

Qing Hao

List of Publications by Year in descending order

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78
papers

7,529
citations

218677

26
h-index

110387

64
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79
all docs

79
docs citations

79
times ranked

7341
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Thermoelectric Performance of Nanostructured Bismuth Antimony Telluride Bulk Alloys. <i>Science</i> , 2008, 320, 634-638.	12.6	4,843
2	Enhanced Thermoelectric Figure-of-Merit in p-Type Nanostructured Bismuth Antimony Tellurium Alloys Made from Elemental Chunks. <i>Nano Letters</i> , 2008, 8, 2580-2584.	9.1	515
3	Frequency-dependent Monte Carlo simulations of phonon transport in two-dimensional porous silicon with aligned pores. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	184
4	Sidorenkite (Na ₃ MnPO ₄ CO ₃): A New Intercalation Cathode Material for Na-Ion Batteries. <i>Chemistry of Materials</i> , 2013, 25, 2777-2786.	6.7	163
5	Integration of metal oxide nanobelts with microsystems for nerve agent detection. <i>Applied Physics Letters</i> , 2005, 86, 063101.	3.3	127
6	Thermal conductivities of individual tin dioxide nanobelts. <i>Applied Physics Letters</i> , 2004, 84, 2638-2640.	3.3	123
7	Survey and evaluation of equations for thermophysical properties of binary/ternary eutectic salts from NaCl, KCl, MgCl ₂ , CaCl ₂ , ZnCl ₂ for heat transfer and thermal storage fluids in CSP. <i>Solar Energy</i> , 2017, 152, 57-79.	6.1	109
8	Solubility study of Yb in skutterudites. <i>Physical Review B</i> , 2009, 80, .	3.2	104
9	Experimental Test of Properties of KCl-MgCl ₂ Eutectic Molten Salt for Heat Transfer and Thermal Storage Fluid in Concentrated Solar Power Systems. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2018, 140, .	1.8	98
10	High superionic conduction arising from aligned large lamellae and large figure of merit in bulk Cu _{1.94} Al _{0.02} Se. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	94
11	Thermoelectric property studies on bulk TiO _x with x from 1 to 2. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	86
12	A mini review on thermally conductive polymers and polymer-based composites. <i>Composites Communications</i> , 2021, 24, 100617.	6.3	67
13	Thermoelectric properties and efficiency measurements under large temperature differences. <i>Review of Scientific Instruments</i> , 2009, 80, 093901.	1.3	65
14	Effect of selenium deficiency on the thermoelectric properties of n-type In ₄ Se _{3-x} compounds. <i>Physical Review B</i> , 2011, 83, .	3.2	61
15	Theoretical studies on the thermoelectric figure of merit of nanograin bulk silicon. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	57
16	Thermal and Transport Properties of NaCl-KCl-ZnCl ₂ Eutectic Salts for New Generation High-Temperature Heat-Transfer Fluids. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2016, 138, .	1.8	55
17	Structural Phase Transition of Multilayer VSe ₂ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25143-25149.	8.0	47
18	The great improvement effect of pores on ZT in Co _{1-x} Ni _x Sb ₃ system. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	46

