

Feng Peng

List of Publications by Year in descending order

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119
papers

5,470
citations

101543
36
h-index

91884
69
g-index

120
all docs

120
docs citations

120
times ranked

7257
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Differences between the Lignin-Carbohydrate Complexes (LCCs) from 2- and 24-Month-Old Bamboo (<i>Neosinocalamus affinis</i>). <i>International Journal of Molecular Sciences</i> , 2018, 19, 1.	4.1	1,144
2	Fractional purification and bioconversion of hemicelluloses. <i>Biotechnology Advances</i> , 2012, 30, 879-903.	11.7	338
3	Comparative Study of Hemicelluloses Obtained by Graded Ethanol Precipitation from Sugarcane Bagasse. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 6305-6317.	5.2	312
4	High Strength Hemicellulose-Based Nanocomposite Film for Food Packaging Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 1985-1993.	6.7	145
5	Carboxymethylation of hemicelluloses isolated from sugarcane bagasse. <i>Polymer Degradation and Stability</i> , 2008, 93, 786-793.	5.8	131
6	Structural features and antioxidant activity of xylooligosaccharides enzymatically produced from sugarcane bagasse. <i>Bioresource Technology</i> , 2013, 127, 236-241.	9.6	127
7	High strength of hemicelluloses based hydrogels by freeze/thaw technique. <i>Carbohydrate Polymers</i> , 2014, 101, 272-280.	10.2	126
8	Studies on the Starch and Hemicelluloses Fractionated by Graded Ethanol Precipitation from Bamboo <i>Phyllostachys bambusoides</i> f. <i>shouzhu</i> Yi. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 2680-2688.	5.2	102
9	Catalytic hydrothermal pretreatment of corncob into xylose and furfural via solid acid catalyst. <i>Bioresource Technology</i> , 2014, 158, 313-320.	9.6	101
10	Fractional Study of Alkali-Soluble Hemicelluloses Obtained by Graded Ethanol Precipitation from Sugar Cane Bagasse. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 1768-1776.	5.2	91
11	Microwave-assisted acid hydrolysis to produce xylooligosaccharides from sugarcane bagasse hemicelluloses. <i>Food Chemistry</i> , 2014, 156, 7-13.	8.2	87
12	Isolation and structural characterization of hemicelluloses from the bamboo species <i>Phyllostachys incarnata</i> Wen. <i>Carbohydrate Polymers</i> , 2011, 86, 883-890.	10.2	85
13	Hydrothermal synthesis and applications of advanced carbonaceous materials from biomass: a review. <i>Advanced Composites and Hybrid Materials</i> , 2020, 3, 267-284.	21.1	83
14	Effects of hydrothermal pretreatment on the dissolution and structural evolution of hemicelluloses and lignin: A review. <i>Carbohydrate Polymers</i> , 2022, 281, 119050.	10.2	81
15	Choline chloride-lactic acid deep eutectic solvent for delignification and nanocellulose production of moso bamboo. <i>Cellulose</i> , 2019, 26, 9447-9462.	4.9	79
16	Assessment of integrated process based on hydrothermal and alkaline treatments for enzymatic saccharification of sweet sorghum stems. <i>Bioresource Technology</i> , 2015, 175, 473-479.	9.6	70
17	Natural Polymer <i>Eucommia Ulmoides</i> Rubber: A Novel Material. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 3797-3821.	5.2	70
18	Functional relationship of furfural yields and the hemicellulose-derived sugars in the hydrolysates from corncob by microwave-assisted hydrothermal pretreatment. <i>Biotechnology for Biofuels</i> , 2015, 8, 127.	6.2	69

