

Bo Zhao

List of Publications by Year in descending order

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85
papers

3,576
citations

117625

34
h-index

133252

59
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85
all docs

85
docs citations

85
times ranked

2408
citing authors

#	ARTICLE	IF	CITATIONS
1	Reconfigurable Metasurface for Multifunctional Control of Electromagnetic Waves. <i>Advanced Optical Materials</i> , 2017, 5, 1700485.	7.3	193
2	Enhancement of near-infrared absorption in graphene with metal gratings. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	188
3	Thermophotovoltaic emitters based on a two-dimensional grating/thin-film nanostructure. <i>International Journal of Heat and Mass Transfer</i> , 2013, 67, 637-645.	4.8	179
4	A planar chiral meta-surface for optical vortex generation and focusing. <i>Scientific Reports</i> , 2015, 5, 10365.	3.3	164
5	Near-field heat transfer between graphene/hBN multilayers. <i>Physical Review B</i> , 2017, 95, .	3.2	155
6	Axion-Field-Enabled Nonreciprocal Thermal Radiation in Weyl Semimetals. <i>Nano Letters</i> , 2020, 20, 1923-1927.	9.1	152
7	Strong Plasmonic Coupling between Graphene Ribbon Array and Metal Gratings. <i>ACS Photonics</i> , 2015, 2, 1611-1618.	6.6	137
8	Study of magnetic polaritons in deep gratings for thermal emission control. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 135, 81-89.	2.3	130
9	Using Reconfigurable Transmitarray to Achieve Beam-Steering and Polarization Manipulation Applications. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 4801-4810.	5.1	124
10	High-performance near-field thermophotovoltaics for waste heat recovery. <i>Nano Energy</i> , 2017, 41, 344-350.	16.0	115
11	An Active Metamaterial for Polarization Manipulating. <i>Advanced Optical Materials</i> , 2014, 2, 945-949.	7.3	101
12	Near-complete violation of Kirchhoff's law of thermal radiation with a 0.3 T magnetic field. <i>Optics Letters</i> , 2019, 44, 4203.	3.3	101
13	Near-field radiative heat transfer between doped-Si parallel plates separated by a spacing down to 200 nm. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	100
14	Resonance enhanced absorption in a graphene monolayer using deep metal gratings. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2015, 32, 1176.	2.1	85
15	Integrated near-field thermo-photovoltaics for heat recycling. <i>Nature Communications</i> , 2020, 11, 2545.	12.8	85
16	Resonant frequency and bandwidth of metamaterial emitters and absorbers predicted by an RLC circuit model. <i>Journal of Quantitative Spectroscopy and Radiative Transfer</i> , 2014, 149, 33-40.	2.3	82
17	Sub-Wavelength Passive Optical Isolators Using Photonic Structures Based on Weyl Semimetals. <i>Advanced Optical Materials</i> , 2020, 8, 2000100.	7.3	79
18	A Dual Circularly Polarized Horn Antenna in Ku-Band Based on Chiral Metamaterial. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 2307-2311.	5.1	76

