Bing-Yang Cao

List of Publications by Citations

178 papers	3,376 citations	31 h-index	49 g-index
202 ext. papers	3,940 ext. citations	3.4 avg, IF	6.18 L-index

#	Paper	IF	Citations
178	Molecular momentum transport at fluid-solid interfaces in MEMS/NEMS: a review. *International Journal of Molecular Sciences*, **2009**, 10, 4638-706	6.3	216
177	Equation of motion of a phonon gas and non-Fourier heat conduction. *Journal of Applied Physics*, **2007**, 102, 053503	2.5	130
176	Effect of surface roughness on gas flow in microchannels by molecular dynamics simulation. *International Journal of Engineering Science*, **2006**, 44, 927-937	5.7	120
175	Influence of grain boundary scattering on the electrical and thermal conductivities of polycrystalline gold nanofilms. *Physical Review B*, **2006**, 74,	3.3	106
174	Liquid flow in surface-nanostructured channels studied by molecular dynamics simulation. *Physical Review E*, **2006**, 74, 066311	2.4	104
173	High thermal conductivity of polyethylene nanowire arrays fabricated by an improved nanoporous template wetting technique. *Polymer*, **2011**, 52, 1711-1715	3.9	78
172	Spectral phonon mean free path and thermal conductivity accumulation in defected graphene: The effects of defect type and concentration. *Physical Review B*, **2015**, 91,	3.3	77
171	Temperature dependence of the tangential momentum accommodation coefficient for gases. *Applied Physics Letters*, **2005**, 86, 091905	3.4	75
170	Influence of grain boundary scattering on the electrical properties of platinum nanofilms. *Applied Physics Letters*, **2006**, 89, 114102	3.4	63
169	Size effects on the thermal conductivity of polycrystalline platinum nanofilms. *Journal of Physics Condensed Matter*, **2006**, 18, 7937-7950	1.8	58
168	Generalized heat conduction laws based on thermomass theory and phonon hydrodynamics. *Journal of Applied Physics*, **2011**, 110, 063504	2.5	57
167	Phonon ballistic-diffusive heat conduction in silicon nanofilms by Monte Carlo simulations. *International Journal of Heat and Mass Transfer*, **2014**, 78, 755-759	4.9	56
166	Molecular dynamics study on evaporation and condensation of n-dodecane at liquid-vapor phase equilibria. *Journal of Chemical Physics*, **2011**, 134, 164309	3.9	54
165	Spectral analysis of nonequilibrium molecular dynamics: Spectral phonon temperature and local nonequilibrium in thin films and across interfaces. *Physical Review B*, **2017**, 95,	3.3	52
164	A Review of Simulation Methods in Micro/Nanoscale Heat Conduction. *ES Energy & Environments*, **2018**,	2.9	50
163	Impacts of potential models on calculating the thermal conductivity of graphene using non-equilibrium molecular dynamics simulations. *International Journal of Heat and Mass Transfer*, **2017**, 107, 450-460	4.9	49
162	Enhanced thermal transport across multilayer graphene and water by interlayer functionalization. *Applied Physics Letters*, **2018**, 112, 041603	3.4	47

161	Size dependent thermal conductivity of Si nanosystems based on phonon gas dynamics. *Physica E: Low-Dimensional Systems and Nanostructures*, **2014**, 56, 256-262	3	46
160	Networked nanoconstrictions: An effective route to tuning the thermal transport properties of graphene. *Carbon*, **2016**, 96, 711-719	10.4	44
159	Ballistic-diffusive heat conduction in multiply-constrained nanostructures. *International Journal of Thermal Sciences*, **2016**, 101, 126-132	4.1	42
158	Thermal resistance between crossed carbon nanotubes: Molecular dynamics simulations and analytical modeling. *Journal of Applied Physics*, **2013**, 114, 224308	2.5	42
157	Molecular dynamics study of the processes in the vicinity of the n-dodecane vapour/liquid interface. *Physics of Fluids*, **2011**, 23, 112104	4.4	40
156	Spectral phonon thermal properties in graphene nanoribbons. *Carbon*, **2015**, 93, 915-923	10.4	37
