

Rui Yang

List of Publications by Year in descending order

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49
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times ranked

2187
citing authors

#	ARTICLE	IF	CITATIONS
1	In Situ TEM tensile testing of bicrystals with tailored misorientation angles. <i>Acta Materialia</i> , 2022, 224, 117505.	7.9	6
2	Analyzing electrostatic modulation of signal transduction efficiency in MoS ₂ nanoelectromechanical resonators with interferometric readout. <i>Science China Information Sciences</i> , 2022, 65, 1.	4.3	19
3	Strain-Modulated Dissipation in Two-Dimensional Molybdenum Disulfide Nanoelectromechanical Resonators. <i>ACS Nano</i> , 2022, 16, 2261-2270.	14.6	17
4	Nanoelectromechanical Memories Based on Nonlinear 2D MoS ₂ Resonators. , 2022, , .		5
5	Self-Terminating Write of Multi-Level Cell ReRAM for Efficient Neuromorphic Computing. , 2022, , .		0
6	Raman Spectroscopic Probe for Nonlinear MoS ₂ Nanoelectromechanical Resonators. <i>Nano Letters</i> , 2022, 22, 5780-5787.	9.1	16
7	Unary Coding and Variation-Aware Optimal Mapping Scheme for Reliable ReRAM-Based Neuromorphic Computing. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021, 40, 2495-2507.	2.7	13
8	Strain-Modulated Equivalent Circuit Model and Dissipation Model for 2D MoS ₂ Nems Resonators. , 2021, , .		9
9	Nanomechanics: emerging opportunities for future computing. <i>Science China Information Sciences</i> , 2021, 64, 1.	4.3	10
10	Memristive Crossbar Arrays for Storage and Computing Applications. <i>Advanced Intelligent Systems</i> , 2021, 3, 2100017.	6.1	80
11	Detection of Trace Impurity Gradients in Noble Metals by the Photothermoelectric Effect. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17509-17517.	3.1	0
12	Hybrid Nanoelectromechanical Switch and Resistive Memory in Silicon Nanowires by VLSI NEMS. , 2021, , .		0
13	Thermal hysteresis controlled reconfigurable MoS ₂ nanomechanical resonators. <i>Nanoscale</i> , 2021, 13, 18089-18095.	5.6	14
14	A cantilever-based resonator for reconfigurable nanomechanical computing. <i>Journal of Micromechanics and Microengineering</i> , 2021, 31, 124003.	2.6	5
15	Observation of Tunable Opto-Mechanical Responsivity in Two-Dimensional Semiconducting Nanoelectromechanical Resonators. , 2021, , .		0
16	Electrodynamic Force, Casimir Effect, and Stiction Mitigation in Silicon Carbide Nanoelectromechanical Switches. <i>Small</i> , 2020, 16, 2005594.	10.0	6
17	Thermoelectric response from grain boundaries and lattice distortions in crystalline gold devices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 23350-23355.	7.1	10
18	In-memory computing with ferroelectrics. <i>Nature Electronics</i> , 2020, 3, 237-238.	26.0	32

#	ARTICLE	IF	CITATIONS
19	Go Unary: A Novel Synapse Coding and Mapping Scheme for Reliable ReRAM-based Neuromorphic Computing. , 2020, , .		14
20	High-throughput Growth of Microscale Gold Bicrystals for Single-Grain Boundary Studies. Advanced Materials, 2019, 31, 1902189.	21.0	6
21	Ternary content-addressable memory with MoS ₂ transistors for massively parallel data search. Nature Electronics, 2019, 2, 108-114.	26.0	83
22	High-performance axicon lenses based on high-contrast, multilayer gratings. APL Photonics, 2018, 3, 011302.	5.7	6
23	Single-crystal metal growth on amorphous insulating substrates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 685-689.	7.1	12
24	Electrically tunable single- and few-layer MoS ₂ nanoelectromechanical systems with broad dynamic range. Science Advances, 2018, 4, eaao6653.	10.3	126
25	Understanding Interlayer Coupling in TMD-hBN Heterostructure by Raman Spectroscopy. IEEE Transactions on Electron Devices, 2018, 65, 4059-4067.	3.0	26
26	Local-gate electrical actuation, detection, and tuning of atomic-layer MoS ₂ nanoelectromechanical resonators. , 2017, , .		5
27	Large-Angle, Multifunctional Metagratings Based on Freeform Multimode Geometries. Nano Letters, 2017, 17, 3752-3757.	9.1	398
28	Tuning Optical Signatures of Single- and Few-Layer MoS ₂ by Blown-Bubble Bulge Straining up to Fracture. Nano Letters, 2017, 17, 4568-4575.	9.1	79
29	2D molybdenum disulfide (MoS ₂) transistors driving RRAMs with 1T1R configuration. , 2017, , .		9
30	Single- and few-layer transfer-printed CVD MoS ₂ nanomechanical resonators with enhancement by thermal annealing. , 2016, , .		4
31	All-electrical readout of atomically-thin MoS ₂ nanoelectromechanical resonators in the VHF band. , 2016, , .		13
32	Large-scale arrays of single- and few-layer MoS ₂ nanomechanical resonators. Nanoscale, 2016, 8, 10677-10685.	5.6	51
33	Resolving and Tuning Mechanical Anisotropy in Black Phosphorus via Nanomechanical Multimode Resonance Spectromicroscopy. Nano Letters, 2016, 16, 5394-5400.	9.1	75
34	Single- and few-layer WTe ₂ and their suspended nanostructures: Raman signatures and nanomechanical resonances. Nanoscale, 2016, 8, 7854-7860.	5.6	44
35	Two-dimensional MoS ₂ nanomechanical resonators freely suspended on microtrenches on flexible substrate. , 2015, , .		4
36	Probing contact-mode characteristics of silicon nanowire electromechanical systems with embedded piezoresistive transducers. Journal of Micromechanics and Microengineering, 2015, 25, 095014.	2.6	6

#	ARTICLE	IF	CITATIONS
37	Capacitance-voltage (C-V) characterization in very thin suspended silicon nanowires for NEMS-CMOS integration in 160nm Silicon-on-Insulator (SOI). , 2015, , .		1
38	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
39	Electromechanical coupling and design considerations in single-layer MoS ₂ suspended-channel transistors and resonators. Nanoscale, 2015, 7, 19921-19929.	5.6	15
40	Smart-cut 6H-silicon carbide (SiC) microdisk torsional resonators with sensitive photon radiation detection. , 2014, , .		7
41	Multilayer MoS ₂ 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
42	Toward ultralow-power computing at extreme with silicon carbide (SiC) nanoelectromechanical logic. , 2014, , .		0
43	Electrical breakdown of multilayer MoS ₂ field-effect transistors with thickness-dependent mobility. Nanoscale, 2014, 6, 12383-12390.	5.6	74
44	Toward ultralow-power computing at extreme with silicon carbide (SiC) nanoelectromechanical logic. , 2014, , .		1
45	Silicon nanowire and cantilever electromechanical switches with integrated piezoresistive transducers. , 2013, , .		8
46	Dual-gate silicon carbide (SiC) lateral nanoelectromechanical switches. , 2013, , .		9
47	Multimode characteristics in mechanically-coupled silicon carbide (SiC) nanowire array resonators. , 2013, , .		1
48	Time-domain AC characterization of silicon carbide (SiC) nanoelectromechanical switches toward high-speed operations. , 2013, , .		9
49	Silicon carbide (SiC) nanoelectromechanical switches and logic gates with long cycles and robust performance in ambient air and at high temperature. , 2013, , .		18