Wenshuai Chen

List of Publications by Year
in descending order

67 papers	7,089 citations	38 h-index	67 g-index
72 all docs	72 docs citations	72 times ranked	7211 citing authors

87723

98622

#	Article	IF	Citations
1	Individualization of cellulose nanofibers from wood using high-intensity ultrasonication combined with chemical pretreatments. Carbohydrate Polymers, 2011, 83, 1804-1811.	5.1	795
2	Nanocellulose: a promising nanomaterial for advanced electrochemical energy storage. Chemical Society Reviews, 2018, 47, 2837-2872.	18.7	586
3	Celluloseâ€Based Flexible Functional Materials for Emerging Intelligent Electronics. Advanced Materials, 2021, 33, e2000619.	11.1	425
4	Isolation and characterization of cellulose nanofibers from four plant cellulose fibers using a chemical-ultrasonic process. Cellulose, 2011, 18, 433-442.	2.4	420
5	Efficient Cleavage of Ligninâ€"Carbohydrate Complexes and Ultrafast Extraction of Lignin Oligomers from Wood Biomass by Microwaveâ€Assisted Treatment with Deep Eutectic Solvent. ChemSusChem, 2017, 10, 1692-1700.	3.6	354
6	Multiple hydrogen bond coordination in three-constituent deep eutectic solvents enhances lignin fractionation from biomass. Green Chemistry, 2018, 20, 2711-2721.	4.6	323
7	Biopolymer nanofibrils: Structure, modeling, preparation, and applications. Progress in Polymer Science, 2018, 85, 1-56.	11.8	312
8	Comparative Study of Aerogels Obtained from Differently Prepared Nanocellulose Fibers. ChemSusChem, 2014, 7, 154-161.	3.6	258
9	Highly Flexible and Conductive Cellulose-Mediated PEDOT:PSS/MWCNT Composite Films for Supercapacitor Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 13213-13222.	4.0	214
10	Ultralight and highly flexible aerogels with long cellulose I nanofibers. Soft Matter, 2011, 7, 10360.	1.2	204
11	High Performance, Flexible, Solidâ€State Supercapacitors Based on a Renewable and Biodegradable Mesoporous Cellulose Membrane. Advanced Energy Materials, 2017, 7, 1700739.	10.2	202
12	Facile extraction of cellulose nanocrystals from wood using ethanol and peroxide solvothermal pretreatment followed by ultrasonic nanofibrillation. Green Chemistry, 2016, 18, 1010-1018.	4.6	183
13	Nanocellulose for Energy Storage Systems: Beyond the Limits of Synthetic Materials. Advanced Materials, 2019, 31, e1804826.	11.1	181
14	Preparation of millimeter-long cellulose I nanofibers with diameters of 30â€"80nm from bamboo fibers. Carbohydrate Polymers, 2011, 86, 453-461.	5.1	178
15	Composite aerogels based on dialdehyde nanocellulose and collagen for potential applications as wound dressing and tissue engineering scaffold. Composites Science and Technology, 2014, 94, 132-138.	3.8	162
16	Efficient Cleavage of Strong Hydrogen Bonds in Cotton by Deep Eutectic Solvents and Facile Fabrication of Cellulose Nanocrystals in High Yields. ACS Sustainable Chemistry and Engineering, 2017, 5, 7623-7631.	3.2	161
17	Polyvinyl Alcohol/Silk Fibroin/Borax Hydrogel Ionotronics: A Highly Stretchable, Self-Healable, and Biocompatible Sensing Platform. ACS Applied Materials & Interfaces, 2019, 11, 23632-23638.	4.0	154
18	Concentration effects on the isolation and dynamic rheological behavior of cellulose nanofibers via ultrasonic processing. Cellulose, 2013, 20, 149-157.	2.4	117