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19	TiO ₂ -containing PVA/xylan composite films with enhanced mechanical properties, high hydrophobicity and UV shielding performance. <i>Cellulose</i> , 2015, 22, 593-602.	4.9	69
20	Transparent, Self-Adhesive, Conductive Organohydrogels with Fast Gelation from Lignin-Based Self-Catalytic System for Extreme Environment-Resistant Triboelectric Nanogenerators. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	63
21	Hemicellulose from Plant Biomass in Medical and Pharmaceutical Application: A Critical Review. <i>Current Medicinal Chemistry</i> , 2019, 26, 2430-2455.	2.4	60
22	Fractionation of Alkali-Solubilized Hemicelluloses from Delignified <i>Populus gansuensis</i> : Structure and Properties. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 5743-5750.	5.2	51
23	Effect of structural characteristics of corncob hemicelluloses fractionated by graded ethanol precipitation on furfural production. <i>Carbohydrate Polymers</i> , 2016, 136, 203-209.	10.2	50
24	Fabrication of strong nanocomposite films with renewable forestry waste/montmorillonite/reduction of graphene oxide for fire retardant. <i>Chemical Engineering Journal</i> , 2018, 337, 436-445.	12.7	49
25	Fractional isolation and structural characterization of hemicelluloses from <i>Caragana korshinskii</i> . <i>Carbohydrate Polymers</i> , 2010, 80, 753-760.	10.2	47
26	Ultrafast fabrication of organohydrogels with UV-blocking, anti-freezing, anti-drying, and skin epidermal sensing properties using lignin-Cu ²⁺ plant catechol chemistry. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14381-14391.	10.3	45
27	Hemicelluloses-based magnetic aerogel as an efficient adsorbent for Congo red. <i>International Journal of Biological Macromolecules</i> , 2020, 155, 369-375.	7.5	44
28	Biphasic 2-methyltetrahydrofuran/oxalic acid/water pretreatment to enhance cellulose enzymatic hydrolysis and lignin valorization. <i>Bioresource Technology</i> , 2017, 243, 1105-1111.	9.6	43
29	Solvent effect on xylose conversion under catalyst-free conditions: insights from molecular dynamics simulation and experiments. <i>Green Chemistry</i> , 2020, 22, 532-539.	9.0	43
30	Organic-Inorganic Composite Films Based on Modified Hemicelluloses with Clay Nanoplatelets. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 1811-1818.	6.7	42
31	Fabrication of Biopolymer Hydrogel Containing Ag Nanoparticles for Antibacterial Property. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 7393-7400.	3.7	42
32	Facile approach to prepare drug-loading film from hemicelluloses and chitosan. <i>Carbohydrate Polymers</i> , 2016, 153, 542-548.	10.2	42
33	Separation and Characterization of Acetyl and Non-Acetyl Hemicelluloses of <i>Arundo donax</i> by Ammonium Sulfate Precipitation. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 4039-4047.	5.2	41
34	Solvent effect on xylose-to-furfural reaction in biphasic systems: combined experiments with theoretical calculations. <i>Green Chemistry</i> , 2021, 23, 8510-8518.	9.0	41
35	Hydrothermal pretreatment for the production of oligosaccharides: A review. <i>Bioresource Technology</i> , 2022, 343, 126075.	9.6	40
36	Nanoreinforced hemicellulose-based hydrogels prepared by freeze-thaw treatment. <i>Cellulose</i> , 2014, 21, 1709-1721.	4.9	39

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37	Synthesis and properties of hemicelluloses-based semi-IPN hydrogels. <i>International Journal of Biological Macromolecules</i> , 2014, 65, 564-572.	7.5	39
38	Fabrication of antimicrobial composite films based on xylan from pulping process for food packaging. <i>International Journal of Biological Macromolecules</i> , 2019, 134, 122-130.	7.5	37
39	Structure and distribution changes of Eucalyptus hemicelluloses during hydrothermal and alkaline pretreatments. <i>International Journal of Biological Macromolecules</i> , 2019, 133, 514-521.	7.5	36
40	Anti-freezing, water-retaining, conductive, and strain-sensitive hemicellulose/polypyrrole composite hydrogels for flexible sensors. <i>Journal of Materials Research and Technology</i> , 2021, 14, 555-566.	5.8	34
41	Binding cellulose and chitosan via click chemistry: Synthesis, characterization, and formation of some hollow tubes. <i>Journal of Polymer Science Part A</i> , 2012, 50, 5201-5210.	2.3	33
42	Xylan-based hydrogels for potential skin care application. <i>International Journal of Biological Macromolecules</i> , 2020, 158, 244-250.	7.5	32
43	Alkaline deep eutectic solvents as novel and effective pretreatment media for hemicellulose dissociation and enzymatic hydrolysis enhancement. <i>International Journal of Biological Macromolecules</i> , 2021, 193, 1610-1616.	7.5	32
44	NMR and ESI-MS spectrometry characterization of autohydrolysis xylo-oligosaccharides separated by gel permeation chromatography. <i>Carbohydrate Polymers</i> , 2018, 195, 303-310.	10.2	31
45	Influence of urea and glycerol on functional properties of biodegradable PVA/xylan composite films. <i>Cellulose</i> , 2014, 21, 495-505.	4.9	30
46	Comparative investigation on bio-oil production from eucalyptus via liquefaction in subcritical water and supercritical ethanol. <i>Industrial Crops and Products</i> , 2019, 140, 111695.	5.2	30
47	Hemicelluloses/montmorillonite hybrid films with improved mechanical and barrier properties. <i>Scientific Reports</i> , 2015, 5, 16405.	3.3	29
48	Conversion of poplar into bio-oil via subcritical hydrothermal liquefaction: Structure and antioxidant capacity. <i>Bioresource Technology</i> , 2018, 270, 216-222.	9.6	29
49	Preparation of organic acid lignin submicrometer particle as a natural broad-spectrum photo-protection agent. <i>International Journal of Biological Macromolecules</i> , 2019, 132, 836-843.	7.5	29
50	A novel lignin-based hierarchical porous carbon for efficient and selective removal of Cr(VI) from wastewater. <i>International Journal of Biological Macromolecules</i> , 2022, 204, 310-320.	7.5	29
51	Corn cob lignocellulose for the production of furfural by hydrothermal pretreatment and heterogeneous catalytic process. <i>RSC Advances</i> , 2015, 5, 60264-60272.	3.6	28
52	Structural characterization of hemicelluloses and topochemical changes in Eucalyptus cell wall during alkali ethanol treatment. <i>Carbohydrate Polymers</i> , 2015, 123, 17-26.	10.2	26
53	Preparation and Characterization of Blended Films from Quaternized Hemicelluloses and Carboxymethyl Cellulose. <i>Materials</i> , 2016, 9, 4.	2.9	26
54	Enhanced mechanical performance of biocompatible hemicelluloses-based hydrogel via chain extension. <i>Scientific Reports</i> , 2016, 6, 33603.	3.3	26

