Xinwen Peng

List of Publications by Year in Descending Order

112 papers	3,552 citations	33 h-index	55 g-index
122 ext. papers	4,757 ext. citations	9.7 avg, IF	5.76 L-index

#	Paper	IF	Citations
112	Oxygen Reduction Reaction Electrocatalysts **2022**, 1-34		0
111	Coupling overall water splitting and biomass oxidation via Fe-doped Ni2P@C nanosheets at large current density. *Applied Catalysis B: Environmental*, **2022**, 307, 121170	21.8	6
110	Deep eutectic solvents derived carbon-based efficient electrocatalyst for boosting H2 production coupled with glucose oxidation. *Chemical Engineering Journal*, **2022**, 430, 132783	14.7	4
109	Energy-efficient monosaccharides electrooxidation coupled with green hydrogen production by bifunctional Co9S8/Ni3S2 electrode. *Chemical Engineering Journal*, **2022**, 136950	14.7	1
108	Enhanced Tunneling Magnetoresistance Effect via Ferroelectric Control of Interface Electronic/Magnetic Reconstructions. *ACS Applied Materials & Interfaces*, **2021**, 13, 56638-56644	9.5	
107	2021 Roadmap: electrocatalysts for green catalytic processes. *JPhys Materials*, **2021**, 4, 022004	4.2	24
106	Cryogenic engineering of solid polymer electrolytes for room temperature and 4 V-class all-solid-state lithium batteries. *Chemical Engineering Journal*, **2021**, 420, 127623	14.7	4
105	Metal coordination assists fabrication of multifunctional aerogel. *Journal of Materials Science and Technology*, **2021**, 71, 67-74	9.1	1
104	Hierarchical ZnO nanorod arrays grown on copper foam as an advanced three-dimensional skeleton for dendrite-free sodium metal anodes. *Nano Energy*, **2021**, 80, 105563	17.1	24
103	Highly selective oxidation of monosaccharides to sugar acids at room temperature over palladium supported on surface functionalized carbon nanotubes. *Green Chemistry*, **2021**, 23, 7084-7092	10	0
102	Biomass-based N doped carbon as metal-free catalyst for selective oxidation of d-xylose into d-xylonic acid. *Green Energy and Environment*, **2021**,	5.7	5
101	One-step construction of Co2P nanoparticles encapsulated in N, P co-doped biomass-based porous carbon as bifunctional efficient electrocatalysts for overall water splitting. *Sustainable Energy and Fuels*, **2021**, 5, 2477-2485	5.8	1
100	Regulating TiO2/MXenes catalysts to promote photocatalytic performance of highly selective oxidation of D-xylose. *Green Chemistry*, **2021**, 23, 1382-1388	10	8
99	Visible-light-promoted thiocyanation of sp2 C H bonds over heterogeneous graphitic carbon nitrides. *New Journal of Chemistry*, **2021**, 45, 14058-14062	3.6	1
98	The 2021 battery technology roadmap. *Journal Physics D: Applied Physics*, **2021**, 54, 183001	3	63
97	Iron Single Atom Catalyzed Quinoline Synthesis. *Advanced Materials*, **2021**, 33, e2101382	24	11
96	Vacancy engineered polymeric carbon nitride nanosheets for enhanced photoredox catalytic efficiency. *Cell Reports Physical Science*, **2021**, 100491	6.1	4

