Feng Peng

List of Publications by Year
in descending order

119 papers	5,470 citations	101496 36 h-index	91828 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 (Neosinocalamus affinis). International Journal of Molecular Sciences, 2018, 19, 1.	1.8	1,144
2	Fractional purification and bioconversion of hemicelluloses. Biotechnology Advances, 2012, 30, 879-903.	6.0	338
3	Comparative Study of Hemicelluloses Obtained by Graded Ethanol Precipitation from Sugarcane Bagasse. Journal of Agricultural and Food Chemistry, 2009, 57, 6305-6317.	2.4	312
4	High Strength Hemicellulose-Based Nanocomposite Film for Food Packaging Applications. ACS Sustainable Chemistry and Engineering, 2016, 4, 1985-1993.	3.2	145
5	Carboxymethylation of hemicelluloses isolated from sugarcane bagasse. Polymer Degradation and Stability, 2008, 93, 786-793.	2.7	131
6	Structural features and antioxidant activity of xylooligosaccharides enzymatically produced from sugarcane bagasse. Bioresource Technology, 2013, 127, 236-241.	4.8	127
7	High strength of hemicelluloses based hydrogels by freeze/thaw technique. Carbohydrate Polymers, 2014, 101, 272-280.	5.1	126
8	Studies on the Starch and Hemicelluloses Fractionated by Graded Ethanol Precipitation from Bamboo Phyllostachys bambusoides f. shouzhu Yi. Journal of Agricultural and Food Chemistry, 2011, 59, 2680-2688.	2.4	102
9	Catalytic hydrothermal pretreatment of corncob into xylose and furfural via solid acid catalyst. Bioresource Technology, 2014, 158, 313-320.	4.8	101
10	Fractional Study of Alkali-Soluble Hemicelluloses Obtained by Graded Ethanol Precipitation from Sugar Cane Bagasse. Journal of Agricultural and Food Chemistry, 2010, 58, 1768-1776.	2.4	91
11	Microwave-assisted acid hydrolysis to produce xylooligosaccharides from sugarcane bagasse hemicelluloses. Food Chemistry, 2014, 156, 7-13.	4.2	87
12	Isolation and structural characterization of hemicelluloses from the bamboo species Phyllostachys incarnata Wen. Carbohydrate Polymers, 2011, 86, 883-890.	5.1	85
13	Hydrothermal synthesis and applications of advanced carbonaceous materials from biomass: a review. Advanced Composites and Hybrid Materials, 2020, 3, 267-284.	9.9	83
14	Effects of hydrothermal pretreatment on the dissolution and structural evolution of hemicelluloses and lignin: A review. Carbohydrate Polymers, 2022, 281, 119050.	5.1	81
15	Choline chloride-lactic acid deep eutectic solvent for delignification and nanocellulose production of moso bamboo. Cellulose, 2019, 26, 9447-9462.	2.4	79
16	Assessment of integrated process based on hydrothermal and alkaline treatments for enzymatic saccharification of sweet sorghum stems. Bioresource Technology, 2015, 175, 473-479.	4.8	70
17	Natural Polymer Eucommia Ulmoides Rubber: A Novel Material. Journal of Agricultural and Food Chemistry, 2021, 69, 3797-3821.	2.4	70
18	Functional relationship of furfural yields and the hemicellulose-derived sugars in the hydrolysates from corncob by microwave-assisted hydrothermal pretreatment. Biotechnology for Biofuels, 2015, 8, 127.	6.2	69

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19	TiO2-containing PVA/xylan composite films with enhanced mechanical properties, high hydrophobicity and UV shielding performance. Cellulose, 2015, 22, 593-602.	2.4	69
20	Transparent, Selfâ€Adhesive, Conductive Organohydrogels with Fast Gelation from Ligninâ€Based Selfâ€Catalytic System for Extreme Environmentâ€Resistant Triboelectric Nanogenerators. Advanced Functional Materials, 2022, 32, .	7.8	63
21	Hemicellulose from Plant Biomass in Medical and Pharmaceutical Application: A Critical Review. Current Medicinal Chemistry, 2019, 26, 2430-2455.	1.2	60
