



Lignin Workshop 2025: “Lignin to X - Challenges and Potential”

Åbo Akademi University (ÅAU), Finland
Aurum Argentum, Henrikinkatu 2, Turku, Finland
20th – 21st of August, 2025

Poster Session

No.	Name	Organization	Title
A1	Donya Arjmandi	Åbo Akademi University	Development of spectrometric and spectroscopic methodology for fingerprinting analysis of polyphenols
A2	John Chrysostom Opedun	BOKU University	Optimizing Size-Exclusion Chromatography for Lignin Analysis: Evaluating Mobile Phases, Standards and Detection Systems
A3	Julia Chrzastowska	Åbo Akademi University	Tools are needed for understanding migration and chemistry of lignin in wood cell walls and middle lamellae during dissolution
A4	Margaritha Ritscher	BOKU University	Simple and Fast Analysis of Lignin and Hemicelluloses in Kraft Black Liquor
A5	Oskar Backman	Åbo Akademi University	New assessment method for the compatibility of lignin poly (lactic acid) polymer blends
A6	Teddie Strandberg	Åbo Akademi University	The challenges of DOSY NMR of lignin
B1	Agung Ari Wibowo	Aalto University	Phase Equilibria of γ -Valerolactone (GVL), Ethylbenzene, and Water: Toward the Sustainable Utilization of a Green Solvent in Lignocellulosic Biorefineries
B2	Ehsan Asadi	Aalto University	Integration of phase equilibrium measurement and predictive thermodynamics models for tetrahydrofuran + 2-methylpyridine and 2-methylpyridine + 2-methylpyrazine binary systems
B3	Jiayun Xu	Åbo Akademi University	Revealing the properties of spruce lignin during different fractionation processes
B4	Qi Nie	Åbo Akademi University	Lignin recovery from pressurized hot water treated industrial waste: properties and effect of raw material size
B5	Ruijie Wu	Åbo Akademi University	In-situ reactive fractionation of lignocellulosic biomass to produce high-reactive lignin
B6	Stefan Grasböck	BOKU University	Preparation and analysis of butoxylated Lignins with high purity
C1	Ahilan Manisekaran	Chalmers University of Technology	Mechanochemistry: A Greener Esterification Route for the Synthesis of Versatile Lignin Building Blocks
C2	Andreas Schröder	Åbo Akademi University	Synthesis attempt of a novel β -O-4' lignin model compound and the study of a thiourea-based lignin fractionation process using a β -O-4' lignin model compound
C3	Fika Andriani	KTH, Royal Institute of Technology	Tailoring Lignin for Thermosets: Reactivity and Miscibility of Carboxymethylated vs. Oxidized Lignins.



C4	Filippa Ludvig	KTH, Royal Institute of Technology	Linkage Progressions in Lignin Populations (LILIPOPS): MS2 Studies on Birch MWL
C5	Gen Li	Aalto University	Solvolysis of enzymatic hydrolysis lignin in fuel compatible solvents
C6	Jaswinder Kaur	Åbo Akademi University	Synthesis and characterization of epoxy functionalized lignin
C7	Marzieh Bagheri	Aalto university	From Biomass to Platform Chemical Advancing Lignin Valorization
C8	Muhammad Ossama	Aalto University	Solvent and temperature effects on the solubility of Vanillic and Gallic acid: Experimental, modeling and solid phase study
C9	Rupali Bhadane	Åbo Akademi University	Lignin Grafted Copolymers: Synthesis And Characterization
C10	Um E Farwa	Helsinki University	Valorization of Lignin Through Oxyalkylation and Maleation: A Step Toward Bio-Based Polymers
C11	Sanja Vucetic	Åbo Akademi University	Aromatic platforms from industrial lignins for high-value materials production
C12	Samira Cheshak	Åbo Akademi University	Allylation and Thiol–Ene Transformation of Softwood Kraft Lignin to Unlock Its Functional Potential
C13	Veronika Badazhkova	Åbo Akademi University	Ruthenium-Catalyzed Transfer Dehydrogenation of 1-Aryl-1,3-Propane Diol Fragment in Lignin Model Compounds
C14	Yuge Yao	Chalmers University of Technology	Real-time Monitoring Chemical Modification of Kraft Lignin Using Cyclic Organic Carbonates
C15	Zonghong Lu	Åbo Akademi University	Tannin as cross-linker to promote the polymerization of lignin for enhancing thermal and antibacterial properties
C16	Semiu Abolore Rasaq	Technological University Dublin	Lignin extraction from distillery spent grain and synthesis of lignin nanoparticles via ultrasonication.
D1	Iuliana Ribca	Fibinol	Lignin-powered biocomposites with Fibinol LIGNOVA™
D2	Dumindu Peththa Wadu	Åbo Akademi University	Lignin utilization for biobased wood adhesives
D3	Xunhong Gu	Chalmers University of Technology	Fully Wood-based Adhesives
D4	Luisa Scolari	TU Wien	Unmodified Technical Lignins as Sustainable Binders in Structural Biocomposites
D5	Maham Arif	LUT University	Lignin-derived formaldehyde-free biopolymer adhesives and functional composites for engineered wood products
D6	Hifza Rouf	University of Helsinki	Effect of Synthesis Method on Interactions in PLA/Lignin/PEG Biocomposites: A TM-FTIR Study
D7	Tim Salomäki	Åbo Akademi University	AI-driven engineering to boost the compatibility of lignin and PLA for bioplastics design
D8	Marie Alopaeus	Åbo Akademi University	3D Printability of Modified Lignin in Polylactic Acid Composites