95	Biomass-based protic ionic liquid derived N, P, co-doped porous carbon-coated CoP nanocrystals for efficient hydrogen evolution reaction. *Journal of Materials Science*, **2021**, 56, 18188-18199	4.3	1
94	Regulating the electron□hole separation to promote selective oxidation of biomass using ZnS@Bi2S3 nanosheet catalyst. *Applied Catalysis B: Environmental*, **2021**, 292, 120180	21.8	9
93	Highly selective oxidation of monosaccharides to sugar acids by nickel-embedded carbon nanotubes under mild conditions. *Renewable Energy*, **2021**, 175, 650-659	8.1	0
92	Recent progress and future perspectives of flexible metal-air batteries. *SmartMat*, **2021**, 2, 519-553	22.8	5
91	Edge activation of an inert polymeric carbon nitride matrix with boosted absorption kinetics and near-infrared response for efficient photocatalytic CO2 reduction. *Journal of Materials Chemistry A*, **2020**, 8, 11761-11772	13	23
90	An Iron-Decorated Carbon Aerogel for Rechargeable Flow and Flexible Zn-Air Batteries. *Advanced Materials*, **2020**, 32, e2002292	24	91
89	Efficient base-free oxidation of monosaccharide into sugar acid under mild conditions using hierarchical porous carbon supported gold catalysts. *Green Chemistry*, **2020**, 22, 2588-2597	10	14
88	Synthesis of Biocompatible Cholesteryl-Carboxymethyl Xylan Micelles for Tumor-Targeting Intracellular DOX Delivery. *ACS Biomaterials Science and Engineering*, **2020**, 6, 1582-1589	5.5	7
87	Wood-Derived Lightweight and Elastic Carbon Aerogel for Pressure Sensing and Energy Storage. *Advanced Functional Materials*, **2020**, 30, 1910292	15.6	76
86	Direct growth of a porous substrate on high-quality graphene via in situ phase inversion of a polymeric solution. *Nanoscale*, **2020**, 12, 4953-4958	7.7	
85	Functional Chitosan-based Materials for Biological Applications. *Current Medicinal Chemistry*, **2020**, 27, 4660-4672	4.3	12
84	Palladium Nanoparticles Anchored on Thiol Functionalized Xylose Hydrochar Microspheres: An Efficient Heterogeneous Catalyst for Suzuki Cross-Coupling Reactions. *Catalysis Letters*, **2020**, 150, 1011-1019	2.8	5
83	Synthesizing green carbon dots with exceptionally high yield from biomass hydrothermal carbon. *Cellulose*, **2020**, 27, 415-428	5.5	17
82	Porous carbon coupled with an interlaced MoP□MoS2 heterojunction hybrid for efficient hydrogen evolution reaction. *Journal of Energy Chemistry*, **2020**, 45, 45-51	12	26
81	Synthesis of water-soluble, fully biobased cellulose levulinate esters through the reaction of cellulose and alpha-angelica lactone in a DBU/CO2/DMSO solvent system. *Green Chemistry*, **2020**, 22, 707-717	10	25
80	Recycled fiber derived carbon dispersed Ag nanoparticles as high-performance catalyst for 4-nitrophenol reduction and substrate for surface-enhanced Raman scattering. *Cellulose*, **2020**, 27, 1649-1659	5.5	1
79	Cobalt Single-Atom-Intercalated Molybdenum Disulfide for Sulfide Oxidation with Exceptional Chemoselectivity. *Advanced Materials*, **2020**, 32, e1906437	24	30
78	Polycation ionic liquid tailored PEO-based solid polymer electrolytes for high temperature lithium metal batteries. *Energy Storage Materials*, **2020**, 33, 173-180	19.4	26

77	Regulating Electron-Hole Separation to Promote Photocatalytic H Evolution Activity of Nanoconfined Ru/MXene/TiO Catalysts. *ACS Nano*, **2020**, 14, 14181-14189	16.7	74
76	Linking Renewable Cellulose Nanocrystal into Lightweight and Highly Elastic Carbon Aerogel. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 11921-11929	8.3	15
75	Zinc-Air Batteries: An Iron-Decorated Carbon Aerogel for Rechargeable Flow and Flexible Zn–Air Batteries (Adv. Mater. 32/2020). *Advanced Materials*, **2020**, 32, 2070241	24	
74	Efficient photoreforming of lignocellulose into H2 and photocatalytic CO2 reduction via in-plane surface dyadic heterostructure of porous polymeric carbon nitride. *Carbon*, **2020**, 170, 199-212	10.4	18
73	2020 Roadmap on Zinc Metal Batteries. *Chemistry - an Asian Journal*, **2020**, 15, 3696-3708	4.5	6
72	Xylan-Derived Light Conversion Nanocomposite Film. *Polymers*, **2020**, 12,	4.5	4
71	Carbon Nanotube/Chitosan-Based Elastic Carbon Aerogel for Pressure Sensing. *Industrial & Engineering Chemistry Research*, **2019**, 58, 17768-17775	3.9	20
70	Using FeCl3 as a Solvent, Template, and Activator To Prepare B, N Co-Doping Porous Carbon with Excellent Supercapacitance. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 15983-15994	8.3	29
69	N-Doped MoC Nanobelts/Graphene Nanosheets Bonded with Hydroxy Nanocellulose as Flexible and Editable Electrode for Hydrogen Evolution Reaction. *IScience*, **2019**, 19, 1090-1100	6.1	28
68	Mesoporous Carbon-Coated Bismuth Nanorods as Anode for Potassium-Ion Batteries. *Physica Status Solidi - Rapid Research Letters*, **2019**, 13, 1900209	2.5	35
67	Hemicelluloses supported palladium/xylan nanocomposites containing N and O ligands: Highly-performance heterogeneous catalysts for Suzuki reaction. *Carbohydrate Polymers*, **2019**, 217, 224-231	10.3	9
66	Compressible, Elastic, and Pressure-Sensitive Carbon Aerogels Derived from 2D Titanium Carbide Nanosheets and Bacterial Cellulose for Wearable Sensors. *Chemistry of Materials*, **2019**, 31, 3301-3312	9.6	132
65	Surface confinement assisted synthesis of nitrogen-rich hollow carbon cages with Co nanoparticles as breathable electrodes for Zn-air batteries. *Applied Catalysis B: Environmental*, **2019**, 254, 55-65	21.8	63
64	Facile and High-Yield Synthesis of Carbon Quantum Dots from Biomass-Derived Carbons at Mild Condition. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 7833-7843	8.3	81
63	A carbon aerogel with super mechanical and sensing performances for wearable piezoresistive sensors. *Journal of Materials Chemistry A*, **2019**, 7, 8092-8100	13	90
62	Hierarchically Porous Carbon Plates Derived from Wood as Bifunctional ORR/OER Electrodes. *Advanced Materials*, **2019**, 31, e1900341	24	191
61	Biomass polymer-assisted fabrication of aerogels from MXenes with ultrahigh compression elasticity and pressure sensitivity. *Journal of Materials Chemistry A*, **2019**, 7, 10273-10281	13	58
60	Fast Energy Storage in Two-Dimensional MoO Enabled by Uniform Oriented Tunnels. *ACS Nano*, **2019**, 13, 9091-9099	16.7	24