22	Fractionation of Alkali-Solubilized Hemicelluloses from Delignified Populus gansuensis: Structure and Properties. Journal of Agricultural and Food Chemistry, 2010, 58, 5743-5750.	2.4	51
23	Effect of structural characteristics of corncob hemicelluloses fractionated by graded ethanol precipitation on furfural production. Carbohydrate Polymers, 2016, 136, 203-209.	5.1	50
24	Fabrication of strong nanocomposite films with renewable forestry waste/montmorillonite/reduction of graphene oxide for fire retardant. Chemical Engineering Journal, 2018, 337, 436-445.	6.6	49
25	Fractional isolation and structural characterization of hemicelluloses from Caragana korshinskii. Carbohydrate Polymers, 2010, 80, 753-760.	5.1	47
26	Ultrafast fabrication of organohydrogels with UV-blocking, anti-freezing, anti-drying, and skin epidermal sensing properties using ligninâ€“Cu²⁺ plant catechol chemistry. Journal of Materials Chemistry A, 2021, 9, 14381-14391.	5.2	45
27	Hemicelluloses-based magnetic aerogel as an efficient adsorbent for Congo red. International Journal of Biological Macromolecules, 2020, 155, 369-375.	3.6	44
28	Biphasic 2-methyltetrahydrofuran/oxalic acid/water pretreatment to enhance cellulose enzymatic hydrolysis and lignin valorization. Bioresource Technology, 2017, 243, 1105-1111.	4.8	43
29	Solvent effect on xylose conversion under catalyst-free conditions: insights from molecular dynamics simulation and experiments. Green Chemistry, 2020, 22, 532-539.	4.6	43
30	Organicâ€“Inorganic Composite Films Based on Modified Hemicelluloses with Clay Nanoplatelets. ACS Sustainable Chemistry and Engineering, 2014, 2, 1811-1818.	3.2	42
31	Fabrication of Biopolymer Hydrogel Containing Ag Nanoparticles for Antibacterial Property. Industrial & Engineering Chemistry Research, 2015, 54, 7393-7400.	1.8	42
32	Facile approach to prepare drug-loading film from hemicelluloses and chitosan. Carbohydrate Polymers, 2016, 153, 542-548.	5.1	42
33	Separation and Characterization of Acetyl and Non-Acetyl Hemicelluloses of Arundo donax by Ammonium Sulfate Precipitation. Journal of Agricultural and Food Chemistry, 2012, 60, 4039-4047.	2.4	41
34	Solvent effect on xylose-to-furfural reaction in biphasic systems: combined experiments with theoretical calculations. Green Chemistry, 2021, 23, 8510-8518.	4.6	41
35	Hydrothermal pretreatment for the production of oligosaccharides: A review. Bioresource Technology, 2022, 343, 126075.	4.8	40
36	Nanoreinforced hemicellulose-based hydrogels prepared by freezeâ€“thaw treatment. Cellulose, 2014, 21, 1709-1721.	2.4	39

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37	Synthesis and properties of hemicelluloses-based semi-IPN hydrogels. International Journal of Biological Macromolecules, 2014, 65, 564-572.	3.6	39
38	Fabrication of antimicrobial composite films based on xylan from pulping process for food packaging. International Journal of Biological Macromolecules, 2019, 134, 122-130.	3.6	37
39	Structure and distribution changes of Eucalyptus hemicelluloses during hydrothermal and alkaline pretreatments. International Journal of Biological Macromolecules, 2019, 133, 514-521.	3.6	36
40	Anti-freezing, water-retaining, conductive, and strain-sensitive hemicellulose/polypyrrole composite hydrogels for flexible sensors. Journal of Materials Research and Technology, 2021, 14, 555-566.	2.6	34
41	Binding cellulose and chitosan via click chemistry: Synthesis, characterization, and formation of some hollow tubes. Journal of Polymer Science Part A, 2012, 50, 5201-5210.	2.5	33
42	Xylan-based hydrogels for potential skin care application. International Journal of Biological Macromolecules, 2020, 158, 244-250.	3.6	32
