

Nishuang Liu

List of Publications by Year in descending order

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114
docs citations

114
times ranked

9658
citing authors

#	ARTICLE	IF	CITATIONS
1	3D Synergistical MXene/Reduced Graphene Oxide Aerogel for a Piezoresistive Sensor. ACS Nano, 2018, 12, 3209-3216.	7.3	654
2	Highly Self-Healable 3D Microsupercapacitor with MXene-Graphene Composite Aerogel. ACS Nano, 2018, 12, 4224-4232.	7.3	564
3	A highly flexible and sensitive piezoresistive sensor based on MXene with greatly changed interlayer distances. Nature Communications, 2017, 8, 1207.	5.8	560
4	3D hybrid porous Mxene-sponge network and its application in piezoresistive sensor. Nano Energy, 2018, 50, 79-87.	8.2	423
5	Highly Stretchable and Self-Healable Supercapacitor with Reduced Graphene Oxide Based Fiber Springs. ACS Nano, 2017, 11, 2066-2074.	7.3	413
6	Cable-Type Supercapacitors of Three-Dimensional Cotton Thread Based Multi-Grade Nanostructures for Wearable Energy Storage. Advanced Materials, 2013, 25, 4925-4931.	11.1	267
7	Solid-State High Performance Flexible Supercapacitors Based on Polypyrrole-MnO ₂ -Carbon Fiber Hybrid Structure. Scientific Reports, 2013, 3, 2286.	1.6	259
8	Piezoresistive Pressure Sensor Based on Synergistical Innerconnect Polyvinyl Alcohol Nanowires/Wrinkled Graphene Film. Small, 2018, 14, e1704149.	5.2	186
9	Recent Progress in Micro-Supercapacitors with In-Plane Interdigital Electrode Architecture. Small, 2017, 13, 1701989.	5.2	180
10	Electrospun PEDOT:PSS-PVA nanofiber based ultrahigh-strain sensors with controllable electrical conductivity. Journal of Materials Chemistry, 2011, 21, 18962.	6.7	177
11	Ti ₃ C ₂ T _x MXene-Based Flexible Piezoresistive Physical Sensors. ACS Nano, 2022, 16, 1734-1758.	7.3	177
12	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
13	A Flexible Integrated System Containing a Microsupercapacitor, a Photodetector, and a Wireless Charging Coil. ACS Nano, 2016, 10, 11249-11257.	7.3	166
14	MXene-Silicon Van Der Waals Heterostructures for High-Speed Self-Driven Photodetectors. Advanced Electronic Materials, 2017, 3, 1700165.	2.6	162
15	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
16	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
17	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
18	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

