

Zhengyong Huang

List of Publications by Year in descending order

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135
papers

2,488
citations

236925

25
h-index

223800

46
g-index

141
all docs

141
docs citations

141
times ranked

2612
citing authors

#	ARTICLE	IF	CITATIONS
1	Preparation of two-dimensional titanium carbide (Ti ₃ C ₂ T _x) and NiCo ₂ O ₄ composites to achieve excellent microwave absorption properties. <i>Composites Part B: Engineering</i> , 2020, 180, 107577.	12.0	201
2	Mesoporous carbon hollow microspheres with tunable pore size and shell thickness as efficient electromagnetic wave absorbers. <i>Composites Part B: Engineering</i> , 2019, 167, 690-699.	12.0	194
3	Recent advancements in heterostructured interface engineering for hydrogen evolution reaction electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 6926-6956.	10.3	158
4	A review of metal oxide-related microwave absorbing materials from the dimension and morphology perspective. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 10961-10984.	2.2	103
5	Development of spindle-cone shaped of Fe ^{1±} -Fe ₂ O ₃ hybrids and their superior wideband electromagnetic absorption performance. <i>Journal of Alloys and Compounds</i> , 2019, 799, 216-223.	5.5	75
6	Electrohydrodynamic behavior of water droplets on a horizontal super hydrophobic surface and its self-cleaning application. <i>Applied Surface Science</i> , 2017, 403, 133-140.	6.1	72
7	Flexible triboelectric 3D touch pad with unit subdivision structure for effective XY positioning and pressure sensing. <i>Nano Energy</i> , 2020, 76, 105047.	16.0	69
8	A New Platinum-Like Efficient Electrocatalyst for Hydrogen Evolution Reaction at All pH: Single-Crystal Metallic Interweaved V ₈ C ₇ Networks. <i>Advanced Energy Materials</i> , 2018, 8, 1800575.	19.5	62
9	Ganoderma-Like MoS ₂ /NiS ₂ with Single Platinum Atoms Doping as an Efficient and Stable Hydrogen Evolution Reaction Catalyst. <i>Small</i> , 2018, 14, e1800697.	10.0	60
10	A strategy to promote efficiency and durability for sliding energy harvesting by designing alternating magnetic stripe arrays in triboelectric nanogenerator. <i>Nano Energy</i> , 2019, 66, 104087.	16.0	60
11	Component-controllable cobalt telluride nanoparticles encapsulated in nitrogen-doped carbon frameworks for efficient hydrogen evolution in alkaline conditions. <i>Applied Catalysis B: Environmental</i> , 2019, 244, 568-575.	20.2	60
12	Achieving Ultrahigh Output Energy Density of Triboelectric Nanogenerators in High-Pressure Gas Environment. <i>Advanced Science</i> , 2020, 7, 2001757.	11.2	59
13	Oriented BN/Silicone rubber composite thermal interface materials with high out-of-plane thermal conductivity and flexibility. <i>Composites Part A: Applied Science and Manufacturing</i> , 2022, 152, 106681.	7.6	59
14	Electrical and thermal properties of insulating oil-based nanofluids: a comprehensive overview. <i>IET Nanodielectrics</i> , 2019, 2, 27-40.	4.1	57
15	Tunable microwave absorbing property of La _x FeO ₃ /C by introducing A-site cation deficiency. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 13474-13487.	2.2	50
16	Selectively anchoring Pt single atoms at hetero-interfaces of ¹³ Al ₂ O ₃ /NiS to promote the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11783-11789.	10.3	49
17	Molecular Dynamics Simulation and Experimental Studies on the Thermomechanical Properties of Epoxy Resin with Different Anhydride Curing Agents. <i>Polymers</i> , 2019, 11, 975.	4.5	46
18	Surface-Electron Coupling for Efficient Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17709-17717.	13.8	42

