Jing Liu

List of Publications by Year
in descending order

86 papers	2,946 citations	159585 30 h-index	182427 51 g-index
86 all docs	86 docs citations	86 times ranked	4098 citing authors

#	Article	IF	Citations
1	Dielectric engineering enable to lateral anti-ambipolar MoTe₂ heterojunction. Nanotechnology, 2022, 33, 175704.	2.6	8
2	Ultrafast photothermoelectric effect in Dirac semimetallic Cd3As2 revealed by terahertz emission. Nature Communications, 2022, 13, 1623.	12.8	29
3	Ru(II) Catalyst Enables Dynamic Dualâ€Crossâ€Linked Elastomers with Nearâ€Infrared Selfâ€Healing toward Flexible Electronics. Advanced Functional Materials, 2022, 32, .	14.9	16
4	Flash memory based on MoTe2/boron nitride/graphene semi-floating gate heterostructure with non-volatile and dynamically tunable polarity. Nano Research, 2022, 15, 6507-6514.	10.4	6
5	Sub-femto-Joule energy consumption memory device based on van der Waals heterostructure for in-memory computing. , 2022, 1, 100014.		3
6	Piezotronic and piezo-phototronic effects of atomically-thin ZnO nanosheets. Nano Energy, 2021, 82, 105653.	16.0	32
7	Modulation of MoTe₂/MoS₂ van der Waals heterojunctions for multifunctional devices using N₂O plasma with an opposite doping effect. Nanoscale, 2021, 13, 7851-7860.	5.6	5
8	Coherent diffraction rings induced by thermalâ€“mechanical effect of a flexible Dirac semimetallic composite structure. Journal of Applied Physics, 2021, 129, 093102.	2.5	2
9	Twoâ€Dimensional Materialâ€Enhanced Flexible and Selfâ€Healable Photodetector for Largeâ€Area Photodetection. Advanced Functional Materials, 2021, 31, 2100136.	14.9	17
10	Gate-tunable van der Waals heterostructure based on semimetallic WTe2 and semiconducting MoTe2. Applied Physics Letters, 2021, 118, .	3.3	10
11	Gradient rhenium doping enabled tunable anisotropic valleytronic material based on monolayer molybdenum disulfide. 2D Materials, 2021, 8, 035031.	4.4	4
12	Effect of electrical contact on performance of WSe₂ field effect transistors*. Chinese Physics B, 2021, 30, 068501.	1.4	3
13	UV light modulated synaptic behavior of MoTe₂/BN heterostructure. Nanotechnology, 2021, 32, 475207.	2.6	3
14	Visible to near-infrared photodetector based on SnSe₂/WSe₂ heterojunction with potential application in artificial visual neuron. Nanotechnology, 2021, 32, 475206.	2.6	12
15	Multi-level flash memory device based on stacked anisotropic ReS₂â€“boron nitrideâ€“graphene heterostructures. Nanoscale, 2020, 12, 18800-18806.	5.6	27
16	Frequency doubler based on a single MoTe2/MoS2 anti-ambipolar heterostructure. Applied Physics Letters, 2020, 117, .	3.3	20
17	Non-volatile programmable homogeneous lateral MoTe2 junction for multi-bit flash memory and high-performance optoelectronics. Nano Research, 2020, 13, 3445-3451.	10.4	11
18	Semimetals for high-performance photodetection. Nature Materials, 2020, 19, 830-837.	27.5	181

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19	Highly selective carrier-type modulation of tungsten selenide transistors using iodine vapor. Journal of Materials Chemistry C, 2020, 8, 4365-4371.	5.5	7
20	Tunable and nonvolatile multibit data storage memory based on MoTe₂/boron nitride/graphene heterostructures through contact engineering. Nanotechnology, 2020, 31, 485205.	2.6	11
21	Multifunctional anti-ambipolar p-n junction based on MoTe2/MoS2 heterostructure. Applied Physics Letters, 2019, 115, .	3.3	35
22	Ambipolar and n/p-type conduction enhancement of two-dimensional materials by surface charge transfer doping. Nanoscale, 2019, 11, 15359-15366.	5.6	39
23	Visible-to-near-infrared photodetector based on grapheneâ€“MoTe₂â€“graphere heterostructure*. Chinese Physics B, 2019, 28, 117802.	1.4	10
24	Remarkable electronic and optical anisotropy of layered 1Tâ€™-WTe₂ 2D materials. Beilstein Journal of Nanotechnology, 2019, 10, 1745-1753.	2.8	20
25	Black Phosphorus Nano-Polarizer with High Extinction Ratio in Visible and Near-Infrared Regime. Nanomaterials, 2019, 9, 168.	4.1	11
26	Dynamically controllable polarity modulation of MoTe ₂ field-effect transistors through ultraviolet light and electrostatic activation. Science Advances, 2019, 5, eaav3430.	10.3	96
27	Self-powered photodetector based on vertical MoO ₃ /MoS ₂ hetero-structure with gate tunable photo-response. 2D Materials, 2019, 6, 035033.	4.4	41
28	Homogenous Tunnel Diode Based on Two-Dimensional Molybdenum Disulfide with Light Induced n⁺ Doping. ACS Applied Electronic Materials, 2019, 1, 523-529.	4.3	4
29	The Opposite Anisotropic Piezoresistive Effect of ReS₂. ACS Nano, 2019, 13, 3310-3319.	14.6	55
30	Gate-Tunable Photodetection/Voltaic Device Based on BP/MoTe₂ Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 14215-14221.	8.0	34
31	Photoinduced Doping To Enable Tunable and High-Performance Anti-Ambipolar MoTe₂/MoS₂ Heterotransistors. ACS Nano, 2019, 13, 5430-5438.	14.6	73
32	Efficient doping modulation of monolayer WS ₂ for optoelectronic applications. Chinese Physics B, 2019, 28, 037803.	1.4	24
33	Design of high performance MoS ₂ -based non-volatile memory via ion beam defect engineering. 2D Materials, 2019, 6, 034002.	4.4	12
34	Wet Chemical Method for Black Phosphorus Thinning and Passivation. ACS Applied Materials & Interfaces, 2019, 11, 9213-9222.	8.0	23
35	Self-healable gradient copolymers. Materials Chemistry Frontiers, 2019, 3, 464-471.	5.9	30
36	Volatile organic compounds discrimination based on dual mode detection. Nanotechnology, 2018, 29, 245502.	2.6	5

