Feng Xu

List of Publications by Year
in descending order

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		50170	43802
110	8,719	46	91
papers	citations	h-index	g-index

111	111	111	9190
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid and efficient microwave-assisted guanidine hydrochloride deep eutectic solvent pretreatment for biological conversion of castor stalk. Bioresource Technology, 2022, 343, 126022.	4.8	32
2	One-pot freezing-thawing preparation of cellulose nanofibrils reinforced polyvinyl alcohol based ionic hydrogel strain sensor for human motion monitoring. Carbohydrate Polymers, 2022, 275, 118697.	5.1	54
3	Mild fractionation of poplar into reactive lignin via lignin-first strategy and its enhancement on cellulose saccharification. Bioresource Technology, 2022, 343, 126122.	4.8	25
4	Low-Temperature tolerance and conformal adhesion zwitterionic hydrogels as electronic skin for strain and temperature responsiveness. Chemical Engineering Journal, 2022, 431, 133782.	6.6	57
5	Reinforcing Paper Strength with High Viscosity Aminated Cellulose Nanocrystal by Forming Nanocrystal Networks. Journal of Polymers and the Environment, 2022, 30, 2474-2482.	2.4	4
6	The choice of ionic liquid ions to mitigate corrosion impacts: the influence of superbase cations and electron-donating carboxylate anions. Green Chemistry, 2022, 24, 2114-2128.	4.6	9
7	Adhesive Ionohydrogels Based on Ionic Liquid/Water Binary Solvents with Freezing Tolerance for Flexible Ionotronic Devices. Chemistry of Materials, 2022, 34, 1065-1077.	3.2	66
8	Tree-inspired lignin microrods-based composite heterogeneous nanochannels for ion transport and osmotic energy harvesting. Energy Conversion and Management, 2022, 255, 115321.	4.4	12
9	Chemical Characteristics of Wood Cell Wall with an Emphasis on Ultrastructure: A Mini-Review. Forests, 2022, 13, 439.	0.9	17
10	Leak-free, high latent heat and self-cleaning phase change materials supported by layered cellulose/Fe3O4 skeleton for light-to-thermal energy conversion. Energy Conversion and Management, 2022, 256, 115357.	4.4	23
11	Materials with Tunable Optical Properties for Wearable Epidermal Sensing in Health Monitoring. Advanced Materials, 2022, 34, e2109055.	11.1	74
12	Highly-efficient pretreatment using alkaline enhanced aqueous deep eutectic solvent to unlock poplar for high yield of fermentable sugars: Synergistic removal of lignin and mannan. Bioresource Technology, 2022, 351, 126993.	4.8	20
13	Surface-microstructured cellulose films toward sensitive pressure sensors and efficient triboelectric nanogenerators. International Journal of Biological Macromolecules, 2022, 208, 324-332.	3.6	14
14	Direct-Ink-Write Printing and Electrospinning of Cellulose Derivatives for Conductive Composite Materials. Materials, 2022, 15, 2840.	1.3	7
15	Laminar regenerated cellulose membrane employed for high-performance photothermal-gating osmotic power harvesting. Carbohydrate Polymers, 2022, 292, 119657.	5.1	6
16	Ultrafast Fabrication of Lignin-Encapsulated Silica Nanoparticles Reinforced Conductive Hydrogels with High Elasticity and Self-Adhesion for Strain Sensors. Chemistry of Materials, 2022, 34, 5258-5272.	3.2	85
17	Fractionation of light-colored lignin via lignin-first strategy and enhancement of cellulose saccharification towards biomass valorization. Industrial Crops and Products, 2022, 186, 115173.	2.5	15
