Nishuang Liu

List of Publications by Year
in descending order

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114	8,048	57631	49773
papers	citations	44	87
		h-index	g-index

114	114	114	9658
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An Ion Channelâ€Induced Selfâ€Powered Flexible Pressure Sensor Based on Potentiometric Transduction Mechanism. Advanced Functional Materials, 2022, 32, 2108856.	7.8	35
2	Selfâ€Powered Graphene Oxide Humidity Sensor Based on Potentiometric Humidity Transduction Mechanism. Advanced Functional Materials, 2022, 32, 2107330.	7.8	76
3	A â€œone-for-threeâ€•strategy through a facile one-step hydrothermal engineering of commercial MoO₃ for high-performance proton storage. Journal of Materials Chemistry A, 2022, 10, 4043-4052.	5.2	19
4	Ti₃C₂T_x MXene-Based Flexible Piezoresistive Physical Sensors. ACS Nano, 2022, 16, 1734-1758.	7.3	177
5	Roles of MXene in Pressure Sensing: Preparation, Composite Structure Design, and Mechanism. Advanced Materials, 2022, 34, e2110608.	11.1	90
6	Highâ€Performance Flexible Pressure Sensor with a Selfâ€Healing Function for Tactile Feedback. Advanced Science, 2022, 9, e2200507.	5.6	84
7	Rich 1Tâ€MoS₂ Nanoflowers Decorated on Reduced Graphene Oxide Nanosheet for Ultraâ€Quick Zn²⁺ Storage. Batteries and Supercaps, 2022, 5, .	2.4	4
8	Studying Plasmon Dispersion of MXene for Enhanced Electromagnetic Absorption. Advanced Materials, 2022, 34, e2201120.	11.1	17
9	Flexible MXene/Bacterial Cellulose Film Sound Detector Based on Piezoresistive Sensing Mechanism. ACS Nano, 2022, 16, 8461-8471.	7.3	84
10	Interlayer-spacing-regulated MXene/rGO Foam for Multi-functional Zinc-ion Microcapacitors. Energy Storage Materials, 2022, 50, 444-453.	9.5	51
11	In Situ TEM Investigations on the Controlled Phase Transformation of Vertically Aligned WS₂ at Designated Locations on an Atomic Scale. Journal of Physical Chemistry C, 2021, 125, 2761-2769.	1.5	3
12	Interior and Exterior Decoration of Transition Metal Oxide Through Cu0/Cu+ Co-Doping Strategy for High-Performance Supercapacitor. Nano-Micro Letters, 2021, 13, 61.	14.4	52
13	Bionic MXene actuator with multiresponsive modes. Chemical Engineering Journal, 2021, 417, 129288.	6.6	34
14	Tensible and flexible high-sensitive spandex fiber strain sensor enhanced by carbon nanotubes/Ag nanoparticles. Nanotechnology, 2021, 32, 505509.	1.3	6
15	MXene/cellulose nanofiber-foam based high performance degradable piezoresistive sensor with greatly expanded interlayer distances. Nano Energy, 2021, 87, 106151.	8.2	82
16	In situinsight into thermally-induced reversible transitions of the crystal structure and photoluminescence properties in a Cu₂Te nanoplate. Journal of Materials Chemistry A, 2021, 9, 26095-26104.	5.2	8
17	In situ TEM observation of controlled growth of two-dimensional WS2 with vertically aligned layers and high-temperature stability. Nano Energy, 2020, 67, 104221.	8.2	26
18	Yb/Er coordinatively doping in bilayer WSe2 for fascinating up-conversion luminescence. Nano Energy, 2020, 78, 105317.	8.2	6

