

Zhengdong Wang

List of Publications by Year in descending order

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111
papers

4,179
citations

101543

36
h-index

123424

61
g-index

112
all docs

112
docs citations

112
times ranked

3807
citing authors

#	ARTICLE	IF	CITATIONS
1	Design of carbon sphere/magnetic quantum dots with tunable phase compositions and boost dielectric loss behavior. <i>Chemical Engineering Journal</i> , 2018, 333, 519-528.	12.7	389
2	Synthesis and characterization of Fe^{3+} - Fe_2O_3 @C nanorod-carbon sphere composite and its application as microwave absorbing material. <i>Journal of Alloys and Compounds</i> , 2015, 652, 346-350.	5.5	188
3	Au nanodots@thiol-UiO66@ZnIn ₂ S ₄ nanosheets with significantly enhanced visible-light photocatalytic H ₂ evolution: The effect of different Au positions on the transfer of electron-hole pairs. <i>Applied Catalysis B: Environmental</i> , 2021, 282, 119550.	20.2	170
4	Dielectric properties and thermal conductivity of epoxy composites using quantum-sized silver decorated core/shell structured alumina/polydopamine. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 118, 302-311.	7.6	169
5	Structure and Properties of Violet Phosphorus and Its Phosphorene Exfoliation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 1074-1080.	13.8	139
6	Easy synthesis of multi-shelled ZnO hollow spheres and their conversion into hedgehog-like ZnO hollow spheres with superior rate performance for lithium ion batteries. <i>Applied Surface Science</i> , 2019, 464, 472-478.	6.1	123
7	Zinc ferrite composite material with controllable morphology and its applications. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2017, 224, 125-138.	3.5	103
8	In situ polymerization of modified graphene/polyimide composite with improved mechanical and thermal properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 576-581.	2.2	103
9	Energy-band-controlled ZnxCd1-xIn ₂ S ₄ solid solution coupled with g-C ₃ N ₄ nanosheets as 2D/2D heterostructure toward efficient photocatalytic H ₂ evolution. <i>Chemical Engineering Journal</i> , 2019, 378, 122192.	12.7	97
10	Simultaneously enhanced dielectric properties and through-plane thermal conductivity of epoxy composites with alumina and boron nitride nanosheets. <i>Scientific Reports</i> , 2021, 11, 2495.	3.3	97
11	Asymmetric alicyclic amine-polyether amine molecular chain structure for improved energy storage density of high-temperature crosslinked polymer capacitor. <i>Chemical Engineering Journal</i> , 2020, 387, 123662.	12.7	96
12	Dodecylamine coordinated tri-arm CdS nanorod wrapped in intermittent ZnS shell for greatly improved photocatalytic H ₂ evolution. <i>Chemical Engineering Journal</i> , 2022, 429, 132382.	12.7	94
13	Dielectric properties and thermal conductivity of epoxy composites using core/shell structured Si/SiO ₂ /Polydopamine. <i>Composites Part B: Engineering</i> , 2018, 140, 83-90.	12.0	90
14	Cu (II) decorated thiol-functionalized MOF as an efficient transfer medium of charge carriers promoting photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2021, 404, 126533.	12.7	80
15	Ascorbic acid functionalized CdS@ZnO core-shell nanorods with hydrogen spillover for greatly enhanced photocatalytic H ₂ evolution and outstanding photostability. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9735-9744.	10.3	77
16	One-step vulcanization of Cd(OH)Cl nanorods to synthesize CdS/ZnS/PdS nanotubes for highly efficient photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15278-15287.	10.3	73
17	Thio linkage between CdS quantum dots and UiO-66-type MOFs as an effective transfer bridge of charge carriers boosting visible-light-driven photocatalytic hydrogen production. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 1-10.	9.4	73
18	Nanostructure and Advanced Energy Storage: Elaborate Material Designs Lead to High-Rate Pseudocapacitive Ion Storage. <i>ACS Nano</i> , 2022, 16, 5131-5152.	14.6	73