43	Alkaline deep eutectic solvents as novel and effective pretreatment media for hemicellulose dissociation and enzymatic hydrolysis enhancement. International Journal of Biological Macromolecules, 2021, 193, 1610-1616.	3.6	32
44	NMR and ESIâ€“MS spectrometry characterization of autohydrolysis xylo-oligosaccharides separated by gel permeation chromatography. Carbohydrate Polymers, 2018, 195, 303-310.	5.1	31
45	Influence of urea and glycerol on functional properties of biodegradable PVA/xylan composite films. Cellulose, 2014, 21, 495-505.	2.4	30
46	Comparative investigation on bio-oil production from eucalyptus via liquefaction in subcritical water and supercritical ethanol. Industrial Crops and Products, 2019, 140, 111695.	2.5	30
47	Hemicelluloses/montmorillonite hybrid films with improved mechanical and barrier properties. Scientific Reports, 2015, 5, 16405.	1.6	29
48	Conversion of poplar into bio-oil via subcritical hydrothermal liquefaction: Structure and antioxidant capacity. Bioresource Technology, 2018, 270, 216-222.	4.8	29
49	Preparation of organic acid lignin submicrometer particle as a natural broad-spectrum photo-protection agent. International Journal of Biological Macromolecules, 2019, 132, 836-843.	3.6	29
50	A novel lignin-based hierarchical porous carbon for efficient and selective removal of Cr(VI) from wastewater. International Journal of Biological Macromolecules, 2022, 204, 310-320.	3.6	29
51	Corncob lignocellulose for the production of furfural by hydrothermal pretreatment and heterogeneous catalytic process. RSC Advances, 2015, 5, 60264-60272.	1.7	28
52	Structural characterization of hemicelluloses and topochemical changes in Eucalyptus cell wall during alkali ethanol treatment. Carbohydrate Polymers, 2015, 123, 17-26.	5.1	26
53	Preparation and Characterization of Blended Films from Quaternized Hemicelluloses and Carboxymethyl Cellulose. Materials, 2016, 9, 4.	1.3	26
54	Enhanced mechanical performance of biocompatible hemicelluloses-based hydrogel via chain extension. Scientific Reports, 2016, 6, 33603.	1.6	26

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55	Dialdehyde xylan-based sustainable, stable, and catalytic liquid metal nano-inks. Green Chemistry, 2021, 23, 7796-7804.	4.6	26
56	Rapid fabrication of xylan-based hydrogel by graft polymerization via a dynamic lignin-Fe3+ plant catechol system. Carbohydrate Polymers, 2021, 269, 118306.	5.1	25
57	Benzoxazine enhanced amino cellulose-based composite films: Preparation, proposed mechanism, and improved performance. Carbohydrate Polymers, 2019, 222, 115008.	5.1	24
58	Mussel-inspired adhesive hydrogels based on biomass-derived xylan and tannic acid cross-linked with acrylic acid with antioxidant and antibacterial properties. Journal of Materials Science, 2021, 56, 14729-14740.	1.7	24
59	Rapid homogeneous lauroylation of wheat straw hemicelluloses under mild conditions. Carbohydrate Research, 2008, 343, 2956-2962.	1.1	23
60	Syntheses of xylan stearate nanoparticles with loading function from by-products of viscose fiber mills. Cellulose, 2019, 26, 7195-7206.	2.4	23
61	Separation and Structural Characterization of Lignin from Hybrid Poplar Based on Complete Dissolution in DMSO/LiCl. Separation Science and Technology, 2010, 45, 2497-2506.	1.3	22
62	Synthesis of Acylated Xylan-Based Magnetic Fe3O4 Hydrogels and Their Application for H2O2 Detection. Materials, 2016, 9, 690.	1.3	22
63	Variations of ligninâ€“lignin and ligninâ€“carbohydrate linkages from young Neosinocalamus affinis bamboo culms. RSC Advances, 2016, 6, 15478-15484.	1.7	21
64	A ternary MnO₂-deposited RGO/lignin-based porous carbon composite electrode for flexible supercapacitor applications. New Journal of Chemistry, 2019, 43, 14084-14092.	1.4	21
