Jing Wu

List of Publications by Year in descending order

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79 papers	15,656 citations	109321 35 h-index	71685 76 g-index
80 all docs	80 docs citations	80 times ranked	43236 citing authors

#	Article	IF	Citations
1	Effects of Thymoquinone on radiation enteritis in mice. Scientific Reports, 2018, 8, 1-7.	3.3	10,654
2	Length-dependent thermal conductivity in suspended single-layer graphene. Nature Communications, 2014, 5, 3689.	12.8	735
3	Topological polaritons and photonic magic angles in twisted Î±-MoO3 bilayers. Nature, 2020, 582, 209-213.	27.8	413
4	Surface transfer doping induced effective modulation on ambipolar characteristics of few-layer black phosphorus. Nature Communications, 2015, 6, 6485.	12.8	335
5	Vapourâ€“liquidâ€“solid growth of monolayer MoS2 nanoribbons. Nature Materials, 2018, 17, 535-542.	27.5	286
6	Coherent steering of nonlinear chiral valley photons with a synthetic Auâ€“WS2 metasurface. Nature Photonics, 2019, 13, 467-472.	31.4	236
7	Two-dimensional multibit optoelectronic memory with broadband spectrum distinction. Nature Communications, 2018, 9, 2966.	12.8	211
8	Large Thermoelectricity via Variable Range Hopping in Chemical Vapor Deposition Grown Single-Layer MoS₂. Nano Letters, 2014, 14, 2730-2734.	9.1	210
9	Colossal Ultraviolet Photoresponsivity of Few-Layer Black Phosphorus. ACS Nano, 2015, 9, 8070-8077.	14.6	204
10	Grapheneâ€“Ferroelectric Hybrid Structure for Flexible Transparent Electrodes. ACS Nano, 2012, 6, 3935-3942.	14.6	167
11	An innovative way of etching MoS2: Characterization and mechanistic investigation. Nano Research, 2013, 6, 200-207.	10.4	140
12	Recent developments in 2D transition metal dichalcogenides: phase transition and applications of the (quasi-)metallic phases. Chemical Society Reviews, 2021, 50, 10087-10115.	38.1	135
13	Bandgap Engineering of Phosphorene by Laser Oxidation toward Functional 2D Materials. ACS Nano, 2015, 9, 10411-10421.	14.6	126
14	Surface Functionalization of Black Phosphorus via Potassium toward High-Performance Complementary Devices. Nano Letters, 2017, 17, 4122-4129.	9.1	117
15	Multidimensional nanoscopic chiroptics. Nature Reviews Physics, 2022, 4, 113-124.	26.6	87
16	Thermal Conductance of the 2D MoS2/h-BN and graphene/h-BN Interfaces. Scientific Reports, 2017, 7, 43886.	3.3	79
17	Perspectives on Thermoelectricity in Layered and 2D Materials. Advanced Electronic Materials, 2018, 4, 1800248.	5.1	77
18	Wafer-scale and deterministic patterned growth of monolayer MoS₂via vaporâ€“liquidâ€“solid method. Nanoscale, 2019, 11, 16122-16129.	5.6	76

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19	Tunable Doping of Rhenium and Vanadium into Transition Metal Dichalcogenides for Twoâ€Dimensional Electronics. Advanced Science, 2021, 8, e2004438.	11.2	66
20	Tailoring the phase transition temperature to achieve high-performance cubic GeTe-based thermoelectrics. Journal of Materials Chemistry A, 2020, 8, 18880-18890.	10.3	61
21	Achieving high thermoelectric quality factor toward high figure of merit in GeTe. Materials Today Physics, 2020, 14, 100239.	6.0	61
22	Measuring the thermal conductivity and interfacial thermal resistance of suspended MoS 2 using electron beam self-heating technique. Science Bulletin, 2018, 63, 452-458.	9.0	54
23	Improving carrier mobility in two-dimensional semiconductors with rippled materials. Nature Electronics, 2022, 5, 489-496.	26.0	52
24	Probing the Physical Origin of Anisotropic Thermal Transport in Black Phosphorus Nanoribbons. Advanced Materials, 2018, 30, e1804928.	21.0	50
25	Lowâ€Symmetry PdSe₂ for High Performance Thermoelectric Applications. Advanced Functional Materials, 2020, 30, 2004896.	14.9	49
26	Monolayer W_xMo_{1â^'}_xS₂ Grown by Atmospheric Pressure Chemical Vapor Deposition: Bandgap Engineering and Field Effect Transistors. Advanced Functional Materials, 2017, 27, 1606469.	14.9	48
27	Gateâ€Tunable Polar Optical Phonon to Piezoelectric Scattering in Fewâ€Layer Bi₂O₂Se for Highâ€Performance Thermoelectrics. Advanced Materials, 2021, 33, e2004786.	21.0	48
28	Ultralow Thermal Conductivity of Singleâ€Crystalline Porous Silicon Nanowires. Advanced Functional Materials, 2017, 27, 1702824.	14.9	47
29	Oxygen induced strong mobility modulation in few-layer black phosphorus. 2D Materials, 2017, 4, 021007.	4.4	45
30	Abnormal Nearâ€Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization. Advanced Materials, 2018, 30, e1801931.	21.0	43
31	Structuring Nonlinear Wavefront Emitted from Monolayer Transition-Metal Dichalcogenides. Research, 2020, 2020, 9085782.	5.7	40
32	Enhanced Photoresponse from Phosphoreneâ€“Phosphoreneâ€Suboxide Junction Fashioned by Focused Laser Micromachining. Advanced Materials, 2016, 28, 4090-4096.	21.0	38
33	Suppressing Ge-vacancies to achieve high single-leg efficiency in GeTe with an ultra-high room temperature power factor. Journal of Materials Chemistry A, 2021, 9, 23335-23344.	10.3	38
34	Selective Engineering of Chalcogen Defects in MoS₂ by Low-Energy Helium Plasma. ACS Applied Materials & Interfaces, 2019, 11, 24404-24411.	8.0	37
35	Black Phosphorus Based Field Effect Transistors with Simultaneously Achieved Near Ideal Subthreshold Swing and High Hole Mobility at Room Temperature. Scientific Reports, 2016, 6, 24920.	3.3	35
36	Realizing zT Values of 2.0 in Cubic GeTe. ChemNanoMat, 2021, 7, 476-482.	2.8	35

