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	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
2	Advanced micro/nanocapsules for self-healing smart anticorrosion coatings. Journal of Materials Chemistry A, 2015, 3, 469-480.	10.3	334
3	In situ stabilized carbon nanofiber (CNF) reinforced epoxy nanocomposites. Journal of Materials Chemistry, 2010, 20, 4937.	6.7	309
4	Thermal transport in polymeric materials and across composite interfaces. Applied Materials Today, 2018, 12, 92-130.	4.3	299
5	Electrochromic polyaniline/graphite oxide nanocomposites with endured electrochemical energy storage. Polymer, 2013, 54, 1820-1831.	3.8	278
6	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
7	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
8	Carbon Nanostructure-Derived Polyaniline Metacomposites: Electrical, Dielectric, and Giant Magnetoresistive Properties. Langmuir, 2012, 28, 10246-10255.	3.5	185
9	Conductive Polypyrrole/Tungsten Oxide Metacomposites with Negative Permittivity. Journal of Physical Chemistry C, 2010, 114, 16335-16342.	3.1	180
10	An overview of the engineered graphene nanostructures and nanocomposites. RSC Advances, 2013, 3, 22790.	3.6	180
11	Polyaniline-tungsten oxide metacomposites with tunable electronic properties. Journal of Materials Chemistry, 2011, 21, 342-348.	6.7	153
12	Electrical and dielectric properties of polyanilineâ€“Al2O3 nanocomposites derived from various Al2O3 nanostructures. Journal of Materials Chemistry, 2011, 21, 3952.	6.7	146
13	Superamphiphobic and Electroactive Nanocomposite toward Self-Cleaning, Antiwear, and Anticorrosion Coatings. ACS Applied Materials & Interfaces, 2016, 8, 12481-12493.	8.0	145
14	Rheological behaviors and electrical conductivity of epoxy resin nanocomposites suspended with in-situ stabilized carbon nanofibers. Polymer, 2010, 51, 2643-2651.	3.8	142
15	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
16	Cotton fabric derived hierarchically porous carbon and nitrogen doping for sustainable capacitor electrode. Carbon, 2017, 111, 839-848.	10.3	140
17	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
18	Magnetic field induced capacitance enhancement in graphene and magnetic graphene nanocomposites. Energy and Environmental Science, 2013, 6, 194-204.	30.8	137

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19	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
20	Hierarchical macrotube/mesopore carbon decorated with mono-dispersed Ag nanoparticles as a highly active catalyst. Green Chemistry, 2015, 17, 2515-2523.	9.0	114
21	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
22	Polypyrrole metacomposites with different carbon nanostructures. Journal of Materials Chemistry, 2012, 22, 4996.	6.7	110
23	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
24	Surfactant-Free Synthesized Magnetic Polypropylene Nanocomposites: Rheological, Electrical, Magnetic, and Thermal Properties. Macromolecules, 2011, 44, 4382-4391.	4.8	104
25	Magnetic graphene oxide nanocomposites: nanoparticles growth mechanism and property analysis. Journal of Materials Chemistry C, 2014, 2, 9478-9488.	5.5	92
26	Magnetic graphene nanocomposites: electron conduction, giant magnetoresistance and tunable negative permittivity. Journal of Materials Chemistry, 2012, 22, 835-844.	6.7	85
27	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
28	Polypropylene/layered double hydroxide nanocomposites. Journal of Materials Chemistry, 2012, 22, 19113.	6.7	82
29	Poly(propylene) Nanocomposites Containing Various Carbon Nanostructures. Macromolecular Chemistry and Physics, 2011, 212, 2429-2438.	2.2	81
30	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
31	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
32	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
33	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
34	Silica stabilized iron particles toward anti-corrosion magnetic polyurethane nanocomposites. RSC Advances, 2012, 2, 1136-1143.	3.6	67
35	Electrospun Magnetic Fibrillar Polystyrene Nanocomposites Reinforced with Nickel Nanoparticles. Macromolecular Chemistry and Physics, 2010, 211, 1775-1783.	2.2	66
36	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

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37	Efficient Perovskite Hybrid Solar Cells via Ionomer Interfacial Engineering. Advanced Functional Materials, 2015, 25, 6875-6884.	14.9	57
38	Introducing advanced composites and hybrid materials. Advanced Composites and Hybrid Materials, 2018, 1, 1-5.	21.1	57
39	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
40	Green processing of plant biomass into mesoporous carbon as catalyst support. Chemical Engineering Journal, 2016, 295, 301-308.	12.7	55
41	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
42	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
43	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
44	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
45	Iron-core carbon-shell nanoparticles reinforced electrically conductive magnetic epoxy resin nanocomposites with reduced flammability. RSC Advances, 2013, 3, 9453.	3.6	49
46	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
47	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
48	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
49	Magnetic electrospun fluorescent polyvinylpyrrolidone nanocomposite fibers. Polymer, 2012, 53, 4501-4511.	3.8	48
50	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
51	Ionic Grease Lubricants: Protic [Triethanolamine][Oleic Acid] and Aprotic [Choline][Oleic Acid]. ACS Applied Materials & Interfaces, 2016, 8, 4977-4984.	8.0	45
52	Moisture driven thermal conduction in polymer and polymer blends. Composites Science and Technology, 2017, 151, 115-123.	7.8	44
53	Comparative Study of Tribological Properties of Different Fibers Reinforced PTFE/PEEK Composites at Elevated Temperatures. Tribology Transactions, 2010, 53, 189-194.	2.0	41
54	Very large magnetoresistive graphene disk with negative permittivity. Nanoscale, 2012, 4, 152-156.	5.6	41

