Li-jia Pan

List of Publications by Year
in descending order

121 papers	14,179 citations	43973 48 h-index	23472 111 g-index
124 all docs	124 docs citations	124 times ranked	20389 citing authors

#	Article	IF	Citations
1	An ultra-sensitive resistive pressure sensor based on hollow-sphere microstructure induced elasticity in conducting polymer film. Nature Communications, 2014, 5, 3002.	5.8	1,225
2	Stable Li-ion battery anodes by in-situ polymerization of conducting hydrogel to conformally coat silicon nanoparticles. Nature Communications, 2013, 4, 1943.	5.8	1,138
3	Hierarchical nanostructured conducting polymer hydrogel with high electrochemical activity. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9287-9292.	3.3	1,025
4	Hybrid nanostructured materials for high-performance electrochemical capacitors. Nano Energy, 2013, 2, 213-234.	8.2	976
5	Highly Sensitive Glucose Sensor Based on Pt Nanoparticle/Polyaniline Hydrogel Heterostructures. ACS Nano, 2013, 7, 3540-3546.	7.3	699
6	Nanostructured conductive polypyrrole hydrogels as high-performance, flexible supercapacitor electrodes. Journal of Materials Chemistry A, 2014, 2, 6086-6091.	5.2	624
7	Towards intrinsic charge transport in monolayer molybdenum disulfide by defect and interface engineering. Nature Communications, 2014, 5, 5290.	5.8	563
8	Electrical characterization of back-gated bi-layer MoS2 field-effect transistors and the effect of ambient on their performances. Applied Physics Letters, 2012, 100, .	1.5	515
9	Hierarchical N-Doped Carbon as CO₂ Adsorbent with High CO₂ Selectivity from Rationally Designed Polypyrrole Precursor. Journal of the American Chemical Society, 2016, 138, 1001-1009.	6.6	405
10	A Selfâ€Healable, Highly Stretchable, and Solution Processable Conductive Polymer Composite for Ultrasensitive Strain and Pressure Sensing. Advanced Functional Materials, 2018, 28, 1705551.	7.8	387
11	A Nanostructured Conductive Hydrogels-Based Biosensor Platform for Human Metabolite Detection. Nano Letters, 2015, 15, 1146-1151.	4.5	352
12	3D nanostructured conductive polymer hydrogels for high-performance electrochemical devices. Energy and Environmental Science, 2013, 6, 2856.	15.6	351
13	Multifunctional Nanostructured Conductive Polymer Gels: Synthesis, Properties, and Applications. Accounts of Chemical Research, 2017, 50, 1734-1743.	7.6	343
14	Conducting Polymer Nanostructures: Template Synthesis and Applications in Energy Storage. International Journal of Molecular Sciences, 2010, 11, 2636-2657.	1.8	309
15	A Threeâ€Dimensionally Interconnected Carbon Nanotubeâ€“Conducting Polymer Hydrogel Network for Highâ€Performance Flexible Battery Electrodes. Advanced Energy Materials, 2014, 4, 1400207.	10.2	280
16	Preparation of magnetic CoFe2O4-functionalized graphene sheets via a facile hydrothermal method and their adsorption properties. Journal of Solid State Chemistry, 2011, 184, 953-958.	1.4	246
17	Highly Sensitive, Printable Nanostructured Conductive Polymer Wireless Sensor for Food Spoilage Detection. Nano Letters, 2018, 18, 4570-4575.	4.5	232
18	Dopant-Enabled Supramolecular Approach for Controlled Synthesis of Nanostructured Conductive Polymer Hydrogels. Nano Letters, 2015, 15, 7736-7741.	4.5	227

