Zuo-wan Zhou

List of Publications by Year
in descending order

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101 papers	4,648 citations	136950 32 h-index	106344 65 g-index
103 all docs	103 docs citations	103 times ranked	4805 citing authors

#	Article	IF	Citations
1	Graphene-based microwave absorbing composites: A review and prospective. Composites Part B: Engineering, 2018, 137, 260-277.	12.0	574
2	Interface Modulating CNTs@PANi Hybrids by Controlled Unzipping of the Walls of CNTs To Achieve Tunable High-Performance Microwave Absorption. ACS Applied Materials & Interfaces, 2019, 11, 12142-12153.	8.0	299
3	Carbonized Design of Hierarchical Porous Carbon/Fe₃O₄@Fe Derived from Loofah Sponge to Achieve Tunable High-Performance Microwave Absorption. ACS Sustainable Chemistry and Engineering, 2018, 6, 11801-11810.	6.7	256
4	One-step synthesis of graphene/polyaniline hybrids by in situ intercalation polymerization and their electromagnetic properties. Nanoscale, 2014, 6, 8140-8148.	5.6	221
5	Synergistic Enhancement of Microwave Absorption Using Hybridized Polyaniline@helical CNTs with Dual Chirality. ACS Applied Materials & Interfaces, 2017, 9, 15711-15718.	8.0	173
6	Green synthesis of hybrid graphene oxide/microcrystalline cellulose aerogels and their use as superabsorbents. Journal of Hazardous Materials, 2017, 335, 28-38.	12.4	156
7	High-Temperature Oxidation-Resistant ZrN_{0.4}B_{0.6}/SiC Nanohybrid for Enhanced Microwave Absorption. ACS Applied Materials & Interfaces, 2019, 11, 15869-15880.	8.0	150
8	A simple strategy to achieve very low percolation threshold via the selective distribution of carbon nanotubes at the interface of polymer blends. Journal of Materials Chemistry, 2012, 22, 22398.	6.7	141
9	Multiaxial electrospun generation of hollow graphene aerogel spheres for broadband high-performance microwave absorption. Nano Research, 2020, 13, 477-484.	10.4	135
10	Blend-electrospun poly(vinylidene fluoride)/polydopamine membranes: self-polymerization of dopamine and the excellent adsorption/separation abilities. Journal of Materials Chemistry A, 2017, 5, 14430-14443.	10.3	115
11	Design of porous C@Fe₃O₄hybrid nanotubes with excellent microwave absorption. Physical Chemistry Chemical Physics, 2016, 18, 2510-2516.	2.8	111
12	Electrospun Fibrous Membranes with Dual-Scaled Porous Structure: Super Hydrophobicity, Super Lipophilicity, Excellent Water Adhesion, and Anti-Icing for Highly Efficient Oil Adsorption/Separation. ACS Applied Materials & Interfaces, 2019, 11, 5073-5083.	8.0	111
13	Generation of graphene-based aerogel microspheres for broadband and tunable high-performance microwave absorption by electrospinning-freeze drying process. Nano Research, 2018, 11, 2847-2861.	10.4	109
14	Bio-inspired functionalization of microcrystalline cellulose aerogel with high adsorption performance toward dyes. Carbohydrate Polymers, 2018, 198, 546-555.	10.2	100
15	Wheat straw-derived magnetic carbon foams: In-situ preparation and tunable high-performance microwave absorption. Nano Research, 2019, 12, 1423-1429.	10.4	99
16	Room Temperature Methane Sensor Based on Graphene Nanosheets/Polyaniline Nanocomposite Thin Film. IEEE Sensors Journal, 2013, 13, 777-782.	4.7	92
17	Crystallization improvement of poly(<scp>L</scp>â€lactide) induced by functionalized multiwalled carbon nanotubes. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 326-339.	2.1	76
18	Hybridization-Induced Polarization of Graphene Sheets by Intercalation-Polymerized Polyaniline toward High Performance of Microwave Absorption. ACS Applied Materials & Interfaces, 2019, 11, 17100-17107.	8.0	64