155	Phonon thermal properties of graphene from molecular dynamics using different potentials. *Journal of Chemical Physics*, **2016**, 145, 134705	3.9	37
154	Anomalous orientations of a rigid carbon nanotube in a sheared fluid. *Scientific Reports*, **2014**, 4, 6120	4.9	35
153	Polymer Nanowire Arrays With High Thermal Conductivity and Superhydrophobicity Fabricated by a Nano-Molding Technique. *Heat Transfer Engineering*, **2013**, 34, 131-139	1.7	35
152	Slip Boundary Conditions in Ballistic□Diffusive Heat Transport in Nanostructures. *Nanoscale and Microscale Thermophysical Engineering*, **2017**, 21, 159-176	3.7	34
151	Ballistic□diffusive phonon transport and size induced anisotropy of thermal conductivity of silicon nanofilms. *Physica E: Low-Dimensional Systems and Nanostructures*, **2015**, 66, 1-6	3	33
150	Thermal gradient induced actuation in double-walled carbon nanotubes. *Nanotechnology*, **2009**, 20, 495503	3.4	33
149	Thermal wave propagation in graphene studied by molecular dynamics simulations. *Science Bulletin*, **2014**, 59, 3495-3503		32
148	Cross-plane heat conduction in nanoporous silicon thin films by phonon Boltzmann transport equation and Monte Carlo simulations. *Applied Thermal Engineering*, **2017**, 111, 1401-1408	5.8	32
147	Heat flow choking in carbon nanotubes. *International Journal of Heat and Mass Transfer*, **2010**, 53, 1796-1800	4.9	31
146	Molecular dynamics calculation of rotational diffusion coefficient of a carbon nanotube in fluid. *Journal of Chemical Physics*, **2014**, 140, 034703	3.9	30
145	Ultrahigh Thermal Rectification in Pillared Graphene Structure with Carbon Nanotube-Graphene Intramolecular Junctions. *ACS Applied Materials & Interfaces*, **2017**, 9, 29-35	9.5	29
144	Thermal transport properties of GaN with biaxial strain and electron-phonon coupling. *Journal of Applied Physics*, **2020**, 127, 035102	2.5	29

143	The effective thermal conductivity of ballistic-diffusive heat conduction in nanostructures with internal heat source. *International Journal of Heat and Mass Transfer*, **2016**, 92, 995-1003	4.9	29
142	Phonon thermal properties of graphene on h-BN from molecular dynamics simulations. *Applied Physics Letters*, **2017**, 110, 103106	3.4	28
141	Numerical studies on dispersion of thermal waves. *International Journal of Heat and Mass Transfer*, **2013**, 67, 1072-1082	4.9	27
140	Rarefied Gas Flow in Rough Microchannels by Molecular Dynamics Simulation. *Chinese Physics Letters*, **2004**, 21, 1777-1779	1.8	27
139	Ballistic thermal wave propagation along nanowires modeled using phonon Monte Carlo simulations. *Applied Thermal Engineering*, **2017**, 117, 609-616	5.8	26
138	Entransy and entropy revisited. *Science Bulletin*, **2011**, 56, 2974-2977		26
137	Thermal wave propagation through nanofilms in ballistic-diffusive regime by Monte Carlo simulations. *International Journal of Thermal Sciences*, **2016**, 109, 81-89	4.1	25
136	Non-Maxwell slippage induced by surface roughness for microscale gas flow: a molecular dynamics simulation. *Molecular Physics*, **2007**, 105, 1403-1410	1.7	25
135	Giant Thermal Rectification from Single-Carbon Nanotube-Graphene Junction. *ACS Applied Materials & Interfaces*, **2017**, 9, 24078-24084	9.5	24
134	Experimental Studies on Thermal and Electrical Properties of Platinum Nanofilms. *Chinese Physics Letters*, **2006**, 23, 936-938	1.8	24
133	Experimental study on capillary filling in nanochannels. *Chemical Physics Letters*, **2016**, 662, 137-140	2.5	24
132	Numerical study on flow and heat transfer of a hybrid microchannel cooling scheme using manifold arrangement and secondary channels. *Applied Thermal Engineering*, **2019**, 159, 113896	5.8	23
131	Molecular Dynamics Study of Condensation/Evaporation and Velocity Distribution of N-Dodecane at Liquid-Vapour Phase Equilibria. *Journal of Thermal Science and Technology*, **2012**, 7, 288-300	0.6	23
