Chunlin Xu

List of Publications by Year
in descending order

#	Article	IF	Citations
1	A review of bioactive plant polysaccharides: Biological activities, functionalization, and biomedical applications. Bioactive Carbohydrates and Dietary Fibre, 2015, 5, 31-61.	2.7	461
2	On Low-Concentration Inks Formulated by Nanocellulose Assisted with Gelatin Methacrylate (GelMA) for 3D Printing toward Wound Healing Application. ACS Applied Materials & Interfaces, 2019, 11, 8838-8848.	8.0	189
3	Biomass Fractionation and Lignin Fractionation towards Lignin Valorization. ChemSusChem, 2020, 13, 4284-4295.	6.8	188
4	Cellulose nanocrystals prepared via formic acid hydrolysis followed by TEMPO-mediated oxidation. Carbohydrate Polymers, 2015, 133, 605-612.	10.2	184
5	Three-Dimensional Printing of Wood-Derived Biopolymers: A Review Focused on Biomedical Applications. ACS Sustainable Chemistry and Engineering, 2018, 6, 5663-5680.	6.7	183
6	Ultrafast adsorption of heavy metal ions onto functionalized lignin-based hybrid magnetic nanoparticles. Chemical Engineering Journal, 2019, 372, 82-91.	12.7	176
7	Hemicellulose-reinforced nanocellulose hydrogels for wound healing application. Cellulose, 2016, 23, 3129-3143.	4.9	159
8	Biocomposites of copper-containing mesoporous bioactive glass and nanofibrillated cellulose: Biocompatibility and angiogenic promotion in chronic wound healing application. Acta Biomaterialia, 2016, 46, 286-298.	8.3	151
9	Ligninâ€Based Microâ€•and Nanomaterials and their Composites in Biomedical Applications. ChemSusChem, 2020, 13, 4266-4283.	6.8	130
10	3D printing of nanocellulose hydrogel scaffolds with tunable mechanical strength towards wound healing application. Journal of Materials Chemistry B, 2018, 6, 7066-7075.	5.8	129
11	Development of nanocellulose scaffolds with tunable structures to support 3D cell culture. Carbohydrate Polymers, 2016, 148, 259-271.	10.2	116
12	Biocomposites of Nanofibrillated Cellulose, Polypyrrole, and Silver Nanoparticles with Electroconductive and Antimicrobial Properties. Biomacromolecules, 2014, 15, 3655-3663.	5.4	106
13	Acetylation and characterization of spruce (Picea abies) galactoglucomannans. Carbohydrate Research, 2010, 345, 810-816.	2.3	89
14	Novel biorenewable composite of wood polysaccharide and polylactic acid for three dimensional printing. Carbohydrate Polymers, 2018, 187, 51-58.	10.2	83
15	Nanocellulose-Based Inks for 3D Bioprinting: Key Aspects in Research Development and Challenging Perspectives in Applicationsâ€"A Mini Review. Bioengineering, 2020, 7, 40.	3.5	77
16	Mannans as stabilizers of oil-in-water beverage emulsions. LWT - Food Science and Technology, 2009, 42, 849-855.	5.2	74
17	Cationic hemicellulose-based hydrogels for arsenic and chromium removal from aqueous solutions. Carbohydrate Polymers, 2014, 111, 797-805.	10.2	70
18	Norway spruce galactoglucomannans exhibiting immunomodulating and radical-scavenging activities. International Journal of Biological Macromolecules, 2008, 42, 1-5.	7.5	68

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19	Effects of chitosan quaternary ammonium salt on the physicochemical properties of sodium carboxymethyl cellulose-based films. Carbohydrate Polymers, 2018, 184, 37-46.	10.2	67
20	Surface Engineered Biomimetic Inks Based on UV Cross-Linkable Wood Biopolymers for 3D Printing. ACS Applied Materials & Interfaces, 2019, 11, 12389-12400.	8.0	65
21	Nanofibrillated cellulose originated from birch sawdust after sequential extractions: a promising polymeric material from waste to films. Cellulose, 2014, 21, 2587-2598.	4.9	61
22	Glucomannan composite films with cellulose nanowhiskers. Cellulose, 2010, 17, 69-81.	4.9	60