#	ARTICLE	IF	CITATIONS
19	Enhanced Photon Tunneling by Surface Plasmon-Phonon Polaritons in Graphene/hBN Heterostructures. <i>Journal of Heat Transfer</i> , 2017, 139, .	2.1	69
20	Perfect mid-infrared absorption by hybrid phonon-plasmon polaritons in hBN/metal-grating anisotropic structures. <i>International Journal of Heat and Mass Transfer</i> , 2017, 106, 1025-1034.	4.8	61
21	Nonreciprocal infrared absorption via resonant magneto-optical coupling to InAs. <i>Science Advances</i> , 2022, 8, eabm4308.	10.3	58
22	Radiative Thermal Router Based on Tunable Magnetic Weyl Semimetals. <i>ACS Photonics</i> , 2020, 7, 3257-3263.	6.6	57
23	Reaching the Ultimate Efficiency of Solar Energy Harvesting with a Nonreciprocal Multijunction Solar Cell. <i>Nano Letters</i> , 2022, 22, 448-452.	9.1	56
24	Enhanced near-field thermal radiation and reduced Casimir stiction between doped-Si gratings. <i>Physical Review A</i> , 2015, 91, .	2.5	54
25	Development of a nutrient mist bioreactor for growth of hairy roots. <i>In Vitro Cellular and Developmental Biology - Plant</i> , 1999, 35, 271-274.	2.1	52
26	Effect of state filling on the modulation response and the threshold current of quantum well lasers. <i>Applied Physics Letters</i> , 1992, 60, 1930-1932.	3.3	49
27	Violating Kirchhoff's Law of Thermal Radiation in Semitransparent Structures. <i>ACS Photonics</i> , 2021, 8, 2417-2424.	6.6	49
28	Combining the absorptive and radiative loss in metasurfaces for multi-spectral shaping of the electromagnetic scattering. <i>Scientific Reports</i> , 2016, 6, 21462.	3.3	46
29	Gate-Tunable Near-Field Heat Transfer. <i>ACS Photonics</i> , 2019, 6, 709-719.	6.6	46
30	Direct measurement of linewidth enhancement factors in quantum well lasers of different quantum well barrier heights. <i>Applied Physics Letters</i> , 1993, 62, 1591-1593.	3.3	45
31	Near-Field Thermophotonic Systems for Low-Grade Waste-Heat Recovery. <i>Nano Letters</i> , 2018, 18, 5224-5230.	9.1	44
32	Broadband Polarization-Insensitive Tunable Absorber Using Active Frequency Selective Surface. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020, 19, 982-986.	4.0	42
33	Strained single quantum well InGaAs lasers with a threshold current of 0.25 mA. <i>Applied Physics Letters</i> , 1993, 63, 2621-2623.	3.3	37
34	Experimental demonstration of energy harvesting from the sky using the negative illumination effect of a semiconductor photodiode. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	37
35	Broadening Near-Field Emission for Performance Enhancement in Thermophotovoltaics. <i>Nano Letters</i> , 2020, 20, 1654-1661.	9.1	37
36	Resonance perfect absorption by exciting hyperbolic phonon polaritons in 1D hBN gratings. <i>Optics Express</i> , 2017, 25, 7791.	3.4	33

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37	A Computational Simulation of Using Tungsten Gratings in Near-Field Thermophotovoltaic Devices. Journal of Heat Transfer, 2017, 139, .	2.1	32
38	Blocking-assisted infrared transmission of subwavelength metallic gratings by graphene. Journal of Optics (United Kingdom), 2015, 17, 035004.	2.2	29
39	MESH: A free electromagnetic solver for far-field and near-field radiative heat transfer for layered periodic structures. Computer Physics Communications, 2018, 231, 163-172.	7.5	28
40	Perfect Absorption With Trapezoidal Gratings Made of Natural Hyperbolic Materials. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 123-133.	2.6	27
41	Nonreciprocal radiative heat transfer between two planar bodies. Physical Review B, 2020, 101, .	3.2	23
42	Mid-infrared broadband circular polarizer based on Weyl semimetals. Optics Express, 2022, 30, 3035.	3.4	23
43	Effect of polarization on dual-band infrared metamaterial emitters or absorbers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2015, 158, 111-118.	2.3	22
44	Nonreciprocal Thermal Emitters Using Metasurfaces with Multiple Diffraction Channels. Physical Review Applied, 2021, 16, .	3.8	21
45	Wide-angle near infrared polarizer with extremely high extinction ratio. Optics Express, 2013, 21, 10502.	3.4	20
46	Evidence for state filling effect on high speed modulation dynamics of quantum well lasers. Applied Physics Letters, 1992, 61, 1907-1909.	3.3	17
47	Polarization Dependence of the Reflectance and Transmittance of Anisotropic Metamaterials. Journal of Thermophysics and Heat Transfer, 2016, 30, 240-246.	1.6	15
48	Atomic-Scale Control of Coherent Thermal Radiation. ACS Photonics, 2021, 8, 872-878.	6.6	15
49	Prediction of the Resonance Condition of Metamaterial Emitters and Absorbers Using LC Circuit Model. , 2014, , .		15
50	Topological Materials for Functional Optoelectronic Devices. Advanced Functional Materials, 2022, 32, .	14.9	15
51	Adjoint Kirchhoff's Law and General Symmetry Implications for All Thermal Emitters. Physical Review X, 2022, 12, .	8.9	15
52	An Experimental Study of the Helium-Cooled Modular Divertor with Multiple Jets at Nearly Prototypical Conditions. Fusion Science and Technology, 2015, 68, 541-545.	1.1	13
53	On the high speed modulation bandwidth of quantum well lasers. Applied Physics Letters, 1992, 60, 313-315.	3.3	12
54	Sub-100 pA current operation of strained InGaAs quantum well lasers at low temperatures. Applied Physics Letters, 1994, 65, 1805-1807.	3.3	12

