Nuo Yang

List of Publications by Year
in descending order

95 papers	6,284 citations	50170 46 h-index	66788 78 g-index
98 all docs	98 docs citations	98 times ranked	4196 citing authors

#	Article	IF	Citations
1	Thermal rectification in asymmetric graphene ribbons. Applied Physics Letters, 2009, 95, .	1.5	308
2	Enhancing the solar still performance using nanofluids and glass cover cooling: Experimental study. Applied Thermal Engineering, 2017, 113, 684-693.	3.0	284
3	Carbon nanocone: A promising thermal rectifier. Applied Physics Letters, 2008, 93, .	1.5	247
4	Thermal rectification and negative differential thermal resistance in lattices with mass gradient. Physical Review B, 2007, 76, .	1.1	242
5	The effects of flake graphite nanoparticles, phase change material, and film cooling on the solar still performance. Applied Energy, 2017, 191, 358-366.	5.1	224
6	Violation of Fourier's law and anomalous heat diffusion in silicon nanowires. Nano Today, 2010, 5, 85-90.	6.2	222
7	Ultralow Thermal Conductivity of Isotope-Doped Silicon Nanowires. Nano Letters, 2008, 8, 276-280.	4.5	221
8	Factors affecting solar stills productivity and improvement techniques: A detailed review. Applied Thermal Engineering, 2016, 100, 267-284.	3.0	184
9	Energy and exergy analysis of solar stills with micro/nano particles: A comparative study. Energy Conversion and Management, 2018, 177, 363-375.	4.4	159
10	A Revisit to High Thermoelectric Performance of Single-layer MoS2. Scientific Reports, 2015, 5, 18342.	1.6	154
11	Extreme Low Thermal Conductivity in Nanoscale 3D Si Phononic Crystal with Spherical Pores. Nano Letters, 2014, 14, 1734-1738.	4.5	153
12	Thermal performance and exergy analysis of solar stills â€“ A review. Renewable and Sustainable Energy Reviews, 2017, 73, 521-544.	8.2	148
13	New hydrogel materials for improving solar water evaporation, desalination and wastewater treatment: A review. Desalination, 2020, 491, 114564.	4.0	142
14	Thermal transport in nanostructures. AIP Advances, 2012, 2, .	0.6	138
15	A hybrid desalination system using humidification-dehumidification and solar stills integrated with evacuated solar water heater. Energy Conversion and Management, 2016, 124, 287-296.	4.4	136
16	Thermal transport in graphene with defect and doping: Phonon modes analysis. Carbon, 2017, 116, 139-144.	5.4	118
17	Non-Fourier heat conductions in nanomaterials. Journal of Applied Physics, 2011, 110, .	1.1	113
18	Augmentation of a pyramid solar still performance using evacuated tubes and nanofluid: Experimental approach. Applied Thermal Engineering, 2019, 160, 113997.	3.0	113

