Zhuomin M Zhang

List of Publications by Year
in descending order

62 papers	2,631 citations	257450 24 h-index	189892 50 g-index
63 all docs	63 docs citations	63 times ranked	1446 citing authors

#	Article	IF	Citations
1	Temperature-dependent spectral emittance of bauxite and silica particle beds. Experimental Heat Transfer, 2023, 36, 826-844.	3.2	4
2	Improved performance of a near-field thermophotovoltaic device by a back gapped reflector. Solar Energy Materials and Solar Cells, 2022, 237, 111562.	6.2	10
3	Spectral Radiative Properties of Polydispersed SiO₂Particle Beds. Journal of Thermophysics and Heat Transfer, 2022, 36, 858-869.	1.6	4
4	Numerical analyses of high temperature dense, granular flows coupled to high temperature flow property measurements for solar thermal energy storage. Solar Energy, 2021, 213, 350-360.	6.1	15
5	Coupled Charge and Radiation Transport Processes in Thermophotovoltaic and Thermoradiative Cells. Physical Review Applied, 2021, 15, .	3.8	16
6	Spatial profiles of photon chemical potential in near-field thermophotovoltaic cells. Journal of Applied Physics, 2021, 129, .	2.5	13
7	Measurements of scattering and absorption properties of submillimeter bauxite and silica particles. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 276, 107923.	2.3	16
8	Near-field photonic thermal diode based on hBN and InSb films. Applied Physics Letters, 2021, 119, .	3.3	23
9	Effect of Evanescent Waves on the Dark Current of Thermophotovoltaic Cells. Nanoscale and Microscale Thermophysical Engineering, 2020, 24, 1-19.	2.6	14
10	Spectral Radiative Properties of Ceramic Particles for Concentrated Solar Thermal Energy Storage Applications. International Journal of Thermophysics, 2020, 41, 1.	2.1	22
11	Spectral emittance measurements of micro/nanostructures in energy conversion: a review. Frontiers in Energy, 2020, 14, 482-509.	2.3	22
12	Nano/Microscale Heat Transfer. Mechanical Engineering Series, 2020, , .	0.2	183
13	An experimental study of a nearly perfect absorber made from a natural hyperbolic material for harvesting solar energy. Journal of Applied Physics, 2020, 127, .	2.5	20
14	Comparison of kinetic theory and fluctuational electrodynamics for radiative heat transfer in nanoparticle chains. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 246, 106947.	2.3	17
15	Measurement of flow properties coupled to experimental and numerical analyses of dense, granular flows for solar thermal energy storage. Solar Energy, 2020, 207, 77-90.	6.1	25
16	Enhancement and Manipulation of Near-Field Radiative Heat Transfer Using an Intermediate Modulator. Physical Review Applied, 2020, 13, .	3.8	17
17	Near-Field Radiative Heat Transfer Between Two Î±-MoO3 Biaxial Crystals. Journal of Heat Transfer, 2020, 142, .	2.1	68
18	Vandal Glass Heat Distribution and the Effect of Glass Gap Adjustments in Outdoor Digital Display Components. Journal of Electronic Packaging, Transactions of the ASME, 2020, 142, .	1.8	1

#	Article	IF	Citations
19	Near-Field Energy Transfer. Mechanical Engineering Series, 2020, , 623-722.	0.2	0
20	Radiative Properties of Nanomaterials. Mechanical Engineering Series, 2020, , 497-622.	0.2	1
21	Photonic thermal conduction by infrared plasmonic resonators in semiconductor nanowires. Applied Physics Letters, 2019, 114, 163104.	3.3	10
22	Experimental Demonstration of the Effect of Magnetic Polaritons on the Radiative Properties of Deep Aluminum Gratings. Journal of Heat Transfer, 2019, 141, .	2.1	7
23	Thermal radiation in systems of many dipoles. Physical Review B, 2019, 100, .	3.2	39
24	A coherent description of thermal radiative devices and its application on the near-field negative electroluminescent cooling. Energy, 2018, 147, 177-186.	8.8	13
25	Near-field radiative thermoelectric energy converters: a review. Frontiers in Energy, 2018, 12, 5-21.	2.3	71
26	Compact mid-infrared broadband absorber based on hBN/metal metasurface. International Journal of Thermal Sciences, 2018, 130, 192-199.	4.9	15
27	Sub-diffractional waveguiding by mid-infrared plasmonic resonators in semiconductor nanowires. Nanoscale, 2018, 10, 5708-5716.	5.6	5
28	A perfect absorber design using a natural hyperbolic material for harvesting solar energy. Solar Energy, 2018, 159, 329-336.	6.1	71
29	A dual-layer structure with record-high solar reflectance for daytime radiative cooling. Solar Energy, 2018, 169, 316-324.	6.1	131
30	Natural anisotropic nanoparticles with a broad absorption spectrum for solar energy harvesting. International Communications in Heat and Mass Transfer, 2018, 96, 109-113.	5.6	12
31	Influence of hBN orientation on the near-field radiative heat transfer between graphene/hBN heterostructures. Journal of Photonics for Energy, 2018, 9, 1.	1.3	44
32	Thermoradiative device enhanced by near-field coupled structures. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 196, 10-16.	2.3	26
33	Near-field enhancement of thermoradiative devices. Journal of Applied Physics, 2017, 122, .	2.5	20
34	Near-field heat transfer between graphene/hBN multilayers. Physical Review B, 2017, 95, .	3.2	155
35	Radiative Properties of Ceramic $$hbox {Al}_{2}hbox {O}_{3}$$, AlN and $$hbox {Si}_{3}hbox {N}_{4}$$â€”II: Modeling. International Journal of Thermophysics, 2017, 38, 1.	2.1	18
36	Perfect mid-infrared absorption by hybrid phonon-plasmon polaritons in hBN/metal-grating anisotropic structures. International Journal of Heat and Mass Transfer, 2017, 106, 1025-1034.	4.8	61