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19	Electrically/infrared actuated shape memory composites based on a bio-based polyester blend and graphene nanoplatelets and their excellent self-driven ability. Journal of Materials Chemistry C, 2017, 5, 4145-4158.	5.5	63
20	Intercalating Hybrids of Sandwich-like Fe₃O₄â€“Graphite: Synthesis and Their Synergistic Enhancement of Microwave Absorption. ACS Sustainable Chemistry and Engineering, 2018, 6, 16744-16753.	6.7	63
21	Remarkable improvement in microwave absorption by cloaking a micro-scaled tetrapod hollow with helical carbon nanofibers. Physical Chemistry Chemical Physics, 2015, 17, 3024-3031.	2.8	54
22	Hierarchical ZnO architectures consisting of nanorods and nanosheets prepared via a solution route for photovoltaic enhancement in dye-sensitized solar cells. RSC Advances, 2013, 3, 2910.	3.6	50
23	Constructing cellulose nanocrystal/graphene nanoplatelet networks in phase change materials toward intelligent thermal management. Carbohydrate Polymers, 2021, 253, 117290.	10.2	43
24	Growth of Fe₃O₄ nanosheet arrays on graphene by a mussel-inspired polydopamine adhesive for remarkable enhancement in electromagnetic absorptions. RSC Advances, 2015, 5, 101121-101126.	3.6	41
25	Super-stretchable and adhesive cellulose Nanofiber-reinforced conductive nanocomposite hydrogel for wearable Motion-monitoring sensor. Journal of Colloid and Interface Science, 2022, 615, 215-226.	9.4	39
26	Ultrafast physical bacterial inactivation and photocatalytic self-cleaning of ZnO nanoarrays for rapid and sustainable bactericidal applications. Science of the Total Environment, 2020, 738, 139714.	8.0	38
27	Hydrothermal synthesis of oriented ZnO nanorodâ€“nanosheets hierarchical architecture on zinc foil as flexible photoanodes for dye-sensitized solar cells. Ceramics International, 2014, 40, 11663-11670.	4.8	37
28	Trapping carbon nanotubes at the interface of a polymer blend through adding graphene oxide: a facile strategy to reduce electrical resistivity. Journal of Materials Chemistry C, 2013, 1, 7808.	5.5	36
29	Largely enhanced ductility of immiscible high density polyethylene/polyamide 6 blends via nanoâ€bridge effect of functionalized multiwalled carbon nanotubes. Polymers for Advanced Technologies, 2011, 22, 2533-2542.	3.2	35
30	Cellulose hydrogel skeleton by extrusion 3D printing of solution. Nanotechnology Reviews, 2020, 9, 345-353.	5.8	35
31	Room temperature dissolution of cellulose in tetra-butylammonium hydroxide aqueous solvent through adjustment of solvent amphiphilicity. Cellulose, 2017, 24, 49-59.	4.9	34
32	Î²/Î± Transformation of Î²-polypropylene during tensile deformation: effect of crystalline morphology. Colloid and Polymer Science, 2010, 288, 1539-1549.	2.1	33
33	Construction of highly aligned graphene-based aerogels and their epoxy composites towards high thermal conductivity. Journal of Materials Chemistry C, 2019, 7, 11783-11789.	5.5	33
34	A Facile Approach to Construct Multiple Structured ZnO Crystals by Trisodium Citrate-Assisted Hydrothermal Growth Toward Performance Enhancement of Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2014, 118, 16401-16407.	3.1	31
35	Defect-Enhanced Electromagnetic Wave Absorption Property of Hierarchical Graphite Capsules@Helical Carbon Nanotube Hybrid Nanocomposites. ACS Applied Materials & Interfaces, 2021, 13, 28710-28720.	8.0	31
36	Crystallization, rheological, and mechanical properties of PLLA/PEG blend with multiwalled carbon nanotubes. Polymers for Advanced Technologies, 2011, 22, 1959-1970.	3.2	29

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37	A facile method to graphene oxide/polyaniline nanocomposite with sandwich-like structure for enhanced electrical properties of humidity detection. Analytica Chimica Acta, 2019, 1080, 178-188.	5.4	29
