Zhongwei Zhang

List of Publications by Year
in descending order

40 papers	1,532 citations	304743 22 h-index	302126 39 g-index
41 all docs	41 docs citations	41 times ranked	1373 citing authors

#	Article	IF	Citations
1	Optimization of interfacial thermal transport in Si/Ge heterostructure driven by machine learning. International Journal of Heat and Mass Transfer, 2022, 182, 122014.	4.8	17
2	Phonon resonant effect in silicon membranes with different crystallographic orientations. International Journal of Heat and Mass Transfer, 2022, 183, 122144.	4.8	11
3	Heat Conduction Theory Including Phonon Coherence. Physical Review Letters, 2022, 128, 015901.	7.8	35
4	Review of thermal transport in phononic crystals. Materials Today Physics, 2022, 22, 100613.	6.0	39
5	How coherence is governing diffuson heat transfer in amorphous solids. Npj Computational Materials, 2022, 8, .	8.7	22
6	Anomalous thermal conductivity enhancement in low dimensional resonant nanostructures due to imperfections. Nanoscale, 2021, 13, 10010-10015.	5.6	26
7	Phonon vortex dynamics in graphene ribbon by solving Boltzmann transport equation with ab initio scattering rates. International Journal of Heat and Mass Transfer, 2021, 169, 120981.	4.8	12
8	Generalized decay law for particlelike and wavelike thermal phonons. Physical Review B, 2021, 103, .	3.2	23
9	Anharmonic phonon-phonon scattering at the interface between two solids by nonequilibrium Green's function formalism. Physical Review B, 2021, 103, .	3.2	33
10	Coherent thermal transport in nano-phononic crystals: An overview. APL Materials, 2021, 9, .	5.1	26
11	Size effect on phonon hydrodynamics in graphite microstructures and nanostructures. Physical Review B, 2021, 104, .	3.2	10
12	Thermal self-synchronization of nano-objects. Journal of Applied Physics, 2021, 130, .	2.5	5
13	Thermal conductivity minimum of graded superlattices due to phonon localization. APL Materials, 2021, 9, .	5.1	21
14	Phononic Thermal Transport in Yttrium Hydrides Allotropes. Frontiers in Materials, 2020, 7, .	2.4	4
15	Ultra-strong stability of double-sided fluorinated monolayer graphene and its electrical property characterization. Scientific Reports, 2020, 10, 17562.	3.3	7
16	Hydrodynamic phonon transport in bulk crystalline polymers. Physical Review B, 2020, 102, .	3.2	21
17	Remarkable thermal rectification in pristine and symmetric monolayer graphene enabled by asymmetric thermal contact. Journal of Applied Physics, 2020, 127, .	2.5	40
18	Size-dependent phononic thermal transport in low-dimensional nanomaterials. Physics Reports, 2020, 860, 1-26.	25.6	209

#	Article	IF	Citations
19	Tunable phonon nanocapacitor built by carbon schwarzite based host-guest system. Physical Review B, 2020, 101, .	3.2	20
20	Accuracy of Machine Learning Potential for Predictions of Multiple-Target Physical Properties*. Chinese Physics Letters, 2020, 37, 126301.	3.3	24
21	Disorder limits the coherent phonon transport in two-dimensional phononic crystal structures. Nanoscale, 2019, 11, 11839-11846.	5.6	66
22	Emerging Theory, Materials, and Screening Methods: New Opportunities for Promoting Thermoelectric Performance. Annalen Der Physik, 2019, 531, 1800437.	2.4	83
23	Effect of boundary chain folding on thermal conductivity of lamellar amorphous polyethylene. RSC Advances, 2019, 9, 33549-33557.	3.6	13
24	Ordered water layers by interfacial charge decoration leading to an ultra-low Kapitza resistance between graphene and water. Carbon, 2018, 135, 263-269.	10.3	80
25	Thermal conductivity of nanowires. Chinese Physics B, 2018, 27, 035101.	1.4	30
26	Thermal rectification in Y-junction carbon nanotube bundle. Carbon, 2018, 140, 673-679.	10.3	42
27	Reducing lattice thermal conductivity in schwarzites via engineering the hybridized phonon modes. Carbon, 2018, 139, 289-298.	10.3	52
28	Randomness-Induced Phonon Localization in Graphene Heat Conduction. Journal of Physical Chemistry Letters, 2018, 9, 3959-3968.	4.6	110
29	Revisit to the Impacts of Rattlers on Thermal Conductivity of Clathrates. Frontiers in Energy Research, 2018, 6, .	2.3	14
30	Hexagonal boron nitride: a promising substrate for graphene with high heat dissipation. Nanotechnology, 2017, 28, 225704.	2.6	79
31	Dirac Nodal Lines and Tilted Semi-Dirac Cones Coexisting in a Striped Boron Sheet. Journal of Physical Chemistry Letters, 2017, 8, 1707-1713.	4.6	81
32	A systematic investigation of thermal conductivities of transition metal dichalcogenides. International Journal of Heat and Mass Transfer, 2017, 108, 417-422.	4.8	50
33	Hopping processes explain linear rise in temperature of thermal conductivity in thermoelectric clathrates with off-center guest atoms. Physical Review B, 2017, 96, .	3.2	15
34	Negative Gaussian curvature induces significant suppression of thermal conduction in carbon crystals. Nanoscale, 2017, 9, 14208-14214.	5.6	43
35	Very high thermoelectric figure of merit found in hybrid transition-metal-dichalcogenides. Journal of Applied Physics, 2016, 120, .	2.5	22
36	Phonon transport in single-layer boron nanoribbons. Nanotechnology, 2016, 27, 445703.	2.6	23

#	Article	IF	Citations
37	A theoretical prediction of super high-performance thermoelectric materials based on MoS2/WS2 hybrid nanoribbons. Scientific Reports, 2016, 6, 21639.	3.3	64
38	Transition of thermal rectification in silicon nanocones. Applied Thermal Engineering, 2016, 102, 1075-1080.	6.0	28
39	Geometry, stability and thermal transport of hydrogenated graphene nanoquilts. Solid State Communications, 2015, 213-214, 31-36.	1.9	9
40	Thermal transport in MoS₂/Graphene hybrid nanosheets. Nanotechnology, 2015, 26, 375402.	2.6	22