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37	Performance comparison between photovoltaic and thermoradiative devices. Journal of Applied Physics, 2017, 122, .	2.5	26
38	Resonance perfect absorption by exciting hyperbolic phonon polaritons in 1D hBN gratings. Optics Express, 2017, 25, 7791.	3.4	33
39	Collective near-field thermal emission from polaritonic nanoparticle arrays. Physical Review Materials, 2017, 1, .	2.4	34
40	Radiative Properties of Ceramic $$hbox {Al}_{2}hbox {O}_{3}$$, AlN, and $$hbox {Si}_{3}hbox {N}_{4}$$: I. Experiments. International Journal of Thermophysics, 2016, 37, 1.	2.1	19
41	Near-Field Thermal Radiation: Recent Progress and Outlook. Nanoscale and Microscale Thermophysical Engineering, 2015, 19, 98-126.	2.6	116
42	Strong Plasmonic Coupling between Graphene Ribbon Array and Metal Gratings. ACS Photonics, 2015, 2, 1611-1618.	6.6	137
43	Near-field radiation between graphene-covered carbon nanotube arrays. AIP Advances, 2015, 5, 053501.	1.3	16
44	Near-Field Thermal Radiation between Metasurfaces. ACS Photonics, 2015, 2, 1320-1326.	6.6	89
45	Near-field radiative heat transfer with doped-silicon nanostructured metamaterials. International Journal of Heat and Mass Transfer, 2014, 73, 389-398.	4.8	126
46	Near-Perfect Photon Tunneling by Hybridizing Graphene Plasmons and Hyperbolic Modes. ACS Photonics, 2014, 1, 785-789.	6.6	106
47	Absorption Coefficients of Crystalline Silicon at Wavelengths from 500 nm to 1000 nm. International Journal of Thermophysics, 2013, 34, 213-225.	2.1	31
48	Anisotropic Diffraction from Inclined Silver Nanorod Arrays on Grating Templates. Nanoscale and Microscale Thermophysical Engineering, 2012, 16, 18-36.	2.6	7
49	Reexamination of the Statistical Derivations of Fourier's Law and Cattaneo's Equation. Nanoscale and Microscale Thermophysical Engineering, 2011, 15, 220-228.	2.6	17
50	Thermal radiative properties of metamaterials and other nanostructured materials: A review. Frontiers of Energy and Power Engineering in China, 2009, 3, 11-26.	0.4	59
51	Radiative properties of materials with surface scattering or volume scattering: A review. Frontiers of Energy and Power Engineering in China, 2009, 3, 60-79.	0.4	14
52	Performance analysis of near-field thermophotovoltaic devices considering absorption distribution. Journal of Quantitative Spectroscopy and Radiative Transfer, 2008, 109, 305-316.	2.3	252
53	Further Investigation of Coherent Thermal Emission from Single Negative Materials. Nanoscale and Microscale Thermophysical Engineering, 2008, 12, 83-97.	2.6	9
54	Lateral Shifts in Near-Field Thermal Radiation with Surface Phonon Polaritons. Nanoscale and Microscale Thermophysical Engineering, 2008, 12, 238-250.	2.6	26

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55	Visible light response of tin oxide nanobelts. , 2007, , .		0
56	Comments on "Absolute linearity measurements on a PbS detector in the infrared". Applied Optics, 2007, 46, 6483.	2.1	1
57	Frequency-Dependent Electrical and Thermal Response of Heated Atomic Force Microscope Cantilevers. Journal of Microelectromechanical Systems, 2007, 16, 213-222.	2.5	45
58	Nanoscale radiation heat transfer for silicon at different doping levels. International Journal of Heat and Mass Transfer, 2006, 49, 1703-1718.	4.8	254
59	Study of the radiative properties of silicon-based materials for thermal processing and control. , 0, , .		0
60	Development of experimentally validated optical property models for silicon and related materials. , 0, , .		4
61	RAD-PRO: Effective Software for Modeling Radiative Properties in Rapid Thermal Processing. , 0, , .		6
62	Temperature and Doping Dependence of The Radiative Properties of Silicon: Drude Model Revisited. , 0, , .		7