ECWM4 Programme, April 27-29, 2009 Stockholm, Sweden

Monday, April 27, 2009

08:45 - 09:15

Keynote presentation 1

Room: Aula

Challenges in wood modification technology on the way to practical applications (1)
Militz, Holger[1]; Lande, Stig[2]
[1]University Göttingen, Wood Biology and Wood Products, Göttingen, Germany; [2]Kebony ASA, Research, 3908 Porsgrunn, Norway

09:15 - 10:15

Oral Session 1 - Commercial Aspects

Room: Aula

Chair: Callum Hill, United Kingdom

The Making of a Traffic Timber Bridge of Acetylated Radiata Pine (2)
Tjeerdsma, Bôke F.[1]; Bongers, Ferry[2]
[1]SHR Timber Reseach, Timber Technology, Wageningen, Netherlands; [2]Titan Wood B.V., -, Arnhem, Netherlands

New Generation ThermoWood® - How to Take ThermoWood® to the Next Level (3)
Ala-Viikari, Jukka [1]; Mayes, Duncan[2]
[1]International ThermoWood Association, Helsinki, Finland
[2]Stora Enso Timber Oy Ltd, Porvoo, Finland

A Novel Economic Large-scale Production Technology for High-quality Thermally Modified Wood (4)
Willems, Wim
FirmoWood Nederland BV, Venray, Netherlands

State-of-the-Art Kebony Factory and its Main Products (5)
Brynildsen, Per; Bendiktsen, Rune
Kebony ASA, Porsgrunn, Norway

10:45 - 12:15

Oral Session 2 - Product Performance/Material Properties (12)

Room: Aula

Chair: Antti Nurmi, Finland

Mode of Action of DMDHEU Treatment against Wood Decay by White and Brown Rot Fungi (6)
Mai, Carsten[1]; Verma, Pradeep[1]; Xie, Yanjun[1], Dyckmans, Jens[2], Militz, Holger[1]
[1]Georg-August-Universtät Göttingen, Wood Biology and Wood Products, Göttingen, Germany; [2]Georg-August-Universtät Göttingen, Centre for Stable Isotope Research and Analysis, Göttingen, Germany

Enzymatic Hydrolysis of Furfurylated Scots Pine Sapwood (*Pinus sylvestris*, L.) (7)
Venås, Thomas Mark[1]; Felby, Claus[2]
*[1]Danish Technological Institute, Building and Construction, Taastrup, Denmark; [2]Copenhagen University, Faculty of Life Sciences, Forest and Landscape, Copenhagen, Denmar*k

Influence of Acid Catalysts on Bending Strength of Furan Pre-polymer Modified Wood after Ageing (8)
van der Zee, Marina E.[1]; Trjeerdsma, Bôke F.[1]; Hoydonckx, Hans[2]; Jackson, Rowan[1]
[1]SHR, -, Wageningen, Netherlands; [2]TransFurans Chemicals, Geel, Belgium

Modified Wood Versus Termite Attacks: What Should Be Improved in Assessment Methodology? (9)
Kutnik, Magdalena; Paulmier, Ivan; Simon, Frederic, Jequel, Marc
FCBA Technological Institute, Bordeaux, France

Methodology to Evaluate Efficacy and Ecotoxicology of Modified Wood (10)
De Vetter, Liesbeth; Van Acker, Joris
Ghent University, Laboratory of Wood Technology, Ghent, Belgium

The Determination of EMC and its Effect on the Analysis of Moisture Sorption in Wood Modified with DMDHEU (11)
Dieste, Andres, Krause, Andreas, Mai, Carsten, Militz, Holger
Georg-August-Universtät Göttingen, Wood Biology and Wood Technology, Göttingen, Germany

13:30 - 15:00

Oral Session 3 - Chemical Modification (14)

Room: Aula

Chair: Holger Militz, Germany

The Influence of Wood Species upon the Decay Protection Mechanisms Exhibited by Anhydride Modified Woods (12)
Hill, Callum[1]; Heon Kwon, Jin[2]
[1]Napier University, Centre for Timber Engineering, Edinburgh, United Kingdom; [2]Kangwon University, Department of Wood Science and Engineering, Kangwon, Republic of Korea

