

Jing Liu

List of Publications by Year in descending order

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86
papers

2,946
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159585
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86
all docs

86
docs citations

86
times ranked

4098
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical and Electrical Anisotropy of Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 11362-11370.	14.6	247
2	Semimetals for high-performance photodetection. Nature Materials, 2020, 19, 830-837.	27.5	181
3	Brillouin cavity optomechanics with microfluidic devices. Nature Communications, 2013, 4, 1994.	12.8	146
4	Ultrasensitive and Fully Reversible NO ₂ Gas Sensing Based on p-Type MoTe ₂ under Ultraviolet Illumination. ACS Sensors, 2018, 3, 1719-1726.	7.8	135
5	Highly sensitive MoTe ₂ chemical sensor with fast recovery rate through gate biasing. 2D Materials, 2017, 4, 025018.	4.4	125
6	Cavity optomechanics on a microfluidic resonator with water and viscous liquids. Light: Science and Applications, 2013, 2, e110-e110.	16.6	98
7	Dynamically controllable polarity modulation of MoTe ₂ field-effect transistors through ultraviolet light and electrostatic activation. Science Advances, 2019, 5, eaav3430.	10.3	96
8	Detection of Volatile Organic Compounds by Self-assembled Monolayer Coated Sensor Array with Concentration-independent Fingerprints. Scientific Reports, 2016, 6, 23970.	3.3	83
9	Chemical sensing by band modulation of a black phosphorus/molybdenum diselenide van der Waals hetero-structure. 2D Materials, 2016, 3, 035021.	4.4	77
10	Photoinduced Doping To Enable Tunable and High-Performance Anti-Ambipolar MoTe ₂ /MoS ₂ Heterotransistors. ACS Nano, 2019, 13, 5430-5438.	14.6	73
11	Detection of Volatile Organic Compounds Using Microfabricated Resonator Array Functionalized with Supramolecular Monolayers. ACS Applied Materials & Interfaces, 2015, 7, 17893-17903.	8.0	71
12	Highly versatile fiber-based optical Fabry-Pérot gas sensor. Optics Express, 2009, 17, 2731.	3.4	69
13	Rapid, sensitive, and multiplexed on-chip optical sensors for micro-gas chromatography. Lab on A Chip, 2012, 12, 901.	6.0	62
14	Resolving the optical anisotropy of low-symmetry 2D materials. Nanoscale, 2018, 10, 8329-8337.	5.6	58
15	Optofluidic ring resonator sensors for rapid DNT vapor detection. Analyst, The, 2009, 134, 1386.	3.5	56
16	The Opposite Anisotropic Piezoresistive Effect of ReS ₂ . ACS Nano, 2019, 13, 3310-3319.	14.6	55
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	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
20	Fabry-Pérot Cavity Sensors for Multipoint On-Column Micro Gas Chromatography Detection. Analytical Chemistry, 2010, 82, 4370-4375.	6.5	40
21	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
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	Contact Engineering of Molybdenum Ditelluride Field Effect Transistors through Rapid Thermal Annealing. ACS Applied Materials & Interfaces, 2017, 9, 30107-30114.	8.0	37
24	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
25	On-chip Fabry-Pérot interferometric sensors for micro-gas chromatography detection. Sensors and Actuators B: Chemical, 2011, 159, 60-65.	7.8	36
26	Multifunctional anti-ambipolar p-n junction based on MoTe ₂ /MoS ₂ heterostructure. Applied Physics Letters, 2019, 115, .	3.3	35
27	Specific and Highly Sensitive Detection of Ketone Compounds Based on p-Type MoTe ₂ under Ultraviolet Illumination. ACS Applied Materials & Interfaces, 2018, 10, 35664-35669.	8.0	34
28	Gate-Tunable Photodetection/Voltaic Device Based on BP/MoTe ₂ Heterostructure. ACS Applied Materials & Interfaces, 2019, 11, 14215-14221.	8.0	34
29	Wavelength tunable polarizer based on layered black phosphorus on Si/SiO ₂ substrate. Optics Letters, 2018, 43, 1255.	3.3	32
30	Highly-sensitive gas sensor based on two-dimensional material field effect transistor. Nanotechnology, 2018, 29, 435502.	2.6	32
31	Piezotronic and piezo-phototronic effects of atomically-thin ZnO nanosheets. Nano Energy, 2021, 82, 105653.	16.0	32
32	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
33	Acoustically enhanced photodetection by a black phosphorus-MoS ₂ van der Waals heterojunction p-n diode. Nanoscale, 2018, 10, 10148-10153.	5.6	31
34	Enhanced Sensitivity of MoTe ₂ Chemical Sensor through Light Illumination. Micromachines, 2017, 8, 155.	2.9	30
35	Enhancing electronic and optoelectronic performances of tungsten diselenide by plasma treatment. Nanoscale, 2018, 10, 12436-12444.	5.6	30
36	Self-healable gradient copolymers. Materials Chemistry Frontiers, 2019, 3, 464-471.	5.9	30

