Kai Wang

List of Publications by Year in descending order

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	Stacked bidirectional <scp>LSTM RNN</scp> to evaluate the remaining useful life of supercapacitor. International Journal of Energy Research, 2022, 46, 3034-3043.	2.2	73
2	Emerging Internet of Things driven carbon nanotubes-based devices. Nano Research, 2022, 15, 4613-4637.	5.8	23
3	Applications of nanogenerators for biomedical engineering and healthcare systems. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	45
4	Data-Driven ICA-Bi-LSTM-Combined Lithium Battery SOH Estimation. Mathematical Problems in Engineering, 2022, 2022, 1-8.	0.6	24
5	Temperature prediction of lithiumâ€ion batteries based on electrochemical impedance spectrum: A review. International Journal of Energy Research, 2022, 46, 10372-10388.	2.2	51
6	State of health estimation of lithium-ion battery based on improved ant lion optimization and support vector regression. Journal of Energy Storage, 2022, 50, 104215.	3.9	127
7	Aging state prediction for supercapacitors based on heuristic kalman filter optimization extreme learning machine. Energy, 2022, 250, 123773.	4.5	61
8	A comprehensive review on the state of charge estimation for lithiumâ€ion battery based on neural network. International Journal of Energy Research, 2022, 46, 5423-5440.	2.2	157
9	Prediction of the Remaining Useful Life of Supercapacitors. Mathematical Problems in Engineering, 2022, 2022, 1-8.	0.6	31
10	Hybrid Methods Using Neural Network and Kalman Filter for the State of Charge Estimation of Lithium-Ion Battery. Mathematical Problems in Engineering, 2022, 2022, 1-11.	0.6	41
11	Strong robustness and high accuracy in predicting remaining useful life of supercapacitors. APL Materials, 2022, 10, .	2.2	52
12	Facile fabrication of nanoscale hierarchical porous zeolitic imidazolate frameworks for enhanced toluene adsorption capacity. Rare Metals, 2021, 40, 471-477.	3.6	16
13	MnFe2O4 nanoparticles promoted electrochemical oxidation coupling with persulfate activation for tetracycline degradation. Separation and Purification Technology, 2021, 255, 117690.	3.9	106
14	Waste Plastic Triboelectric Nanogenerators Using Recycled Plastic Bags for Power Generation. ACS Applied Materials & Interfaces, 2021, 13, 400-410.	4.0	116
15	Integrated energy storage system based on triboelectric nanogenerator in electronic devices. Frontiers of Chemical Science and Engineering, 2021, 15, 238-250.	2.3	86
16	State of Charge Estimation of Composite Energy Storage Systems with Supercapacitors and Lithium Batteries. Complexity, 2021, 2021, 1-15.	0.9	31
17	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
18	Li-ionic control of magnetism through spin capacitance and conversion. Matter, 2021, 4, 3605-3620.	5.0	18

