Lele Peng

List of Publications by Year
in descending order

65 papers	13,832 citations	38660 50 h-index	98622 67 g-index
70 all docs	70 docs citations	70 times ranked	17972 citing authors

#	Article	IF	Citations
1	Metallic Few-Layered VS₂ Ultrathin Nanosheets: High Two-Dimensional Conductivity for In-Plane Supercapacitors. Journal of the American Chemical Society, 2011, 133, 17832-17838.	6.6	1,014
2	Two dimensional nanomaterials for flexible supercapacitors. Chemical Society Reviews, 2014, 43, 3303.	18.7	978
3	Ultrathin Two-Dimensional MnO₂/Graphene Hybrid Nanostructures for High-Performance, Flexible Planar Supercapacitors. Nano Letters, 2013, 13, 2151-2157.	4.5	818
4	Nanostructured conductive polymers for advanced energy storage. Chemical Society Reviews, 2015, 44, 6684-6696.	18.7	719
5	Hierarchical 3D electrodes for electrochemical energy storage. Nature Reviews Materials, 2019, 4, 45-60.	23.3	554
6	Twoâ€Ðimensional Materials for Beyondâ€Lithiumâ€Ion Batteries. Advanced Energy Materials, 2016, 6, 1600025.	10.2	533
7	Dual Tuning of Niâ€“Coâ€“A (A = P, Se, O) Nanosheets by Anion Substitution and Holey Engineering for Efficient Hydrogen Evolution. Journal of the American Chemical Society, 2018, 140, 5241-5247.	6.6	461
8	A fundamental look at electrocatalytic sulfur reduction reaction. Nature Catalysis, 2020, 3, 762-770.	16.1	455
9	Double-negative-index ceramic aerogels for thermal superinsulation. Science, 2019, 363, 723-727.	6.0	429
10	Stretchable Allâ€Gelâ€State Fiberâ€Shaped Supercapacitors Enabled by Macromolecularly Interconnected 3D Graphene/Nanostructured Conductive Polymer Hydrogels. Advanced Materials, 2018, 30, e1800124.	11.1	396
11	A chemistry and material perspective on lithium redox flow batteries towards high-density electrical energy storage. Chemical Society Reviews, 2015, 44, 7968-7996.	18.7	388
12	Giant Moisture Responsiveness of VS₂ Ultrathin Nanosheets for Novel Touchless Positioning Interface. Advanced Materials, 2012, 24, 1969-1974.	11.1	364
13	Conductive â€œSmartâ€•Hybrid Hydrogels with PNIPAM and Nanostructured Conductive Polymers. Advanced Functional Materials, 2015, 25, 1219-1225.	7.8	363
14	Two-dimensional vanadyl phosphate ultrathin nanosheets for high energy density and flexible pseudocapacitors. Nature Communications, 2013, 4, 2431.	5.8	356
15	Holey two-dimensional transition metal oxide nanosheets for efficient energy storage. Nature Communications, 2017, 8, 15139.	5.8	343
16	Single-Crystalline LiFePO₄ Nanosheets for High-Rate Li-Ion Batteries. Nano Letters, 2014, 14, 2849-2853.	4.5	308
17	Structural Engineering of 2D Nanomaterials for Energy Storage and Catalysis. Advanced Materials, 2018, 30, e1706347.	11.1	297
18	Holey 2D Nanomaterials for Electrochemical Energy Storage. Advanced Energy Materials, 2018, 8, 1702179.	10.2	293