23	Chemoâ€enzymatic Assembly of Clickable Cellulose Surfaces via Multivalent Polysaccharides. ChemSusChem, 2012, 5, 661-665.	6.8	60
24	Rheological properties of water-soluble spruce O-acetyl galactoglucomannans. Carbohydrate Polymers, 2009, 75, 498-504.	10.2	59
25	Kinetics of Acid Hydrolysis of Water-Soluble Spruce O-Acetyl Galactoglucomannans. Journal of Agricultural and Food Chemistry, 2008, 56, 2429-2435.	5.2	56
26	Robust shape-retaining nanocellulose-based aerogels decorated with silver nanoparticles for fast continuous catalytic discoloration of organic dyes. Separation and Purification Technology, 2020, 242, 116523.	7.9	54
27	Revealing the structure of bamboo lignin obtained by formic acid delignification at different pressure levels. Industrial Crops and Products, 2017, 108, 864-871.	5.2	51
28	Functional and Anionic Cellulose-Interacting Polymers by Selective Chemo-Enzymatic Carboxylation of Galactose-Containing Polysaccharides. Biomacromolecules, 2012, 13, 2418-2428.	5.4	50
29	Structural changes of bamboo-derived lignin in an integrated process of autohydrolysis and formic acid inducing rapid delignification. Industrial Crops and Products, 2018, 115, 194-201.	5.2	50
30	Conductivity of PEDOT:PSS on Spin-Coated and Drop Cast Nanofibrillar Cellulose Thin Films. Nanoscale Research Letters, 2015, 10, 386.	5.7	46
31	Mild Oxalicâ€Acidâ€Catalyzed Hydrolysis as a Novel Approach to Prepare Cellulose Nanocrystals. ChemNanoMat, 2017, 3, 109-119.	2.8	45
32	Transparent nanocellulose-pigment composite films. Journal of Materials Science, 2015, 50, 7343-7352.	3.7	43
33	Obtaining Spruce Hemicelluloses of Desired Molar Mass by using Pressurized Hot Water Extraction. ChemSusChem, 2014, 7, 2947-2953.	6.8	42
34	Spruce galactoglucomannans inhibit lipid oxidation in rapeseed oil-in-water emulsions. Food Hydrocolloids, 2016, 58, 255-266.	10.7	42
35	Spruce galactoglucomannans in rapeseed oil-in-water emulsions: Efficient stabilization performance and structural partitioning. Food Hydrocolloids, 2016, 52, 615-624.	10.7	42
36	Tailored Thermosetting Wood Adhesive Based on Well-Defined Hardwood Lignin Fractions. ACS Sustainable Chemistry and Engineering, 2020, 8, 13517-13526.	6.7	41

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37	Phenolic residues in spruce galactoglucomannans improve stabilization of oil-in-water emulsions. Journal of Colloid and Interface Science, 2018, 512, 536-547.	9.4	39
38	Composite films of nanofibrillated cellulose and O-acetyl galactoglucomannan (GGM) coated with succinic esters of GGM showing potential as barrier material in food packaging. Journal of Materials Science, 2015, 50, 3189-3199.	3.7	38
39	Tailored Approaches in Drug Development and Diagnostics: From Molecular Design to Biological Model Systems. Advanced Healthcare Materials, 2017, 6, 1700258.	7.6	38
40	Building Custom Polysaccharides in Vitro with an Efficient, Broad-Specificity Xyloglucan Glycosynthase and a Fucosyltransferase. Journal of the American Chemical Society, 2011, 133, 10892-10900.	13.7	37
41	Characteristics of Hot Water Extracts from the Bark of Cultivated Willow (<i>Salix</i> sp.). ACS Sustainable Chemistry and Engineering, 2018, 6, 5566-5573.	6.7	37
42	Solubility of Softwood Hemicelluloses. Biomacromolecules, 2018, 19, 1245-1255.	5.4	37
43	Environmentally-compatible alkyd paints stabilized by wood hemicelluloses. Industrial Crops and Products, 2019, 133, 212-220.	5.2	37
44	Ultralight and porous cellulose nanofibers/polyethyleneimine composite aerogels with exceptional performance for selective anionic dye adsorption. Industrial Crops and Products, 2022, 177, 114513.	5.2	37