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19	Nano-cross-junction effect on phonon transport in silicon nanowire cages. Physical Review B, 2016, 94, .	1.1	112
20	A continuous desalination system using humidification â€“ dehumidification and a solar still with an evacuated solar water heater. Applied Thermal Engineering, 2016, 104, 734-742.	3.0	105
21	Materials Discovery and Properties Prediction in Thermal Transport via Materials Informatics: A Mini Review. Nano Letters, 2019, 19, 3387-3395.	4.5	94
22	How does folding modulate thermal conductivity of graphene?. Applied Physics Letters, 2012, 100, 093107.	1.5	82
23	Low-cost high-efficiency solar steam generator by combining thin film evaporation and heat localization: Both experimental and theoretical study. Applied Thermal Engineering, 2018, 143, 1079-1084.	3.0	82
24	Significant reduction of graphene thermal conductivity by phononic crystal structure. International Journal of Heat and Mass Transfer, 2015, 91, 428-432.	2.5	79
25	Thermal Interface Conductance Between Aluminum and Silicon by Molecular Dynamics Simulations. Journal of Computational and Theoretical Nanoscience, 2015, 12, 168-174.	0.4	78
26	Unexpected thermal conductivity enhancement in pillared graphene nanoribbon with isotopic resonance. Physical Review B, 2018, 98, .	1.1	75
27	Reverse osmosis desalination systems powered by solar energy: Preheating techniques and brine disposal challenges â€“ A detailed review. Energy Conversion and Management, 2022, 251, 114971.	4.4	75
28	Extremely High Thermal Conductivity of Aligned Carbon Nanotube-Polyethylene Composites. Scientific Reports, 2015, 5, 16543.	1.6	73
29	Thermal Transport in Soft PAAm Hydrogels. Polymers, 2017, 9, 688.	2.0	73
30	Performance enhancement of wick solar still using rejected water from humidification-dehumidification unit and film cooling. Applied Thermal Engineering, 2016, 108, 1268-1278.	3.0	71
31	Influence of basin metals and novel wick-metal chips pad on the thermal performance of solar desalination process. Journal of Cleaner Production, 2020, 248, 119224.	4.6	70
32	Performance assessment of solar PV-driven hybrid HDH-RO desalination system integrated with energy recovery units and solar collectors: Theoretical approach. Energy Conversion and Management, 2021, 239, 114215.	4.4	69
33	Improved thermo-economic performance of solar desalination via copper chips, nanofluid, and nano-based phase change material. Solar Energy, 2021, 224, 1313-1325.	2.9	69
34	Potential and challenges of improving solar still by micro/nano-particles and porous materials - A review. Journal of Cleaner Production, 2021, 311, 127432.	4.6	65
35	Profiling Nanowire Thermal Resistance with a Spatial Resolution of Nanometers. Nano Letters, 2014, 14, 806-812.	4.5	64
36	Generalized Two-Temperature Model for Coupled Phonons in Nanosized Graphene. Nano Letters, 2017, 17, 5805-5810.	4.5	64

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37	High Thermal Conductivity of Bulk Epoxy Resin by Bottom-Up Parallel-Linking and Strain: A Molecular Dynamics Study. Journal of Physical Chemistry C, 2018, 122, 13140-13147.	1.5	62
38	Modulation of Thermal Conductivity in Kinked Silicon Nanowires: Phonon Interchanging and Pinching Effects. Nano Letters, 2013, 13, 1670-1674.	4.5	61
39	High efficient solar evaporation by airing multifunctional textile. International Journal of Heat and Mass Transfer, 2020, 147, 118866.	2.5	58
40	Nanoconfinementâ€Induced Giant Electrocaloric Effect in Ferroelectric Polymer Nanowire Array Integrated with Aluminum Oxide Membrane to Exhibit Record Cooling Power Density. Advanced Materials, 2019, 31, e1806642.	11.1	56
41	Enhancing the Thermoelectric Figure of Merit by Low-Dimensional Electrical Transport in Phonon-Glass Crystals. Nano Letters, 2015, 15, 5229-5234.	4.5	55
42	Quantifying phonon particle and wave transport in silicon nanophononic metamaterial with cross junction. Materials Today Physics, 2019, 8, 56-61.	2.9	55
43	Predictions of Thermoâ€Mechanical Properties of Crossâ€Linked Polyacrylamide Hydrogels Using Molecular Simulations. Advanced Theory and Simulations, 2019, 2, 1800153.	1.3	52
44	A Series Circuit of Thermal Rectifiers: An Effective Way to Enhance Rectification Ratio. Small, 2017, 13, 1602726.	5.2	51
45	The roles of metal-organic frameworks in modulating water permeability of graphene oxide-based carbon membranes. Carbon, 2019, 148, 277-289.	5.4	50
46	Adjustable thermal resistor by reversibly folding a graphene sheet. Nanoscale, 2016, 8, 14943-14949.	2.8	48
47	Ultra-fast vapor generation by a graphene nano-ratchet: a theoretical and simulation study. Nanoscale, 2017, 9, 19066-19072.	2.8	47
48	Electric-field-induced modulation of thermal conductivity in poly(vinylidene fluoride). Nano Energy, 2021, 82, 105749.	8.2	45
49	Reduction of Thermal Conductivity by Nanoscale 3D Phononic Crystal. Scientific Reports, 2013, 3, 1143.	1.6	44
50	Unexpectedly high cross-plane thermoelectric performance of layered carbon nitrides. Journal of Materials Chemistry A, 2019, 7, 2114-2121.	5.2	44
51	Superior thermal conductivity of poly (ethylene oxide) for solid-state electrolytes: A molecular dynamics study. International Journal of Heat and Mass Transfer, 2019, 137, 1241-1246.	2.5	43
52	A Review of Thermal Transport in Low-Dimensional Materials Under External Perturbation: Effect of Strain, Substrate, and Clustering. Nanoscale and Microscale Thermophysical Engineering, 2017, 21, 201-236.	1.4	38
53	The unexpected thermal conductivity from graphene disk, carbon nanocone to carbon nanotube. International Journal of Heat and Mass Transfer, 2017, 108, 940-944.	2.5	36
54	Hybrid Thermal Transport Characteristics of Doped Organic Semiconductor Poly(3,4-ethylenedioxythiophene):Tosylate. Journal of Physical Chemistry C, 2019, 123, 26735-26741.	1.5	35