#	ARTICLE	IF	CITATIONS
19	Photocatalytic properties of a new Z-scheme system BaTiO ₃ /In ₂ S ₃ with a core-shell structure. RSC Advances, 2019, 9, 11377-11384.	3.6	41
20	Thermoelectric bulk glasses based on the Cu-As-Te-Se system. Journal of Materials Chemistry A, 2013, 1, 8917.	10.3	35
21	A hybrid simulation technique for electrothermal studies of two-dimensional GaN-on-SiC high electron mobility transistors. Journal of Applied Physics, 2017, 121, .	2.5	34
22	Electrothermal studies of GaN-based high electron mobility transistors with improved thermal designs. International Journal of Heat and Mass Transfer, 2018, 116, 496-506.	4.8	34
23	High-throughput of nanoporous bulk materials as next-generation thermoelectric materials: A material genome approach. Physical Review B, 2016, 93, .	3.2	33
24	Nanostructured Thermoelectric Skutterudite Co _{1-x} Ni _x Sb ₃ Alloys. Journal of Nanoscience and Nanotechnology, 2008, 8, 4003-4006.	0.9	31
25	Chemical Synthesis of Anisotropic Nanocrystalline Sb ₂ Te ₃ and Low Thermal Conductivity of the Compacted Dense Bulk. Journal of Nanoscience and Nanotechnology, 2008, 8, 452-456.	0.9	29
26	Characteristic length of phonon transport within periodic nanoporous thin films and two-dimensional materials. Journal of Applied Physics, 2016, 120, .	2.5	27
27	Thermal boundary resistance correlated with strain energy in individual Si film-wafer twist boundaries. Materials Today Physics, 2018, 6, 53-59.	6.0	27
28	Analytical model for phonon transport analysis of periodic bulk nanoporous structures. Applied Thermal Engineering, 2017, 111, 1409-1416.	6.0	23
29	General effective medium formulation for thermal analysis of a polycrystal-The influence of partially specular phonon transmission across grain boundaries. Journal of Applied Physics, 2014, 116, .	2.5	22
30	Thermal Studies of Nanoporous Si Films with Pitches on the Order of 100 nm-Comparison between Different Pore-Drilling Techniques. Scientific Reports, 2018, 8, 9056.	3.3	22
31	Effective medium formulation for phonon transport analysis of nanograined polycrystals. Journal of Applied Physics, 2012, 111, .	2.5	21
32	Highly Regulatable Heat Conductance of Graphene-Sericin Hybrid for Responsive Textiles. Advanced Functional Materials, 2022, 32, .	14.9	21
33	Influence of structure disorder on the lattice thermal conductivity of polycrystals: A frequency-dependent phonon-transport study. Journal of Applied Physics, 2012, 111, .	2.5	19
34	Largely reduced cross-plane thermal conductivity of nanoporous In _{0.1} Ga _{0.9} N thin films directly grown by metal organic chemical vapor deposition. Frontiers in Energy, 2018, 12, 127-136.	2.3	17
35	Determining phonon mean free path spectrum by ballistic phonon resistance within a nanoslot-patterned thin film. Materials Today Physics, 2019, 10, 100126.	6.0	15
36	Detecting the major charge-carrier scattering mechanism in graphene antidot lattices. Carbon, 2019, 144, 601-607.	10.3	15

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37	Hybrid Electrothermal Simulation of a 3-D Fin-Shaped Field-Effect Transistor Based on GaN Nanowires. IEEE Transactions on Electron Devices, 2018, 65, 921-927.	3.0	14
38	Thermal investigation of nanostructured bulk thermoelectric materials with hierarchical structures: An effective medium approach. Journal of Applied Physics, 2018, 123, .	2.5	13
39	Intrinsic carrier mobility of a single-layer graphene covalently bonded with single-walled carbon nanotubes. Journal of Applied Physics, 2014, 115, .	2.5	12
40	Thermal studies of nanoporous thin films with added periodic nanoporesâ€”a new approach to evaluate the importance of phononic effects. Materials Today Physics, 2020, 12, 100179.	6.0	12
41	Analytical heat-transfer modeling of multilayered microdevices. Journal of Micromechanics and Microengineering, 2004, 14, 914-926.	2.6	11
42	Novel photocatalyst nitrogen-doped simonkolleite $Zn_5(OH)_8Cl_2 \cdot H_2O$ with vis-up-conversion photoluminescence and effective visible-light photocatalysis. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	11
43	Thermal studies of individual Si/Ge heterojunctions â€” The influence of the alloy layer on the heterojunction. Journal of Materiomics, 2020, 6, 248-255.	5.7	11
44	Small-Nanostructure-Size-Limited Phonon Transport within Composite Films Made of Single-Wall Carbon Nanotubes and Reduced Graphene Oxides. ACS Applied Materials & Interfaces, 2021, 13, 5435-5444.	8.0	11
45	Machine learning predictions of critical heat fluxes for pillar-modified surfaces. International Journal of Heat and Mass Transfer, 2021, 180, 121744.	4.8	11
46	Computation-Driven Materials Search for Thermoelectric Applications. ECS Journal of Solid State Science and Technology, 2017, 6, N3095-N3102.	1.8	10
47	An integrated thermoelectric heating-cooling system for air sterilizationâ€” a simulation study. Materials Today Physics, 2021, 19, 100430.	6.0	10
48	Inverse thermal design of nanoporous thin films for thermal cloaking. Materials Today Physics, 2021, 21, 100477.	6.0	10
49	Thermoelectric studies of nanoporous thin films with adjusted pore-edge charges. Journal of Applied Physics, 2017, 121, .	2.5	9
50	Two-step modification of phonon mean free paths for thermal conductivity predictions of thin-film-based nanostructures. International Journal of Heat and Mass Transfer, 2020, 153, 119636.	4.8	8
51	Periodic Nanoslot Patterns as an Effective Approach to Improving the Thermoelectric Performance of Thin Films. Physical Review Applied, 2020, 13, .	3.8	8
52	Nanoslot Patterns for Enhanced Thermal Anisotropy of Si Thin Films. International Journal of Heat and Mass Transfer, 2021, 170, 120944.	4.8	8
53	Phonon Transport within Periodic Porous Structures â€” From Classical Phonon Size Effects to Wave Effects. ES Materials & Manufacturing, 2019, , .	1.9	7
54	Enhancement of Thermoelectric Figure-of-Merit by a Nanostructure Approach. Materials Research Society Symposia Proceedings, 2009, 1166, 3.	0.1	5

