

Kai Wang

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

4,104
citations

87723

38
h-index

118652

62
g-index

88
all docs

88
docs citations

88
times ranked

3505
citing authors

#	ARTICLE	IF	CITATIONS
1	Promising biomass-based activated carbons derived from willow catkins for high performance supercapacitors. <i>Electrochimica Acta</i> , 2015, 166, 1-11.	2.6	386
2	Nitrogen-doped graphene for supercapacitor with long-term electrochemical stability. <i>Energy</i> , 2014, 70, 612-617.	4.5	185
3	A comprehensive review on the state of charge estimation for lithium-ion battery based on neural network. <i>International Journal of Energy Research</i> , 2022, 46, 5423-5440.	2.2	157
4	Remaining useful life prediction for supercapacitor based on long short-term memory neural network. <i>Journal of Power Sources</i> , 2019, 440, 227149.	4.0	156
5	Synthesis of hydrophobic carbon nanotubes/reduced graphene oxide composite films by flash light irradiation. <i>Frontiers of Chemical Science and Engineering</i> , 2018, 12, 376-382.	2.3	152
6	Real-Time Coordinated Voltage Control of PV Inverters and Energy Storage for Weak Networks With High PV Penetration. <i>IEEE Transactions on Power Systems</i> , 2018, 33, 3383-3395.	4.6	149
7	Hybrid genetic algorithm method for efficient and robust evaluation of remaining useful life of supercapacitors. <i>Applied Energy</i> , 2020, 260, 114169.	5.1	142
8	State of health estimation of lithium-ion battery based on improved ant lion optimization and support vector regression. <i>Journal of Energy Storage</i> , 2022, 50, 104215.	3.9	127
9	Waste Plastic Triboelectric Nanogenerators Using Recycled Plastic Bags for Power Generation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 400-410.	4.0	116
10	State-of-charge estimation and remaining useful life prediction of supercapacitors. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 150, 111408.	8.2	113
11	MnFe ₂ O ₄ nanoparticles promoted electrochemical oxidation coupling with persulfate activation for tetracycline degradation. <i>Separation and Purification Technology</i> , 2021, 255, 117690.	3.9	106
12	Electrodeposition Synthesis of PANI/MnO ₂ /Graphene Composite Materials and its Electrochemical Performance. <i>International Journal of Electrochemical Science</i> , 2017, 12, 8306-8314.	0.5	103
13	Intrinsic Defect-Rich Hierarchically Porous Carbon Architectures Enabling Enhanced Capture and Catalytic Conversion of Polysulfides. <i>ACS Nano</i> , 2020, 14, 6222-6231.	7.3	89
14	Integrated energy storage system based on triboelectric nanogenerator in electronic devices. <i>Frontiers of Chemical Science and Engineering</i> , 2021, 15, 238-250.	2.3	86
15	Room-Temperature Rapid Synthesis of Two-Dimensional Metal-Organic Framework Nanosheets with Tunable Hierarchical Porosity for Enhanced Adsorption Desulfurization Performance. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 18857-18864.	1.8	78
16	High capacitive performance of hollow activated carbon fibers derived from willow catkins. <i>Applied Surface Science</i> , 2017, 394, 569-577.	3.1	76
17	Research Progress and Prospect of Triboelectric Nanogenerators as Self-Powered Human Body Sensors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 863-878.	2.0	75
18	State of Charge (SOC) Estimation of Lithium-ion Battery Based on Adaptive Square Root Unscented Kalman Filter. <i>International Journal of Electrochemical Science</i> , 2020, 15, 9499-9516.	0.5	73