130	A uniform source-and-sink scheme for calculating thermal conductivity by nonequilibrium molecular dynamics. *Journal of Chemical Physics*, **2010**, 133, 024106	3.9	23
129	General expression for entropy production in transport processes based on the thermomass model. *Physical Review E*, **2012**, 85, 061107	2.4	23
128	Experimental study on single-phase hybrid microchannel cooling using HFE-7100 for liquid-cooled chips. *International Journal of Heat and Mass Transfer*, **2020**, 160, 120230	4.9	23
127	Machine learning for predicting thermodynamic properties of pure fluids and their mixtures. *Energy* , **2019**, 188, 116091	7.9	22
126	A numerical study on the thermal conductivity of H2O/CO2/H2 mixtures in supercritical regions of water for coal supercritical water gasification system. *International Journal of Heat and Mass Transfer*, **2019**, 135, 413-424	4.9	22

125	Nanoscale thermal cloaking in graphene via chemical functionalization. *Physical Chemistry Chemical Physics*, **2016**, 18, 32952-32961	3.6	22
124	Numerical studies on damping of thermal waves. *International Journal of Thermal Sciences*, **2014**, 84, 9-20	4.1	22
123	Temperature in nonequilibrium states and non-Fourier heat conduction. *Physical Review E*, **2013**, 87,	2.4	22
122	Machine learning interatomic potential developed for molecular simulations on thermal properties of GaO. *Journal of Chemical Physics*, **2020**, 153, 144501	3.9	22
121	A molecular dynamics simulation study of PVT properties for H2O/H2/CO2 mixtures in near-critical and supercritical regions of water. *International Journal of Hydrogen Energy*, **2018**, 43, 10980-10990	6.7	22
120	High and anisotropic thermal conductivity of body-centered tetragonal C4 calculated using molecular dynamics. *Carbon*, **2014**, 66, 567-575	10.4	21
119	Anisotropic Heat Conduction in Two-Dimensional Periodic Silicon Nanoporous Films. *Journal of Physical Chemistry C*, **2017**, 121, 5293-5301	3.8	20
118	Phonon branch-resolved electron-phonon coupling and the multitemperature model. *Physical Review B*, **2018**, 98,	3.3	20
117	An efficient two-step Monte Carlo method for heat conduction in nanostructures. *Journal of Computational Physics*, **2017**, 342, 253-266	4.1	19
116	Thermal Spreading Resistance in Ballistic-Diffusive Regime for GaN HEMTs. *IEEE Transactions on Electron Devices*, **2019**, 66, 3296-3301	2.9	18
115	Capillary filling dynamics of polymer melts in nanopores: experiments and rheological modelling. *RSC Advances*, **2016**, 6, 7553-7559	3.7	18
114	A hybrid phonon Monte Carlo-diffusion method for ballistic-diffusive heat conduction in nano- and micro- structures. *International Journal of Heat and Mass Transfer*, **2018**, 127, 1014-1022	4.9	18
113	Thermal rectification at the bimaterial nanocontact interface. *Nanoscale*, **2017**, 9, 11480-11487	7.7	18
112	Thermal Conductivity of Carbon Nanotubes Embedded in Solids. *Chinese Physics Letters*, **2008**, 25, 1392-1395	1.9	18
111	Study on thermal wave based on the thermal mass theory. *Science in China Series D: Earth Sciences*, **2009**, 52, 1786-1792		17
110	Phonon wave propagation in ballistic-diffusive regime. *Journal of Applied Physics*, **2016**, 119, 124301	2.5	17
109	Translational thermophoresis and rotational movement of peanut-like colloids under temperature gradient. *Microfluidics and Nanofluidics*, **2015**, 19, 805-811	2.8	16
108	Nonequilibrium molecular dynamics calculation of the thermal conductivity based on an improved relaxation scheme. *Journal of Chemical Physics*, **2008**, 129, 074106	3.9	16

107	Three mathematical representations and an improved ADI method for hyperbolic heat conduction. *International Journal of Heat and Mass Transfer*, **2019**, 135, 974-984	4.9	15
106	Extended social force model with a dynamic navigation field for bidirectional pedestrian flow. *Frontiers of Physics*, **2017**, 12, 1	3.7	15
