

General Information

Registration desk will be open at the following time:

March 15	17:30–20:00	(Welcome reception hall: 82 Ale House, Lotte City Hotel Kinshicho 4F)
March 16	9:00–19:00	(Tenji hall, Tower Hall Funabori 1F)
March 17	9:00–12:00	(Tenji hall, Tower Hall Funabori 1F)

Shuttle bus service (prior reservation essential) between Tobu Hotel Levant Tokyo and Tower Hall Funabori is available free of charge. The buses will depart at the following time (about 30 min for each way):

	From Tobu Hotel Levant Tokyo	From Tower Hall Funabori
March 16	8:30	21:00
March 17	8:30	14:00

Lunch box (prior reservation essential) will be delivered at the following rooms of Tower Hall Funabori:

March 16	room Heian, 2F	(11:00–15:00)
March 17	rooms Fukujyu and Tougen, 2F	(12:30–14:30)

Wireless internet access will be freely available in the Tenji hall, 1F.

Communication space and free drinks will be provided at the back rooms of Tenji hall, 1F.

Cloakroom service will be available at the rooms 302 and 303, 3F.

Social Hours

Welcome reception: March 15, 18:00–20:00, 82 Ale House, Lotte City Hotel Kinshicho 4F

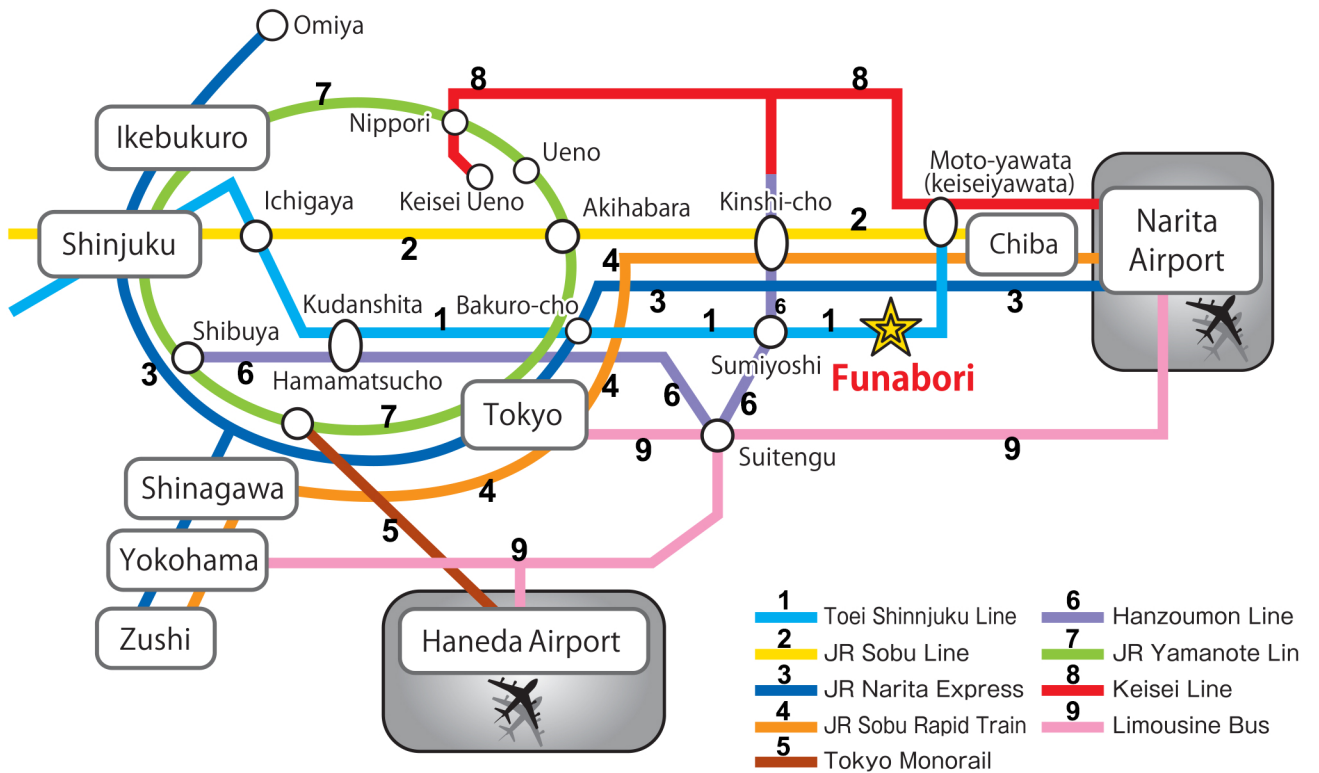
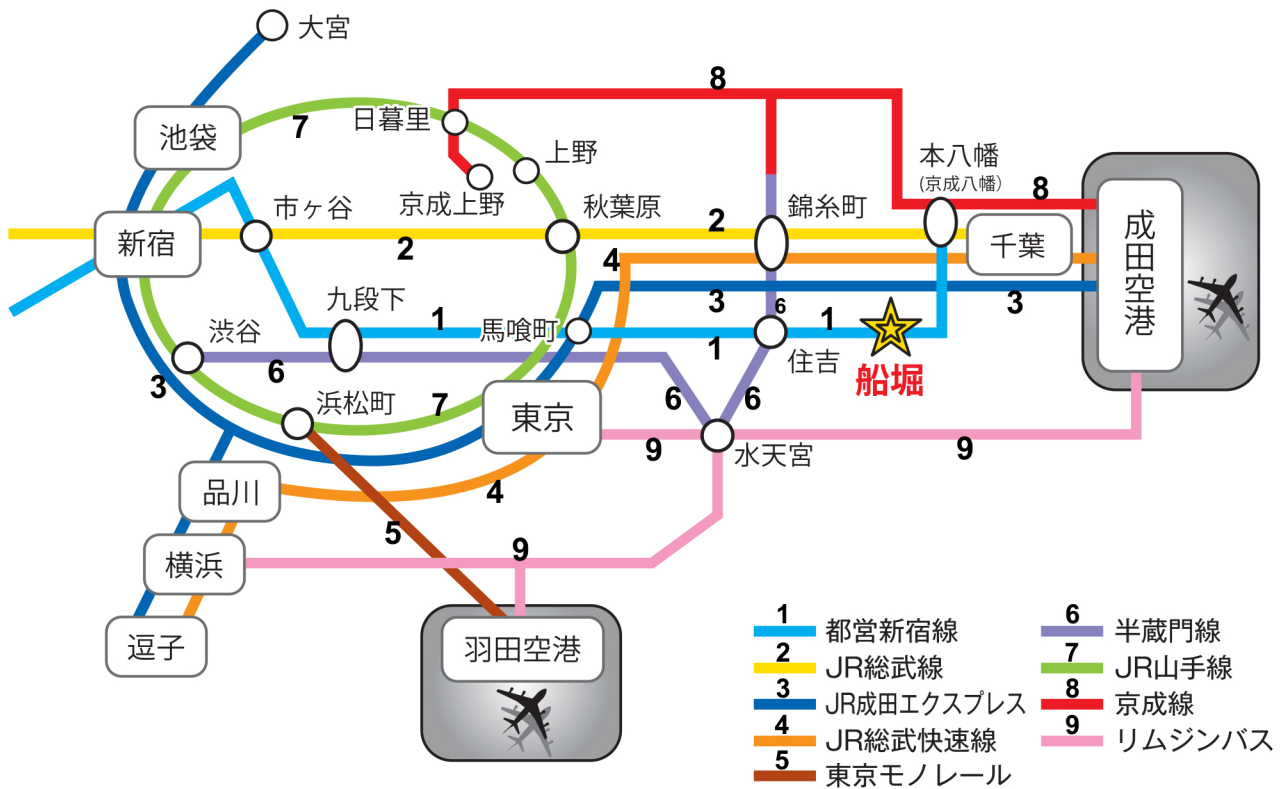
Website: <http://www.eok.jp/restaurants-bars/pub/british/82ale-house-lotte-city-hotel-kinshicho>