59	Advanced Compressible and Elastic 3D Monoliths beyond Hydrogels. *Advanced Functional Materials*, **2019**, 29, 1904472	15.6	40
58	Lignocellulosic Biomass Derived Functional Materials: Synthesis and Applications in Biomedical Engineering. *Current Medicinal Chemistry*, **2019**, 26, 2456-2474	4.3	8
57	Synthesis, Characterization, and Applications of Hemicelluloses Based Eco-friendly Polymer Composites **2019**, 1267-1322		2
56	Mesoporous, nitrogen-doped, graphitized carbon nanosheets embedded with cobalt nanoparticles for efficient oxygen electroreduction. *Journal of Materials Science*, **2019**, 54, 4168-4179	4.3	8
55	Preparation and Characterization of PVC Matrix Composites with Biochemical Sludge. *Journal of Polymers and the Environment*, **2018**, 26, 3197-3201	4.5	1
54	Sulfonation of carbonized xylan-type hemicellulose: a renewable and effective biomass-based biocatalyst for the synthesis of O- and N-heterocycles. *New Journal of Chemistry*, **2018**, 42, 9140-9150	3.6	7
53	Self-Biotemplate Preparation of Hierarchical Porous Carbon with Rational Mesopore Ratio and High Oxygen Content for an Ultrahigh Energy-Density Supercapacitor. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 7138-7150	8.3	73
52	A Supercompressible, Elastic, and Bendable Carbon Aerogel with Ultrasensitive Detection Limits for Compression Strain, Pressure, and Bending Angle. *Advanced Materials*, **2018**, 30, e1706705	24	174
51	Amphiphilic xylan□holic acid conjugates: synthesis and self-assembly behaviors in aqueous solution. *Cellulose*, **2018**, 25, 245-257	5.5	8
50	Lignin Nanosphere-Supported Cuprous Oxide as an Efficient Catalyst for Huisgen [3+2] Cycloadditions under Relatively Mild Conditions. *Polymers*, **2018**, 10,	4.5	8
49	A mechanically strong and sensitive CNT/rGO□NF carbon aerogel for piezoresistive sensors. *Journal of Materials Chemistry A*, **2018**, 6, 23550-23559	13	93
48	Au@h-Al2O3 analogic yolk□hell nanocatalyst for highly selective synthesis of biomass-derived D-xylonic acid via regulation of structure effects. *Green Chemistry*, **2018**, 20, 5188-5195	10	22
47	A foldable composite electrode with excellent electrochemical performance using microfibrillated cellulose fibers as a framework. *Journal of Materials Chemistry A*, **2018**, 6, 20338-20346	13	19
46	Effectively enhancing conversion of cellulose to HMF by combining in-situ carbonic acid from CO2 and metal oxides. *Industrial Crops and Products*, **2018**, 126, 151-157	5.9	28
45	Superelastic Carbon Aerogel with Ultrahigh and Wide-Range Linear Sensitivity. *ACS Applied Materials & Interfaces*, **2018**, 10, 40641-40650	9.5	40
44	Strengthening effects of carboxymethylated hemicellulosic fractions on paper strength. *Industrial Crops and Products*, **2018**, 125, 360-369	5.9	2
43	Solvothermally Controlled Synthesis of Organic-Inorganic Hybrid Nanosheets as Efficient pH-Universal Hydrogen-Evolution Electrocatalysts. *ChemSusChem*, **2018**, 11, 2828-2836	8.3	20
42	Synthesis and characterization of biofunctional quaternized xylan-Fe2O3 core/shell nanocomposites and modification with polylysine and folic acid. *Carbohydrate Polymers*, **2018**, 199, 382-389	10.3	8