Micromorphology and polymer distribution in modified wood and wood based composites studied using a UV laser cutting technique (13)
Wålinder, Magnus E. P.[1,2]; Omidvar, Asghar[3]; Seltman, Joachim[1]; Segerholm, B. Kristoffer[1,2]
[1]SP Technical Research Institute of Sweden, Wood Technology, Stockholm, Sweden; [2]KTH Royal Institute of Technology, div. of Building Materials, Stockholm, Sweden; [3]Gorgan University, Agricultural Sciences and Natural Resources, Gorgan, Islamic Republic of Iran

Modification of Domestic Timbers by Impregnation using Supercritical Carbon Dioxide – A Comparison (14)
Jelen, Erich[1]; Ghosh, Shyamal Chandra[2]
[1]Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Advanced Materials, Oberhausen, Germany; [2]Georg-August-University of Goettingen, Burckhardt-Institute, Wood Biology & Wood Products, Goettingen, Germany

Evaluation of Properties of New Composite Material Obtained from Wood and Lactic Acid (15)
Noël, Marion[1]; Fredon, Emmanuel[1]; Masson, Eric[2]; Mougel, Eric[1]; Masson, Daniel[1]; Gerardin, Philippe[1]
[1]Université Henri Poincaré Nancy 1- Ecole Nationale des Technologies et Industries du bois, LERMaB, Epinal, France; [2]CRITT Bois, Epinal, France

Hydrophobicity of Mixed Acetic-Fatty Wood Esters (16)
Peydecastaing, Jerome[1]; Vaca-Garcia, Carlos[1,2]; Borredon, Elisabeth[1,2]; El Kasmi, Silham[3]
[1]Université de Toulouse, INP, LCA (Laboratoire de Chimie Agro-industrielle), Toulouse, France; [2]INRA; LCA (Laboratoire de Chimie Agro-Industrielle), Toulouse, France; [3]Lapeyre, R&D, Aubervilliers, France

Wood Chemical Modification with Alkenyl Succinic Anhydrides Bearing an Ester Group (17)
Vaca-Garcia, Carlos[1,2]; Pignolet, Olivier[1,2]; Rekarte, Iona[3]; Munne, Oriol[3]; Borredon, Elisabeth[1,2]
[1]Université de Toulouse, INP, LCA (Laboratoire de Chimie Agro-industrielle), Toulouse, France; [2]INRA; LCA (Laboratoire de Chimie Agro-Industrielle), Toulouse, France; [3]CIDEMCO, Biotek Department, Azpeitia, Spain

15:30 - 16:45

Poster Session 1 - Thermal Modification (30)

Room: To be announced

Chair: Joris Van Acker, Belgium

Peculiarities of the Thermal Modification of Hard Wood (48)
Andersons, Bruno[1]; Andersone, Ingeborga[1]; Biziks, Vladimirs[1]; Grininsh, Juris[1]; Irbe, I.[1]; Zudrags, Kaspars[2]
[1]Latvian State Institute of Wood Chemistry, Riga, Latvia; [2]Holding Company Latvijas Finieris, Riga, Latvia

Influence of Combined Hydro-Thermal Treatment on Aesthetical Properties of Turkey oak (*Quercus cerris* L.) (51)
Todaro, Luigi; Zuccaro, Luigi; Scopa, Antonio; Moretti, Nicola
University of Basilicata, Dep of Crop Systems, Forestry and Env Science, Potenza, Italy

Manufacturing and Properties of Glulam made of TMT Spruce and TMT Beech (52)
Scheiding, Wolfram; Gecks, Jens
Institute for Wood Technology Dresden, Dresden, Germany

Thermoflooring: Product Development and Performance (53)
Huber, Hermann[1]; Schöftner, Rainer[2]
[1]Mitteramskogler GmbH, R&D, Gaflenz, Austria; [2]PROFACTOR, Functional Surfaces and Nanostructures, Steyr, Austria

