

SWST/ICBR International Convention

Held at International Centre For Bamboo and Rattan, No. 8,
Fu Tong Dong Da Jie, Wang Jing Area, Chao Yang District

北京欢迎你



August 27–31, 2012 | Beijing, China

Sustainable Development of Wood and Biomass in our New Global Economy

Poster Session and Student Poster Competition

Wednesday, August 29, 2012, 14:30–16:00 | First Floor - ICBR Building

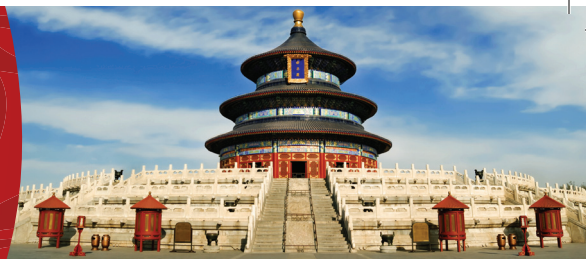
Title of Presentation	Authors and Affiliations
Effect of Thermo-hygro-mechanical Behavior of Wood Under Compression on the Nanomechanical Properties of the Cell Wall	Cecilia BUSTOS , William GACITÚA, Daniela SEPÚLVEDA (Universidad del Bío-Bío, Chile), Peter DECHENT (Universidad de Concepción, Chile), Alain CLOUTIER (Université Laval, Canada)
Anatomical Investigation of Thermally Compressed Eucalyptus Wood Panels	Kamile TIRAK HIZAL, Dilek DOGU, Zeki CANDAN , and Oner UNSAL (Istanbul University, Turkey)
Some Physical and Mechanical Properties of PF/Boron/Wood Composites	Ertugrul ALTUNTAS, Mehmet Hakki ALMA, Murat ERTAS (Kahramanmaraş Sutcu Imam University, Turkey), Zeki CANDAN and Oktay GONULTAS (Istanbul University, Turkey)
TGA and DSC Analysis of Boron Modified Phenol Formaldehyde Polymer	Ertugrul ALTUNTAS, Mehmet Hakki ALMA, Murat ERTAS (Kahramanmaraş Sutcu Imam University, Turkey), Zeki CANDAN and Oktay GONULTAS (Istanbul University, Turkey)
The Tensile Properties of Bamboo Units in Different Sizes	Ge WANG, Hong CHEN , Zixuan YU, Haitao CHENG, Yaxin QIU (International Centre for Bamboo and Rattan, China)
Research on Inhibition Effect of MDF Pyrolysis Condensate Liquids Against Two Kinds of Fungi	Shihua CHEN , Yongshun FENG, Sijin LI, Jun MU (Beijing Forestry University, China)
High-Level Expression and Characterization of Thermostable Esterase from <i>Thermoanaerobacter tengcongensis</i> in <i>E.coli</i>	Ruobing DENG , Xun LI, Hong GAO, Fei WANG (Nanjing Forestry University, China)
Decay Resistance of Thermally Modified Paulownia Wood	Mursit TUFAN, Turker GULEC, Zeki CANDAN, and Oktay GONULTAS (Istanbul University, Turkey)
FTIR Investigation of Phenol Formaldehyde Resin Modified with Boric Acid	Ertugrul ALTUNTAS, Mehmet Hakki ALMA, Murat ERTAS (Kahramanmaraş Sutcu Imam University, Turkey), Zeki CANDAN and Oktay GONULTAS (Istanbul University, Turkey)
High Density Polyethylene-based Composites with Pressure-treated Wood Fibers	Guangping HAN (Northeast Forestry University, China), Qinglin WU and Todd SHUPE (Louisiana State University, USA)
Application of Finite Element Analysis in Properties Test of Finger-jointed Lumber	Sheng HE , Lan-ying LIN, Feng FU (Chinese Academy of Forestry, China), Ping-xiang CAO (Nanjing Forestry University, China)

