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 g-index
79 all docs	79 docs citations	79 times ranked	7341 citing authors

#	Article	IF	Citations
1	Highly Regulatable Heat Conductance of Grapheneâ€“Sericin Hybrid for Responsive Textiles. Advanced Functional Materials, 2022, 32, .	14.9	21
2	Extension of the two-layer model to heat transfer coefficient predictions of nanoporous Si thin films. Applied Physics Letters, 2022, 121, .	3.3	2
3	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
4	A mini review on thermally conductive polymers and polymer-based composites. Composites Communications, 2021, 24, 100617.	6.3	67
5	Nanoslot Patterns for Enhanced Thermal Anisotropy of Si Thin Films. International Journal of Heat and Mass Transfer, 2021, 170, 120944.	4.8	8
6	Thermal Transport Study on Nanoslot-Patterned Thin Films. , 2021, , .		0
7	An integrated thermoelectric heating-cooling system for air sterilizationâ€” a simulation study. Materials Today Physics, 2021, 19, 100430.	6.0	10
8	Inverse thermal design of nanoporous thin films for thermal cloaking. Materials Today Physics, 2021, 21, 100477.	6.0	10
9	Machine learning predictions of critical heat fluxes for pillar-modified surfaces. International Journal of Heat and Mass Transfer, 2021, 180, 121744.	4.8	11
10	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
11	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
12	Periodic Nanoslot Patterns as an Effective Approach to Improving the Thermoelectric Performance of Thin Films. Physical Review Applied, 2020, 13, .	3.8	8
13	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
14	Structural Phase Transition of Multilayer VSe₂. ACS Applied Materials & Interfaces, 2020, 12, 25143-25149.	8.0	47
15	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
16	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
17	Editorial: Energy Transport for Nanostructured Materials. Frontiers in Energy Research, 2019, 7, .	2.3	0
18	Photocatalytic properties of a new Z-scheme system BaTiO₃/In₂S₃ with a coreâ€“shell structure. RSC Advances, 2019, 9, 11377-11384.	3.6	41

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19	Electron Monte Carlo simulations of nanoporous Si thin filmsâ€"The influence of pore-edge charges. Journal of Applied Physics, 2019, 125, .	2.5	4
20	Detecting the major charge-carrier scattering mechanism in graphene antidot lattices. Carbon, 2019, 144, 601-607.	10.3	15
21	Novel photocatalyst nitrogen-doped simonkolleite Zn5(OH)8Cl2Â·H2O with vis-up-conversion photoluminescence and effective visible-light photocatalysis. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	11
22	Phonon Transport within Periodic Porous Structures â€" From Classical Phonon Size Effects to Wave Effects. ES Materials & Manufacturing, 2019, , .	1.9	7
23	Annealing Studies of Nanoporous Si Thin Films Fabricated by Dry Etch. ES Materials & Manufacturing, 2019, , .	1.9	4
24	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
25	Largely reduced cross-plane thermal conductivity of nanoporous In0.1Ga0.9N thin films directly grown by metal organic chemical vapor deposition. Frontiers in Energy, 2018, 12, 127-136.	2.3	17
26	Thermal investigation of nanostructured bulk thermoelectric materials with hierarchical structures: An effective medium approach. Journal of Applied Physics, 2018, 123, .	2.5	13
27	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
28	Thermal boundary resistance correlated with strain energy in individual Si film-wafer twist boundaries. Materials Today Physics, 2018, 6, 53-59.	6.0	27
29	Thermal Studies of Nanoporous Si Films with Pitches on the Order of 100 nm â€"Comparison between Different Pore-Drilling Techniques. Scientific Reports, 2018, 8, 9056.	3.3	22
30	Experimental Test of Properties of KClâ€"MgCl2 Eutectic Molten Salt for Heat Transfer and Thermal Storage Fluid in Concentrated Solar Power Systems. Journal of Solar Energy Engineering, Transactions of the ASME, 2018, 140, .	1.8	98
31	Nanograined GeSe4 as a Thermal Insulation Material. Frontiers in Energy Research, 2018, 6, .	2.3	0
32	Analytical model for phonon transport analysis of periodic bulk nanoporous structures. Applied Thermal Engineering, 2017, 111, 1409-1416.	6.0	23
33	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
34	Thermoelectric studies of nanoporous thin films with adjusted pore-edge charges. Journal of Applied Physics, 2017, 121, .	2.5	9
35	Survey and evaluation of equations for thermophysical properties of binary/ternary eutectic salts from NaCl, KCl, MgCl2, CaCl2, ZnCl2 for heat transfer and thermal storage fluids in CSP. Solar Energy, 2017, 152, 57-79.	6.1	109
36	(Invited) Nanostructures for Reduced Lattice Thermal Conductivity â€" Case Studies for Nanopores and Grain Boundaries. ECS Transactions, 2017, 80, 67-75.	0.5	0