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55	Mass difference and polarization lead to low thermal conductivity of graphene-like carbon nitride (C3N). Carbon, 2020, 162, 202-208.	5.4	35
56	A compact flat solar still with high performance. International Journal of Heat and Mass Transfer, 2021, 179, 121657.	2.5	34
57	Unusual isotope effect on thermal transport of single layer molybdenum disulphide. Applied Physics Letters, 2015, 107, .	1.5	33
58	Manipulating the temperature dependence of the thermal conductivity of graphene phononic crystal. Nanotechnology, 2016, 27, 265702.	1.3	32
59	A Modified Theoretical Model to Accurately Account for Interfacial Roughness in Predicting the Interfacial Thermal Conductance. Frontiers in Energy Research, 2018, 6, .	1.2	30
60	Maximization and minimization of interfacial thermal conductance by modulating the mass distribution of the interlayer. Physical Review B, 2021, 103, .	1.1	29
61	Thermal boundary resistance measurement and analysis across SiC/SiO2 interface. Applied Physics Letters, 2019, 115, .	1.5	28
62	Thermally-Responsive Hydrogels Poly(N-Isopropylacrylamide) as the Thermal Switch. Journal of Physical Chemistry C, 2019, 123, 31003-31010.	1.5	28
63	Nanoscale Graphene Disk: A Natural Functionally Graded Materialâ€“How is Fourierâ€™s Law Violated along Radius Direction of 2D Disk. Scientific Reports, 2015, 5, 14878.	1.6	27
64	Optimizing thermal transport in graphene nanoribbon based on phonon resonance hybridization. Materials Today Physics, 2021, 20, 100445.	2.9	27
65	Role of Molecular Polarity in Thermal Transport of Boron Nitrideâ€“Organic Molecule Composites. ACS Omega, 2018, 3, 12530-12534.	1.6	26
66	Understanding length dependences of effective thermal conductivity of nanowires. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3514-3517.	0.9	25
67	Thermal conductivity of molybdenum disulfide nanotube from molecular dynamics simulations. International Journal of Heat and Mass Transfer, 2019, 145, 118719.	2.5	25
68	Ultralow thermal conductance of the van der Waals interface between organic nanoribbons. Materials Today Physics, 2019, 11, 100139.	2.9	25
69	Efficiency enhancement on the solar steam generation by wick materials with wrapped graphene nanoparticles. Applied Thermal Engineering, 2019, 161, 114195.	3.0	24
70	How Does van der Waals Confinement Enhance Phonon Transport?*. Chinese Physics Letters, 2021, 38, 014401.	1.3	24
71	Thermal conductivities and mechanical properties of epoxy resin as a function of the degree of cross-linking. International Journal of Heat and Mass Transfer, 2021, 180, 121821.	2.5	22
72	A cross-interface model for thermal transport across the interface between overlapped nanoribbons. Physical Chemistry Chemical Physics, 2019, 21, 25072-25079.	1.3	20