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37	Implementing Lateral MoSe ₂ P-N Homojunction by Efficient Carrier-Type Modulation. ACS Applied Materials & Interfaces, 2018, 10, 26533-26538.	8.0	29
38	Ultrafast photothermoelectric effect in Dirac semimetallic Cd ₃ As ₂ revealed by terahertz emission. Nature Communications, 2022, 13, 1623.	12.8	29
39	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
40	Multi-level flash memory device based on stacked anisotropic ReS ₂ boron nitride-graphene heterostructures. Nanoscale, 2020, 12, 18800-18806.	5.6	27
41	Acoustic charge transport induced by the surface acoustic wave in chemical doped graphene. Applied Physics Letters, 2016, 109, .	3.3	26
42	Efficient doping modulation of monolayer WS ₂ for optoelectronic applications. Chinese Physics B, 2019, 28, 037803.	1.4	24
43	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
44	Wet Chemical Method for Black Phosphorus Thinning and Passivation. ACS Applied Materials & Interfaces, 2019, 11, 9213-9222.	8.0	23
45	One-step exfoliation and functionalization of graphene by hydrophobin for high performance water molecular sensing. Carbon, 2017, 116, 695-702.	10.3	20
46	Remarkable electronic and optical anisotropy of layered 1T TM -WTe ₂ 2D materials. Beilstein Journal of Nanotechnology, 2019, 10, 1745-1753.	2.8	20
47	Frequency doubler based on a single MoTe ₂ /MoS ₂ anti-ambipolar heterostructure. Applied Physics Letters, 2020, 117, .	3.3	20
48	Adaptive Two-Dimensional Microgas Chromatography. Analytical Chemistry, 2012, 84, 4214-4220.	6.5	19
49	Chemiresistive and Gravimetric Dual-Mode Gas Sensor toward Target Recognition and Differentiation. ACS Applied Materials & Interfaces, 2016, 8, 21742-21749.	8.0	18
50	Rapid thermal thinning of black phosphorus. Journal of Materials Chemistry C, 2017, 5, 10638-10644.	5.5	17
51	Two-Dimensional Material-Enhanced Flexible and Self-Healable Photodetector for Large-Area Photodetection. Advanced Functional Materials, 2021, 31, 2100136.	14.9	17
52	Solution-Based Property Tuning of Black Phosphorus. ACS Applied Materials & Interfaces, 2018, 10, 39890-39897.	8.0	16
53	Ru(II) Catalyst Enables Dynamic Dual-Cross-Linked Elastomers with Near-Infrared Self-Healing toward Flexible Electronics. Advanced Functional Materials, 2022, 32, .	14.9	16
54	Smart Three-Dimensional Gas Chromatography. Analytical Chemistry, 2013, 85, 6871-6875.	6.5	15