Laboratory Tests on the Natural Durability of Six Different Wood Species after Hygrothermal Treatment (55)
Ohnesorge, Denny[1]; Tausch, Andrea[2]; Krowas, Inga[1]; Huber, Christian[3]; Becker, Gero[1]; Fink, Siegfrid[2]
[1]University of Freiburg, Institute of Forest Utilization and Work Science, Freiburg, Germany; [2]University of Freiburg, Institute of Forest Botany and Tree Physiology, Freiburg, Germany; [3]ETS Röthlisberger SA, Glovelier, Switzerland

Moderate Thermal Treated Norway Spruce (*Picea abies* (L.) [Karst.]) Exposed to Ground Contact in Austria for Five Years (56)
Stingl, Robert[1]; Weigl, Martin[2]; Teischinger, Alfred[1,2]; Hansmann, Christian[2]
[1]University of Natural Resources and Applied Life Sciences, Dep. of Material Sciences and Process Engineering, Vienna, Austria; [2]Competence Centre for Wood Composites and Wood Chemistry, Wood Material Technology, Linz, Austria

Alteration of the Pore Structure of Spruce and Maple due to Thermal Treatment (58)
Zauer, Mario; Pfriem, Alexander
TU Dresden, Institute of wood and paper technology, Dresden, Germany

Nondestructive Evaluation of Thermally Modified Ash (*Fraxinus excelsior* L.) by Near Infrared Spectroscopy (NIRS) (59)
Bächle, Helmut[1]; Zimmer, Bernhard[1]; Windeisen, Elisabeth[2]; Wegener, Gerd[2]
[1]Salzburg University of Applied Sciences, Kuchl, Austria; [2]Technische Universität München, Holzforschung München, Munich, Germany

Fracture Characteristics and Properties of Thermally Modified Timber made out of Beech (60)
Majano Majano, M. Almudena[1]; Hughes, Mark[2]; Fernández-Cabo, José L.[1]
[1]Technical University of Madrid, Structural Department, Madrid, Spain; [2]Helsinki University of Technology, Department of Forest Products Technology, Espoo, Finland

Color Change in Thermally-modified Wood and its Relationship with Property Changes (62)
González-Peña, Marcos M.[1,2]; Hale, Michael D. C.[1]
[1]Bangor University, School of the Environment and Natural Resources, Bangor, Gwynedd, United Kingdom; [2]The University of British Columbia, Centre for Advanced Wood Processing, Vancouver, Canada

Density-property Relationships in Thermally Modified Wood (63)
Arnold, Martin
Empa, Swiss Federal Laboratories for Materials Testing and Research, Wood Laboratory, Dübendorf, Switzerland

On the Modelling of Colour Change of Thermally Treated Hardwoods during Artificial Weathering (64)
Schnabel, Thomas; Zimmer, Bernhard; Bächle, Helmut; Petutschnigg, Alexander
Salzburg University of Applied Sciences, Forest Products Technology & Construction, Kuchl, Austria

17:00 - 18:00

Poster Session 2 - Resins, Coatings, WPC

Room: To be announced

Chair: Joris Van Acker, Belgium

Bioincised Wood as Substrate for Surface Modifications (65)
Lehringer, Christian[1]; Arnold, Martin[1]; Richter, Klaus[1]; Schubert, Mark[1]; Schwarze, Francis W.M.R.[1]; Militz, Holger[2]
[1]Empa, Swiss Federal Laboratories for Materials Testing and Research, Wood Laboratory, Dübendorf, Switzerland; [3]Georg-August University Göttingen, Wood Biology and Wood Products, Göttingen, Germany

The Effect of Thermal Treatment using Vegetable Oils on Selected Properties of Poplar and Robinia wood (66)
Bak, Miklós[1]; Németh, Róbert[1] Tolvaj, László[2];; Molár, Sándor[1]
[1]University of West Hungary, Institute of Wood Sciences, Sopron, Hungary; [2]University of West Hungary, Institute of Physics, Sopron, Hungary

Potential of Water Wax Emulsions for Improvement of Wood Performance (67)
Lesar, Boštjan; Pohleven, Franc; Humar, Miha
University of Ljubljana, Biotechnical Faculty, Ljubljana, Slovenia