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19	Fabrication and characterization of OMMt/BMI/CE composites with low dielectric properties and high thermal stability for electronic packaging. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 5592-5599.	2.2	70
20	Sandwiched epoxy/alumina composites with synergistically enhanced thermal conductivity and breakdown strength. <i>Journal of Materials Science</i> , 2017, 52, 4299-4308.	3.7	70
21	Core-shell Ag@C spheres derived from Ag-MOFs with tunable ligand exchanging phase inversion for electromagnetic wave absorption. <i>Journal of Colloid and Interface Science</i> , 2022, 620, 263-272.	9.4	70
22	Enhanced breakdown strength of aligned-sodium-titanate- nanowire/epoxy nanocomposites and their anisotropic dielectric properties. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019, 120, 84-94.	7.6	66
23	Hydrogen spillover effect induced by ascorbic acid in CdS/NiO core-shell p-n heterojunction for significantly enhanced photocatalytic H ₂ evolution. <i>Journal of Colloid and Interface Science</i> , 2021, 596, 215-224.	9.4	65
24	The Investigation of the Effect of Filler Sizes in 3D-BN Skeletons on Thermal Conductivity of Epoxy-Based Composites. <i>Nanomaterials</i> , 2022, 12, 446.	4.1	64
25	Micro/nanostructured TiNb ₂ O ₇ -related electrode materials for high-performance electrochemical energy storage: recent advances and future prospects. <i>Journal of Materials Chemistry A</i> , 2020, 8, 18425-18463.	10.3	59
26	Alignment of Boron Nitride Nanofibers in Epoxy Composite Films for Thermal Conductivity and Dielectric Breakdown Strength Improvement. <i>Nanomaterials</i> , 2018, 8, 242.	4.1	56
27	A Review of High Density Solid Hydrogen Storage Materials by Pyrolysis for Promising Mobile Applications. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 2737-2771.	3.7	52
28	Simultaneously Enhanced Thermal Conductivity and Dielectric Breakdown Strength in Sandwich AlN/Epoxy Composites. <i>Nanomaterials</i> , 2021, 11, 1898.	4.1	52
29	Cu-In ₂ S ₃ nanorod induced the growth of Cu&In co-doped multi-arm CdS hetero-phase junction to promote photocatalytic H ₂ evolution. <i>Chemical Engineering Journal</i> , 2020, 399, 125785.	12.7	50
30	Superior Thermoelectric Performance of Ordered Double Transition Metal MXenes: Cr ₂ TiC ₂ T ₂ (T = OH or F). <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5721-5728.	4.6	49
31	An ultrathin Al ₂ O ₃ bridging layer between CdS and ZnO boosts photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2020, 8, 11031-11042.	10.3	49
32	Easy hydrothermal synthesis of multi-shelled La ₂ O ₃ hollow spheres for lithium-ion batteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 1232-1237.	2.2	44
33	CdS/ZnS/ZnO ternary heterostructure nanofibers fabricated by electrospinning for excellent photocatalytic hydrogen evolution without co-catalyst. <i>Chinese Journal of Catalysis</i> , 2020, 41, 1421-1429.	14.0	44
34	Work function and band alignment of few-layer violet phosphorene. <i>Journal of Materials Chemistry A</i> , 2020, 8, 8586-8592.	10.3	43
35	Chemisorption of NO ₂ to MoS ₂ Nanostructures and its Effects for MoS ₂ Sensors. <i>ChemNanoMat</i> , 2019, 5, 1123-1130.	2.8	41
36	Phonon Properties of Bulk Violet Phosphorus Single Crystals: Temperature and Pressure Evolution. <i>ACS Applied Electronic Materials</i> , 2021, 3, 1043-1049.	4.3	41