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37	Large enhancement of thermoelectric performance in MoS ₂ / h -BN heterostructure due to vacancy-induced band hybridization. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13929-13936.	7.1	34
38	Effects Of Structural Phase Transition On Thermoelectric Performance in Lithium-Intercalated Molybdenum Disulfide (Li_xMoS₂). ACS Applied Materials & Interfaces, 2019, 11, 12184-12189.	8.0	31
39	A wafer-scale graphene and ferroelectric multilayer for flexible and fast-switched modulation applications. Nanoscale, 2015, 7, 14730-14737.	5.6	26
40	Upcycling Silicon Photovoltaic Waste into Thermoelectrics. Advanced Materials, 2022, 34, e2110518.	21.0	25
41	Growth and thermal properties of various In2Se3 nanostructures prepared by single step PVD technique. Journal of Alloys and Compounds, 2019, 773, 698-705.	5.5	24
42	Suspended MoS₂ Photodetector Using Patterned Sapphire Substrate. Small, 2021, 17, e2100246.	10.0	24
43	Designing good compatibility factor in segmented Bi0.5Sb1.5Te3 â€“ GeTe thermoelectrics for high power conversion efficiency. Nano Energy, 2022, 96, 107147.	16.0	24
44	MoS₂/Polymer Heterostructures Enabling Stable Resistive Switching and Multistate Randomness. Advanced Materials, 2020, 32, e2002704.	21.0	23
45	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 8518-8527.	8.0	23
46	High-performance monolayer MoS₂ photodetector enabled by oxide stress liner using scalable chemical vapor growth method. Nanophotonics, 2020, 9, 1981-1991.	6.0	21
47	Integrating recyclable polymers into thermoelectric devices for green electronics. Journal of Materials Chemistry A, 2022, 10, 19787-19796.	10.3	21
48	Flexible elemental thermoelectrics with ultra-high power density. Materials Today Energy, 2022, 25, 100964.	4.7	20
49	Low temperature carrier transport study of monolayer MoS2 field effect transistors prepared by chemical vapor deposition under an atmospheric pressure. Journal of Applied Physics, 2015, 118, .	2.5	19
50	Atomic Layer Deposition of High-Quality Al₂O₃ Thin Films on MoS₂ with Water Plasma Treatment. ACS Applied Materials & Interfaces, 2019, 11, 35438-35443.	8.0	15
51	AlGaN/GaN Metal-Oxide-Semiconductor High-Electron-Mobility Transistor with Polarized P(VDF-TrFE) Ferroelectric Polymer Gating. Scientific Reports, 2015, 5, 14092.	3.3	14
52	Largeâ€Scale Transparent Molybdenum Disulfide Plasmonic Photodetector Using Split Bull Eye Structure. Advanced Optical Materials, 2018, 6, 1800461.	7.3	14
53	Studying thermal transport in suspended monolayer molybdenum disulfide prepared by a nano-manipulator-assisted transfer method. Nanotechnology, 2020, 31, 225702.	2.6	14
54	Modification of thermal transport in few-layer MoS₂ by atomic-level defect engineering. Nanoscale, 2021, 13, 11561-11567.	5.6	12