All participants are invited free of charge to the welcome reception.

Banquet (prior reservation essential): March 16, 19:00–20:30, room Zuiun-Heian, Tower Hall Funabori 2F

Welcome drinks will be provided from 18:30.

Tokyo Rail and Bus Route Map



Symposium Schedule at a Glance

Session	1	2	3	4-1	4-2	5	6	7
	WP	TE	WC	CA	CA	FS	BP	BR
15 th March								
18:00-20:00	Welcome reception & registration (82 Ale House, Lotte City hotel)							
16 th March								
8:30	Bus departs from hotel							
8:45-9:30	Registration							
9:30-9:45	Opening remark (Dai hall)							
9:45-10:20	Keynote lecture 1							
10:20-10:55	Keynote lecture 2							
10:55-11:15								
11:15-12:25	Lunch (room Heian, 11:15-14:00)	Lunch (room Heian, 11:15-14:00)	Oral-1 (11:15-12:25)	Oral-1 (11:15-12:25)	Oral-1 (11:15-12:25)	Oral-1 (11:15-12:25)	Lunch (room Heian, 11:15-14:00)	Oral-1 (11:15-12:25)
12:25-12:50		Oral-1 (12:50-17:00)	Lunch (room Heian, 11:15-14:00) & Poster (13:00-14:30)	Lunch (room Heian,11:15-14:00)		Lunch (room Heian, 11:15-14:00)		Oral-1 (13:00-17:00)
12:50-13:00	Oral-2 (13:20-17:00)			Oral-2 (13:20-17:00)	Oral-2 (13:00-14:30) & Poster (13:00-14:30)	Oral-1 (13:00-17:00)	Oral-2 (13:00-14:30) & Poster (13:00-14:30)	
13:00-13:20								
12:50-13:00								
13:00-14:30								
14:30-14:40								
14:40-17:00								
17:00-17:10			Oral-2 (14:40-18:40)			Oral-2 (14:40-18:40)		Oral-2 (14:40-18:40)
17:10-18:40	Poster (17:10-18:40)	Poster (17:10-18:40)		Poster (17:10-18:40)			Poster (17:10-18:40)	
18:40-19:00								
19:00-20:30	Banquet (room Zuiun & Heian)							
21:00	Bus departs to hotel							
17 th March								
8:30	Bus departs from hotel							
9:20-9:30	Oral-2 (9:20-12:10)	Oral-2 (9:20-12:10)	Oral-3 (9:20-12:10)			Oral-3 (9:20-12:10)	Oral-2 (9:20-12:10)	Oral-3 (9:20-12:10)
9:30-12:10				Oral-3 (9:30-12:10)	Oral-3 (9:30-12:10)			
12:10-12:20								
12:20-13:00	Closing remark (room Zuiun & Heian)							
13:00-14:00	Lunch (room Fukujyu & Tougen,13:00-14:30)							
14:00	Bus departs to hotel							

Abbreviations

WP: Wood Physics

TE: Timber Engineering

WC: Wood Chemistry

CA: Composite Materials and Adhesion

FS: Cell Formation and Wood Structures

BP: Biodegradation and Preservation of Wood

BR: Biorefinery

Keynotes

March 16

9:45-10:20

John Ralph

University of Wisconsin, USA

Designing Plant Cell Walls for Deconstruction: Using Monolignol Ferulate Conjugates to Introduce Cleavable Ester Bonds into the Lignin Backbone

10:20-10:55

Kohei Komatsu

Kyoto University, Japan

Development of Glulam and Glulam Structures

Session 1: Wood Physics

March 16

13:00-13:30 1WP-I01 *Invited Lecture*

Joseph Gril

CNRS, Montpellier University, France

Modelling mechano-sorption in wood through hygro-locks and other approaches

13:30-13:50 1WP-O01

Yoyo Suhaya, Aos Akyas, Titin Supriatun and Imam Wahyudi

School of Life Sciences and Technology Institut Teknologi Bandung, Indonesia

Variation of Surian Woods (*Toona sinensis* Roem.) Characteristics in West Java, Indonesia

13:50-14:10 1WP-O02

Paulo Hein, José Tarcísio Lima, Selma Goulart, José Reinaldo Silva, Taiana Arriel and Fernanda Nascimento

Federal University of Lavras, Brazil

Dynamic elastic properties variation of 37 year-old *Eucalyptus* species grown in Brazil

14:10-14:30 1WP-O03

Takashi Yojo, Raphael Pigozzo, Suelem Macena and Maria Miranda

Institute for Technological Research, Brazil

Compressive Strength Of Wood in Direction Parallel to the Cell

14:30-14:50 1WP-O04

Tetsuya Inagaki, Belal Ahmed, Ian Hartley, Satoru Tsuchikawa and Matthew Reid

Nagoya University, Japan

Simultaneous prediction of density and moisture content of wood by terahertz time domain spectroscopy

14:50-15:20 1WP-I02 *Invited Lecture*

Peter Niemz, Michaela Zauner and Franziska Baensch

ETH Zürich, Switzerland

In-situ Synchrotron micro-tomography and acoustic emission of Norway spruce samples under tensile load

15:20-15:40 1WP-O05

Tsunehis Miki, Masako Seki, Soichi Tanaka, Nobuo Sobue, Masakazu Nishida, Ichinori Shigematsu and Kozo Kanayama

National Institute of Advanced Industrial Science and Technology, Japan

Dynamic heat capacity changes of wood related to microstructure alterations caused by drying

15:40-16:00 1WP-O06

Yu Ogawa, Pan Chen, Yoshiharu Nishiyama and Karim Mazeau

CNRS, France

The role of shear deformation of cellulosic crystals

16:00-16:20 1WP-O07

Karim Mazeau, Liang Li, Patrick Perre and Xavier Frank

CNRS, France

The interface in biomimetic xylan/cellulose nanocomposites probed by multiscale modelling.