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37	Facile synthesis of Co ₃ O ₄ spheres and their unexpected high specific discharge capacity for Lithium-ion batteries. Applied Surface Science, 2017, 416, 338-343.	6.1	37
38	Porous N-doped carbon nanoflakes supported hybridized SnO ₂ /Co ₃ O ₄ nanocomposites as high-performance anode for lithium-ion batteries. Journal of Colloid and Interface Science, 2020, 560, 546-554.	9.4	33
39	Adsorption and Deposition of Li ₂ O on the Pristine and Oxidized TiC Surface by First-principles Calculation. Journal of Physical Chemistry C, 2015, 119, 25684-25695.	3.1	32
40	Embedding CoMoO ₄ nanoparticles into porous electrospun carbon nanofibers towards superior lithium storage performance. Journal of Colloid and Interface Science, 2019, 553, 320-327.	9.4	32
41	Unraveling the Water-Mediated Proton Conduction Mechanism along the Surface of Graphene Oxide. Chemistry of Materials, 2020, 32, 6062-6069.	6.7	32
42	Cross structured two-dimensional violet phosphorene with extremely high deformation resistance. Journal of Materials Chemistry A, 2021, 9, 13855-13860.	10.3	31
43	Adsorption and Deposition of Li ₂ O on TiC{111} Surface. Journal of Physical Chemistry Letters, 2014, 5, 3919-3923.	4.6	30
44	Synthesis of a bismaleimide/cyanate ester copolymer containing phenolphthalein functional group with excellent dielectric properties and thermally stable. Journal of Polymer Research, 2014, 21, 1.	2.4	28
45	Hollow TiNb ₂ O ₇ Nanospheres with a Carbon Coating as High-Efficiency Anode Materials for Lithium-Ion Batteries. ACS Sustainable Chemistry and Engineering, 2022, 10, 61-70.	6.7	28
46	Synergizing Phase and Cavity in CoMoO _x S _y Yolk-Shell Anodes to Co-Enhance Capacity and Rate Capability in Sodium Storage. Small, 2020, 16, e2002487.	10.0	27
47	The desirable dielectric properties and high thermal conductivity of epoxy composites with the cobweb-structured SiCw-SiO ₂ -NH ₂ hybrids. Journal of Materials Science: Materials in Electronics, 2021, 32, 20973-20984.	2.2	27
48	Violet phosphorus quantum dots. Journal of Materials Chemistry A, 2021, 10, 245-250.	10.3	27
49	Research Progress of All Organic Polymer Dielectrics for Energy Storage from the Classification of Organic Structures. Macromolecular Chemistry and Physics, 2021, 222, 2100049.	2.2	26
50	Boron Nitride Nanosheets from Different Preparations and Correlations with Their Material Properties. Industrial & Engineering Chemistry Research, 2019, 58, 18644-18653.	3.7	25
51	Review of recent advances of polymer based dielectrics for high-energy storage in electronic power devices from the perspective of target applications. Frontiers of Chemical Science and Engineering, 2021, 15, 18-34.	4.4	25
52	Dispersion of high-quality boron nitride nanosheets in polyethylene for nanocomposites of superior thermal transport properties. Nanoscale Advances, 2020, 2, 2507-2513.	4.6	24
53	Robust hollow TiO ₂ spheres for lithium/sodium ion batteries with excellent cycling stability and rate capability. Inorganic Chemistry Frontiers, 2021, 8, 5024-5033.	6.0	24
54	Fast Identification of the Crystallographic Orientation of Violet Phosphorus Nanoflakes with Preferred In-Plane Cleavage Edge Orientation. Advanced Functional Materials, 2022, 32, .	14.9	24