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55	Experimental Investigation to the Properties of Eutectic Salts by NaCl-KCl-ZnCl ₂ for Application as High Temperature Heat Transfer Fluids. , 2014, , .		5
56	Nonlinear Microwave Characterization of CVD Grown Graphene. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1557-1560.	4.0	4
57	Electron Monte Carlo simulations of nanoporous Si thin filmsâ€™The influence of pore-edge charges. Journal of Applied Physics, 2019, 125, .	2.5	4
58	Thermal Effects in Single-Point Curing Process for Pulsed Infrared Laser-Assisted 3D Printing of Optics. 3D Printing and Additive Manufacturing, 2020, 7, 151-161.	2.9	4
59	Annealing Studies of Nanoporous Si Thin Films Fabricated by Dry Etch. ES Materials & Manufacturing, 2019, , .	1.9	4
60	Systematic Studies of Periodically Nanoporous Si Films for Thermoelectric Applications. Materials Research Society Symposia Proceedings, 2015, 1779, 27-32.	0.1	3
61	(Invited) Computation-Driven Materials Search for Thermoelectric Applications. ECS Transactions, 2015, 69, 11-16.	0.5	3
62	New method for preparing graphene by peeling graphite and facile fabrication of bulk Bi _{0.45} Sb _{1.55} Te _{3.02} /graphene composites with dense texture and high ZT. RSC Advances, 2015, 5, 42492-42499.	3.6	2
63	Investigation of Properties of KCl-MgCl ₂ Eutectic Salt for Heat Transfer and Thermal Storage Fluids in CSP Systems. , 2017, , .		2
64	Extension of the two-layer model to heat transfer coefficient predictions of nanoporous Si thin films. Applied Physics Letters, 2022, 121, .	3.3	2
65	Nanoscale Quantitative Thermal Imaging of Electronic Devices. , 2002, , 23.		1
66	Integration of metal-oxide nanobelts with microsystems for sensor applications. , 2004, , .		1
67	Glass-Oxide Nanocomposites as Effective Thermal Insulation Materials. Materials Research Society Symposia Proceedings, 2013, 1558, 1.	0.1	1
68	Avalanche noise in magnetic field tunable avalanche transit time device. , 2016, , .		1
69	Thermoelectric Performance Study of Graphene Antidot Lattices on Different Substrates. MRS Advances, 2017, 2, 3645-3650.	0.9	1
70	Theoretical analysis of SnO/sub 2/ nanobelt thermal conductivity. , 0, , .		0
71	Thermal Conductivities of Individual Tin Dioxide Nanobelts. , 2004, , 457.		0
72	Broad Search of Better Thermoelectric Oxides via First-Principles Computations. Materials Research Society Symposia Proceedings, 2015, 1774, 25-30.	0.1	0

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73	(Invited) Nanostructures for Reduced Lattice Thermal Conductivity “ Case Studies for Nanopores and Grain Boundaries. ECS Transactions, 2017, 80, 67-75.	0.5	0
74	Nanograined GeSe4 as a Thermal Insulation Material. Frontiers in Energy Research, 2018, 6, .	2.3	0
75	Editorial: Energy Transport for Nanostructured Materials. Frontiers in Energy Research, 2019, 7, .	2.3	0
76	Thermal Transport Study on Nanoslot-Patterned Thin Films. , 2021, , .		0
77	Thermal Property Measurements of Nanotubes, Nanowires, and Nanobelts. , 2002, , .		0
78	Directed Assembly of Metal Oxide Nanobelts With Microsystems Into Integrated Nanosensors. , 2004, , .		0