105	Numerical study on transport properties of the working mixtures for coal supercritical water gasification based power generation systems. *Applied Thermal Engineering*, **2019**, 162, 114228	5.8	13
104	Monte Carlo simulation of phonon ballistic diffusive heat conduction in silicon nanofilm. *Wuli Xuebao/Acta Physica Sinica*, **2013**, 62, 244401	0.6	13
103	Triggering wave-domain heat conduction in graphene. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2016**, 380, 2105-2110	2.3	13
102	Anomalous heat diffusion from fractional Fokker□Planck equation. *Applied Mathematics Letters*, **2020**, 99, 105992	3.5	13
101	Fractional Boltzmann transport equation for anomalous heat transport and divergent thermal conductivity. *International Journal of Heat and Mass Transfer*, **2019**, 137, 84-89	4.9	12
100	Superhigh-speed unidirectional rotation of a carbon nanotube in a sheared fluid and its decoupled dynamics. *RSC Advances*, **2015**, 5, 88719-88724	3.7	12
99	Multi-objective optimization of a hybrid microchannel heat sink combining manifold concept with secondary channels. *Applied Thermal Engineering*, **2020**, 181, 115592	5.8	12
98	Thermodynamic models for H2O□CO2□H2 mixtures in near-critical and supercritical regions of water. *International Journal of Hydrogen Energy*, **2020**, 45, 4297-4304	6.7	12
97	Molecular dynamics simulations of heat conduction in multi-walled carbon nanotubes. *Molecular Simulation*, **2012**, 38, 823-829	2	12
96	Molecular dynamics simulation and theoretical study on heat capacities of supercritical H2O/CO2 mixtures. *Journal of Molecular Liquids*, **2020**, 299, 112133	6	12
95	Interface-based two-way tuning of the in-plane thermal transport in nanofilms. *Journal of Applied Physics*, **2018**, 123, 114304	2.5	11
94	Thermal conductivity of dielectric nanowires with different cross-section shapes. *Chinese Physics B*, **2007**, 16, 3777-3782		11
93	Size-dependent mode contributions to the thermal transport of suspended and supported graphene. *Applied Physics Letters*, **2019**, 115, 123105	3.4	10
92	Thermal Wave in Phonon Hydrodynamic Regime by Phonon Monte Carlo Simulations. *Nanoscale and Microscale Thermophysical Engineering*, **2020**, 24, 94-122	3.7	10
91	A comprehensive analysis about thermal conductivity of multi-layer graphene with N-doping, -CH3 group, and single vacancy. *Journal of Applied Physics*, **2018**, 123, 135101	2.5	10
90	Reflection and refraction of a thermal wave at an ideal interface. *International Journal of Heat and Mass Transfer*, **2018**, 116, 314-328	4.9	10

89	Spurious heat conduction behavior of finite-size graphene nanoribbon under extreme uniaxial strain caused by the AIREBO potential. *Physica E: Low-Dimensional Systems and Nanostructures*, **2018**, 96, 46-53	3	10
88	Entropy and Entropy Production in Multiscale Dynamics. *Journal of Non-Equilibrium Thermodynamics*, **2019**, 44, 217-233	3.8	10
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86	Effect of various surface conditions on nanochannel flows past permeable walls. *Molecular Simulation*, **2017**, 43, 65-75	2	10
85	Application of 2DMD to gaseous microflows. *Science Bulletin*, **2004**, 49, 1101		10
84	Thermal and flow characterization in nanochannels with tunable surface wettability: A comprehensive molecular dynamics study. *Numerical Heat Transfer; Part A: Applications*, **2020**, 78, 231-251	2.3	10
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82	Length and temperature dependence of the mechanical properties of finite-size carbyne. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 93, 124-131	3	9
81	Effects of torsion on the thermal conductivity of multi-layer graphene. *Journal of Applied Physics*, **2017**, 121, 205102	2.5	9
80	Effects of nanobuds and heat welded nanobuds chains on mechanical behavior of carbon nanotubes. *Computational Materials Science*, **2015**, 109, 49-55	3.2	9
79	Fractional-order heat conduction models from generalized Boltzmann transport equation. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2020**, 378, 20190280	3	9