65	Chemicals from Hemicelluloses: A Review. ACS Symposium Series, 2011, , 219-259.	0.5	20
66	Fractionation of bamboo hemicelluloses by graded saturated ammonium sulphate. Carbohydrate Polymers, 2015, 129, 201-207.	5.1	20
67	A non-covalent strategy for montmorillonite/xylose self-healing hydrogels. RSC Advances, 2015, 5, 41006-41012.	1.7	20
68	Changes of Chemical Composition and Hemicelluloses Structure in Differently Aged Bamboo (Neosinocalamus affinis) Culms. Journal of Agricultural and Food Chemistry, 2018, 66, 9199-9208.	2.4	20
69	Tetrahydro-2-furanmethanol pretreatment of eucalyptus to enhance cellulose enzymatic hydrolysis and to produce high-quality lignin. Bioresource Technology, 2019, 280, 489-492.	4.8	20
70	Molybdenum-catalyzed hydrogenolysis of herbaceous biomass: A procedure integrated lignin fragmentation and components fractionation. Bioresource Technology, 2021, 333, 124977.	4.8	20
71	Efficient catalytic conversion of dilute-oxalic acid pretreated bagasse hydrolysate to furfural using recyclable ironic phosphates catalysts. Bioresource Technology, 2019, 290, 121764.	4.8	19
72	Green and cost-effective synthesis of flexible, highly conductive cellulose nanofiber/reduced graphene oxide composite film with deep eutectic solvent. Carbohydrate Polymers, 2021, 272, 118514.	5.1	19

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73	Novel, recyclable BrÃ¸nsted acidic deep eutectic solvent for mild fractionation of hemicelluloses. Carbohydrate Polymers, 2022, 278, 118992.	5.1	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.	4.8	19
75	Scalable, strong and water-stable wood-derived bioplastic. Chemical Engineering Journal, 2022, 439, 135680.	6.6	19
76	Preparation of Ag-sensitized ZnO and its photocatalytic performance under simulated solar light. Korean Journal of Chemical Engineering, 2007, 24, 1022-1026.	1.2	18
77	Subcritical liquefaction of lignocellulose for the production of bio-oils in ethanol/water system. Renewable Energy, 2019, 136, 865-872.	4.3	18
78	Fast and simple construction of composite films with renewable Eucommia ulmoides gum and Poly(Îµ-caprolactone). Composites Science and Technology, 2019, 179, 145-151.	3.8	18
79	Organic/Inorganic Superabsorbent Hydrogels Based on Xylan and Montmorillonite. Journal of Nanomaterials, 2014, 2014, 1-11.	1.5	17
80	Biocatalytic Feedbackâ€Controlled Nonâ€Newtonian Fluids. Angewandte Chemie - International Edition, 2020, 59, 4314-4319.	7.2	17
81	Dynamic Macro- and Microgels Driven by Adenosine Triphosphate-Fueled Competitive Hostâ€“Guest Interaction. CCS Chemistry, 2022, 4, 838-846.	4.6	17
82	Preparation and characterization of hemicellulosic derivatives containing carbamoylethyl and carboxyethyl groups. Carbohydrate Research, 2008, 343, 2776-2782.	1.1	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.	1.4	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.	3.6	16
85	CO₂-switchable non-Newtonian fluids. Green Chemistry, 2020, 22, 3784-3790.	4.6	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.	1.8	14
87	Enhanced mechanical performance of xylan-based composite hydrogel via chain extension and semi-interpenetrating networks. Cellulose, 2020, 27, 4407-4416.	2.4	14
88	Constructing a Novel Xylan-Based Film with Flexibility, Transparency, and High Strength. Biomacromolecules, 2021, 22, 3810-3818.	2.6	14
89	Chemicalâ€Fuelâ€Driven Assembly in Macromolecular Science: Recent Advances and Challenges. ChemPlusChem, 2020, 85, 1190-1199.	1.3	13
90	Chemical composition and structural feature of Populus gansuensis hemicellulosic polymers. Journal of Applied Polymer Science, 2012, 124, 3154-3164.	1.3	12