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55	Effect of stress layer on thermal properties of SnSe2 few layers. Journal of Alloys and Compounds, 2019, 783, 226-231.	5.5	11
56	Band alignment of ZnO/multilayer MoS2 interface determined by x-ray photoelectron spectroscopy. Applied Physics Letters, 2016, 109, .	3.3	10
57	Three-Dimensional Resonant Exciton in Monolayer Tungsten Diselenide Actuated by Spinâ€“Orbit Coupling. ACS Nano, 2019, 13, 14529-14539.	14.6	10
58	Employing a Bifunctional Molybdate Precursor To Grow the Highly Crystalline MoS₂ for High-Performance Field-Effect Transistors. ACS Applied Materials & Interfaces, 2019, 11, 14239-14248.	8.0	10
59	Interfacial Oxygenâ€Driven Charge Localization and Plasmon Excitation in Unconventional Superconductors. Advanced Materials, 2020, 32, 2000153.	21.0	10
60	Enhanced photoresponse of highly air-stable palladium diselenide by thickness engineering. Nanophotonics, 2020, 9, 2467-2474.	6.0	10
61	Gate voltage and temperature dependent Ti-graphene junction resistance toward straightforward p-n junction formation. Journal of Applied Physics, 2018, 124, .	2.5	8
62	Effect of substrate angle on the growth of MoS₂ vertical nanosheets using a one-step chemical vapor deposition. Materials Research Express, 2018, 5, 075026.	1.6	7
63	Probing thermal transport across amorphous region embedded in a single crystalline silicon nanowire. Scientific Reports, 2020, 10, 821.	3.3	7
64	Modulation of New Excitons in Transition Metal Dichalcogenideâ€Perovskite Oxide System. Advanced Science, 2019, 6, 1900446.	11.2	6
65	Anisotropic Collective Charge Excitations in Quasimetallic 2D Transitionâ€Metal Dichalcogenides. Advanced Science, 2020, 7, 1902726.	11.2	6
66	Fatty Acid-Based Coacervates as a Membrane-free Protocell Model. Bioconjugate Chemistry, 2022, 33, 444-451.	3.6	6
67	Low-temperature study of neutral and charged excitons in the large-area monolayer WS₂. Japanese Journal of Applied Physics, 2018, 57, 060309.	1.5	5
68	Nitrogen-mediated aligned growth of hexagonal BN films for reliable high-performance InSe transistors. Journal of Materials Chemistry C, 2020, 8, 4421-4431.	5.5	5
69	Phosphorene: Enhanced Photoresponse from Phosphoreneâ€“Phosphoreneâ€Suboxide Junction Fashioned by Focused Laser Micromachining (Adv. Mater. 21/2016). Advanced Materials, 2016, 28, 4164-4164.	21.0	4
70	Investigation of the Energy Band at the Molybdenum Disulfide and ZrO2 Heterojunctions. Nanoscale Research Letters, 2018, 13, 405.	5.7	4
71	Enhanced thermal conductivity of MoS2/InSe-nanoparticles/MoS2 hybrid sandwich structure. Journal of Alloys and Compounds, 2019, 777, 1145-1151.	5.5	4
72	Modulation of Spin Dynamics in 2D Transitionâ€Metal Dichalcogenide via Strainâ€Driven Symmetry Breaking. Advanced Science, 2022, , 2200816.	11.2	4

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73	Fieldâ€Effect Transistors: Lowâ€Symmetry PdSe₂ for High Performance Thermoelectric Applications (Adv. Funct. Mater. 52/2020). Advanced Functional Materials, 2020, 30, 2070347.	14.9	3
74	Bilayer twisting as a mean to isolate connected flat bands in a kagome lattice throughWigner crystallization*. Chinese Physics B, 2021, 30, 077104.	1.4	2
75	Memory Devices: MoS₂/Polymer Heterostructures Enabling Stable Resistive Switching and Multistate Randomness (Adv. Mater. 42/2020). Advanced Materials, 2020, 32, 2070317.	21.0	1
76	Transitionâ€Metal Dichalcogenides: Anisotropic Collective Charge Excitations in Quasimetallic 2D Transitionâ€Metal Dichalcogenides (Adv. Sci. 10/2020). Advanced Science, 2020, 7, .	11.2	1
77	Black Phosphorus: Abnormal Near-Infrared Absorption in 2D Black Phosphorus Induced by Ag Nanoclusters Surface Functionalization (Adv. Mater. 43/2018). Advanced Materials, 2018, 30, 1870325.	21.0	0
78	Fractals via Generalized Jungckâ€“S Iterative Scheme. Discrete Dynamics in Nature and Society, 2021, 2021, 1-12.	0.9	0
79	Upcycling Silicon Photovoltaic Waste into Thermoelectrics (Adv. Mater. 19/2022). Advanced Materials, 2022, 34, .	21.0	0