18	Lignin nanorods reinforced nanocomposite hydrogels with UV-shielding, anti-freezing and anti-drying applications. Industrial Crops and Products, 2022, 187, 115324.	2.5	5

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19	Flexible and Sensitivity-Adjustable Pressure Sensors Based on Carbonized Bacterial Nanocellulose/Wood-Derived Cellulose Nanofibril Composite Aerogels. ACS Applied Materials & Interfaces, 2021, 13, 8754-8763.	4.0	76
20	High-barrier, strong, and antibacterial paper fabricated by coating acetylated cellulose and cinnamaldehyde for food packaging. Cellulose, 2021, 28, 4371-4384.	2.4	25
21	Environmentally Compatible Wearable Electronics Based on Ionically Conductive Organohydrogels for Health Monitoring with Thermal Compatibility, Antiâ€Dehydration, and Underwater Adhesion. Small, 2021, 17, e2101151.	5.2	70
22	Facile in situ fabrication of ZnO-embedded cellulose nanocomposite films with antibacterial properties and enhanced mechanical strength via hydrogen bonding interactions. International Journal of Biological Macromolecules, 2021, 183, 760-771.	3.6	26
23	Biodegradable and transparent films with tunable UV-blocking property from Lignocellulosic waste by a top-down approach. Cellulose, 2021, 28, 8629-8640.	2.4	16
24	Robust superbase-based emerging solvents for highly efficient dissolution of cellulose. Carbohydrate Polymers, 2021, 272, 118454.	5.1	18
25	Insights into alkaline choline chloride-based deep eutectic solvents pretreatment for Populus deltoides: Lignin structural features and modification mechanism. International Journal of Biological Macromolecules, 2021, 193, 319-327.	3.6	30
26	Sustainable and Superhydrophobic Lignocellulose-Based Transparent Films with Efficient Light Management and Self-Cleaning. ACS Applied Materials & Interfaces, 2021, 13, 49340-49347.	4.0	32
27	Nitrogen-Doped Carbon Quantum Dot-Anchored Hydrogels for Visual Recognition of Dual Metal Ions through Reversible Fluorescence Response. ACS Sustainable Chemistry and Engineering, 2021, 9, 15190-15201.	3.2	19
28	Engineering Self-Adhesive Polyzwitterionic Hydrogel Electrolytes for Flexible Zinc-Ion Hybrid Capacitors with Superior Low-Temperature Adaptability. ACS Nano, 2021, 15, 18469-18482.	7.3	145
29	Tannic Acidâ€“Silver Dual Catalysis Induced Rapid Polymerization of Conductive Hydrogel Sensors with Excellent Stretchability, Self-Adhesion, and Strain-Sensitivity Properties. ACS Applied Materials & Interfaces, 2020, 12, 56509-56521.	4.0	161
30	Mild Acetylation and Solubilization of Ground Whole Plant Cell Walls in EmimAc: A Method for Solution-State NMR in DMSO-d₆. Analytical Chemistry, 2020, 92, 13101-13109.	3.2	6
31	Valorization of industrial xylan-rich hemicelluloses into water-soluble derivatives by in-situ acetylation in EmimAc ionic liquid. International Journal of Biological Macromolecules, 2020, 163, 457-463.	3.6	7
32	Quantitative structures and thermal properties of Miscanthus Ã— giganteus lignin after alcoholamine-based ionic liquid pretreatment. Industrial Crops and Products, 2020, 147, 112232.	2.5	21
33	High Purity and Low Molecular Weight Lignin Nano-Particles Extracted from Acid-Assisted MIBK Pretreatment. Polymers, 2020, 12, 378.	2.0	14
34	Deconstruction of oriented crystalline cellulose by novel levulinic acid based deep eutectic solvents pretreatment for improved enzymatic accessibility. Bioresource Technology, 2020, 305, 123025.	4.8	98
35	Smart colorimetric sensing films with high mechanical strength and hydrophobic properties for visual monitoring of shrimp and pork freshness. Sensors and Actuators B: Chemical, 2020, 309, 127752.	4.0	136