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19	A flexible and highly sensitive pressure sensor based on elastic carbon foam. <i>Journal of Materials Chemistry C</i> , 2018, 6, 1451-1458.	2.7	127
20	Hierarchical nanostructures of polypyrrole@MnO ₂ composite electrodes for high performance solid-state asymmetric supercapacitors. <i>Nanoscale</i> , 2014, 6, 2922.	2.8	103
21	A new approach for ultrahigh-performance piezoresistive sensor based on wrinkled PPy film with electrospun PVA nanowires as spacer. <i>Nano Energy</i> , 2017, 41, 527-534.	8.2	101
22	Roles of MXene in Pressure Sensing: Preparation, Composite Structure Design, and Mechanism. <i>Advanced Materials</i> , 2022, 34, e2110608.	11.1	90
23	High-Performance Flexible Pressure Sensor with a Self-Healing Function for Tactile Feedback. <i>Advanced Science</i> , 2022, 9, e2200507.	5.6	84
24	Flexible MXene/Bacterial Cellulose Film Sound Detector Based on Piezoresistive Sensing Mechanism. <i>ACS Nano</i> , 2022, 16, 8461-8471.	7.3	84
25	All-fiber-based quasi-solid-state lithium-ion battery towards wearable electronic devices with outstanding flexibility and self-healing ability. <i>Nano Energy</i> , 2018, 51, 425-433.	8.2	83
26	MXene/cellulose nanofiber-foam based high performance degradable piezoresistive sensor with greatly expanded interlayer distances. <i>Nano Energy</i> , 2021, 87, 106151.	8.2	82
27	White Light-Emitting Diode From Sb-Doped p-ZnO Nanowire Arrays/n-GaN Film. <i>Advanced Functional Materials</i> , 2015, 25, 2182-2188.	7.8	80
28	Self-Powered Graphene Oxide Humidity Sensor Based on Potentiometric Humidity Transduction Mechanism. <i>Advanced Functional Materials</i> , 2022, 32, 2107330.	7.8	76
29	Ultrathin and Lightweight 3D Free-Standing Ni@NiO Nanowire Membrane Electrode for a Supercapacitor with Excellent Capacitance Retention at High Rates. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 13627-13634.	4.0	71
30	Graphene Aerogel Broken to Fragments for a Piezoresistive Pressure Sensor with a Higher Sensitivity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 33165-33172.	4.0	58
31	Field emission from carbon nanotube bundle arrays grown on self-aligned ZnO nanorods. <i>Nanotechnology</i> , 2007, 18, 155702.	1.3	56
32	Fully screen printed highly conductive electrodes on various flexible substrates for asymmetric supercapacitors. <i>RSC Advances</i> , 2015, 5, 85799-85805.	1.7	56
33	ZnO-WSe ₂ heterostructures for enhanced ultra-violet photodetectors. <i>RSC Advances</i> , 2016, 6, 67520-67524.	1.7	54
34	Improved Subthreshold Swing and Gate-Bias Stressing Stability of p-Type Cu_2O Thin-Film Transistors Using a HfO_2 High- κ Gate Dielectric Grown on a SiO_2/Si Substrate by Pulsed Laser Ablation. <i>IEEE Transactions on Electron Devices</i> , 2011, 58, 2003-2007.	1.6	53
35	Enhancing the short-circuit current and efficiency of organic solar cells using MoO ₃ and CuPc as buffer layers. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 2914-2919.	3.0	52
36	Bandgap engineering of Ga _x Zn _{1-x} O nanowire arrays for wavelength-tunable light-emitting diodes. <i>Laser and Photonics Reviews</i> , 2014, 8, 429-435.	4.4	52

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37	Interior and Exterior Decoration of Transition Metal Oxide Through CuO/Cu+ Co-Doping Strategy for High-Performance Supercapacitor. Nano-Micro Letters, 2021, 13, 61.	14.4	52
38	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
39	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
40	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
41	A General Method for Preparing Anatase TiO ₂ Treelike-Nanoarrays on Various Metal Wires for Fiber Dye-Sensitized Solar Cells. Scientific Reports, 2014, 4, 4420.	1.6	51
42	Interlayer-spacing-regulated MXene/rGO Foam for Multi-functional Zinc-ion Microcapacitors. Energy Storage Materials, 2022, 50, 444-453.	9.5	51
43	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
44	High optical switching speed and flexible electrochromic display based on WO ₃ nanoparticles with ZnO nanorod arrays TM supported electrode. Nanotechnology, 2009, 20, 185304.	1.3	44
45	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
46	Field emission enhancement of ZnO nanorod arrays with hafnium nitride coating. Surface and Coatings Technology, 2008, 202, 3480-3484.	2.2	42
47	Ag nanoparticles modified large area monolayer MoS ₂ phototransistors with high responsivity. Optics Express, 2017, 25, 14565.	1.7	42
48	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
49	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
50	A Self-Powered Fast-Response Ultraviolet Detector of p-n Homojunction Assembled from Two ZnO-Based Nanowires. Nano-Micro Letters, 2017, 9, 11.	14.4	39
51	Enhanced performance of a-IGZO thin-film transistors by forming AZO/IGZO heterojunction source/drain contacts. Semiconductor Science and Technology, 2011, 26, 055003.	1.0	35
52	Graphene ^S Skeleton Heat ^C Coordinated and Nanoamorphous ^S Surface ^C State Controlled Pseudo ^N Negative ^N Photoconductivity of Tiny SnO ₂ Nanoparticles. Advanced Materials, 2015, 27, 3525-3532.	11.1	35
53	An Ion Channel ^N Induced Self ^N Powered Flexible Pressure Sensor Based on Potentiometric Transduction Mechanism. Advanced Functional Materials, 2022, 32, 2108856.	7.8	35
54	Bionic MXene actuator with multiresponsive modes. Chemical Engineering Journal, 2021, 417, 129288.	6.6	34