78	On defects of Taylor series approximation in heat conduction models. *International Journal of Heat and Mass Transfer*, **2016**, 98, 824-832	4.9	9
77	Effects of nanosized constriction on thermal transport properties of graphene. *Nanoscale Research Letters*, **2014**, 9, 408	5	9
76	Nonequilibrium molecular dynamics simulation of shear viscosity by a uniform momentum source-and-sink scheme. *Journal of Computational Physics*, **2012**, 231, 5306-5316	4.1	9
75	Fast nanofluidics by travelling surface waves. *Microfluidics and Nanofluidics*, **2017**, 21, 1	2.8	8
74	Study of phononic thermal transport across nanostructured interfaces using phonon Monte Carlo method. *International Journal of Heat and Mass Transfer*, **2020**, 154, 119762	4.9	7
73	Generalized variational principles for heat conduction models based on Laplace transforms. *International Journal of Heat and Mass Transfer*, **2016**, 103, 1176-1180	4.9	7
72	Experimental study on thermophoresis of colloids in aqueous surfactant solutions. *Journal of Physics Condensed Matter*, **2015**, 27, 495102	1.8	7

71	Non-Fourier Heat Conduction in Carbon Nanotubes. *Journal of Heat Transfer*, **2012**, 134,	1.8	7
70	Thermal conductivity of multi-walled carbon nanotubes: Molecular dynamics simulations. *Chinese Physics B*, **2014**, 23, 096501	1.2	6
69	Natural convection of power-law fluids under wall vibrations: A lattice Boltzmann study. *Numerical Heat Transfer; Part A: Applications*, **2017**, 72, 600-627	2.3	6
68	Flows of Polymer Melts through Nanopores: Experiments and Modelling. *Journal of Thermal Science and Technology*, **2013**, 8, 363-369	0.6	6
67	Superhydrophobicity of Self-Organized Surfaces of Polymer Nanowire Arrays Fabricated by a Nano-Injection Moulding Technique. *Journal of Thermal Science and Technology*, **2011**, 6, 204-209	0.6	6
66	On Entropic Framework Based on Standard and Fractional Phonon Boltzmann Transport Equations. *Entropy*, **2019**, 21,	2.8	5
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64	Extracting optical constants of solid materials with micro-rough surfaces from ellipsometry without using effective medium approximation. *Optics Express*, **2019**, 27, 17667-17680	3.3	5
63	Tuning the thermal conductivity of nanoparticle suspensions by electric field. *Nanotechnology*, **2020**, 31, 465403	3.4	5
62	Nanochannel flow past permeable walls via molecular dynamics. *AIP Advances*, **2016**, 6, 075307	1.5	5
61	Transient in-plane thermal transport in nanofilms with internal heating. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2016**, 472, 20150811	2.4	5
60	Diffusion Tensors of Arbitrary-Shaped Nanoparticles in Fluid by Molecular Dynamics Simulation. *Scientific Reports*, **2019**, 9, 18943	4.9	5
59	Molecular dynamics study on viscosities of sub/supercritical n-decane, n-undecane and n-dodecane. *Journal of Molecular Liquids*, **2021**, 335, 116180	6	5
58	The Effect of Thermal Contact Number on the Tube?Tube Contact Conductance of Single-Walled Carbon Nanotubes. *Nanomaterials*, **2019**, 9,	5.4	4
57	Lorentz covariance of heat conduction laws and a Lorentz-covariant heat conduction model. *Applied Mathematical Modelling*, **2016**, 40, 5532-5541	4.5	4
56	Application of the uniform source-and-sink scheme to molecular dynamics calculation of the self-diffusion coefficient of fluids. *International Journal for Numerical Methods in Engineering*, **2012**, 92, 229-237	2.4	4
55	Study on thermal characteristics of phonons in graphene. *Wuli Xuebao/Acta Physica Sinica*, **2014**, 63, 154704	0.9	4
54	Molecular dynamics simulation of double-layered graphene-carbon nanotube junctions for thermal rectification. *Materials Letters*, **2019**, 234, 357-360	3.3	4

53	Topological effects of phonons in GaN and AlGaN: A potential perspective for tuning phonon transport. *Journal of Applied Physics*, **2021**, 129, 085102	2.5	4