36	Room-Temperature Superbase-Derived Ionic Liquids with Facile Synthesis and Low Viscosity: Powerful Solvents for Cellulose Dissolution by Destroying the Cellulose Aggregate Structure. Macromolecules, 2020, 53, 3284-3295.	2.2	41

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37	NaOH-Aided Sulfolane Pretreatment for Effective Fractionation and Utilization of Willow (<i>Salix) Tj ETQq1 1 0.784314 rgBT /Overlo	1.8	15
38	Fabrication of regenerated cellulose membranes with high tensile strength and antibacterial property via surface amination. Industrial Crops and Products, 2019, 140, 111603.	2.5	22
39	Compressible, Fatigue Resistant, and Pressure-Sensitive Carbon Aerogels Developed with a Facile Method for Sensors and Electrodes. ACS Sustainable Chemistry and Engineering, 2019, 7, 12726-12733.	3.2	35
40	Enhanced Dissolution of Cotton Cellulose in 1-Allyl-3-methylimidazolium Chloride by the Addition of Metal Chlorides. ACS Sustainable Chemistry and Engineering, 2019, 7, 19176-19184.	3.2	46
41	Heteropoly acids enhanced neutral deep eutectic solvent pretreatment for enzymatic hydrolysis and ethanol fermentation of Miscanthus x giganteus under mild conditions. Bioresource Technology, 2019, 293, 122036.	4.8	48
42	Synthesis of N-doped carbon quantum dots from bio-waste lignin for selective irons detection and cellular imaging. International Journal of Biological Macromolecules, 2019, 128, 537-545.	3.6	119
43	Transformation of lignosulfonate into graphene-like 2D nanosheets: Self-assembly mechanism and their potential in biomedical and electrical applications. International Journal of Biological Macromolecules, 2019, 128, 621-628.	3.6	18
44	Subcellular dissolution of xylan and lignin for enhancing enzymatic hydrolysis of microwave assisted deep eutectic solvent pretreated Pinus bungeana Zucc. Bioresource Technology, 2019, 288, 121475.	4.8	48
45	Crepe cellulose paper and nitrocellulose membrane-based triboelectric nanogenerators for energy harvesting and self-powered human-machine interaction. Nano Energy, 2019, 61, 69-77.	8.2	142
46	Short-time deep eutectic solvent pretreatment for enhanced enzymatic saccharification and lignin valorization. Green Chemistry, 2019, 21, 3099-3108.	4.6	155
47	Structural Characterization and Antioxidant Activity of Milled Wood Lignin from Xylose Residue and Corncob. Polymers, 2019, 11, 2092.	2.0	21
48	Structural variations of cotton cellulose nanocrystals from deep eutectic solvent treatment: micro and nano scale. Cellulose, 2019, 26, 861-876.	2.4	73
49	Mimicking Dynamic Adhesiveness and Strain-Stiffening Behavior of Biological Tissues in Tough and Self-Healable Cellulose Nanocomposite Hydrogels. ACS Applied Materials & Interfaces, 2019, 11, 5885-5895.	4.0	171
50	Effects of synergistic fungal pretreatment on structure and thermal properties of lignin from corncob. Bioresource Technology, 2019, 272, 123-129.	4.8	42
51	Highly Efficient Conversion of Xylose Residues to Levulinic Acid over FeCl₃ Catalyst in Green Salt Solutions. ACS Sustainable Chemistry and Engineering, 2018, 6, 3154-3161.	3.2	49
52	Mussel-Inspired Cellulose Nanocomposite Tough Hydrogels with Synergistic Self-Healing, Adhesive, and Strain-Sensitive Properties. Chemistry of Materials, 2018, 30, 3110-3121.	3.2	627
53	Nanocrystals of cellulose allomorphs have different adsorption of cellulase and subsequent degradation. Industrial Crops and Products, 2018, 112, 541-549.	2.5	39
