Jie Chen

List of Publications by Year in Descending Order

68 papers	3,002 citations	34 h-index	54 g-index
72 ext. papers	3,860 ext. citations	7.1 avg, IF	5.9 L-index

#	Paper	IF	Citations
68	Heat Conduction Theory Including Phonon Coherence.. *Physical Review Letters*, **2022**, 128, 015901	7.4	6
67	Optimization of interfacial thermal transport in Si/Ge heterostructure driven by machine learning. *International Journal of Heat and Mass Transfer*, **2022**, 182, 122014	4.9	4
66	Strong four-phonon scattering in monolayer and hydrogenated bilayer BAs with horizontal mirror symmetry. *Applied Physics Letters*, **2022**, 120, 132201	3.4	6
65	Reducing Kapitza resistance between graphene/water interface via interfacial superlattice structure. *Nanotechnology*, **2021**, 33,	3.4	5
64	The Impact of Interlayer Rotation on Thermal Transport Across Graphene/Hexagonal Boron Nitride van der Waals Heterostructure. *Nano Letters*, **2021**, 21, 2634-2641	11.5	37
63	Total-transmission and total-reflection of individual phonons in phononic crystal nanostructures. *APL Materials*, **2021**, 9, 040703	5.7	8
62	Generalized decay law for particlelike and wavelike thermal phonons. *Physical Review B*, **2021**, 103,	3.3	7
61	Tunable phononic thermal transport in two-dimensional C6CaC6 via guest atom intercalation. *Journal of Applied Physics*, **2021**, 129, 225106	2.5	5
60	A perspective on the hydrodynamic phonon transport in two-dimensional materials. *Journal of Applied Physics*, **2021**, 130, 010902	2.5	6
59	Machine learning approach for the prediction and optimization of thermal transport properties. *Frontiers of Physics*, **2021**, 16, 1	3.7	14
58	Coherent thermal transport in nano-phononic crystals: An overview. *APL Materials*, **2021**, 9, 081102	5.7	6
57	Copper diffusion rates and hopping pathways in superionic Cu2Se. *Acta Materialia*, **2021**, 215, 117026	8.4	3
56	Thermal self-synchronization of nano-objects. *Journal of Applied Physics*, **2021**, 130, 084301	2.5	1
55	Hydrodynamic phonon transport in bulk crystalline polymers. *Physical Review B*, **2020**, 102,	3.3	8
54	Remarkable thermal rectification in pristine and symmetric monolayer graphene enabled by asymmetric thermal contact. *Journal of Applied Physics*, **2020**, 127, 235101	2.5	19
53	Size-dependent phononic thermal transport in low-dimensional nanomaterials. *Physics Reports*, **2020**, 860, 1-26	27.7	110
52	Tunable phonon nanocapacitor built by carbon schwarzite based host-guest system. *Physical Review B*, **2020**, 101,	3.3	12

51	Accuracy of Machine Learning Potential for Predictions of Multiple-Target Physical Properties. *Chinese Physics Letters*, **2020**, 37, 126301	1.8	7
50	Lattice thermal conductivity of □12 and □3 borophene. *Chinese Physics B*, **2020**, 29, 126503	1.2	7
49	A phononic rectifier based on carbon schwarzite host□guest system. *Chinese Physics B*, **2020**, 29, 124402	1.2	5
48	Impact of Nanoscale Roughness on Heat Transport across the Solid□Solid Interface. *Advanced Materials Interfaces*, **2020**, 7, 1901582	4.6	15
47	Phononic Thermal Transport in Yttrium Hydrides Allotropes. *Frontiers in Materials*, **2020**, 7,	4	2
46	Ultra-strong stability of double-sided fluorinated monolayer graphene and its electrical property characterization. *Scientific Reports*, **2020**, 10, 17562	4.9	3
45	Thermal Transport in Conductive Polymer□Based Materials. *Advanced Functional Materials*, **2020**, 30, 1904704	15.6	60
44	Disorder limits the coherent phonon transport in two-dimensional phononic crystal structures. *Nanoscale*, **2019**, 11, 11839-11846	7.7	40
43	Conformal hexagonal-boron nitride dielectric interface for tungsten diselenide devices with improved mobility and thermal dissipation. *Nature Communications*, **2019**, 10, 1188	17.4	32
42	Emerging Theory, Materials, and Screening Methods: New Opportunities for Promoting Thermoelectric Performance. *Annalen Der Physik*, **2019**, 531, 1800437	2.6	39
41	Effect of boundary chain folding on thermal conductivity of lamellar amorphous polyethylene.. *RSC Advances*, **2019**, 9, 33549-33557	3.7	9
40	Ordered water layers by interfacial charge decoration leading to an ultra-low Kapitza resistance between graphene and water. *Carbon*, **2018**, 135, 263-269	10.4	48
39	Thermal Conductivity of Polymers and Their Nanocomposites. *Advanced Materials*, **2018**, 30, e1705544	24	266
38	Thermal conductivity of suspended few-layer MoS. *Nanoscale*, **2018**, 10, 2727-2734	7.7	46
37	Thermal conductivity of nanowires. *Chinese Physics B*, **2018**, 27, 035101	1.2	21
36	Tailoring the Thermal and Mechanical Properties of Graphene Film by Structural Engineering. *Small*, **2018**, 14, e1801346	11	70
35	Revisit to the Impacts of Rattlers on Thermal Conductivity of Clathrates. *Frontiers in Energy Research*, **2018**, 6,	3.8	12
34	Significant Reduction in Thermal Conductivity of Lithium Cobalt Oxide Cathode Upon Charging: Propagating and Non-propagating Thermal Energy Transport. *ES Energy & Environments*, **2018**,	2.9	4