D9	Valter Georgs	Åbo Akademi University	Sustainable printing with precision: Lignin-based composites in additive manufacturing
D10	Nikolaus Twaroch	BOKU University	Hydrophobization of Wood Enabled by Imidazole Derivatives and Water
D11	Paul Naumann	TU Dresden	Ligninhydrogel – A Sustainable Bio-Based Soil Water Reservoir
D12	Ronald Marquez	University of Girona	LIGNIN NANOPARTICLES AS PICKERING STABILIZERS: EMULSION ENGINEERING THROUGH PHYSICOCHEMICAL DESIGN
D13	Hoyoung Yoon	Åbo Akademi University	Double-Layer Coated Urea with Lignin Fractions for Multifunctional Nitrogen Fertilizers
D14	Liqiu Hu	Åbo Akademi University	In situ polymerization of lignin in cellulose nanofibrils aqueous dispersion targeting fully bio-based barrier coating for packaging
D15	Nele Dammann	Technical University of Denmark	Lignin Phosphate as an Inhibitive Pigment
D16	Mengxue Lu	University of Helsinki	Colloidal Stability Study of Lignin Nanoparticles Coated with Chitosan Polymer in Biological Fluids
E1	Majed Parvan	LUT University	Tailoring of crystal size and significant enhancement of physical property, ductility and toughness in in-situ nano kraft lignin/nanofibrillated cellulose biocomposite
E2	Nissa Solihat	Aalto University	Thermally insulating, lightweight, mechanically robust cellulosic fibril Pickering foam dried at room temperature
E3	Wangfang Deng	Åbo Akademi University	Laccase/TEMPO-Mediated Oxidation Producing Lignocellulosic Nanofibrils as a Stabilizer for Pickering Emulsion
E4	JingHuan Chen	Åbo Akademi University	Controlled Incorporation of Lignin to Enhance the Properties of Carboxyethylated Microfibrillated Cellulose Films
E5	Xin Yue	University of Oulu	Lignin-derived porous carbon bioadsorbents for industrial wastewater treatment
E6	Hao Zhang	Åbo Akademi University	How chemical structures of lignin impact the morphological and electrochemical performance of its hard carbon
E7	Yongzheng Li	Åbo Akademi University	Tailoring Closed Pore Structure via Co-Pyrolysis of N-doped Lignin and Polyacrylamide for High-Performance Sodium-Ion Battery Anode
E8	Zhichen Ba	Åbo Akademi University	Machine Learning-Driven Prediction of Electrochemical Performance in Carbonized Cellulose and Lignin-Based Electrodes for Lithium/Sodium-Ion Batteries
E9	Adil Mehmood	Åbo Akademi University	Biobased Materials for Sustainable Electronics
E10	Shujun Liang	Åbo Akademi University	Aqueous Processable One-Dimensional Polypyrrole Nanostructured by Lignocellulose Nanofibril: A Conductive Interfacing Biomaterial
E11	Vidushi Aggarwal	University of Turku	Transparent and Conductive Cellulose-based Substrates for Perovskite Solar Cells
E12	Shaofei Sun	Åbo Akademi University	Construction of amphoteric hydrogel electrolytes with charge modification: An investigation of ion migration mechanism and antibacterial property