54	Revealing the Dynamic Formation Process and Mechanism of Hollow Carbon Spheres: From Bowl to Sphere. ACS Sustainable Chemistry and Engineering, 2018, 6, 2797-2805.	3.2	45

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55	Superhydrophobic Cellulose Nanofiber-Assembled Aerogels for Highly Efficient Water-in-Oil Emulsions Separation. ACS Applied Nano Materials, 2018, 1, 2095-2103.	2.4	96
56	Synergetic Dissolution of Branched Xylan and Lignin Opens the Way for Enzymatic Hydrolysis of Poplar Cell Wall. Journal of Agricultural and Food Chemistry, 2018, 66, 3449-3456.	2.4	15
57	Highly Transparent and Hazy Cellulose Nanopaper Simultaneously with a Self-Cleaning Superhydrophobic Surface. ACS Sustainable Chemistry and Engineering, 2018, 6, 5173-5181.	3.2	86
58	Enhanced enzymatic hydrolysis by adding long-chain fatty alcohols using film as a structure model. Bioresource Technology, 2018, 249, 82-88.	4.8	6
59	Reconstruction of lignin and hemicelluloses by aqueous ethanol antiâ€solvents to improve the ionic liquidâ€acid pretreatment performance of Arundo donax Linn. Biotechnology and Bioengineering, 2018, 115, 82-91.	1.7	7
60	Lignosulfonate-Directed Synthesis of Consubstantial Yolkâ€“Shell Carbon Microspheres with Pollen-Like Surface from Sugar Biomass. ACS Sustainable Chemistry and Engineering, 2018, 6, 16315-16322.	3.2	16
61	Super-compressible, fatigue resistant and anisotropic carbon aerogels for piezoresistive sensors. Cellulose, 2018, 25, 7329-7340.	2.4	46
62	Flexible and Highly Sensitive Resistive Pressure Sensor Based on Carbonized Crepe Paper with Corrugated Structure. ACS Applied Materials & Interfaces, 2018, 10, 34646-34654.	4.0	137
63	Flexible and Anisotropic Strain Sensor Based on Carbonized Crepe Paper with Aligned Cellulose Fibers. Advanced Functional Materials, 2018, 28, 1802547.	7.8	228
64	Biofriendly, Stretchable, and Reusable Hydrogel Electronics as Wearable Force Sensors. Small, 2018, 14, e1801711.	5.2	144
65	An approach for reinforcement of paper with high strength and barrier properties via coating regenerated cellulose. Carbohydrate Polymers, 2018, 200, 100-105.	5.1	35
66	Integration of facile deep eutectic solvents pretreatment for enhanced enzymatic hydrolysis and lignin valorization from industrial xylose residue. Bioresource Technology, 2018, 265, 334-339.	4.8	77
67	Metal Ion Mediated Cellulose Nanofibrils Transient Network in Covalently Cross-linked Hydrogels: Mechanistic Insight into Morphology and Dynamics. Biomacromolecules, 2017, 18, 1019-1028.	2.6	86
68	A Self-Healing Cellulose Nanocrystal-Poly(ethylene glycol) Nanocomposite Hydrogel via Dielsâ€“Alder Click Reaction. ACS Sustainable Chemistry and Engineering, 2017, 5, 6167-6174.	3.2	206
69	Efficient Short Time White Rotâ€“Brown Rot Fungal Pretreatments for the Enhancement of Enzymatic Saccharification of Corn Cobs. ACS Sustainable Chemistry and Engineering, 2017, 5, 10849-10857.	3.2	33
70	High-Strength, Tough, and Self-Healing Nanocomposite Physical Hydrogels Based on the Synergistic Effects of Dynamic Hydrogen Bond and Dual Coordination Bonds. ACS Applied Materials & Interfaces, 2017, 9, 28305-28318.	4.0	326
71	Preparation of carbon aerogels from TEMPO-oxidized cellulose nanofibers for organic solvents absorption. RSC Advances, 2017, 7, 38220-38230.	1.7	40
72	Synergistic Reinforcing Mechanisms in Cellulose Nanofibrils Composite Hydrogels: Interfacial Dynamics, Energy Dissipation, and Damage Resistance. Biomacromolecules, 2017, 18, 2623-2632.	2.6	60