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73	Phonon weak couplings model and its applications: A revisit to two-temperature non-equilibrium transport. Materials Today Physics, 2021, 16, 100305.	2.9	19
74	Thermal conductivity of one-dimensional carbon-boron nitride van der Waals heterostructure: A molecular dynamics study. International Journal of Heat and Mass Transfer, 2021, 180, 121773.	2.5	19
75	Thermoelectric properties of nanoscale three dimensional Si phononic crystals. International Journal of Heat and Mass Transfer, 2016, 99, 102-106.	2.5	18
76	Modulating the thermal conductivity of crystalline nylon by tuning hydrogen bonds through structure poling. Journal of Materials Chemistry A, 2021, 9, 24472-24479.	5.2	18
77	Graded thermal conductivity in 2D and 3D homogeneous hotspot systems. Materials Today Physics, 2022, 22, 100605.	2.9	18
78	Efficient mechanical modulation of the phonon thermal conductivity of Mo₆S₆ nanowires. Nanoscale, 2022, 14, 3078-3086.	2.8	15
79	Enhancement of Interfacial Thermal Conductance of SiC by Overlapped Carbon Nanotubes and Intertube Atoms. Journal of Heat Transfer, 2017, 139, .	1.2	14
80	Electrospun Composite Gel Polymer Electrolytes with High Thermal Conductivity toward Wide Temperature Lithium Metal Batteries. ACS Applied Energy Materials, 2021, 4, 8130-8141.	2.5	11
81	Reduction of interfacial thermal resistance of overlapped graphene by bonding carbon chains*. Chinese Physics B, 2020, 29, 126303.	0.7	11
82	A study on the upper limit efficiency of solar still by optimizing the mass transfer. Applied Thermal Engineering, 2022, 213, 118664.	3.0	11
83	An integrated thermoelectric heating-cooling system for air sterilizationâ€" a simulation study. Materials Today Physics, 2021, 19, 100430.	2.9	10
84	Temperature-dependent thermal transport of single molecular junctions from semiclassical Langevin molecular dynamics. Physical Review B, 2021, 104, .	1.1	8
85	Thermo-economic performance enhancement of a solar desalination unit using external condenser, nanofluid, and ultrasonic foggers. Sustainable Energy Technologies and Assessments, 2022, 52, 102348.	1.7	8
86	Unified theory of second sound in two-dimensional materials. Physical Review B, 2022, 105, .	1.1	7
87	Thermoelectric applications of chalcogenides. , 2020, , 31-56.		6
88	Research progress on thermal transprot of graphene-based composite thermal interface materials. Wuli Xuebao/Acta Physica Sinica, 2022, .	0.2	3
89	Phononics: A New Science and Technology of Controlling Heat Flow and Processing Information by Phonons. , 2010, , .		2
90	The Vacancy Effect on Thermal Interface Resistance between Aluminum and Silicon by Molecular Dynamics. Materials Research Society Symposia Proceedings, 2015, 1753, 7.	0.1	1

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91	Spontaneous Migration of Polyethylene Molecule Sheathed inside Single-Walled Carbon Nanotube for Nano-Heat Pipe. Scientific Reports, 2016, 6, 26441.	1.6	1
92	Enhancement of Thermal Conductivity of Polyvinyl Alcohol Membrane Using Nano-fiber. MRS Advances, 2017, 2, 3651-3656.	0.5	1
93	Thermal transport of chalcogenides. , 2020, , 339-370.		1
94	ENHANCEMENT OF THERMAL CONDUCTIVITY OF ELECTROSPINNING PVA NANO-FIBER FILM BY DOPING SILVER NANOWIRES. , 2018, , .		1
95	Anomalous Heat Conduction, Diffusion and Heat Rectification in Nanoscale Structures. , 2009, , .		0