Zenghui Wang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8973402/publications.pdf

Version: 2024-02-01

54 papers	2,368 citations	279798 23 h-index	330143 37 g-index
54 all docs	54 docs citations	54 times ranked	3316 citing authors

#	Article	IF	Citations
1	New aspects of the metalâ€“insulator transition in single-domain vanadium dioxide nanobeams. Nature Nanotechnology, 2009, 4, 420-424.	31.5	284
2	High Frequency MoS₂ Nanomechanical Resonators. ACS Nano, 2013, 7, 6086-6091.	14.6	262
3	Synthesis and Electrical Characterization of Silver Nanobeams. Nano Letters, 2006, 6, 2273-2278.	9.1	144
4	Strong coupling and pressure engineering in WSe2â€“MoSe2 heterobilayers. Nature Physics, 2021, 17, 92-98.	16.7	140
5	Black phosphorus nanoelectromechanical resonators vibrating at very high frequencies. Nanoscale, 2015, 7, 877-884.	5.6	128
6	Electrically tunable single- and few-layer MoS ₂ nanoelectromechanical systems with broad dynamic range. Science Advances, 2018, 4, eaao6653.	10.3	126
7	Multilayer MoS2 transistors enabled by a facile dry-transfer technique and thermal annealing. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	1.2	113
8	Phase Transitions of Adsorbed Atoms on the Surface of a Carbon Nanotube. Science, 2010, 327, 552-555.	12.6	110
9	Spatial mapping of multimode Brownian motions in high-frequency silicon carbide microdisk resonators. Nature Communications, 2014, 5, 5158.	12.8	75
10	Resolving and Tuning Mechanical Anisotropy in Black Phosphorus via Nanomechanical Multimode Resonance Spectromicroscopy. Nano Letters, 2016, 16, 5394-5400.	9.1	75
11	Electrical breakdown of multilayer MoS₂ field-effect transistors with thickness-dependent mobility. Nanoscale, 2014, 6, 12383-12390.	5.6	74
12	Air damping of atomically thin MoS2 nanomechanical resonators. Applied Physics Letters, 2014, 105, .	3.3	70
13	Vaporâ€Deposited Cs₂AgBiCl₆ Double Perovskite Films toward Highly Selective and Stable Ultraviolet Photodetector. Advanced Science, 2020, 7, 1903662.	11.2	64
14	Strong interaction between interlayer excitons and correlated electrons in WSe2/WS2 moirÃ© superlattice. Nature Communications, 2021, 12, 3608.	12.8	63
15	Magnetic-Field Asymmetry of Nonlinear Transport in Carbon Nanotubes. Physical Review Letters, 2005, 95, 256601.	7.8	60
16	Transient Absorption and Photocurrent Microscopy Show That Hot Electron Supercollisions Describe the Rate-Limiting Relaxation Step in Graphene. Nano Letters, 2013, 13, 5497-5502.	9.1	54
17	High-Throughput Graphene Imaging on Arbitrary Substrates with Widefield Raman Spectroscopy. ACS Nano, 2012, 6, 373-380.	14.6	47
18	Design of black phosphorus 2D nanomechanical resonators by exploiting the intrinsic mechanical anisotropy. 2D Materials, 2015, 2, 021001.	4.4	46

