Jiahua Zhu

List of Publications by Year
in descending order

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121 papers	7,743 citations	47 h-index	85 g-index
		47006	53230
126 all docs	126 docs citations	126 times ranked	8745 citing authors

#	Article	IF	Citations
1	Synthesis of biogas-residue-based mesoporous carbons via one-step template-free method for organic and inorganic pollutants removal. Fuel, 2022, 311, 122516.	6.4	6
2	Advanced Materialâ€Oriented Biomass Precise Reconstruction: A Review on Porous Carbon with Inherited Natural Structure and Created Artificial Structure by Postâ€Treatment. Macromolecular Bioscience, 2022, 22, e2100479.	4.1	13
3	Improving thermal conductivity of polyethylene/polypropylene by styrene-ethylene-propylene-styrene wrapping hexagonal boron nitride at the phase interface. Advanced Composites and Hybrid Materials, 2022, 5, 1090-1099.	21.1	85
4	CO2-negative biomass conversion: An economic route with co-production of green hydrogen and highly porous carbon. Applied Energy, 2022, 311, 118685.	10.1	14
5	A negative-carbon footprint process with mixed biomass feedstock maximizes conversion efficiency, product value and CO2 mitigation. Bioresource Technology, 2022, 351, 127004.	9.6	18
6	A facile and green strategy to synthesize N/P co-doped bio-char as VOCs adsorbent: Through efficient biogas slurry treatment and struvite transform. Fuel, 2022, 322, 124156.	6.4	8
7	Mesoscience in supported nano-metal catalysts based on molecular thermodynamic modeling: A mini review and perspective. Chemical Engineering Science, 2021, 229, 116164.	3.8	9
8	Techno-economic analysis of biomass processing with dual outputs of energy and activated carbon. Bioresource Technology, 2021, 319, 124108.	9.6	41
9	Cycling pressure-switching process enriches micropores in activated carbon by accelerating reactive gas internal diffusion in porous channels. Sustainable Materials and Technologies, 2021, 28, e00248.	3.3	2
10	Versatile Ionic Gel Driven by Dual Hydrogen Bond Networks: Toward Advanced Lubrication and Self-Healing. ACS Applied Polymer Materials, 2021, 3, 5932-5941.	4.4	14
11	Graphite oxide/boron nitride hybrid membranes: The role of cross-plane laminar bonding for a durable membrane with large water flux and high rejection rate. Journal of Membrane Science, 2020, 593, 117401.	8.2	49
12	Cross-linked GO membranes assembled with GO nanosheets of differently sized lateral dimensions for organic dye and chromium separation. Journal of Membrane Science, 2020, 598, 117789.	8.2	46
13	Porous Metallosalen Hypercrosslinked Ionic Polymers for Cooperative CO₂ Cycloaddition Conversion. Industrial & Engineering Chemistry Research, 2020, 59, 676-684.	3.7	34
14	Cobaltâ€“Salen-Based Porous Ionic Polymer: The Role of Valence on Cooperative Conversion of CO₂ to Cyclic Carbonate. ACS Applied Materials & Interfaces, 2020, 12, 609-618.	8.0	53
15	Enhanced thermoelectric performance of F4-TCNQ doped FASnI₃ thin films. Journal of Materials Chemistry A, 2020, 8, 25431-25442.	10.3	25
16	Structure-Rheology-Property relationships in double-percolated Polypropylene/Poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 147 Td 108306.	7.8	25
17	Holistically Engineered Polymerâ€“Polymer and Polymerâ€“Ion Interactions in Biocompatible Polyvinyl Alcohol Blends for Highâ€Performance Triboelectric Devices in Selfâ€Powered Wearable Cardiovascular Monitorings. Advanced Materials, 2020, 32, e2002878.	21.0	66