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19	A sandwich-like Si/SiC/nanographite sheet as a high performance anode for lithium-ion batteries. Dalton Transactions, 2019, 48, 17683-17690.	3.3	41
20	Transition-Metal Carbides as Hydrogen Evolution Reduction Electrocatalysts: Synthetic Methods and Optimization Strategies. Chemistry - A European Journal, 2021, 27, 5074-5090.	3.3	41
21	Epitaxial growth of graphene on V8C7 nanomeshes for highly efficient and stable hydrogen evolution reaction. Journal of Catalysis, 2019, 369, 47-53.	6.2	40
22	Micro-Structure and Thermomechanical Properties of Crosslinked Epoxy Composite Modified by Nano-SiO ₂ : A Molecular Dynamics Simulation. Polymers, 2018, 10, 801.	4.5	39
23	Structure, microparameters and properties of crosslinked DGEBA/MTHPA: A molecular dynamics simulation. AIP Advances, 2018, 8, .	1.3	37
24	Molecular dynamics studies of the mechanical behaviors and thermal conductivity of the DGEBA/MTHPA/CNB composites. Composites Part B: Engineering, 2019, 164, 659-666.	12.0	34
25	New vesicular carbon-based rhenium phosphides with all-pH range electrocatalytic hydrogen evolution activity. Applied Catalysis B: Environmental, 2019, 256, 117851.	20.2	32
26	Graphic approaches for faults diagnosis for Camellia insulating liquid filled transformers based on dissolved gas analysis. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 1897-1903.	2.9	27
27	Enhanced Electrical Insulation and Heat Transfer Performance of Vegetable Oil Based Nanofluids. Journal of Nanomaterials, 2018, 2018, 1-12.	2.7	26
28	Synthesis of trimethylolpropane fatty acid triester as a high performance electrical insulating oil. Industrial Crops and Products, 2019, 142, 111834.	5.2	25
29	Plasmonic photothermal film for defogging and anti-icing/deicing on PTFE. Journal of Alloys and Compounds, 2021, 866, 158827.	5.5	25
30	Streamer characteristics of dielectric natural ester-based liquids under long gap distances. AIP Advances, 2018, 8, .	1.3	24
31	Significantly Enhanced Electrical Performances of Eco-Friendly Dielectric Liquids for Harsh Conditions with Fullerene. Nanomaterials, 2019, 9, 989.	4.1	24
32	3D porous graphene/NiCo ₂ O ₄ hybrid film as an advanced electrode for supercapacitors. Applied Surface Science, 2020, 534, 147598.	6.1	23
33	A novel aging indicator of transformer paper insulation based on dispersion staining colors of cellulose fibers in oil. IEEE Electrical Insulation Magazine, 2018, 34, 8-16.	0.8	22
34	Droplet condensation on superhydrophobic surfaces with enhanced dewetting under a tangential AC electric field. Applied Physics Letters, 2016, 109, .	3.3	20
35	Covalent Bonding of Si Nanoparticles on Graphite Nanosheets as Anodes for Lithium-Ion Batteries Using Diazonium Chemistry. Nanomaterials, 2019, 9, 1741.	4.1	20
36	Rational design of perfect interface coupling to boost electrocatalytical oxygen reduction. Nano Energy, 2020, 76, 105055.	16.0	20

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37	One-step preparation of transparent superhydrophobic coatings using atmospheric arc discharge. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	18
38	Investigation of the electric field driven self-propelled motion of water droplets on a super-hydrophobic surface. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2016, 23, 3007-3015.	2.9	18
39	Molecular Structure and Electronic Properties of Triolein Molecule under an External Electric Field Related to Streamer Initiation and Propagation. <i>Energies</i> , 2017, 10, 510.	3.1	18
40	Design of 3D printed bioinspired nacre-like structured materials with significantly enhanced thermal conductivity. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	18
41	Significantly Improved Electrical Breakdown Strength of Natural Ester Liquid Dielectrics by Doping Ultraviolet Absorbing Molecules. <i>IEEE Access</i> , 2019, 7, 73448-73454.	4.2	16
42	Relationship between the Electrical Characteristics of Molecules and Fast Streamers in Ester Insulation Oil. <i>International Journal of Molecular Sciences</i> , 2020, 21, 974.	4.1	16
43	Triboelectric Energy Harvesting of the Superhydrophobic Coating from Dropping Water. <i>Polymers</i> , 2020, 12, 1936.	4.5	15
44	Analyzing the health condition and chemical degradation in field aged transformer insulation oil using spectroscopic techniques. , 2018, , .		14
45	Morphology-dependent electromagnetic wave absorbing properties of iron-based absorbers: one-dimensional, two-dimensional, and three-dimensional classification. <i>EPJ Applied Physics</i> , 2019, 87, 20901.	0.7	14
46	Influence of treated nano-alumina and gas-phase fluorination on the dielectric properties of epoxy resin/alumina nanocomposites. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2020, 27, 410-417.	2.9	14
47	Enhanced Pollution Flashover of a Slurry Coalescence Superhydrophobic Coating. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2021, 28, 310-317.	2.9	14
48	An OH-PDMS-modified nano-silica/carbon hybrid coating for anti-icing of insulators part ii: anti-icing performance. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2016, 23, 2165-2173.	2.9	13
49	Dual Substitution and Spark Plasma Sintering to Improve Ionic Conductivity of Garnet Li7La3Zr2O12. <i>Nanomaterials</i> , 2019, 9, 721.	4.1	13
50	Experimental and theoretical studies on the thermal stability and decomposition mechanism of HFO-1336mzz(Z) with POE lubricant. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 147, 104795.	5.5	13
51	Acids generated and influence on electrical lifetime of natural ester impregnated paper insulation. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2018, 25, 1904-1914.	2.9	11
52	Optimized Energy Storage System Configuration for Voltage Regulation of Distribution Network With PV Access. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	11
53	Significantly Reduced Secondary-Electron-Yield of Aluminum Sheet with Fluorocarbon Coating. <i>Coatings</i> , 2018, 8, 249.	2.6	10
54	Simulation of the effect of carrier density fluctuations on initial streamer branching in natural ester during pulsed positive discharges. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2020, 27, 1604-1610.	2.9	10