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Title of Presentation	Authors and Affiliations
Variation in Cutting Forces in Straight-knife Peripheral Cutting of Wood	Piotr ISKRA and Roger E. HERNÁNDEZ (Université Laval, Canada)
The Papermaking Potential of Canola Residues; Viable Raw Material	Reza HOSSEINPOUR and Ahmad Jahan LATIBARI (Islamic Azad University, Iran)
Modulus of Elasticity and Hardness of Compression and Opposite Wood Cell Wall of Masson Pine	Yanhui HUANG, Benhua FEI, Yan YU (International Center for Bamboo and Rattan, China), Rongjun ZHAO (Chinese Academy of Forestry, China), Siqun WANG and Zengqian SHI (University of Tennessee, USA)
Livelihood of the Bamboo Base: Challenges and Opportunities	Samir JAMATIA, Boboland Bamboo Development Board, India
Mill Variation in Bending Strength and Stiffness of In-grade Southern Pine No. 2 Lumber	Joseph DAHLEN, P. David JONES, Rubin SHMULSKY, and Dan SEALE (Mississippi State University, USA)
Application of Recycled Polyethylene in Combination with Urea-Formaldehyde Resin to Produce Water Resistant Particleboard	A. KARGARFARD (Research Institute of Forests and Rangelands, Iran) and A. Jahan-LATIBARI (Islamic Azad University, Iran)
Introduction of The Society of Wood Science and Technology Student Membership	An MAO and Wei Qi LENG (Mississippi State University, USA)
Biorefining of Bamboo Processing Residues	Han LI, Li ZHANG, Xin LI, Qiang YONG (Nanjing Forestry University, China)
Influence of Environmental Factors on Volatile Organic Compound VOC Emission from Plywood	Shuang LI, Jun SHEN, Jingxian WANG (Northeast Forestry University, China)
Selective Liquefaction of Enzymatic Hydrolyzed Lignin in Furfuryl Alcohol	Shujun LI, Guowan GUO, Guizhen FANG, Shixue REN (Northeast Forestry University, China)
Assessment of Carbon Emissions and Balance from Hardwood Lumber Processing in Central Appalachia, USA	Wenshu LIN (Northeast Forestry University, China), Jingxin WANG (West Virginia University, USA), and Pradip SAUD (Oklahoma State University, USA)
Mild Pretreatment and Liquefaction of Cypress in Ethanol for Bio-oil Production	Hua-Min LIU, Xue-Fei CAO, Run-Cang SUN (South China University of Technology, China), Ming-Fei LI (Beijing Forestry University, China)
Preparation and Morphology of Nanocrystalline Cellulose from Bamboo Pulp	Zhi-Ming LIU, Cheng XIE (Northeast Forestry University, China)
The Process and Performance of Bamboo Pellets	Zhijia LIU, Zehui JIANG, Benhua FEI, Yan YU, Xing'e LIU (International Centre for Bamboo and Rattan, China), Zhiyong CAI (U.S. Forest Products Laboratory, USA)
Variations in Topochemistry and Micromechanics between Opposite and Tension Wood Fiber from <i>Populus Nigra</i>	JianFeng MA, Xia ZHOU, ZhiHeng ZHANG, and Feng XU (Beijing Forestry University, China)
Characterisation of Wheat Straw Using Dynamic Vapour Sorption Method	Peng MIAO, Majid NADERI, Jiyi KHOO, Manaswini ACHARYA, Dan BURNETT (Surface Measurement Systems Ltd, England), Daryl WILLIAMS (Imperial College, England)