45	Modification of nanofibrillated cellulose using amphiphilic block-structured galactoglucomannans. Carbohydrate Polymers, 2014, 110, 163-172.	10.2	34
46	Strong reinforcing effects from galactoglucomannan hemicellulose on mechanical behavior of wet cellulose nanofiber gels. Journal of Materials Science, 2015, 50, 7413-7423.	3.7	34
47	Hemicelluloses from stone pine, holm oak, and Norway spruce with subcritical water extraction â˘" comparative study with characterization and kinetics. Journal of Supercritical Fluids, 2018, 133, 647-657.	3.2	34
48	Carboxymethylated spruce galactoglucomannans: preparation, characterisation, dispersion stability, water-in-oil emulsion stability, and sorption on cellulose surface. Nordic Pulp and Paper Research Journal, 2011, 26, 1-12.	0.7	34
49	From Biomass to Nanomaterials: A Green Procedure for Preparation of Holistic Bamboo Multifunctional Nanocomposites Based On Formic Acid Rapid Fractionation. ACS Sustainable Chemistry and Engineering, 2019, 7, 6592-6600.	6.7	33
50	O-Carboxymethyl chitosan-based pH-responsive amphiphilic chitosan derivatives: Characterization, aggregation behavior, and application. Carbohydrate Polymers, 2020, 237, 116112.	10.2	32
51	Conducting ink based on cellulose nanocrystals and polyaniline for flexographical printing. Journal of Materials Chemistry C, 2017, 5, 12172-12181.	5.5	31
52	O-acetyl galactoglucomannan esters for barrier coatings. Cellulose, 2014, 21, 4497-4509.	4.9	30
53	Synthesis of tunable hydrogels based on O-acetyl-galactoglucomannans from spruce. Carbohydrate Polymers, 2017, 157, 1349-1357.	10.2	29
54	Targeted allylation and propargylation of galactose-containing polysaccharides in water. Carbohydrate Polymers, 2014, 100, 46-54.	10.2	28

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55	Human Dermal Fibroblast Viability and Adhesion on Cellulose Nanomaterial Coatings: Influence of Surface Characteristics. Biomacromolecules, 2020, 21, 1560-1567.	5.4	27
56	Digital light processing (DLP) 3D-fabricated antimicrobial hydrogel with a sustainable resin of methacrylated woody polysaccharides and hybrid silver-lignin nanospheres. Green Chemistry, 2022, 24, 2129-2145.	9.0	27
57	Hydrolytic stability of water-soluble spruce O-acetyl galactoglucomannans. Holzforschung, 2009, 63, .	1.9	25
58	3D Scaffolds of Polycaprolactone/Copper-Doped Bioactive Glass: Architecture Engineering with Additive Manufacturing and Cellular Assessments in a Coculture of Bone Marrow Stem Cells and Endothelial Cells. ACS Biomaterials Science and Engineering, 2019, 5, 4496-4510.	5.2	25
59	Valorization of Ligninâ€“Carbohydrate Complexes from Hydrolysates of Norway Spruce: Efficient Separation, Structural Characterization, and Antioxidant Activity. ACS Sustainable Chemistry and Engineering, 2019, 7, 1447-1456.	6.7	25
60	Enhancement of a zwitterionic chitosan derivative on mechanical properties and antibacterial activity of carboxymethyl cellulose-based films. International Journal of Biological Macromolecules, 2020, 159, 1197-1205.	7.5	25
61	Antithrombotic properties of sulfated wood-derived galactoglucomannans. Holzforschung, 2012, 66, 149-154.	1.9	23
62	One-Step Fractionation of the Main Components of Bamboo by Formic Acid-based Organosolv Process Under Pressure. Journal of Wood Chemistry and Technology, 2018, 38, 170-182.	1.7	22
63	On Laccase-Catalyzed Polymerization of Biorefinery Lignin Fractions and Alignment of Lignin Nanoparticles on the Nanocellulose Surface <i>via</i> One-Pot Water-Phase Synthesis. ACS Sustainable Chemistry and Engineering, 2021, 9, 8770-8782.	6.7	22
64	Synthesis of SETâ€“LRPâ€induced galactoglucomannanâ€diblock copolymers. Journal of Polymer Science Part A, 2013, 51, 5100-5110.	2.3	21
