

Zhenghua An

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

1,260
citations

394421

19
h-index

361022

35
g-index

56
all docs

56
docs citations

56
times ranked

1847
citing authors

#	ARTICLE	IF	CITATIONS
1	Progress of microscopic thermoelectric effects studied by micro- and nano-thermometric techniques. <i>Frontiers of Physics</i> , 2022, 17, 1.	5.0	5
2	Stacking monolayers at will: A scalable device optimization strategy for two-dimensional semiconductors. <i>Nano Research</i> , 2022, 15, 6620-6627.	10.4	4
3	Non-Planckian infrared emission from GaAs devices with electrons and lattice out-of-thermal-equilibrium. <i>Optics Express</i> , 2021, 29, 1244.	3.4	2
4	Quasiadiabatic electron transport in room temperature nanoelectronic devices induced by hot-phonon bottleneck. <i>Nature Communications</i> , 2021, 12, 4752.	12.8	11
5	Controlling fluctuations in small structures: Hidden information in the noise. <i>Physical Review B</i> , 2021, 104, .	3.2	2
6	Anisotropic Hot-Electron Kinetics Revealed by Terahertz Fluctuation. <i>ACS Photonics</i> , 2021, 8, 2674-2682.	6.6	3
7	Dual-color charge-sensitive infrared phototransistors with dynamic optical gate. <i>Applied Physics Letters</i> , 2021, 119, 103505.	3.3	1
8	Thermal near-field energy density and local density of states in topological one-dimensional Su-Schrieffer-Heeger chains and two-dimensional Su-Schrieffer-Heeger lattices of plasmonic nanoparticles. <i>Physical Review B</i> , 2021, 104, .	3.2	10
9	Hybrid perfect metamaterial absorber for microwave spin rectification applications. <i>Scientific Reports</i> , 2020, 10, 19240.	3.3	8
10	Strong In-Plane Magnetic Field-Induced Reemergent Superconductivity in the van der Waals Heterointerface of NbSe ₂ and CrCl ₃ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49252-49257.	8.0	13
11	Silicon nanomembrane phototransistor flipped with multifunctional sensors toward smart digital dust. <i>Science Advances</i> , 2020, 6, eaaz6511.	10.3	24
12	Ag-Modified 3D Reduced Graphene Oxide Aerogel-Based Sensor with an Embedded Microheater for a Fast Response and High-Sensitive Detection of NO ₂ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25243-25252.	8.0	56
13	Manipulation of the zero-damping conditions and unidirectional invisibility in cavity magnonics. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	14
14	Graphene Wrinkles: Enhanced Peltier Effect in Wrinkled Graphene Constriction by Nano-Bubble Engineering (Small 14/2020). <i>Small</i> , 2020, 16, 2070079.	10.0	1
15	Linear array of charge sensitive infrared phototransistors for long wavelength infrared detection. <i>Applied Physics Letters</i> , 2020, 116, 233501.	3.3	3
16	Enhanced Peltier Effect in Wrinkled Graphene Constriction by Nano-Bubble Engineering. <i>Small</i> , 2020, 16, e1907170.	10.0	19
17	Evidence for ferromagnetic order in the CoSb layer of LaCoSb ₂ . <i>Physical Review B</i> , 2020, 101, .	3.2	3
18	Ultrathin and Electrically Tunable Metamaterial with Nearly Perfect Absorption in Mid-Infrared. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3358.	2.5	12