18	Critical Role of Carbonized Cellulose in the Evolution of Highly Porous Biocarbon: Seeing the Structural and Compositional Changes of Spent Mushroom Substrate by Deconvoluted Thermogravimetric Analysis. Industrial & Engineering Chemistry Research, 2020, 59, 22541-22548.	3.7	7

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19	Microwave-Responsive Nanomaterials for Catalysis. Springer Series in Materials Science, 2020, , 65-91.	0.6	2
20	Directional xylitol crystal propagation in oriented micro-channels of boron nitride aerogel for isotropic heat conduction. Composites Science and Technology, 2019, 182, 107715.	7.8	20
21	Carbon nanofiber reinforced Co-continuous HDPE/PMMA composites: Exploring the role of viscosity ratio on filler distribution and electrical/thermal properties. Composites Science and Technology, 2019, 184, 107859.	7.8	28
22	Two important factors of selecting lignin as efficient lubricating additives in poly (ethylene glycol): Hydrogen bond and molecular weight. International Journal of Biological Macromolecules, 2019, 129, 564-570.	7.5	28
23	Surface functionalization of graphene oxide by disodium guanosine 5â€²-monophosphate and its excellent performance for lipase immobilization. Applied Surface Science, 2019, 492, 27-36.	6.1	9
24	Hydrogen-Bond Driven Self-Assembly of Two-Dimensional Supramolecular Melamine-Cyanuric Acid Crystals and Its Self-Alignment in Polymer Composites for Enhanced Thermal Conduction. ACS Applied Polymer Materials, 2019, 1, 1291-1300.	4.4	31
25	Structural strategies to design bio-ionic liquid: Tuning molecular interaction with lignin for enhanced lubrication. Journal of Molecular Liquids, 2019, 280, 49-57.	4.9	12
26	Engineering molecular interaction in polymeric hybrids: Effect of thermal linker and polymer chain structure on thermal conduction. Composites Part B: Engineering, 2019, 166, 509-515.	12.0	34
27	Niobium-doped TiO2 solid acid catalysts: Strengthened interfacial polarization, amplified microwave heating and enhanced energy efficiency of hydroxymethylfurfural production. Applied Catalysis B: Environmental, 2019, 243, 741-749.	20.2	34
28	Thermal Conduction in Polymer Composites. , 2019, , 77-110.		7
29	A review on the role of interface in mechanical, thermal, and electrical properties of polymer composites. Advanced Composites and Hybrid Materials, 2018, 1, 415-439.	21.1	139
30	Small Organic Linkers with Hybrid Terminal Groups Drive Efficient Phonon Transport in Polymers. Journal of Physical Chemistry C, 2018, 122, 10327-10333.	3.1	20
31	A review on thermally conductive polymeric composites: classification, measurement, model and equations, mechanism and fabrication methods. Advanced Composites and Hybrid Materials, 2018, 1, 207-230.	21.1	260
32	Introducing advanced composites and hybrid materials. Advanced Composites and Hybrid Materials, 2018, 1, 1-5.	21.1	57
33	The stiffnessâ€“thermal conduction relationship at the composite interface: the effect of particle alignment on the long-range confinement of polymer chains monitored by scanning thermal microscopy. Nanoscale, 2018, 10, 1695-1703.	5.6	56
34	Effect of interface on the mechanical behavior of polybutadieneâ€“silica composites: An experimental and simulation study. Journal of Applied Polymer Science, 2018, 135, 46089.	2.6	9
35	Localizing microwave heat by surface polarization of titanate nanostructures for enhanced catalytic reaction efficiency. Applied Catalysis B: Environmental, 2018, 227, 266-275.	20.2	21
36	Thermal transport in polymeric materials and across composite interfaces. Applied Materials Today, 2018, 12, 92-130.	4.3	299

