

# Jie Chen

## List of Publications by Citations

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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	Thermal Conductivity of Polymers and Their Nanocomposites. <i>Advanced Materials</i> , <b>2018</b> , 30, e1705544	24	266
67	Substrate coupling suppresses size dependence of thermal conductivity in supported graphene. <i>Nanoscale</i> , <b>2013</b> , 5, 532-6	7.7	153
66	Experimental study of thermal rectification in suspended monolayer graphene. <i>Nature Communications</i> , <b>2017</b> , 8, 15843	17.4	150
65	Remarkable reduction of thermal conductivity in silicon nanotubes. <i>Nano Letters</i> , <b>2010</b> , 10, 3978-83	11.5	140
64	Kapitza Resistance between Few-Layer Graphene and Water: Liquid Layering Effects. <i>Nano Letters</i> , <b>2015</b> , 15, 5744-9	11.5	119
63	Strain engineering of Kapitza resistance in few-layer graphene. <i>Nano Letters</i> , <b>2014</b> , 14, 819-25	11.5	116
62	Size-dependent phononic thermal transport in low-dimensional nanomaterials. <i>Physics Reports</i> , <b>2020</b> , 860, 1-26	27.7	110
61	Tunable thermal conductivity of Si <sub>1-x</sub> Ge <sub>x</sub> nanowires. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 073117	3.4	103
60	Impacts of atomistic coating on thermal conductivity of germanium nanowires. <i>Nano Letters</i> , <b>2012</b> , 12, 2826-32	11.5	88
59	Thermal transport in graphene with defect and doping: Phonon modes analysis. <i>Carbon</i> , <b>2017</b> , 116, 139-144	14.4	86
58	Phonon coherent resonance and its effect on thermal transport in core-shell nanowires. <i>Journal of Chemical Physics</i> , <b>2011</b> , 135, 104508	3.9	86
57	Covalently Bonded Graphene/Carbon Nanotube Hybrid for High-Performance Thermal Interfaces. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 7539-7545	15.6	84
56	Thermal contact resistance across nanoscale silicon dioxide and silicon interface. <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 064319	2.5	84
55	Randomness-Induced Phonon Localization in Graphene Heat Conduction. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 3959-3968	6.4	76
54	Molecular Dynamics Simulations of Heat Conduction in Nanostructures: Effect of Heat Bath. <i>Journal of the Physical Society of Japan</i> , <b>2010</b> , 79, 074604	1.5	71
53	Tailoring the Thermal and Mechanical Properties of Graphene Film by Structural Engineering. <i>Small</i> , <b>2018</b> , 14, e1801346	11	70
52	Significant reduction of graphene thermal conductivity by phononic crystal structure. <i>International Journal of Heat and Mass Transfer</i> , <b>2015</b> , 91, 428-432	4.9	66

51	Comparison of isotope effects on thermal conductivity of graphene nanoribbons and carbon nanotubes. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 013111	3.4	60
50	Thermal Transport in Conductive PolymerBased Materials. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1904704	15.6	60
49	Hexagonal boron nitride: a promising substrate for graphene with high heat dissipation. <i>Nanotechnology</i> , <b>2017</b> , 28, 225704	3.4	54
48	How to improve the accuracy of equilibrium molecular dynamics for computation of thermal conductivity?. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2010</b> , 374, 2392-2396	2.3	54
47	Phonon thermal conduction in novel 2D materials. <i>Journal of Physics Condensed Matter</i> , <b>2016</b> , 28, 483001	1.8	54
46	A Review of Simulation Methods in Micro/Nanoscale Heat Conduction. <i>ES Energy &amp; Environments</i> , <b>2018</b> ,	2.9	50
45	Ordered water layers by interfacial charge decoration leading to an ultra-low Kapitza resistance between graphene and water. <i>Carbon</i> , <b>2018</b> , 135, 263-269	10.4	48
44	Thermal conductivity of suspended few-layer MoS. <i>Nanoscale</i> , <b>2018</b> , 10, 2727-2734	7.7	46
43	A universal gauge for thermal conductivity of silicon nanowires with different cross sectional geometries. <i>Journal of Chemical Physics</i> , <b>2011</b> , 135, 204705	3.9	46
42	Engineering the thermal conductivity along an individual silicon nanowire by selective helium ion irradiation. <i>Nature Communications</i> , <b>2017</b> , 8, 15919	17.4	45
41	Suppressing thermal conductivity of suspended tri-layer graphene by gold deposition. <i>Advanced Materials</i> , <b>2013</b> , 25, 6884-8	24	43
40	Edge states induce boundary temperature jump in molecular dynamics simulation of heat conduction. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	43
39	Disorder limits the coherent phonon transport in two-dimensional phononic crystal structures. <i>Nanoscale</i> , <b>2019</b> , 11, 11839-11846	7.7	40
38	Emerging Theory, Materials, and Screening Methods: New Opportunities for Promoting Thermoelectric Performance. <i>Annalen Der Physik</i> , <b>2019</b> , 531, 1800437	2.6	39
37	The Impact of Interlayer Rotation on Thermal Transport Across Graphene/Hexagonal Boron Nitride van der Waals Heterostructure. <i>Nano Letters</i> , <b>2021</b> , 21, 2634-2641	11.5	37
36	Thermoelectric figure of merit in Ga-doped [0001] ZnO nanowires. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2012</b> , 376, 978-981	2.3	35
35	Reducing lattice thermal conductivity in schwarzites via engineering the hybridized phonon modes. <i>Carbon</i> , <b>2018</b> , 139, 289-298	10.4	35
34	Conformal hexagonal-boron nitride dielectric interface for tungsten diselenide devices with improved mobility and thermal dissipation. <i>Nature Communications</i> , <b>2019</b> , 10, 1188	17.4	32

