Zhongwei Zhang

List of Publications by Year
in descending order

40	1,532	304743 22	302126 39
papers	citations	h-index	g-index

41	41	41	1373
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Size-dependent phononic thermal transport in low-dimensional nanomaterials. Physics Reports, 2020, 860, 1-26.	25.6	209
2	Randomness-Induced Phonon Localization in Graphene Heat Conduction. Journal of Physical Chemistry Letters, 2018, 9, 3959-3968.	4.6	110
3	Emerging Theory, Materials, and Screening Methods: New Opportunities for Promoting Thermoelectric Performance. Annalen Der Physik, 2019, 531, 1800437.	2.4	83
4	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
5	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
6	Hexagonal boron nitride: a promising substrate for graphene with high heat dissipation. Nanotechnology, 2017, 28, 225704.	2.6	79
7	Disorder limits the coherent phonon transport in two-dimensional phononic crystal structures. Nanoscale, 2019, 11, 11839-11846.	5.6	66
8	A theoretical prediction of super high-performance thermoelectric materials based on MoS2/WS2 hybrid nanoribbons. Scientific Reports, 2016, 6, 21639.	3.3	64
9	Reducing lattice thermal conductivity in schwarzites via engineering the hybridized phonon modes. Carbon, 2018, 139, 289-298.	10.3	52
10	A systematic investigation of thermal conductivities of transition metal dichalcogenides. International Journal of Heat and Mass Transfer, 2017, 108, 417-422.	4.8	50
11	Negative Gaussian curvature induces significant suppression of thermal conduction in carbon crystals. Nanoscale, 2017, 9, 14208-14214.	5.6	43
12	Thermal rectification in Y-junction carbon nanotube bundle. Carbon, 2018, 140, 673-679.	10.3	42
13	Remarkable thermal rectification in pristine and symmetric monolayer graphene enabled by asymmetric thermal contact. Journal of Applied Physics, 2020, 127, .	2.5	40
14	Review of thermal transport in phononic crystals. Materials Today Physics, 2022, 22, 100613.	6.0	39
15	Heat Conduction Theory Including Phonon Coherence. Physical Review Letters, 2022, 128, 015901.	7.8	35
16	Anharmonic phonon-phonon scattering at the interface between two solids by nonequilibrium Green's function formalism. Physical Review B, 2021, 103, .	3.2	33
17	Thermal conductivity of nanowires. Chinese Physics B, 2018, 27, 035101.	1.4	30
18	Transition of thermal rectification in silicon nanocones. Applied Thermal Engineering, 2016, 102, 1075-1080.	6.0	28

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19	Anomalous thermal conductivity enhancement in low dimensional resonant nanostructures due to imperfections. Nanoscale, 2021, 13, 10010-10015.	5.6	26
20	Coherent thermal transport in nano-phononic crystals: An overview. APL Materials, 2021, 9, .	5.1	26
21	Accuracy of Machine Learning Potential for Predictions of Multiple-Target Physical Properties*. Chinese Physics Letters, 2020, 37, 126301.	3.3	24
22	Phonon transport in single-layer boron nanoribbons. Nanotechnology, 2016, 27, 445703.	2.6	23
23	Generalized decay law for particlelike and wavelike thermal phonons. Physical Review B, 2021, 103, .	3.2	23
24	Thermal transport in MoS₂/Graphene hybrid nanosheets. Nanotechnology, 2015, 26, 375402.	2.6	22
25	Very high thermoelectric figure of merit found in hybrid transition-metal-dichalcogenides. Journal of Applied Physics, 2016, 120, .	2.5	22
26	How coherence is governing diffuson heat transfer in amorphous solids. Npj Computational Materials, 2022, 8, .	8.7	22
27	Hydrodynamic phonon transport in bulk crystalline polymers. Physical Review B, 2020, 102, .	3.2	21
28	Thermal conductivity minimum of graded superlattices due to phonon localization. APL Materials, 2021, 9, .	5.1	21
29	Tunable phonon nanocapacitor built by carbon schwarzite based host-guest system. Physical Review B, 2020, 101, .	3.2	20
30	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
31	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
32	Revisit to the Impacts of Rattlers on Thermal Conductivity of Clathrates. Frontiers in Energy Research, 2018, 6, .	2.3	14
33	Effect of boundary chain folding on thermal conductivity of lamellar amorphous polyethylene. RSC Advances, 2019, 9, 33549-33557.	3.6	13
34	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
35	Phonon resonant effect in silicon membranes with different crystallographic orientations. International Journal of Heat and Mass Transfer, 2022, 183, 122144.	4.8	11
36	Size effect on phonon hydrodynamics in graphite microstructures and nanostructures. Physical Review B, 2021, 104, .	3.2	10

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37	Geometry, stability and thermal transport of hydrogenated graphene nanoquilts. Solid State Communications, 2015, 213-214, 31-36.	1.9	9
38	Ultra-strong stability of double-sided fluorinated monolayer graphene and its electrical property characterization. Scientific Reports, 2020, 10, 17562.	3.3	7
39	Thermal self-synchronization of nano-objects. Journal of Applied Physics, 2021, 130, .	2.5	5
40	Phononic Thermal Transport in Yttrium Hydrides Allotropes. Frontiers in Materials, 2020, 7, .	2.4	4