#	Article	IF	Citations
19	Single- and few-layer WTe₂and their suspended nanostructures: Raman signatures and nanomechanical resonances. Nanoscale, 2016, 8, 7854-7860.	5.6	44
20	Embracing Structural Nonidealities and Asymmetries in Two-Dimensional Nanomechanical Resonators. Scientific Reports, 2015, 4, 3919.	3.3	38
21	High pressure studies of 2D materials and heterostructures: A review. Materials and Design, 2022, 213, 110363.	7.0	35
22	Dynamic range of atomically thin vibrating nanomechanical resonators. Applied Physics Letters, 2014, 104, .	3.3	33
23	Interferometric Motion Detection in Atomic Layer 2D Nanostructures: Visualizing Signal Transduction Efficiency and Optimization Pathways. Scientific Reports, 2016, 6, 28923.	3.3	27
24	Discerning Black Phosphorus Crystal Orientation and Anisotropy by Polarized Reflectance Measurement. ACS Applied Materials & Interfaces, 2018, 10, 25629-25637.	8.0	20
25	Frequency Scaling, Elastic Transition, and Broad-Range Frequency Tuning in WSe₂ Nanomechanical Resonators. Nano Letters, 2022, 22, 5107-5113.	9.1	20
26	Kr and 4He Adsorption on Individual Suspended Single-Walled Carbon Nanotubes. Journal of Low Temperature Physics, 2012, 169, 338-349.	1.4	19
27	Environmental, thermal, and electrical susceptibility of black phosphorus field effect transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 052202.	1.2	19
28	Analyzing electrostatic modulation of signal transduction efficiency in MoS2 nanoelectromechanical resonators with interferometric readout. Science China Information Sciences, 2022, 65, 1.	4.3	19
29	6H-SiC microdisk torsional resonators in a â€œsmart-cutâ€•technology. Applied Physics Letters, 2014, 104, 091906.	3.3	16
30	Morphology Tuning and Its Role in Optimization of Perovskite Films Fabricated from A Novel Nonhalide Lead Source. Advanced Science, 2020, 7, 2002296.	11.2	14
31	Thermal hysteresis controlled reconfigurable MoS₂ nanomechanical resonators. Nanoscale, 2021, 13, 18089-18095.	5.6	14
32	All-electrical readout of atomically-thin MoS2 nanoelectromechanical resonators in the VHF band. , 2016, , .		13
33	Two-dimensional nanoelectromechanical systems (2D NEMS) via atomically-thin semiconducting crystals vibrating at radio frequencies. , 2014, , .		12
34	Nonlinearity-mediated digitization and amplification in electromechanical phonon-cavity systems. Nature Communications, 2022, 13, 2352.	12.8	12
35	Depolarization effect in optical absorption measurements of one- and two-dimensional nanostructures. Applied Physics Letters, 2012, 101, 123102.	3.3	10
36	Nanomechanics: emerging opportunities for future computing. Science China Information Sciences, 2021, 64, 1.	4.3	10

#	Article	IF	Citations
37	Analyzing Anisotropy in 2D Rhenium Disulfide Using Dichromatic Polarized Reflectance. Small, 2022, 18, e2108028.	10.0	9
38	Smart-cut 6H-silicon carbide (SiC) microdisk torsional resonators with sensitive photon radiation detection. , 2014, , .		7
39	Interrogating contact-mode silicon carbide (SiC) nanoelectromechanical switching dynamics by ultrasensitive laser interferometry. , 2014, , .		7
40	A battery-less, 255 nA quiescent current temperature sensor with voltage regulator fully powered by harvesting ambient vibrational energy. , 2017, , .		7
41	Calibrating temperature coefficient of frequency (TCf) and thermal expansion coefficient (α) of MoS<inf>2</inf> nanomechanical resonators. , 2015, , .		6
42	Two-Dimensional Inverters Based on MoS2-hBN-Graphene Heterostructures Enabled by a Layer-by-Layer Dry-Transfer Method. IEEE Journal of the Electron Devices Society, 2021, , 1-1.	2.1	5
43	A cantilever-based resonator for reconfigurable nanomechanical computing. Journal of Micromechanics and Microengineering, 2021, 31, 124003.	2.6	5
44	Two-dimensional MoS<inf>2</inf> nanomechanical resonators freelysuspended on microtrenches on flexible substrate. , 2015, , .		4
45	Frequency scaling of molybdenum disulfide (MoS<inf>2</inf>) two-dimensional (2D) nanomechanical resonators. , 2013, , .		2
46	Nanoscale Inverters Enabled by a Facile Dry-Transfer Technique Capable of Fast Prototyping of Emerging Two-Dimensional Electronic Devices. , 2021, , .		2
47	Multimode characteristics in mechanically-coupled silicon carbide (SiC) nanowire array resonators. , 2013, , .		1
48	Nanoscale resonant sensors with 1D carbon nanostructures: A review of carbon nanotube based NEMS devices. , 2013, , .		1
49	Exploring parametric resonance effects in bulk-mode CMOS-MEMS resonators. , 2014, , .		1
50	Observation of strong temperature hysteresis in molybdenum disulfide (MoS<inf>2</inf>) vibrating nanomechanical resonators. , 2015, , .		1
51	Exploiting irregular MoS<inf>2</inf> nanostructures for very high frequency (VHF) nanomechanical resonators with mode shape engineering and frequency control. , 2013, , .		0
52	Observation of Tunable Opto-Mechanical Responsivity in Two-Dimensional Semiconducting Nanoelectromechanical Resonators. , 2021, , .		0
53	Voltage-Controlled Reconfigurable Molybdenum Disulfide Nanoelectromechanical Resonator. , 2022, , .		0
54	Observation of High Temperature Coefficient of Frequency (TCf) in Bismuth Oxyiodide (BiOI) Vibrating Nanomechanical Resonators. , 2022, , .		0