33	Negative Gaussian curvature induces significant suppression of thermal conduction in carbon crystals. <i>Nanoscale</i> , <b>2017</b> , 9, 14208-14214	7.7	25
32	Thermal rectification in Y-junction carbon nanotube bundle. <i>Carbon</i> , <b>2018</b> , 140, 673-679	10.4	24
31	Thermal conductivity of nanowires. <i>Chinese Physics B</i> , <b>2018</b> , 27, 035101	1.2	21
30	Ultrafast cooling by covalently bonded graphene-carbon nanotube hybrid immersed in water. <i>Nanotechnology</i> , <b>2016</b> , 27, 465705	3.4	21
29	Remarkable thermal rectification in pristine and symmetric monolayer graphene enabled by asymmetric thermal contact. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 235101	2.5	19
28	Impact of Nanoscale Roughness on Heat Transport across the Solid-Solid Interface. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 1901582	4.6	15
27	Machine learning approach for the prediction and optimization of thermal transport properties. <i>Frontiers of Physics</i> , <b>2021</b> , 16, 1	3.7	14
26	Tunable phonon nanocapacitor built by carbon schwarzite based host-guest system. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	12
25	Revisit to the Impacts of Rattlers on Thermal Conductivity of Clathrates. <i>Frontiers in Energy Research</i> , <b>2018</b> , 6,	3.8	12
24	Hopping processes explain linear rise in temperature of thermal conductivity in thermoelectric clathrates with off-center guest atoms. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	11
23	Effect of boundary chain folding on thermal conductivity of lamellar amorphous polyethylene.. <i>RSC Advances</i> , <b>2019</b> , 9, 33549-33557	3.7	9
22	Hydrodynamic phonon transport in bulk crystalline polymers. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	8
21	Total-transmission and total-reflection of individual phonons in phononic crystal nanostructures. <i>APL Materials</i> , <b>2021</b> , 9, 040703	5.7	8
20	Accuracy of Machine Learning Potential for Predictions of Multiple-Target Physical Properties. <i>Chinese Physics Letters</i> , <b>2020</b> , 37, 126301	1.8	7
19	Lattice thermal conductivity of $\sqrt{3}\times\sqrt{3}$ and $\sqrt{3}\times\sqrt{3}$ borophene. <i>Chinese Physics B</i> , <b>2020</b> , 29, 126503	1.2	7
18	Generalized decay law for particlelike and wavelike thermal phonons. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	7
17	Off-center rattling triggers high-temperature thermal transport in thermoelectric clathrates: Nonperturbative approach. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	7
16	Heat Conduction Theory Including Phonon Coherence.. <i>Physical Review Letters</i> , <b>2022</b> , 128, 015901	7.4	6

15	A perspective on the hydrodynamic phonon transport in two-dimensional materials. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 010902	2.5	6
14	Coherent thermal transport in nano-phononic crystals: An overview. <i>APL Materials</i> , <b>2021</b> , 9, 081102	5.7	6
13	Strong four-phonon scattering in monolayer and hydrogenated bilayer BAs with horizontal mirror symmetry. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 132201	3.4	6
12	Imaging properties of a two-dimensional photonic crystal with rectangular air holes embedded in a silicon slab. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , <b>2010</b> , 8, 163-171	2.6	5
11	Dynamics of elastic waves in two-dimensional phononic crystals with chaotic defect. <i>Applied Physics Letters</i> , <b>2007</b> , 91, 121902	3.4	5
10	Reducing Kapitza resistance between graphene/water interface via interfacial superlattice structure. <i>Nanotechnology</i> , <b>2021</b> , 33,	3.4	5
9	A phononic rectifier based on carbon schwarzite host-guest system. <i>Chinese Physics B</i> , <b>2020</b> , 29, 124402	1.2	5
8	Tunable phononic thermal transport in two-dimensional C6CaC6 via guest atom intercalation. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 225106	2.5	5
7	Significant Reduction in Thermal Conductivity of Lithium Cobalt Oxide Cathode Upon Charging: Propagating and Non-propagating Thermal Energy Transport. <i>ES Energy &amp; Environments</i> , <b>2018</b> ,	2.9	4
6	Optimization of interfacial thermal transport in Si/Ge heterostructure driven by machine learning. <i>International Journal of Heat and Mass Transfer</i> , <b>2022</b> , 182, 122014	4.9	4
5	Ultra-low lattice thermal conductivity and promising thermoelectric figure of merit in borophene via chlorination. <i>Nano Research</i> , 1	10	3
4	Ultra-strong stability of double-sided fluorinated monolayer graphene and its electrical property characterization. <i>Scientific Reports</i> , <b>2020</b> , 10, 17562	4.9	3
3	Copper diffusion rates and hopping pathways in superionic Cu <sub>2</sub> Se. <i>Acta Materialia</i> , <b>2021</b> , 215, 117026	8.4	3
2	Phononic Thermal Transport in Yttrium Hydrides Allotropes. <i>Frontiers in Materials</i> , <b>2020</b> , 7,	4	2
1	Thermal self-synchronization of nano-objects. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 084301	2.5	1