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73	Exploring crystalline-structural variations of cellulose during alkaline pretreatment for enhanced enzymatic hydrolysis. Bioresource Technology, 2017, 224, 611-617.	4.8	115
74	Interconnected Hierarchical Porous Carbon from Lignin-Derived Byproducts of Bioethanol Production for Ultra-High Performance Supercapacitors. ACS Applied Materials & Interfaces, 2016, 8, 13918-13925.	4.0	200
75	Progressive deconstruction of Arundo donax Linn. to fermentable sugars by acid catalyzed ionic liquid pretreatment. Bioresource Technology, 2016, 199, 271-274.	4.8	16
76	How Does Hemicelluloses Removal Alter Plant Cell Wall Nanoscale Architecture and Correlate with Enzymatic Digestibility?. Bioenergy Research, 2016, 9, 601-609.	2.2	20
77	Sustainable, Reusable, and Superhydrophobic Aerogels from Microfibrillated Cellulose for Highly Effective Oil/Water Separation. ACS Sustainable Chemistry and Engineering, 2016, 4, 6409-6416.	3.2	197
78	Facile isothermal solid acid catalyzed ionic liquid pretreatments to enhance the combined sugars production from Arundo donax Linn.. Biotechnology for Biofuels, 2016, 9, 177.	6.2	18
79	Probing and visualizing the heterogeneity of fiber cell wall deconstruction in sugar maple (Acer) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.7	16
80	Simple Approach to Synthesize Amino-Functionalized Carbon Dots by Carbonization of Chitosan. Scientific Reports, 2016, 6, 31100.	1.6	136
81	Synthesis of Highly Polymerized Water-soluble Cellulose Acetate by the Side Reaction in Carboxylate Ionic Liquid 1-ethyl-3-methylimidazolium Acetate. Scientific Reports, 2016, 6, 33725.	1.6	28
82	Elucidating Dynamics of Precoordinated Ionic Bridges as Sacrificial Bonds in Interpenetrating Network Hydrogels. Macromolecules, 2016, 49, 4340-4348.	2.2	47
83	Synergistic effect of white-rot fungi and alkaline pretreatments for improving enzymatic hydrolysis of poplar wood. Industrial Crops and Products, 2016, 86, 155-162.	2.5	31
84	Efficient recovery and structural characterization of lignin from cotton stalk based on a biorefinery process using a Î³-valerolactone/water system. RSC Advances, 2016, 6, 6196-6204.	1.7	35
85	Facile Template Synthesis of Microfibrillated Cellulose/Polypyrrole/Silver Nanoparticles Hybrid Aerogels with Electrical Conductive and Pressure Responsive Properties. ACS Sustainable Chemistry and Engineering, 2015, 3, 3346-3354.	3.2	103
86	Design of Cellulose Nanocrystals Template-Assisted Composite Hydrogels: Insights from Static to Dynamic Alignment. Macromolecules, 2015, 48, 1231-1239.	2.2	44
87	Comparison of physical properties of regenerated cellulose films fabricated with different cellulose feedstocks in ionic liquid. Carbohydrate Polymers, 2015, 121, 71-78.	5.1	120
88	Separation and characterization of lignin obtained by catalytic hydrothermal pretreatment of cotton stalk. Industrial Crops and Products, 2015, 66, 123-130.	2.5	48
89	The mechanism of xylans removal during hydrothermal pretreatment of poplar fibers investigated by immunogold labeling. Planta, 2015, 242, 327-337.	1.6	29
90	Tough nanocomposite hydrogels from cellulose nanocrystals/poly(acrylamide) clusters: influence of the charge density, aspect ratio and surface coating with PEG. Cellulose, 2014, 21, 541-551.	2.4	37