38	Polyethylenimine grafted H2O2-oxidized cellulose membrane as a novel biosorbent for Cr(VI) adsorption and detoxification from aqueous solution. Cellulose, 2019, 26, 3437-3453.	4.9	29
39	Polypyrrole/Helical Carbon Nanotube Composite with Marvelous Photothermoelectric Performance for Longevous and Intelligent Internet of Things Application. ACS Applied Materials & Interfaces, 2021, 13, 8808-8822.	8.0	29
40	Intercalation Polymerization Approach for Preparing Graphene/Polymer Composites. Polymers, 2018, 10, 61.	4.5	28
41	Annealing induced microstructure and fracture resistance changes in isotactic polypropylene/ethyleneâ€octene copolymer blends with and without Î²â€phase nucleating agent. Journal of Polymer Science, Part B: Polymer Physics, 2010, 48, 2108-2120.	2.1	27
42	Morphology, rheological, crystallization behavior, and mechanical properties of poly(<scp>L</scp>â€lactide)/ethyleneâ€coâ€vinyl acetate blends with different VA contents. Journal of Applied Polymer Science, 2011, 121, 2688-2698.	2.6	27
43	Heterostructured g-C₃N₄/Ag/TiO₂ nanocomposites for enhancing the photoelectric conversion efficiency of spiro-OMeTAD-based solid-state dye-sensitized solar cells. RSC Advances, 2016, 6, 102444-102452.	3.6	25
44	Preparation, characterization and antibacterial properties of cellulose membrane containing N-halamine. Cellulose, 2019, 26, 5621-5633.	4.9	25
45	High-purity helical carbon nanotubes by trace-water-assisted chemical vapor deposition: Large-scale synthesis and growth mechanism. Nano Research, 2018, 11, 3327-3339.	10.4	24
46	Excellent antibacterial activities in the dark of ZnO nanoflakes with oxygen vacancies on exposed {21ì„1ì„0} facets. Journal of Materials Chemistry A, 2020, 8, 11511-11514.	10.3	24
47	Improved impedance matching by multi-componential metal-hybridized rGO toward high performance of microwave absorption. Nanotechnology Reviews, 2021, 10, 1-9.	5.8	23
48	Progress in construction of bio-inspired physico-antimicrobial surfaces. Nanotechnology Reviews, 2020, 9, 1562-1575.	5.8	23
49	Nucleating agent induced impact fracture behavior change in PP/POE blend. Polymer Bulletin, 2009, 62, 405-419.	3.3	22
50	Improved dissolution of cellulose in quaternary ammonium hydroxide by adjusting temperature. RSC Advances, 2015, 5, 39080-39083.	3.6	22
51	A comparative study of polypropylene nucleated by individual and compounding nucleating agents. I. Melting and isothermal crystallization. Journal of Applied Polymer Science, 2009, 111, 1624-1637.	2.6	21
52	Effects of functionalized multiwalled carbon nanotubes on the morphologies and mechanical properties of PP/EVA blend. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1481-1491.	2.1	21
53	Study on mechanical properties and phase morphology of polypropylene/polyolefin elastomer/magnesium hydroxide ternary composites. Polymers for Advanced Technologies, 2011, 22, 657-663.	3.2	21
54	Super toughened immiscible polycarbonate/poly(l-lactide) blend achieved by simultaneous addition of compatibilizer and carbon nanotubes. RSC Advances, 2014, 4, 59194-59203.	3.6	21

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55	Degradation of lignin in ionic liquid with <scp>HC</scp>l as catalyst. Environmental Progress and Sustainable Energy, 2016, 35, 809-814.	2.3	21
56	Ultra-robust and high-toughness graphene oxide papers via synergistic strengthening by addition of carbon-nanotubes and copper ions. Carbon, 2019, 147, 490-500.	10.3	21
57	Ultrastrong Carbon Nanotubes/Graphene Papers via Multiple Ï€â€“Ï€ Cross-Linking. ACS Applied Materials & Interfaces, 2020, 12, 47811-47819.	8.0	21
58	Photocatalytic activity and stability of ZnO particles with different morphologies. Rare Metals, 2011, 30, 183-187.	7.1	19