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37	Flexible gas sensor based on graphene/ethyl cellulose nanocomposite with ultra-low strain response for volatile organic compounds rapid detection. Nanotechnology, 2018, 29, 285501.	2.6	31
38	Liquid phase mass production of air-stable black phosphorus/phospholipids nanocomposite with ultralow tunneling barrier. 2D Materials, 2018, 5, 025012.	4.4	4
39	Resolving the optical anisotropy of low-symmetry 2D materials. Nanoscale, 2018, 10, 8329-8337.	5.6	58
40	Solution-Based Property Tuning of Black Phosphorus. ACS Applied Materials & Interfaces, 2018, 10, 39890-39897.	8.0	16
41	Specific and Highly Sensitive Detection of Ketone Compounds Based on p-Type MoTe₂ under Ultraviolet Illumination. ACS Applied Materials & Interfaces, 2018, 10, 35664-35669.	8.0	34
42	Ultraviolet Light-Induced Persistent and Degenerated Doping in MoS₂ for Potential Photocontrollable Electronics Applications. ACS Applied Materials & Interfaces, 2018, 10, 27840-27849.	8.0	13
43	Miniaturized polymer coated film bulk acoustic wave resonator sensor array for quantitative gas chromatographic analysis. Sensors and Actuators B: Chemical, 2018, 274, 419-426.	7.8	27
44	Implementing Lateral MoSe₂ Pâ€“N Homojunction by Efficient Carrier-Type Modulation. ACS Applied Materials & Interfaces, 2018, 10, 26533-26538.	8.0	29
45	Acoustically enhanced photodetection by a black phosphorusâ€“MoS₂ van der Waals heterojunction pâ€“n diode. Nanoscale, 2018, 10, 10148-10153.	5.6	31
46	Ultrasensitive and Fully Reversible NO₂ Gas Sensing Based on p-Type MoTe₂ under Ultraviolet Illumination. ACS Sensors, 2018, 3, 1719-1726.	7.8	135
47	Wavelength tunable polarizer based on layered black phosphorus on Si/SiO₂ substrate. Optics Letters, 2018, 43, 1255.	3.3	32
48	Highly-sensitive gas sensor based on two-dimensional material field effect transistor. Nanotechnology, 2018, 29, 435502.	2.6	32
49	Enhancing electronic and optoelectronic performances of tungsten diselenide by plasma treatment. Nanoscale, 2018, 10, 12436-12444.	5.6	30
50	Highly sensitive MoTe ₂ chemical sensor with fast recovery rate through gate biasing. 2D Materials, 2017, 4, 025018.	4.4	125
51	One-step exfoliation and functionalization of graphene by hydrophobin for high performance water molecular sensing. Carbon, 2017, 116, 695-702.	10.3	20
52	Rapid thermal thinning of black phosphorus. Journal of Materials Chemistry C, 2017, 5, 10638-10644.	5.5	17
53	Contact Engineering of Molybdenum Ditelluride Field Effect Transistors through Rapid Thermal Annealing. ACS Applied Materials & Interfaces, 2017, 9, 30107-30114.	8.0	37
54	Enhanced Sensitivity of MoTe2 Chemical Sensor through Light Illumination. Micromachines, 2017, 8, 155.	2.9	30