Capillary Water Uptake and Mechanical Properties of Wax Soaked Scots Pine (68)
Scholz, Gunthard; Krause, Andreas; Militz, Holger
Georg-August-University Goettingen, Department of Wood Biology and Wood Products, Goettingen, Germany

Novel coil-coating concept for thermally modified wood (69)
Johansson, Katarina[1]; Kärrfelt, Ylva[2]; Johansson, Mats[1]
[1]KTH, Fibre & Polymer Technology, Stockholm, Sweden; [2]SP Technical Research Institute of Sweden, Stockholm, Sweden

Sol-Gel Coating of Thermoflooring: Haptics and performance of a new surface coating for solid wooden flooring made of TMT (70)
Schöftner, Rainer; Wiesbauer, Herfried; Leichtfried, Hans-Martin
Profactor GmbH, Functional Surfaces & Nanostructures, Steyr-Gleink, Austria

Research of Application of Fast-growing Wood Species as Fillers of Polypropylene/Wood Composites (71)
Doczekalska, Beata; Szaniecka, Magdalena; Bartkowiak, Monika
Poznan University of Life Sciences, Institute of Chemical Wood Technology, Poznan, Poland

Effect of Type of Wood Source on Water Absorption and Mechanical Properties of Wood-Plastic Composites (73)
Butylina, Svetlana; Huuhilo, Tiina; Kärki, Timo
Lappeenranta University of Technology, Department of Mechanical Engineering, Lappeenranta, Finland

Physical and Mechanical Properties of Thermally Modified Aspen Wood (74)
Tremblay, Carl[1]; Baribeault, Jean[2]
[1]FPInnovations - Forintek, Value-Added Products, Quebec, Canada; [2]Hydro-Quebec, Laboratoire des Technologies de l'Énergie, Shawinigan, Canada

Improvement of Interfacial Bonding of WPC Based on Various Maleic Acid Anhydride Pre-treatments (75)
Grüneberg, Timo; Krause, Andreas; Mai, Carsten; Militz, Holger
Georg-August University Göttingen, Wood Biology and Wood Products, Göttingen, Germany

Acetylation to minimize water uptake and deformation of high wood content WPC (76)
Segerholm, B Kristoffer[1,2]; Omidvar, Asghar[3]; Wålinder, Magnus E. P.[1,2]
[1]KTH Royal Institute of Technology, div. of Building materials, Stockholm, Sweden; [2]SP Technical Research Institute of Sweden, Wood Technology, Stockholm, Sweden; [3]University of Agricultural Sciences and Natural Resources, Wood Science and Technology, Gorgan, Islamic Republic of Iran

Tuesday, April 28, 2009

08:30 - 10:00

Oral Session 4 - Surface Treatments

Room: Aula

Chair: Bôke Tjeerdsma, The Netherlands

Weathering and Photostability of Wood Modified by Aromatic Vinyl Esters (18)
Sèbe, Gilles[1]; Jebrane, Mohamed[1]; Cullis, Ian[2]; Evans, Philip D.[2]
[1]Université Bordeaux 1, Unité Sciences du Bois et des Biopolmères, Talence, France; [2]University of British Columbia, Centre for Advanced Wood Processing, Vancouver, Canada

Natural Weathering of Scots Pine (Pinus sylvestris L.) Wood Modified by Functionalized Commercial Silicone Emulsions (19)
Ghosh, Shyamal C; Militz, Holger; Mai, Carsten
Georg-August-Universität Göttingen, Wood Biology and Wood Products, Göttingen, Germany

The Bonding of Modified Wood using Wood Welding Techniques (21)
Jones, Dennis[1]; Pizzi, Antonio[2]
[1]Woodknowledge Wales, BRE Wales, Bangor, United Kingdom; [2]ENSTIB, Universite Henri Poincare, Epinal, France