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19	Ultrahigh Surface Area Three-Dimensional Porous Graphitic Carbon from Conjugated Polymeric Molecular Framework. ACS Central Science, 2015, 1, 68-76.	5.3	207
20	Uniform and ultrathin high-Î⁰ gate dielectrics for two-dimensional electronic devices. Nature Electronics, 2019, 2, 563-571.	13.1	204
21	Advanced electronic skin devices for healthcare applications. Journal of Materials Chemistry B, 2019, 7, 173-197.	2.9	193
22	Understanding the Size-Dependent Sodium Storage Properties of Na₂C₆O₆-Based Organic Electrodes for Sodium-Ion Batteries. Nano Letters, 2016, 16, 3329-3334.	4.5	184
23	Multifunctional Superhydrophobic Surfaces Templated From Innately Microstructured Hydrogel Matrix. Nano Letters, 2014, 14, 4803-4809.	4.5	183
24	All Inkjet-Printed Amperometric Multiplexed Biosensors Based on Nanostructured Conductive Hydrogel Electrodes. Nano Letters, 2018, 18, 3322-3327.	4.5	176
25	MXenes and Their Applications in Wearable Sensors. Frontiers in Chemistry, 2020, 8, 297.	1.8	147
26	Rational design and applications of conducting polymer hydrogels as electrochemical biosensors. Journal of Materials Chemistry B, 2015, 3, 2920-2930.	2.9	146
27	Energy gels: A bio-inspired material platform for advanced energy applications. Nano Today, 2016, 11, 738-762.	6.2	144
28	Doping engineering of conductive polymer hydrogels and their application in advanced sensor technologies. Chemical Science, 2019, 10, 6232-6244.	3.7	139
29	2D Singleâ€Crystalline Molecular Semiconductors with Precise Layer Definition Achieved by Floatingâ€Coffeeâ€Ringâ€Driven Assembly. Advanced Functional Materials, 2016, 26, 3191-3198.	7.8	136
30	Highly Connected Siliconâ€“Copper Alloy Mixture Nanotubes as Highâ€Rate and Durable Anode Materials for Lithiumâ€Ion Batteries. Advanced Functional Materials, 2016, 26, 524-531.	7.8	110
31	Advanced Wearable Microfluidic Sensors for Healthcare Monitoring. Small, 2020, 16, e1903822.	5.2	107
32	Luminescence and photophysical properties of colloidal ZnS nanoparticles. Acta Materialia, 2004, 52, 1489-1494.	3.8	104
33	Inkjet printing for flexible and wearable electronics. APL Materials, 2020, 8, .	2.2	89
34	Flexible Pressure Sensor With High Sensitivity and Low Hysteresis Based on a Hierarchically Microstructured Electrode. IEEE Electron Device Letters, 2018, 39, 288-291.	2.2	87
35	Sub-thermionic, ultra-high-gain organic transistors and circuits. Nature Communications, 2021, 12, 1928.	5.8	83
36	Mesoporous iron oxide directly anchored on a graphene matrix for lithium-ion battery anodes with enhanced strain accommodation. RSC Advances, 2013, 3, 699-703.	1.7	76

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37	ZnO-nanorods/graphene heterostructure: a direct electron transfer glucose biosensor. Scientific Reports, 2016, 6, 32327.	1.6	76
38	Properties of conductive polymer hydrogels and their application in sensors. Journal of Polymer Science, Part B: Polymer Physics, 2019, 57, 1606-1621.	2.4	71
39	Boost Up Carrier Mobility for Ferroelectric Organic Transistor Memory via Buffering Interfacial Polarization Fluctuation. Scientific Reports, 2014, 4, 7227.	1.6	67
40	A scalable sulfuration of WS2 to improve cyclability and capability of lithium-ion batteries. Nano Research, 2016, 9, 857-865.	5.8	67
41	Inkjet-printed porous polyaniline gel as an efficient anode for microbial fuel cells. Journal of Materials Chemistry A, 2016, 4, 14555-14559.	5.2	64
42	Skin-inspired electronics: emerging semiconductor devices and systems. Journal of Semiconductors, 2020, 41, 041601.	2.0	63
43	Hydrothermal synthesis of grapheneâ€“ZnS quantum dot nanocomposites. Materials Letters, 2011, 65, 198-200.	1.3	59
44	Graphene anchored with mesoporous NiO nanoplates as anode material for lithium-ion batteries. Journal of Solid State Electrochemistry, 2012, 16, 1889-1892.	1.2	54
45	Two-dimensional bimetallic phosphide ultrathin nanosheets as non-noble electrocatalysts for a highly efficient oxygen evolution reaction. Nanoscale, 2019, 11, 9654-9660.	2.8	53
46	Hierarchical nano-branched c-Si/SnO2 nanowires for high areal capacity and stable lithium-ion battery. Nano Energy, 2016, 19, 511-521.	8.2	52
47	Near-Field Communication Sensors. Sensors, 2019, 19, 3947.	2.1	51
48	Oxide Synaptic Transistors Coupled With Triboelectric Nanogenerators for Bio-Inspired Tactile Sensing Application. IEEE Electron Device Letters, 2020, 41, 617-620.	2.2	51
49	In situ growth of mesoporous Co3O4 nanoparticles on graphene as a high-performance anode material for lithium-ion batteries. Materials Letters, 2014, 119, 12-15.	1.3	46
50	Using in-Situ Polymerization of Conductive Polymers to Enhance the Electrical Properties of Solution-Processed Carbon Nanotube Films and Fibers. ACS Applied Materials & Interfaces, 2014, 6, 9966-9974.	4.0	43
51	Fast-Response and Low-Hysteresis Flexible Pressure Sensor Based on Silicon Nanowires. IEEE Electron Device Letters, 2018, 39, 1069-1072.	2.2	43
52	Evaluation of in vitro and in vivo biocompatibility of a myo-inositol hexakisphosphate gelated polyaniline hydrogel in a rat model. Scientific Reports, 2016, 6, 23931.	1.6	42
53	Double Perovskites as Model Bifunctional Catalysts toward Rational Design: The Correlation between Electrocatalytic Activity and Complex Spin Configuration. ACS Applied Materials & Interfaces, 2018, 10, 19746-19754.	4.0	41
54	Concentration of Gengnian'an extract with a vapor-liquid-solid evaporator. AICHE Journal, 2005, 51, 759-765.	1.8	37