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91	Characteristics and enzymatic hydrolysis of cellulose-rich fractions from steam exploded and sequentially alkali delignified bamboo (Phyllostachys pubescens). Bioresource Technology, 2014, 163, 377-380.	4.8	34
92	Understanding the chemical transformations of lignin during ionic liquid pretreatment. Green Chemistry, 2014, 16, 181-190.	4.6	260
93	Revealing the Changes in Topochemical Characteristics of Poplar Cell Wall During Hydrothermal Pretreatment. Bioenergy Research, 2014, 7, 1358-1368.	2.2	37
94	Self-healing gels based on constitutional dynamic chemistry and their potential applications. Chemical Society Reviews, 2014, 43, 8114-8131.	18.7	733
95	Cellulose Nanocrystals Mechanical Reinforcement in Composite Hydrogels with Multiple Cross-Links: Correlations between Dissipation Properties and Deformation Mechanisms. Macromolecules, 2014, 47, 4077-4086.	2.2	180
96	Revealing Strong Nanocomposite Hydrogels Reinforced by Cellulose Nanocrystals: Insight into Morphologies and Interactions. ACS Applied Materials & Interfaces, 2013, 5, 12960-12967.	4.0	80
97	Enhanced hydrophobicity and thermal stability of hemicelluloses by butyrylation in [BMIM]Cl ionic liquid. Industrial Crops and Products, 2013, 45, 52-57.	2.5	22
98	Synergistic benefits of ionic liquid and alkaline pretreatments of poplar wood. Part 1: Effect of integrated pretreatment on enzymatic hydrolysis. Bioresource Technology, 2013, 144, 429-434.	4.8	34
99	Structural Elucidation of the Lignins from Stems and Foliage of Arundo donax Linn.. Journal of Agricultural and Food Chemistry, 2013, 61, 5361-5370.	2.4	99
100	Characterization of MWLs from Tamarix ramosissima isolated before and after hydrothermal treatment by spectroscopical and wet chemical methods. Holzforschung, 2012, 66, .	0.9	21
101	Unveiling the Structural Heterogeneity of Bamboo Lignin by In Situ HSQC NMR Technique. Bioenergy Research, 2012, 5, 886-903.	2.2	100
102	Structural Characterization of Lignin from Triploid of Populus tomentosa Carr.. Journal of Agricultural and Food Chemistry, 2011, 59, 6605-6615.	2.4	108
103	Characterization of Lignin Structures and Ligninâ€“Carbohydrate Complex (LCC) Linkages by Quantitative ¹³C and 2D HSQC NMR Spectroscopy. Journal of Agricultural and Food Chemistry, 2011, 59, 10604-10614.	2.4	483
104	Organosolv- and alkali-soluble hemicelluloses degraded from Tamarix austromongolica: Characterization of physicochemical, structural features and thermal stability. Polymer Degradation and Stability, 2011, 96, 1478-1488.	2.7	20
105	Isolation and physico-chemical characterization of lignins from ultrasound irradiated fast-growing poplar wood. BioResources, 2011, 6, 414-433.	0.5	48
106	Fractional Isolation and Chemical Structure of Hemicellulosic Polymers Obtained from Bambusa rigida Species. Journal of Agricultural and Food Chemistry, 2010, 58, 11372-11383.	2.4	46
107	Structural Characterization of Alkali-Extractable Lignin Fractions from Bamboo. Journal of Biobased Materials and Bioenergy, 2010, 4, 408-425.	0.1	52
108	Rapid homogeneous lauroylation of wheat straw hemicelluloses under mild conditions. Carbohydrate Research, 2008, 343, 2956-2962.	1.1	23

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109	Studies of the Lauroylation of Wheat Straw Hemicelluloses under Heating. Journal of Agricultural and Food Chemistry, 2008, 56, 1251-1258.	2.4	40
110	Comparative study of organosolv lignins from wheat straw. Industrial Crops and Products, 2006, 23, 180-193.	2.5	234