

Time table of oral and poster presentation

September 8

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| 15:00 | On-site registration & Mixing at Yayoi-auditorium (building of Room A) | 20:00 |
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September 9

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|--------|--|-------|-------|--|-------|---|-------------------------------|---|
| | 9:00 | 11:30 | 13:00 | 15:05 | 15:20 | 17:00 | 18:30 | |
| Room A | Opening ceremony & Plenary lecture | | Lunch | Pulping and bleaching chemistry I A01 – A05 | | Pulping and bleaching chemistry II A06 – A09 | | |
| Room B | Nils-Olof Nilvebrant (Borregaard AS) “Lignosulfonates as Performance Chemicals” Hasan Jameel (North Carolina State Univ) “Environmentally Friendly Process for the Production of Bioethanol Based on Autohydrolysis and Refining” Room A | | | Nanocellulose I B01, 02, 04, 05 | | Coffee break | Nanocellulose II B06 – B08 | |
| Room C | | | | Chemical utilization of biomass I C01 – C05 | | Chemical utilization of biomass II C06 – C09 | | Poster presentation P01 – P29 (with coffee & snack) Room D |

September 10

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|--------|--|-------|--------------|---|-------|-------|---|-------|---|--|
| | 9:00 | 10:15 | 10:30 | 12:10 | 13:30 | 15:00 | 17:05 | 18:30 | 21:00 | |
| Room A | Chemistry of lignin I A10 – A12 | | Coffee break | Chemistry of lignin II A13 – A16 | | Lunch | Chemistry of lignin III A17 – A21 | | Poster presentation P30 – P58 (with coffee & snack) Room D | |
| Room B | Analysis of wood components I B10 – B12 | | | Analysis of wood components II B13 – B15 | | | Chemistry of cellulose and hemicellulose I B17, 18, 20, 21 | | | Chemical utilization of biomass V C17 – C21 |
| Room C | Chemical utilization of biomass III C10 – C12 | | | Chemical utilization of biomass IV C13 – C16 | | | Move to Tokyo Dome Hotel (banquet venue) | | | |

September 11

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|--------|--|------|--------------|---|-------|-------|--|-------|---|
| | 9:00 | 9:25 | 10:15 | 10:30 | 12:10 | 13:30 | 15:00 | 17:05 | 18:00 |
| Room A | Chemistry of lignin IV A23, 24 | | Coffee break | Biochemical aspect of lignin I A25 – A28 | | Lunch | Biochemical aspect of lignin II A29 – A33 | | Poster presentation P59 – P89 (with coffee & snack) Room D |
| Room B | Chemistry of cellulose and hemicellulose II B23, 24 | | | Chemistry of cellulose and hemicellulose III B25 – B27 | | | Bio-refinery II C29 – C33 | | |
| Room C | Chemical utilization of biomass VI C22, 23 | | | Bio-refinery I C25, 26, 28 | | | Closing ceremony Room A | | |

Opening and closing ceremony, plenary lecture:
Room A

Oral presentation,
Room A : A-01 to A-33
Room B: B-01 to B-27
Room C: C-01 to C-33

Poster presentation:
Room D (all numbers)

Coffee break:
Room D and open area in front of Room A

Name of Chairperson of Each Section

shown in red color

September 9

| | 9:00 | 11:30 | 13:00 | 15:05 | 15:20 | 17:00 | 18:30 |
|--------|--|-------|--|-------|--|--|--|
| Room A | Opening ceremony & Plenary lecture Nils-Olof Nilvebrant (Borregaard AS) “Lignosulfonates as Performance Chemicals” Hasan Jameel (North Carolina State Univ) “Environmentally Friendly Process for the Production of Bioethanol Based on Autohydrolysis and Refining” Room A <i>Toshiaki Umezawa</i> | Lunch | Pulping and bleaching chemistry I A01 – A05 <i>John Kadla</i> | | Pulping and bleaching chemistry II, A06 – A09 <i>Hiroshi Ohi</i> | | Poster presentation P01 – P29 (with coffee & snack) Room D |
| Room B | | | Nanocellulose I B01, 02, 04, 05 <i>Thomas Rosenau</i> | | Nanocellulose II B06 – B08 | | |
| Room C | | | Chemical utilization of biomass I C01 – C05 <i>Mikhail Balakshin</i> | | Coffee break | Chemical utilization of biomass II, C06 – C09 <i>Fachuang Lu</i> | |

September 10

| | 9:00 | 10:15 | 10:30 | 12:10 | 13:30 | 15:00 | 17:05 | 18:30 | 21:00 |
|--------|---|-------|---|--|-------|--|---|-------|--|
| Room A | Chemistry of lignin I A10 – A12 <i>Takao Kishimoto</i> | | Chemistry of lignin II A13 – A16 | | Lunch | Poster presentation P30 – P58 (with coffee & snack) Room D | Chemistry of lignin III A17 – A21 <i>Haruo Kawamoto</i> | | Move to Tokyo Dome Hotel (banquet venue) |
| Room B | Analysis of wood components I B10 – B12 <i>Dimitris Argyropoulos</i> | | Analysis of wood components II B13 – B15 <i>Takuya Akiyama</i> | | | | Chemistry of cellulose and hemicellulose I, B17, 18, 20, 21 <i>Toshiyuki Takano</i> | | |
| Room C | Chemical utilization of biomass III C10 – C12 <i>Yasumitsu Uraki</i> | | Coffee break | Chemical utilization of biomass IV, C13 – C16 | | | Chemical utilization of biomass V C17 – C21 <i>Claudia Crestini</i> | | |

September 11

| | 9:00 | 9:25 | 10:15 | 10:30 | 12:10 | 13:30 | 15:00 | 17:05 | 18:00 |
|--------|--|------|--|-------|-------|--|--|-------|-----------------------------------|
| Room A | Chemistry of lignin IV, A23, 24 <i>Tomoya Yokoyama</i> | | Biochemical aspect of lignin I A25 – A28 <i>Keiichi Koda</i> | | Lunch | Poster presentation P59 – P89 (with coffee & snack) Room D | Biochemical aspect of lignin II A29 – A33 <i>Dmitry Evtuguin</i> | | Closing ceremony Room A |
| Room B | Chemistry of cellulose and hemicellulose II B23, 24 <i>Anna Sundberg</i> | | Chemistry of cellulose and hemicellulose III B25 – B27 | | | | Bio-refinery II, C29 – C33 <i>Runcang Sun</i> | | |
| Room C | Chemical utilization of biomass VI C22, 23 <i>Antje Potthast</i> | | Bio-refinery I C25, 26, 28 | | | | | | |