33	A Review of Simulation Methods in Micro/Nanoscale Heat Conduction. *ES Energy & Environments*, **2018**,	2.9	50
32	Thermal rectification in Y-junction carbon nanotube bundle. *Carbon*, **2018**, 140, 673-679	10.4	24
31	Reducing lattice thermal conductivity in schwarzites via engineering the hybridized phonon modes. *Carbon*, **2018**, 139, 289-298	10.4	35
30	Off-center rattling triggers high-temperature thermal transport in thermoelectric clathrates: Nonperturbative approach. *Physical Review B*, **2018**, 97,	3.3	7
29	Randomness-Induced Phonon Localization in Graphene Heat Conduction. *Journal of Physical Chemistry Letters*, **2018**, 9, 3959-3968	6.4	76
28	Thermal transport in graphene with defect and doping: Phonon modes analysis. *Carbon*, **2017**, 116, 139-144	10.4	86
27	Hexagonal boron nitride: a promising substrate for graphene with high heat dissipation. *Nanotechnology*, **2017**, 28, 225704	3.4	54
26	Experimental study of thermal rectification in suspended monolayer graphene. *Nature Communications*, **2017**, 8, 15843	17.4	150
25	Hopping processes explain linear rise in temperature of thermal conductivity in thermoelectric clathrates with off-center guest atoms. *Physical Review B*, **2017**, 96,	3.3	11
24	Negative Gaussian curvature induces significant suppression of thermal conduction in carbon crystals. *Nanoscale*, **2017**, 9, 14208-14214	7.7	25
23	Engineering the thermal conductivity along an individual silicon nanowire by selective helium ion irradiation. *Nature Communications*, **2017**, 8, 15919	17.4	45
22	Ultrafast cooling by covalently bonded graphene-carbon nanotube hybrid immersed in water. *Nanotechnology*, **2016**, 27, 465705	3.4	21
21	Phonon thermal conduction in novel 2D materials. *Journal of Physics Condensed Matter*, **2016**, 28, 483001	1.8	54
20	Kapitza Resistance between Few-Layer Graphene and Water: Liquid Layering Effects. *Nano Letters*, **2015**, 15, 5744-9	11.5	119
19	Significant reduction of graphene thermal conductivity by phononic crystal structure. *International Journal of Heat and Mass Transfer*, **2015**, 91, 428-432	4.9	66
18	Covalently Bonded Graphene–Carbon Nanotube Hybrid for High-Performance Thermal Interfaces. *Advanced Functional Materials*, **2015**, 25, 7539-7545	15.6	84
17	Strain engineering of Kapitza resistance in few-layer graphene. *Nano Letters*, **2014**, 14, 819-25	11.5	116
16	Comparison of isotope effects on thermal conductivity of graphene nanoribbons and carbon nanotubes. *Applied Physics Letters*, **2013**, 103, 013111	3.4	60

15	Substrate coupling suppresses size dependence of thermal conductivity in supported graphene. *Nanoscale*, **2013**, 5, 532-6	7.7	153
14	Suppressing thermal conductivity of suspended tri-layer graphene by gold deposition. *Advanced Materials*, **2013**, 25, 6884-8	24	43
13	Thermoelectric figure of merit in Ga-doped [0001] ZnO nanowires. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2012**, 376, 978-981	2.3	35
12	Impacts of atomistic coating on thermal conductivity of germanium nanowires. *Nano Letters*, **2012**, 12, 2826-32	11.5	88
11	Thermal contact resistance across nanoscale silicon dioxide and silicon interface. *Journal of Applied Physics*, **2012**, 112, 064319	2.5	84
10	A universal gauge for thermal conductivity of silicon nanowires with different cross sectional geometries. *Journal of Chemical Physics*, **2011**, 135, 204705	3.9	46
9	Phonon coherent resonance and its effect on thermal transport in core-shell nanowires. *Journal of Chemical Physics*, **2011**, 135, 104508	3.9	86
8	Molecular Dynamics Simulations of Heat Conduction in Nanostructures: Effect of Heat Bath. *Journal of the Physical Society of Japan*, **2010**, 79, 074604	1.5	71
7	Remarkable reduction of thermal conductivity in silicon nanotubes. *Nano Letters*, **2010**, 10, 3978-83	11.5	140
6	How to improve the accuracy of equilibrium molecular dynamics for computation of thermal conductivity?. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2010**, 374, 2392-2396	2.3	54
5	Imaging properties of a two-dimensional photonic crystal with rectangular air holes embedded in a silicon slab. *Photonics and Nanostructures - Fundamentals and Applications*, **2010**, 8, 163-171	2.6	5
4	Edge states induce boundary temperature jump in molecular dynamics simulation of heat conduction. *Physical Review B*, **2009**, 80,	3.3	43
3	Tunable thermal conductivity of Si1−xGex nanowires. *Applied Physics Letters*, **2009**, 95, 073117	3.4	103
2	Dynamics of elastic waves in two-dimensional phononic crystals with chaotic defect. *Applied Physics Letters*, **2007**, 91, 121902	3.4	5
1	Ultra-low lattice thermal conductivity and promising thermoelectric figure of merit in borophene via chlorination. *Nano Research*,1	10	3