52	Size effects in non-linear heat conduction with flux-limited behaviors. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 3621-3626	2.3	3
51	Superballistic characteristics in transient phonon ballistic-diffusive transport. *Applied Physics Letters*, **2017**, 111, 113109	3.4	3
50	Numerical Investigation of Nanofluid Flow and Heat Transfer Around a Calabash-Shaped Body. *Numerical Heat Transfer; Part A: Applications*, **2015**, 68, 548-565	2.3	3
49	Thermomass Theory in the Framework of GENERIC. *Entropy*, **2020**, 22,	2.8	3
48	Memory behaviors of entropy production rates in heat conduction. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 492, 105-112	3.3	3
47	Formation of single carbon chain bridging two SWCNTs via tensile deformation of nanobud junction. *Materials and Design*, **2016**, 97, 86-92	8.1	3
46	A Novel Thermal Driving Force for Nanodevices. *Journal of Heat Transfer*, **2012**, 134,	1.8	3
45	A model for phonon thermal conductivity of multi-constrained nanostructures. *Wuli Xuebao/Acta Physica Sinica*, **2015**, 64, 146501	0.6	3
44	The effect of structural asymmetry on thermal rectification in nanostructures. *Journal of Physics Condensed Matter*, **2018**, 30, 435305	1.8	3
43	Thermal transport of amorphous phase change memory materials using population-coherence theory: a first-principles study. *Journal Physics D: Applied Physics*, **2021**, 54, 505302	3	3
42	Phonon thermal transport properties of GaN with symmetry-breaking and lattice deformation induced by the electric field. *International Journal of Heat and Mass Transfer*, **2021**, 179, 121659	4.9	3
41	An electrical thermometry platform for measuring cross-plane thermal conductivity of 2D flakes on substrate. *Applied Physics Letters*, **2019**, 115, 123102	3.4	2
40	Molecular Dynamics Studies on Ballistic Thermal Resistance of Graphene Nano-Junctions. *Communications in Theoretical Physics*, **2015**, 63, 619-624	2.4	2
39	Effects and correction of angular momentum non-conservation in RNEMD for calculating thermal conductivity. *Computational Materials Science*, **2020**, 183, 109753	3.2	2
38	Entropic Constitutive Relation and Modeling for Fourier and Hyperbolic Heat Conductions. *Entropy*, **2017**, 19, 644	2.8	2
37	Investigation of Rotational Diffusion of a Carbon Nanotube by Molecular Dynamics. *Journal of Nanoscience and Nanotechnology*, **2015**, 15, 2984-8	1.3	2
36	Experimental study on the in-plane thermal conductivity of Au nanofilms. *Progress in Natural Science: Materials International*, **2007**, 17, 212-216	3.6	2

35	Molecular Dynamics Investigation on Thermal Conductivity and Phonon Transmission of Folded Graphene. *ECS Journal of Solid State Science and Technology*, **2020**, 9, 093005	2	2
34	Two Temperature Extension of Phonon Hydrodynamics. *Journal of Non-Equilibrium Thermodynamics* , **2020**, 45, 291-304	3.8	2
33	Ballistic-Diffusive Heat Conduction in Thin Films by Phonon Monte Carlo Method: Gray Medium Approximation Versus Phonon Dispersion. *Journal of Heat Transfer*, **2020**, 142,	1.8	2
32	A two-sensor 3ω method for thermal boundary resistance measurement. *Journal of Applied Physics*, **2021**, 129, 125107	2.5	2
31	Generalized Boltzmann transport theory for relaxational heat conduction. *International Journal of Heat and Mass Transfer*, **2021**, 173, 121225	4.9	2
30	On Thermodynamics Problems in the Single-Phase-Lagging Heat Conduction Model. *Entropy*, **2016**, 18, 391	2.8	2
29	Anomalies of Lévy-based thermal transport from the Lévy-Fokker-Planck equation. *AIMS Mathematics*, **2021**, 6, 6868-6881	2.2	2
28	Mathematical and information-geometrical entropy for phenomenological Fourier and non-Fourier heat conduction. *Physical Review E*, **2017**, 96, 032131	2.4	1
27	Influence of the composition gradient on the propagation of heat pulses in functionally graded nanomaterials. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2019**, 475, 20180499	2.4	1