41	Preparing phenolic resins using pulping spent liquor. *International Journal of Adhesion and Adhesives*, **2017**, 77, 72-77	3.4	7
40	Fabricating 3D hierarchical porous TiO2 and SiO2 with high specific surface area by using nanofibril-interconnected cellulose aerogel as a new biotemplate. *Industrial Crops and Products*, **2017**, 109, 790-802	5.9	17
39	Biomass-Based Porous N-Self-Doped Carbon Framework/Polyaniline Composite with Outstanding Supercapacitance. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 8663-8674	8.3	79
38	Biorenewable Nanofiber and Nanocrystal: Renewable Nanomaterials for Constructing Novel Nanocomposites **2017**, 155-226		
37	Facile synthesis of cellulose-based carbon with tunable N content for potential supercapacitor application. *Carbohydrate Polymers*, **2017**, 170, 107-116	10.3	38
36	Catalytic Conversion of Carbohydrates to Levulinate Ester over Heteropolyanion-Based Ionic Liquids. *ChemSusChem*, **2016**, 9, 3307-3316	8.3	33
35	Green synthesis of palladium nanoparticles via branched polymers: a bio-based nanocomposite for C coupling reactions. *RSC Advances*, **2016**, 6, 32202-32211	3.7	15
34	3D hierarchical porous N-doped carbon aerogel from renewable cellulose: an attractive carbon for high-performance supercapacitor electrodes and CO2 adsorption. *RSC Advances*, **2016**, 6, 15788-15795	3.7	96
33	Electrospun cellulose acetate supported Ag@AgCl composites with facet-dependent photocatalytic properties on degradation of organic dyes under visible-light irradiation. *Carbohydrate Polymers*, **2016**, 136, 322-8	10.3	76
32	D-Xylonic acid: a solvent and an effective biocatalyst for a three-component reaction. *Green Chemistry*, **2016**, 18, 1738-1750	10	34
31	Microwave-assisted Extraction of Polysaccharides from Bamboo (Phyllostachys acuta) Leaves and their Antioxidant Activity. *BioResources*, **2016**, 11,	1.3	1
30	In Situ Carbonic Acid from CO2: A Green Acid for Highly Effective Conversion of Cellulose in the Presence of Lewis acid. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 4146-4155	8.3	28
29	Fluorescent pH-Sensing Probe Based on Biorefinery Wood Lignosulfonate and Its Application in Human Cancer Cell Bioimaging. *Journal of Agricultural and Food Chemistry*, **2016**, 64, 9592-9600	5.7	20
28	A new strategy to tailor the structure of sustainable 3D hierarchical porous N-self-doped carbons from renewable biomass for high-performance supercapacitors and CO2 capture. *RSC Advances*, **2016**, 6, 34261-34270	3.7	23
27	Sustainable hierarchical porous carbon aerogel from cellulose for high-performance supercapacitor and CO2 capture. *Industrial Crops and Products*, **2016**, 87, 229-235	5.9	116
26	Flexible nanocomposites with ultrahigh specific areal capacitance and tunable properties based on a cellulose derived nanofiber-carbon sheet framework coated with polyaniline. *Journal of Materials Chemistry A*, **2016**, 4, 13352-13362	13	35
25	Fabrication of a highly elastic nanocomposite hydrogel by surface modification of cellulose nanocrystals. *RSC Advances*, **2015**, 5, 13878-13885	3.7	27
24	Ultrahigh molecular weight, lignosulfonate-based polymers: preparation, self-assembly behaviours and dispersion property in coal water slurry. *RSC Advances*, **2015**, 5, 21588-21595	3.7	37