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55	Ultraviolet photodetectors based on ZnO nanorods-seed layer effect and metal oxide modifying layer effect. <i>Nanoscale Research Letters</i> , 2011, 6, 147.	3.1	33
56	Series asymmetric supercapacitors based on free-standing inner-connection electrodes for high energy density and high output voltage. <i>Nanoscale</i> , 2014, 6, 15073-15079.	2.8	33
57	Enhancing light emission in flexible AC electroluminescent devices by tetrapod-like zinc oxide whiskers. <i>Optics Express</i> , 2016, 24, 23419.	1.7	33
58	Three-dimensional hierarchical NiCo hydroxide@Ni ₃ S ₂ nanorod hybrid structure as high performance positive material for asymmetric supercapacitor. <i>Electrochimica Acta</i> , 2016, 222, 965-975.	2.6	32
59	Enhanced photo-response properties of a single ZnO microwire photodetector by coupling effect between localized Schottky barriers and piezoelectric potential. <i>Optics Express</i> , 2015, 23, 21204.	1.7	31
60	Research progress of MXenes-based wearable pressure sensors. <i>APL Materials</i> , 2020, 8, .	2.2	31
61	Novel ZnO Nanorod Flexible Strain Sensor and Strain Driving Transistor with an Ultrahigh 10 ⁷ Scale On-Off-Ratio Fabricated by a Single-Step Hydrothermal Reaction. <i>Journal of Physical Chemistry C</i> , 2011, 115, 570-575.		30
62	Effects of thermal annealing on the performance of Al/ZnO nanorods/Pt structure ultraviolet photodetector. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 740-744.	1.7	30
63	Freestanding and flexible graphene wrapped MnO ₂ /MoO ₃ nanoparticle based asymmetric supercapacitors for high energy density and output voltage. <i>RSC Advances</i> , 2015, 5, 45129-45135.	1.7	30
64	Piezotronic and piezo-phototronic logic computations using Au decorated ZnO microwires. <i>Nano Energy</i> , 2016, 27, 587-594.	8.2	30
65	In situ synthesis of binded, thick and porous carbon nanoparticle dye sensitized solar cell counter electrode with nickel gel as catalyst source. <i>Journal of Power Sources</i> , 2014, 245, 456-462.	4.0	29
66	Extraction of nano-silicon with activated carbons simultaneously from rice husk and their synergistic catalytic effect in counter electrodes of dye-sensitized solar cells. <i>Scientific Reports</i> , 2016, 6, 39314.	1.6	29
67	Vertical finger-like asymmetric supercapacitors for enhanced performance at high mass loading and inner integrated photodetecting systems. <i>Journal of Materials Chemistry A</i> , 2017, 5, 22199-22207.	5.2	29
68	In Situ TEM Observation of Crystal Structure Transformation in InAs Nanowires on Atomic Scale. <i>Nano Letters</i> , 2018, 18, 6597-6603.	4.5	29
69	Improving Performance of Hybrid Graphene-Perovskite Photodetector by a Scratch Channel. <i>Advanced Electronic Materials</i> , 2019, 5, 1900168.	2.6	28
70	Giant Enhancement of Field Emission from Selectively Edge Grown ZnO-Carbon Nanotube Heterostructure Arrays via Diminishing the Screen Effect. <i>Journal of Physical Chemistry C</i> , 2011, 115, 14377-14385.	1.5	26
71	Superelastic and ultralight electron source from modifying 3D reduced graphene aerogel microstructure. <i>Nano Energy</i> , 2017, 33, 280-287.	8.2	26
72	In situ TEM observation of controlled growth of two-dimensional WS ₂ with vertically aligned layers and high-temperature stability. <i>Nano Energy</i> , 2020, 67, 104221.	8.2	26

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73	Effect of adsorbates on field emission from flame-synthesized carbon nanotubes. Journal Physics D: Applied Physics, 2008, 41, 195401.	1.3	25
74	Influence of N ₂ 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
75	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
76	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
77	Field electron emission improvement of ZnO nanorod arrays after Ar plasma treatment. Applied Surface Science, 2007, 253, 8478-8482.	3.1	21
78	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
79	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
80	A "one-for-three" strategy through a facile one-step hydrothermal engineering of commercial MoO ₃ for high-performance proton storage. Journal of Materials Chemistry A, 2022, 10, 4043-4052.	5.2	19
81	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
82	Snowflake-like ZnO structures: Self-assembled growth and characterization. Materials Letters, 2008, 62, 1761-1764.	1.3	17
83	Studying Plasmon Dispersion of MXene for Enhanced Electromagnetic Absorption. Advanced Materials, 2022, 34, e2201120.	11.1	17
84	Pulsed Laser Deposition Assisted van der Waals Epitaxial Large Area Quasi-2D ZnO Single-Crystal Plates on Fluorophlogopite Mica. Advanced Materials Interfaces, 2019, 6, 1901156.	1.9	15
85	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
86	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
87	High performance ZnO nanorod strain driving transistor based complementary metal-oxide-semiconductor logic gates. Applied Physics Letters, 2010, 97, 243504.	1.5	12
88	Flexible resistive switching memory based on Mn _{0.20} Zn _{0.80} O/HfO ₂ bilayer structure. Journal Physics D: Applied Physics, 2011, 44, 445101.	1.3	12
89	Monolayer MoSe ₂ /NiO van der Waals heterostructures for infrared light-emitting diodes. Journal of Materials Chemistry C, 2019, 7, 13613-13621.	2.7	11
90	All Fiber Based Electrochemical Capacitor towards Wearable AC Line Filters with Outstanding Rate Capability. ChemElectroChem, 2019, 6, 1450-1457.	1.7	11