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55	Dialdehyde xylan-based sustainable, stable, and catalytic liquid metal nano-inks. <i>Green Chemistry</i> , 2021, 23, 7796-7804.	9.0	26
56	Rapid fabrication of xylan-based hydrogel by graft polymerization via a dynamic lignin-Fe ³⁺ plant catechol system. <i>Carbohydrate Polymers</i> , 2021, 269, 118306.	10.2	25
57	Benzoxazine enhanced amino cellulose-based composite films: Preparation, proposed mechanism, and improved performance. <i>Carbohydrate Polymers</i> , 2019, 222, 115008.	10.2	24
58	Mussel-inspired adhesive hydrogels based on biomass-derived xylan and tannic acid cross-linked with acrylic acid with antioxidant and antibacterial properties. <i>Journal of Materials Science</i> , 2021, 56, 14729-14740.	3.7	24
59	Rapid homogeneous lauroylation of wheat straw hemicelluloses under mild conditions. <i>Carbohydrate Research</i> , 2008, 343, 2956-2962.	2.3	23
60	Syntheses of xylan stearate nanoparticles with loading function from by-products of viscose fiber mills. <i>Cellulose</i> , 2019, 26, 7195-7206.	4.9	23
61	Separation and Structural Characterization of Lignin from Hybrid Poplar Based on Complete Dissolution in DMSO/LiCl. <i>Separation Science and Technology</i> , 2010, 45, 2497-2506.	2.5	22
62	Synthesis of Acylated Xylan-Based Magnetic Fe ₃ O ₄ Hydrogels and Their Application for H ₂ O ₂ Detection. <i>Materials</i> , 2016, 9, 690.	2.9	22
63	Variations of lignin—lignin and lignin—carbohydrate linkages from young <i>Neosinocalamus affinis</i> bamboo culms. <i>RSC Advances</i> , 2016, 6, 15478-15484.	3.6	21
64	A ternary MnO ₂ -deposited RGO/lignin-based porous carbon composite electrode for flexible supercapacitor applications. <i>New Journal of Chemistry</i> , 2019, 43, 14084-14092.	2.8	21
65	Chemicals from Hemicelluloses: A Review. <i>ACS Symposium Series</i> , 2011, , 219-259.	0.5	20
66	Fractionation of bamboo hemicelluloses by graded saturated ammonium sulphate. <i>Carbohydrate Polymers</i> , 2015, 129, 201-207.	10.2	20
67	A non-covalent strategy for montmorillonite/xylose self-healing hydrogels. <i>RSC Advances</i> , 2015, 5, 41006-41012.	3.6	20
68	Changes of Chemical Composition and Hemicelluloses Structure in Differently Aged Bamboo (<i>Neosinocalamus affinis</i>) Culms. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 9199-9208.	5.2	20
69	Tetrahydro-2-furanmethanol pretreatment of eucalyptus to enhance cellulose enzymatic hydrolysis and to produce high-quality lignin. <i>Bioresource Technology</i> , 2019, 280, 489-492.	9.6	20
70	Molybdenum-catalyzed hydrogenolysis of herbaceous biomass: A procedure integrated lignin fragmentation and components fractionation. <i>Bioresource Technology</i> , 2021, 333, 124977.	9.6	20
71	Efficient catalytic conversion of dilute-oxalic acid pretreated bagasse hydrolysate to furfural using recyclable ionic phosphates catalysts. <i>Bioresource Technology</i> , 2019, 290, 121764.	9.6	19
72	Green and cost-effective synthesis of flexible, highly conductive cellulose nanofiber/reduced graphene oxide composite film with deep eutectic solvent. <i>Carbohydrate Polymers</i> , 2021, 272, 118514.	10.2	19