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55	A Microfluidic-Based Fabry-PÃ©rot Gas Sensor. Micromachines, 2016, 7, 36.	2.9	9
56	Acoustic charge transport induced by the surface acoustic wave in chemical doped graphene. Applied Physics Letters, 2016, 109, .	3.3	26
57	Thin tungsten telluride layer preparation by thermal annealing. Nanotechnology, 2016, 27, 414006.	2.6	12
58	Chemical sensing by band modulation of a black phosphorus/molybdenum diselenide van der Waals hetero-structure. 2D Materials, 2016, 3, 035021.	4.4	77
59	Chemiresistive and Gravimetric Dual-Mode Gas Sensor toward Target Recognition and Differentiation. ACS Applied Materials & Interfaces, 2016, 8, 21742-21749.	8.0	18
60	Detection of Volatile Organic Compounds by Self-assembled Monolayer Coated Sensor Array with Concentration-independent Fingerprints. Scientific Reports, 2016, 6, 23970.	3.3	83
61	Zinc-oxide optical sensor for highly sensitive refractive index sensing. Proceedings of SPIE, 2016, , .	0.8	0
62	Detection of Volatile Organic Compounds Using Microfabricated Resonator Array Functionalized with Supramolecular Monolayers. ACS Applied Materials & Interfaces, 2015, 7, 17893-17903.	8.0	71
63	Mechanical and Electrical Anisotropy of Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 11362-11370.	14.6	247
64	An Integrated Photonic Gas Sensor Enhanced by Optimized Fano Effects in Coupled Microring Resonators With an Athermal Waveguide. Journal of Lightwave Technology, 2015, 33, 4521-4530.	4.6	23
65	On-Chip Biological and Chemical Sensing With Reversed Fano Lineshape Enabled by Embedded Microring Resonators. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 35-44.	2.9	15
66	Fabrication and Testing of Microfluidic Optomechanical Oscillators. Journal of Visualized Experiments, 2014, , .	0.3	8
67	Low dead volume integrated separation columns and Fabry-PÃ©rot sensors for micro-gas chromatography. Proceedings of SPIE, 2013, , .	0.8	0
68	Cavity optomechanics on a microfluidic resonator with water and viscous liquids. Light: Science and Applications, 2013, 2, e110-e110.	16.6	98
69	Fabry-PÃ©rot cavity sensor-based optofluidic gas chromatography using a microfabricated passive preconcentrator/injector. Lab on A Chip, 2013, 13, 851.	6.0	9
70	Smart multi-channel two-dimensional micro-gas chromatography for rapid workplace hazardous volatile organic compounds measurement. Lab on A Chip, 2013, 13, 818.	6.0	39
71	Brillouin cavity optomechanics with microfluidic devices. Nature Communications, 2013, 4, 1994.	12.8	146
72	Smart Three-Dimensional Gas Chromatography. Analytical Chemistry, 2013, 85, 6871-6875.	6.5	15

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73	Integrated Separation Columns and Fabry-Perot Sensors for Microgas Chromatography Systems. Journal of Microelectromechanical Systems, 2013, 22, 1174-1179.	2.5	13
74	Rapid, sensitive, and multiplexed on-chip optical sensors for micro-gas chromatography. Lab on A Chip, 2012, 12, 901.	6.0	62
75	Effect of Thermal Desorption Kinetics on Vapor Injection Peak Irregularities by a Microscale Gas Chromatography Preconcentrator. Analytical Chemistry, 2012, 84, 6336-6340.	6.5	7
76	Ultrasensitive Vapor Detection with Surface-Enhanced Raman Scattering-Active Gold Nanoparticle Immobilized Flow-Through Multihole Capillaries. Analytical Chemistry, 2012, 84, 3376-3381.	6.5	46
77	Adaptive Two-Dimensional Microgas Chromatography. Analytical Chemistry, 2012, 84, 4214-4220.	6.5	19
78	A pressure programmable gas chromatography microsystem utilizing motionless Knudsen pump, fiber-integrated optical detector, and silicon micromachined separation column. , 2011, , .		0
79	Demonstration of motionless Knudsen pump based micro-gas chromatography featuring micro-fabricated columns and on-column detectors. Lab on A Chip, 2011, 11, 3487.	6.0	46
80	On-chip Fabryâ€“PÃ©rot interferometric sensors for micro-gas chromatography detection. Sensors and Actuators B: Chemical, 2011, 159, 60-65.	7.8	36
81	Fiber-based optical Fabry-PÃ©rot gas sensor for fast and on-column detection. Proceedings of SPIE, 2010, , .	0.8	0
82	Fabryâ"PÃ©rot Cavity Sensors for Multipoint On-Column Micro Gas Chromatography Detection. Analytical Chemistry, 2010, 82, 4370-4375.	6.5	40
83	Detection of explosive analytes using a fiber-based optical Fabry-Perot gas sensor. , 2010, , .		0
84	Rapid tandem-column micro-gas chromatography based on optofluidic ring resonators with multi-point on-column detection. Analyst, The, 2010, 135, 165-171.	3.5	36
85	Highly versatile fiber-based optical Fabry-PÃ©rot gas sensor. Optics Express, 2009, 17, 2731.	3.4	69
86	Optofluidic ring resonator sensors for rapid DNT vapor detection. Analyst, The, 2009, 134, 1386.	3.5	56