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91	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
92	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
93	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
94	<i>In situ</i> insight into thermally-induced reversible transitions of the crystal structure and photoluminescence properties in a Cu ₂ Te nanoplate. Journal of Materials Chemistry A, 2021, 9, 26095-26104.	5.2	8
95	Flame-synthesis of carbon nanotubes on silicon substrates and their field emission properties. Diamond and Related Materials, 2008, 17, 1015-1020.	1.8	7
96	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
97	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
98	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
99	Unveiling the Nucleation Dynamics and Growth Mechanism of Layered MoS ₂ from Crystalline K ₂ MoS ₄ by in Situ Transmission Electron Microscopy. Crystal Growth and Design, 2020, 20, 4069-4076.	1.4	7
100	Enhancement of ultraviolet detecting by coupling the photoconductive behavior of GaN nanowires and p-n junction. Optics Express, 2012, 20, 20748.	1.7	6
101	Yb/Er coordinatively doping in bilayer WSe ₂ for fascinating up-conversion luminescence. Nano Energy, 2020, 78, 105317.	8.2	6
102	Revealing the Phase-Transition Dynamics and Mechanism in a Spinel Li ₄ Ti ₅ O ₁₂ Anode Material through in Situ Electron Microscopy. ACS Applied Materials & Interfaces, 2020, 12, 20874-20881.	4.0	6
103	Tensile and flexible high-sensitive spandex fiber strain sensor enhanced by carbon nanotubes/Ag nanoparticles. Nanotechnology, 2021, 32, 505509.	1.3	6
104	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
105	Fabrication and electrical properties of metal-oxide semiconductor capacitors based on polycrystalline p-Cu O and HfO ₂ /SiO ₂ high- ϵ_r stack gate dielectrics. Thin Solid Films, 2010, 518, 4446-4449.	0.8	4
106	A device with two kinds of functions – Ultraviolet photodetector and electroluminescence: Fabrication and carrier transport mechanism. Europhysics Letters, 2012, 97, 68001.	0.7	4
107	Bandgap-graded ZnO/(CdS) ^{1-x} (ZnS) ^x coaxial nanowire arrays for semiconductor-sensitized solar cells. Materials Research Express, 2014, 1, 015021.	0.8	4
108	Rich 1T-MoS ₂ Nanoflowers Decorated on Reduced Graphene Oxide Nanosheet for Ultra-Quick Zn ²⁺ Storage. Batteries and Supercaps, 2022, 5, .	2.4	4

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109	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
110	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
111	SnO ₂ Nanoparticles: Grapheneâ€‘Skeleton Heatâ€‘Coordinated and Nanoamorphousâ€‘Surfaceâ€‘State Controlled Pseudoâ€‘Negativeâ€‘Photoconductivity of Tiny SnO ₂ Nanoparticles (Adv. Mater. 23/2015). Advanced Materials, 2015, 27, 3579-3579.	11.1	3
112	In Situ TEM Investigations on the Controlled Phase Transformation of Vertically Aligned WS ₂ at Designated Locations on an Atomic Scale. Journal of Physical Chemistry C, 2021, 125, 2761-2769.	1.5	3
113	Fabrication and characterization of p-poly(9, 9-diethyl fluorene)/ n-ZnO nanorods hybrid heterojunction. , 2008, , .		0
114	Seed-Layer-Assisted Synthesis of Well-Aligned Zinc Oxide Nanorod Arrays for Field Emission Application. , 2012, , 491-511.		0