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19	Research progress of MXenes-based wearable pressure sensors. APL Materials, 2020, 8, .	2.2	31
20	Unveiling the Nucleation Dynamics and Growth Mechanism of Layered MoS₂ from Crystalline K₂MoS₄ by in Situ Transmission Electron Microscopy. Crystal Growth and Design, 2020, 20, 4069-4076.	1.4	7
21	Revealing the Phase-Transition Dynamics and Mechanism in a Spinel Li₄Ti₅O₁₂ Anode Material through in Situ Electron Microscopy. ACS Applied Materials & Interfaces, 2020, 12, 20874-20881.	4.0	6
22	Pulsed Laser Deposition Assisted van der Waals Epitaxial Large Area Quasiâ€2D ZnO Singleâ€Crystal Plates on Fluorophlogopite Mica. Advanced Materials Interfaces, 2019, 6, 1901156.	1.9	15
23	Graphene Aerogel Broken to Fragments for a Piezoresistive Pressure Sensor with a Higher Sensitivity. ACS Applied Materials & Interfaces, 2019, 11, 33165-33172.	4.0	58
24	Improving Performance of Hybrid Grapheneâ€“Perovskite Photodetector by a Scratch Channel. Advanced Electronic Materials, 2019, 5, 1900168.	2.6	28
25	Monolayer MoSe₂/NiO van der Waals heterostructures for infrared light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 13613-13621.	2.7	11
26	All Fiber Based Electrochemical Capacitor towards Wearable AC Line Filters with Outstanding Rate Capability. ChemElectroChem, 2019, 6, 1450-1457.	1.7	11
27	Highly Self-Healable 3D Microsupercapacitor with MXeneâ€“Graphene Composite Aerogel. ACS Nano, 2018, 12, 4224-4232.	7.3	564
28	A flexible and highly sensitive pressure sensor based on elastic carbon foam. Journal of Materials Chemistry C, 2018, 6, 1451-1458.	2.7	127
29	3D Synergistical MXene/Reduced Graphene Oxide Aerogel for a Piezoresistive Sensor. ACS Nano, 2018, 12, 3209-3216.	7.3	654
30	Piezoresistive Pressure Sensor Based on Synergistical Innerconnect Polyvinyl Alcohol Nanowires/Wrinkled Graphene Film. Small, 2018, 14, e1704149.	5.2	186
31	In Situ TEM Observation of Crystal Structure Transformation in InAs Nanowires on Atomic Scale. Nano Letters, 2018, 18, 6597-6603.	4.5	29
32	3D hybrid porous Mxene-sponge network and its application in piezoresistive sensor. Nano Energy, 2018, 50, 79-87.	8.2	423
33	All-fiber-based quasi-solid-state lithium-ion battery towards wearable electronic devices with outstanding flexibility and self-healing ability. Nano Energy, 2018, 51, 425-433.	8.2	83
34	Highly Stretchable and Self-Healable Supercapacitor with Reduced Graphene Oxide Based Fiber Springs. ACS Nano, 2017, 11, 2066-2074.	7.3	413
35	Superelastic and ultralight electron source from modifying 3D reduced graphene aerogel microstructure. Nano Energy, 2017, 33, 280-287.	8.2	26
36	A high performance wire-shaped flexible lithium-ion battery based on silicon nanoparticles within polypyrrole/twisted carbon fibers. RSC Advances, 2017, 7, 26601-26607.	1.7	23

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37	A highly flexible and sensitive piezoresistive sensor based on MXene with greatly changed interlayer distances. Nature Communications, 2017, 8, 1207.	5.8	560
38	Vertical finger-like asymmetric supercapacitors for enhanced performance at high mass loading and inner integrated photodetecting systems. Journal of Materials Chemistry A, 2017, 5, 22199-22207.	5.2	29
39	Recent Progress in Microâ€Supercapacitors with Inâ€Plane Interdigital Electrode Architecture. Small, 2017, 13, 1701989.	5.2	180
40	A new approach for ultrahigh-performance piezoresistive sensor based on wrinkled PPy film with electrospun PVA nanowires as spacer. Nano Energy, 2017, 41, 527-534.	8.2	101
41	MXeneâ€“Silicon Van Der Waals Heterostructures for Highâ€Speed Selfâ€Driven Photodetectors. Advanced Electronic Materials, 2017, 3, 1700165.	2.6	162
42	A Self-Powered Fast-Response Ultraviolet Detector of pâ€“n Homojunction Assembled from Two ZnO-Based Nanowires. Nano-Micro Letters, 2017, 9, 11.	14.4	39
43	Ag nanoparticles modified large area monolayer MoS_2 phototransistors with high responsivity. Optics Express, 2017, 25, 14565.	1.7	42
44	Enhancing light emission in flexible AC electroluminescent devices by tetrapod-like zinc oxide whiskers. Optics Express, 2016, 24, 23419.	1.7	33
45	ZnOâ€“WS₂ heterostructures for enhanced ultra-violet photodetectors. RSC Advances, 2016, 6, 67520-67524.	1.7	54
46	Extraction of nano-silicon with activated carbons simultaneously from rice husk and their synergistic catalytic effect in counter electrodes of dye-sensitized solar cells. Scientific Reports, 2016, 6, 39314.	1.6	29
47	Three-dimensional nanocomposite formed by hydrophobic multiwalled carbon nanotubes threading titanium dioxide as the counter electrode of enhanced performance dye-sensitized solar cells. RSC Advances, 2016, 6, 55071-55078.	1.7	9
48	Piezotronic and piezo-phototronic logic computations using Au decorated ZnO microwires. Nano Energy, 2016, 27, 587-594.	8.2	30
49	Piezoresistive Sensor with High Elasticity Based on 3D Hybrid Network of Sponge@CNTs@Ag NPs. ACS Applied Materials & Interfaces, 2016, 8, 22374-22381.	4.0	176
50	Three-dimensional hierarchical NiCo hydroxide@Ni3S2 nanorod hybrid structure as high performance positive material for asymmetric supercapacitor. Electrochimica Acta, 2016, 222, 965-975.	2.6	32
51	A Flexible Integrated System Containing a Microsupercapacitor, a Photodetector, and a Wireless Charging Coil. ACS Nano, 2016, 10, 11249-11257.	7.3	166
52	UV-free red electroluminescence from the cross-connected p-ZnO:Cu nanobushes/n-GaN light emitting diode. Optics Express, 2016, 24, 3940.	1.7	7
53	SnO₂ Nanoparticles: Grapheneâ€Skeleton Heatâ€Coordinated and Nanoamorphousâ€Surfaceâ€State Controlled Pseudoâ€Negativeâ€Photoconductivity of Tiny SnO₂ Nanoparticles (Adv. Mater. 23/2015). Advanced Materials, 2015, 27, 3579-3579.	11.1	3
54	A wire-shaped flexible asymmetric supercapacitor based on carbon fiber coated with a metal oxide and a polymer. Journal of Materials Chemistry A, 2015, 3, 13461-13467.	5.2	149