16:20-16:40 1WP-O08

Matti Toivonen, Sauli Kurki-Suonio, Felix Schacher, Orlando Rojas and Olli Ikkala

Aalto University, Finland

Physical cross-linking of nanofibrillated cellulose with chitosan by surface adsorption and desolubilization in transparent hybrid nanopaper

16:40-17:00 1WP-O09

Kayoko Kobayashi, Masanori Akada, Setsuo Imazu and Junji Sugiyama

Kyoto University, Japan

Pattern recognition system toward identification of culturally important wooden artifacts

Poster session (17:10-18:40)

March 17

10:00-10:30 1WP-I03 *Invited Lecture*

Peer Haller, Jens Hartig and Joerg Wehsener

Technische Universität Dresden, Germany

Recent Advancements for the Application of Moulded Wooden Tubes as Structural Elements

10:30-10:50 1WP-O10

Masayuki Ishihara, Yoshihiro Ootao and Yoshitaka Kameo

Osaka Prefecture University, Japan

Transient Hygrothermal Field in One-dimensional Porus Media Considering Nonlinear Coupling Between Heat and Moisture Diffusion

10:50-11:10 1WP-O11

Yonggun Park, Yeonjung Han, Jun-Ho Park, Yoon-Seong Chang, Sang-Yun Yang, Hyun Woo Chung and Hwanmyeong Yeo

Seoul National University, Republic of Korea

Superheated Steam Heat Treatment for Pitch Pine Lumber

11:10-11:30 1WP-O12

Mayumi Utsumi, Koji Murata and Takato Nakano

Kyoto University, Japan

Stress relaxation test and compact tension test for thermally modified wood

11:30-11:50 1WP-O13

Kaoru Yamagishi-Nishikiori, Tomohiro Yamada, Takayuki Yamagishi and Koji Adachi

Akita Prefectural University, Japan

Water repellency of Diamond-like carbon coated wood

11:50-12:10 1WP-O14

Soichi Tanaka, Tsunehisa Miki, Masako Seki, Ichinori Shigematsu and Kozo Kanayama

National Institute of Advanced Industrial Science and Technology, Japan

Migration of polymers into cell walls in wood impregnated with an aqueous polymer solution under conditioning in controlled atmosphere: Effect of solution concentration on swelling and shrinkage behaviors of wood treated with polyethylene glycol polymers

Session 2: Timber Engineering

March 16

12:50-13:20 2TE-I01 *Invited Lecture*

Haiqing Ren

Chinese Academy of Forestry, China

To be announced

13:20-13:40 2TE-O01

Zhaoxia Guo and Ying Gao

Beijing Forestry University, China

Dovetail Joints Mechanics of Solid Wood Furniture Based on Finite Element Analysis

13:40-14:00 2TE-O02

Raquel Gonçalves, Alex Julio Trinca, Cinthya Bertoldo, Rafael Lorensani and Monica Ruy

University of Campinas, Brazil

The role of nondestructive testing in the timber characterization and classification

14:00-14:20 2TE-O03

Kango Sato and Tadatoshi Furukawa

Nagoya University, Japan

Study on Bonding Method and Bending Performance of Built-up Beam

14:20-14:40 2TE-O04

Hidemaru Shimizu and Yoshiaki Wakashima

Toyama Prefectural Forest Products Research Institute, Japan

Study on seismic grid wall using compression wood of shape recovery behavior

14:40-15:00 2TE-O05

André Luiz Silva Matos Matos, Antônio Alves Dias Dias, Orlando Ferreira Gomes Gomes and Francisco Antônio Rocco Lhar Lhar

Universidade Federal de Goiás, Brazil

Influence of torque control in wooden beams juxtaposed bolts

15:00-15:20 2TE-O06

Andreja Kutnar and Dick Sandberg

University of Primorska, Slovenia

Sustainable Development, Wood, and Build Environment in Slovenia and Sweden

15:20-15:40 2TE-O07

Ikhyun Shin, Andi Hermawan and Noboru Fujimoto

Kyushu University, Japan

Effect of treatment time and temperature for High temperature and low humidity (HT-LH) pretreatment on drying characteristics of Sugi boxed-heart timber

15:40-16:00 2TE-O08

Dick Sandberg and Andreja Kutnar

Luleå University of Technology Sweden

Recent Development of Thermal Wood Treatments: Relationship between Modification Processing, Product Properties, and the Associated Environmental Impacts

16:00-16:20 2TE-O09

Manja Kitek Kuzman

University of Ljubljana, Slovenia

Timber Passive House for Sustainability

16:20-16:40 2TE-O10

Yuuki Kawamura, Yuko Tsunetsugu, Kohta Miyamoto, Takahiro Kounoike and Kenji Kariya

Sumitomo Forestry co.,ltd, Japan

Physiological and psychological responses to touching wooden balls in school-age children-I: physical properties of the balls and pools

16:40-17:00 2TE-O11

Yuko Tsunetsugu, Yuuki Kawamura, Kohta Miyamoto, Takahiro Kounoike and Kenji Kariya

Forestry and Forest Products Research Institute, Japan

Physiological and psychological responses to touching wooden balls in school-age children-II: heart rate variability and cerebral blood flow changes

Poster session (17:10-18:40)

March 17

9:20-9:50 2TE-I02 *Invited Lecture*

Ying-Hei Chui

University of New Brunswick, Canada

A multi-disciplinary Canadian research network to support the use of wood products
multi-storey building construction

9:50-10:10 2TE-O12

Shoichi Nakashima, Yasuhiro Araki and Hiroshi Isoda

Utsunomiya University, Japan

Tensile structural performance of multiple dowels type joint with CLT

10:10-10:30 2TE-O13

Akihisa Kitamori, Shoichi Nakashima, Mami Wada and Hiroshi Isoda

Kyoto University, Japan

FE analysis on in-plane shear performance of frame structure composed of L-shape CLT
members

10:30-10:50 2TE-O14

Kohei Komatsu, Hiroshi Nakatani, Kenho Okura, Yoshikuni Okura, Yoshinori Okura,
Yoshiaki Wakashima, Hidemaru Shimizu and Kuninari Ueda

Kyoto University, Japan

Shaking Table Tests on a Two Storey & Two Span Glulam Frame Structure Whose
Moment-Resisting Joints are Composed of Steel Hybrid Dampers

10:50-11:10 2TE-O15

Ryota Haba, Akihisa Kitamori, Takuro Mori and Hiroshi Isoda

Kyoto University, Japan

Development of CLT panels bond-in method for seismic retrofitting of RC frame structure

11:10-11:30 2TE-O16

Weibo Dong, Ying Gao, Zhiming Yu and Tingge Yuan

Beijing Forestry University, China

Test research on nail joints of MIDPLY wood shear wall

11:30-11:50 2TE-O17

Ying Gao, Weibo Dong, Zhiming Yu and Tingge Yuan

Beijing Forestry University, China

Analysis of nail joints of midply wood shear wall

11:50-12:10 2TE-O18

Vilma França Monteiro Monteiro, Edgar Bacarji Bacarji, Orlando Ferreira Gomes Gomes and
Francisco Antônio Rocco Lhar Lhar