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Title of Presentation	Authors and Affiliations
Best Management Practices for Using Treated Wood in Aquatic Environments	Jeff MORRELL, Connie S. LOVE (Oregon State University, USA)
Influence of UF Resin on Characteristics and Bio-efficiency of Pyrolysis Liquids of Wood-based Panels	Jun MU, Yongshun FENG, Shihua CHEN, Sijin LI (Beijing Forestry University, China)
Fixation of a Water-borne Copper Preservative in Wood by a Rosin Sizing Agent	Thi Thanh Hien NGUYEN, Shujun LI, Jian LI (Northeast Forestry University, China)
Methods of Exterminating Biological Destructive Agents from Household Furniture in Jos Metropolis, Plateau State, Nigeria	Robert Ogbanje OKWORI (Federal University of Technology, Nigeria)
Fast Pyrolysis Of Laurel (<i>Laurus Nobilis L.</i>) Seed in a Fixed-Bed Tubular Reactor	Özlem ONAY (Anadolu University, Turkey)
Fire-resistant Property of Poplar Treated with BL Fire Retardant by Microwave and Ultrasonic Wave Method	Jing PAN and Jun MU (Beijing Forestry University, China)
Evaluation of Hygroscopic Property of Thermally Treated Yellow Poplar (<i>Liriodendron tulipifera</i>) Wood	Yoon-Seong CHANG, Jun-Ho PARK, Yonggun PARK, Ju-Hee LEE, Hwanmyeong YEO (Seoul National University, Korea)
Isolation and Characterization Of Acetyl and Non-Acetyl Hemicelluloses of <i>Arundo donax</i>	Feng PENG, Jing BIAN, Feng XU (Beijing Forestry University, China), Pai PENG, Jun-Li REN, Run-Cang SUN (South China University of Technology, China)
A Novel Ca ²⁺ Binding of Highly Thermostable Xylanase from <i>Thermotoga thermarum</i> : Cloning, Expression and Characterization	Hao SHI, Xun LI, Huaxiang GU, Liangliang WANG, Ye WANG, Huaihai DING, Yinjun HUANG, Fei WANG (Nanjing Forestry University, China)
Influence of Thermo-modification on the Color of <i>Cylicodiscus spp</i> Heartwood	Qiang SHI, Fucheng BAO, Jianxiong LU (Chinese Academy of Forestry, China)
Comparative Life Cycle Assessment of Sheet Molding Composites Reinforced by Natural Fiber vs. Glass Fiber	Jinwu WANG (Washington State University, USA), Sheldon Q. SHI and Kaiwen LIANG (University of North Texas, USA)
Basic Research on the World's Largest Bamboo Species (<i>Dendrocalamus Sinicus</i>): Isolation and Characterization of Hemicelluloses	Zhengjun SHI, Lingping XIAO, Jia DENG, Feng XU, and Runcang SUN (Beijing Forestry University)
A Spectroscopic Study on the Fuel Value of Softwoods in Relation to Chemical Composition	Chi-Leung SO and Todd F. SHUPE (Louisiana State University, USA), Thomas L. EBERHARDT and Leslie H. GROOM (USDA Forest Service, USA)
New Bio-composites Containing Industrial Lignins	Tatjana STEVANOVIC, Nicola MARIOTTI, Diane SCHORR, Lei HU, Denis RODRIGUE (Université Laval, Canada), Papa DIOUF (SEREX, Canada), Xiang-Ming WANG (FPInnovations, Canada), Daniel GRENIER (CRIQ, Canada)
Porous Woodceramics Prepared from Liquefied Corncob and Poplar Powder	Delin SUN and Rong WANG (Central South University of Forestry and Technology, China), Xianchun YU (Yueyang Vocational & Technical College, China)