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55	Dielectric properties and thermal conductivity of epoxy resin composite modified by ZnO/Al ₂ O ₃ core-shell particles. <i>Polymer Bulletin</i> , 2019, 76, 3957-3970.	3.3	23
56	Bare Mo-Based Ordered Double-Transition Metal MXenes as High-Performance Anode Materials for Aluminum-Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2020, 124, 25769-25774.	3.1	23
57	Dielectric and thermal properties of epoxy resins with TiO ₂ nanowires. <i>Journal of Materials Science: Materials in Electronics</i> , 2017, 28, 17871-17880.	2.2	22
58	Flower-like Mn/Co Glycerolate-Derived MnS/Co ₉ S ₈ /Carbon Heterostructures for High-Performance Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 10215-10223.	5.1	22
59	Mechanically enhanced healable and recyclable silicone with dynamic hindered urea bond for flexible electronics. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8579-8588.	5.5	19
60	Morphology and electrical breakdown properties of LDPE-polypropylene copolymer blends. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2001, 39, 1741-1748.	2.1	18
61	The structure and electronic properties of crimson phosphorus. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	17
62	One-step synthesis of CdS/CdSe/CuS hollow nanospheres in aqueous solution for enhanced photocatalytic hydrogen evolution. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3467-3476.	4.9	16
63	FeVO ₄ -supported Mn-Ce oxides for the low-temperature selective catalytic reduction of NO _x by NH ₃ . <i>Catalysis Science and Technology</i> , 2021, 11, 6770-6781.	4.1	16
64	Evaluation of Sm _{0.95} Ba _{0.05} Fe _{0.95} Ru _{0.05} O ₃ as a potential cathode material for solid oxide fuel cells. <i>RSC Advances</i> , 2016, 6, 34564-34573.	3.6	15
65	Metal-Organic Framework Derived Ge/TiO ₂ @C Nanotablets as High-Performance Anode for Lithium-Ion Batteries. <i>ChemistrySelect</i> , 2019, 4, 10576-10580.	1.5	14
66	Numerical Modeling, Electrical Characteristics Analysis and Experimental Validation of Severe Inter-Turn Short Circuit Fault Conditions on Stator Winding in DFIG of Wind Turbines. <i>IEEE Access</i> , 2021, 9, 13149-13158.	4.2	14
67	Hollow Carbon Nanoballs Coupled with Ultrafine TiO ₂ Nanoparticles as Efficient Sulfur Hosts for Lithium-Sulfur Batteries. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 18197-18204.	3.7	13
68	Ether-Group-Mediated Aqueous Proton Selective Transfer across Graphene-Embedded 18-Crown-6 Ether Pores. <i>Journal of Physical Chemistry C</i> , 2019, 123, 27429-27435.	3.1	12
69	Polyvinylpyrrolidone regulated synthesis of mesoporous titanium niobium oxide as high-performance anode for lithium-ion batteries. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1782-1791.	9.4	12
70	Advances in Studies of Boron Nitride Nanosheets and Nanocomposites for Thermal Transport and Related Applications. <i>ChemPhysChem</i> , 2022, 23, .	2.1	12
71	Scalable production of few layered graphene by soft ball-microsphere rolling transfer. <i>Carbon</i> , 2019, 154, 402-409.	10.3	11
72	Rock-salt and helix structures of silver iodides under ambient conditions. <i>National Science Review</i> , 2019, 6, 767-774.	9.5	11

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73	A synergistic interplay between dopant ALD cycles and film thickness on the improvement of the ferroelectricity of uncapped Al:HfO ₂ nanofilms. <i>Nanotechnology</i> , 2021, 32, 215708.	2.6	11
74	Unveiling the Working Mechanism of g-C ₃ N ₄ as a Protection Layer for Lithium- and Sodium-Metal Anode. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46821-46829.	8.0	11
75	Observing large ferroelectric polarization in top-electrode-free Al:HfO ₂ thin films with Al-rich strip structures. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	10
76	Unraveling the Hydroxide Ion Transportation Mechanism along the Surface of Two-Dimensional Layered Double Hydroxide Nanosheets. <i>Journal of Physical Chemistry C</i> , 2021, 125, 1240-1248.	3.1	10
77	A Facile Path to Graphene-Wrapped Polydopamine-Entwined Silicon Nanoparticles with High Electrochemical Performance. <i>ChemPlusChem</i> , 2019, 84, 203-209.	2.8	9
78	Thermal conductivity and electric breakdown strength properties of epoxy/ alumina /boron nitride nanosheets composites. , 2016, , .		8
79	The 500kV Oil-filled Submarine Cable Temperature Monitoring System Based on BOTDA Distributed Optical Fiber Sensing Technology. , 2020, , .		8
80	Silicon-integrated lead-free BaTiO ₃ -based film capacitors with excellent energy storage performance and highly stable irradiation resistance. <i>Journal of Materials Chemistry A</i> , 2021, 9, 14818-14826.	10.3	7
81	Temperature Monitoring for 500 kV Oil-Filled Submarine Cable Based on BOTDA Distributed Optical Fiber Sensing Technology: Method and Application. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-10.	4.7	7
82	Influence of imidazole derivatives on the dielectric and energy storage performance of epoxy. <i>High Voltage</i> , 2022, 7, 782-791.	4.7	7
83	Anomalous proton conduction behavior across a nanoporous two-dimensional conjugated aromatic polymer membrane. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 2978-2985.	2.8	6
84	Supercritical fluid processing of boron nitride nanosheets for polymeric nanocomposites of superior thermal transport properties. <i>Journal of Supercritical Fluids</i> , 2021, 167, 105035.	3.2	6
85	Detection of Rotor Inter-turn Short Circuit Fault in Doubly-fed Induction Generator using FEM Simulation. , 2018, , .		5
86	Assessing (Mo _{2/3} Sc _{1/3}) ₂ C and (Mo _{2/3} Sc _{1/3}) ₂ CT ₂ (T = ⁺ O, ⁺ OH, and ⁺ F) i-MXenes as High-Performance Electrode Materials for Lithium and Non-Lithium Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2022, 126, 10273-10286.	3.1	5
87	Fault Diagnosis in Rotor Windings in DFIG using Magnetic Flux Measurement Coil Antenna. , 2019, , .		4
88	NIR-plasmon-enhanced Systems for Energy Conversion and Environmental Remediation. <i>Chemical Research in Chinese Universities</i> , 2020, 36, 1000-1005.	2.6	4
89	Preparation and Characterization of Narrow Size Distribution PMSQ Microspheres for High-Frequency Electronic Packaging. <i>Materials</i> , 2021, 14, 4233.	2.9	4
90	Stator Inter-turns Short Circuit Fault Detection in DFIG Using Empirical Mode Decomposition Method on Leakage Flux. , 2020, , .		4