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55	On-Chip Biological and Chemical Sensing With Reversed Fano Lineshape Enabled by Embedded Microring Resonators. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 35-44.	2.9	15
56	Integrated Separation Columns and Fabry-Perot Sensors for Microgas Chromatography Systems. <i>Journal of Microelectromechanical Systems</i> , 2013, 22, 1174-1179.	2.5	13
57	Ultraviolet Light-Induced Persistent and Degenerated Doping in MoS ₂ for Potential Photocontrollable Electronics Applications. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 27840-27849.	8.0	13
58	Thin tungsten telluride layer preparation by thermal annealing. <i>Nanotechnology</i> , 2016, 27, 414006.	2.6	12
59	Design of high performance MoS ₂ -based non-volatile memory via ion beam defect engineering. <i>2D Materials</i> , 2019, 6, 034002.	4.4	12
60	Visible to near-infrared photodetector based on SnSe ₂ /WSe ₂ heterojunction with potential application in artificial visual neuron. <i>Nanotechnology</i> , 2021, 32, 475206.	2.6	12
61	Black Phosphorus Nano-Polarizer with High Extinction Ratio in Visible and Near-Infrared Regime. <i>Nanomaterials</i> , 2019, 9, 168.	4.1	11
62	Non-volatile programmable homogeneous lateral MoTe ₂ junction for multi-bit flash memory and high-performance optoelectronics. <i>Nano Research</i> , 2020, 13, 3445-3451.	10.4	11
63	Tunable and nonvolatile multibit data storage memory based on MoTe ₂ /boron nitride/graphene heterostructures through contact engineering. <i>Nanotechnology</i> , 2020, 31, 485205.	2.6	11
64	Visible-to-near-infrared photodetector based on graphene-MoTe ₂ -graphene heterostructure*. <i>Chinese Physics B</i> , 2019, 28, 117802.	1.4	10
65	Gate-tunable van der Waals heterostructure based on semimetallic WTe ₂ and semiconducting MoTe ₂ . <i>Applied Physics Letters</i> , 2021, 118, .	3.3	10
66	Fabry-Pérot cavity sensor-based optofluidic gas chromatography using a microfabricated passive preconcentrator/injector. <i>Lab on A Chip</i> , 2013, 13, 851.	6.0	9
67	A Microfluidic-Based Fabry-Pérot Gas Sensor. <i>Micromachines</i> , 2016, 7, 36.	2.9	9
68	Fabrication and Testing of Microfluidic Optomechanical Oscillators. <i>Journal of Visualized Experiments</i> , 2014, .	0.3	8
69	Dielectric engineering enable to lateral anti-ambipolar MoTe ₂ heterojunction. <i>Nanotechnology</i> , 2022, 33, 175704.	2.6	8
70	Effect of Thermal Desorption Kinetics on Vapor Injection Peak Irregularities by a Microscale Gas Chromatography Preconcentrator. <i>Analytical Chemistry</i> , 2012, 84, 6336-6340.	6.5	7
71	Highly selective carrier-type modulation of tungsten selenide transistors using iodine vapor. <i>Journal of Materials Chemistry C</i> , 2020, 8, 4365-4371.	5.5	7
72	Flash memory based on MoTe ₂ /boron nitride/graphene semi-floating gate heterostructure with non-volatile and dynamically tunable polarity. <i>Nano Research</i> , 2022, 15, 6507-6514.	10.4	6

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73	Volatile organic compounds discrimination based on dual mode detection. <i>Nanotechnology</i> , 2018, 29, 245502.	2.6	5
74	Modulation of MoTe ₂ /MoS ₂ van der Waals heterojunctions for multifunctional devices using N ₂ O plasma with an opposite doping effect. <i>Nanoscale</i> , 2021, 13, 7851-7860.	5.6	5
75	Liquid phase mass production of air-stable black phosphorus/phospholipids nanocomposite with ultralow tunneling barrier. <i>2D Materials</i> , 2018, 5, 025012.	4.4	4
76	Homogenous Tunnel Diode Based on Two-Dimensional Molybdenum Disulfide with Light Induced n ⁺ Doping. <i>ACS Applied Electronic Materials</i> , 2019, 1, 523-529.	4.3	4
77	Gradient rhenium doping enabled tunable anisotropic valleytronic material based on monolayer molybdenum disulfide. <i>2D Materials</i> , 2021, 8, 035031.	4.4	4
78	Effect of electrical contact on performance of WSe ₂ field effect transistors*. <i>Chinese Physics B</i> , 2021, 30, 068501.	1.4	3
79	UV light modulated synaptic behavior of MoTe ₂ /BN heterostructure. <i>Nanotechnology</i> , 2021, 32, 475207.	2.6	3
80	Sub-femto-Joule energy consumption memory device based on van der Waals heterostructure for in-memory computing. , 2022, 1, 100014.		3
81	Coherent diffraction rings induced by thermal-mechanical effect of a flexible Dirac semimetallic composite structure. <i>Journal of Applied Physics</i> , 2021, 129, 093102.	2.5	2
82	Fiber-based optical Fabry-Pérot gas sensor for fast and on-column detection. <i>Proceedings of SPIE</i> , 2010, , .	0.8	0
83	Detection of explosive analytes using a fiber-based optical Fabry-Perot gas sensor. , 2010, , .		0
84	A pressure programmable gas chromatography microsystem utilizing motionless Knudsen pump, fiber-integrated optical detector, and silicon micromachined separation column. , 2011, , .		0
85	Low dead volume integrated separation columns and Fabry-Pérot sensors for micro-gas chromatography. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
86	Zinc-oxide optical sensor for highly sensitive refractive index sensing. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0