Universidade Federal De Goias, Brazil

Mixed wood frame-bent plate submitted to bending simple

Session 3: Wood Chemistry

March 16

11:15-11:45 3WC-I01 *Invited Lecture*

Yonghao Ni

University of New Brunswick, Canada

Prehydrolysis kraft (PHK) dissolving pulp production, pulp quality improvement and its integration into forest biorefinery

11:45-12:05 3WC-O01

Haruka Goto, Akari Tamai, Takuya Akiyama and Yuji Matsumoto

University of Tokyo, Japan

Variety of the content of biphenyl structures in softwood and hardwood lignins

12:05-12:25 3WC-O02

Morikazu Toda, Takuya Akiyama, Tomoya Yokoyama and Yuji Matsumoto

University of Tokyo, Japan

Methoxyl analysis of Klason residue of tree leaves

Lunch Break

Poster session (13:00-14:30)

14:40-15:00 3WC-O03

Satoko Nishikawa, Hidehiro Daidoji and Bunji Hashimoto

HORIBA, Ltd., Japan

X-ray Fluorescence Quantitative Analysis of CCA and Other Preservative Treated Wood

15:00-15:20 3WC-O04

Gilles Chaix, Sophie Nourissier, Tahiana Ramananantoandro, Mario Tomazello Filho and Garel Makouanzi

CIRAD, France

Near Infrared Spectroscopy for Eucalyptus wood chemical compounds

15:20-15:40 3WC-O05

Te Ma, Tetsuya Inagaki, Guanxiong Wang and Satoru Tsuchikawa

Nagoya University, Japan

Evaluation of chemical composition in wood using NIR hyperspectral imaging

15:40-16:00 3WC-O06

Peiming Zheng, Dan Aoki, Yasuyuki Matsushita, Sachie Yagami, Yuzou Sano and Kazuhiko Fukushima

Nagoya University, Japan

Lignification of ray parenchyma cells in the xylem of *Phellodendron amurense* detected by LMD and TOF-SIMS

16:00-16:20 3WC-O07

Chisato Ko, Yasuyuki Matsushita, Sachie Yagami, Dan Aoki and Kazuhiko Fukushima
Nagoya University, Japan

Studies on Enzymatic Dehydrogenative Polymerization of Monolignol Dimers

16:20-16:40 3WC-O08

Li Qiang, Tasaki Yuka, Yoshinaga Arata, Takabe Keiji, Koda Keiichi and Uraki Yasumitsu
Hokkaido University, Japan

Xylan as a scaffold for DHP deposition on cellulose

16:40-17:00 3WC-O09

Hiroshi Kamitakahara, Ryo Suhara, Mao Yamagami, Haruko Kawano, Yoshimasa Tanaka
and Toshiyuki Takano

Kyoto University, Japan

Thermoresponsive supramolecular hydrogels based on amphiphilic end-functionalized
methylcellulose derivatives

17:00-17:20 3WC-O10

Yasuko Saito, Hiroshi Kamitakahara and Toshiyuki Takano

Kyoto University, Japan

Photosensitizer-bound cellulose derivatives for photocurrent generation

17:20-17:40 3WC-O11

Yasuhito Sugano, Tiina Saloranta, Chunlin Xu, Johan Bobacka and Ari Ivaska

Abo Akademi University, Finland

Electro-catalytic oxidation and degradation of cellulose at Au electrode

17:40-18:00 3WC-O12

Jun-ichi Azuma, Shin Watanabe, Shuntaro Tsubaki, Fujio Hyodo and Hiroaki Kanayama
Osaka University, Japan

Biodegradation of Mangrove Leaves by *Terebralia palustris* inside Funaura Bay in the
Iriomote Island, Okinawa Prefecture

18:00-18:20 3WC-O13

Dimas Andrianto, Takeshi Katayama and Toshisada Suzuki

Kagawa University, Japan

Antioxidant and antihyperlipidemic activity of various Indonesian underutilized forest fruits

18:20-18:40 3WC-O14

Kosei Yamauchi, Tohru Mitsunaga and Irmanida Batubara

Gifu University, Japan

Quercetin methylethers stimulate melanosome transportation in B16 melanoma cells

March 17

9:20-9:503 WC-I02 *Invited Lecture*

Yongcan Jin

Nanjing Forestry University, China

Does lignin always inhibit the enzymatic saccharification of lignocellulose?

9:50-10:10 3WC-O15

Zhulan Liu, Yunfeng Cao, Zhiguo Wang and Hao Ren

Nanjing Forestry University, China

Fiber Morphology and Chemical Characteristics of Soybean Straw

10:10-10:30 3WC-O16

Zhulan Liu, Yunfeng Cao, Zhiguo Wang and Hao Ren

Nanjing Forestry University, China

Lignin Isolation and Characterization from Soybean Straw by Dissolving in LiCl/DMSO Combined with Enzymatic Hydrolysis

10:30-10:50 3WC-O17

Xu Tan, Xin Meng, Jialong Wen and Yongcan Jin

Nanjing Forestry University, China

Structural changes of lignin in green liquor pretreatment and their effect on the enzyme adsorption

10:50-11:10 3WC-O18

Wiwin Suwinarti and Rudianto Amirta

Mulawarman University, Indonesia

The Use of Alkaline Pretreatment on Bioethanol Production

11:10-11:30 3WC-O19

Felix Kilian Haiduk and Carsten Mai

Georg-August Universität Göttingen, Germany

Effect of Hot-water Hemicellulose Extraction of Wood Particles on Properties of Particle Boards made thereof

11:30-11:50 3WC-O20

XinWei Miao and JunWen Pu

Beijing Forestry University, China

In situ polymerization of urea-formaldehyde pre-polymer in cell wall and induction of pulse-pressure impregnation on *Ailanthus altissima* green wood

11:50-12:10 3WC-O21

Takayuki Yamagishi, Yasuji Kurimoto and Shigeru Yamauchi

Akita prefectural University, Japan

Visualization of the cesium ions adsorbed onto Japanese cedar charcoals and their acetylated samples.