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55	Multicolour electroluminescence from light emitting diode based on ZnO:Cu/p-GaN heterojunction at positive and reverse bias voltage. RSC Advances, 2015, 5, 104386-104391.	1.7	7
56	Inkjet printing of conductive patterns and supercapacitors using a multi-walled carbon nanotube/Ag nanoparticle based ink. Journal of Materials Chemistry A, 2015, 3, 2407-2413.	5.2	130
57	Facile, rapid and in-situ synthesis of ZnO nanoparticle films on Zn wires for fiber dye-sensitized solar cells. Materials Research Bulletin, 2015, 66, 244-248.	2.7	8
58	White Lightâ€Emitting Diode From Sbâ€Doped pâ€ZnO Nanowire Arrays/nâ€GaN Film. Advanced Functional Materials, 2015, 25, 2182-2188.	7.8	80
59	Fabrication of nanoscale Ga balls via a Coulomb explosion of microscale silica-covered Ga balls by TEM electron-beam irradiation. Scientific Reports, 2015, 5, 11313.	1.6	14
60	High-Performance Solid-State Supercapacitors Fabricated by Pencil Drawing and Polypyrrole Depositing on Paper Substrate. Nano-Micro Letters, 2015, 7, 276-281.	14.4	43
61	Freestanding and flexible graphene wrapped MnO₂/MoO₃ nanoparticle based asymmetric supercapacitors for high energy density and output voltage. RSC Advances, 2015, 5, 45129-45135.	1.7	30
62	Grapheneâ€Skeleton Heatâ€Coordinated and Nanoamorphousâ€Surfaceâ€State Controlled Pseudoâ€Negativeâ€Photoconductivity of Tiny SnO₂ Nanoparticles. Advanced Materials, 2015, 27, 3525-3532.	11.1	35
63	Fully screen printed highly conductive electrodes on various flexible substrates for asymmetric supercapacitors. RSC Advances, 2015, 5, 85799-85805.	1.7	56
64	Enhanced photo-response properties of a single ZnO microwire photodetector by coupling effect between localized Schottky barriers and piezoelectric potential. Optics Express, 2015, 23, 21204.	1.7	31
65	Strain-enhanced cable-type 3D UV photodetecting of ZnO nanowires on a Ni wire by coupling of piezotronics effect and pn junction. Optics Express, 2014, 22, 3661.	1.7	19
66	In situ synthesis of binded, thick and porous carbon nanoparticle dye sensitized solar cell counter electrode with nickel gel as catalyst source. Journal of Power Sources, 2014, 245, 456-462.	4.0	29
67	Bandgap-graded ZnO/(CdS)1â^'x (ZnS) x coaxial nanowire arrays for semiconductor-sensitized solar cells. Materials Research Express, 2014, 1, 015021.	0.8	4
68	Bandgap engineering of Ga_xZn₁â€“x<sub>O nanowire arrays for wavelengthâ€tunable lightâ€emitting diodes. Laser and Photonics Reviews, 2014, 8, 429-435.	4.4	52
69	Ultrathin and Lightweight 3D Free-Standing Ni@NiO Nanowire Membrane Electrode for a Supercapacitor with Excellent Capacitance Retention at High Rates. ACS Applied Materials & Interfaces, 2014, 6, 13627-13634.	4.0	71
70	Hierarchical nanostructures of polypyrrole@MnO2 composite electrodes for high performance solid-state asymmetric supercapacitors. Nanoscale, 2014, 6, 2922.	2.8	103
71	Series asymmetric supercapacitors based on free-standing inner-connection electrodes for high energy density and high output voltage. Nanoscale, 2014, 6, 15073-15079.	2.8	33
72	A General Method for Preparing Anatase TiO2 Treelike-Nanoarrays on Various Metal Wires for Fiber Dye-Sensitized Solar Cells. Scientific Reports, 2014, 4, 4420.	1.6	51