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55	Analysis of creeping discharges on oil-impregnated pressboard under combined AC and DC voltages. IEEE Transactions on Dielectrics and Electrical Insulation, 2018, 25, 2380-2388.	2.9	9
56	Role of Cellulose Nanofiber/Boron Nitride Hybrids in the Thermal Conductivity and Dielectric Strength of Liquid-Crystalline Epoxy Resin. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 11-18.	2.9	9
57	Synthesis of NiCo ₂ O ₄ nanostructures with different morphologies for supercapacitor. Synthetic Metals, 2021, 282, 116954.	3.9	9
58	Gas-Sensing Properties of Dissolved Gases in Insulating Material Adsorbed on SnO ₂ –GeSe Monolayer. Chemosensors, 2022, 10, 212.	3.6	9
59	An OH-PDMS-modified nano-silica/carbon hybrid coating for anti-icing of insulators part I: Fabrication and small-scale testing. IEEE Transactions on Dielectrics and Electrical Insulation, 2016, 23, 935-942.	2.9	8
60	Effect of h-BN and Fe ₃ O ₄ nanoparticles on streamer propagation and dissipation in vegetable oil based nanofluids. AIP Advances, 2019, 9, .	1.3	8
61	Surface–Electron Coupling for Efficient Hydrogen Evolution. Angewandte Chemie, 2019, 131, 17873-17881.	2.0	8
62	Improved Thermal Conductivity and Mechanical Property of PTFE Reinforced with Al ₂ O ₃ . Nano, 2019, 14, 1950064.	1.0	8
63	Branching Initial Streamers to Inhibit the Streamer Propagation in Natural Ester-based Nanofluid. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 116-123.	2.9	8
64	Exponentially reduced carrier mobility of natural ester via blocking effect of 2D hexagonal boron nitride nanosheets. High Voltage, 2021, 6, 219-229.	4.7	8
65	Pomegranate-Inspired Biomimetic Pressure Sensor Arrays With a Wide Range and High Linear Sensitivity for Human–Machine Interaction. IEEE Transactions on Electron Devices, 2022, 69, 1353-1358.	3.0	8
66	Low-Temperature Property Improvement on Green and Low-Carbon Natural Ester Insulating Oil. IEEE Transactions on Dielectrics and Electrical Insulation, 2022, 29, 1459-1464.	2.9	8
67	One-Step Preparation of Durable Super-Hydrophobic MSR/SiO ₂ Coatings by Suspension Air Spraying. Micromachines, 2018, 9, 677.	2.9	7
68	Influence of hydrophobicity on ice accumulation process under sleet and wind conditions. AIP Advances, 2018, 8, .	1.3	7
69	Filler concentration effect on breakdown strength and trap level of epoxy resin–Al ₂ O ₃ nanocomposites. Polymer Bulletin, 2021, 78, 5891-5903.	3.3	7
70	Molecular Dynamics Simulation for the Effect of Fluorinated Graphene Oxide Layer Spacing on the Thermal and Mechanical Properties of Fluorinated Epoxy Resin. Nanomaterials, 2021, 11, 1344.	4.1	7
71	Accelerated Charge Dissipation by Gas-Phase Fluorination on Nomex Paper. Applied Sciences (Switzerland), 2019, 9, 3879.	2.5	6
72	A hybrid plasma de-icing actuator by using SiC hydrophobic coating-based quartz glass as barrier dielectric. Journal Physics D: Applied Physics, 2021, 54, 375202.	2.8	6