Session 4-1: Composite Materials and Adhesion 1

March 16

11:15-11:45 4CA1-I01 *Invited Lecture*

Charles R. Frihart

United States Department of Agriculture, USA

Investigation of the interphase for understanding wood adhesion

11:45-12:05 4CA1-O01

Fauzi Febrianto, Tati Karliati, Wasrin Syafii and Imam Wahyudi

Bogor Agricultural University, Indonesia

Properties of Laminated Wood Bonded with Modified Gutta Percha

12:05-12:25 4CA1-O02

Minzhi Chen, Yan Chen, Xiaoyan Zhou, Bitao Lu, Meiping He and Xi Ling

Nanjing Forestry University, China

Effect of poly(ethylene glycol)s on adhesion property of soy-based adhesives

Lunch Break

13:20-13:40 4CA1-O03

Eka Alamsyah, Masaaki Yamada and Kinji Taki

Institut Teknologi Bandung, Indonesia

Curing Behavior of Phenol Formaldehyde Resin Adhesives: Effects of Direct Adding of Surian Wood Bark-powder into Pressure Temperature of Resin Adhesives

13:40-14:00 4CA1-O04

Yuliati Indrayani, Dina Setyawati, Sukma Kusuma, Tsuyoshi Yoshimura and Kenji Umemura

Tanjungpura University, Indonesia

A novel utilization of agricultural fiber for wood based molding bonded with citric acid and sucrose

14:00-14:20 4CA1-O05

Zhongyaun Zhao and Kenji Umemura

Kyoto University, Japan

Effect of citric acid addition on adhesiveness of tannin and sucrose adhesive

14:20-14:40 4CA1-O06

Sukma Kusumah and Kenji Umemura

Kyoto University, Japan

Development of Particleboard made from Super Sweet Sorghum Bagasse (*Sorghum bicholor* spp) and Citric Acid

14:40-15:00 4CA1-O07

Ru Liu, Jinzhen Cao and Yao Peng

Beijing Forestry University, China

Physical, mechanical, and thermal properties of various anionic surfactant modifiers used in in-situ synthesis of organo-montmorillonite inside wood flour

15:00-15:20 4CA1-O08

Ling-fei Ma

Zhejiang Agriculture & Forestry University, China

Effect of additives on the hydration and flexural and compressive strength of wood flour and Magnesium Oxychloride Cement mixture

15:20-15:40 4CA1-O09

Toshimitsu Hata, Paul Bronsveld and Tomohiko Mitani

Kyoto University, Japan

Microstructural observation of graphene layers from carbonized wood

15:40-16:00 4CA1-O10

Min Lee, Sang-Bum Park and Sung-Phil Mun

Korea Forest Research Institute, Republic of Korea

Photocatalysis and adsorption of formaldehyde and toluene by TiO₂ embedded carbonized medium density fiberboard

16:00-16:20 4CA1-O11

Yuxuan Wu, Ying Gao and Xudong Zhu

Beijing Forestry University, China

Mechanical Properties of Structural Glulam Made by Cathay Poplar

16:20-16:40 4CA1-O12

Byung-Dae Park, Arif Nuryawan, Adya Singh, Valerio Causin, Chuck Frihart and Sang-Min Lee

Kyungpook National University, Republic of Korea

Crystalline Structure in Urea-Formaldehyde Resin Adhesives with Low Formaldehyde/Urea Mole Ratio

16:40-17:00 4CA1-O13

Wissanee Yingprasert

Prince of Songkla University, Thailand

Effects of boric acid addition to urea formaldehyde resin on formaldehyde emission, termite resistance and shear strength of rubberwood plywood

Poster session (17:10-18:40)

March 17

9:30-9:50 4CA1-O14

Yi Liu, Hongwu Guo, Jianmin Gao and Brian K. Via

Beijing Forestry University, China

Interface Properties of Loblolly Pine Bonded with Epoxy/Wood Pyrolysis Bio-oil Blended System

9:50-10:10 4CA1-O15

Yoko Kurokochi and Masatoshi Sato

University of Tokyo, Japan

Binderless board manufactured from rice straw in wet condition

10:10-10:30 4CA1-O16

Hiroe Narita, Shun Okubo and Masatoshi Sato

The University of Tokyo, Japan

Binderless boards manufactured from Chenopodium plants

10:30-10:50 4CA1-O17

Xiaoyan Zhou, Minzhi Chen, Yang Li, Lijuan Tang, Minzhu Pan and Xuehui Yang

Nanjing Forestry University, China

Improvement of the interfacial adhesion between wheat straw and urea-formaldehyde resin by means of dielectric barrier discharge (DBD) plasma treatment

10:50-11:10 4CA1-O18

Saori Niwa, Masaki Okamoto, Rie Makise, Itsuro Higuchi, Hirokazu Ito and Yoshikuni

Teramoto

Gifu University, Japan

Elucidation of compatibilizing effect for WPC production

11:10-11:30 4CA1-O19

Suiyi Li and Dagang Li

Nanjing Forestry University, China

Electrically conductive charcoal powder/ultra-high molecular weight polyethylene composites

11:30-11:50 4CA1-O20

Sasa Sofyan Munawar, Muhammad Wahyu Darajat, Ismail Budiman, Mohammad Gopar and

Wida Banar Kusumaningrum

Indonesian Institute of Sciences, Indonesia

The effect of aggregate types and composition on the physical and mechanical properties of mortar for train carriage floor

11:50-12:10 4CA1-O21

Subyakto Mr, Muhammad Wahyu Darajat, Sasa Sofyan Munawar, Mohammad Gopar, Ismail

Budiman and Wida Banar Kusumaningrum

Indonesian Institute of Sciences, Indonesia

The sound absorption and thermal properties of mortar by effect of aggregate types and composition

Session 4-2: Composite Materials and Adhesion 2

March 16

11:15-11:45 4CA2-I01 *Invited Lecture*

Lars Berglund

Royal Institute of Technology, Sweden

New materials from nanocellulose – towards nanostructural control

11:45-12:05 4CA2-O01

Antonio Norio Nakagaito, Hitoshi Takagi and Sohtaroh Kanzawa

The University of Tokushima, Japan

Hybrid nanocomposites made of polylactic acid reinforced with cellulose and chitin nanofibers

12:05-12:25 4CA2-O02

Qiaoyun Deng and Dagang Li

Nanjing Forestry University, China

Preparation and performance of softwood pulp nano cellulose reinforced poly (vinyl alcohol) composites

Lunch Break

13:20-13:40 4CA2-O03

Marta Fortea-Verdejo, Koon Yang Lee and Alexander Bismarck

University of Vienna, Austria

Making the most of fibre off-cuts: Using nanocellulose as binder to create hierarchical composites

13:40-14:00 4CA2-O04

Tobias Keplinger, Etienne Cabane and Ingo Burgert

ETH Zurich, Switzerland

Versatile Strategies for Grafting Polymers to Wood Cell Walls

14:00-14:20 4CA2-O05

Evi Oktavia and Toshiharu Enomae

University of Tsukuba, Japan

Electric power generation from vibration of paper

14:20-14:40 4CA2-O06

Li Jiao, Yuan-yuan Li, Guan-lian Li and Hong-qi Dai

Nanjing Forestry University, China

Properties of cellulose nanofiber reinforced cement based composites

14:40-15:00 4CA2-O07

Minna Hakalahti, Arto Salminen, Jukka Seppälä, Tekla Tammelin and Tuomas Hänninen
VTT Technical Research Centre of Finland, Finland

Customizing the mechanical performance of water stable TEMPO oxidized cellulose nanofibril films