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19	Production of Nanocellulose Using Hydrated Deep Eutectic Solvent Combined with Ultrasonic Treatment. ACS Omega, 2019, 4, 8539-8547.	1.6	112
20	Solar-powered nanostructured biopolymer hygroscopic aerogels for atmospheric water harvesting. Nano Energy, 2021, 80, 105569.	8.2	99
21	Nanocellulose-Enabled, All-Nanofiber, High-Performance Supercapacitor. ACS Applied Materials & Interfaces, 2019, 11, 5919-5927.	4.0	91
22	Individual cotton cellulose nanofibers: pretreatment and fibrillation technique. Cellulose, 2014, 21, 1517-1528.	2.4	75
23	Wood-Derived Carbon with Selectively Introduced Câ•O Groups toward Stable and High Capacity Anodes for Sodium Storage. ACS Applied Materials & Interfaces, 2020, 12, 27499-27507.	4.0	75
24	A Mottâ€“Schottky Heterogeneous Layer for Liâ€“S Batteries: Enabling Both High Stability and Commercialâ€Sulfur Utilization. Advanced Energy Materials, 2022, 12, .	10.2	74
25	Transparent triboelectric nanogenerator-induced high voltage pulsed electric field for a self-powered handheld printer. Nano Energy, 2018, 44, 468-475.	8.2	70
26	Revealing the structures of cellulose nanofiber bundles obtained by mechanical nanofibrillation via TEM observation. Carbohydrate Polymers, 2015, 117, 950-956.	5.1	69
27	Synergy effect between adsorption and heterogeneous photo-Fenton-like catalysis on LaFeO3/lignin-biochar composites for high efficiency degradation of ofloxacin under visible light. Separation and Purification Technology, 2022, 280, 119751.	3.9	68
28	Soy protein isolate/cellulose nanofiber complex gels as fat substitutes: rheological and textural properties and extent of cream imitation. Cellulose, 2015, 22, 2619-2627.	2.4	65
29	Nanoformulations of quercetin and cellulose nanofibers as healthcare supplements with sustained antioxidant activity. Carbohydrate Polymers, 2019, 207, 160-168.	5.1	63
30	Stimuli-responsive composite biopolymer actuators with selective spatial deformation behavior. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 14602-14608.	3.3	63
31	Cellulose: Celluloseâ€Based Flexible Functional Materials for Emerging Intelligent Electronics (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlock	11.1	62
32	Homogeneous Dispersion of Cellulose Nanofibers in Waterborne Acrylic Coatings with Improved Properties and Unreduced Transparency. ACS Sustainable Chemistry and Engineering, 2016, 4, 3766-3772.	3.2	61
33	Lightweight, Flexible, Thermally-Stable, and Thermally-Insulating Aerogels Derived from Cotton Nanofibrillated Cellulose. ACS Sustainable Chemistry and Engineering, 2019, 7, 9202-9210.	3.2	52
34	Electroâ€Blown Spun Silk/Graphene Nanoionotronic Skin for Multifunctional Fire Protection and Alarm. Advanced Materials, 2021, 33, e2102500.	11.1	50
35	Sustainable Carbon Aerogels Derived from Nanofibrillated Cellulose as Highâ€Performance Absorption Materials. Advanced Materials Interfaces, 2016, 3, 1600004.	1.9	47
36	Monolithic NF@ZnO/Au@ZIF-8 photocatalyst with strong photo-thermal-magnetic coupling and selective-breathing effects for boosted conversion of CO2 to CH4. Applied Catalysis B: Environmental, 2022, 309, 121267.	10.8	46