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37	Structurally tuning microwave absorption of core/shell structured CNT/polyaniline catalysts for energy efficient saccharide-HMF conversion. Applied Catalysis B: Environmental, 2018, 220, 581-588.	20.2	50
38	Filler free technology for enhanced thermally conductive optically transparent polymeric materials using low thermally conductive organic linkers. Applied Materials Today, 2018, 13, 207-216.	4.3	33
39	Lignin from Hardwood and Softwood Biomass as a Lubricating Additive to Ethylene Glycol. Molecules, 2018, 23, 537.	3.8	37
40	Reduced wrinkling in GO membrane by grafting basal-plane groups for improved gas and liquid separations. Journal of Membrane Science, 2018, 563, 336-344.	8.2	40
41	Permselective H₂/CO₂ Separation and Desalination of Hybrid GO/rGO Membranes with Controlled Pre-cross-linking. ACS Applied Materials & Interfaces, 2018, 10, 28166-28175.	8.0	34
42	Coupled Chemical and Thermal Drivers in Microwaves toward Ultrafast HMF Oxidation to FDCA. ACS Sustainable Chemistry and Engineering, 2018, 6, 11493-11501.	6.7	41
43	Realizing the nanoscale quantitative thermal mapping of scanning thermal microscopy by resilient tipâ€“surface contact resistance models. Nanoscale Horizons, 2018, 3, 505-516.	8.0	21
44	Molecular Origin of Efficient Phonon Transfer in Modulated Polymer Blends: Effect of Hydrogen Bonding on Polymer Coil Size and Assembled Microstructure. Journal of Physical Chemistry C, 2017, 121, 14204-14212.	3.1	53
45	Developing heat conduction pathways through short polymer chains in a hydrogen bonded polymer system. Composites Science and Technology, 2017, 148, 97-105.	7.8	49
46	Engineering Hydrogen Bonding Interaction and Charge Separation in Bio-Polymers for Green Lubrication. Journal of Physical Chemistry B, 2017, 121, 5669-5678.	2.6	23
47	Enhancing Energy Efficiency in Saccharideâ€“HMF Conversion with Core/shell Structured Microwave Responsive Catalysts. ACS Sustainable Chemistry and Engineering, 2017, 5, 4352-4358.	6.7	32
48	Grafting heteroelement-rich groups on graphene oxide: Tuning polarity and molecular interaction with bio-ionic liquid for enhanced lubrication. Journal of Colloid and Interface Science, 2017, 498, 47-54.	9.4	19
49	Pore size dependent molecular adsorption of cationic dye in biomass derived hierarchically porous carbon. Journal of Environmental Management, 2017, 196, 168-177.	7.8	29
50	Expedited Phonon Transfer in Interfacially Constrained Polymer Chain along Self-Organized Amino Acid Crystals. ACS Applied Materials & Interfaces, 2017, 9, 12138-12145.	8.0	49
51	Molecular insight into the Mullins effect: irreversible disentanglement of polymer chains revealed by molecular dynamics simulations. Physical Chemistry Chemical Physics, 2017, 19, 19468-19477.	2.8	41
52	Adhesion and friction forces in biofouling attachments to nanotube- and PEG- patterned TiO2 surfaces. Colloids and Surfaces B: Biointerfaces, 2017, 159, 108-117.	5.0	27
53	Moisture driven thermal conduction in polymer and polymer blends. Composites Science and Technology, 2017, 151, 115-123.	7.8	44
54	Cotton fabric derived hierarchically porous carbon and nitrogen doping for sustainable capacitor electrode. Carbon, 2017, 111, 839-848.	10.3	140

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55	Reinforcement of Cu nanoink sintered film with extended carbon nanofibers for large deformation of printed electronics. Journal of Composite Materials, 2017, 51, 997-1003.	2.4	6
56	Elastohydrodynamic Performance of a Bio-Based, Non-Corrosive Ionic Liquid. Applied Sciences (Switzerland), 2017, 7, 996.	2.5	17