15:00-15:20 4CA2-O08

Hiroataka Koga and Masaya Nogi

Osaka University, Japan

Flexible paper electronics prepared by using a papermaking technique

15:20-15:40 4CA2-O09

Valentina Guccini, Bernd Wicklein, Christian Aulin and German Salazar-Alvarez

Stockholm University, Sweden

Cellulose Nanofibrils and Graphene Oxide bionanocomposite: characterisation and improvement of the barrier and mechanical properties

15:40-16:00 4CA2-O10

Jinxia Ma, Yajun Tian and Li Jiao

Nanjing Forestry University, China

Preparation of ZnO/Starch Nanocomposite and its Application on Coating

16:00-16:20 4CA2-O11

Henrikki Mertaniemi and Olli Ikkala

Aalto University, Finland

Functionalization of nanofibrillated cellulose for increased wet strength and applications in biomedicine

16:20-16:40 4CA2-O12

Reina Tanaka, Hiromasa Hondo, Tsuguyuki Saito and Akira Isogai

The University of Tokyo, Japan

Influences of rigidity of cellulose nanofibrils on length evaluation using shear viscosity measurement

16:40-17:00 4CA2-O13

Takashi Nishino, Hiroaki Ito and Chizuru Hongo

Kobe University, Japan

Silver Modification of TEMPO Oxidized Cellulose Nanofibers

Poster session (17:10-18:40)

March 17

9:30-9:50 4CA2-O14

Olli Ikkala

Aalto University, Finland

Combining supramolecular functionalities with nanocelluloses

9:50-10:10 4CA2-O15

Tetsuji Inui, Hirotaka Koga, Masaya Nogi and Katsuaki Suganuma

Osaka University, Japan

Small and Flexible Nanopaper Antenna for Wearable Electronics

10:10-10:30 4CA2-O16

Vivian Merk, Munish Chanana, Sabyasachi Gaan and Ingo Burgert

ETH Zurich, Switzerland

Bioinspired Mineralization of Wood on Nano- and Submicron Level for Green Fire Retardancy

10:30-10:50 4CA2-O17

Chia-Yuan Chang and Feng-Cheng Chang

National Taiwan University, Taiwan

Developing lignin-based electrospun fibrous materials for filtration

10:50-11:10 4CA2-O18

Kei-Kei Chan and Feng-Cheng Chang

National Taiwan University, Taiwan

Effects of processing parameters on structure and diameters of electrospun lignin fibers

11:10-11:30 4CA2-O19

Thanit Montrikittiphant, Martin Hervy, Min Tang, Charlotte K Williams, Alexander Bismarck and Koon-Yang Lee

University College London, United Kingdom

Making the most out of bacterial cellulose: Renewable Thermoplastic NanoPapre

11:30-11:50 4CA2-O20

Hongzhi Liu, Youming Yu and Fangli Sun

Zhejiang Agriculture & Forestry University, China

Studies of cellulose nanowhisker-reinforced thermosetting phenolic resin prepared via in situ curing

11:50-12:10 4CA2-O21

Hiroiyuki Yano, Haruo Omura, Hiroaki Okumura, Yuka Kitano and Fumiaki Nakastubo

Kyoto University, Japan

Reinforcement of thermoplastic resins using chemically modified cellulose nanofibers

Session 5: Cell Formation and Wood Structures

March 16

11:15-11:45 5FS-I01 *Invited Lecture*

Fang Chen

University of North Texas, USA

Exploring candidate genes for catechyl lignin biosynthesis via RNA-Seq data in two distinct plant species

11:45-12:05 5FS-O01

Soichiro Noda, Masatoshi Yamaguchi, Nobuyuki Nishikubo, Nozomu Sakurai, Masaomi Yamamura, Takefumi Hattori, Hideyuki Suzuki, Daisuke Shibata, Taku Demura, Shiro Suzuki and Toshiaki Umezawa

Kyoto University, Japan

An E3 ubiquitin ligase involved in secondary wall formation

12:05-12:25 5FS-O02

Ugai Watanabe, Hisashi Abe, Ryo Funada, Satoshi Nakaba and Yusuke Yamagishi

Chiba Institute of Technology, Japan

Local expression of genes encoding tubulin isotypes in the cambium of *Cryptomeria japonica*

Lunch Break

Poster session (13:00-14:30)

14:40-15:10 5FS-I02 *Invited Lecture*

Futoshi Ishiguri

Utsunomiya University, Japan

Relationship between growth characteristics and wood properties in tropical trees

15:10-15:30 5FS-O03

Kei'ichi Baba and Takahisa Hayashi

Kyoto University, Japan

Characterization of tension wood formed in poplar overexpressing polygalacturonase

15:30-15:50 5FS-O04

Rumi Kaida, Eiichi Obataya, Masato Yoshida, Futoshi Ishiguri, Jun Tanabe, Toru Taniguchi, Manabu Kurita, Kei'ichi Baba and Takahisa Hayashi

Tokyo University of Agriculture, Japan

Effects of xyloglucan on mechanical properties and sway of poplar stems

15:50-16:10 5FS-O05 Shengcheng Zhai, Biao Pan, Zhaoyang Xu, Yoshiki Horikawa, Tomoya Imai and Junji Sugiyama

Nanjing Forestry University, China

Cell wall ultrastructure of palm fibers

16:10-16:30 5FS-O06

Md Hasnat Rahman, Yusuke Yamagishi, Kayo Kudo, Yugo Matsuoka, Shahanara Begum, Yuichiro Oribe, Satoshi Nakaba and Ryo Funada

Tokyo University of Agriculture and Technology, Japan

Cambial reactivation and xylem differentiation induced by localized heating of stems in conifer sawara (*Chamaecyparis pisifera*) trees

16:30-16:50 5FS-O07

Takao Itoh, Biao Pan, Jiayan Luo, Yawen Zheng, Yaping Jiang and Zhiyin Wang

Nara National Research Institute for Cultural Properties, Japan

Hormonal induction of gum or resin in Chinese fir and agarwood

16:50-17:10 5FS-O08

Widyanto Dwi Nugroho, Shofi Rukhama and Sri Rahayu

Universitas Gadjah Mada, Indonesia

Changes in Wood Anatomical Characteristics of *Falcataria mollucana* due to Infection of *Uromycladium tepperianum*

17:10-17:30 5FS-O09 Yusuke Yamagishi, Suzuka Ide, Joto Yoshimoto, Ugai

Watanabe, Satoshi Nakaba and Ryo Funada

Tokyo University of Agriculture and Technology, Japan

Effect of partial desiccation on induction of secondary xylem like tracheary element from cultured cells of hybrid poplar

17:30-17:50 5FS-O10

Satoshi Nakaba, Izumi Arakawa, Hikaru Morimoto, Naoki Takata, Makoto Yoshida, Yuzou Sano and Ryo Funada

Tokyo University of Agriculture and Technology, Japan

Cell biological analysis of the death of long-lived ray parenchyma cells

17:50-18:10 5FS-O11

Ridwan Yahya, Yoshiki Horikawa and Junji Sugiyama

University of Bengkulu, Indonesia

Observed Microfibril Angle of fiber adjacent and distant from vessel by polarised light microscopy