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19	State-of-charge estimation and remaining useful life prediction of supercapacitors. Renewable and Sustainable Energy Reviews, 2021, 150, 111408.	8.2	113
20	Review of autonomous inspection technology for power lines using UAVs. , 2021, , .		4
21	Design and implementation of wearable oxygen saturation monitoring system. , 2021, , .		6
22	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
23	Bidirectional LSTM RNN for precise predict remaining useful life of supercapacitors. , 2021, , .		0
24	Heteroatoms in situ-doped hierarchical porous hollow-activated carbons for high-performance supercapacitor. Carbon Letters, 2020, 30, 331-344.	3.3	15
25	Hybrid genetic algorithm method for efficient and robust evaluation of remaining useful life of supercapacitors. Applied Energy, 2020, 260, 114169.	5.1	142
26	State of Charge (SOC) Estimation of Lithium-ion Battery Based on Adaptive Square Root Unscented Kalman Filter. International Journal of Electrochemical Science, 2020, 15, 9499-9516.	0.5	73
27	Room-Temperature Rapid Synthesis of Two-Dimensional Metalâ€“Organic Framework Nanosheets with Tunable Hierarchical Porosity for Enhanced Adsorption Desulfurization Performance. Industrial & Engineering Chemistry Research, 2020, 59, 18857-18864.	1.8	78
28	One-Pot Synthesis and High Electrochemical Performance of CuS/Cu1.8S Nanocomposites as Anodes for Lithium-Ion Batteries. Materials, 2020, 13, 3797.	1.3	13
29	An Improved SOC Control Strategy for Electric Vehicle Hybrid Energy Storage Systems. Energies, 2020, 13, 5297.	1.6	69
30	Stability of Two Weakly Coupled Elastic Beams with Partially Local Damping. Mathematical Problems in Engineering, 2020, 2020, 1-9.	0.6	0
31	Enhanced photocatalytic performance of BiVO4 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
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	A Distributed Inter-Phase Coordination Algorithm for Voltage Control With Unbalanced PV Integration in LV Systems. IEEE Transactions on Sustainable Energy, 2020, 11, 2687-2697.	5.9	44
34	Online State of Charge Estimation of Lithium-Ion Cells Using Particle Filter-Based Hybrid Filtering Approach. Complexity, 2020, 2020, 1-10.	0.9	22
35	Intrinsic Defect-Rich Hierarchically Porous Carbon Architectures Enabling Enhanced Capture and Catalytic Conversion of Polysulfides. ACS Nano, 2020, 14, 6222-6231.	7.3	89
36	Research Progress and Prospect of Triboelectric Nanogenerators as Self-Powered Human Body Sensors. ACS Applied Electronic Materials, 2020, 2, 863-878.	2.0	75

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37	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
38	The application of hierarchy MoS₂ particles for NIR induced drug delivery towards liver cancer treatment. Materials Research Express, 2020, 7, 105014.	0.8	4
39	MnSe2/Se Composite Nanobelts as an Improved Performance Anode for Lithium Storage. International Journal of Electrochemical Science, 2019, , 6000-6008.	0.5	14
40	Experimental study of thermal chargeâ€“discharge behaviors of pouch lithium-ion capacitors. Journal of Energy Storage, 2019, 25, 100902.	3.9	23
41	Attitude Tracking of Enhanced Flexible Hybrid Nanogenerator in Human-computer Interaction. , 2019, , .		0
42	Intelligent Nano-Ground Based on Triboelctric Nanogenerator for Motion Tracking. , 2019, , .		1
43	Life Prediction of Hybrid Supercapacitor Based on Improved Model-Extreme Learning Machine. , 2019, , .		2
44	Voltage regulation challenges with unbalanced PV integration in low voltage distribution systems and the corresponding solution. Applied Energy, 2019, 256, 113927.	5.1	53
45	Remaining useful life prediction for supercapacitor based on long short-term memory neural network. Journal of Power Sources, 2019, 440, 227149.	4.0	156
46	Nanoporous Cu@Cu₂O hybrid arrays enable photo-assisted supercapacitor with enhanced capacities. Journal of Materials Chemistry A, 2019, 7, 15691-15697.	5.2	66
47	Application Research of Chaotic Carrier Frequency Modulation Technology in Two-Stage Matrix Converter. Mathematical Problems in Engineering, 2019, 2019, 1-8.	0.6	20
48	Multi-Objective Electric Truck Path Optimization Model with Time Window. , 2019, , .		0
49	Triboelectric Nanogenerator: A Hope to Collect Blue Energy. , 2019, , .		2
50	Investigation of Var Compensation Schemes in Unbalanced Distribution Systems. Complexity, 2019, 2019, 1-13.	0.9	3
51	Triboelectric Nanogenerator and Integration with Electrochemical Microsupercapacitor. , 2019, , .		0
52	Preparation and application of carbon nanotubes flexible sensors. Journal of Semiconductors, 2019, 40, 111606.	2.0	13
53	Structural and chemical synergistic effect of NiCo2S4 nanoparticles and carbon cloth for high performance binder-free asymmetric supercapacitors. Applied Surface Science, 2019, 465, 635-642.	3.1	57
54	Structural Design and Electrochemical Performance of PANI/CNTs and MnO₂/CNTs Supercapacitor. Science of Advanced Materials, 2019, 11, 1079-1086.	0.1	72