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19	Hydrogen-Incorporated TiS₂ Ultrathin Nanosheets with Ultrahigh Conductivity for Stamp-Transferrable Electrodes. Journal of the American Chemical Society, 2013, 135, 5144-5151.	6.6	273
20	Metallic Transition Metal Selenide Holey Nanosheets for Efficient Oxygen Evolution Electrocatalysis. ACS Nano, 2017, 11, 9550-9557.	7.3	273
21	A Conductive Molecular Framework Derived Li₂S/N,Pâ€Codoped Carbon Cathode for Advanced Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2017, 7, 1602876.	10.2	258
22	Intercalation Pseudocapacitance in Ultrathin VOPO₄ Nanosheets: Toward High-Rate Alkali-Ion-Based Electrochemical Energy Storage. Nano Letters, 2016, 16, 742-747.	4.5	250
23	An advanced high-energy sodium ion full battery based on nanostructured Na₂Ti₃O₇/VOPO₄layered materials. Energy and Environmental Science, 2016, 9, 3399-3405.	15.6	247
24	Biobased Nano Porous Active Carbon Fibers for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2016, 8, 15205-15215.	4.0	206
25	Multifunctional Superhydrophobic Surfaces Templated From Innately Microstructured Hydrogel Matrix. Nano Letters, 2014, 14, 4803-4809.	4.5	183
26	Achieving High-Energyâ€“High-Power Density in a Flexible Quasi-Solid-State Sodium Ion Capacitor. Nano Letters, 2016, 16, 5938-5943.	4.5	171
27	Silver nanoparticles boost charge-extraction efficiency in Shewanella microbial fuel cells. Science, 2021, 373, 1336-1340.	6.0	171
28	Nanostructured conducting polymer hydrogels for energy storage applications. Nanoscale, 2015, 7, 12796-12806.	2.8	160
29	Two-Dimensional Holey Co₃O₄ Nanosheets for High-Rate Alkali-Ion Batteries: From Rational Synthesis to in Situ Probing. Nano Letters, 2017, 17, 3907-3913.	4.5	158
30	Hydrogen-Incorporation Stabilization of Metallic VO₂(R) Phase to Room Temperature, Displaying Promising Low-Temperature Thermoelectric Effect. Journal of the American Chemical Society, 2011, 133, 13798-13801.	6.6	144
31	Chemically Integrated Two-Dimensional Hybrid Zinc Manganate/Graphene Nanosheets with Enhanced Lithium Storage Capability. ACS Nano, 2014, 8, 8610-8616.	7.3	141
32	Thermally Responsive Hydrogel Blends: A General Drug Carrier Model for Controlled Drug Release. Angewandte Chemie - International Edition, 2015, 54, 7376-7380.	7.2	141
33	An Allâ€Stretchableâ€Component Sodiumâ€Ion Full Battery. Advanced Materials, 2017, 29, 1700898.	11.1	141
34	A reversible Br₂/Br^{â^'} redox couple in the aqueous phase as a high-performance catholyte for alkali-ion batteries. Energy and Environmental Science, 2014, 7, 1990-1995.	15.6	137
35	3D Holey Graphene/Polyacrylonitrile Sulfur Composite Architecture for High Loading Lithium Sulfur Batteries. Advanced Energy Materials, 2021, 11, 2100448.	10.2	131
36	Local Builtâ€In Electric Field Enabled in Carbonâ€Doped Co₃O₄ Nanocrystals for Superior Lithiumâ€Ion Storage. Advanced Functional Materials, 2018, 28, 1705951.	7.8	128