57	Effect of Fillerâ€"Polymer Interface on Elastic Properties of Polymer Nanocomposites: A Molecular Dynamics Study. Tire Science and Technology, 2017, 45, 227-241.	0.4	4
58	Durable Selfâ€Healing Superhydrophobic Coating with Biomimic â€œChloroplastâ€•Analogous Structure. Advanced Materials Interfaces, 2016, 3, 1600040.	3.7	23
59	Surface functionalized carbon nanofibers and their effect on the dispersion and tribological property of epoxy nanocomposites. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 1219-1225.	1.0	6
60	Superamphiphobic and Electroactive Nanocomposite toward Self-Cleaning, Antiwear, and Anticorrosion Coatings. ACS Applied Materials & Interfaces, 2016, 8, 12481-12493.	8.0	145
61	Paving the Thermal Highway with Self-Organized Nanocrystals in Transparent Polymer Composites. ACS Applied Materials & Interfaces, 2016, 8, 29080-29087.	8.0	35
62	Molecular Transformation, Diffusion, and Assembling into Three-Dimensional Freestanding Tube Arrays via a Triphasic Reaction. Langmuir, 2016, 32, 11525-11531.	3.5	0
63	Enriching Heteroelements in Lignin as Lubricating Additives for Bioionic Liquids. ACS Sustainable Chemistry and Engineering, 2016, 4, 3877-3887.	6.7	36
64	Confined molecular motion across liquid/liquid interfaces in a triphasic reaction towards free-standing conductive polymer tube arrays. Journal of Materials Chemistry A, 2016, 4, 6290-6294.	10.3	7
65	Green processing of plant biomass into mesoporous carbon as catalyst support. Chemical Engineering Journal, 2016, 295, 301-308.	12.7	55
66	Ionic Grease Lubricants: Protic [Triethanolamine][Oleic Acid] and Aprotic [Choline][Oleic Acid]. ACS Applied Materials & Interfaces, 2016, 8, 4977-4984.	8.0	45
67	Lignin in Ethylene Glycol and Poly(ethylene glycol): Fortified Lubricants with Internal Hydrogen Bonding. ACS Sustainable Chemistry and Engineering, 2016, 4, 1840-1849.	6.7	54
68	Facile synthesis of mesoporous carbon nanocomposites from natural biomass for efficient dye adsorption and selective heavy metal removal. RSC Advances, 2016, 6, 2259-2269.	3.6	74
69	In-situ reduction of Ag nanoparticles on oxygenated mesoporous carbon fabric: Exceptional catalyst for nitroaromatics reduction. Applied Catalysis B: Environmental, 2016, 182, 306-315.	20.2	68
70	Efficient Perovskite Hybrid Solar Cells via Ionomer Interfacial Engineering. Advanced Functional Materials, 2015, 25, 6875-6884.	14.9	57
71	Self-Lubricating Polytetrafluoroethylene/Polyimide Blends Reinforced with Zinc Oxide Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	22
72	Hierarchical Porous and High Surface Area Tubular Carbon as Dye Adsorbent and Capacitor Electrode. ACS Applied Materials & Interfaces, 2015, 7, 12230-12237.	8.0	106

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73	Hierarchical macrotube/mesopore carbon decorated with mono-dispersed Ag nanoparticles as a highly active catalyst. Green Chemistry, 2015, 17, 2515-2523.	9.0	114
74	[N-Methyl-2-pyrrolidone][C1â€“C4 carboxylic acid]: a novel solvent system with exceptional lignin solubility. Chemical Communications, 2015, 51, 13554-13557.	4.1	36
75	Non-corrosive green lubricants: strengthened ligninâ€“[choline][amino acid] ionic liquids interaction via reciprocal hydrogen bonding. RSC Advances, 2015, 5, 66067-66072.	3.6	68
76	Carbon monolith with embedded mesopores and nanoparticles as a novel adsorbent for water treatment. RSC Advances, 2015, 5, 42540-42547.	3.6	17
77	Unveiling Mesopore Evolution in Carbonized Wood: Interfacial Separation, Migration, and Degradation of Lignin Phase. ACS Sustainable Chemistry and Engineering, 2015, 3, 2489-2495.	6.7	21