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55	Electrode Preparation and Properties of Hybrid Supercapacitors by the Method of Microwave Heating. Science of Advanced Materials, 2019, 11, 1072-1078.	0.1	5
56	The Literature Review on Control Methods of SOH and SOC for Supercapacitors. , 2019, , .		3
57	Real-Time Coordinated Voltage Control of PV Inverters and Energy Storage for Weak Networks With High PV Penetration. IEEE Transactions on Power Systems, 2018, 33, 3383-3395.	4.6	149
58	Synthesis of hydrophobic carbon nanotubes/reduced graphene oxide composite films by flash light irradiation. Frontiers of Chemical Science and Engineering, 2018, 12, 376-382.	2.3	152
59	Voltage Management for Large Scale PV Integration into Weak Distribution Systems. IEEE Transactions on Smart Grid, 2018, 9, 4128-4139.	6.2	53
60	Porous worm-like NiMoO4 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
61	Synthesis of Porous Carbon by Activation Method and its Electrochemical Performance. International Journal of Electrochemical Science, 2018, 13, 10766-10773.	0.5	65
62	Two-step Synthesis and Characterization of MnCo2O4 Composite and its Electrochemical Performance. International Journal of Electrochemical Science, 2018, 13, 10207-10216.	0.5	7
63	Double Coreâ€“Shell Si@C@SiO‹sub›2‹/sub› for Anode Material of Lithiumâ€ion Batteries with Excellent Cycling Stability. Chemistry - A European Journal, 2017, 23, 2165-2170.	1.7	62
64	Flexible carbon nanofiber mats with improved graphitic structure as scaffolds for efficient all-solid-state supercapacitor. Electrochimica Acta, 2017, 247, 1060-1071.	2.6	34
65	High capacitive performance of hollow activated carbon fibers derived from willow catkins. Applied Surface Science, 2017, 394, 569-577.	3.1	76
66	Fuzzy logic-based control strategy for a battery/supercapacitor hybrid energy storage system in electric vehicles. , 2017, , .		11
67	Characteristics analysis of ultracapacitor-battery hybrid energy storage system. , 2017, , .		7
68	Reliability analysis of subway vehicles based on the data of operational failures. Eurasip Journal on Wireless Communications and Networking, 2017, 2017, .	1.5	4
69	Research on hierarchical control strategy of hybrid energy storage system in microgrid. , 2017, , .		1
70	Research on fuzzy PID control for permanent magnet synchronous motor. , 2017, , .		2
71	A review of modeling research on supercapacitor. , 2017, , .		10
72	A modified model of supercapacitors and its thermal behavior research. , 2017, , .		1

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73	Electrodeposition Synthesis of PANI/MnO2/Graphene Composite Materials and its Electrochemical Performance. International Journal of Electrochemical Science, 2017, 12, 8306-8314.	0.5	103
74	Improvement in dynamic stability of self-excited induction generator with short-shunt capacitors. , 2015, , .		0
75	Preparation and electrochemical characteristics of electrospun water-soluble resorcinol/phenol-formaldehyde resin-based carbon nanofibers. RSC Advances, 2015, 5, 40884-40891.	1.7	15
76	Promising biomass-based activated carbons derived from willow catkins for high performance supercapacitors. Electrochimica Acta, 2015, 166, 1-11.	2.6	386
77	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
78	Thermal Modelling Analysis of Spiral Wound Supercapacitor under Constant-Current Cycling. PLoS ONE, 2015, 10, e0138672.	1.1	31
79	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
80	Preparation of Electrode Based on Plasma Modification and Its Electrochemical Application. Journal of Materials Engineering and Performance, 2014, 23, 588-592.	1.2	19
81	Nitrogen-doped graphene for supercapacitor with long-term electrochemical stability. Energy, 2014, 70, 612-617.	4.5	185
82	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
83	The thermal analysis on the stackable supercapacitor. Energy, 2013, 59, 440-444.	4.5	61
84	The Preparation of Nickel Hydroxide Based on Infinite Dilute Method and Its Electrochemical Performance. Electrochemistry, 2013, 81, 259-261.	0.6	11
85	A Numerical Controlled Constant Current Source Based on Power MOSFET. Applied Mechanics and Materials, 2012, 241-244, 1859-1862.	0.2	0
86	Electrochemical Properties of PANI/CNTs Composites Modified by Oxygen Plasma. Advanced Materials Research, 0, 306-307, 1635-1639.	0.3	0
87	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
88	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