Opening and closing ceremony, plenary
lecture:
Room A

Oral presentation,
Room A: A-01 to A-33
Room B: B-01 to B-27
Room C: C-01 to C-33

Poster presentation:
Room D (all numbers)

Coffee break:
Room D and open area in front
of Room A

The 20th ISWFPC Presentation Program

Opening Ceremony and Plenary Lecture (Room A, 09:00 – 11:30, September 9)

Plenary lecturers

Dr. Nils-Olof Nilvebrant

Lignosulfonates as performance chemicals

Professor Hasan Jameel

Environmentally friendly process for the production of bioethanol based on autohydrolysis and refining

Oral Presentation

Room A (Pulping and bleaching chemistry I - II, Chemistry of lignin I - IV, Biochemical aspect of lignin I - II)

| Date | No | Authors | Title | District |
|------------------|---|--|--|----------|
| Room A Sep.9 | Pulping and bleaching chemistry I (13:00 - 15:05) | | | |
| | A-01 | <u>Claudia Crestini</u> , Heiko Lange, and Dimitris S. Argyropoulos | Structural diversity in softwood kraft lignin | Italy |
| | A-02 | <u>Fengxia Yue</u> , Fachuang Lu, Runcang Sun, and John Ralph | Structural characterization of alkali lignins isolated from non-woody materials under a lignin-first strategy | China |
| | A-03 | <u>Christian Jörg Trepte</u> , Maren Freese, and Steffen Fischer | Shorter rotation time: Fastgrowing Larch hybrids as a potential resource for kraftpulping | Germany |
| | A-04 | <u>Ireen Gebauer</u> , Moritz Leschinsky, Othar Kordsachia, and Bodo Saake | From beech wood to fibres – Organosolv pulping and bleaching towards dissolving pulp | Germany |
| | A-05 | <u>Hiroshi Ohi</u> , Ayyoub Salaghi, and Evelyn | An improved process of prehydrolysis/alkaline cooking with a soluble AQ and chlorine-free bleaching with peroxymonosulfuric acid for wood biorefinery | Japan |
| | Pulping and bleaching chemistry II (15:20 - 17:00) | | | |
| | A-06 | <u>Shirong Sun</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Utilization of MnO ₂ in prebleaching stage together with or subsequent to oxygen delignification | Japan |
| | A-07 | <u>Etienne Montet</u> , Estefania Isaza Ferro, Jordan Perrin, Dominique Lachenal, and Christine Chirat | An explanation for the better brightness stability obtained for ozone bleached pulps – A UV Resonance Raman spectroscopy approach | France |
| | A-08 | <u>Shree Prakash Mishra</u> , Wenjuan Qin, Aline Nolin, and André Audet | Deciphering right conditions for D ₀ and E ₁ stages in softwood kraft pulp bleaching | Canada |
| A-09 | <u>Sara Starrsjö</u> , Olena Sevastyanova, Peter Sandström, Juha Fiskari, and Mikael E. Lindström | Reduction of AOX formation in chlorine dioxide bleaching of softwood kraft pulp | Sweden | |
| Room A Sep.10 | Chemistry of lignin I (9:00 - 10:15) | | | |
| | A-10 | <u>John Ralph</u> , Yanding Li, Benginur Demir, Leida M. Vázquez Ramos, Mingjie Chen, and James A. Dumesic | Lignin hydrogenolysis revisited | USA |
| | A-11 | Xiaoqin Si and <u>Fang Lu</u> | Immobilized Ni(0) clusters in mesoporous aluminum silica nanospheres for catalytic hydrogenolysis of lignin | China |
| | A-12 | <u>Fachuang Lu</u> , Yuan Jia, and John Ralph | Dehydrodiferulates produced from ethyl ferulate under various oxidation conditions | USA |
| | Chemistry of lignin II (10:30 - 12:10) | | | |
| | A-13 | Fuyu Yamauchi, Toko Ito, Takuya Akiyama, <u>Tomoya Yokoyama</u> , and Yuji Matsumoto | Differences in the formation rates of quinone methide between <i>p</i> -hydroxyphenyl, guaiacyl, and syringyl lignins and between different solvents under alkaline conditions | Japan |
| | A-14 | <u>Keiko Miyamoto</u> and Haruo Kawamoto | Selective pyrolytic conversion of lignin β-ether dimer into vinyl ether in the presence of phthalimide as a bifunctional reagent | Japan |
| | A-15 | <u>Qiao-qiao Ye</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Difference in the acidolytic reactions between phenolic and non-phenolic lignin model compounds | Japan |
| A-16 | <u>Mikhail Balakshin</u> , Ewellyn A. Capanema, Antje Potthast, and Thomas Rosenau | Milled softwood lignin – An evidence-based structural model | Finland | |