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73	Effect of nanoparticles on streamer propagation and breakdown of vegetable oil-pressboard interface in non-uniform electric field. AIP Advances, 2018, 8, 085211.	1.3	5
74	DC breakdown and flashover characteristics of direct fluorinated epoxy/Al ₂ O ₃ nanocomposites. IEEE Transactions on Dielectrics and Electrical Insulation, 2019, 26, 702-737.	2.9	5
75	D-ribose directed one-step fabrication of modifier-free C/NiCo ₂ O ₄ nanowires with advanced electrochemical performance. Electrochimica Acta, 2020, 358, 136926.	5.2	5
76	Molecular dynamics simulations of performance degradation of cellulose nanofibers (CNFs) under hygrothermal environments. Molecular Simulation, 2020, 46, 1172-1180.	2.0	5
77	A Comparative Study of Gas-phase Fluorination and Nano-Al ₂ O ₃ Doping on Space Charge Behavior and Trap Level in Epoxy Resin. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1093-1100.	2.9	5
78	Molecular-level evaluation of ionic transport under external electric fields in biological dielectric liquids. Journal of Molecular Liquids, 2021, 340, 116883.	4.9	5
79	Influence of nano boron nitride (BN) on electric corrosion of fluoroepoxy based super hydrophobic coatings for insulators. , 2016, , .		4
80	The Energy Storage Properties of Refrigerants (R170, R134a, R143a, and R152a) in Mof-5 Nanoparticles: A Molecular Simulation Approach. Materials, 2019, 12, 3577.	2.9	4
81	Preparation of Ionic Liquid-Coated Graphene Nanosheets/PTFE Nanocomposite for Stretchable, Flexible Conductor via a Pre-Stretch Processing. Nanomaterials, 2020, 10, 40.	4.1	4
82	Self-healing of mechanical damage of polyethylene/microcapsules electrical insulation composite material. Journal of Materials Science: Materials in Electronics, 2021, 32, 26329-26340.	2.2	4
83	Fabrication of superhydrophobic surface with discarded silicone under arc exposure. RSC Advances, 2015, 5, 103739-103743.	3.6	3
84	Novel Approaches of DGA to Transformers Filled with Natural Ester Based Insulating Oils. , 2018, , .		3
85	Analysis of Dielectric Properties and Breakdown Characteristics of Vegetable Insulating Oil with Modified by ZnO Nanoparticles. , 2018, , .		3
86	A Real-Time Electricity Price Decision Model for Demand Side Management in Wind Power Heating Mode. Frontiers in Energy Research, 2021, 9, .	2.3	3
87	Study on energy storage properties of Metal-organic frameworks nanofluids (UIO-67/Water and) Tj ETQq1 1 0.784314 rgBT /Overlock 10008-10017.	3.7	3
88	Numerical Evaluation on the Propagation of Non-breakdown Streamer in Natural Ester under Negative Lightning Impulse Voltage via Shadowgraph Imaging. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 1198-1206.	2.9	3
89	DLP 3D Printing of High-Performance Epoxy Resin Via Dual Curing. , 2021, , .		3
90	Ice bonding strength detection of the super-hydrophobic coating. , 2013, , .		2

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91	Aging characteristics of epoxy resin in hygrothermal environment. , 2017, , .		2
92	Self-ejections of multiple isolated slushes on disorderly grooved superhydrophobic surfaces. Applied Physics Letters, 2020, 116, 053702.	3.3	2
93	Influence of Fiber Diameters on the Thermal Conductivity of Liquid Crystal Epoxy Resin Film. , 2021, , .		2
94	Study on the Thermal Stability of Ureaâ€Formaldehyde Resin Microcapsules with Nanosilica Incorporation by Molecular Dynamics Simulation and Experiments. Macromolecular Theory and Simulations, 2021, 30, 2100009.	1.4	2
95	Ageing Characterization of Transformer Paper Insulation Based on Dispersion Staining Colors of Cellulose Fibers in Oil. , 2020, , .		2
96	Low Water Adhesion Enhances the Pollution Flashover Performance of Superhydrophobic Coating. , 2020, , .		2
97	Anti-icing performances of super hydrophobic insulator. , 2013, , .		1
98	Electrical driven rolling behavior of water droplet on a super hydrophobic surface. , 2014, , .		1
99	Thermally-manageable superhydrophobic soot/fluorocarbon hybrid thin films. , 2017, , .		1
100	Study on the Analysis and Diagnosis of Dissolved Gases in Camellia Insulating Oil. , 2018, , .		1
101	Effects of Suspended Moisture Particles on AC Breakdown Voltage and Electric Field Distribution of Vegetable Insulation Oil. , 2018, , .		1
102	Phenomenon analysis and state classification of surface discharge on oil-impregnated pressboard under AC-DC combined voltage. AIP Advances, 2018, 8, 105023.	1.3	1
103	Preparation and Properties of Nano-Cellulose Modified Natural Ester Liquids. , 2019, , .		1
104	Study on Preparation and Thermal Conductivity of Liquid Crystal Epoxy Resin filled with Nano-cellulose/ BNNSs. , 2019, , .		1
105	Decomposition analysis of camellia oil under electric fields: An experimental and molecular simulation study. Modern Physics Letters B, 2020, 34, 2050431.	1.9	1
106	Suppressing ion aggregation on cellulose surface by bio-dielectric liquids: Insights from molecular dynamics simulations. Journal of Molecular Liquids, 2021, 327, 114805.	4.9	1
107	Effect of Temperature on Dielectric Properties of Metallized Film Capacitor. , 2021, , .		1
108	Enhance the Surface Flashover Performance of the Fluorocarbon Coating Compositd with SiC Particles. , 2021, , .		1