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55	Highly cross-linked Cu/a-Si coreâ€“shell nanowires for ultra-long cycle life and high rate lithium batteries. Nanoscale, 2016, 8, 2613-2619.	2.8	33
56	Ultrafine bimetallic phosphide nanoparticles embedded in carbon nanosheets: two-dimensional metalâ€“organic framework-derived non-noble electrocatalysts for the highly efficient oxygen evolution reaction. Nanoscale, 2018, 10, 19774-19780.	2.8	31
57	Coupling Enhanced Performance of Triboelectricâ€“Piezoelectric Hybrid Nanogenerator Based on Nanoporous Film of Poly(vinylidene fluoride)/BaTiO₃ Composite Electrospun Fibers. , 2022, 4, 847-852.		30
58	Synthesis and electrochemical properties of graphene-SnS2 nanocomposites for lithium-ion batteries. Journal of Solid State Electrochemistry, 2012, 16, 1999-2004.	1.2	29
59	Electronic Properties of Graphene Altered by Substrate Surface Chemistry and Externally Applied Electric Field. Journal of Physical Chemistry C, 2012, 116, 6259-6267.	1.5	28
60	Recent Advances in Interface Engineering for Planar Heterojunction Perovskite Solar Cells. Molecules, 2016, 21, 837.	1.7	28
61	In situ growth of CuO nanoparticles on graphene matrix as anode material for lithium-ion batteries. Materials Letters, 2013, 105, 242-245.	1.3	27
62	Structural Characterization of Mesoporous Silica Nanofibers Synthesized Within Porous Alumina Membranes. Nanoscale Research Letters, 2009, 4, 1257-1262.	3.1	25
63	Conducting Polymers and Their Applications in Diabetes Management. Sensors, 2016, 16, 1787.	2.1	25
64	Application of conductive polymer hydrogels in flexible electronics. Journal of Polymer Science, 2022, 60, 2635-2662.	2.0	25
65	A novel route to CdS nanocrystals with strong electrogenerated chemiluminescence. Materials Chemistry and Physics, 2007, 101, 317-321.	2.0	24
66	Frequency-Enabled Decouplable Dual-Modal Flexible Pressure and Temperature Sensor. IEEE Electron Device Letters, 2020, 41, 1568-1571.	2.2	23
67	Reducing contact resistance in ferroelectric organic transistors by buffering the semiconductor/dielectric interface. Applied Physics Letters, 2015, 107, .	1.5	21
68	In situ growth of mesoporous NiO nanoplates on a graphene matrix as cathode catalysts for rechargeable lithiumâ€“air batteries. Materials Letters, 2015, 141, 43-46.	1.3	21
69	Effect of ionic liquid amount (C8H15BrN2) on the morphology of Bi2Te3 nanoplates synthesized via a microwave-assisted heating approach. Journal of Alloys and Compounds, 2011, 509, 6015-6020.	2.8	20
70	Challenges in Materials and Devices of Electronic Skin. , 2022, 4, 577-599.		20
71	Multiterminal Ionic Synaptic Transistor With Artificial Blink Reflex Function. IEEE Electron Device Letters, 2021, 42, 351-354.	2.2	19
72	Nanomaterials and their applications on bio-inspired wearable electronics. Nanotechnology, 2021, 32, 472002.	1.3	19