| Chemistry of lignin III (15:00 - 17:05) | | | |
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| A-17 | <u>Xiao Jiang</u> , Matthew Kollman, Hasan Jameel, and Hou-min Chang | Elucidation of softwood lignin condensed structures by phenolation | USA |
| A-18 | <u>Kaori Saito</u> , Yutaka Makimura, Hiroshi Nishimura, and Takashi Watanabe | Structural analysis of the free phenolic terminal and non-phenolic units connected through various interunit linkages in lignin polymer | Japan |
| A-19 | <u>Ivan Sumerskij</u> , Hubert Hettegger, Grigory Zinovyev, Markus Bacher, Hassan Amer, Thomas Rosenau, and Antje Potthast | Fast track for the accurate determination of hydroxy groups in lignin | Austria |
| A-20 | <u>Syed Farhan Hashmi</u> , Leena Pitkänen, Kyösti Ruuttunen, and Herbert Sixta | Production of reactive lignin mixture through catalytic solvolysis of organosolv lignin | Finland |
| A-21 | <u>Tijana Adamovic</u> , Emre Demirkaya, Eduardo Perez Vellilla, and Maria Jose Cocero Alonso | Following lignin repolymerization in the presence of model compounds in supercritical water | Spain |
| Chemistry of lignin IV (9:25 - 10:15) | | | |
| A-23 | <u>Suxiang Li</u> and Fachuang Lu | Naphthalenes derived from resinol structures of lignin during phenolation process | China |
| A-24 | <u>Shiho Takahashi</u> , Thi Thi Nge, Eri Takata, Yasunori Ohashi, and Tatsuhiko Yamada | Flocculation properties of polyethylene glycol modified type of glycol lignin | Japan |
| Biochemical aspect of lignin I (10:30 - 12:10) | | | |
| A-25 | <u>Noritsugu Terashima</u> , Yasuyuki Matsushita, Sachie Yagami, Dan Aoki, and Kazuhiko Fukushima | Role of monolignol glucosides in formation of wood cell walls | Japan |
| A-26 | <u>Dan Aoki</u> , Yuto Hanaya, Wakaba Okumura, Naoki Maeda, Takuya Akita, Yasuyuki Matsushita, Masato Yoshida, Yuzou Sano, Katsushi Kuroda, and Kazuhiko Fukushima | Microscopic distribution of monolignol glucosides in plants as observed by cryo-time-of-flight secondary ion mass spectrometry | Japan |
| A-27 | <u>Takuji Miyamoto</u> , Rie Takada, Yuki Tobimatsu, Yuri Takeda, Shiro Suzuki, Masaomi Yamamura, Keishi Osakabe, Yuriko Osakabe, Masahiro Sakamoto, and Toshiaki Umezawa | Grass breeding toward lignin-enriched biomass via knockout of transcriptional repressors | Japan |
| A-28 | <u>Hoon Kim</u> , Quanzi Li, Steven D. Karlen, Rebecca A. Smith, Rui Shi, Jie Liu, Chenmin Yang, Sermasawat Tunlaya-Anukit, Jack P. Wang, Hou-min Chang, Ronald R. Sederoff, John Ralph, and Vincent Chiang | Benzoates incorporate into the lignin of <i>Populus trichocarpa</i> downregulated in monolignol biosynthetic cytochrome P450s | USA |
| Biochemical aspect of lignin II (15:00 - 17:05) | | | |
| A-29 | <u>Yasuyuki Matushita</u> , Chisato Ko, Masaya Okayama, Daisuke Baba, Yuto Oyabu, Dan Aoki, and Kazuhiko Fukushima | Fascinated reaction of dilignols during enzymatic dehydrogenative polymerization – Radical transfer system and new reaction site of β -5 dilignol – | Japan |
| A-30 | <u>Xuhai Zhu</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Lignin biosynthetic study: Reactivity of quinone methides in the formation of <i>p</i> -hydroxyphenyl-type β -O-4 structures | Japan |
| A-31 | <u>Toshiaki Umezawa</u> , Yuki Tobimatsu, Masaomi Yamamura, Masahiro Sakamoto, Shiro Suzuki, Yuri Takeda, Takuji Miyamoto, Taichi Koshiba, and Rie Takada | Lignin metabolic engineering in grasses for lignin valorization | Japan |
| A-32 | Wan-Shuan Chiang and <u>Ting-Feng Yeh</u> | Lignin structural variations of the growing ma bamboo culms | Taiwan |
| A-33 | <u>Owik Herold-Majumdar</u> , Pedro E. G. Loureiro, and Claus Felby | Enzymatic bleaching using a haloperoxidase from <i>Curvularia verruculosa</i> | Denmark |

Room
A
Sep.11

Room B (Nanocellulose I - II, Analysis of wood components I - II, Chemistry of cellulose and hemicellulose I - III)

| Date | No | Authors | Title | District |
|------------------|--|---|--|----------|
| Room B Sep.9 | Nanocellulose I (13:00 - 14:40) | | | |
| | B-01 | Kh. Samaher Salem, Lokendra Pal, Lucian Lucia, and <u>Hasan Jameel</u> | Chemical reactivity of nano fibrillated cellulose with different levels of fibrillation for controlled surface modification to target final applications | USA |
| | B-02 | Sven Plappert, Harald Rennhofer, Sigrid Bernstorff, Helga Lichtenegger, and <u>Falk Liebner</u> | Synchrotron-SAXS study of nanomorphological alterations in anisotropic cellulose II aerogels under uniaxial compression | Austria |
| | B-04 | <u>Anna Sundberg</u> , Anders Strand, Weihua Zhang, and Tiffany Abitbol | Preparation and characterization of high-yield cellulose nanocrystals (CNCs) from softwood kraft pulp | Finland |
| | B-05 | <u>Liqin Liu</u> , Xingye An, Yiwei Sun, Yanlu Luo, and Hongbin Liu | Preparation of transparent and self-assembly nanocellulose based flame retardant membrane and its application in paper | China |
| | Nanocellulose II (15:20 - 16:35) | | | |
| | B-06 | Franklin Zambrano, <u>Richard Phillips</u> , Richard Venditti, Hasan Jameel, and Ronalds Gonzalez | Application of micro- and nanofibrillated cellulose (MNFC) in hygiene tissue products | USA |
| | B-07 | Zonghong Lu, Xingye An, and <u>Hongbin Liu</u> | Cellulose nano-fibers (CNF) as versatile fillers of wood pulp for high wet web performance | China |
| B-08 | <u>Shogo Taira</u> , Keiichi Koda, Yasumitsu Uraki, Haruo Konno, and Shu Shimamoto | Transparent nanopaper prepared from acetylated cellulose nanofiber | Japan | |
| Room B Sep.10 | Analysis of wood components I (9:00 - 10:15) | | | |
| | B-10 | <u>Claudia Gusenbauer</u> , Tiina Nypelö, Etienne Cabane, and Johannes Konnerth | Force microscopy to reveal chemical properties of lignocellulosic materials up to the nanometer scale | Austria |
| | B-11 | <u>Linjie Yang</u> and Fachuang Lu | A high-throughput thioacidolysis method incorporating Multi-Reaction Monitoring mode of GC-MS for higher sensitivity | China |
| | B-12 | <u>Shuai An</u> , Yu Sun, Chong Luo, Shuo Yang, Wenhui Zhang, and Hongjie Zhang | Characterization of surface friction properties of lignocellulosic fibers and its effect on interfiber bonding properties | China |
| | Analysis of wood components II (10:30 - 11:45) | | | |
| | B-13 | Christian Schuster, Matthias Guggenberger, Hajar Khaliliyan, Thomas Rosenau, Antje Potthast, and <u>Stefan Böhmendorfer</u> | Reliable quantification of lignin by HPTLC densitometry and multivariate calibration | Austria |
| | B-14 | <u>Diana G. Branco</u> , Joana R. Campos, Luis Cabrita, and Dmitry.V. Evtuguin | Structural features of macromolecular components of cork from <i>Quercus suber</i> L. | Portugal |
| | B-15 | Niken Pujirahayu, Toshisada Suzuki, and <u>Takeshi Katayama</u> | Cycloartane-type triterpenes and botanical origin of propolis of stingless Indonesian bee <i>Tetragonula sapiens</i> | Japan |
| | Chemistry of cellulose and hemicellulose I (15:00 - 16:40) | | | |
| | B-17 | <u>Sandra Magina</u> and Dmitry V. Evtuguin | On the heterogeneity of xylan structure in eucalyptus wood | Portugal |
| | B-18 | <u>Juliette Francillon</u> , Christine Chirat, Claire Boisset, and Laurine Buon | Oligosaccharides from wood autohydrolysates: A multi-step purification technique | France |
| B-20 | <u>A. Lucia</u> , J. T. Oberlerchner, M. Beaumont, Erik van Herwijnen, and Thomas Rosenau | Model for enhanced mechano-chemical oxidation of cellulose by experimental design | Austria | |
| B-21 | <u>Hubert Hettegger</u> , Marco Beaumont, Gerhild K. Wurzer, Alois Jungbauer, Wolfgang Lindner, Antje Potthast, and Thomas Rosenau | Polysaccharide-functionalized particles and monolithic materials for chromatography | Austria | |
| Room B Sep.11 | Chemistry of cellulose and hemicellulose II (9:25 - 10:15) | | | |
| | B-23 | <u>Takashi Nomura</u> , Eiji Minami, and Haruo Kawamoto | Solid carbonized product formation via 5-HMF during cellulose pyrolysis | Japan |
| B-24 | Sachin Agate, Lucian Lucia, Hasan Jameel, and <u>Lokendra Pal</u> | 3D Templating of cellulose biogels for the next generation of flexible electronics | USA | |