59	Remarkable Improvement in the Mechanical Properties of Epoxy Composites Achieved by a Small Amount of Modified Helical Carbon Nanotubes. Polymers, 2018, 10, 1103.	4.5	19
60	Naturally or artificially constructed nanocellulose architectures for epoxy composites: A review. Nanotechnology Reviews, 2020, 9, 1643-1659.	5.8	19
61	Synthesis and mechanism of polyaniline nanotubes with rectangular cross section via in situ polymerization. Polymers for Advanced Technologies, 2012, 23, 796-802.	3.2	17
62	Evaluation of photocatalytic production of active oxygen and decomposition of phenol in ZnO suspensions. Rare Metals, 2011, 30, 188-191.	7.1	16
63	TBAH/Urea/H2O solvent for room temperature wet-spinning of cellulose and optimization of drawing process. Cellulose, 2019, 26, 6959-6977.	4.9	16
64	Kinetics of thermo-oxidative degradation of zinc borate/microcapsulated red phosphorus with magnesium hydroxide in flame retarded polypropylene composites. Journal of Polymer Research, 2009, 16, 745-753.	2.4	15
65	Crystallization and melting behaviors of maleic anhydride grafted poly(propylene) nucleated by an aryl amide derivative. Journal of Thermal Analysis and Calorimetry, 2010, 99, 563-570.	3.6	15
66	Cellulose films from the aqueous DMSO/TBAH-system. Cellulose, 2018, 25, 1975-1986.	4.9	15
67	Carbon nanotubes induced poly(vinylidene fluoride) crystallization from a miscible poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Overlo	2.1	14
68	Preparation of hybrid graphene oxide/nanoâ€silica nanofillers and their application in poly(vinyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	4.6	14
69	Studies on fracture behaviors of immiscible polypropylene/ethyleneâ€coâ€vinyl acetate blends with multiwalled carbon nanotubes. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1331-1344.	2.1	13
70	Effect of Ni²⁺ as a codopant on the structure, morphology, and conductivity of nanostructured polyaniline. Journal of Applied Polymer Science, 2011, 121, 3439-3445.	2.6	13
71	Combined effect of compatibilizer and carbon nanotubes on the morphology and electrical conductivity of PP/PS blend. Polymers for Advanced Technologies, 2014, 25, 624-630.	3.2	13
72	Tuning the interaction of an immiscible poly(<scp>l</scp>-lactide)/poly(vinylidene fluoride) blend by adding poly(methyl methacrylate) via a competition mechanism and the resultant mechanical properties. RSC Advances, 2014, 4, 40569-40579.	3.6	13

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73	Remarkably Improvement in Antibacterial Activity of Carbon Nanotubes by Hybridizing with Silver Nanodots. Journal of Nanoscience and Nanotechnology, 2018, 18, 5704-5710.	0.9	12
74	Crystallization, mechanical and thermal properties of sorbitol derivatives nucleated polypropylene/calcium carbonate composites. Chinese Journal of Polymer Science (English Edition), 2010, 28, 457-466.	3.8	11
75	Greatly enhanced porosity of stretched polypropylene/graphene oxide composite membrane achieved by adding pore-forming agent. RSC Advances, 2015, 5, 20663-20673.	3.6	11
76	Nepenthes-inspired multifunctional nanoblades with mechanical bactericidal, self-cleaning and insect anti-adhesive characteristics. RSC Advances, 2019, 9, 27904-27910.	3.6	11
77	High Sensitivity of Ammonia Sensor through 2D Black Phosphorus/Polyaniline Nanocomposite. Nanomaterials, 2021, 11, 3026.	4.1	11
78	Controllable preparation of Ni nanoparticles for catalysis of coiled carbon fibers growth. Nanoscale Research Letters, 2014, 9, 370.	5.7	10
79	All-cellulose composites with ultra-high mechanical properties prepared through using straw cellulose fiber. RSC Advances, 2016, 6, 93428-93435.	3.6	10