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37	Robust Nanofibrillated Cellulose Hydro/Aerogels from Benign Solution/Solvent Exchange Treatment. ACS Sustainable Chemistry and Engineering, 2018, 6, 6624-6634.	3.2	41
38	Effect of cellulose nanofibers on induced polymerization of aniline and formation of nanostructured conducting composite. Cellulose, 2014, 21, 1757-1767.	2.4	40
39	Multifunctional Bionanocomposite Foams with a Chitosan Matrix Reinforced by Nanofibrillated Cellulose. ChemNanoMat, 2017, 3, 98-108.	1.5	37
40	A Nanostructured Moistureâ€Absorbing Gel for Fast and Largeâ€Scale Passive Dehumidification. Advanced Materials, 2022, 34, e2200865.	11.1	36
41	Self-Assembly of Nanocellulose and Indomethacin into Hierarchically Ordered Structures with High Encapsulation Efficiency for Sustained Release Applications. ChemPlusChem, 2014, 79, 725-731.	1.3	35
42	Comparative study of the structure, mechanical and thermomechanical properties of cellulose nanopapers with different thickness. Cellulose, 2016, 23, 1375-1382.	2.4	33
43	Assembly of Organosolv Lignin Residues into Submicron Spheres: The Effects of Granulating in Ethanol/Water Mixtures and Homogenization. ACS Omega, 2017, 2, 2858-2865.	1.6	33
44	Enhanced Ni/W/Ti Catalyst Stability from Tiâ€"Oâ€"W Linkage for Effective Conversion of Cellulose into Ethylene Glycol. ACS Sustainable Chemistry and Engineering, 2020, 8, 9650-9659.	3.2	31
45	Embedding Lauric Acid into Polystyrene Nanofibers To Make High-Capacity Membranes for Efficient Thermal Energy Storage. ACS Sustainable Chemistry and Engineering, 2017, 5, 7249-7259.	3.2	24
46	Mechanistic Study of Interfacial Modification for Stable Zn Anode Based on a Thin Separator. Small, 2022, 18, e2201045.	5.2	24
47	A <scp>nonâ€Newtonian</scp> fluidic celluloseâ€modified glass microfiber separator for flexible lithiumâ€ion batteries. EcoMat, 2021, 3, e12126.	6.8	23
48	Moisture induced electricity for self-powered microrobots. Nano Energy, 2021, 90, 106499.	8.2	23
49	Biopolymer Nanofibers for Nanogenerator Development. Research, 2021, 2021, 1843061.	2.8	22
50	Woodâ€Derived Systems for Sustainable Oil/Water Separation. Advanced Sustainable Systems, 2021, 5, 2100039.	2.7	22
51	Thermally Triggered Nanocapillary Encapsulation of Lauric Acid in Polystyrene Hollow Fibers for Efficient Thermal Energy Storage. ACS Sustainable Chemistry and Engineering, 2018, 6, 2656-2666.	3.2	21
52	Multi-dimensional, transparent and foldable cellulose-based triboelectric nanogenerator for touching password recognition. Nano Energy, 2022, 98, 107307.	8.2	20
53	Combination of microsized mineral particles and rosin as a basis for converting cellulosic fibers into â€œstickyâ€• superhydrophobic paper. Carbohydrate Polymers, 2017, 174, 95-102.	5.1	19
54	Recyclable nanocellulose-confined palladium nanoparticles with enhanced room-temperature catalytic activity and chemoselectivity. Science China Materials, 2021, 64, 621-630.	3.5	19

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55	Construction of a Photo-thermal-magnetic coupling reaction system for enhanced CO2 reduction to CH4. Chemical Engineering Journal, 2021, 421, 129940.	6.6	17
56	Preparation of Graphene Oxide/Cellulose Composites with Microcrystalline Cellulose Acid Hydrolysis Using the Waste Acids Generated by the Hummers Method of Graphene Oxide Synthesis. Polymers, 2021, 13, 4453.	2.0	15
57	Solvent-Assisted Nanochannel Encapsulation of a Natural Phase Change Material in Polystyrene Hollow Fibers for High-Performance Thermal Energy Storage. ACS Applied Energy Materials, 2020, 3, 10089-10096.	2.5	13
58	A process of converting cellulosic fibers to a superhydrophobic fiber product by internal and surface applications of calcium carbonate in combination with bio-wax post-treatment. RSC Advances, 2014, 4, 52680-52685.	1.7	11
59	Bioinspired Energy Storage and Harvesting Devices. Advanced Materials Technologies, 2021, 6, 2001301.	3.0	11
60	Transparent and flexible structurally colored biological nanofiber films for visual gas detection. Matter, 2022, 5, 2813-2828.	5.0	11
61	Woodâ€Derived Nanofibrillated Cellulose Hydrogel Filters for Fast and Efficient Separation of Nanoparticles. Advanced Sustainable Systems, 2019, 3, 1900063.	2.7	10
62	Highâ€Loading, Wellâ€Dispersed Phosphorus Confined on Nanoporous Carbon Surfaces with Enhanced Catalytic Activity and Cyclic Stability. Small Methods, 2021, 5, e2100964.	4.6	9
63	Solar Degradation of Toxic Colorants in Polluted Water by Thermally Tuned Ceria Nanocrystal-Based Nanofibers. ACS Applied Nano Materials, 2020, 3, 11194-11202.	2.4	7
64	Flexible, Electrically Conductive, Nanostructured, Asymmetric Aerogel Films for Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2021, 13, 59174-59184.	4.0	5
65	Absorption Materials: Sustainable Carbon Aerogels Derived from Nanofibrillated Cellulose as High-Performance Absorption Materials (Adv. Mater. Interfaces 10/2016). Advanced Materials Interfaces, 2016, 3, .	1.9	1
66	Evaluation of Wood-Based Materials' Effect on Physiological, Psychological and Environment Pollution with AHP. , 2009, , .		0
67	A Nanostructured Moistureâ€Absorbing Gel for Fast and Largeâ€Scale Passive Dehumidification (Adv.) Tj ETQq1 1 0.784314 rgBT /Overl	11.1	0