| Chemistry of cellulose and hemicellulose III (10:30 - 11:45) | | | | |
|---|------|---|--|---------|
| Room B Sep.11 | B-25 | <u>Simone Haslinger</u> , Inge Schlapp-Hackl, Xueyao Ge, Dariusz Wawro, and Herbert Sixta | Cellulose films from birch pulp and cotton waste using [DBNH] [OAc] | Finland |
| | B-26 | <u>Tianyu Guo</u> , Wangxia Wang, Huining Xiao, and Yongcan Jin | Dual-triggered CMC/dopamine/cystamine hydrogels driven by dynamic metal-ligand and redox for self-healing and drug release | China |
| | B-27 | <u>Zhuojun Meng</u> , Laine Christiane, Tekla Tammelin, and Eero Kontturi | Water interactions in biomaterials engineering | Finland |

Room C (Chemical utilization of biomass I - VI, Bio-refinery I - II)

| Date | No | Authors | Title | District | |
|---|--|---|--|--|----------|
| Room C Sep.9 | Chemical utilization of biomass I (13:00 - 15:05) | | | | |
| | C-01 | Matthew Kollman, <u>Hou-min Chang</u> , Hasan Jameel, and Wenzhi Li | Catalyst support effects on the hydroprocessing of kraft lignin towards jet fuel-range hydrocarbons utilizing non-noble metals | USA | |
| | C-02 | <u>Francesca Pincella</u> , Siming Lu, Hiroshi Matsuda, Lulu Fan, Atsushi Yamamoto, Tomoko Matsumori, Isamu Katsuyama, Katsuhiko Isozaki, Kenji Fukuda, Takashi Watanabe, and Masaharu Nakamura | Microwave-assisted one-pot conversion of lignin to fluorescent imidazole compounds | Japan | |
| | C-03 | <u>Nick Bornholdt</u> , Elke Fliedner, Isabell Kühnel, and Ralph Lehnen | Cyclic carbonate functionalized lignin as non-toxic intermediate for renewable polymers | Germany | |
| | C-04 | Omid Hosseinaei, Darren Baker, Linda Ehardt, <u>Ewellyn Capanema</u> , and Maria Sedin | Lignin-based carbon fiber: Effect of softwood kraft lignin separation method on multifilament melt-spinning performance and conversion | Sweden | |
| | C-05 | <u>Richard Vendamme</u> , Pablo Ortiz, Mohan Wadekar, and Walter Eevers | Designing functional biopolymers from low molecular weight lignin building blocks | Belgium | |
| | Chemical utilization of biomass II (15:20 - 17:00) | | | | |
| | C-06 | <u>Tian He</u> , Wenxiang Zhu, and Fangeng Chen | Preparation of lignin-based polyols by mild hydrothermal degradation of acetic acid lignin | China | |
| | C-07 | Yi-ru Chen and <u>Simo Sarkanen</u> | Plastics composed of lignin-lignin blends uphold enhanced tensile strengths | USA | |
| | C-08 | <u>Zhu Liqing</u> , Zhang Zhengyi, Zhiwei Ge, Jin Zhenfu, and Yuji Matsumoto | The effect of chemically modified lignin content on curing kinetics and properties of epoxy resin | China | |
| | C-09 | <u>Anand R. Sanadi</u> and Daniel F. Caulfield | Highly filled lignocellulosic fiber (85%) polypropylene composites using a novel approach | Denmark | |
| | Room C Sep.10 | Chemical utilization of biomass III (9:00 - 10:15) | | | |
| | | C-10 | <u>Weimiao Lu</u> , Shun Li, Zhenfu Jin, and Yuji Matsumoto | Lignosulfonate as carbonizing agent of IFR and its flame retardancy in rigid polyurethane foams | China |
| | | C-11 | <u>Sandra Magina</u> , Ana Barros-Timmons, and Dmitry V. Evtuguin | Laccase-catalysed oxidative modification of lignosulphonates from acidic sulphite pulping of eucalypt wood | Portugal |
| C-12 | | <u>Bo Pang</u> , Tong-Qi Yuan, and Run-Cang Sun | Structural elucidation and curing behavior of lignin-based resins using biorefinery technical lignins | China | |
| Chemical utilization of biomass IV (10:30 - 12:05) | | | | | |
| C-13 | | <u>Yongchao Zhang</u> , Xiaoju Wang, Stefan Willför, Chunlin Xu, Pedram Fatehi, and Menghua Qin | Magnetic hybrid lignin nanoparticles for ultrafast removal of heavy metal ions | Finland | |
| C-14 | <u>Chen Qu</u> , Keigo Mikame, Yasunori Ohashi, Hiroshi Nishimura, Satoshi Sugawara, Kenzo Koike, and Takashi Watanabe | Production of natural UV-absorbing agent from degraded lignin by microwave heating | Japan | | |