78	Advanced micro/nanocapsules for self-healing smart anticorrosion coatings. Journal of Materials Chemistry A, 2015, 3, 469-480.	10.3	334
79	Positive and negative magnetoresistance phenomena observed in magnetic electrospun polyacrylonitrile-based carbon nanocomposite fibers. Journal of Materials Chemistry C, 2014, 2, 715-722.	5.5	34
80	Mesoporous magnetic carbon nanocomposite fabrics for highly efficient Cr(<scp>vi</scp>) removal. Journal of Materials Chemistry A, 2014, 2, 2256-2265.	10.3	140
81	Ultrafast Cr(vi) removal from polluted water by microwave synthesized iron oxide submicron wires. Chemical Communications, 2014, 50, 8036.	4.1	34
82	Stitching graphene oxide sheets into a membrane at a liquid/liquid interface. Chemical Communications, 2014, 50, 15944-15947.	4.1	26
83	Magnetic graphene oxide nanocomposites: nanoparticles growth mechanism and property analysis. Journal of Materials Chemistry C, 2014, 2, 9478-9488.	5.5	92
84	Interfaceâ€Strengthened Polyimide/Carbon Nanofibers Nanocomposites with Superior Mechanical and Tribological Properties. Macromolecular Chemistry and Physics, 2014, 215, 1407-1414.	2.2	15
85	Magnetic carbon nanostructures: microwave energy-assisted pyrolysisvs. conventional pyrolysis. Chemical Communications, 2013, 49, 258-260.	4.1	39
86	Iron-core carbon-shell nanoparticles reinforced electrically conductive magnetic epoxy resin nanocomposites with reduced flammability. RSC Advances, 2013, 3, 9453.	3.6	49
87	An overview of the engineered graphene nanostructures and nanocomposites. RSC Advances, 2013, 3, 22790.	3.6	180
88	Magnetic field induced capacitance enhancement in graphene and magnetic graphene nanocomposites. Energy and Environmental Science, 2013, 6, 194-204.	30.8	137
89	Fluorescent electrospun polyvinyl alcohol/CdSe@ZnS nanocomposite fibers. Journal of Composite Materials, 2013, 47, 3175-3185.	2.4	39
90	Electrochromic polyaniline/graphite oxide nanocomposites with endured electrochemical energy storage. Polymer, 2013, 54, 1820-1831.	3.8	278

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91	Microwave synthesized magnetic tubular carbon nanocomposite fabrics toward electrochemical energy storage. Nanoscale, 2013, 5, 1825.	5.6	30
92	Hierarchical 3D Nanocomposites towards Advanced Electrochemical Energy Storage. Materials Research Society Symposia Proceedings, 2013, 1497, 1.	0.1	0
93	Polypyrrole metacomposites with different carbon nanostructures. Journal of Materials Chemistry, 2012, 22, 4996.	6.7	110
94	Silica stabilized iron particles toward anti-corrosion magnetic polyurethane nanocomposites. RSC Advances, 2012, 2, 1136-1143.	3.6	67
95	Polypropylene/layered double hydroxide nanocomposites. Journal of Materials Chemistry, 2012, 22, 19113.	6.7	82
96	Looped carbon capturing and environmental remediation: case study of magnetic polypropylene nanocomposites. RSC Advances, 2012, 2, 4844.	3.6	39
97	Property manipulated polypropyleneâ€“iron nanocomposites with maleic anhydride polypropylene. Journal of Materials Chemistry, 2012, 22, 15928.	6.7	27
98	Magnetic electrospun fluorescent polyvinylpyrrolidone nanocomposite fibers. Polymer, 2012, 53, 4501-4511.	3.8	48
99	Magnetic graphene nanocomposites: electron conduction, giant magnetoresistance and tunable negative permittivity. Journal of Materials Chemistry, 2012, 22, 835-844.	6.7	85
100	Very large magnetoresistive graphene disk with negative permittivity. Nanoscale, 2012, 4, 152-156.	5.6	41
101	Carbon Nanostructure-Derived Polyaniline Metacomposites: Electrical, Dielectric, and Giant Magnetoresistive Properties. Langmuir, 2012, 28, 10246-10255.	3.5	185