18:10-18:30 5FS-O12

Katsuhiko Takata, Tomohiro Miyashita, Seishiro Taki, Yoichi Hasegawa, Satomi Akiyama and Miyako Sato

Akita Prefectural University, Japan

Wood and growth properties of the cultivars with resistance to snow-damage of Japanese cedar

18:30-18:50 5FS-O13

vilma Bayramzadeh, Babak shahkaram and Alireza pajuhandeh

Islamic Azad University, Iran

Response of anatomical structures in *Carpinus orientalis* roots to soil Erosion in Hassanabad valley, Iran

March 17

9:20-9:50 5FS-I03 Arata Yoshinaga *Invited Lecture*

Kyoto University, Japan

Immunolocalization of lignin in wood cell walls using monoclonal antibodies

9:50-10:10 5FS-O14

Yuki Tobimatsu, Satoshi Aruga, Dorien Van de Wouwer, Allen Eric, Robert Kumpf, Hiroshi Kamitakahara, Toshiyuki Takano, Bartel Vanholme, Boerjan Wout and John Ralph

Kyoto University, Japan

Visualization of cell wall lignins by metabolic labeling and bioorthogonal click chemistry

10:10-10:30 5FS-O15

Yuto Hanaya, Dan Aoki, Yasuyuki Matsushita, Masato Yoshida, Katsushi Kuroda, Ruka Takama and Kazuhiko Fukushima

Nagoya University, Japan

Chemical mapping of organic/inorganic chemicals in freeze-fixed Ginkgo biloba by the cryo-TOF-SIMS/SEM system

10:30-10:50 5FS-O16

Paavo Aleks Penttilä, Junji Sugiyama and Tomoya Imai

Kyoto University, Japan

Effects of reaction conditions on cellulose structures synthesized *in vitro*

10:50-11:10 5FS-O17

Yasuyuki Miyagawa, Yuki Tobimatsu, Takahito Mizukami, John Ralph, Hiroshi Kamitakahara and Toshiyuki Takano

Kyoto University, Japan

NMR Studies of Phenyl Glycoside-Type Lignin-Carbohydrate Complexes (LCCs) in Wood Cell Walls

11:10-11:30 5FS-O18

Hiroshi Nishimura, Akihiro Kamiya, Masato Katahira and Takashi Watanabe

Kyoto University, Japan

Structural studies on the chemical linkage between lignin and polysaccharide

11:30-11:50 5FS-O19 Takahisa Hayashi, Chisato Yasukawa, Shoko Aoki, Miki

Nonaka, Masateru Itakura, Rumi Kaida, Teruaki Taji, Yoichi Sakata, Hiroya Ohbayashi, Tomoko Seyama, Iwao Uehara, Kei'ichi Baba and Masaharu Tsubokura

Tokyo University of Agriculture, Japan

Infiltration of Radiocesium and Radioiodine in the Trees of Fukushima Forests

11:50-12:10 5FS-O20

Hiroki Sakagami, Junji Matsumura, Tetsuya Tsuda and Susumu Kuwabata

Kyushu University, Japan

Behavior of wood cells treated with ionic liquid during drying

Session 6: Biodegradation and Preservation of Wood

March 16

13:00-13:30 6BP-I01 *Invited Lecture*

Emma Master

University of Toronto, Canada

Elucidating the lignocellulolytic capability of *Pycnoporus coccineus* through combined proteomic and analytical characterization of enzyme activities

13:30-13:50 6BP-O01

Chiaki Hori

RIKEN, Japan

Analysis of the *Phlebiopsis gigantea* genome, transcriptome and secretome gives insight into its pioneer colonization strategies of wood

13:50-14:10 6BP-O02

Wenhui Geng, Yongcan Jin, Hasan Jameel and Sunkyu Park

Nanjing Forestry University, China

Approaches to achieve high-solid enzymatic hydrolysis using autohydrolysis pretreated hardwood and dilute-acid pretreated corn stover

14:10-14:30 6BP-O03

Taku Uchiyama, Masahiro Samejima and Kiyohiko Igarashi

University of Tokyo, Japan

Processive movement observation of four cellulases from cellulolytic bacteria *Cellulomonas fimi*

14:30-14:50 6BP-O04

Krisna Septiningrum, Hiroshi Ohi and Akihiko Kosugi

University of Tsukuba, Japan

The GH67 α -glucuronidase of *Paenibacillus curdlanolyticus* B-6 removes hexenuronic acid groups from xylooligosaccharides and has potential application in bio-bleaching

14:50-15:10 6BP-O05

Kiwamu Umezawa, Kouta Takeda, Takuya Ishida, Kiyohiko Igarashi, Nobuhumi Nakamura, Masahiro Samejima, Hiroyuki Ohno and Makoto Yoshida

Tokyo University of Agriculture and Technology, Japan

Characterization of a Pyrroloquinoline Quinone-Dependent Sugar Dehydrogenase Homologue from the Basidiomycete *Coprinopsis cinerea*

Break

15:30-16:00 6BP-I02 *Invited Lecture*

Renato G. Reyes

Central Luzon State University, Philippines

From Forestry Wastes to Rice Straw and Forest Leaf Litters for Medicinal Fungi: A Paradigm Shift in Mushroom Cultivation in the Philippines

16:00-16:20 6BP-O06

Tomoko Wada, Rie Endo, Coskun Kose, Dilek Dogu, Kamile Tirak, Nural Yilgor, Junji Sugiyama, Kiyohiko Igarashi and Nami Kartal

National Research Institute for Cultural Properties, Tokyo, Japan

A survey of microbial deterioration in archaeological wood excavated from Yenikapi, Istanbul, Turkey

16:20-16:40 6BP-O07

Alina Lozhechnikova and Monika Österberg

Aalto University, Finland

Sustainable surface modification of wood

16:40-17:00 6BP-O08

Rie Endo and Junji Sugiyama

Toyo Feather Industry Co., Japan

Improving the stability of archaeological waterlogged wood by adding multivalent-metal salt process in feather-keratin method

Poster session (17:10-18:40)

March 17

9:20-9:50 6BP-I03 *Invited Lecture*

Houfeng Li

National Chung Hsing University, Taiwan

Termite infestation pattern in trees

9:50-10:10 6BP-O09

S. Nami Kartal, Evren Terzi and Lauri Rautkari

Faculty of Forestry, Istanbul University, Turkey

Role of nano particles in prevention of mold growth

10:10-10:30 6BP-O10

Syahidah, Takeshi Katayama, Toshisada Suzuki, Yasuhiko Asada, Yoshito Ohtani and Wakako Ohmura

Kagawa University, Japan

Antitermite and antifungal activities of gofasa (*Vitex cofassus* Reinw.) heartwood extract

10:30-10:50 6BP-O11

Hiroki Watanabe, Yoshiyuki Yanase and Yoshihisa Fujii

Kyoto University, Japan

Evaluation of larval feeding activity of the bamboo powder-post beetle *Dinoderus minutus* using acoustic emission monitoring

10:50-11:10 6BP-O12

Ruibo Li, Ryo Narita, Shinsuke Marumoto, Hiroshi Nishimura, Mitsuyoshi Yatagai, Takashi Fujita and Takashi Watanabe

Kyoto University, Japan

Characterization of Antivirus Activities of Wood and Bamboo Vinegar

11:10-11:30 6BP-O13

John Allexander, Ferry Bongers, Julian Marcroft, Simon Aicher and Gerhard Dill-Langer

Accsys Technologies, United Kingdom

Structural testing of Accoya wood in wet and dry conditions

11:30-11:50 6BP-O14

Teruhisa Miyauchi and Ikuo Momohara

Hokkaido Research Organization, Japan

Quantitative determination of quaternary ammonium compounds in treated wood using ultra high performance liquid chromatography with evaporative light scattering detection.