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19	Stacked bidirectional LSTM RNN to evaluate the remaining useful life of supercapacitor. International Journal of Energy Research, 2022, 46, 3034-3043.	2.2	73
20	Structural Design and Electrochemical Performance of PANI/CNTs and MnO ₂ /CNTs Supercapacitor. Science of Advanced Materials, 2019, 11, 1079-1086.	0.1	72
21	Enhanced photocatalytic performance of BiVO ₄ for degradation of methylene blue under LED visible light irradiation assisted by peroxymonosulfate. International Journal of Electrochemical Science, 2020, 15, 2470-2480.	0.5	71
22	An Improved SOC Control Strategy for Electric Vehicle Hybrid Energy Storage Systems. Energies, 2020, 13, 5297.	1.6	69
23	Synthesis of nitrogen-doped electrospun carbon nanofibers with superior performance as efficient supercapacitor electrodes in alkaline solution. Electrochimica Acta, 2015, 185, 40-51.	2.6	68
24	Nanoporous Cu@Cu ₂ O hybrid arrays enable photo-assisted supercapacitor with enhanced capacities. Journal of Materials Chemistry A, 2019, 7, 15691-15697.	5.2	66
25	Synthesis of Porous Carbon by Activation Method and its Electrochemical Performance. International Journal of Electrochemical Science, 2018, 13, 10766-10773.	0.5	65
26	Porous worm-like NiMoO ₄ coaxially decorated electrospun carbon nanofiber as binder-free electrodes for high performance supercapacitors and lithium-ion batteries. Applied Surface Science, 2018, 434, 49-56.	3.1	64
27	Double Core-Shell Si@C@SiO ₂ for Anode Material of Lithium-ion Batteries with Excellent Cycling Stability. Chemistry - A European Journal, 2017, 23, 2165-2170.	1.7	62
28	Flexible PVDF nanogenerator-driven motion sensors for human body motion energy tracking and monitoring. Journal of Materials Science: Materials in Electronics, 2021, 32, 14715-14727.	1.1	62
29	The thermal analysis on the stackable supercapacitor. Energy, 2013, 59, 440-444.	4.5	61
30	Aging state prediction for supercapacitors based on heuristic kalman filter optimization extreme learning machine. Energy, 2022, 250, 123773.	4.5	61
31	Structural and chemical synergistic effect of NiCo ₂ S ₄ nanoparticles and carbon cloth for high performance binder-free asymmetric supercapacitors. Applied Surface Science, 2019, 465, 635-642.	3.1	57
32	A thermally flexible and multi-site tactile sensor for remote 3D dynamic sensing imaging. Frontiers of Chemical Science and Engineering, 2020, 14, 1039-1051.	2.3	56
33	Voltage Management for Large Scale PV Integration into Weak Distribution Systems. IEEE Transactions on Smart Grid, 2018, 9, 4128-4139.	6.2	53
34	Voltage regulation challenges with unbalanced PV integration in low voltage distribution systems and the corresponding solution. Applied Energy, 2019, 256, 113927.	5.1	53
35	Strong robustness and high accuracy in predicting remaining useful life of supercapacitors. APL Materials, 2022, 10, .	2.2	52
36	Temperature prediction of lithium-ion batteries based on electrochemical impedance spectrum: A review. International Journal of Energy Research, 2022, 46, 10372-10388.	2.2	51

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37	Applications of nanogenerators for biomedical engineering and healthcare systems. Informa <i>Materials</i> , 2022, 4, .	8.5	45
38	A Distributed Inter-Phase Coordination Algorithm for Voltage Control With Unbalanced PV Integration in LV Systems. <i>IEEE Transactions on Sustainable Energy</i> , 2020, 11, 2687-2697.	5.9	44
39	Hybrid Methods Using Neural Network and Kalman Filter for the State of Charge Estimation of Lithium-Ion Battery. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-11.	0.6	41
40	Flexible carbon nanofiber mats with improved graphitic structure as scaffolds for efficient all-solid-state supercapacitor. <i>Electrochimica Acta</i> , 2017, 247, 1060-1071.	2.6	34
41	State of Charge Estimation of Composite Energy Storage Systems with Supercapacitors and Lithium Batteries. <i>Complexity</i> , 2021, 2021, 1-15.	0.9	31
42	Thermal Modelling Analysis of Spiral Wound Supercapacitor under Constant-Current Cycling. <i>PLoS ONE</i> , 2015, 10, e0138672.	1.1	31
43	Prediction of the Remaining Useful Life of Supercapacitors. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-8.	0.6	31
44	Data-Driven ICA-Bi-LSTM-Combined Lithium Battery SOH Estimation. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-8.	0.6	24
45	Experimental study of thermal charge/discharge behaviors of pouch lithium-ion capacitors. <i>Journal of Energy Storage</i> , 2019, 25, 100902.	3.9	23
46	Emerging Internet of Things driven carbon nanotubes-based devices. <i>Nano Research</i> , 2022, 15, 4613-4637.	5.8	23
47	Online State of Charge Estimation of Lithium-Ion Cells Using Particle Filter-Based Hybrid Filtering Approach. <i>Complexity</i> , 2020, 2020, 1-10.	0.9	22
48	Application Research of Chaotic Carrier Frequency Modulation Technology in Two-Stage Matrix Converter. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-8.	0.6	20
49	Preparation of Electrode Based on Plasma Modification and Its Electrochemical Application. <i>Journal of Materials Engineering and Performance</i> , 2014, 23, 588-592.	1.2	19
50	Li-ionic control of magnetism through spin capacitance and conversion. <i>Matter</i> , 2021, 4, 3605-3620.	5.0	18
51	Facile fabrication of nanoscale hierarchical porous zeolitic imidazolate frameworks for enhanced toluene adsorption capacity. <i>Rare Metals</i> , 2021, 40, 471-477.	3.6	16
52	Preparation and electrochemical characteristics of electrospun water-soluble resorcinol/phenol-formaldehyde resin-based carbon nanofibers. <i>RSC Advances</i> , 2015, 5, 40884-40891.	1.7	15
53	Heteroatoms in situ-doped hierarchical porous hollow-activated carbons for high-performance supercapacitor. <i>Carbon Letters</i> , 2020, 30, 331-344.	3.3	15
54	MnSe ₂ /Se Composite Nanobelts as an Improved Performance Anode for Lithium Storage. <i>International Journal of Electrochemical Science</i> , 2019, , 6000-6008.	0.5	14