102	One-Pot Synthesis of Magnetic Graphene Nanocomposites Decorated with Core@Double-shell Nanoparticles for Fast Chromium Removal. Environmental Science & Technology, 2012, 46, 977-985.	10.0	469
103	Durable polytetrafluoroethylene composites in harsh environments: Tribology and corrosion investigation. Journal of Applied Polymer Science, 2012, 124, 4307-4314.	2.6	9
104	Surfactant-Free Synthesized Magnetic Polypropylene Nanocomposites: Rheological, Electrical, Magnetic, and Thermal Properties. Macromolecules, 2011, 44, 4382-4391.	4.8	104
105	Comprehensive and sustainable recycling of polymer nanocomposites. Journal of Materials Chemistry, 2011, 21, 16239.	6.7	30
106	Polyaniline-tungsten oxide metacomposites with tunable electronic properties. Journal of Materials Chemistry, 2011, 21, 342-348.	6.7	153
107	Electrical and dielectric properties of polyanilineâ€“Al2O3 nanocomposites derived from various Al2O3 nanostructures. Journal of Materials Chemistry, 2011, 21, 3952.	6.7	146
108	Poly(propylene)/Graphene Nanoplatelet Nanocomposites: Melt Rheological Behavior and Thermal, Electrical, and Electronic Properties. Macromolecular Chemistry and Physics, 2011, 212, 1951-1959.	2.2	185

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109	Poly(propylene) Nanocomposites Containing Various Carbon Nanostructures. Macromolecular Chemistry and Physics, 2011, 212, 2429-2438.	2.2	81
110	Poly(propylene)/Carbon Nanofiber Nanocomposites: Ex Situ Solventâ€Assisted Preparation and Analysis of Electrical and Electronic Properties. Macromolecular Materials and Engineering, 2011, 296, 434-443.	3.6	74
111	Magnetic Polypropylene Nanocomposites Reinforced with In-situ Fabricated Iron Oxide Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	3
112	Enhanced Electrical Switching and Electrochromic Properties of Poly(pâ€phenylenebenzobisthiazole) Thin Films Embedded with Nanoâ€WO₃. Advanced Functional Materials, 2010, 20, 3076-3084.	14.9	111
113	Electrospun Magnetic Fibrillar Polystyrene Nanocomposites Reinforced with Nickel Nanoparticles. Macromolecular Chemistry and Physics, 2010, 211, 1775-1783.	2.2	66
114	Rheological behaviors and electrical conductivity of epoxy resin nanocomposites suspended with in-situ stabilized carbon nanofibers. Polymer, 2010, 51, 2643-2651.	3.8	142
115	Comparative Study of Tribological Properties of Different Fibers Reinforced PTFE/PEEK Composites at Elevated Temperatures. Tribology Transactions, 2010, 53, 189-194.	2.0	41
116	In situ stabilized carbon nanofiber (CNF) reinforced epoxy nanocomposites. Journal of Materials Chemistry, 2010, 20, 4937.	6.7	309
117	Conductive Polypyrrole/Tungsten Oxide Metacomposites with Negative Permittivity. Journal of Physical Chemistry C, 2010, 114, 16335-16342.	3.1	180
118	Magnetic Epoxy Resin Nanocomposites Reinforced with Coreâ˜'Shell Structured Fe@FeO Nanoparticles: Fabrication and Property Analysis. ACS Applied Materials & Interfaces, 2010, 2, 2100-2107.	8.0	130
119	Electrical conductivity manipulation and switching phenomena of poly(p-phenylenebenzobisthiazole) thin film by doping process. Journal of Materials Chemistry, 2010, 20, 568-574.	6.7	24
120	Tribological and Mechanical Properties of Carbon Nanofiber-Filled Polytetrafluoroethylene/Polyimide Composites. Journal of Nanoscience and Nanotechnology, 2009, 9, 5958-5965.	0.9	10
121	Naturally dispersed ash components in bio-carbon composites: integrated ammonia nitrogen removal and specific surface area augment. Biomass Conversion and Biorefinery, 0, , 1.	4.6	1