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| Room C Sep.10 | C-15 | <u>Lili Zhang</u> , Yimin Fan, Jinxia Ma, Yiqin Yang, and Zhiguo Wang | Contribution of lignin to the microstructure and physical performance of three-dimensional lignocellulose hydrogels | China |
| | C-16 | <u>Tijana Adamovic</u> , Celia Martinez Fajardo, and Maria Jose Cocero Alonso | Validation of high lignin content biomass using supercritical water technology | Spain |
| | Chemical utilization of biomass V (15:00 - 17:05) | | | |
| | C-17 | Zhen Yue, <u>Qingxi Hou</u> , Wei Liu, and Honglei Zhang | Efficient and value-added utilization for biomass in paper industry: Effect of surface lignin produced in autohydrolysis of poplar sapwood chips on the subsequent alkali impregnation | China |
| | C-18 | <u>María González Martínez</u> , Capucine Dupont, Sébastien Thiery, Denilson Da Silva Perez, Xuân-mi Meyer, and Christophe Gourdon | Woody and agricultural biomass torrefaction: Modelling solid conversion and volatile species formation through extracted macromolecular components | France |
| | C-19 | <u>Sherif Elsayed</u> , Sanna Hellsten, Chamseddine Guizani, Joanna Witos, and Herbert Sixta | Spinning & recycling of [mTBDH][OAc] ionic liquid in Ioncell-F process | Finland |
| | C-20 | <u>Zhiqiang Li</u> , Naruhito Hori, and Akio Takemura | Synthesis and characterization of Cu-BTC metal-organic frameworks onto lignocellulosic fibers by layer-by-layer method in aqueous solution | Japan |
| C-21 | Johannes Konnerth, Jérôme Colson, Torbjörn Pettersson, Tiina Nypelö, Herbert Sixta, Asaadi Shirin, Günther Kneidinger, and Claudia Gusenbauer | Surface and adhesion properties of lignocellulosic model fibers | Austria | |
| Room C Sep.11 | Chemical utilization of biomass VI (9:25 - 10:15) | | | |
| | C-22 | <u>Ying He</u> and Fachuang Lu | Antimicrobial activity of diferulates revealed by headspace GC analysis | China |
| | C-23 | Luc Zongo, Heiko Lange, and <u>Claudia Crestini</u> | Stability profiles of lignin microcapsules | Italy |
| | Bio-refinery I (10:30 - 11:45) | | | |
| | C-25 | <u>Martin Lindemann</u> , Bernhard Widhalm, Cornelia Rieder-Gradinger, Thomas Kuncinger, and Ewald Srebotnik | Valorization of effluents from wood processing industry by removal of bioactive polyphenols and subsequent fermentation | Austria |
| | C-26 | <u>Huy Quang Lê</u> , Anika Khan, Markus Hochegger, Martin Mittelbach, and Herbert Sixta | Comparative evaluation of different raw materials for dissolving pulp production by γ -valerolactone (GVL) pulping | Finland |
| | C-28 | <u>Tainise V. Lourencon</u> , Luiz G. Grecca, Marc Borrega, Tarja Tamminen, Orlando J. Rojas, and Mikhail Balakshin | Lignin-first integrated biorefinery via hydrothermal treatment (HTT) of biomass: A new angle of a known process | Finland |
| | Bio-refinery II (15:00 - 17:05) | | | |
| | C-29 | Guanhua Wang, Shuang Qi, Chuanling Si, and <u>Yonghao Ni</u> | A one-pot lignocellulose fractionation process based on mild acid-catalyzed biphasic water/phenol systems | Canada |
| | C-30 | <u>Jinze Dou</u> , Josphat Phiri, Thad Maloney, and Tapani Vuorinen | Fractionation of willow for combined production of activated carbon, extracts and fiber bundles | Finland |
| C-31 | Marc Borrega, Ville Pihlajaniemi, and Tarja Tamminen | Chemical additives in hydrothermal treatments: Effects on saccharification and on the properties of hydrolysis lignin from pine, birch and willow wood | Finland | |
| C-32 | <u>Tatsuhiko Yamada</u> , Thi Thi Nge, Yasunori Ohashi, Shiho Takahashi, Eri Takata, Tsutomu Ikeda, Yasuyuki Matsushita, Dan Aoki, Kazuhiko Fukushima, Akiko Nakagawa-izumi, Masaomi Yamamura, Yuki Tobimatsu, Toshiaki Umezawa, Osamu Tanaike, Ryo Ishii and Takeo Ebina | Glycol lignin production and glycol lignin-based functional materials | Japan | |
| C-33 | <u>Zhijun Chen</u> , Shujun Li, Shouxin Liu, and Jian Li | Learning from nature: Empowering biomass with light | China | |