11:50-12:10 6BP-O15

Fangli Sun, Binbin Liu, Lingfei Ma, Hongzhi Liu and Yuhui Zhang

Zhejiang Agriculture and Forestry University, China

Polyacrylic acid (PAA)/polyethylene glycol(PEG) hydrogel with interpenetrating network structure

Session 7: Biorefinery

March 16

11:15-11:45 7BR-I01 *Invited Lecture*

Tatsuhiko Yamada

Forestry and Forest Products Research Institute, Japan

Development of lignin based functional materials for the establishment of rural area biorefinery system

11:45-12:05 7BR-O01

Marc Borrega and Herbert Sixta

Aalto University, Finland

Post-hydrolysis of Kraft paper pulp for the production of dissolving pulp and xylo-oligosaccharides

12:05-12:25 7BR-O02

Kyoko S. Katsumata, Supachineekan Tanarugamorn, Xiumei Zhang and Yuji Matsumoto

University of Tokyo, Japan

The effect of age on the alkaline pulping of Eucalyptus wood

Lunch Break

Poster session (13:00-14:30)

14:40-15:00 7BR-O03

Saara Hanhikoski, Klaus Niemelä and Tapani Vuorinen

VTT Technical Research Centre of Finland, Finland

The potential of neutral sulphite biorefinery

15:00-15:20 7BR-O04

Chuchu Chen, Dagang Li, Hiroyuki Yano and Kantaro Abe

Nanjing Forestry University, China

Preparation of high crystalline α -chitin hydrogel using a simple NaOH treatment at low temperatures

15:20-15:40 7BR-O05

Annariikka Roselli, Agnes Stepan, Michael Hummel and Herbert Sixta

Aalto University, Finland

IONCELL-P, an ionic liquid based hemicellulose extraction method.

15:40-16:00 7BR-O06

Yukiko Enomoto-Rogers, Noreen G.V. Fundador and Tadahisa Iwata

University of Tokyo, Japan

Synthesis of xylan derivatives and their applications

16:00-16:20 7BR-O07

Anne Michud, Shirin Asaadi, Michael Hummel and Herbert Sixta

Aalto University, Finland

IONCELL-F: Production of high tenacity man-made cellulose fibers by dry-jet wet spinning from cellulose-ionic liquid solution

16:20-16:40 7BR-O08

Jie Jiang, Liang Liu, Wenbo Ye, Mu Chen and Yimin Fan

Nanjing Forestry University, China

Preparation and characterization of cellulose nanofibers by laccase-TEMPO oxidation

16:40-17:00 7BR-O09

Houssine Sehaqui, Uxua Perez de Larraya, Michael Sander, Philippe Tingaut and Tanja Zimmermann

EMPA, Switzerland

Contaminants adsorption onto nanofibrillated cellulose for water purification

17:00-17:20 7BR-O10

Haiying Wang, Dagang Li, Hiroyuki Yano and Kentaro Abe

Nanjing Forestry University, China

Obtaining tough cellulose II nanofibers with high thermal stability from wood

17:20-17:40 7BR-O11

Shukichi Tanaka, Tadahisa Iwata and Masatoshi Iji

NEC Corp., Japan

Development of cardanol-bonded cellulose thermoplastic: influence of solvents in its heterogeneous synthesis process

17:40-18:00 7BR-O12

Shiro Saka, Eiji Minami, Harifara Rabemanolontsoa and Haruo Kawamoto

Kyoto University, Japan

The 3rd Generation Bioethanol Production Process with Acetic Acid Fermentation from Lignocellulosics

18:00-18:20 7BR-O13

Fabio Minoru Yamaji, Hiroyuki Yamamoto, Gabriela Tami Nakashima, Carlos Roberto Sette Jr, Alessandra Luzia Da Róz and Joao Lucio Barros

UFSCar, Brazil

Biomass for solid biofuel production in Brazil

18:20-18:40 7BR-O14

Denny Irawati

Faculty of Forestry Gadjah Mada University, Indonesia

Bioenergy Properties of Tree Branch from Several Species Planted in Indonesia

March 17

9:30-9:50 7BR-O15

Daisuke Ishii and Tadahisa Iwata

University of Tokyo, Japan

Thermal and Rheological Properties of Poly(caffeic acid) as Biomass-derived Heat-resistant Polyester

9:50-10:10 7BR-O16

Jaehyuk Jang

Kangwon National University, Republic of Korea

Effect of enzymatic hydrolysis on the morphological characteristics of lignocellulose nanofibers with different lignin contents

10:10-10:30 7BR-O17

Dou-yong Min, Hou-min Chang, Hasan Jameel, Lucian Lucia and Yong-can Jin

Nanjing Forestry University, China

The Structural Changes of Corn Stover Lignin Induced by Pretreatments and Its Impact on Enzymatic Hydrolysis

10:30-10:50 7BR-O18

Rie Takada and Takashi Watanabe

Kyoto University, Japan

Analysis of unproductive adsorption of cellulase on lignin

10:50-11:10 7BR-O19

Toshiaki Umezawa, Masahiro Sakamoto, Taichi Koshiba, Takefumi Hattori, Shiro Suzuki and Masaomi Yamamura

Kyoto University, Japan

Lignin Metabolic Engineering in *Oryza sativa* for Biomass Refinering

11:10-11:30 7BR-O20

Chenhuan Lai, Maobing Tu, Qiang Yong and Shiyuan Yu

Nanjing Forestry University, China

Contrasting effects of extractable lignin and bulk lignin on enzymatic hydrolysis of pretreated sweetgum

11:30-11:50 7BR-O21

Yuxiang Huang and Guangjie Zhao

Beijing Forestry University, China

Comparisons of Pore Properties and Surface Functional Groups of Activated Carbon Fibers from Liquefied Wood by KOH and Steam Activation

11:50-12:10 7BR-O22

Tsutomu Suzuki and Kyoko Suzuki

Kitami Institute of Technology, Japan

Wood refinery by two-steps iron-catalyzed carbonization