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73	Novel, recyclable Brønsted acidic deep eutectic solvent for mild fractionation of hemicelluloses. Carbohydrate Polymers, 2022, 278, 118992.	10.2	19
74	Efficient fractionation of woody biomass hemicelluloses using cholinium amino acids-based deep eutectic solvents and their aqueous mixtures. Bioresource Technology, 2022, 354, 127139.	9.6	19
75	Scalable, strong and water-stable wood-derived bioplastic. Chemical Engineering Journal, 2022, 439, 135680.	12.7	19
76	Preparation of Ag-sensitized ZnO and its photocatalytic performance under simulated solar light. Korean Journal of Chemical Engineering, 2007, 24, 1022-1026.	2.7	18
77	Subcritical liquefaction of lignocellulose for the production of bio-oils in ethanol/water system. Renewable Energy, 2019, 136, 865-872.	8.9	18
78	Fast and simple construction of composite films with renewable Eucommia ulmoides gum and Poly(ϵ -caprolactone). Composites Science and Technology, 2019, 179, 145-151.	7.8	18
79	Organic/Inorganic Superabsorbent Hydrogels Based on Xylan and Montmorillonite. Journal of Nanomaterials, 2014, 2014, 1-11.	2.7	17
80	Biocatalytic Feedback-Controlled Non-Newtonian Fluids. Angewandte Chemie - International Edition, 2020, 59, 4314-4319.	13.8	17
81	Dynamic Macro- and Microgels Driven by Adenosine Triphosphate-Fueled Competitive Host-Guest Interaction. CCS Chemistry, 2022, 4, 838-846.	7.8	17
82	Preparation and characterization of hemicellulosic derivatives containing carbamoyl ethyl and carboxyethyl groups. Carbohydrate Research, 2008, 343, 2776-2782.	2.3	16
83	A comparative study of bamboo (Phyllostachys incarnata Wen) milled wood lignin and the successively alkali-fractionated lignins. Wood Science and Technology, 2012, 46, 871-885.	3.2	16
84	Fabrication of flexible composite film based on xylan from pulping process for packaging application. International Journal of Biological Macromolecules, 2021, 173, 285-292.	7.5	16
85	CO ₂ -switchable non-Newtonian fluids. Green Chemistry, 2020, 22, 3784-3790.	9.0	15
86	Preparation of Lignocellulose-Based Activated Carbon Paper as a Manganese Dioxide Carrier for Adsorption and in-situ Catalytic Degradation of Formaldehyde. Frontiers in Chemistry, 2019, 7, 808.	3.6	14
87	Enhanced mechanical performance of xylan-based composite hydrogel via chain extension and semi-interpenetrating networks. Cellulose, 2020, 27, 4407-4416.	4.9	14
88	Constructing a Novel Xylan-Based Film with Flexibility, Transparency, and High Strength. Biomacromolecules, 2021, 22, 3810-3818.	5.4	14
89	Chemical-Fuel-Driven Assembly in Macromolecular Science: Recent Advances and Challenges. ChemPlusChem, 2020, 85, 1190-1199.	2.8	13
90	Chemical composition and structural feature of <i>Populus gansuensis</i> hemicellulosic polymers. Journal of Applied Polymer Science, 2012, 124, 3154-3164.	2.6	12