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Title of Presentation	Authors and Affiliations
Selective Separation and Recovery of the Lignin from Lignocellulosic Biomass by Using Acesulfamate-based Ionic Liquid	Yong-Chang SUN , Ji-Kun XU, Feng XU, Run-Cang SUN (Beijing Forestry University, China)
Deriving Wood Quality Properties through Their Links with Tree and Stand Attributes	Chhun-Huor UNG , Isabelle DUCHESNE and Edwin SWIFT(Canadian Wood Fibre Centre, Canada), Bastien FERLAND-RAYMOND (Minsitère des Ressources Naturelles et de la Faune du Québec, Canada), Xiao Dong WANG (Luleå University of Technology, Sweden)
Sensitivity of Several Selected Mechanical Properties of Moso Bamboo to Moisture Content Change Under Fiber Saturation	Zehui JIANG, Hankun WANG , Genlin TIAN, Xing'e LIU, Yan YU (International Centre for Bamboo and Rattan, China)
Synthesis and Characterization of Nanoscale CuO Powders	Jiahe WANG , Fengzhu LI, Min XU (Northeast Forestry University, China)
Copper Leached from Micronized Copper Quaternary (MCQ) Treated Wood: Influence of the Amount of Copper in the Formulations	Lei WANG (Michigan State University, USA)
Influence of Veneers' Lathe Checks on Strain Distribution at Wood-adhesive Interphase Measured by ESPI	Lu WANG , Mingjie GUAN, and Mingming ZHOU (Nanjing Forestry University, China)
Selected Properties of Bamboo Scrimber Flooring Made of India <i>Melocanna baccifera</i>	Mingjie GUAN, Cheng YONG, Lu WANG , Qisheng ZHANG (Nanjing Forestry University, China)
Wood Construction under Cold Climate: Part one: Shear Tests of Glued Wood Joints under Cold Temperatures	Xiaodong (Alice) WANG , Niclas BJORNGRIM, and Olle HAGMAN (Luleå Tekniska Universitet, Sweden)
Surface Display of ProROL on <i>Pichia pastoris</i> Cells using Cell Wall Protein Pir1 as Anchor Protein	Ye WANG , Xun LI, Hao SHI, Yu ZHANG, Fei WANG (Nanjing Forestry University, China)
Unveiling the Structural Heterogeneity of Bamboo Lignin by In-situ HSQC NMR Technique	Jia-Long WEN , Bai-Liang XUE, Feng XU, Run-Cang SUN (Beijing Forestry University, China)
The Basic Properties of Torrefied Biomass from Six Taiwanese Bamboos	Chun-Te WU and Far-Ching LIN (National Taiwan University, Taiwan)
Effects of Treatments with Alcohol and N-hydroxymethyl Compound on the Mechanical Properties of Wood	Qiliang FU, Qingwen WANG, Haigang WANG, YanJun XIE (Northeast Forestry University, China)
Composition Changes and Enzymatic Hydrolysis Property of <i>Tamarix</i> under Various Factors of Steam Explosion	Hong XU , Yong XU, Qiang YONG, Shiyuan YU (Nanjing Forestry University, China)
Polyols Production by Chemical Modification of Autocatalyzed Ethanol-water Lignin from <i>Betula alnoides</i>	Bai-Liang XUE , Jia-Long WEN, Feng XU, Run-Cang SUN (Beijing Forestry University, China)
Evaluation of Mechanical Property of Chinese Fir After Hydrophobic Treatments Using Nanoindentation	Rui YANG , Dingguo ZHOU, Yang ZHANG (Nanjing Forestry University, China), Siqun WANG (University of Tennessee, USA)
Analysis of the Required Energy for Wood Drying and Heat Treatment Processes Using Superheated Steam	Yonggun PARK, Yeonjung HAN, Jun-Ho PARK, Yoon-Seong CHANG, Sang-Yun YANG , Hwanmyeong YEO (Seoul National University, Korea)

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Title of Presentation

Authors and Affiliations

**NIR Spectroscopic Wood Surface Moisture Content Distribution
Image Construction using Computerized Numerical Control System**

Sang-Yun YANG, Yeonjung HAN, Yoon-Seong CHANG, Juhee LEE,
Hwanmyeong YEO (Seoul National University, Korea)

**Effect of Cross-Kerfing Nonslip Process on the Friction
Performance of Deck**

Yeonjung HAN, Ju-Hee LEE, Yonggun PARK, **Hwanmyeong YEO**
(Seoul National University, Korea)

Cold-Formed Framed Steel Shear Wall using Wood Based Panels

Cheng YU and Chao LI (University of North Texas USA)

**Mechanical Function of Lignin and Hemicelluloses in Wood Cell Wall
Revealed with Microtension of Single Wood Fiber**

Shuangyan ZHANG and Chuangui WANG (Anhui Agricultural University,
China), Benhua FEI, Yan YU, Haitao CHENG, Genlin TIAN (International
Centre for Bamboo and Rattan, China)

The Optimum Process of Wheat-straw Fiber Treated By Enzyme

Cong LIU, **Yang ZHANG**, Yong SU (Nanjing Forestry University, China)