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55	Preparation and application of carbon nanotubes flexible sensors. Journal of Semiconductors, 2019, 40, 111606.	2.0	13
56	One-Pot Synthesis and High Electrochemical Performance of CuS/Cu _{1.8} S Nanocomposites as Anodes for Lithium-Ion Batteries. Materials, 2020, 13, 3797.	1.3	13
57	The Preparation of Nickel Hydroxide Based on Infinite Dilute Method and Its Electrochemical Performance. Electrochemistry, 2013, 81, 259-261.	0.6	11
58	Fuzzy logic-based control strategy for a battery/supercapacitor hybrid energy storage system in electric vehicles. , 2017, , .		11
59	Femtosecond laser manipulating underoil surface wettability for water removal from oil. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 601, 125030.	2.3	11
60	An Accelerated Error Convergence Design Criterion and Implementation of Lebesgue-p Norm ILC Control Topology for Linear Position Control Systems. Mathematical Problems in Engineering, 2021, 2021, 1-12.	0.6	11
61	A review of modeling research on supercapacitor. , 2017, , .		10
62	The preparation of nickel oxide based on infinite dilute method and its electrochemical performance. Russian Journal of Electrochemistry, 2014, 50, 176-179.	0.3	8
63	Synthesis of nitrogen-doped graphene via solid microwave method. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 185, 129-133.	1.7	8
64	Characteristics analysis of ultracapacitor-battery hybrid energy storage system. , 2017, , .		7
65	Two-step Synthesis and Characterization of MnCo ₂ O ₄ Composite and its Electrochemical Performance. International Journal of Electrochemical Science, 2018, 13, 10207-10216.	0.5	7
66	Design and implementation of wearable oxygen saturation monitoring system. , 2021, , .		6
67	Electrode Preparation and Properties of Hybrid Supercapacitors by the Method of Microwave Heating. Science of Advanced Materials, 2019, 11, 1072-1078.	0.1	5
68	Research progress and prospect of hybrid supercapacitors as boosting the performance. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-18.	1.2	5
69	Reliability analysis of subway vehicles based on the data of operational failures. Eurasip Journal on Wireless Communications and Networking, 2017, 2017, .	1.5	4
70	The application of hierarchy MoS ₂ particles for NIR induced drug delivery towards liver cancer treatment. Materials Research Express, 2020, 7, 105014.	0.8	4
71	Review of autonomous inspection technology for power lines using UAVs. , 2021, , .		4
72	Investigation of Var Compensation Schemes in Unbalanced Distribution Systems. Complexity, 2019, 2019, 1-13.	0.9	3

#	ARTICLE	IF	CITATIONS
73	The Literature Review on Control Methods of SOH and SOC for Supercapacitors. , 2019, , .		3
74	Research on fuzzy PID control for permanent magnet synchronous motor. , 2017, , .		2
75	Life Prediction of Hybrid Supercapacitor Based on Improved Model-Extreme Learning Machine. , 2019, , .		2
76	Triboelectric Nanogenerator: A Hope to Collect Blue Energy. , 2019, , .		2
77	Research on hierarchical control strategy of hybrid energy storage system in microgrid. , 2017, , .		1
78	A modified model of supercapacitors and its thermal behavior research. , 2017, , .		1
79	Intelligent Nano-Ground Based on Triboelectric Nanogenerator for Motion Tracking. , 2019, , .		1
80	Electrochemical Properties of PANI/CNTs Composites Modified by Oxygen Plasma. Advanced Materials Research, 0, 306-307, 1635-1639.	0.3	0
81	A Numerical Controlled Constant Current Source Based on Power MOSFET. Applied Mechanics and Materials, 2012, 241-244, 1859-1862.	0.2	0
82	A New Power Allocation Strategy of Supercapacitor/Battery Hybrid Energy Storage System for Electric Vehicles. Advanced Materials Research, 0, 724-725, 1389-1392.	0.3	0
83	Improvement in dynamic stability of self-excited induction generator with short-shunt capacitors. , 2015, , .		0
84	Attitude Tracking of Enhanced Flexible Hybrid Nanogenerator in Human-computer Interaction. , 2019, , .		0
85	Multi-Objective Electric Truck Path Optimization Model with Time Window. , 2019, , .		0
86	Triboelectric Nanogenerator and Integration with Electrochemical Microsupercapacitor. , 2019, , .		0
87	Stability of Two Weakly Coupled Elastic Beams with Partially Local Damping. Mathematical Problems in Engineering, 2020, 2020, 1-9.	0.6	0
88	Bidirectional LSTM RNN for precise predict remaining useful life of supercapacitors. , 2021, , .		0