65	Comparative hydrolysis analysis of cellulose samples and aspects of its application in conservation science. Cellulose, 2021, 28, 8719-8734.	4.9	21
66	Anionic Polysaccharides as Templates for the Synthesis of Conducting Polyaniline and as Structural Matrix for Conducting Biocomposites. Macromolecular Rapid Communications, 2013, 34, 1056-1061.	3.9	20
67	Fractionation of Lignin with Decreased Heterogeneity: Based on a Detailed Characteristics Study of Sequentially Extracted Softwood Kraft Lignin. ACS Sustainable Chemistry and Engineering, 2021, 9, 13862-13873.	6.7	20
68	Injectable thiol-ene hydrogel of galactoglucomannan and cellulose nanocrystals in delivery of therapeutic inorganic ions with embedded bioactive glass nanoparticles. Carbohydrate Polymers, 2022, 276, 118780.	10.2	20
69	Chromatographic recovery and purification of natural phytochemicals from underappreciated willow bark water extracts. Separation and Purification Technology, 2021, 261, 118247.	7.9	19
70	Green fractionation approaches for isolation of biopolymers and the critical technical challenges. Industrial Crops and Products, 2022, 177, 114451.	5.2	19
71	Electrospinning of Electroconductive Water-Resistant Nanofibers of PEDOTâ€“PSS, Cellulose Nanofibrils and PEO: Fabrication, Characterization, and Cytocompatibility. ACS Applied Bio Materials, 2021, 4, 483-493.	4.6	17
72	Molecular interactions in N-[(2-hydroxyl)-propyl-3-trimethyl ammonium] chitosan chloride-sodium alginate polyelectrolyte complexes. Food Hydrocolloids, 2020, 100, 105400.	10.7	16

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73	Hot Water Extraction of Hemicelluloses from Aspen Wood Chips of Different Sizes. BioResources, 2013, 8, .	1.0	15
74	Amphiphilic Spruce Galactoglucomannan Derivatives Based on Naturally-Occurring Fatty Acids. BioResources, 2013, 8, .	1.0	15
75	Stiffness and swelling characteristics of nanocellulose films in cell culture media. Cellulose, 2018, 25, 4969-4978.	4.9	15
76	Color evolution of poplar wood chips and its response to lignin and extractives changes in autohydrolysis pretreatment. International Journal of Biological Macromolecules, 2020, 157, 673-679.	7.5	15
77	Kinetics of Acid Hydrolysis of Arabinogalactans. International Journal of Chemical Reactor Engineering, 2010, 8, .	1.1	14
78	Lipophilic Extractives in<i>Populus Ã— euramericana</i>â€œGuarientoâ€•Stemwood and Bark. Journal of Wood Chemistry and Technology, 2010, 30, 105-117.	1.7	14
79	Cationised O-acetyl galactoglucomannans: Synthesis and characterisation. Carbohydrate Polymers, 2014, 99, 755-764.	10.2	14
80	Wood cell wall mimicking for composite films of spruce nanofibrillated cellulose with spruce galactoglucomannan and arabinoglucuronoxylan. Journal of Materials Science, 2014, 49, 5043-5055.	3.7	14
81	Functionalized galactoglucomannanâ€based hydrogels for the removal of metal cations from aqueous solutions. Journal of Applied Polymer Science, 2016, 133, .	2.6	14
82	Targeted functionalization of spruce <i>O</i>â€acetyl galactoglucomannansâ€”2,2,6,6â€tetramethylpiperidinâ€1â€oxylâ€oxidation and carbodiimideâ€mediated amidation. Journal of Applied Polymer Science, 2013, 130, 3122-3129.	2.6	13
83	Tailor-made hemicellulose-based hydrogels reinforced with nanofibrillated cellulose. Nordic Pulp and Paper Research Journal, 2015, 30, 373-384.	0.7	13
84	Profiling the substitution pattern of xyloglucan derivatives by integrated enzymatic hydrolysis, hydrophilic-interaction liquid chromatography and mass spectrometry. Journal of Chromatography A, 2016, 1463, 110-120.	3.7	13