80	Elucidation of the Relationship between Intrinsic Viscosity and Molecular Weight of Cellulose Dissolved in Tetra-N-Butyl Ammonium Hydroxide/Dimethyl Sulfoxide. Polymers, 2019, 11, 1605.	4.5	10
81	Controllable modification of helical carbon nanotubes for high-performance microwave absorption. Nanotechnology Reviews, 2021, 10, 671-679.	5.8	10
82	Fractal analysis of worn surfaces of ZnO whisker/natural rubber-styrene butadiene rubber-butyl rubber composites. Journal of Applied Polymer Science, 2003, 90, 667-670.	2.6	9
83	Effects of bath pH on structural and electrochemical performance of Cu2O. Ionics, 2016, 22, 2213-2223.	2.4	9
84	Magnetic Activated Carbon for Efficient Removal of Pb(II) from Aqueous Solution. Environmental Engineering Science, 2018, 35, 111-120.	1.6	9
85	An eco-friendly approach to preparing cellulose nanocrystals by precisely controlling the dissolution of natural cellulose in TBAH/H2O solvent. Cellulose, 2020, 27, 9311-9324.	4.9	8
86	Superior Fe_xN electrocatalyst derived from 1,1â€²-diacetylferrocene for oxygen reduction reaction in alkaline and acidic media. Nanotechnology Reviews, 2020, 9, 843-852.	5.8	8
87	High hydrophilicity and excellent adsorption ability of a stretched polypropylene/graphene oxide composite membrane achieved by plasma assisted surface modification. RSC Advances, 2015, 5, 71240-71252.	3.6	7
88	Unique pressureâ€crystallized structures in ternary bisphenolâ€a polycarbonate/dioctyl phthalate/fullerene C60 composites. Journal of Applied Polymer Science, 2013, 129, 1362-1373.	2.6	6
89	Preparation and photocatalytic activities of 3D flower-like CuO nanostructures. Journal of Semiconductors, 2016, 37, 083002.	3.7	6
90	Electric-field assisted growth and mechanical bactericidal performance of ZnO nanoarrays with gradient morphologies. Nanotechnology Reviews, 2019, 8, 315-326.	5.8	6

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91	Spherulitic Growth of Poly (Ether Ether Ketone) Crystallized at High Pressure. Journal of Macromolecular Science - Physics, 2012, 51, 510-524.	1.0	5
92	The effects on mechanical properties and crystallization of poly (<scp>l</scp>â€lactic acid) reinforced by cellulosic fibers with different scales. Journal of Applied Polymer Science, 2014, 131, .	2.6	5
93	An approach to effectively improve the interfacial bonding of nano-perfused composites by in situ growth of CNTs. Nanotechnology Reviews, 2021, 10, 282-291.	5.8	5
94	Effect of storage time and temperature on dissolved state of cellulose in TBAH-based solvents and mechanical property of regenerated films. Reviews on Advanced Materials Science, 2021, 60, 466-478.	3.3	5
95	Largely enhanced effective porosity of uniaxial stretched polypropylene membrane achieved by pore-forming agent. Journal of Polymer Research, 2016, 23, 1.	2.4	4
96	Theoretical analysis of the conversion from electrical into thermal energy in piezoelectric-conductive damping composites. Journal of Modern Transportation, 2011, 19, 143-146.	2.5	3
97	Theoretical analysis of fracture of tetraâ€needleâ€like ZnO whisker in polymer composite. Journal of Applied Polymer Science, 2011, 120, 2767-2771.	2.6	3
98	High yield synthesis of helical carbon nanotubes catalyzed by porous precursor with terrace morphology. Diamond and Related Materials, 2014, 50, 123-128.	3.9	3
99	Recent advances in surfaceâ€functionalised photosensitive antibacterials with synergistic effects. Biosurface and Biotribology, 2019, 5, 97-103.	1.5	2
100	Excited-state geometry relaxation of pyrene-modified cellulose nanocrystals under UV-light excitation for detecting Fe³⁺. Nanotechnology Reviews, 2022, 11, 2526-2534.	5.8	2
101	Overview in the principles of smart mobile devices. , 2012, , .		0