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109	Experiment and Simulation of Pressboard Barrier Effect on the Streamer Propagation in Natural Ester During Positive Pulsed Voltage. IEEE Transactions on Dielectrics and Electrical Insulation, 2021, 28, 864-871.	2.9	1
110	Effect of water states on mechanical properties of cellulose insulation paper: A molecular dynamics simulation study. , 2020, , .		1
111	Strong anharmonicity induced low lattice thermal conductivity and high thermoelectric performance in $(\text{CuInTe})_2$ $1\hat{\sim}$ $(\text{AgSbTe})_2$ system. Applied Physics Letters. 2022. 121. 013903.	3.3	1
112	One-step preparation and application of semiconductive and durable superhydrophobic coating. , 2012, , .		0
113	Time delay of water contact with acrylic polyurethane super-hydrophobic surfaces. , 2014, , .		0
114	Transforming PDMS surface to super-hydrophobic by surface arc-discharge. , 2015, , .		0
115	Fractal simulation of breakdown in oil impregnated paper at pulsating DC voltage. , 2016, , .		0
116	Electric heating performance of soot/silicon-oxide/fluorocarbon super-hydrophobic thin film. , 2017, , .		0
117	Gas diffusion behavior in green camellia insulating oils. AIP Advances, 2018, 8, 115127.	1.3	0
118	Effect of Fluorination and Isothermal Crystallization on Polypropylene Electret Fiber Films for Transformer-oil Filtration. , 2018, , .		0
119	The Effect of Polyhedral Oligomeric Silsesquioxanes on Electrical Properties of Mineral Oil. , 2018, , .		0
120	Influence of Temperature on Electrical Properties of POSS/Mineral Oil based Nanofluids. , 2018, , .		0
121	The Effect of Polyhedral Oligomeric Silsesquioxanes on Electrical Properties of Mineral Oil. , 2018, , .		0
122	Study on electrical properties of superhydrophobic coating covered with moss. , 2019, , .		0
123	Effect of Gas-phase Fluorination on Trap Level of Nano-Alumina / Epoxy Resin Nanocomposites. , 2019, , .		0
124	Frontispiz: Surfaceâ€Electron Coupling for Efficient Hydrogen Evolution. Angewandte Chemie, 2019, 131, .	2.0	0
125	Frontispiece: Surfaceâ€Electron Coupling for Efficient Hydrogen Evolution. Angewandte Chemie - International Edition, 2019, 58, .	13.8	0
126	The Orientation of BN Nanosheet in Polyimide to Improve the Thermal Conductivity of Epoxy Resin. , 2021, , .		0

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127	Oil Flow Electrification of Insulating Oil Detected by The Triboelectric Effect. , 2021, , .		0
128	Enhanced Thermoelectric Performance of Bi ₂ Te ₃ through Uniform Dispersion of Ti ₃ C ₂ T _x . , 2021, , .		0
129	Is There Existing A Gaseous Process During the Propagation of Streamer in the Natural Ester?. , 2020, , .		0
130	Graphene/NiCo ₂ O ₄ Composite as Electrode Material for Supercapacitors. , 2020, , .		0
131	Surface Charge Stability of High Temperature Phosphatized Biaxially Oriented Polypropylene Film. , 2020, , .		0
132	Nickel Cobalt Hydroxide/Reduced Graphene Oxide and Its Electrochemical Performance. , 2020, , .		0
133	Controlled preparation of MOF for performance improvement of vegetable insulating oil. , 2020, , .		0
134	Suppression of Surface Charge Accumulation on Rough RTV Silicone Rubber. , 2020, , .		0
135	Recyclable and High-Performance Thermosetting Polymers for Digital Light Processing 3D Printing. , 2022, , .		0