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91	Synthesis of hemicellulose hydrogels with tunable conductivity and swelling behavior through facile one-pot reaction. <i>International Journal of Biological Macromolecules</i> , 2020, 154, 1528-1536.	7.5	10
92	Composite Film Based on Pulping Industry Waste and Chitosan for Food Packaging. <i>Materials</i> , 2018, 11, 2264.	2.9	9
93	Rapid Processing of Holocellulose-Based Nanopaper toward an Electrode Material. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 3337-3346.	6.7	9
94	Comparison of structure, thermal stability, and pyrolysis products of lignin extracted with <i>ChCl</i> -formic acid/lactic acid systems. <i>Journal of Materials Research and Technology</i> , 2021, 14, 841-850.	5.8	9
95	Biocatalytic Feedback-Controlled Non-Newtonian Fluids. <i>Angewandte Chemie</i> , 2020, 132, 4344-4349.	2.0	8
96	Physicochemical Properties and Skin Protection Activities of Polysaccharides from <i>Usnea longissima</i> by Graded Ethanol Precipitation. <i>ACS Omega</i> , 2021, 6, 25010-25018.	3.5	8
97	Rapid Carboxymethylation of Xylan-Rich Hemicelluloses by Microwave Irradiation. <i>Advanced Materials Research</i> , 2011, 236-238, 292-296.	0.3	7
98	Comparison of emulsifying capacity of two hemicelluloses from moso bamboo in soy oil-in-water emulsions. <i>RSC Advances</i> , 2020, 10, 4657-4663.	3.6	7
99	Flexible conductive gasket based on <i>Eucommia ulmoides</i> gum and carbon fillers. <i>Industrial Crops and Products</i> , 2022, 176, 114347.	5.2	7
100	Highly antibacterial hydrogels prepared from amino cellulose, dialdehyde xylan, and Ag nanoparticles by a green reduction method. <i>Cellulose</i> , 2022, 29, 1055-1067.	4.9	7
101	Turning Wood Autohydrolysate Directly into Food Packing Composite Films with Good Toughness. <i>International Journal of Polymer Science</i> , 2018, 2018, 1-8.	2.7	6
102	Acetone fractionation of heterogeneous tetrahydrofurfuryl alcohol lignin to improve its homogeneity and functionality. <i>Journal of Materials Research and Technology</i> , 2021, 10, 632-642.	5.8	6
103	Lignin/Xylan-Based Phase Selective Powder Gelator for Eco-Friendly Oil Spill Treatment. <i>Advanced Sustainable Systems</i> , 2021, 5, 2100229.	5.3	6
104	Facile synthesis of high strength hot-water wood extract films with oxygen-barrier performance. <i>Scientific Reports</i> , 2017, 7, 41075.	3.3	5
105	Fractionation of DMSO-Extracted and NaOH-Extracted Hemicelluloses by Gradient Ethanol Precipitation from <i>Neosinocalamus affinis</i> . <i>International Journal of Polymer Science</i> , 2018, 2018, 1-8.	2.7	5
106	Isolation, Purification, and Potential Applications of Xylan. <i>Biofuels and Biorefineries</i> , 2019, , 3-35.	0.5	5
107	Strong and Highly Conductive Poly(vinyl alcohol)/Carbon Dot/EGaIn Composite Films for Flexible and Transient Electronics. <i>ACS Applied Polymer Materials</i> , 2022, 4, 3647-3655.	4.4	5
108	Novel high-strength montmorillonite/polyvinyl alcohol composite film enhanced by chitin nanowhiskers. <i>Journal of Applied Polymer Science</i> , 2021, 138, app50344.	2.6	4

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109	Self-Standing, Photothermal-Actuating, and Motion-Monitoring Janus Films One-Pot Synthesized by Green Carboxymethyl Glucomannan/Liquid Metal Nanoinks. ACS Applied Materials & Interfaces, 2022, 14, 23717-23725.	8.0	4
110	Self-assembly design and synthesis of pulp fiberâ€“graphene for flexible and high performance electrode based on polyacrylamide. New Journal of Chemistry, 2019, 43, 6394-6403.	2.8	3
111	Industrial scale-up of fiber recovery technology from mixed office waste fine screen rejects. BioResources, 2020, 15, 6420-6430.	1.0	3
112	MWNTs Modified Glassy Carbon Biosensor for Glucose. , 2006, , .		2
113	Photo-regulated supramolecular star with a pillar[6]arene-coated metalâ€“organic polyhedron (MOP) core. Chemical Communications, 2020, 56, 6676-6679.	4.1	2
114	An electrospun composite of epoxidized Eucommia ulmoides gum and SiO ₂ -GO with ultraviolet resistance. Journal of Materials Science, 2022, 57, 4862-4875.	3.7	2
115	Preparation and characterization of carbamoyl ethyl hemicelluloses. E-Polymers, 2009, 9, .	3.0	1
116	Kinetic model analysis of mild autohydrolysis of eucalyptus woodchips for xylose production. BioResources, 2022, 17, 3214-3226.	1.0	1
117	Rapid phthaloylation and succinylation of hemicelluloses by microwave irradiation. E-Polymers, 2008, 8, .	3.0	0
118	Synthesis and Characterization of Novel Functional Polymers from Hemicelluloses. Advanced Materials Research, 0, 295-297, 64-69.	0.3	0
119	Incineration Properties and Kinetic Studies of Sludge from Old Newsprint Fiber Line. BioResources, 2022, 17, 3095-3106.	1.0	0