Water-Repellent Coatings on Wood Surfaces Generated by a Dielectric Barrier Discharge Plasma Jet at Atmospheric Pressure (22)
Avramidis, Georg[1]; Wolkenhauer, Arndt[1]; Zhen, Botao[1]; Militz, Holger[2]; Viöl, Wolfgang[3]
[1]HAWK, Göttingen, Germany; [2]Georg-August-University Göttingen, Göttingen, Germany; [3]Laserlaboratorium Göttingen e.V., Göttingen, Germany

Laser Photografting Modification of Wood Surfaces by UV Laser Induced Photografting (23)
Dodson, Clay[1]; McDonald, Armando[1]; McIlroy, David[2]
[1]University of Idaho, Department of Forest Products, Moscow, United States; [2]University of Idaho, Department of Physics, Moscow, United States

10:30 - 12:00

Oral Session 5 - Market/Requirements, Commercial Aspects II

Room: Aula

Chair: Julia Carmo, Portugal

Products meeting needs - applying wood modification to its fullest potential (24)
Jones, Dennis[1]; Carmo, Julia[2]; Nunes, Lina[3]; Kegel, Edo[4]
[1]Woodknowledge Wales, BRE Wales, Port Talbot, United Kingdom; [2]Carmo-Anglo Portugesa de Productos Quimicos Lda, Lisbon, Portugal; [3]Lab. Nacional de Engenharia Civil, LNEC, Lisbon, Portugal; [4]Marketing Dept, Plato International BV, Arnhem, Netherlands

Development of the Endura concept (25)
Huizer, Jan
Endura BV, Veenendaal, Netherlands

Introduction of Accoya® Wood on the Market – Technical Aspects (26)
Bongers, Ferry[1]; Roberts, Matt[2]; Stebbins, Hal[3]; Rowell, Roger[4]
[1]Titan Wood BV, R&D, Arnhem, Netherlands; [2]Titan Wood Ltd, Technical Sales America's, Dallas, United States; [3]Titan Wood Ltd, Worldwide Marketing, Dallas, United States; [4]University of Wisconsin, Madison, WI, United States and Titan Wood Ltd, Arnhem, Netherlands

Evaluation of Acetylated Wood for International Code Council-Evaluation Services Listing (27)
Cline, Sharon M.[1]; McIntyre, Craig R.[2]
[1]Eastman Chemical Company, Technical Service, Kingsport, TN, United States; [2]McIntyre Associates, Inc, President, Walls, MS, United States

The Right Way of Using Modified Wood Products For Windows (29)
Moarcas, Odette[1]; Krause, Andreas[2]
[1]ift Rosenheim, Material Department, Rosenheim, Germany; [1]Georg-August-University of Goettingen, Wood Biology and Wood Products, Goettingen, Germany

13:00 – 14:45

Oral Session 6 - Thermal Modification

Room: Aula

Chair: Dennis Jones, United Kingdom

Experiences and environmental aspects of thermal modified timber in novel noise barrier elements along a motorway in Austria (30)
Huber Hermann[1]; Fernandez-Cabo, Jose L.[2;] Caduff, Marloes[3]; Althaus, Hans-Jörg[3;] Schöftner, Rainer[4]
[1]Mitteramskogler GmbH, Gaflenz, Austria; [2]Polytechnic University of Madrid (UPM), Spain Research Establishment, Madrid, Spain; [3]Empa, Swiss Federal Laboratories for Materials Testing and Research, Technology and Society Laboratory, Dübendorf, Switzerland; [4]Functional Surfaces and Nanostructures, PROFACTOR, Steyr, Austria

Mechanism of strength loss in heat treated softwoods (31)
Birkinshaw, Colin; Dolan, Seamus
University of Limerick, Materials Science, Limerick, Ireland

Emissions from Thermally Modified Beech, their Reduction by Solvent Extraction and Fungicidal Effect of the Organic Solvent Extracts (32)
Peters, Jana[1]; Pfriem, Alexander[2]
[1]TU Dresden, Institute of Wood and Plant Chemistry, Tharandt, Germany; [2]TU Dresden, Institute of wood and paper technology, Dresden, Germany

