Auburn University
Harry Cullinan, Auburn University
Timothy Rials, UT Forest Products Center

Potentials and Avenues for Nanotechnology in Canadian Wood Products
Alan Potter, Forest Research Opportunity BC
Forest Products Industry Nanotechnology Workshop Report European Perspective: NanoForest
Tom Lindström, STFI-Packforsk

12:30 p.m. - 2:00 p.m.
Session: 5 Luncheon Keynote
Session Chair
Pete Lancaster, Weyerhaeuser
Keynote Speaker
Application of Enzymes in Nanofibre Production
Sreekumar Janardhnan and Sain Mohini, University of Toronto
What Else Might You Do With Nanofibrillar Cellulose Besides Make Nanocomposites?
William Winter, State University of New York

2:15 p.m. - 3:45 p.m.
Session: 7 Opportunities for Nanotechnology in Advancing Agenda 2020 Technology Platforms Panel
Panel Moderator
Lori Perine, AF&PA
Panels:
Sustainable Forest Productivity
Dr. Maud Hinchee, ArborGen, LLC
Advancing the Forest Biorefinery
Eric Connor, ThermoChem Recovery International
Breakthrough Manufacturing and Technologies
Dr. David White, IFST @ Georgia Tech
Next Generation Fiber Recovery and Utilization
Dr. Theodore Wegner, USDA Forest Products Laboratory
Advancing the Wood Products Revolution
Dr. Mike Wolcott, Washington State University

4:00 p.m. - 5:00 p.m.
Session: 8 Reinforced and Interfacial Structures I
Session Co-Chairs
Steven Shaler, University of Maine
Said Abubakr, Western Michigan University
Tim Rials, UT Forest Products Center
New Production Method for Nano Silica Sol and It's Application for Papermaking
Koga Yoshiaki, Tokuyama Corporation
Kosuga Massanori, SEIKO PMC Corporation
Preparation of Biosilica-Enriched Filler and its Use in Nano-Particle Retention System
Jan Pekarovic, Dan Fleming and Alexandra Pekarovicova, Western Michigan University

4:00 p.m. - 5:30 p.m.
Session: 9 Characterization and Measurement of Nanoscale Structures and Properties I
Session Co-Chairs
Don Baer, Pacific Northwest National Laboratory
Jim Beecher, USDA Forest Products Laboratory
The Challenges and Opportunities of Measuring Properties of Nanoparticles and Nanostructured Materials: Importance of a Multi-Technique Approach
Donald Baer, Mark Engelhard, Chongmin Wang, Alan Lee, and Klaus Pecher, Pacific Northwest National Laboratory
Focused Argon Ion Beam Technology to Prepare Coated Paper Cross-Sections
Jon Marc Rodier and Michael Robinson, Sappi Fine Paper NA
The Use of C-Near Edge X-Ray Absorption Fine Structure Spectroscopy for the Elaboration of Chemistry in Lignocellulosics
Lucian Lucía, North Carolina State University
Douglas Manscosky, Hydrodynamics
Hiroti Nanko, IFST @ Georgia Tech
Sue Winick, Brookhaven National Laboratory
Alan Rudie, USDA Forest Products Laboratory