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37	Chemically Integrated Inorganicâ€Graphene Twoâ€Dimensional Hybrid Materials for Flexible Energy Storage Devices. Small, 2016, 12, 6183-6199.	5.2	126
38	Large-area graphene realizing ultrasensitive photothermal actuator with high transparency: new prototype robotic motions under infrared-light stimuli. Journal of Materials Chemistry, 2011, 21, 18584.	6.7	111
39	Self-assembled LiNi1/3Co1/3Mn1/3O2 nanosheet cathodes with tunable rate capability. Nano Energy, 2015, 17, 36-42.	8.2	105
40	Effective Interlayer Engineering of Two-Dimensional VOPO₄ Nanosheets via Controlled Organic Intercalation for Improving Alkali Ion Storage. Nano Letters, 2017, 17, 6273-6279.	4.5	102
41	Two-dimensional nanosheets based Li-ion full batteries with high rate capability and flexibility. Nano Energy, 2015, 12, 816-823.	8.2	99
42	Bacteria-Derived Biological Carbon Building Robust Liâ€“S Batteries. Nano Letters, 2019, 19, 4384-4390.	4.5	95
43	Cyanogel-Enabled Homogeneous Sbâ€“Niâ€“C Ternary Framework Electrodes for Enhanced Sodium Storage. ACS Nano, 2018, 12, 759-767.	7.3	72
44	An improved model and parameters extraction for photovoltaic cells using only three state points at standard test condition. Journal of Power Sources, 2014, 248, 621-631.	4.0	69
45	The promises, challenges and pathways to room-temperature sodium-sulfur batteries. National Science Review, 2022, 9, nwab050.	4.6	68
46	A new method for determining the characteristics of solar cells. Journal of Power Sources, 2013, 227, 131-136.	4.0	67
47	Two-Dimensional Holey Nanoarchitectures Created by Confined Self-Assembly of Nanoparticles via Block Copolymers: From Synthesis to Energy Storage Property. ACS Nano, 2018, 12, 820-828.	7.3	62
48	A Silicon Monoxide Lithium-Ion Battery Anode with Ultrahigh Areal Capacity. Nano-Micro Letters, 2022, 14, 50.	14.4	59
49	Self-assembled LiFePO4nanowires with high rate capability for Li-ion batteries. Chemical Communications, 2014, 50, 9569.	2.2	52
50	A novel tangent error maximum power point tracking algorithm for photovoltaic system under fast multi-changing solar irradiances. Applied Energy, 2018, 210, 303-316.	5.1	51
51	Size-dependent kinetics during non-equilibrium lithiation of nano-sized zinc ferrite. Nature Communications, 2019, 10, 93.	5.8	39
52	General Facet-Controlled Synthesis of Single-Crystalline {010}-Oriented LiMPO₄ (M = Mn,) Tj ETQq0 0 0 rgBT /Overlock 10	3.2	30
53	Layer-by-Layer Assembly of Two-Dimensional Colloidal Cu₂Se Nanoplates and Their Layer-Dependent Conductivity. Chemistry of Materials, 2016, 28, 4307-4314.	3.2	28
54	Highly entangled K0.5V2O5 superlong nanobelt membranes for flexible nonvolatile memory devices. Journal of Materials Chemistry, 2012, 22, 18214.	6.7	22

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55	A nitrogen-doped mesopore-dominated carbon electrode allied with anti-freezing EMIBF₄â€“GBL electrolyte for superior low-temperature supercapacitors. Journal of Materials Chemistry A, 2020, 8, 10386-10394.	5.2	21
56	A Lightweight Model for Bearing Fault Diagnosis Based on Gramian Angular Field and Coordinate Attention. Machines, 2022, 10, 282.	1.2	20
57	Solvent-Dependent Intercalation and Molecular Configurations in Metallocene-Layered Crystal Superlattices. Nano Letters, 2018, 18, 6071-6075.	4.5	19
58	A Comprehensive Detection System for Track Geometry Using Fused Vision and Inertia. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-15.	2.4	17
59	Amorphous silicon honeycombs as a binder/carbon-free, thin-film Li-ion battery anode. Chemical Communications, 2014, 50, 12959-12962.	2.2	15
60	Probing enhanced lithium-ion transport kinetics in 2D holey nanoarchitectured electrodes. Nano Futures, 2018, 2, 035008.	1.0	15
61	A Simple Method of Residential Electricity Load Forecasting by Improved Bayesian Neural Networks. Mathematical Problems in Engineering, 2018, 2018, 1-16.	0.6	15
62	Research on the Simulation of Wheelset Response Characteristic Identification of Railway Fastener Loosening. Mathematical Problems in Engineering, 2020, 2020, 1-15.	0.6	4
63	Data on photovoltaic system using different perturb and observe methods under fast multi-changing solar irradiances. Data in Brief, 2018, 17, 169-171.	0.5	2
64	A Novel Control Strategy on Multiple-Mode Application of Electric Vehicle in Distributed Photovoltaic Systems. Complexity, 2018, 2018, 1-11.	0.9	2
65	Crack Detection Method of Sleeper Based on Cascade Convolutional Neural Network. Journal of Advanced Transportation, 2022, 2022, 1-14.	0.9	2