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19	Ultrathin Silicon Nanomembrane in a Tubular Geometry for Enhanced Photodetection. <i>Advanced Optical Materials</i> , 2019, 7, 1900823.	7.3	11
20	Simulation of temperature profile for the electron and the lattice systems in laterally structured layered conductors. <i>Europhysics Letters</i> , 2019, 128, 17001.	2.0	4
21	First Resonant Energy Transfer Mediated by the Evanescent Fields of Nanophotonic Particles. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29900-29907.	3.1	4
22	A versatile loop-mediated isothermal amplification microchip platform for <i>Streptococcus pneumoniae</i> and <i>Mycoplasma pneumoniae</i> testing at the point of care. <i>Biosensors and Bioelectronics</i> , 2019, 126, 373-380.	10.1	48
23	Developments on Thermometric Techniques in Probing Micro- and Nano-heat. <i>ES Energy & Environments</i> , 2019, , .	1.1	6
24	Imaging of nonlocal hot-electron energy dissipation via shot noise. <i>Science</i> , 2018, 360, 775-778.	12.6	85
25	Scalable Production of Graphene/Semiconducting Single-Wall Carbon Nanotube Film Schottky Broadband Photodiode Array with Enhanced Photoresponse. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2369.	2.5	3
26	Nanothermometry of electrons and phonons. , 2018, , .		0
27	Scanning THz Noise Microscopy of Operating Nano-devices. , 2018, , .		0
28	Discrete Superconducting Phases in FeSe-Derived Superconductors. <i>Physical Review Letters</i> , 2018, 121, 207003.	7.8	49
29	Revisiting the Dipole Model for a Thermal Infrared Near-Field Spectroscopy. <i>Physical Review Applied</i> , 2018, 10, .	3.8	13
30	Double-layer heterostructure of graphene/carbon nanotube films for highly efficient broadband photodetector. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	21
31	Deterministic Self-Rolling of Ultrathin Nanocrystalline Diamond Nanomembranes for 3D Tubular/Helical Architecture. <i>Advanced Materials</i> , 2017, 29, 1604572.	21.0	57
32	Diamond Nanomembranes: Deterministic Self-Rolling of Ultrathin Nanocrystalline Diamond Nanomembranes for 3D Tubular/Helical Architecture (<i>Adv. Mater.</i> 13/2017). <i>Advanced Materials</i> , 2017, 29, .	21.0	1
33	Plasmonic diabolito cavity enhanced spin pumping. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	5
34	Dramatically Enhanced Spin Dynamo with Plasmonic Diabolito Cavity. <i>Scientific Reports</i> , 2017, 7, 5332.	3.3	5
35	Corrugated plasmonic cavity for enhanced intersubband photodetection. <i>Applied Physics Letters</i> , 2017, 110, 261103.	3.3	0
36	Real-space nano-imaging of hot electron dynamics. , 2017, , .		0

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37	Design of triple-band metamaterial absorbers with refractive index sensitivity at infrared frequencies. <i>Optics Express</i> , 2016, 24, 25742.	3.4	76
38	Highly photoresponsive charge-sensitive infrared phototransistors with a dynamically controlled optical gate. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	6
39	Observation of quasi-two-dimensional Dirac fermions in ZrTe5. <i>NPG Asia Materials</i> , 2016, 8, e325-e325.	7.9	51
40	Widely Tunable Terahertz Phase Modulation with Gate-Controlled Graphene Metasurfaces. <i>Physical Review X</i> , 2015, 5, .	8.9	173
41	Quantum dot single-photon switches of resonant tunneling current for discriminating-photon-number detection. <i>Scientific Reports</i> , 2015, 5, 9389.	3.3	23
42	Hierarchical nanoporous microtubes for high-speed catalytic microengines. <i>NPG Asia Materials</i> , 2014, 6, e94-e94.	7.9	44
43	Electronic-state-controlled reset operation in quantum dot resonant-tunneling single-photon detectors. <i>Applied Physics Letters</i> , 2014, 104, 051113.	3.3	10
44	Plasmon-Matter Interactions in Optoelectronic Metamaterials with Negative Refractive Index. <i>Plasmonics</i> , 2013, 8, 1309-1315.	3.4	5
45	Plasmonic light harvesting for multicolor infrared thermal detection. <i>Optics Express</i> , 2013, 21, 295.	3.4	25
46	Optimization of Optoelectronic Plasmonic Structures. <i>Plasmonics</i> , 2011, 6, 319-325.	3.4	10
47	Metal Hole Arrays as Resonant Photo-Coupler for Charge Sensitive Infrared Phototransistors. <i>IEEE Journal of Quantum Electronics</i> , 2010, 46, 384-390.	1.9	36
48	Selective enhancement of photon emission in a quantum dot coupling with micropillar cavity. , 2010, , .		0
49	Optical metamaterial for polarization control. <i>Physical Review A</i> , 2009, 80, .	2.5	141
50	Manipulate light polarizations by metamaterials: From microwave to optics. , 2008, , .		1
51	Metastable excited states of a closed quantum dot with high sensitivity to infrared photons. <i>Physical Review B</i> , 2007, 75, .	3.2	34
52	Reset Operation of Quantum-Well Infrared Phototransistors. <i>IEEE Transactions on Electron Devices</i> , 2007, 54, 1776-1780.	3.0	38
53	A sensitive double quantum well infrared phototransistor. <i>Journal of Applied Physics</i> , 2006, 100, 044509.	2.5	29
54	Infrared phototransistor using capacitively coupled two-dimensional electron gas layers. <i>Applied Physics Letters</i> , 2005, 86, 172106.	3.3	54

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55	Design of Dual-Frequency Plasmonic Photo-Coupler for Infrared Phototransistors. Plasmonics, 0, , 1.	3.4	1