85	Aqueous Extraction of the Sulfated Polysaccharide Ulvan from the Green Alga Ulva rigidaâ€"Kinetics and Modeling. Bioenergy Research, 2017, 10, 915-928.	3.9	13
86	Synthesis, structure, and properties of N-2-hydroxylpropyl-3-trimethylammonium-O-carboxymethyl chitosan derivatives. International Journal of Biological Macromolecules, 2020, 144, 568-577.	7.5	13
87	Functional Lignin Nanoparticles with Tunable Size and Surface Properties: Fabrication, Characterization, and Use in Layer-by-Layer Assembly. ACS Applied Materials & Interfaces, 2021, 13, 26308-26317.	8.0	13
88	3D Modeling of Epithelial Tumorsâ€"The Synergy between Materials Engineering, 3D Bioprinting, High-Content Imaging, and Nanotechnology. International Journal of Molecular Sciences, 2021, 22, 6225.	4.1	13
89	Rapid and manual-shaking exfoliation of amidoximated cellulose nanofibrils for a large-capacity filtration capture of uranium. Journal of Materials Chemistry A, 2022, 10, 7920-7927.	10.3	12
90	Rheological and Printability Assessments on Biomaterial Inks of Nanocellulose/Photo-Crosslinkable Biopolymer in Light-Aided 3D Printing. Frontiers in Chemical Engineering, 2021, 3, .	2.7	11

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91	A Rapid and Reversible pH Control Process for the Formation and Dissociation of Lignin Nanoparticles. ChemSusChem, 2022, 15, e202200449.	6.8	10
92	Improvement of ultrafiltration performance by oxidation treatment in the recovery of galactoglucomannan from wood autohydrolyzate. Separation and Purification Technology, 2015, 149, 428-436.	7.9	7
93	Insights on the distribution of substitutions in spruce galactoglucomannan and its derivatives using integrated chemo-enzymatic deconstruction, chromatography and mass spectrometry. International Journal of Biological Macromolecules, 2018, 112, 616-625.	7.5	7
94	Bio-Based Hydrogels With Ion Exchange Properties Applied to Remove Cu(II), Cr(VI), and As(V) Ions From Water. Frontiers in Bioengineering and Biotechnology, 2021, 9, 656472.	4.1	7
95	Synthesis of galactoglucomannan-based latex via emulsion polymerization. Carbohydrate Polymers, 2022, 291, 119565.	10.2	7
96	Interactions in N-[(2-hydroxyl)-propyl-3-trimethyl ammonium] chitosan chloride/sodium carboxymethyl cellulose based films. Journal of Dispersion Science and Technology, 2021, 42, 161-172.	2.4	6
97	Nanocellulose bio-based composites for the removal of methylene blue from water: An experimental and theoretical exploration. Journal of Molecular Liquids, 2022, 357, 119089.	4.9	6
98	Thermally induced degradation of NaCMC in water and effects of NaHCO 3 on acid formation and charge. Food Hydrocolloids, 2018, 74, 32-36.	10.7	5
99	Facile fractionation of bamboo hydrolysate and characterization of isolated lignin and lignin-carbohydrate complexes. Holzforschung, 2021, 75, 399-408.	1.9	5
100	Removal of nafcillin sodium monohydrate from aqueous solution by hydrogels containing nanocellulose: An experimental and theoretical study. Journal of Molecular Liquids, 2022, 347, 117946.	4.9	5
101	TEMPO-oxidized O-acetyl galactoglucomannan oligomers: isolation and comprehensive structural elucidation. Wood Science and Technology, 2019, 53, 71-85.	3.2	3
102	Romania needs overseas reviewers. Nature, 2012, 492, 186-186.	27.8	1
103	Subfossil Scots Pine (Pinus sylvestris L.) Wood from Northern Finlandâ€"Physical, Mechanical, and Chemical Properties and Suitability for Specialty Products. Forests, 2022, 13, 704.	2.1	1
104	Enzymatic oxidation of plant polysaccharides adsorbed to cellulose surfaces. New Biotechnology, 2014, 31, S7-S8.	4.4	0
105	Novel and Efficient Lignin Fractionation Processes for Tailing Lignin-Based Materials. , 2021, , 363-387.		0