Combined Hydro-Thermo-Mechanical Modification (CHTM) as an Innovation in Mechanical Wood Modification (33)
Mohebby, Behbood; Sharifnia-Dizboni, Hoori; Kazemi-Najafi, Saeed
Tarbiat Modares University, Department of Wood & Paper Sciences, Faculty of Natural Resources, Noor, Islamic Republic of Iran

Alteration of the Unsteady Sorption Behaviour of Spruce and Maple due to Thermal Treatment (34)
Pfriem, Alexander; Zauer, Mario
TU Dresden, Institute of wood and paper technology, Dresden, Germany

Thermal Treatment of Wood Poles and Lumber for Distribution Network (35)
Gastonguay, Louis[1]; Kocaefe, Duygu[2]; Poncsak, Sandor[2]; Younsi, Ramdane[2]; Kocaefe, Yasar[2]
[1]Hydro-Quebec, Materials Sciences, Varennes, Canada; [2]University of Quebec at Chicoutimi, Applied Sciences, Chicoutimi, Canada

Thermally Modified Beech as a Structural Material: Allocation to European Strength-Classes and Relevant Grading Procedures (36)
Widmann, Robert
EMPA Swiss Federal Laboratories for Materials Testing and Research, Wood Laboratory, Duebendorf, Switzerland

15:15 - 16:45

Poster Session 3 - Densification, Chemical Modification and others

Room: To be announced

Chair: Joris Van Acker, Belgium

Nanocarriers to modify the properties of porous materials (77)
Mendoza, S.M.[1]; Eversdijk, J.[2]; Rentrop, C.H.A.[2]; Sailer, M.F.[3]; Fischer, H.R.[2]; Benz, D.[3]; Homan, W.J.[3]
[1]TNO, Building Materials, Delft, Netherlands; [2]TNO, Materials Technology, Eindhoven, Netherlands; [3]TNO, Building Materials, Delft, Netherlands

Eliminating Set-recovery in Densified Wood using a Steam Heat-treatment Process (80)
Rautkari, Lauri; Hughes, Mark
Helsinki University of Technology, Forest Products Technology, Espoo, Finland

Modified Hybrid Poplar for Structural Composites (81)
Kamke, Fred; Rathi, Vardan
Oregon State University, Department of Wood Science & Engineering, Corvallis, Oregon, United States

Fire Performance Characteristics of Acetylated Wood (82)
Morozovs, Andris[1]; Buksans, Edgars[2]
[1]Latvia University of Agriculture, Department of Chemistry, Jelgava, Latvia; [2]Forest and Wood Products Research and Development Institute, Jelgava, Latvia

Investigations on the Application of Turpentine in Wood Processes with Acid Anhydrides (83)
Doczekalska, Beata
Poznan University of Life Sciences, Institute of Chemical Wood Technology, Poznan, Poland

Modification of Wood with Glutaraldehyde (84)
Xiao, Zefang; Xie, Yanjun; Militz, Holger; Mai, Carsten
Georg-August-University Göttingen, Wood Biology and Wood Products, Göttingen, Germany

Furfurylation of *Pinus pinaster* Wood (85)
Esteves, Bruno[1]; Nunes, Lina[2]; Pereira, Helena[3]
[1]Centro de Estudos em Educação, Tecnologias e Saúde, Escola Superior de Tecnologia de Viseu, Instituto Politécnico de Viseu, Viseu, Portugal; [2]Laboratório Nacional de Engenharia Civil (LNEC), Lisboa, Portugal; [3]Centro de Estudos Florestais, Instituto Superior de Agronomia, Universidade Técnica de Lisboa, Lisboa, Portugal

Eco-efficient high fire performance wood-based products by chemical modification (86)
Östman, Birgit A-L.; Tsantaridis, Lazaros D.
[1]SP Trätek, Wood Technology, Stockholm, Sweden

Selected Properties of Beech Wood Modified by Citric Acid (87)
Šefc, Bogoslav[1]; Hasan, Marin[1]; Trajković, Jelena[1]; Despot, Radovan[1]; Jug, Matija[1]; Katović, Drago[2]; Bischof Vukušić, Sandra[2]
[1]University of Zagreb, Faculty of Forestry, Zagreb, Croatia; [2]University of Zagreb, Faculty of Textile Technology, Zagreb, Croatia