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55	Focused Synthetic Aperture Radar Processing of Ice-Sounding Data Collected Over the East Antarctic Ice Sheet via the Modified Range Migration Algorithm Using Curvelets. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4496-4509.	6.3	11
56	High Reflection from a One-Dimensional Array of Graphene Nanoribbons. ACS Photonics, 2019, 6, 339-344.	6.6	11
57	High-performance photonic transformers for DC voltage conversion. Nature Communications, 2021, 12, 4684.	12.8	11
58	Equivalent circuit analysis of Λ -shaped split ring resonators. Journal of Modern Optics, 2015, 62, 901-907.	1.3	8
59	CHEMICAL POTENTIAL OF PHOTONS AND ITS IMPLICATIONS FOR CONTROLLING RADIATIVE HEAT TRANSFER. Annual Review of Heat Transfer, 2020, 23, 397-431.	1.0	8
60	Self-sustaining thermophotonic circuits. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11596-11601.	7.1	7
61	Spectral emissivity modeling in multi-resonant systems using coupled-mode theory. Optics Express, 2022, 30, 9463.	3.4	7
62	State filling effect on spectral linewidth of quantum well lasers. Applied Physics Letters, 1993, 62, 1200-1202.	3.3	6
63	Two-Dimensional Imaging of Ice Sheets of Airborne Radar Sounder via a Combined Modified Range Migration Algorithm Based on ISFT and Beamforming Using Curvelets. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 76-89.	4.9	6
64	Performance improvement in quantum well lasers by optimizing band gap offset at quantum well heterojunctions. Applied Physics Letters, 1993, 63, 432-434.	3.3	5
65	Reduction of the frequency chirp of two section distributed feedback laser by nonuniform current injection. Applied Physics Letters, 1995, 66, 2028-2030.	3.3	5
66	An improved transient-type ice-penetrating radar. Journal of Glaciology, 2011, 57, 295-301.	2.2	5
67	Design of Optical and Radiative Properties of Surfaces. , 2018, , 1023-1068.		3
68	Compartmental low-rank filtering of radio-echo sounding data. , 2016, , .		2
69	Ground experiments and performance evaluation of the Low-Frequency Radio Spectrometer onboard the lander of Chang'e-4 mission. Research in Astronomy and Astrophysics, 2021, 21, 116.	1.7	2
70	Clutter suppression method in GPR using particle clustering. Journal of Electronics, 2009, 26, 584-587.	0.2	1
71	Numerical Investigation on Bearing Capacity of a Pipeline on Clayey Soils. , 2010, , .		1
72	Ionospheric ionogram denoising based on Robust Principal Component Analysis. , 2012, , .		1

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73	A Numerical Investigation of the Thermal-Hydraulics of the Helium-Cooled Modular Divertor with Multiple Jets. Fusion Science and Technology, 2015, 68, 561-565.	1.1	1
74	A Computational Simulation of Using Tungsten Gratings in Near-Field Thermophotovoltaic Devices. , 2016, , .		1
75	Optimization of Multiple Jet Arrays for Helium-Cooled Finger-Type Divertors. Fusion Science and Technology, 2017, , 1-6.	1.1	1
76	Controlling the dopant profile for SRH suppression at low current densities in $\lambda = 1330$ nm GaInAsP light-emitting diodes. Applied Physics Letters, 2020, 116, 203503.	3.3	1
77	Influence Of Quantum Well Barrier Height On The Amplitude-phase Coupling And The Spectral Linewidth In Quantum Well Lasers. , 0, , .		0
78	Modulation Bandwidth Enhancement In Single Quantum Well GaAs Lasers Through A Novel Design Of Graded Index Separate Confinement Heterostructure. , 0, , .		0
79	A dual dand directive patch antenna based on two-layer cut wire pairs superstate. , 2009, , .		0
80	Combined low-rank and sparsity filtering of radio-sounding data. , 2015, , .		0
81	An Experimental Investigation of the Effect of Jet-to-Surface Distance on the Thermal Hydraulics of the Helium-Cooled Modular Divertor with Multiple Jets. Fusion Science and Technology, 2017, , 1-6.	1.1	0
82	Reversed Heat Flux Study of Impinging-Jet Water Cooling for Helium-Cooled Finger-Type Divertors. Fusion Science and Technology, 0, , 1-6.	1.1	0
83	Compartmental Gaussian Mixture Model used for Layer Detection in Radio-Echo Sounding Data. , 2018, , .		0
84	Tracing the Layer Boundary of the Ice Sheet from Radio-Echo Sounding Data. , 2018, , .		0
85	Design of Optical and Radiative Properties of Surfaces. , 2017, , 1-46.		0