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	Analyzing electrostatic modulation of signal transduction efficiency in MoS2 nanoelectromechanical resonators with interferometric readout. Science China Information Sciences, 2022, 65, 1.	4.3	19
2	High pressure studies of 2D materials and heterostructures: A review. Materials and Design, 2022, 213, 110363.	7.0	35
3	Voltage-Controlled Reconfigurable Molybdenum Disulfide Nanoelectromechanical Resonator. , 2022, , .		0
4	Observation of High Temperature Coefficient of Frequency (TCf) in Bismuth Oxyiodide (BiOI) Vibrating Nanomechanical Resonators. , 2022, , .		0
5	Analyzing Anisotropy in 2D Rhenium Disulfide Using Dichromatic Polarized Reflectance. Small, 2022, 18, e2108028.	10.0	9
6	Nonlinearity-mediated digitization and amplification in electromechanical phonon-cavity systems. Nature Communications, 2022, 13, 2352.	12.8	12
7	Frequency Scaling, Elastic Transition, and Broad-Range Frequency Tuning in WSe₂ Nanomechanical Resonators. Nano Letters, 2022, 22, 5107-5113.	9.1	20
8	Strong coupling and pressure engineering in WSe2â€“MoSe2 heterobilayers. Nature Physics, 2021, 17, 92-98.	16.7	140
9	Nanoscale Inverters Enabled by a Facile Dry-Transfer Technique Capable of Fast Prototyping of Emerging Two-Dimensional Electronic Devices. , 2021, , .		2
10	Nanomechanics: emerging opportunities for future computing. Science China Information Sciences, 2021, 64, 1.	4.3	10
11	Strong interaction between interlayer excitons and correlated electrons in WSe2/WS2 moirÃ© superlattice. Nature Communications, 2021, 12, 3608.	12.8	63
12	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
13	Thermal hysteresis controlled reconfigurable MoS₂ nanomechanical resonators. Nanoscale, 2021, 13, 18089-18095.	5.6	14
14	A cantilever-based resonator for reconfigurable nanomechanical computing. Journal of Micromechanics and Microengineering, 2021, 31, 124003.	2.6	5
15	Observation of Tunable Opto-Mechanical Responsivity in Two-Dimensional Semiconducting Nanoelectromechanical Resonators. , 2021, , .		0
16	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
17	Vaporâ€Deposited Cs₂AgBiCl₆ Double Perovskite Films toward Highly Selective and Stable Ultraviolet Photodetector. Advanced Science, 2020, 7, 1903662.	11.2	64
18	Electrically tunable single- and few-layer MoS ₂ nanoelectromechanical systems with broad dynamic range. Science Advances, 2018, 4, eaao6653.	10.3	126

#	Article	IF	Citations
19	Discerning Black Phosphorus Crystal Orientation and Anisotropy by Polarized Reflectance Measurement. ACS Applied Materials & Interfaces, 2018, 10, 25629-25637.	8.0	20
20	A battery-less, 255 nA quiescent current temperature sensor with voltage regulator fully powered by harvesting ambient vibrational energy. , 2017, , .		7
21	Interferometric Motion Detection in Atomic Layer 2D Nanostructures: Visualizing Signal Transduction Efficiency and Optimization Pathways. Scientific Reports, 2016, 6, 28923.	3.3	27
22	All-electrical readout of atomically-thin MoS2 nanoelectromechanical resonators in the VHF band. , 2016, , .		13
23	Resolving and Tuning Mechanical Anisotropy in Black Phosphorus via Nanomechanical Multimode Resonance Spectromicroscopy. Nano Letters, 2016, 16, 5394-5400.	9.1	75
24	Single- and few-layer WTe₂and their suspended nanostructures: Raman signatures and nanomechanical resonances. Nanoscale, 2016, 8, 7854-7860.	5.6	44
25	Calibrating temperature coefficient of frequency (TCf) and thermal expansion coefficient (α) of MoS<inf>2</inf> nanomechanical resonators. , 2015, , .		6