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37	Thermoelectric Performance Study of Graphene Antidot Lattices on Different Substrates. MRS Advances, 2017, 2, 3645-3650.	0.9	1
38	Computation-Driven Materials Search for Thermoelectric Applications. ECS Journal of Solid State Science and Technology, 2017, 6, N3095-N3102.	1.8	10
39	Investigation of Properties of KCl-MgCl2 Eutectic Salt for Heat Transfer and Thermal Storage Fluids in CSP Systems. , 2017, , .		2
40	Thermal and Transport Properties of NaClâ€“KClâ€“ZnCl2 Eutectic Salts for New Generation High-Temperature Heat-Transfer Fluids. Journal of Solar Energy Engineering, Transactions of the ASME, 2016, 138, .	1.8	55
41	Characteristic length of phonon transport within periodic nanoporous thin films and two-dimensional materials. Journal of Applied Physics, 2016, 120, .	2.5	27
42	High-throughput<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Z</mml:mi><mml:mi>T</mml:mi></mml:mrow></mml:ma of nanoporous bulk materials as next-generation thermoelectric materials: A material genome approach. Physical Review B, 2016, 93, .	3.2	33
43	Avalanche noise in magnetic field tunable avalanche transit time device. , 2016, , .		1
44	Nonlinear Microwave Characterization of CVD Grown Graphene. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1557-1560.	4.0	4
45	Systematic Studies of Periodically Nanoporous Si Films for Thermoelectric Applications. Materials Research Society Symposia Proceedings, 2015, 1779, 27-32.	0.1	3
46	Broad Search of Better Thermoelectric Oxides via First-Principles Computations. Materials Research Society Symposia Proceedings, 2015, 1774, 25-30.	0.1	0
47	(Invited) Computation-Driven Materials Search for Thermoelectric Applications. ECS Transactions, 2015, 69, 11-16.	0.5	3
48	New method for preparing graphene by peeling graphite and facile fabrication of bulk Bi0.45Sb1.55Te3.02/graphene composites with dense texture and high ZT. RSC Advances, 2015, 5, 42492-42499.	3.6	2
49	Experimental Investigation to the Properties of Eutectic Salts by NaCl-KCl-ZnCl2 for Application as High Temperature Heat Transfer Fluids. , 2014, , .		5
50	Intrinsic carrier mobility of a single-layer graphene covalently bonded with single-walled carbon nanotubes. Journal of Applied Physics, 2014, 115, .	2.5	12
51	General effective medium formulation for thermal analysis of a polycrystalâ€”The influence of partially specular phonon transmission across grain boundaries. Journal of Applied Physics, 2014, 116, .	2.5	22
52	High superionic conduction arising from aligned large lamellae and large figure of merit in bulk Cu1.94Al0.02Se. Applied Physics Letters, 2014, 105, .	3.3	94
53	Sidorenkite (Na₃MnPO₄CO₃): A New Intercalation Cathode Material for Na-Ion Batteries. Chemistry of Materials, 2013, 25, 2777-2786.	6.7	163
54	Thermoelectric bulk glasses based on the Cuâ€“Asâ€“Teâ€“Se system. Journal of Materials Chemistry A, 2013, 1, 8917.	10.3	35

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55	Glass-Oxide Nanocomposites as Effective Thermal Insulation Materials. Materials Research Society Symposia Proceedings, 2013, 1558, 1.	0.1	1
56	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
57	Effective medium formulation for phonon transport analysis of nanograined polycrystals. Journal of Applied Physics, 2012, 111, .	2.5	21
58	Effect of selenium deficiency on the thermoelectric properties ofn-type In4Se3âˆ'xcompounds. Physical Review B, 2011, 83, .	3.2	61
59	Theoretical studies on the thermoelectric figure of merit of nanograined bulk silicon. Applied Physics Letters, 2010, 97, .	3.3	57
60	Thermoelectric properties and efficiency measurements under large temperature differences. Review of Scientific Instruments, 2009, 80, 093901.	1.3	65
61	Frequency-dependent Monte Carlo simulations of phonon transport in two-dimensional porous silicon with aligned pores. Journal of Applied Physics, 2009, 106, .	2.5	184
62	Solubility study of Yb in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-type skutterudites<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Yb</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:msub> Physical Review B, 2009, 80, .	3.2	104
63	Enhancement of Thermoelectric Figure-of-Merit by a Nanostructure Approach. Materials Research Society Symposia Proceedings, 2009, 1166, 3.	0.1	5
64	High-Thermoelectric Performance of Nanostructured Bismuth Antimony Telluride Bulk Alloys. Science, 2008, 320, 634-638.	12.6	4,843
65	Enhanced Thermoelectric Figure-of-Merit in p-Type Nanostructured Bismuth Antimony Tellurium Alloys Made from Elemental Chunks. Nano Letters, 2008, 8, 2580-2584.	9.1	515
66	Chemical Synthesis of Anisotropic Nanocrystalline Sb2Te3 and Low Thermal Conductivity of the Compacted Dense Bulk. Journal of Nanoscience and Nanotechnology, 2008, 8, 452-456.	0.9	29
67	The great improvement effect of pores on ZT in Co1âˆ'xNixSb3 system. Applied Physics Letters, 2008, 93, .	3.3	46
68	Nanostructured Thermoelectric Skutterudite Co1âˆ'xNixSb3 Alloys. Journal of Nanoscience and Nanotechnology, 2008, 8, 4003-4006.	0.9	31
69	Thermoelectric property studies on bulk TiOx with x from 1 to 2. Applied Physics Letters, 2007, 91, .	3.3	86
70	Integration of metal oxide nanobelts with microsystems for nerve agent detection. Applied Physics Letters, 2005, 86, 063101.	3.3	127
71	Thermal Conductivities of Individual Tin Dioxide Nanobelts. , 2004, , 457.		0
72	Thermal conductivities of individual tin dioxide nanobelts. Applied Physics Letters, 2004, 84, 2638-2640.	3.3	123

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73	Analytical heat-transfer modeling of multilayered microdevices. Journal of Micromechanics and Microengineering, 2004, 14, 914-926.	2.6	11
74	Integration of metal-oxide nanobelts with microsystems for sensor applications. , 2004, , .		1
75	Directed Assembly of Metal Oxide Nanobelts With Microsystems Into Integrated Nanosensors. , 2004, , .		0
76	Nanoscale Quantitative Thermal Imaging of Electronic Devices. , 2002, , 23.		1
77	Thermal Property Measurements of Nanotubes, Nanowires, and Nanobelts. , 2002, , .		0
78	Theoretical analysis of SnO/sub 2/ nanobelt thermal conductivity. , 0, , .		0