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73	Hierarchically porous N-doped carbon derived from supramolecular assembled polypyrrole as a high performance supercapacitor electrode material. RSC Advances, 2018, 8, 18714-18722.	1.7	18
74	Synthesis of CdS nanoplates by PAA-assisted hydrothermal approach. Materials Letters, 2006, 60, 3842-3845.	1.3	17
75	A molecular understanding of the gas-phase reduction and doping of graphene oxide. Nano Research, 2012, 5, 361-368.	5.8	16
76	Fabrication of nanowire-like cuprous oxide in aqueous solutions of a triblock copolymer. Journal of Alloys and Compounds, 2009, 482, 240-245.	2.8	15
77	Electrical switching behavior from ultrathin potential barrier of self-assembly molecules tuned by interfacial charge trapping. Applied Physics Letters, 2010, 96, .	1.5	15
78	Skinâ€Inspired Electronics and Its Applications in Advanced Intelligent Systems. Advanced Intelligent Systems, 2019, 1, 1900063.	3.3	15
79	Ultrafast microwave synthesis of rambutan-like CMK-3/carbon nanotubes nanocomposites for high-performance supercapacitor electrode materials. Scientific Reports, 2020, 10, 6227.	1.6	15
80	Sliding Cyclodextrin Molecules along Polymer Chains to Enhance the Stretchability of Conductive Composites. Small, 2022, 18, e2200533.	5.2	15
81	PbS/epoxy resin nanocomposite prepared by a novel method. Materials Letters, 2004, 58, 176-178.	1.3	14
82	Elastic Aerogel with Tunable Wettability for Self-Cleaning Electronic Skin. , 2020, 2, 1575-1582.		14
83	ZnO nanowire photodetectors based on Schottky contact with surface passivation. Optics Communications, 2017, 395, 72-75.	1.0	13
84	Self-assembly Synthesis of High-density Platinum Nanoparticles on Chemically Reduced Graphene Sheets. Chemistry Letters, 2011, 40, 104-105.	0.7	10
85	An Optimized FinFET Channel With Improved Line-Edge Roughness and Linewidth Roughness Using the Hydrogen Thermal Treatment Technology. IEEE Nanotechnology Magazine, 2017, 16, 1081-1087.	1.1	10
86	Solvothermal synthesis of 3D photonic crystals based on ZnS/opal system. Materials Chemistry and Physics, 2005, 89, 6-10.	2.0	9
87	Self-assembly of Polyaniline: Mechanism Study. Chinese Journal of Chemical Physics, 2008, 21, 187-192.	0.6	9
88	Electrical switching behavior from all-polymer-based system of semiconductor/ferroelectrics/semiconductor. Applied Physics Letters, 2011, 98, 173306.	1.5	9
89	Device Based on Polymer Schottky Junctions and Their Applications: A Review. IEEE Access, 2020, 8, 189646-189660.	2.6	9
90	Artificial Reflex Arc: An Environment-Adaptive Neuromorphic Camouflage Device. IEEE Electron Device Letters, 2021, 42, 1224-1227.	2.2	9