26	Two-dimensional MoS<inf>2</inf> nanomechanical resonators freelysuspended on microtrenches on flexible substrate. , 2015, , .		4
27	Observation of strong temperature hysteresis in molybdenum disulfide (MoS<inf>2</inf>) vibrating nanomechanical resonators. , 2015, , .		1
28	Design of black phosphorus 2D nanomechanical resonators by exploiting the intrinsic mechanical anisotropy. 2D Materials, 2015, 2, 021001.	4.4	46
29	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
30	Black phosphorus nanoelectromechanical resonators vibrating at very high frequencies. Nanoscale, 2015, 7, 877-884.	5.6	128
31	Embracing Structural Nonidealities and Asymmetries in Two-Dimensional Nanomechanical Resonators. Scientific Reports, 2015, 4, 3919.	3.3	38
32	Smart-cut 6H-silicon carbide (SiC) microdisk torsional resonators with sensitive photon radiation detection. , 2014, , .		7
33	Two-dimensional nanoelectromechanical systems (2D NEMS) via atomically-thin semiconducting crystals vibrating at radio frequencies. , 2014, , .		12
34	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
35	Air damping of atomically thin MoS2 nanomechanical resonators. Applied Physics Letters, 2014, 105, .	3.3	70
36	6H-SiC microdisk torsional resonators in a â€œsmart-cutâ€•technology. Applied Physics Letters, 2014, 104, 091906.	3.3	16

#	Article	IF	Citations
37	Interrogating contact-mode silicon carbide (SiC) nanoelectromechanical switching dynamics by ultrasensitive laser interferometry. , 2014, , .		7
38	Exploring parametric resonance effects in bulk-mode CMOS-MEMS resonators. , 2014, , .		1
39	Electrical breakdown of multilayer MoS₂ field-effect transistors with thickness-dependent mobility. Nanoscale, 2014, 6, 12383-12390.	5.6	74
40	Spatial mapping of multimode Brownian motions in high-frequency silicon carbide microdisk resonators. Nature Communications, 2014, 5, 5158.	12.8	75
41	Dynamic range of atomically thin vibrating nanomechanical resonators. Applied Physics Letters, 2014, 104, .	3.3	33
42	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
43	High Frequency MoS₂ Nanomechanical Resonators. ACS Nano, 2013, 7, 6086-6091.	14.6	262
44	Exploiting irregular MoS<inf>2</inf> nanostructures for very high frequency (VHF) nanomechanical resonators with mode shape engineering and frequency control. , 2013, , .		0
45	Multimode characteristics in mechanically-coupled silicon carbide (SiC) nanowire array resonators. , 2013, , .		1
46	Frequency scaling of molybdenum disulfide (MoS<inf>2</inf>) two-dimensional (2D) nanomechanical resonators. , 2013, , .		2
47	Nanoscale resonant sensors with 1D carbon nanostructures: A review of carbon nanotube based NEMS devices. , 2013, , .		1
48	Depolarization effect in optical absorption measurements of one- and two-dimensional nanostructures. Applied Physics Letters, 2012, 101, 123102.	3.3	10
49	Kr and 4He Adsorption on Individual Suspended Single-Walled Carbon Nanotubes. Journal of Low Temperature Physics, 2012, 169, 338-349.	1.4	19
50	High-Throughput Graphene Imaging on Arbitrary Substrates with Widefield Raman Spectroscopy. ACS Nano, 2012, 6, 373-380.	14.6	47
51	Phase Transitions of Adsorbed Atoms on the Surface of a Carbon Nanotube. Science, 2010, 327, 552-555.	12.6	110
52	New aspects of the metalâ€“insulator transition in single-domain vanadium dioxide nanobeams. Nature Nanotechnology, 2009, 4, 420-424.	31.5	284
53	Synthesis and Electrical Characterization of Silver Nanobeams. Nano Letters, 2006, 6, 2273-2278.	9.1	144
54	Magnetic-Field Asymmetry of Nonlinear Transport in Carbon Nanotubes. Physical Review Letters, 2005, 95, 256601.	7.8	60