Performance Testing of Plywood from Beech Veneers Treated with Melamine-based Compounds (88)
Trinh, Hien Mai; Militz, Holger; Mai, Carsten
Georg-August-University Göttingen, Wood Biology and Wood Products, Göttingen, Germany

15:30 - 16:45

Poster Session 3 - Densification, Chemical Modification and others

Room: To be announced

Chair: Joris Van Acker, Belgium (Posters will briefly be presented by the chairperson)

Production of Thermally Modified Veneer with High Decorative Value (91)
Pfriem, Alexander; Buchelt, Beate; Jahn, Robert
TU Dresden, Institute of wood and paper technology, Dresden, Germany

Performance of Finger Jointed Boards and Structural Glued Laminated Timber Beams Made of Thermally Modified Beech (92)
Widmann, Robert
EMPA Wood Laboratory, Duebendorf, Switzerland

Heat treated beech veneer plywood: durability against wood destroying fungi using accelerated tests and mechanical analysis (93)
Issleib, Imanuel[1]; Unger, Wibke[1]; Avar, Istvan[2]
[1]University of Applied Sciences Eberswalde, Wood Biology and Integrated Wood Protection, Eberswalde, Germany; [2]OWI GmbH, Lohr, Germany

VTC Treatment and Phenol-formaldehyde Impregnation of Hybrid Poplar (94)
Kamke, Fred[1]; Gabrielli, Chris P.[2]
Oregon State University, Corvallis, Oregon, United States

Wettability of Hydrothermally Modified MDF (95)
Mohebby, Behbood; Fallah, Peyman
Tarbiat Modares University, Faculty of Natural Resources and Marine Sciences, Department of Wood and Paper Sciences, Noor, Islamic Republic of Iran

Thermal Compression of Hybrid Poplar: Analysis of extractable components after treatment (96)
Osman, Noridah[1]; McDonald, Armando[1]; Laborie, Marie-Pierre[2]
[1]University of Idaho, Department of Forest Products, Moscow, ID, United States; [2]Washington State University, Wood Materials and Engineering Laboratory, Pullman, WA, United States

Thermally modified wood protection against UV radiation and water (97)
Grześkiewicz, Marek; Mariusz, Maminski
Warsaw University of Life Sciences SGGW, Faculty of Wood Technology, Warsaw, Poland

The Effect of Hygrothermal Treatment on The Transversal Deformation and End Cracks of Hornbeam Logs (98)
Hoseinzadeh, Abdollah[1]; Doosthoseini, kazem[2]; Enayati, ali akbar[2]; Khademi-eslam, habib[3]
[1]Islamic Azad University, Chalous, Islamic Republic of Iran; [2]University of Tehran, Faculty of Natural Resource, Tehran, Islamic Republic of Iran; [3]Islamic Azad University, Tehran, Islamic Republic of Iran

Springback in Acetylated Wood Based Composites (99)
Mohebby, Behbood[1]; Gorbani-Kokandeh, Maryam[2]; Soltani, Mojtaba[3]
[1]Tarbiat Modares University, Faculty of Natural Resources, Department of Wood and Paper Sciences, Noor, Islamic Republic of Iran; [2]Mazandaran University, Faculty of Natural Resources, Department of Wood & Paper Sciences, Sari, Islamic Republic of Iran; [3]Azad University, Department of Wood & Paper Sciences, Chaloos, Islamic Republic of Iran

Evaluation of Fracture in Acetylated Wood-Based Composites (100)
Soltani, Mojtaba[1]; Hemasi , Amir Homan[1]; Mohebby , Behbood[2]; Khademi Eslam, Habib[1]
[1]Islamic Azad University, Faculty of Agriculture and Natural Resources, Chalos, Islamic Republic of Iran; [2]Tarbiat Modares University, Faculty of Natural Resources, Department of Wood and Paper Sciences, Noor, Islamic Republic of Iran

The Water Vapour Sorption Properties of Anhydride Modified Wood (101)
Hill, Callum
Napier University, Centre for Timber Engineering, Edinburgh, United Kingdom