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91	On-line condition monitoring system of medium-voltage switchgear. , 0, , .		3
92	Epoxy/h-BN composites based on oriented boron nitride platelets with high thermally conductivity for electronic encapsulation. , 2017, , .		3
93	Epoxy/PVDF/Epoxy Composite Film with Concurrent Enhancement in Energy Density and Charge-discharge Efficiency. , 2020, , .		3
94	In ⁺ -doped LiCa _{2.98} MgV ₃ O ₁₂ rare-earth-free phosphor with a high photoluminescence quantum yield of 67.4%. Journal of the American Ceramic Society, 2021, 104, 5837-5847.	3.8	3
95	2D Young's Modulus of Black Phosphorene with Different Layers. Journal of Physical Chemistry C, 2022, 126, 1094-1098.	3.1	3
96	Charge-induced proton penetration across two-dimensional clay materials. Nanoscale, 2022, 14, 6518-6525.	5.6	3
97	Two-dimensional mapping of the electric field distribution inside vacuum microgaps observed in a scanning electron microscope. Micron, 2019, 116, 93-99.	2.2	2
98	Development of Photoelectron Emission Yield Measurement System for Metal Materials. , 2020, , .		2
99	Measurement of Radiation-induced Conductivity of Polyimide under Steady-state X-ray Irradiation. , 2021, , .		2
100	On the Origins of Stereo- and Regio-Selectivities in the Formation of Fullerene-Fluorene Dyads. Journal of Organic Chemistry, 2022, 87, 4702-4711.	3.2	2
101	Simulation and analysis of high voltage circuit breaker's mechanism dynamical characteristic. , 0, , .		1
102	Preparation of Few-Layer Porous Graphene by a Soft Mechanical Method with a Short Rolling Transfer Process. ChemPlusChem, 2020, 85, 2482-2486.	2.8	1
103	Photoelectron Emission Yield of Au Film: Theoretical Calculation and Measurement. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	4.7	1
104	Influence of Residual Solvent on the Dielectric Performances of Polymer Dielectrics. , 2021, , .		1
105	Measurement of True Secondary Electron Emission Yields of Kapton. , 2021, , .		1
106	Detection of Rotor Inter-turn Short Circuit Fault in Doubly-fed Induction Generator using FEM Simulation. , 2018, , .		1
107	Nanocomposite polymers: Possible charging effects below inception voltage. , 2013, , .		0
108	Enhanced energy density with high efficiency in epoxy-based capacitor films with steering TiO ₂ nanowires. , 2020, , .		0

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109	How Can the I^{I} -Type Fullerene-Metal Bond Survive? A Systematic Survey of Reactions between Mono-EMFs and $(\text{M}^{\text{II}}\text{Ln})_2$ Dimers. <i>Inorganic Chemistry</i> , 2021, 60, 11287-11296.	4.0	0
110	Development of a Measurement System for the Secondary Electron Emission Yield Spectrum of Space Materials. , 2020, , .		0
111	Theoretical Investigation of the Oxygen Interaction on Co-doped YFeO_3 as a Novel Cathode for Solid Oxide Fuel Cells. <i>Electrocatalysis</i> , 2022, 13, 165-174.	3.0	0