Poster Presentation

Room D

| Date | No. | Authors | Title | District |
|--|------|---|---|----------|
| Chemistry of cellulose-related materials, paper making and others (17:00 - 18:30) | | | | |
| | P-01 | <u>Nikolay A. Makarevich</u> | Diffusion kinetic model for real interphase processes with participation of wood components | Russia |
| | P-02 | <u>Nikolay A. Makarevich</u> | Nonideality factor in entropy – Multifractal analysis of wood components | Russia |
| | P-03 | <u>Roderquita K. Moore</u> and Doreen Mann | GCxGC characterization of Saw Palmetto <i>Serenoa repens</i> chemical composition | USA |
| | P-04 | <u>Roderquita K. Moore</u> and Doreen Mann | Investigation of Inkberry <i>Ilex Glabra</i> solvent fractions using GCxGC technology | USA |
| | P-05 | <u>Kai Sakamoto</u> , Takashi Hosoya, and Hisashi Miyafuji | Phenyl boronic acids as flame retardants to control efflorescence phenomenon | Japan |
| | P-06 | Julien Jaxel, Julie Rodriguez, Aurore Rerat, Thomas Rosenau, Christian Hansmann, Falk Liebner, and <u>Stefan Böhmdorfer</u> | How to quantify and evaluate the homogeneity of a wood surface coating? | Austria |
| | P-07 | <u>Wenxuan Mo</u> and Bo Li | The change and prediction of water retention capacity of poplar fibers with high lignin content under thermal drying process | China |
| | P-08 | Yueyue Yang, Can Wang, Qi Wang, Peng Lu, Wei Li, Shuangfei Wang, and <u>Jiulong Sha</u> | The effect of mechanical refining treatments on the yielding behavior of acacia pulp fiber suspensions | China |
| Room D | P-09 | <u>Ling-ling Gao</u> , Wan-peng Zhou, Ming-yang Ye, Ying-fu Huang, and Hui Sun | Effect of different beating degree on fibers morphology and properties of Xuan paper | China |
| Sep.9 | P-10 | <u>Chen-Lung Ho</u> , Kuang-Ping Hsu, Hui-Tung Ho, Eugene I-Chen Wang, and Yu-Chang Su | Evaluating the properties of the dissolving pulp prepared through organosolv pulping by PFI beating treatment | Taiwan |
| | P-11 | <u>Liqin Liu</u> , Xingye An, and Hongbin Liu | Preparation of starch based bio-latex by ball-milling pretreatment assisted amylase hydrolysis for paper coating application | China |
| | P-12 | Junxian Xie, <u>Fengxia Yue</u> , Rendang Yang, and Xu Jun | High performance cellulose-based coating for oil and grease resistance | China |
| | P-13 | Sara Zaccaron, Hassan Amer, Antje Potthast, and <u>Thomas Rosenau</u> | Modified cellulose pulp with covalently-bond functionalities for metal chelation | Austria |
| | P-14 | <u>Yan Shi</u> , Zeyu Ma, Weiwei Kong, Jingwen He, and Xiang Gao | Forming technology of regenerated cellulose self-bonding dissolving pulp fibers reinforced cushioning material | China |
| | P-15 | <u>Irina Sulaeva</u> , Christian Rohrer, Thomas Rosenau, and Antje Potthast | Modifications of bacterial cellulose for wound treatment applications | Austria |
| | P-16 | <u>María González Martínez</u> , Gérard Mortha, Capucine Dupont, Sébastien Thiéry, Denilson da Silva Perez, Xuân-mi Meyer, and Christophe Gourdon | Impact of cellulose properties on its behavior in torrefaction: Commercial microcrystalline cellulose versus extracted celluloses from woody and agricultural biomasses | France |
| | P-17 | <u>Sha Wang</u> , Zhe Sun, Yudi Kuang, Weiqing Kong, and Yongcan Jin | Strong, highly conductive nano-ionic cables from aligned cellulose nanofibers | China |
| | P-18 | <u>Panagiotis Spiliopoulos</u> , Iina Solala, Timo Pääkkönen, Jani Seitsonen, Bas Van Bochove, and Eero Kontturi | Crosslinking of cellulose nanocrystals in a template pre-hydrolyzed by hydrogen chloride gas | Finland |
| | P-19 | <u>Woo-Yong Song</u> , Soyong Juhn, and Soo-Jeong Shin | Effects of cellulose nanofibril on emulsion droplet size and skin moisture content | Korea |
| Room D | P-20 | Wangxia Wang, <u>Wenjuan Wu</u> , Huining Xiao, and Yongcan Jin | Dispersible and thermal stable nanocellulose prepared for easy-cleaning surface of cellulose-based material | China |
| Sep.9 | P-22 | Hassan Amer, Markus Gorfer, Ute Henniges, Markus Bacher, Antje Potthast, and Thomas Rosenau | Antimicrobial and UV-protective activities of guanidine functionalized cellulose/PVA films | Austria |