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91	Long-term cell culture and electrically in situ monitoring of living cells based on a polyaniline hydrogel sensor. Journal of Materials Chemistry B, 2021, 9, 9514-9523.	2.9	9
92	Wearable Near-Field Communication Sensors for Healthcare: Materials, Fabrication and Application. Micromachines, 2022, 13, 784.	1.4	9
93	Fabrication of lateral electrodes on semiconductor nanowires through structurally matched insulation for functional optoelectronics. Nanotechnology, 2013, 24, 025204.	1.3	8
94	In vivo study of alginate hydrogel conglutinating cells to polycaprolactone vascular scaffolds fabricated by electrospinning. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 2443-2454.	1.6	8
95	Spontaneous Ga incorporation in ZnO nanowires epitaxially grown on GaN substrate. Physica Status Solidi - Rapid Research Letters, 2015, 9, 466-469.	1.2	5
96	Patterning of self-assembled monolayers by phase-shifting mask and its applications in large-scale assembly of nanowires. Applied Physics Letters, 2015, 106, 041605.	1.5	5
97	Kinetic Monte Carlo study on the evolution of silicon surface roughness under hydrogen thermal treatment. Applied Surface Science, 2017, 414, 361-364.	3.1	5
98	Microwave-Assisted Synthesis of Shuttle-shaped Single-Crystalline Te Nanotubes Decorated with Spherical Particles. Current Nanoscience, 2011, 7, 254-259.	0.7	4
99	Transparent Electronic Skin Device Based on Microstructured Silver Nanowire Electrode. Chinese Journal of Chemical Physics, 2017, 30, 603-608.	0.6	4
100	Alginate Hydrogel Conglutinate Cells on the Surface of Polycaprolactone Vascular Scaffolds Fabricated by Electrospinning. Journal of Biomaterials and Tissue Engineering, 2015, 5, 64-70.	0.0	4
101	Enhanced Nonenzymatic Sensing of Hydrogen Peroxide Released from Living Cells Based on Graphene Aerogel/Platinum Nanoparticle. Science of Advanced Materials, 2016, 8, 1165-1171.	0.1	4
102	Prospective on doping engineering of conductive polymers for enhanced interfacial properties. Applied Physics Letters, 2021, 119, .	1.5	4
103	Enhancement of thermoelectric figure-of-merit in laterally-coupled nanowire arrays. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2728-2732.	0.9	3
104	Metal-diffusion-induced ITO nanoparticles at the organic/ITO interface. Journal Physics D: Applied Physics, 2012, 45, 165104.	1.3	3
105	Easy Preparation and Photoelectrochemical Properties of CdS Nanoparticle/Graphene Nanosheet Nanocomposites Using Supercritical Carbon Dioxide. Journal of Nanoscience and Nanotechnology, 2016, 16, 2742-2751.	0.9	3
106	Self-Powered Direct-current Type Pressure Sensor by Polypyrrole/Metal Schottky Junction. Journal Physics D: Applied Physics, 0, , .	1.3	3
107	Recent progress on performances and mechanisms of carbon dots for gas sensing. Luminescence, 2023, 38, 896-908.	1.5	3
108	Synthesis of Multishell Carbon Nanotube Composites via Template Method. Chinese Journal of Chemical Physics, 2011, 24, 206-210.	0.6	2

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109	Template Synthesis of Freestanding Nanostructural Membrane of Polyaniline. Chemistry Letters, 2011, 40, 644-645.	0.7	2
110	Nanocellulose and nanohydrogel for energy, environmental, and biomedical applications. , 2020, , 33-64.		2
111	Solvothermal Fabrication of Monodisperse Zinc-blende CdS Nanocrystals. Chemistry Letters, 2006, 35, 1388-1389.	0.7	1
112	Charge trapping at organic/self-assembly molecule interfaces studied by electrical switching behaviour in a crosspoint structure. Journal Physics D: Applied Physics, 2012, 45, 025304.	1.3	1
113	Interweaving of multilevel carbon networks with mesoporous TiO2 for lithium-ion battery anodes. RSC Advances, 2013, 3, 24882.	1.7	1
114	An accessible superhydrophobic coating with nanostructure for continuously oil/water separation. , 2014, , .		1
115	Healthcare electronic skin devices. Journal of Semiconductors, 2019, 40, 030401.	2.0	1
116	Ballpoint-Pen Like Probes for Multipoint Dynamic Pulse Diagnosis System. IEEE Sensors Journal, 2022, 22, 12253-12259.	2.4	1
117	Formation of SnO<inf>x</inf> nanoparticles at the AlDCN/ITO interface in organic cross-point memory devices. , 2008, , .		0
118	Broad excitation of Er luminescence in Er-doped HfO<inf>2</inf> films. , 2008, , .		0
119	Charge trapping memory devices employing multi-layered Ge/Si nanocrystals for storage fabricated with ALD and PLD methods. Frontiers of Optoelectronics in China, 2011, 4, 146-149.	0.2	0
120	Identification of stable QTLs related to trunk girth in longan. Scientia Horticulturae, 2012, 134, 248-252.	1.7	0
121	Evolutionary process of nanoscale FinFET channel in hydrogen thermal treatment technology. , 2016, , .		0