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73	Solid-State High Performance Flexible Supercapacitors Based on Polypyrrole-MnO2-Carbon Fiber Hybrid Structure. Scientific Reports, 2013, 3, 2286.	1.6	259
74	Cableâ€Type Supercapacitors of Threeâ€Dimensional Cotton Thread Based Multiâ€Grade Nanostructures for Wearable Energy Storage. Advanced Materials, 2013, 25, 4925-4931.	11.1	267
75	Hierarchical porous nano-carbon composite: Effective fabrication and application in dye sensitized solar cells. Journal of Power Sources, 2013, 229, 102-111.	4.0	40
76	Enhancement of ultraviolet detecting by coupling the photoconductive behavior of GaN nanowires and p-n junction. Optics Express, 2012, 20, 20748.	1.7	6
77	Nanointerlayer Induced Electroluminescence Transition from Ultraviolet- to Red-Dominant Mode for n-Mn:ZnO/N-GaN Heterojunction. ACS Applied Materials & Interfaces, 2012, 4, 2521-2524.	4.0	7
78	A device with two kinds of functions â€”Ultraviolet photodetector and electroluminescence: Fabrication and carrier transport mechanism. Europhysics Letters, 2012, 97, 68001.	0.7	4
79	Enhanced field emission from three-dimensional patterned carbon nanotube arrays grown on flexible carbon cloth. Journal of Materials Chemistry, 2012, 22, 3478.	6.7	39
80	The design and realization of large-scale patterned organic solar cells in series and parallel configurations. Solar Energy Materials and Solar Cells, 2012, 101, 289-294.	3.0	8
81	Seed-Layer-Assisted Synthesis of Well-Aligned Zinc Oxide Nanorod Arrays for Field Emission Application. , 2012, , 491-511.		0
82	Novel ZnO Nanorod Flexible Strain Sensor and Strain Driving Transistor with an Ultrahigh 10⁷ Scale â€œOnâ€ â€œOffâ€•Ratio Fabricated by a Single-Step Hydrothermal Reaction. Journal of Physical Chemistry C, 2011, 115, 570-575.	1.5	30
83	Giant Enhancement of Field Emission from Selectively Edge Grown ZnOâ€“Carbon Nanotube Heterostructure Arrays via Diminishing the Screen Effect. Journal of Physical Chemistry C, 2011, 115, 14377-14385.	1.5	26
84	Electrospun PEDOT:PSSâ€“PVA nanofiber based ultrahigh-strain sensors with controllable electrical conductivity. Journal of Materials Chemistry, 2011, 21, 18962.	6.7	177
85	Deposition temperature effect of RF magnetron sputtered molybdenum oxide films on the power conversion efficiency of bulk-heterojunction solar cells. Journal Physics D: Applied Physics, 2011, 44, 045101.	1.3	51
86	Enhanced performance ofa-IGZO thin-film transistors by forming AZO/IGZO heterojunction source/drain contacts. Semiconductor Science and Technology, 2011, 26, 055003.	1.0	35
87	Enhancing the short-circuit current and efficiency of organic solar cells using MoO3 and CuPc as buffer layers. Solar Energy Materials and Solar Cells, 2011, 95, 2914-2919.	3.0	52
88	Improved Subthreshold Swing and Gate-Bias Stressing Stability of p-Type $hbox{Cu}_{2}hbox{O}$ Thin-Film Transistors Using a $hbox{HfO}_{2}$ High-k Gate Dielectric Grown on a $hbox{SiO}_{2}/hbox{Si}$ Substrate by Pulsed Laser Ablation. IEEE Transactions on Electron Devices, 2011, 58, 2003-2007.	1.6	53
89	Ultraviolet photodetectors based on ZnO nanorods-seed layer effect and metal oxide modifying layer effect. Nanoscale Research Letters, 2011, 6, 147.	3.1	33
90	Controllable synthesis of flake-like Al-doped ZnO nanostructures and its application in inverted organic solar cells. Nanoscale Research Letters, 2011, 6, 546.	3.1	18