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| Room D Sep.9 | P-23 | <u>Hassan Amer</u> , Tiina Nypelö, Markus Gorfer, Uwe Rinner, Dominik Schild, Antje Potthast, and Thomas Rosenau | Guanidine-based xylan/CNC film decorated with lignin-type antioxidants: Synthesis and biological properties | Austria |
| | P-24 | <u>Yeyan Ni</u> and Yi Jing | Study on water resistance of nano-chitin/cassava starch composite film | China |
| | P-25 | <u>Gérard Mortha</u> , Frederique Clifton, and Anne-Laurence Dupont | A novel method for cellulose MMD analysis of "very high" molar mass dissolving pulps by size-exclusion chromatography | France |
| | P-26 | <u>Kota Enomoto</u> , Takashi Hosoya, and Hisashi Miyafuji | Effect of dissolution behavior of cellulose on production of 5-HMF in imidazolium ionic liquid | Japan |
| | P-27 | <u>Takao Kishimoto</u> , Miki Higuchi, and Daisuke Urabe | Conversion of cellulose into octyl glucoside by microwave heating in ionic liquid | Japan |
| | P-28 | <u>Waki Ikegami</u> , Takahiro Yagura, Hiroshi Kamitakahara, Yoshikuni Teramoto, and Toshiyuki Takano | Synthesis of D/L-cellulose | Japan |
| | P-29 | <u>Mayu Morita</u> , Takashi Hosoya, and Hisashi Miyafuji | Gas formation from D-glucose in various ionic liquids | Japan |
| Chemistry of carbohydrates, bio-refinery, lignin products and others (13:30 - 15:00) | | | | |
| Room D Sep.10 | P-30 | <u>Zhouyang Xiang</u> , Xuchen Jin, and Fachuang Lu | Investigating and promoting the material properties of xylan-type hemicelluloses | China |
| | P-31 | <u>Anatoly A. Shatalov</u> | Mixed-addenda Keggin-type (Mo-V-P)-heteropolyacids for selective hemicellulose conversion into soluble sugars | Portugal |
| | P-32 | <u>Chao Wang</u> , Qilin Zhang, Guihua Yang, and Feng Xu | FeCl ₃ -catalyzed conversion of xylose residues to levulinic acid in green salt solutions | China |
| | P-33 | <u>Jahan Golestani</u> , Christine Chirat, Laure Fort, Juliette Francillon, and Dominique Lachenal | Extraction of hemicelluloses from bleached cellulosic fibers by CCE or enzymatic treatments: Characterization of the extracted oligomers | France |
| | P-34 | <u>Qiulin Yang</u> , Shuang Xu, Dan Huo, Qingxi Hou, and Fengshan Zhang | Enhancement of enzymatic saccharification and xylose recovery of wheat straw by a pretreatment process using MgCl ₂ | China |
| | P-35 | <u>Hui Chen</u> , Bo Jiang, and Yongcan Jin | Effect of solid pretreatment on enzymatic saccharification of different lignocellulosic materials | China |
| | P-36 | Shufang Wu, Hui Chen, <u>Hasan Jameel</u> , Hou-min Chang, and Richard Phillips | Effects of lignin contents and delignification methods on enzymatic saccharification of loblolly pine | China |
| | P-37 | <u>Akiko Nakagawa-izumi</u> and Umi Hamidah | Effect of ionic liquid pretreatment on enzymatic saccharification of water hyacinth | Japan |
| | P-38 | <u>Haruka Hozumi</u> , Koichi yoshioka, Hisashi Miyafuji, Jun Fukushima, Hiroki Aoyagi, Hiroto Shimamura, Tatsuya Hori, Jun Matsumoto, and Shigeki Morii | Production of furan compounds from lignocellulosics by treatment with ionic liquid under vacuum steam distillation and reuse of ionic liquid | Japan |
| | P-39 | <u>Hisashi Miyafuji</u> and Takashi Hosoya | Various applications of ionic liquids for wood utilization | Japan |
| | P-40 | Agusta Samodra Putra, <u>Ryozo Noguchi</u> , Tofael Ahamed, Akiko Nakagawa-izumi, and Hiroshi Ohi | Environmental impact contributor in the EFB-based integrated dissolving pulp and furfural production | Japan |
| Room D Sep.10 | P-41 | <u>Lianxin Luo</u> , Kelei Zhang, and Xiaojun Yuan | The improvement of explosion treatment on secondary fiber properties of OCC | China |
| | P-42 | <u>Marta Ramos-Andrés</u> , Beatriz Aguilera-Torre, Sergio Díaz-Cesteros, and Juan García-Serna | Production of high-value added products from carrot discards through green processes | Spain |
| | P-44 | <u>Juha Fiskari</u> and Petri Kilpeläinen | Evaluation of the potential of Acacia mangium and Eucalyptus pellita as feedstock for biorefinery | Sweden |
| | P-45 | <u>Mingfu Li</u> , Changzhou Chen, Qingtong Zhang, Bin Luo, Chenyan Guo, Shuangfei Wang, and Douyong Min | Lignin-based carbon solid acid prepared as catalyst for selectively converting fructose to HMF | China |
| | P-46 | <u>Grigory Zinovyev</u> , Ivan Sumerskii, Thomas Rosenau, and Antje Potthast | Inherent properties of kraft lignin required for rigid polyurethane foams production | Austria |
| | P-47 | Yang Yang, Rui Tang, Danwei Xue, and <u>Bailiang Xue</u> | Ternary deep eutectic solvents as an effective liquid for regenerating lignin in application of rigid polyurethane foam | China |
| | P-48 | Wenxiang Zhu, Tian He, and <u>Fangeng Chen</u> | Lignosulfonate derived from acetic acid lignin: Preparation and application as a dispersant | China |
| | P-49 | <u>Fengfeng Li</u> , Guihua Yang, Xiluan Wang, and Runcang Sun | Lignosulfonate-modified graphene hydrogel with ultrahigh adsorption capacity for Pb(II) removal | China |

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| Room D Sep.10 | P-50 | Qingtong Zhang, Mingfu Li, Ming Lei, Bin Luo, Shuangfei Wang, and <u>Douyong Min</u> | High value utilization of lignin nanoparticle to construct ultra-sensitive mercury ions colorimetric sensors | China |
| | P-51 | <u>Gaojin Lyu</u> , Chao Wang, Xingxiang Ji, Guihua Yang, Jiachuan Chen, and Xuejun Pan | Alkaline oxidative hydrothermal conversion of biomass into lignin-derived aromatics and carbohydrates | China |
| | P-52 | Luc Zongo, Heiko Lange, and <u>Claudia Crestini</u> | Folate-decorated tannin microcapsules for oncologic theragnosis | Italy |
| | P-53 | <u>Roderquita K. Moore</u> and Doreen Mann | Classification of durable chemicals in Black Locust <i>Robinia Pseudoacacia</i> wood and bark | USA |
| | P-54 | <u>Roderquita K. Moore</u> , Doreen Mann, Frederick Matt, Mark Dietenberger, and David Weise | Characterization of Fetterbush <i>Lyonia lucida</i> liquid extractions | USA |
| | P-55 | <u>Chihiro Kimura</u> , Ruiho Li, Ryota Ouda, Hiroshi Nishimura, Takashi Fujita, and Takashi Watanabe | Production of antiviral compounds from sugarcane bagasse by microwave solvolysis | Japan |
| | P-56 | <u>Ruiho Li</u> , Ryo Narita, Ryota Ouda, Chihiro Kimura, Hiroshi Nishimura, Takashi Fujita, and Takashi Watanabe | Antiviral activity of phenolic compounds in pyroligenous acid, and structure-activity relationship | Japan |
| | P-57 | <u>Xiaoqian Chen</u> , Yingjuan Fu, Chuanling Si, and Pedram Fatehi | Bio-medicinal applications of bio-based materials | China |
| | P-58 | <u>Tomoko Sugimoto</u> , Yoshimi Sakai, Ryusei Haraguchi, Toshihide Hirao, and Toshihiro Yamada | Evaluation of the chemical composition of <i>Chamaecyparis pisifera</i> rotten wood – Focusing the changes including the very early stage of rotting – | Japan |
| Room D Sep.11 | Chemistry of lignin, pulping and others (13:30 - 15:00) | | | |
| | P-59 | <u>Takashi Hosoya</u> and Hisashi Miyafuji | Quantum chemical approaches to mechanisms in alkaline nitrobenzene oxidation of lignin | Japan |
| | P-60 | <u>Noriyuki Takemoto</u> , Tsuyoshi Akiyama, Yoshihiko Taguchi, and Ruri Sato | Molecular weight determination of lignin by SEC/MS and preparative SEC/MALDI-TOFMS | Japan |
| | P-61 | <u>Yuki Tokunaga</u> , Takashi Nagata, Keiko Kondo, Masato Katahira, and Takashi Watanabe | NMR analysis for molecular insight into the interaction between lignin and carbohydrate binding module of Cel7A from <i>Trichoderma reesei</i> | Japan |
| | P-62 | <u>Xiao-Jun Shen</u> , Han-Min Wang, Jia-Long Wen, and Tong-Qi Yuan | Structural and morphological transformations of lignin macromolecule during bio-based Deep Eutectic Solvent (DES) pretreatment | China |
| | P-63 | <u>Guihua Yang</u> , Jiachuan Chen, Gaojin Lyu, M. Sarwar Jahan, and Yonghao Ni | Structural characterization of lignin from the pre-hydrolysis liquor of kraft based dissolving pulp production process and its comparison with other technical lignins | China |
| | P-64 | <u>Yu Liu</u> , Yinglong Wu, and Gaojin Lyu | Characteristics of willow lignin from organic solvent treatment | China |
| | P-65 | <u>Haruka Hirayama</u> , Takuya Akiyama, Satoshi Kimura, Deded S. Nawawi, Wasrin Syafii, Tomoya Yokoyama, and Yuji Matsumoto | Influence of the p-hydroxyphenyl/guaiacyl ratio on the biphenyl contents in compression wood lignins | Japan |
| | P-66 | Tao Wang, Hao Ren, Yi Jing, and <u>Guolin Tong</u> | Partial separation of the lignin from kraft pulping alkaline recovery process | China |
| Room D Sep.11 | P-67 | <u>Jing Li</u> and Xinsheng Chai | Crude refining of lignin from wheat straw by low-temperature/pressure ethanol system enhanced by oxygen | China |
| | P-68 | <u>Chengqi Feng</u> , Shuangquan Yao, Baojie Liu, Lingzhi Huang, and Chengrong Qin | Fractionation of bagasse by p-toluenesulfonic acid | China |
| | P-69 | Chongxin Yin, Chunfa Lei, and <u>Jinlan Cheng</u> | Efficient fraction of rice straw by p-toluenesulfonic acid | China |
| | P-70 | <u>Naoki Hada</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Fractionation of softwood MWL according to the solubility in dioxane, and relationship between the molecular weight and biphenyl content | Japan |
| | P-71 | <u>Lupeng Shao</u> and Feng Xu | Thermal degradation of fractionated lignin fractions by Py-GC/MS | China |
| | P-72 | <u>Weikun Jiang</u> , Yu Liu, and Gaojin Lv | Modeling pyrolytic behavior of pre-oxidized lignin using representative β -ether-type lignin models | China |