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91	Synthesis of hemicellulose hydrogels with tunable conductivity and swelling behavior through facile one-pot reaction. International Journal of Biological Macromolecules, 2020, 154, 1528-1536.	3.6	10
92	Composite Film Based on Pulping Industry Waste and Chitosan for Food Packaging. Materials, 2018, 11, 2264.	1.3	9
93	Rapid Processing of Holocellulose-Based Nanopaper toward an Electrode Material. ACS Sustainable Chemistry and Engineering, 2021, 9, 3337-3346.	3.2	9
94	Comparison of structure, thermal stability, and pyrolysis products of lignin extracted with ChCl-formic acid/lactic acid systems. Journal of Materials Research and Technology, 2021, 14, 841-850.	2.6	9
95	Biocatalytic Feedbackâ€Controlled Nonâ€Newtonian Fluids. Angewandte Chemie, 2020, 132, 4344-4349.	1.6	8
96	Physicochemical Properties and Skin Protection Activities of Polysaccharides from Usnea longissima by Graded Ethanol Precipitation. ACS Omega, 2021, 6, 25010-25018.	1.6	8
97	Rapid Carboxymethylation of Xylan-Rich Hemicelluloses by Microwave Irradiation. Advanced Materials Research, 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. RSC Advances, 2020, 10, 4657-4663.	1.7	7
99	Flexible conductive gasket based on Eucommia ulmoides gum and carbon fillers. Industrial Crops and Products, 2022, 176, 114347.	2.5	7
100	Highly antibacterial hydrogels prepared from amino cellulose, dialdehyde xylan, and Ag nanoparticles by a green reduction method. Cellulose, 2022, 29, 1055-1067.	2.4	7
101	Turning Wood Autohydrolysate Directly into Food Packing Composite Films with Good Toughness. International Journal of Polymer Science, 2018, 2018, 1-8.	1.2	6
102	Acetone fractionation of heterogeneous tetrahydrofurfuryl alcohol lignin to improve its homogeneity and functionality. Journal of Materials Research and Technology, 2021, 10, 632-642.	2.6	6
103	Lignin/Xylanâ€Based Phase Selective Powder Gelator for Ecoâ€Friendly Oil Spill Treatment. Advanced Sustainable Systems, 2021, 5, 2100229.	2.7	6
104	Facile synthesis of high strength hot-water wood extract films with oxygen-barrier performance. Scientific Reports, 2017, 7, 41075.	1.6	5
105	Fractionation of DMSO-Extracted and NaOH-Extracted Hemicelluloses by Gradient Ethanol Precipitation from Neosinocalamus affinis. International Journal of Polymer Science, 2018, 2018, 1-8.	1.2	5
106	Isolation, Purification, and Potential Applications of Xylan. Biofuels and Biorefineries, 2019, , 3-35.	0.5	5
107	Strong and Highly Conductive Poly(vinyl alcohol)/Carbon Dot/EGaIn Composite Films for Flexible and Transient Electronics. ACS Applied Polymer Materials, 2022, 4, 3647-3655.	2.0	5
108	Novel highâ€strength montmorillonite/polyvinyl alcohol composite film enhanced by chitin nanowhiskers. Journal of Applied Polymer Science, 2021, 138, app50344.	1.3	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.	4.0	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.	1.4	3
111	Industrial scale-up of fiber recovery technology from mixed office waste fine screen rejects. BioResources, 2020, 15, 6420-6430.	0.5	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.	2.2	2
114	An electrospun composite of epoxidized Eucommia ulmoides gum and SiO2-GO with ultraviolet resistance. Journal of Materials Science, 2022, 57, 4862-4875.	1.7	2
115	Preparation and characterization of carbamoylethyl hemicelluloses. E-Polymers, 2009, 9, .	1.3	1
116	Kinetic model analysis of mild autohydrolysis of eucalyptus woodchips for xylose production. BioResources, 2022, 17, 3214-3226.	0.5	1
117	Rapid phthaloylation and succinylation of hemicelluloses by microwave irradiation. E-Polymers, 2008, 8, .	1.3	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.	0.5	0