23	Hydrothermal conversion of xylose, glucose, and cellulose under the catalysis of transition metal sulfates. *Carbohydrate Polymers*, **2015**, 118, 44-51	10.3	54
22	Choline chloride/urea as an effective plasticizer for production of cellulose films. *Carbohydrate Polymers*, **2015**, 117, 133-139	10.3	60
21	An ultralight, elastic, cost-effective, and highly recyclable superabsorbent from microfibrillated cellulose fibers for oil spillage cleanup. *Journal of Materials Chemistry A*, **2015**, 3, 8772-8781	13	156
20	A novel transesterification system to rapidly synthesize cellulose aliphatic esters. *Cellulose*, **2014**, 21, 581-594	5.5	21
19	Xylan-type hemicelluloses supported terpyridine–palladium(II) complex as an efficient and recyclable catalyst for Suzuki–Miyaura reaction. *Cellulose*, **2014**, 21, 125-137	5.5	29
18	Impact of regeneration process on the crystalline structure and enzymatic hydrolysis of cellulose obtained from ionic liquid. *Carbohydrate Polymers*, **2014**, 111, 400-3	10.3	21
17	Comparative study of the pyrolysis of lignocellulose and its major components: characterization and overall distribution of their biochars and volatiles. *Bioresource Technology*, **2014**, 155, 21-7	11	60
16	Multiresponsive hydrogels based on xylan-type hemicelluloses and photoisomerized azobenzene copolymer as drug delivery carrier. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 10000-7	5.7	51
15	Conversion of xylose into furfural using lignosulfonic acid as catalyst in ionic liquid. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 7430-5	5.7	30
14	Hydrothermal conversion of bamboo: identification and distribution of the components in solid residue, water-soluble and acetone-soluble fractions. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 12360-5	5.7	16
13	"Green" films from renewable resources: properties of epoxidized soybean oil plasticized ethyl cellulose films. *Carbohydrate Polymers*, **2014**, 103, 198-206	10.3	58
12	A new strategy for acid anhydrides-modified xylans in ionic liquids. *Fibers and Polymers*, **2013**, 14, 16-21	2	13
11	Rapid synthesis of cellulose esters by transesterification of cellulose with vinyl esters under the catalysis of NaOH or KOH in DMSO. *Journal of Agricultural and Food Chemistry*, **2013**, 61, 2489-95	5.7	28
10	Synthesis and characterization of cyanoethyl hemicelluloses and their hydrated products. *Cellulose*, **2013**, 20, 291-301	5.5	17
9	Adsorption of Cu2+ and Ni2+ from Aqueous Solution by Arabinoxylan Hydrogel: Equilibrium, Kinetic, Competitive Adsorption. *Separation Science and Technology*, **2013**, 48, 2659-2669	2.5	16
8	Colloidal stability of negatively charged cellulose nanocrystalline in aqueous systems. *Carbohydrate Polymers*, **2012**, 90, 644-9	10.3	116
7	Glycidyl methacrylate derivatized xylan-rich hemicelluloses: synthesis and characterizations. *Cellulose*, **2012**, 19, 1361-1372	5.5	21
6	Homogeneous synthesis of hemicellulosic succinates with high degree of substitution in ionic liquid. *Carbohydrate Polymers*, **2011**, 86, 1768-1774	10.3	29

5	An efficient method for the synthesis of hemicellulosic derivatives with bifunctional groups in butanol/water medium and their rheological properties. *Carbohydrate Polymers*, **2011**, 83, 1922-1928	10.3	22
4	Laccase and alkali treatments of cellulose fibre: Surface lignin and its influences on fibre surface properties and interfacial behaviour of sisal fibre/phenolic resin composites. *Composites Part A: Applied Science and Manufacturing*, **2010**, 41, 1848-1856	8.4	41
3	Wood Carbon Based Single-Atom Catalyst for Rechargeable Zn-Air Batteries. *ACS Energy Letters*,3624-3633	19.1	11
2	Graphene Oxide Encapsulating Liquid Metal to Toughen Hydrogel. *Advanced Functional Materials*,2106761	15.6	8
1	Emulsion templated advanced functional materials from emerging nano building blocks. *Journal of Materials Chemistry A*,	13	0