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STUDENT POSTER COMPETITION

Title of Presentation

Authors and Affiliations

Mechanical Properties of Ground Tissues of Bamboo

Xiao-Jing AN and Yan YU (International Centre for Bamboo and Rattan, China)

Development of Low Formaldehyde-Emitting Laminate Flooring by Nanomaterial Reinforcement

Zeki CANDAN, Turgay AKBULUT (Istanbul University, Turkey)

A Novel Energy Saving Wood Product with Phase Change Materials

Fang CHEN, Amanda KESSEL, and Michael WOLCOTT (Washington State University, USA)

Mechanical Properties of Ramie Fiber Woven Composites under Biaxial Tensile Loadings

Fuming CHEN, Zehui JIANG, Ge WANG, Hai-tao CHEN, Xing'e LIU (International Centre for Bamboo and Rattan, China), and Sheldon SHI (University of North Texas, USA)

Preparation of Corrugated Laminated Veneer Bamboo Bundle Composite and Its Physical Mechanical Behaviors - Part I. 3-Dimensional Shrinkage and Swelling Response

Fuming CHEN, Ge WANG, Zehui JIANG, Haitao CHENG (International Centre for Bamboo and Rattan, China)

The Circumferential Mechanical Properties of Bamboo and Uniaxial and Biaxial Compression Tests

Fuming CHEN, Zehui JIANG, Ge WANG, Xing'e LIU, Hai-tao CHEN (International Centre for Bamboo and Rattan, China) and Sheldon SHI (University of North Texas, USA)

Contact Angles of Single Fibers Measured in Different Temperature and Related Humidity

Hong CHEN, Benhua FEI, Ge WANG, Haitao CHENG (International Centre for Bamboo and Rattan, China)

Effects of In Situ Deposited Calcium Carbonate Nanoparticles on Tensile Performance of Single Bamboo Fibers and Their Composites

Jie GAO, Ge WANG, Haitao CHENG (International Centre for Bamboo and Rattan, China) and Sheldon SHI (University of North Texas, USA)

Chemical Composition of Some Commercial Tannins Produced in Turkey

Oktaç GONULTAS and Mualla BALABAN UCAR (Istanbul University, Turkey)

From a Production Orientation to a Stakeholder Orientation: The Evolution of Marketing Sophistication in Private, Multi-site U.S. Sawmills

Xiaoou HAN and Eric HANSEN (Oregon State University, USA)

Comparison of Properties of Pine Scrim Lumber Made from Modified Scrim

Wei Qi LENG and H. Michael BARNES (Mississippi State University, USA)

Finite Element Analysis on the Shape Change of a Two-Layer Laminated Wood Product Subjected to Moisture Change

Ling LI, Meng GONG, Y.H. CHUI, Marc SCHNEIDER (University of New Brunswick, Canada), Dagang LI (Nanjing Forestry University, China)

Characterizing Dried Cellulose Nanofibrils

Yucheng PENG, Douglas J. GARDNER, Yousoo HAN (University of Maine, USA)

The Effects of International Trade Show Marketing Strategies on Trade Show Performance in China

Wenping SHI (Pennsylvania State University, USA)

Controlled Growth and Properties of TiO₂ Coating onto Wood Surface Using a Low-Temperature-Cosolvent Hydrothermal Method

Qingfeng SUN, Yun LU, Jian LI, Haipeng YU, Yixing LIU (Northeast Forestry University, China)

Hydrothermal Carbonization of Lignocellulosic Biomass: Chemical and Structural Properties of the Carbonized Products

Ling-Ping XIAO, Zheng-Jun SHI, Feng XU, Run-Cang SUN (Beijing Forestry University, China)

The Incorporation of Pulp and Paper Mill Secondary Sludge into Particleboard

Suying XING, Bernard RIEDL, Ahmed KOUBAA, James DENG (Université Laval, Canada)

Study on Compressive and Tensile Properties of Recombinant Bamboo

Jun-zhen ZHANG, Hai-qing REN, Xian-wu ZHOU, Rong-jun ZHAO (Chinese Academy of Forestry, China)