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| Room D Sep.11 | P-73 | <u>Jiawei Wang</u> , Mohd Asmadi, Eiji Minami, and Haruo Kawamoto | Influences of wood cell wall ultrastructure on thermal reactivities of polysaccharides | Japan |
| | P-74 | Eiji Minami, Yao Yilin, and Haruo Kawamoto | Decomposition of lignocellulosics in supercritical methanol with adding water by a semi-flow reactor | Japan |
| | P-75 | <u>Yanding Li</u> , Benginur Demir, Elise B. Gilcher, Madelyn R. Ball, Vitaly Tymokhin, John Ralph, and James Dumesic | Kinetic and mechanistic insights into hydrogenolysis of lignin to monomers in a continuous flow reactor | USA |
| | P-76 | <u>Daisuke Ando</u> , Fumiaki Nakatsubo, Hiroyuki Yano, and John Ralph | Selective lignin degradation of a LCC insoluble fraction from Eucalyptus globulus with γ -TTSA method | USA |
| | P-77 | Fernanda Rosa Vieira, Ana Barros-Timmons, Dmitry V. Evtuguin, and Paula C.R. Pinto | Effect of different catalysts on the oxyalkylation of eucalyptus LignoBoost kraft lignin | Portugal |
| | P-78 | Tokimitsu Kobayashi, Kaori Sawamura, Yuki Tobimatsu, Hiroshi Kamitakahara, and <u>Toshiyuki Takano</u> | Lignin functionalization through chemical demethylation: Preparation and tannin-like properties demethylated dehydrogenation polymers | Japan |
| | P-79 | <u>Kyoko S. Katsumata</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Depolymerization of lignin isolated by soda-AQ cooking – H ₂ O ₂ /H ₂ SO ₄ treatment and MnO ₂ treatment – | Japan |
| | P-80 | Esakkiammal Sudha Esakkimuthu, Marie-Christine Brochier Salon, Nathalie Marlin, <u>Maria Gonzalez Martinez</u> , and Gérard Mortha | Lignin model compounds fluorobenzoylation | France |
| | P-81 | <u>Yoshitaka Hirano</u> and Toshiyuki Takano | Theoretical analysis of the proton-coupled electron transfer oxidation mechanism of lignin model compounds | Japan |
| | P-82 | <u>Xu Zeng</u> , Takuya Akiyama, Tomoya Yokoyama, and Yuji Matsumoto | Contribution of the γ -hydroxy group to the β -O-4 bond cleavage of lignin model compounds in the reaction with <i>tert</i> -butoxide under mild conditions | Japan |
| | P-83 | <u>Yuri Takeda</u> , Yuki Tobimatsu, Masaomi Yamamura, Toshiyuki Takano, Masahiro Sakamoto, and Toshiaki Umezawa | Characterization of lignocellulose utilization properties in transgenic rice plants with altered lignin aromatic composition | Japan |
| | P-84 | <u>Yimin Xie</u> , Chen Jiang, and Xuekuan Chen | Synthesis and anticancer activity of DHP with low degree of polymerization | China |
| | P-85 | <u>Xin Wang</u> , Yu Sun, Chong Luo, Shuo Yang, Wenhui Zhang, and Hongjie Zhang | Further understanding the effect of lignin distribution in lignocellulosic fiber cell walls on the fiber deformability and interfiber bonding properties | China |
| | P-86 | Zhichao Ma, Jianpei Li, Pei Zhong, and <u>Yongjun Yin</u> | Study on soft sensor model of pulp components based on bleached pulp quality indexes | China |
| | P-87 | <u>Chen-Lung Ho</u> and Yu-Chang Su | Evaluating fiber morphology and pulping potentials of seven tropical wood species | Taiwan |
| P-88 | Injeong Kim, <u>Olov Karlsson</u> , Oleg N. Antzutkin, Faiz Ullah Shah, Dennis Jones, and Dick Sandberg | Wood modification with maleic anhydride and sodium hypophosphite | Sweden | |
| P-89 | Reza Ebrahimi Majdar, Heiko Lange, and <u>Claudia Crestini</u> | Soxhlet-derived LCC-fraction from wheat straw organosolv lignin | Italy | |