On the Physical and Mechanical Properties of Gas Phase Ammonia Treated Wood (102)
Weigl, Martin; Müller, Ulrich
Competence Center for Wood Composites and Wood Chemistry, Wood Kplus, Linz, Austria

Wednesday, April 29, 2009

09:00 - 09:30

Keynote presentation 2

Room: Aula

Understanding decay resistance, dimensional stability and strength changes in heat treated and acetylated wood (37)
Rowell, Roger[1]; Ibach, Rebecca[2]; McSweeny, James[2]; Nilsson, Thomas[3]
[1]University of Wisconsin, Madison, WI, United States; [2]Forest Products Laboratory, Madison, WI, United States; [3]SP Technical Research Institute of Sweden, Stockholm, Sweden

09:30 - 10:30

Oral Session 7 - Ecobuild I

Room: Aula

Chair: Mats Westin, Sweden

Acetylated wood fibres - next stop: commercialisation (38)
Jones, Dennis[1]; Lawther, Mark[2]; Torgilson, Ronny[3]; Simonson, Rune[4]
[1]Woodknowledge Wales, BRE Wales, Port Talbot, United Kingdom; [2]DanAcell Denmark A/S, Vordingborg, Danmark; [3]TLA Development I/S, Roskilde, Denmark; [4]A-Cell Acetyl Cellulosics AB, Saavedalen, Sweden

Durability of Modified Wood – Laboratory vs Field Performance (39)
Alfredsen, Gry[1]; Westin, Mats[2]
[1]Norwegian Forest and Landscape Institute, Ås, Norway; [2]SP Technical Research Institute of Sweden, EcoBuild, Borås, Sweden

Kebony - an Alternative to Teak for Boat Decking (40)
Ziethen, Rune[1]; Brynildsen, Per[2]; Lande, Stig[2]; Kristoffersen, Jarle[3]; Westin, Mats[1]
[1]SP Technical Research Institute of Sweden, Wood Technology, Borås, Sweden; [2]Kebony ASA, R&D, Porsgrunn, Norway; [2]Sandøy Båtdekk AS, Tvedestrand, Norway

Bio-resin bonded acetylated OSB (41)
Emma Östmark[1,2], Mark Lawther[3], Rune Ziethén[3], Petra Nordqvist[4], Farideh Khabbaz[5], Eva Malmström[4] and Mats Westin[3]
[1]SP Technical Research Institute of Sweden, Wood technology, Stockholm, Sweden; [2]KTH Royal Institute of Technology, Fibre and Polymer Technology, Stockholm, Sweden; [3]TLA-Development, Roskilde, Denmark; [4]SP Technical Research Institute of Sweden, Wood technology, Borås, Sweden; [5]Casco Adhesives, Stockholm, Sweden

11:00 - 11:30

Keynote presentation 3

Room: Aula

Weathering and Photostability of Modified Wood (42)
Evans, Philip D
University of British Columbia, Centre for Advanced Wood Processing, Vancouver, Canada

11:30 - 12:30

Oral Session 8 - Ecobuild II

Room: Aula

Chair: Waldemar Homan, Netherlands

Some Aspects on the Determination of Surface Chemical Composition and Wettability of Modified Wood (43)
Englund, Finn[1]; Bryne, Lars Elof[2]; Ernstsson, Marie[3]; Lausmaa, Jukka[4]; Wålinder, Magnus[1,2]
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Compreg-type of products by furfurylation during hot-pressing (44)
Westin, Mats[1]; Sterley, Magdalena[1]; Rossí, Frédéríc[2]; Hervé, Jean-Jérémie[1]
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Furfurylated Wood for Wooden Window Constructions (45)
Puttmann, Sabrina[1]; Krause, Andreas[1]; Pilgård, Annica[2]; Treu, Andreas[3]; Militz, Holger[1]
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Glulam posts with thermally modified spruce for outdoor applications (46)
Henriksson, Marielle[1,2]; Sterley, Magdalena[1]; Danvind, Jonas[3,4]
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