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91	Effects of thermal annealing on the performance of Al/ZnO nanorods/Pt structure ultraviolet photodetector. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 740-744.	1.7	30
92	Flexible resistive switching memory based on Mn0.20Zn0.80O/HfO2bilayer structure. Journal Physics D: Applied Physics, 2011, 44, 445101.	1.3	12
93	Fabrication and electrical properties of metal-oxide semiconductor capacitors based on polycrystalline p-Cu O and HfO2/SiO2 high-Î º stack gate dielectrics. Thin Solid Films, 2010, 518, 4446-4449.	0.8	4
94	High performance ZnO nanorod strain driving transistor based complementary metal-oxide-semiconductor logic gates. Applied Physics Letters, 2010, 97, 243504.	1.5	12
95	Strong Effect of Interelectrode Distance on the Performance of a Novel ZnO Nanorod Lateral Field Emission Device Fabricated by a Single-Step Hydrothermal Approach. Journal of Physical Chemistry C, 2010, 114, 8575-8580.	1.5	22
96	Direct Growth of Lateral ZnO Nanorod UV Photodetectors with Schottky Contact by a Single-Step Hydrothermal Reaction. ACS Applied Materials & Interfaces, 2010, 2, 1973-1979.	4.0	151
97	Diminish the screen effect in field emission via patterned and selective edge growth of ZnO nanorod arrays. Applied Physics Letters, 2009, 95, .	1.5	44
98	Synthesis and field emission properties of carbon nanotubes grown in ethanol flame based on a photoresist-assisted catalyst annealing process. Applied Surface Science, 2009, 255, 7905-7911.	3.1	3
99	High optical switching speed and flexible electrochromic display based on WO‹sub›3‹/sub›nanoparticles with ZnO nanorod arraysâ€™ supported electrode. Nanotechnology, 2009, 20, 185304.	1.3	44
100	Synthesis of patterned carbon nanotube arrays for field emission using a two layer Sn/Ni catalyst in an ethanol flame. Diamond and Related Materials, 2009, 18, 1375-1380.	1.8	14
101	Transparent conducting ITAZO anode films grown by a composite target RF magnetron sputtering at room temperature for organic solar cells. Semiconductor Science and Technology, 2009, 24, 085025.	1.0	3
102	Numerical calculations of field enhancement and field amplification factors for a vertical carbon nanotube in parallel-plate geometry. Diamond and Related Materials, 2009, 18, 1381-1386.	1.8	20
103	Influence of substrate temperature on electrical and optical properties of p-type semitransparent conductive nickel oxide thin films deposited by radio frequency sputtering. Applied Surface Science, 2008, 254, 2401-2405.	3.1	139
104	Field emission enhancement of ZnO nanorod arrays with hafnium nitride coating. Surface and Coatings Technology, 2008, 202, 3480-3484.	2.2	42
105	Synthesis and photoluminescence, field emission properties of stalactite-like ZnS-ZnO composite nanostructures. Applied Physics A: Materials Science and Processing, 2008, 90, 759-763.	1.1	5
106	The effect of growth conditions on the properties of ZnO nanorod dye-sensitized solar cells. Materials Research Bulletin, 2008, 43, 3345-3351.	2.7	51
107	Snowflake-like ZnO structures: Self-assembled growth and characterization. Materials Letters, 2008, 62, 1761-1764.	1.3	17
108	Flame-synthesis of carbon nanotubes on silicon substrates and their field emission properties. Diamond and Related Materials, 2008, 17, 1015-1020.	1.8	7

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109	Fabrication and characterization of p-poly(9, 9-diethyl fluorene)/ n-ZnO nanorods hybrid heterojunction. , 2008, , .		0
110	Effect of adsorbates on field emission from flame-synthesized carbon nanotubes. Journal Physics D: Applied Physics, 2008, 41, 195401.	1.3	25
111	Field emission from carbon nanotube bundle arrays grown on self-aligned ZnO nanorods. Nanotechnology, 2007, 18, 155702.	1.3	56
112	Structural, Photoluminescence, and Field Emission Properties of Vertically Well-Aligned ZnO Nanorod Arrays. Journal of Physical Chemistry C, 2007, 111, 12566-12571.	1.5	51
113	Influence of N2 flow ratio on the properties of hafnium nitride thin films prepared by DC magnetron sputtering. Applied Surface Science, 2007, 253, 8538-8542.	3.1	24
114	Field electron emission improvement of ZnO nanorod arrays after Ar plasma treatment. Applied Surface Science, 2007, 253, 8478-8482.	3.1	21