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55	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
56	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
57	Techno-economic analysis of biomass processing with dual outputs of energy and activated carbon. Bioresource Technology, 2021, 319, 124108.	9.6	41
58	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
59	Looped carbon capturing and environmental remediation: case study of magnetic polypropylene nanocomposites. RSC Advances, 2012, 2, 4844.	3.6	39
60	Magnetic carbon nanostructures: microwave energy-assisted pyrolysisvs. conventional pyrolysis. Chemical Communications, 2013, 49, 258-260.	4.1	39
61	Fluorescent electrospun polyvinyl alcohol/CdSe@ZnS nanocomposite fibers. Journal of Composite Materials, 2013, 47, 3175-3185.	2.4	39
62	Lignin from Hardwood and Softwood Biomass as a Lubricating Additive to Ethylene Glycol. Molecules, 2018, 23, 537.	3.8	37
63	[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
64	Enriching Heteroelements in Lignin as Lubricating Additives for Bioionic Liquids. ACS Sustainable Chemistry and Engineering, 2016, 4, 3877-3887.	6.7	36
65	Paving the Thermal Highway with Self-Organized Nanocrystals in Transparent Polymer Composites. ACS Applied Materials & Interfaces, 2016, 8, 29080-29087.	8.0	35
66	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
67	Ultrafast Cr(vi) removal from polluted water by microwave synthesized iron oxide submicron wires. Chemical Communications, 2014, 50, 8036.	4.1	34
68	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
69	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
70	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
71	Porous Metallosalen Hypercrosslinked Ionic Polymers for Cooperative CO₂ Cycloaddition Conversion. Industrial & Engineering Chemistry Research, 2020, 59, 676-684.	3.7	34
72	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

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73	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
74	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
75	Comprehensive and sustainable recycling of polymer nanocomposites. Journal of Materials Chemistry, 2011, 21, 16239.	6.7	30
76	Microwave synthesized magnetic tubular carbon nanocomposite fabrics toward electrochemical energy storage. Nanoscale, 2013, 5, 1825.	5.6	30
77	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
78	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
79	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
80	Property manipulated polypropyleneâ€“iron nanocomposites with maleic anhydride polypropylene. Journal of Materials Chemistry, 2012, 22, 15928.	6.7	27
81	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
82	Stitching graphene oxide sheets into a membrane at a liquid/liquid interface. Chemical Communications, 2014, 50, 15944-15947.	4.1	26
83	Enhanced thermoelectric performance of F4-TCNQ doped FASnI₃ thin films. Journal of Materials Chemistry A, 2020, 8, 25431-25442.	10.3	25
84	Structure-Rheology-Property relationships in double-percolated Polypropylene/Poly(methyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td 108306.	7.8	25
85	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
86	Durable Selfâ€Healing Superhydrophobic Coating with Biomimic â€œChloroplastâ€•Analogous Structure. Advanced Materials Interfaces, 2016, 3, 1600040.	3.7	23
87	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
88	Self-Lubricating Polytetrafluoroethylene/Polyimide Blends Reinforced with Zinc Oxide Nanoparticles. Journal of Nanomaterials, 2015, 2015, 1-8.	2.7	22
89	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
90	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

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91	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
92	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
93	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
94	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
95	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
96	Carbon monolith with embedded mesopores and nanoparticles as a novel adsorbent for water treatment. RSC Advances, 2015, 5, 42540-42547.	3.6	17
97	Elastohydrodynamic Performance of a Bio-Based, Non-Corrosive Ionic Liquid. Applied Sciences (Switzerland), 2017, 7, 996.	2.5	17
98	Interfaceâ€Strengthened Polyimide/Carbon Nanofibers Nanocomposites with Superior Mechanical and Tribological Properties. Macromolecular Chemistry and Physics, 2014, 215, 1407-1414.	2.2	15
99	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
100	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
101	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
102	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
103	Tribological and Mechanical Properties of Carbon Nanofiber-Filled Polytetrafluoroethylene/Polyimide Composites. Journal of Nanoscience and Nanotechnology, 2009, 9, 5958-5965.	0.9	10
104	Durable polytetrafluoroethylene composites in harsh environments: Tribology and corrosion investigation. Journal of Applied Polymer Science, 2012, 124, 4307-4314.	2.6	9
105	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
106	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
107	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
108	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

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109	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
110	Thermal Conduction in Polymer Composites. , 2019, , 77-110.		7
111	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
112	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
113	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
114	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
115	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
116	Magnetic Polypropylene Nanocomposites Reinforced with In-situ Fabricated Iron Oxide Nanoparticles. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	3
117	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
118	Microwave-Responsive Nanomaterials for Catalysis. Springer Series in Materials Science, 2020, , 65-91.	0.6	2
119	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
120	Hierarchical 3D Nanocomposites towards Advanced Electrochemical Energy Storage. Materials Research Society Symposia Proceedings, 2013, 1497, 1.	0.1	0
121	Molecular Transformation, Diffusion, and Assembling into Three-Dimensional Freestanding Tube Arrays via a Triphasic Reaction. Langmuir, 2016, 32, 11525-11531.	3.5	0