26	Approximate analyses of Fourier and non-Fourier heat conduction models by the variational principles based on Laplace transforms. *Numerical Heat Transfer; Part A: Applications*, **2017**, 71, 962-977	2.3	1
25	Thermomass Theory: A Mechanical Pathway to Analyze Anomalous Heat Conduction in Nanomaterials **2017**,		1
24	Investigation on the thermophoretic tension force induced by particle rotation. *Monthly Notices of the Royal Astronomical Society*, **2015**, 448, 2525-2529	4.3	1
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22	Interfacial thermal resistance in phonon hydrodynamic heat conduction. *Journal of Applied Physics*, **2022**, 131, 064302	2.5	1
21	A superstatistical model for anomalous heat conduction and diffusion. *Applied Mathematical Modelling*, **2020**, 79, 392-401	4.5	1
20	Beyond phonon hydrodynamics: Nonlocal phonon heat transport from spatial fractional-order Boltzmann transport equation. *AIP Advances*, **2020**, 10, 105004	1.5	1
19	Non-Fourier heat transport across 1D nano film between thermal reservoirs with different boundary resistances. *Physica E: Low-Dimensional Systems and Nanostructures*, **2021**, 128, 114610	3	1
18	C4+ Surrogate Models for Thermophysical Properties of Aviation Kerosene RP-3 at Supercritical Pressures. *Energy & Fuels*, **2021**, 35, 7858-7865	4.1	1

17	Investigation of the Parameter-Dependence of Topology-Optimized Heat Sinks in Natural Convection. *Heat Transfer Engineering*,1-15	1.7	1
16	Study on Non-Newtonian Behaviors of Lennard-Jones Fluids via Molecular Dynamics Simulations. *Chinese Journal of Chemical Physics*, **2016**, 29, 754-760	0.9	1
15	Comparison of atomic simulation methods for computing thermal conductivity of n-decane at sub/supercritical pressure. *Journal of Molecular Liquids*, **2021**, 342, 117478	6	1
14	Mesoscopic simulation of thermal conductivities of 3D carbon nanotubes, graphene and their epoxy resin based composites. *International Journal of Thermal Sciences*, **2022**, 172, 107273	4.1	1
13	MolNet-3D: Deep Learning of Molecular Representations and Properties from 3D Topography. *Advanced Theory and Simulations*,2200037	3.5	1
12	Molecular dynamic simulation of thermal transport in monolayer CB N alloy. *Nanotechnology*, **2020**, 31, 185404	3.4	0
11	Influence of travelling surface waves on nanofluidic viscosity. *Computers and Fluids*, **2018**, 160, 42-50	2.8	0
10	Thermal smart materials and their applications in space thermal control system. *Wuli Xuebao/Acta Physica Sinica*, **2022**, 71, 014401	0.6	0
9	Enhancing thermal rectification in graphene-carbon nanotube junctions by tuning the chirality of pillar. *Europhysics Letters*, **2018**, 123, 44004	1.6	0
8	Spectral Thermal Spreading Resistance of Wide-Bandgap Semiconductors in Ballistic-Diffusive Regime. *IEEE Transactions on Electron Devices*, **2022**, 1-8	2.9	0
7	A performance evaluation method based on the Pareto frontier for enhanced microchannel heat sinks. *Applied Thermal Engineering*, **2022**, 212, 118550	5.8	0
6	Molecular dynamics simulation of thermophysical properties of binary RP-3 surrogate fuel mixtures containing trimethylbenzene, n-decane, and n-dodecane. *Journal of Molecular Liquids*, **2022**, 359, 119258	6	0
5	Vortex characteristics in Fourier and non-Fourier heat conduction based on heat flux rotation. *International Journal of Heat and Mass Transfer*, **2017**, 108, 2403-2407	4.9	
4	Anomalous heat equations based on non-Brownian descriptions. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 526, 121141	3.3	
3	Temperature difference-powered carbon nanotube bearings. *Frontiers in Energy*, **2011**, 5, 49-52	2.6	
2	Motion of Electron Gas and the Induced Nanofilm Electromigration **2007**, 379		
1	New Models for Droplet Heating and Evaporation. *Asian Journal of Scientific Research*, **2013**, 6, 177-186	0.3	