5:45 p.m. - 7:30 p.m.
Session: 10 Conference Co-Sponsors and Cooperators Posters
Evaluation of Interactions Between Coupling Agent, Wood and Polymer Matrix With Solid-State NMR
Erica Rude and Marie-Pierre Laborie, Washington State University
THURSDAY, APRIL 27
8:00 a.m. - 8:45 a.m.
Session: 11   Keynote
Session Co-Chairs
Phil Jones, Imerys
Ted Wegner, USDA Forest Products Lab
Keynote Speaker
The U.S. National Nanotechnology Initiative: A Multiagency, Multidisciplinary Program Leading to a Technology Revolution
Celia Merzbacher, Executive Director Presidential Council Advisors of Science and Technology, and the Office of Science Technology Policy
9:00 a.m. - 10:30 a.m.
Session: 12   Hierarchical Structures from Lignocellulos~
Session Chair
Mike Bilodeau, University of Maine
Cellulosic Bionanomaterials: Perspectives for Development
Wadood Hamad, PAPRICAN
Cellulose Nanocomposites Designed from the Bottom-Up
Scott Renneckar, Wolfgang Glasser, Audrey Zink-Sharp, Virginia Tech
9:00 a.m. - 10:30 a.m.
Session: 13   Applications Roundtable
Roundtable Moderator
Richard Chapas, PNNL
Panelists:
Steve Masia, Sappi North America, Phil Jones, Imerys
David Diehl, PPG, Alan Rae, NanoDynamics
10:45 a.m. - 12:15 p.m.
Session: 14   Strategic Planning Panel
Panel Moderator
Chris Risbrudt, USDA Forest Products Laboratory
Panelists:
Dan Kugler, USDA CSREES
Michael Wolcott, Society for Wood Science Technology
Harry Cullinan, Auburn University
12:30 p.m. - 2:00 p.m.
Session: 15   Luncheon Keynote
Session Chair
Phil Jones, Imerys
Keynote Speaker
Linda Horton, Center for Nanophase Materials Sciences at Oak Ridge National Laboratory
2:15 p.m. - 3:45 p.m.
Session: 16   Surface Modification and Characterization
Session Co-Chairs
Margaret Joyce, Western Michigan University
Tony Lyons, Imerys
Nanoclay Hybrid Nanocomposites for Paper Barrier Coating
Qunhui Sun and Yulin Deng, Georgia Institute of Technology
Nanoparticles for Paper: Getting Closer to the Application
Nigel Sanders, Specialty Minerals Inc.
REGISTER EARLY AND SAVE!
Conference registration fees for the 2006 International Conference on Nanotechnology for the Forest Products Industry are $595 for TAPPI, ACS, AIChE, Appita, FPS, IAWS, MRS, PAPTAC, PIMA, PITA, PPERA, SWST and Zellcheming members who register by March 24. Registration fees are $895 for non-members who register by March 24. See the registration form for complete details. To register, complete the attached form or call TAPPI’s Member Connection at 1-800-332-8686 (US), 1-800-446-9431 (Canada) or +1-770-446-1400. Or, register online at www.tappi.org/06nano.

HOTEL AND TRAVEL INFORMATION
Atlanta Marriott Marquis
265 Peachtree Center Avenue
Atlanta, Georgia 30303 USA
404-521-0000
To take advantage of special TAPPI room rates of $129 single/double, $149 triple, or $169 quad, call PASSKEY at 800-266-9432 or follow the link on www.tappi.org/06nano. Special Group rates are only available up to the cut-off date of March 24, 2006. For changes to reservations after the cut-off date of March 24, 2006, please call the hotel directly at 404-521-0000 or 888-855-5701. Please contact Colm Reid at the hotel directly for information about suites at 404-586-6060 or via email at: colm.reid@marriott.com

DELTA AIR LINES - TAPPI’S OFFICIAL AIRLINE
The Simple, Affordable, Convenient Way To Fly
TAPPI has partnered with Delta Air Lines as the official airline for meeting and business travel for 2006. Simply go to www.delta.com to make reservations. Enter TAPPI’s SkyBonus account number US445684101 on the passenger information screen where it says, “If your company is a SkyBonus program member, enter the number here: insert US445684101”.

AVIS RENT A CAR
TAPPI has arranged for special car rental discounts through Avis. To check rates and to reserve a vehicle, please call 1-800-331-1600 and refer to Worldwide Discount Number U226699.

TENTATIVE SCHEDULE

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<tr>
<th>Wednesday, April 26, 2005</th>
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Program, continued from previous page
2006 INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY FOR THE FOREST PRODUCTS INDUSTRY REGISTRATION FORM
APRIL 26-28, 2006 | ATLANTA MARRIOTT MARQUIS | ATLANTA, GEORGIA

TAPPI Member Connection 1.800.332.8686 (U.S.) > 1.800.446.9431 (Canada) > + 1.770.446.1400
Fax + 1.770.209.7206 Online www.tappi.org Mail TAPPI > P.O. Box 791190 > Baltimore, MD 21279-1190 USA

GENERAL INFORMATION
Please circle: Mr.    Ms.    Mrs.    Dr.    Sr.    Jr.     Name TAPPI Memb. #
Badge Name ___________________________ Title ___________________________ Spouse/Guest Name ___________________________
Company Name ___________________________ Company Address ___________________________
City ___________________________ State/Province ___________________________ Zip/Postal Code ___________________________ Country ___________________________
Telephone ___________________________ Fax ___________________________
Email ___________________________

REGISTRATION PROFILE
1. What type of employer do you work for?
   ___ Pulp and Paper/Paperboard Manufacturing (1) If your employer is a Pulp and Paper
   Manufacturer, please select 1 letter ONLY from either D, R, P, or H from Question 3 below.
   ___ Consulting Firm or Independent Consultant (2)
   ___ Converting Operation (4) If your employer is a Converting Operation, please select 1 letter
   ONLY from either H or O from Question 3 below.
   ___ Supplier (Manufacturer of Machinery, Equipment, Chemicals & Shipping) (7)
   ___ Distributors, Dealers, Exporters, Importers, Mill Supply Houses (8)
   ___ Educational Institutions (9)
   ___ Press, Library (other than University), Association, Government (10)
   ___ Miscellaneous, allied to the field (12)
   ___ Printing/Graphic Arts (15)
   ___ Other (research organization)

2. What is your primary job function?
   (Please select 1 letter only from A - J) Please place a check in the box
   provided next to your job function.
   A Librarians - Corporate
   B Corporate Management
   C Production
   D Technical/Research & Development
   E Engineering
   F Purchasing & Stores
   G Marketing & Sales
   H Traffic & Shipping
   I Other Management & Administrative Personnel
   J Other: ___________________________

3. What is your primary industry?
   P     Pulp Mill Only
   R     Paper/Paperboard Mill Only
   D     Integrated Pulp/Paper/Paperboard Mill
   H     Technical/R & D Facility/Headquarters
   O     Independent Operations/Converting Plant
   N/A

REGISTRATION OPTIONS & FEES
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<th>On/Before March 24</th>
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<td>Member of TAPPI, PIMA, ACS, AIChE, FPS, IAWS, MRS, PAPTAC, PIITA, PPERA, SWST and Zelichemistry</td>
<td>US$595</td>
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<td>Nonmember</td>
<td>US$895</td>
<td>US$1295</td>
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<td>N/C</td>
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<tr>
<td>*Speaker (attending full conference)</td>
<td>US$595</td>
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<td>Student (first 50 complimentary)</td>
<td>N/C</td>
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<td>Student (regular fee)</td>
<td>US$100</td>
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<tr>
<td>Nanotechnology and Coating or Papermakers Conference Combination</td>
<td>$995</td>
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PAYMENT (All fees are in U.S. Dollars-No Wire Transfers)
Must accompany registration.
Please convert checks to equivalent U.S. Currency.
Enclosed is my check for the full amount (Make check payable to TAPPI)
Please bill my credit card (complete the following information)
Amex D Diner’s Club M MasterCard V VISA
Credit Card # ___________________________ Exp ___________________________
Signature: ___________________________ Date: ___________________________

Do you require special accommodations for handicapped access?  Yes

The contact information you provide may be used by TAPPI or its business associates to notify you of items that may be of interest to you.

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 770-209-7206) by March 24, 2006. Please Note: there will be a 50% refund for all
written cancellations made after March 24, 2006 but no later than 5 business days prior to the start of the conference.
Understandably, after this time, no refunds can be issued. Substitutions, however, will be accepted any time without a penalty.

The contact information you provide may be used by TAPPI or its business associates to notify you of items that may be of interest to you.

I understand that under certain laws and regulations, TAPPI must have written permission in order to communicate with me via fax or email. I hereby give TAPPI, TAPPI’s business associates, the TAPPI Foundation, and TAPPI’s Local Sections written permission to communicate with me via: ___________________________

Signature and date: ___________________________